



Board of Zoning Appeals MEETING AGENDA

Tuesday, October 24, 2023 - 6:00 PM
Council Chambers, Easton Town Office
14 S Harrison Street

1. Call to Order

2. Applications

a. Application:

Applicant:

Location:

Zoning District:

Request:

SE-911 / SE 23-06
and V-911 / V 23-05
Aspire Outdoors LLC

Camac Street
Tax Map 026, Grid 020, Parcel 0186
R-10A

Special Exception request pursuant to Section 28-1303.5 B of the Town of Easton Zoning Ordinance, use (1) 105 in Table 2.1 of Section 28-201 to be utilized as a Multifamily Apartment Complex in the R-10A zoning district.

The applicant is also requesting a variance pursuant to Section 28-1303.5 C of the Town of Easton Zoning Ordinance, to obtain a Variance from Section 28-1007.1.(1)14(I) which requires a minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot.

The applicant is proposing to develop the property at the south end of Camac Street into a six-building apartment complex with twenty-seven units each, totaling 162 units. This is a continuation of the April 18, 2023 Board of Zoning Appeals meeting. The applicant has since received from the Planning Commission sketch site plan approval with conditions, and a positive recommendation to the Board of Zoning Appeals for the special exception and variance requests that include recommended conditions.

3a

**BOARD OF ZONING APPEALS
PUBLIC HEARING
STAFF REPORT**

SUBJECT: **VARIANCE-911 & SPECIAL EXCEPTION-911**

ELECTION WARD(S): Ward 2

CRITICAL ACTION DATE: At the pleasure of the Board.

STAFF CONTACT(S): Nicholas Johnson - Town Planner- Current
Miguel Salinas - Director of Planning and Zoning

APPLICANT: Aspire Outdoors LLC.

PURPOSE: The applicant is seeking a special exception to permit a six-building, multi-family housing development on a property zoned R-10A. The applicant is also seeking a variance from 28-1007.1.14.1 of the Town of Easton Zoning Code, 2021 Edition (Zoning Ordinance) to allow an apartment structure and a parking area to be constructed with a rear yard setback of less than seventy-five (75) feet from adjacent single-family dwellings.

RECOMMENDATION:

The Planning Commission supports a Board of Zoning Appeals (Board) **approval** of the application with conditions. The Planning Commission recommended conditions (*See Background Section*) regarding phasing the project based on the number of road connections, a prohibition on controlled access gates, traffic calming on Camac Street, and a determination by Easton Utilities that the development has adequate wastewater capacity to serve all 162 units. At that meeting, the applicant also agreed to maintain the connecting road between Camac Street and the Gannon Range intersection point.

Staff supports a Board **approval** of the application with conditions. The staff's recommended conditions are based upon the Planning Commission's recommended conditions but have been reworded for the purpose of clarity and specificity. Since the original submission, outstanding issues regarding connectivity, pump station capacity, and the traffic study have been addressed. Staff's recommended conditions act to ensure that adequate access and pump station capacity are provided.

APPLICATION INFORMATION:

APPLICANT: Aspire Outdoors LLC.		REPRESENTATIVE: Ryan Showalter Esq. McAllister, DeTar, Showalter & Walker LLC 100 N West Street Easton, MD 21601	
PARCELS/ACREAGE:			
Parcel Information		Acreage	
Map 26, Grid 20, Parcel 186		61.81	
ACCEPTANCE DATE: September 26, 2023 (<i>Revision</i>)		LOCATION: Camac Street Parcel 186	
EXISTING ZONING Residential District (R-10A)		EXISTING LAND USE: Residential	
HISTORIC DISTRICT: Not Applicable		FUTURE LAND USE: Residential	

CONTEXT:

Location/Site Access – The subject property is located adjacent to Matthewstown Road (MD 328). It has a potential access point at Camac Street in the Hunters Mill subdivision, Tallulah Lane in the Matthewstown Run subdivision, Juanita Lane in the Matthewstown Run subdivision, and an unnamed 60 foot right-of-way easement in the Gannon Range PUD.

Existing Conditions – The subject property is vacant and can generally be described as approximately 62 acres of existing forest with sensitive environmental features such as a perennial stream and non-tidal wetlands scattered throughout the property. Much of the property is in forest conservation from the existing Matthewstown Run subdivision and the Hunters Mill subdivision (Figure 1). There are flood hazard areas located at the southern tip of the property.



Figure 1: Protected Areas

Surrounding Properties –

	Land Use	Zoning District(s)	Future Planned Land Use
North	Agriculture Residential	PUD R-10A	Residential Residential
West	Residential	R-10A	Residential
South	Residential	R-10A	Residential
East	Forest	County Zoning	County



Figure 2: Vicinity Map¹

PROPOSAL: Aspire Outdoors LLC., the applicant, is proposing to construct a 162-unit multi-family apartment complex consisting of six (6) three story apartment buildings, a pool/clubhouse, parking facilities, and stormwater management features. This parcel is zoned R-10A which allows a maximum density of 5 dwelling units per gross acre for multi-family developments. The current proposed density is 2.62 dwelling units per acre. The applicant has submitted:

- Site Plans
- Architectural Renderings
- Phasing Plan
- Proposed Pump Station Exhibit and Deed
- Traffic Impact Study and Average Daily Traffic Evaluation
- Deed

BACKGROUND: The subject property was approved as Parcel A in a final plat recorded in February of 2008. The Plat, titled Hunters Mill - Phase 1, resulted in the existing 50-lot Hunters Mill subdivision. The plat also created Parcel B, which is now part of an approved Planned Unit Development (PUD). The original plan called for future development phases of single-family

¹ The vicinity map shows the subject property as two parcels, per the Maryland State Department of Assessments and Taxation. However, staff's review of the deed (02644/00114) and Plat (82/151) shows the subject property as one parcel.

homes on Parcels A and B. The subject property was planned to be part of the existing Hunters Mill subdivision with single family lots as part of phase 2 with an extension of the existing Camac Street. The subject property would also connect the Camac Street extension with Phase 3 called the Gannon Estates PUD (now called Gannon Range). Only the existing portion of Hunters Mill was constructed via the subdivision process. The portion of phase 2 where the proposed multi family apartments are now proposed was never improved.

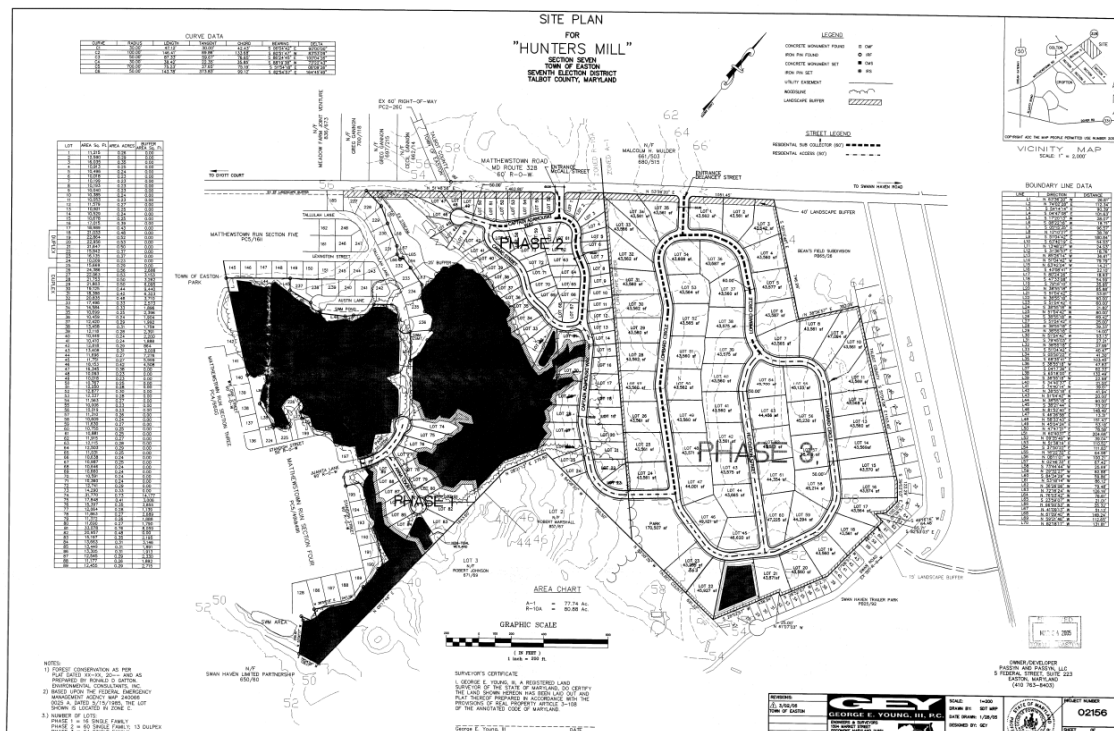


Figure 3: Original Hunters Mill Site Plan

On April 19th, 2023, the Board continued this application for at least 180 days and requested a recommendation from the Planning Commission. At their meeting on August 17, 2023, the Planning Commission voted 4-1 to forward a positive recommendation to the Board regarding the special exception and variance with the following conditions:

1. Two (2) proposed buildings may be constructed with access via the existing Camac Street upon construction of the first access point at Hunter's Mill; two (2) additional buildings to be approved and permitted shall require the second access point at Gannon Range, as shown on the Sketch Site Plan, to be constructed and operational; and the final two (2) additional buildings to be approved and permitted shall require a third access point (at a location to be determined) to be constructed and operational.
2. The use of controlled access gates at any access point to a public road shall not be utilized.
3. Traffic calming shall be provided along Camac Street and with Aspire's private road and parking lot.
4. The applicant shall receive a determination by Easton Utilities that the development has adequate wastewater capacity to serve all 162 units.

The Commission subsequently approved the sketch site plan with those same conditions plus the following:

5. The applicant shall explore options to include an electric vehicle charger.
6. The applicant shall modify the proposed building color; shall improve details on the balcony design; and shall add landscaping to the parking bump out in the parking lot of Aspire properties.
7. The applicant shall meet all State Highway Administration (SHA) requirements to reconfigure the lane assignment at the intersection of US 50 at MD 328 to provide additional left turn storage; and to address with SHA the timing of the street light at that Intersection.

The Staff Report for the April 2023 Board meeting noted three outstanding issues that were not addressed at the time. These issues were connectivity, pump station capacity, and the Traffic Impact Analysis. Since that time, these three issues have been addressed. The sketch site plan that was approved by the Planning Commission includes a vehicular connection to Gannon Range and the project is now proposed to be phased pending the Commission's recommended third connection at a location to be determined. In regards to the pump station capacity, the applicant has worked with Easton Utilities and has provided an easement for a pump station to be constructed. The deed for that 7,000 square foot easement was recorded on September 14, 2023. Finally, on July 19, 2023, the State Highway Administration approved the applicant's Traffic Impact Analysis with comments regarding lane assignment and storage at the US 50 and MD 328 intersection. The applicant also submitted an Average Daily Traffic (ADT) report analyzing the capacity of local roads to handle the increased traffic generated by Aspire. The ADT report finds that the average daily traffic volumes generated by Aspire will not exceed the maximum volumes permitted by the Town's subdivision regulations. The project has been phased based on this ADT report in order to assure that traffic counts on Camac Street do not exceed those specified in the subdivision regulation.

POLICY ANALYSIS (Special Exception):

a. The proposed use conforms in all aspects to minimum requirements of the district in which it is located;

Analysis – The proposed use meets the Zoning Ordinance's requirements for density, front setbacks, and side setbacks. The current site plan violates the rear setback between multi-family apartments and single family dwelling units and requires a variance. Off-street parking is provided in accordance with the parking requirements for multi-family residential buildings. Landscape buffering is being provided between both the existing Hunters Mill subdivision and the future Gannon Estates subdivision. The height of the proposed structures meets the maximum 35-foot height requirement of the R-10A Zoning District.

b. The proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;

Analysis - The Town of Easton's Housing Chapter of the Comprehensive Plan states that, "That is to say that the rental problem is more one of the availability of units than the cost of those

units. There simply are not many apartments in Easton. Those that do exist, rather subsidized apartments or market-rate, have waiting lists for units.” (p. 135). This quote demonstrates that the Comprehensive Plan considers multi-family housing a benefit to the general welfare and not a detriment. The proposed apartments further the goals of the comprehensive plan to increase housing diversity and benefit the welfare of the community by providing a housing typology that is in desperate need.

c. The proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exceptions;

Analysis - The applicant has provided a 7,000 square foot pump station easement to the Town of Easton for the construction of a new pump station capable of serving the proposed development. Easton Utilities has no further comments regarding the provision of public facilities with the exception of working with them on electric design.

d. The proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;

Analysis - The traffic study submitted by the applicant and approved by the State Highway Administration (SHA) finds that all the intersections that were part of the study will operate at an acceptable level of service (LOS). SHA had comments regarding the applicant providing additional storage for the left turn lane at the intersection of Ocean Gateway and Matthewstown Road. The Planning Commission approved the sketch site plan conditioned upon the applicant meeting all of the SHA’s requirements regarding that intersection. The applicant has also provided an Average Daily Traffic (ADT) evaluation that analyzes future traffic volumes on local roads based on the Town of Easton’s Subdivision Regulations. This analysis also finds that the project will not generate traffic that exceeds the maximum permitted volumes found in the Town’s Subdivision Regulations. The Planning Commission's condition regarding phasing the project based on the number of street connections ensures that adequate ingress and egress points will be provided.

e. The proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;

Analysis - The proposed apartment complex is screened from the surrounding residential properties via existing forest and landscape installations. Stormwater management is addressed through the construction of submerged gravel wetlands behind buildings 1 and 3. Access is to be provided through a road connection to Camac Street, future connections to Gannon Range, and a future location to be determined. These three points of access should be more than adequate to serve the proposed 162 units.

f. The proposed use will not adversely affect the established character of the area.

Analysis - This use should not affect the established character of the area since it is a primarily residential area. Even though the surrounding residential units are all single family units, the

Comprehensive Plan states that a diversity of housing choices is needed. The proposed multi-family structures are also significantly buffered from the existing single family dwelling units via existing forest, landscape buffers, a future park, and stormwater management features.

g. The proposed use shall be in conformity with the provisions of the Easton Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complementary and uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

Analysis - This Comprehensive Plan's future land use map envisions this property's future land use as residential, which is consistent with the proposed use. The site plan accomplishes the Comprehensive Plan's objective of directing development away from environmentally sensitive areas by clustering development away from the existing stream and non-tidal wetlands. The proposed project also provides open space and adds more housing choices to the community. Connectivity to surrounding neighborhoods is provided which is consistent with the Comprehensive Plans vision for the creation of interconnected neighborhoods that form a more grid-like pattern.

POLICY ANALYSIS (VARIANCE):

a. Granting the application: (i) will not be contrary to the public interest, (ii) will be in harmony with the purpose and intent of the Ordinance and (iii) will not be injurious to the neighborhood or otherwise detrimental to the public welfare;

Analysis - There are sensitive environmental features located in the southern portion of the property including non-tidal wetlands, a perennial stream, and existing forest conservation areas. In order to protect these environmental features, the structures and associated parking areas are clustered in the north-eastern corner of the property. Locating these structures within the required rear setback protects these environmentally sensitive areas while maintaining the required setbacks from property lines adjoining existing and proposed residential developments.

b. Owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.

Analysis - There is very little buildable space on this lot due to the large areas of forest conservation, nontidal wetlands, and setbacks from adjoining properties. This general location clusters development in one of the few buildable pockets of land on this property.

RECOMMENDED CONDITIONS:

1. Fifty-Four (54) units may be constructed with the provision of the first access point at Camac Street. Fifty-Four (54) additional units may be constructed once the second connection to Gannon Range is constructed and operational as shown on the sketch site plan. The final Fifty-Four (54) units may be constructed once a third access point is constructed and operational.
2. The use of controlled access gates at any access point to a public road shall not be utilized.
3. Traffic calming shall be provided along Camac Street through the installation of a combination of curb extensions and chokers, or as deemed appropriate by the Town Engineer.
4. The applicant shall meet all State Highway Administration (SHA) requirements to reconfigure the lane assignment at the intersection of US 50 at MD 328 to provide additional left turn storage; and to address with SHA the timing of the street light at that intersection.
5. The applicant shall receive a determination by Easton Utilities that the development has adequate wastewater capacity to serve all 162 units.

DRAFT MOTIONS:

1. I move that the Board of Zoning Appeals **approve** Special Exception and Variance 911, with staff's recommended conditions.

OR

2. I move that the Board of Zoning Appeals deny Special Exception and Variance 911 based on the following findings...

OR

3. I move an alternate motion.



Easton Utilities Commission

Plan Review Comments

Date: Thursday, October 12, 2023

To: Joe Mayer; Nicholas Johnson; Sierra Clem

From: Kia Gibbs on behalf of Aaron Goller, PE

No. of Pages: 1

Regarding: Camac Street - Aspire Apartments

Phase: BOZA

SUBM:

Status: Approved as Noted

Easton Utilities Commission has reviewed the above referenced plans and have provided the following comments. Please provide your corrections as listed below. Additional reviews will be required to ensure comments have been addressed. Items or documents not provided on initial submission will be subject to further review. Please contact Kia Gibbs, Admin Support at kgibbs@eucmail.com should you have any questions.

ITEM:	DRAWING /	COMMENTS:
	PAGE	
1	General	Contact Easton Utilities for electric design

July 19, 2023

Mrs. Betty H. Tustin, P.E., PTOE
The Traffic Group
9900 Franklin Square Drive, Suite H
Baltimore, MD 21236

RE: Talbot County
MD 328, Matthewstown Road
Aspire
SHA Tracking No. 22apta004xx
Mile Point: 0.07

Dear Ms. Tustin:

Thank you for the opportunity to review the Traffic Impact Study (TIS) submittal for the proposed Aspire Development expansion located at the intersection of MD 328 and Fisher Range Road within the town limits of Easton in Talbot County. The Maryland Department of Transportation State Highway Administration (SHA) has reviewed the TIS, and we are pleased to find the TIS **Approved with Comments**.

District Traffic: (Charlie Coppage)

- Reconfigure lane assignment at the intersection of US 50 at MD 328 to provide additional left turn storage.

District Access Comments:

Plan submittals should reflect the above comments. Please submit (two) (2) sets of plans, a flash-drive and/or electronic submittal containing the plans and supporting documentation in PDF format, a point-by-point response to reflect the comments noted above directly to Mr. Ken Fender at 615 Morgnec Road, Chestertown, MD 21620, attention of Mr. Henry R. Dierker III. Please reference the SHA tracking number on future submissions. Please keep in mind that you can view the reviewer and project status via the SHA Access Management web page at <https://roads.maryland.gov/mdotsha/pages/amd.aspx>. If you have any questions or require additional information, please contact Mr. Henry R. Dierker III at 410-778-3061, by using our toll-free number (in Maryland only) at 1-800-637-9740 (x3244), or via hdierker@mdot.maryland.gov.

Sincerely,



Richard Baker
Assistant District Two Engineer-Traffic

RB (STM/HD)



October 17, 2023

Town of Easton Board of Zoning Appeals
14 South Harrison Street
Easton, MD 21601

RE: Special Exception and Variance Request for Aspire Apartments

Dear Chairman Cotter:

The Easton Planning and Zoning Commission recently reviewed a Site Plan application to request Sketch Site Plan approval for the construction of a six-building apartment complex with associated parking, stormwater management and landscaping; and a request to forward a recommendation to the Board of Zoning Appeals for a required Special Exception and Variance.

The Commission voted 4-1 for a positive recommendation to the Board of Zoning Appeals for Special Exception and Variance approval with the following recommended conditions:

1. Two (2) proposed buildings may be constructed with access via the existing Camac Street upon construction of the first access point at Hunter's Mill; two (2) additional buildings to be approved and permitted shall require the second access point at Gannon Range, as shown on the Sketch Site Plan, to be constructed and operational; and the final two (2) additional buildings to be approved and permitted shall require a third access point to be constructed and operational.
2. The use of controlled access gates at any access point to a public road shall not be utilized.
3. Traffic calming shall be provided by the applicant along Camac Street and with Aspire's private road and parking lot.

4. The applicant shall receive a determination by Easton Utilities that the development has adequate wastewater capacity to serve all 162 units.

The Commission also voted 5-0 to approve the Sketch Site Plan with the following conditions:

1. Two (2) proposed buildings may be constructed with access to the existing Camac Street upon construction of the first access point at Hunter's Mill; two (2) additional buildings to be approved and permitted shall require the second access point at Gannon Range, as shown on the Sketch Site Plan, to be constructed and operational; and the final two (2) additional buildings to be approved and permitted shall require a third access point at Gannon Range to Camac Street through the future Hunters Mill park, to be constructed and operational.
2. The use of controlled access gates at any access point to a public road shall not be utilized.
3. Traffic calming shall be provided by the applicant throughout Hunter's Mill and along Camac Street.
4. The applicant shall receive a determination by Easton Utilities that the development has adequate wastewater capacity to serve all 162 units.
5. The applicant shall explore options to include an electric vehicle charger.
6. The applicant shall modify the proposed building color; shall improve details on the balcony design; and shall add landscaping to the parking bumpout in the parking lot of Aspire properties.
7. The applicant shall meet all State Highway Administration (SHA) requirements to reconfigure the lane assignment at the intersection of US 50 at MD 328 to provide additional left turn storage; and to address with SHA the timing of the street light at that intersection.

If you should have any questions concerning our recommendation, please do not hesitate to contact me or either the Town Planner or Town Attorney, both of whom were present and can speak to our actions in this matter.

Regards,



Easton Planning and Zoning Commission
Jennifer Dindinger, Chair



EASTON UTILITIES

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October 20, 2023

Planning and Zoning
Town of Easton
14 South Harrison Street
Easton, MD 21601

ATTN: Mr. Miguel Salinas
Director of Planning and Zoning

RE: Gannon Range / Aspire Wastewater

Mr. Salinas:

This correspondence is to inform both Planning and Zoning and the Board of Zoning Appeals that Easton Utilities has worked with the developers for the Gannon Range and Aspire properties and have resolved the sewer availability issue. A pump station is to be constructed on an easement provided by Aspire to the Town of Easton. The evaluation of specific utilities to serve the above-mentioned developments would be completed during the review of the infrastructure plans submitted after sketch plan approval.

If you should have any addition questions or concerns, please contact me at 410-822-6110.

Sincerely,
EASTON UTILITIES COMMISSION,

Aaron K. Goller, P.E.
Senior Engineer

AKG/akg
A:\PLAN_REVIEW\03 PLANNED UNIT DEVELOPMENTS - SUBDIVISIONS\29659 MATTHEWSTOWN ROAD - GANNON FARMS - RANGE\PLANNING AND ZONING PS
LETTER.DOC



112 Third Haven Heights
Easton, MD 21601

Nicholas Johnson
Town of Easton
14 South Harrison Street
Easton, MD 21601

Dear Mr. Johnson:

This is to inform you and the Easton Board of Zoning Appeals that we have secured the law office of Mr. Ryan Showalter to represent us in all matters pertaining to the Aspire Outdoors, LLC project.

Any questions, please do not hesitate to contact me at 410-310-6241.

Sincerely,

Derick W. Daly

RECEIVED

OCT 12 2023

TOWN OF EASTON

EXHIBIT A

Purpose of Appeal

Aspire Outdoors LLC (“Applicant”), is seeking two approvals from the Board of Zoning Appeals for Aspire Outdoor LLC’s property at the end of Camac Street in Easton, Maryland. The subject property location is documented as Tax Map 26, Grid 20, Parcel 186 (“Property”) (see application).

In addition to the application, fees, and copies of the deed of the Property, the following exhibits are submitted in support of this application:

- Exhibit A, Purpose of Appeal (this document)
- Exhibit B, Overall Site Plan
- Exhibit C, Enlarged Site Plan (Variance)
- Exhibit D, Enlarged Site Plan (Color depiction, noting Variance)
- Exhibit E, Color Site Plan Concept Rendering
- Exhibit F, Concept Aerial Rendering 1
- Exhibit G, Concept Aerial Rendering 2
- Exhibit H, Concept Pool Amenity Rendering 1 (for site use context)
- Exhibit I, Concept Pool Amenity Rendering 2
- Exhibit J, Concept Apartment Building Rendering
- Exhibit K, Phasing Plan
- Exhibit L, Pump Station Easement Drawing
- Exhibit M, Pump Station Legal Description
- Exhibit N, Pump Station Easement Deed
- Exhibit O, Email Summary from EUC
- Exhibit P, Property Deed
- ADT Evaluation, The Traffic Group, dated July 19, 2023
- Traffic Impact Study, The Traffic Group, revised January 6, 2023

Item 1: Special Exception for Use:

A special exception for development of multi-family apartment complex is requested for the Property, which is in the R-10A zone. Per the Town of Easton Zoning Ordinance, Table of Permitted Uses (2.1) and pages 2-3, a Multifamily Apartment Complex is permitted within the R-district by Special Exception (“SE”). Refer to Exhibits B and C for site plans and Exhibits D through J for conceptual renderings of the proposed apartment complex, amenities, location, and relationship to neighboring properties.

The Applicant's project includes high-density residential housing that is consistent with the goals of the Town of Easton Comprehensive Plan. Specifically, on page 45 of the "Land Use" section, the Comprehensive Plan includes a goal "to limit the geographic outward expansion of the Town of Easton". One objective to accomplish this goal of the Comprehensive Plan is to "slow the demand for more land by increasing the density of future residential areas". The Aspire Apartment Complex project aims to accomplish the goal of limiting geographic outward expansion of the Town of Easton through the objective of providing high density residential apartment buildings on an undeveloped, in-fill parcel.

The Applicant plans to provide high quality and luxury apartments for working professionals or those within the "move-up market" as stated in the Town's Comprehensive Plan:

Excerpt:

Comprehensive Plan, Community Character, Pg. 107-108:

Principle #7 – Neighborhoods Should Contain a Diversity of Housing Types:

This was a new Design Principle added to the list in 2004. It is similar in nature to Principle # 1 above concerning mixed or integrated uses. However, this Principle goes further to look at one specific component of the mix of uses, residential, and says that this component itself should be mixed.

In recent years Easton has experienced a significant absence of affordable housing. The problem is not just within the realm of low-income housing. That level of housing is certainly needed in Easton, but more recently we have seen fewer and fewer homes built in the general "entry-level" market, as well as the "move-up" market. In addition, there is a demonstrated need for apartment units in Town.

The Applicant aims to provide these apartment units for the "move-up" market within the Town upon the Board's approval of this requested Special Exception. Approval of a special exception for this use was favorably recommended by the Town Planning Commission and the Planning Commission has approved the sketch site plan for the proposed project.

The proposed Multi-Family Apartment Complex use proposed for the Property adheres to and/or is consistent with the principles outlined in the Zoning Ordinance, Section 28 – 1303.5.B.6, Items a through g, as follows:

- a. *The proposed use conforms in all aspects to the minimum requirements of the district in which it is located;*

RESPONSE:

This application includes, under Item 2 below, a variance request to reduce the rear yard setback. All other minimum requirements of the base zoning district are met.

- b. *The proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;*

RESPONSE:

The proposed development does not adversely affect the health, safety and general welfare of residents of the area, and will serve to provide residential rental housing which is known to be in short supply in the community. Recreational amenities will be provided within the Property for residents of the community. All roads, utilities and drainage will be provided in accordance with applicable standards.

- c. *The proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exceptions;*

RESPONSE:

Public facilities and coordination of necessary connections of services for the proposed project will adhere to the requirements of the Town of Easton, Easton Utilities Commission, Talbot County, and the State of Maryland, as applicable. As reflected by Exhibits L through O and explained during the Board's hearing, the Applicant is coordinating with Easton Utilities and adjacent developers to participate in the development of regional infrastructure improvements necessary to serve the Property and surrounding properties. Prior to this Board's consideration of the Application, the Applicant provided land to Easton Utilities for construction of a new regional sewer pump station. Additional water and sewer improvements will be provided to serve the proposed use in conjunction with Easton Utilities orderly and planned provision of public facilities to this area of the Town .

- d. *The proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;*

RESPONSE:

The applicant commissioned a traffic study which conservatively accounted for the proposed number of daily vehicle trips to be generated by the proposed apartments, as well proposed neighboring developments (commonly known as Gannon Farm PUD and the Elliot Road Apartments) between U.S. Route 50 and Black Dog Alley. Conservatively, the study also included potential traffic volumes for approximately 75 townhouses that could be accommodates on the remainder of the Property, even though such units are not currently in the Applicant's proposed development plan. The traffic study concluded that proposed traffic from these additional residential developments will not create congestion or undue traffic hazards, and that adequate egress and ingress are provided.

The traffic study was supplemented by an Average Daily Traffic (ADT) Evaluation, to address the Town of Easton's street hierarchy standards. The Applicant coordinated a second point of access that connect to the street network approved in the adjacent Gannon Farm PUD. With this additional access, the ADT Evaluation confirms that the proposed project will "not exceed the maximum volumes permitted on" the Hunters Mill or Gannon Farm PUD roadway under the Town's Subdivision regulations.

The Town Engineer reviewed both reports and concurred with their conclusions that the proposed use will not create congestion in the streets or undue traffic hazards and that adequate egress and ingress are provided, subject to the phasing depicted by Exhibit K. As recommended by the Planning Commission, the first two buildings may be occupied without any road connection beyond Camac Street. Occupancy of the third and fourth buildings would be tied to completion of construction of a road connection through the Gannon Farm PUD from the Property to Rt. 328. The final two buildings' occupancy would be based upon the development of a third access point to the Property.

- e. *The proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or adequate access;*

RESPONSE:

The proposed multi-family apartment complex residential use does not include activities or features which would contribute to adverse environmental conditions, smoke, odor, noise, improper drainage, or adequate access. Outdoor lighting will be minimized to provide adequate lighting for pedestrian and vehicular safety. Exterior building lighting will utilize cutoff fixtures to direct light onto the Property. Drainage will be provided in accordance with all applicable Town and State stormwater control standards.

- f. *The proposed use will not adversely affect the established character of the area;*

RESPONSE:

The proposed multi-family apartment complex residential use is an appropriate property use in a well-established residential zone. Additionally, the subject property exists as an infill property on underutilized land. Development of such land for use as a multi-family apartment complex is aligned with the goals of the Town's Comprehensive Plan, specifically noted in the "Housing" section. Additionally, the proposed use is situated in and adjacent to existing forest, which provides visual screening and which will be supplemented by on-site landscaping.

- g. *The proposed use shall be in conformity with the provisions of the Easton Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional uses shall be compatible and complimentary and uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.*

RESPONSE:

As noted above, the proposed development and use as a Multi-Family Apartment Complex is in conformity with the provisions of the Town Comprehensive Plan. Most notably, the proposed project aims to provide quality residential rental apartments, which are in short supply in the Town of Easton.

Item 2: Setback Variance Request:

Aspire Outdoors LLC seeks a variance to the setback of the rear property line shown in plan Exhibits B, C, and D. Exhibits D through G are conceptual renderings depicting the relationship of the proposed project to the neighboring properties. The Planning Department interprets the lot line in question to be a rear lot line adjacent to a single-family residential lot. The rear lot line of the subject property abuts the side lot line of the Smith property to the south.

Excerpt:***Zoning Ordinance, Section 28 – 1007.1.14.I Supplemental Uses – Residential Uses – Multi-Family Apartment Complex:***

Rear yard setback requirements for apartment buildings adjacent to a single-family residence or vacant residential lot shall be seventy-five (75) feet. The setback for parking areas is also seventy-five (75) feet.

The applicant requests a variance to allow reduction of the rear setback dimension for both the apartment building and parking areas to fifty (50) feet. The unusual size and configuration of the available building envelope on the Property is caused by the arrangement of adjacent lots from prior subdivisions combined with the natural forest and stream/wetland features on the site. As these are conditions peculiar to the Property, and not the result of any action taken by the Applicant, a literal enforcement of the Ordinance will result in a practical difficulty to the Applicant.

The proposed design achieves a balance of density, parking, amenities, landscaping, grading, forest conservation, buffer protection of wetlands and streams, and stormwater management provisions. Specifically, the density proposed is within the permitted density for the base residential zone, despite the limited building area. The feasible design as proposed includes two locations along the rear property line which encroach upon the seventy-five (75) foot setback. The first is the southwest corner of one of the southernmost apartment structures, the location of which is limited by the parking areas and stormwater management areas nearby. The second location is the row of parking spaces which extend east. The southern row of this leg of parking lot includes stalls which are within the seventy-five (75) foot setback. Both locations and conditions noted would abut the neighboring property (Smith property), which is almost entirely naturally forested. Measurement of aerial imagery shows that the primary structure on the neighboring property is approximately one hundred eighty (180) feet from the property line. An outbuilding exists approximately twenty-five (25) from the property line. Both existing structures on the neighboring property are situated just south of the

easternmost tip of the Property, and are not aligned directly across from, or faced towards, the location where the proposed building would encroach on the required setback. The existing, well-established forest buffer between the Property and the neighboring residence will provide adequate screening with a fifty (50) foot setback for buildings and parking, and, in fact, provides far better screening than would exist if a 75' setback were provided without forest vegetation screening. Altering the design to abide by the seventy five (75) foot setback would result in fewer apartment units and/or less parking than is required. As the Applicant is not exceeding the permitted density for the size of their property, this creates a practical difficulty to the Applicant. Since forest buffering is provided from the adjacent property, the requested variance is in harmony with the purpose and intent of the Ordinance and will not be injurious to the neighborhood or otherwise detrimental to the public welfare.

The odd shape of the Property includes environmental areas which the Applicant is avoiding disturbing with the proposed project. The Property contains lot lines which have abnormal bearings in relation to one another which limit buildable areas in tighter corners due to generally applicable setbacks. Additionally, a perennial stream and wetland areas present on the site impose development constraints, which the Applicant has designed around, which minimizing impacts to existing forest. The Applicant aims to limit the amount of disturbance to these environmentally sensitive areas. Granting a 25' variance (reducing to a 50-foot setback) from that rear lot line for buildings and parking areas allows the Applicant to limit this environmental disturbance while fulfilling the Town's objective of infill development and provision of "move-up" housing within the R-10A zone. Accordingly, the requested variance is not contrary to the public interest.

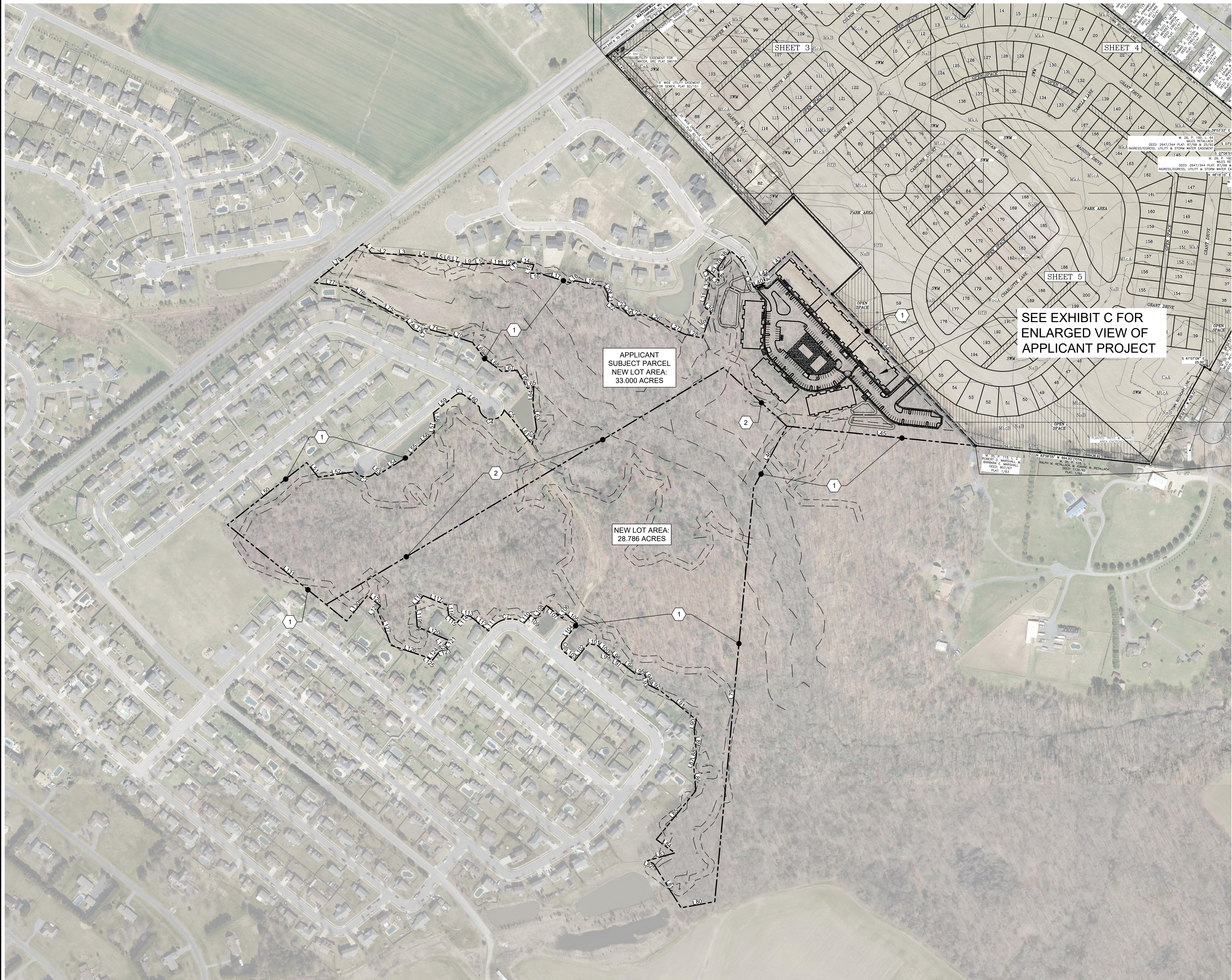
The Applicant is not seeking any variance for increased density. The project aims to achieve the maximum density of 5 units per acre. Upon completion of a proposed lot line revision between the two existing, contiguous properties in common ownership, the site of the apartment project will be 33 acres. The maximum density results in a total allowable quantity of 165 units. The Applicant proposes 162 apartment units.

The Applicant submits that granting of the variance to reduce the required rear yard setback from seventy-five (75) feet to fifty (50) feet:

- a. Will not be contrary to the public interest**
- b. Will be in harmony with the purpose and intent of the Ordinance**
- c. Will not be injurious to the neighborhood or otherwise detrimental to the public welfare.**
- d. Is owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the Applicant.**

Conclusion

Based on the statements above, the Applicant respectfully requests the Board of Zoning Appeals to grant approval for the Special Exception of use for a Multi-Family Apartment Complex in Zone R-10A **AND** to approve the variance request to reduce the rear yard setback from seventy five (75) to 50 (fifty) feet for apartment buildings and parking areas adjacent to a single family residence for Aspire Outdoors LLC's proposed apartment project.



NOTES:

- 1 EXISTING PROPERTY LINE
2 PROPOSED PROPERTY LINE

DENSITY CALCULATIONS:

6 BUILDINGS W/ 27 UNITS EACH = 162 TOTAL DWELLING UNITS

ZONE R10A MAXIMUM DENSITY = 5 DWELLING UNITS PER ACRE

162 UNITS / 5 UNITS PER ACRE = **32.4 ACRES**

LEGEND

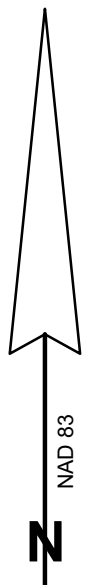
- EXISTING PROPERTY LINE
--- PROPOSED PROPERTY LINE
--- WETLAND BOUNDARY
--- 25' WETLAND BUFFER
--- PERENNIAL STREAM
--- 100' PERENNIAL STREAM BUFFER
--- SETBACK (SEE NOTES)

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	200.00'	114.28'	112.71'	S 38°19'29" E
C2	50.00'	87.34'	76.65'	S 86°29'40" E
C3	30.00'	38.42'	35.85'	N 88°14'43" E
C4	49.93'	143.59'	98.97'	S 82°53'41" E
C5	760.12'	63.48'	63.46'	S 40°31'23" E
C6	30.00'	47.12'	42.43'	N 08°01'12" W
C7	100.00'	146.41'	133.68'	S 80°55'17" W

LINE TABLE

LINE	BEARING	DISTANCE
L1	S 38°05'29" E	49.04'
L2	S 87°01'57" E	92.25'
L3	S 87°47'02" E	58.48'
L4	S 83°21'49" E	101.11'
L5	S 78°31'41" E	33.53'
L6	S 81°09'19" E	31.25'
L7	S 83°06'10" E	34.32'
L8	S 64°30'47" E	17.49'
L9	S 80°21'47" E	35.81'
L10	N 85°53'04" E	60.09'
L11	S 83°03'19" E	54.89'
L12	S 87°59'54" E	39.11'
L13	N 47°59'32" E	22.64'
L14	S 80°28'47" E	72.85'
L15	S 19°02'04" W	35.73'
L16	S 88°08'41" E	32.42'
L17	S 73°28'37" E	133.86'
L18	N 54°10'02" E	16.10'
L19	S 79°07'44" E	115.87'
L20	S 28°35'13" E	30.78'
L21	S 05°10'03" E	31.98'
L22	S 53°01'51" E	45.31'
L23	N 81°06'59" E	17.11'
L24	S 43°01'15" E	46.48'
L25	N 83°53'52" E	59.17'
L26	S 61°44'25" E	89.57'
L27	S 65°56'04" E	85.83'
L28	S 76°54'31" E	72.54'
L29	N 15°15'02" E	107.15'
L30	N 49°42'22" W	39.19'
L31	N 15°54'14" E	63.16'
L32	N 12°06'25" E	41.08'
L33	N 17°55'06" W	44.29'
L34	S 52°54'06" E	29.88'
L35	S 43°21'09" E	35.47'
L36	N 04°17'17" W	52.51'
L37	N 32°09'22" E	17.67'
L38	N 37°34'46" E	65.75'
L39	S 21°57'30" E	59.70'
L40	N 68°02'30" E	50.00'
L41	N 21°57'30" W	28.69'
L42	N 68°02'30" E	15.00'
L43	N 46°31'44" E	135.78'
L44	S 43°23'58" E	1060.96'
L45	N 84°05'20" W	750.50'
L46	S 28°24'43" W	275.80'
L47	N 65°43'52" W	552.67'
L48	S 57°23'08" W	586.32'
L49	S 86°55'43" W	1082.60'
L50	N 51°54'32" E	397.90'
L51	S 38°28'39" E	73.20'
L52	N 81°47'45" E	148.49'
L53	S 46°31'53" E	13.31'
L54	N 58°28'48" E	151.43'
L55	N 44°59'29" E	53.18'
L56	N 47°42'28" E	70.58'
L57	N 05°02'05" E	38.74'
L58	N 09°40'44" W	39.04'
L59	N 51°33'21" E	110.52'
L60	S 51°59'13" E	75.19'
L61	S 37°35'17" E	111.83'
L62	N 16°17'37" E	64.98'
L63	N 08°15'56" W	100.21'
L64	N 02°41'37" E	67.42'
L65	S 73°39'49" W	25.69'
L66	N 29°37'22" W	82.88'
L67	S 84°29'34" W	59.96'
L68	N 53°23'09" W	86.12'
L69	N 38°31'01" W	79.48'
L70	N 72°21'19" W	126.16'
L71	N 76°08'37" W	76.61'
L72	S 23°54'12" W	21.01'
L73	N 66°05'48" W	35.32'
L74	N 41°14'08" W	51.13'
L75	N 61°14'35" W	149.24'
L76	N 59°26'41" W	112.65'
L77	N 82°23'12" W	131.81'
L78	N 51°46'53" E	259.85'
L79	S 05°21'19" W	1643.65'
L80	S 79°39'08" W	135.25'
L81	N 31°56'47" W	205.61'
L82	N 63°32'50" W	26.61'
L83	N 74°05'58" E	112.34'
L84	N 54°10'44" W	90.39'
L85	N 38°58'48" E	247.79'
L86	N 04°43'38" W	101.63'
L87	N 17°23'43" E	28.07'
L88	N 08°25'46" E	18.71'
L89	N 05°12'05" W	96.57'
L90	N 12°13'57" E	38.78'
L91	N 51°01'12" W	180.84'
L92	N 63°36'49" W	54.93'
L93	N 13°44'57" W	24.93'
L94	N 31°33'27" W	18.76'
L95	N 85°22'44" W	36.61'
L96	N 51°01'12" W	79.79'
L97	N 63°38'34" W	14.21'
L98	N 43°05'11" W	22.10'
L99	N 80°20'56" W	18.83'
L100	N 47°29'38" W	54.99'
L101	N 79°12'40" W	35.85'
L102	S 38°58'48" W	85.88'
L103	N 51°01'12" W	53.81'
L104	N 38°58'48" E	90.00'
L105	N 51°01'12" W	60.00'
L106	S 38°58'48" W	21.82'
L107	N 51°01'12" W	80.00'
L108	S 38°58'48" W	69.42'
L109	N 51°01'12" W	25.00'
L110	S 38°58'48" W	39.33'
L111	S 38°58'48" W	14.00'
L112	N 51°01'12" W	93.13'
L113	N 79°41'33" W	27.21'
L114	S 38°58'48" W	37.99'
L115	N 51°01'12" W	44.41'
L116	N 05°46'52" W	40.04'
L117	N 68°32'11" W	103.36'
L118	S 38°58'48" W	47.83'
L119	S 04°14'06" E	85.67'
L120	S 66°32'51" E	134.42'
L121	S 38°58'48" W	23.98'
L122	S 34°37'07" E	21.00'
L123	S 74°43'44" W	34.48'
L124	S 38°58'48" W	46.11'
L125	N 51°01'12" W	20.00'
L126	N 71°38'51" W	153.00'
L127	N 21°24'20" W	150.40'
L128	N 38°58'48" E	20.00'
L129	N 51°01'12" W	66.03'
L130	S 38°58'48" W	130.42'
L131	N 51°02'38" W	606.07'

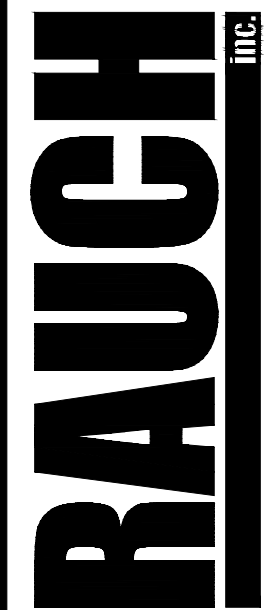


OVERALL PROPERTY

OF THE LANDS OF

ASPIRE APARTMENTS

TAX MAP: 0026, GRID: 0020, PARCEL: 0186
ELECTION DISTRICT 01, TALEBOT COUNTY, MARYLAND
ASPIRE OUTDOORS, LLC



Main Office: 106 N Harrison St - Easton, MD 21601
Web: www.rauch-inc.com | Email: design@raucheng.com
Phone: 410 770 8081 | Fax: 410 770 3987

REVISIONS

DESCRIPTION

REVISED TO CONNECT TO GANNON ESTATES

DATE

6/25/2023

REV. #

1



DATE: 9/15/2023

SCALE: 1" = 200'

DRAWN BY: BBF

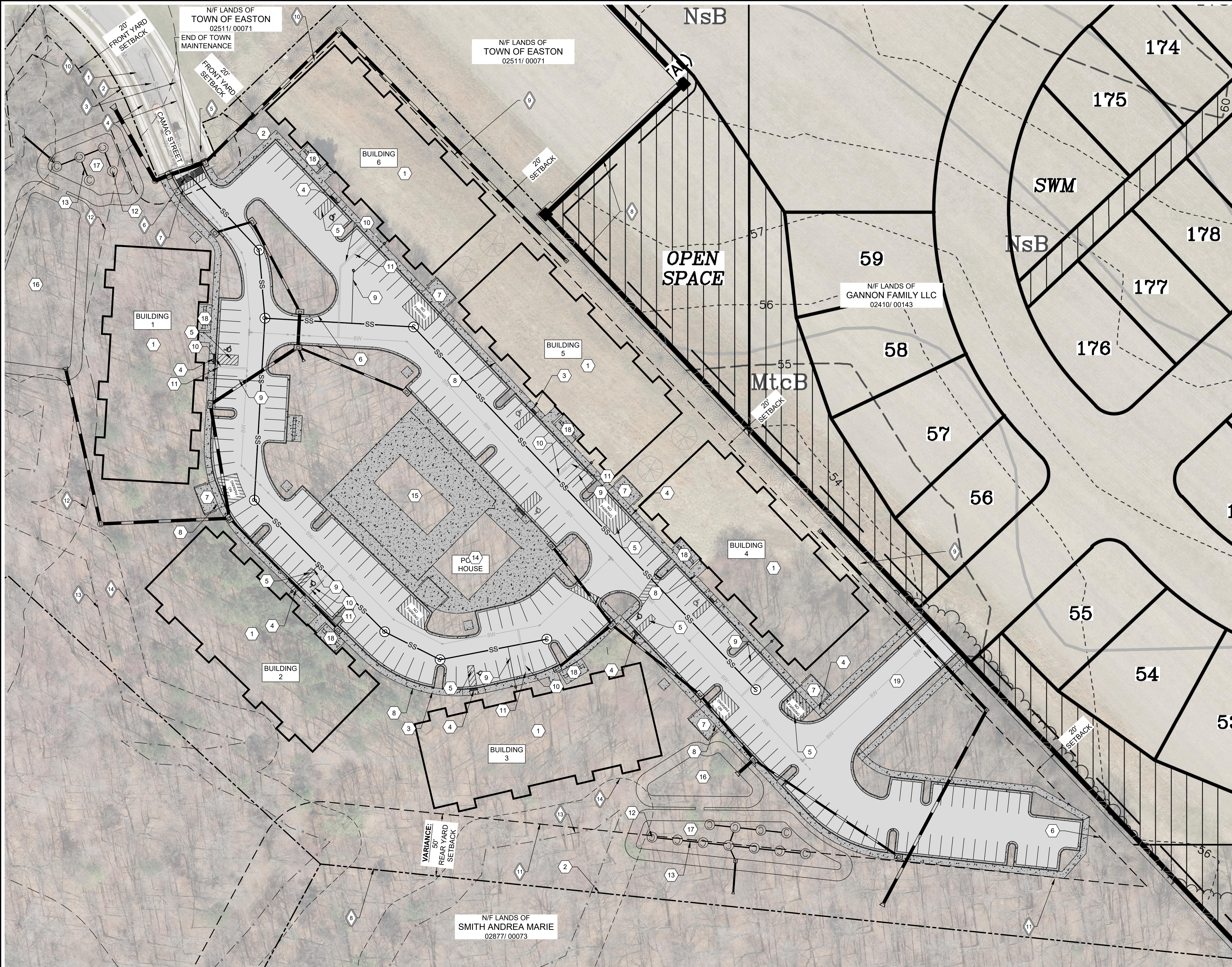
DESIGNED BY: BBF

APPROVED BY: BBF

SHEET NO.:

EXHIBIT B

FOR REVIEW



- EXISTING FEATURES

1

ROAD

2

ROAD CENTERLINE

3

SIDEWALK

4

CURB AND GUTTER

5

FIRE HYDRANT

6

SURVEYED LOCATION OF EXISTING SEWER

7

SURVEYED LOCATION OF EXISTING WATER METER

8

SURVEYED PROPERTY LINES

9

20' SETBACK - APARTMENT FROM ANY ADJOINING PROPERTY LINE

10

20' FRONT YARD SETBACK LINE

11

VARIANCE REQUEST:
50' REAR YARD SETBACK LINE ADJACENT TO DETACHED SINGLE FAMILY RESIDENCE

12

100' PERENNIAL STREAM BUFFER

13

NON-TIDAL WETLAND

14

25' NON-TIDAL WETLAND BUFFER

- PROPOSED SITE PLAN NOTES
- 1

APARTMENT BUILDING
- 2

PROPERTY LINE
- 3

PROPOSED 5 FT CONCRETE SIDEWALK. SEE DETAIL ON SHEET C-305.01
- 4

HANDICAP RAMP. SEE DETAIL ON SHEET C-305.01
- 5

8' WIDE A.D.A. ACCESS AISLE STRIPED PER A.D.A. STANDARDS
- 6

STANDARD CURB AND GUTTER. SEE DETAIL ON SHEET C-305.01
- 7

REFUSE BIN COLLECTION AREA WITH WOODEN FENCE
- 8

PICKET FENCE WITH GATE
- 9

6" SDR-35 SEWER CONNECTION. SEE DETAIL ON SHEET C-505.01
- 10

6" FIRE C-900 WATER LINE CONNECTION. SEE DETAIL ON SHEET C-505.01
- 11

2" POTABLE SDR-9 HDPE PIPE WATER LINE. SEE DETAIL ON SHEET C-505.01
- 12

6" PVC CLEANOUT
- 13

6" PVC UNDERDRAIN
- 14

POOL HOUSE
- 15

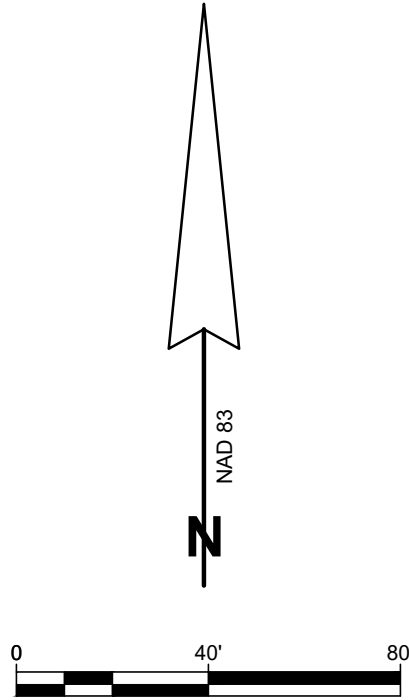
POOL
- 16

SUBMERGED GRAVEL WETLAND - FOREBAY
- 17

SUBMERGED GRAVEL WETLAND - TREATMENT AREA
- 18

BICYCLE PARKING
- 19

CONNECTION TO GANNON RANGE



DATE: 9/19/2023

SCALE: 1" = 40'

DRAWN BY: BBF

DESIGNED BY: BBF

APPROVED BY: BBF

SHEET NO.:

EXHIBIT C

FOR REVIEW

REVISIONS

REV. #	DATE	DESCRIPTION
1	6/25/2023	REVISED TO CONNECT TO GANNON ESTATES

ENLARGED SITE PLAN

OF THE LANDS OF

ASPIRE APARTMENTS

TAX MAP: 0026, GRID: 0020, PARCEL: 0166

ELECTION DISTRICT 01, TALEBOT COUNTY, MARYLAND

ASPIRE OUTDOORS, LLC



Engineering | Survey | Architecture | Environmental

Main Office: 106 N Harrison St - Easton, MD 21601

Web: www.rauch-inc.com | Email: design@rauch.com

Phone: 410 770 8081 | Fax: 410 770 3987



PROPOSED SITE PLAN NOTES

- 1 APARTMENT BUILDING
- 2 PROPERTY LINE
- 3 PROPOSED 5 FT CONCRETE SIDEWALK. SEE DETAIL ON SHEET C-305.01
- 4 HANDICAP RAMP. SEE DETAIL ON SHEET C-305.01
- 5 8" WIDE A.D.A. ACCESS AISLE STRIPED PER A.D.A. STANDARDS
- 6 STANDARD CURB AND GUTTER. SEE DETAIL ON SHEET C-305.01
- 7 REFUSE BIN COLLECTION AREA WITH WOODEN FENCE
- 8 PICKET FENCE WITH GATE
- 9 6" SDR-35 SEWER CONNECTION. SEE DETAIL ON SHEET C-505.01
- 10 6" FIRE C-900 WATER LINE CONNECTION. SEE DETAIL ON SHEET C-505.01
- 11 2" POTABLE SDR-9 HDPE PIPE WATER LINE. SEE DETAIL ON SHEET C-505.01
- 12 6" PVC CLEANOUT
- 13 6" PVC UNDERDRAIN
- 14 POOL HOUSE
- 15 POOL
- 16 SUBMERGED GRAVEL WETLAND - FOREBAY
- 17 SUBMERGED GRAVEL WETLAND - TREATMENT AREA
- 18 NEIGHBORHOOD CONNECTIVITY ROAD
- 19 LOT LINE REVISION

Rear Setback Variance Request:
75'-0" Required (Red line)
50'-0" Requested (Black line)

Red shaded parking and building areas
are inside the 75'-0" setback

- EXISTING FEATURES
- 1 ROAD
 - 2 ROAD CENTERLINE
 - 3 SIDEWALK
 - 4 CURB AND GUTTER
 - 5 FIRE HYDRANT
 - 6 SURVEYED LOCATION OF EXISTING SEWER

- 7 SURVEYED LOCATION OF EXISTING WATER
- 8 SURVEYED PROPERTY LINES
- 9 20' SETBACK - APARTMENT FROM ANY ADJOINING PROPERTY LINE
- 10 20' FRONT YARD SETBACK LINE
- 11 VARIANCE REQUEST:
50' REAR YARD SETBACK LINE ADJACENT TO DETACHED SINGLE FAMILY RESIDENCE

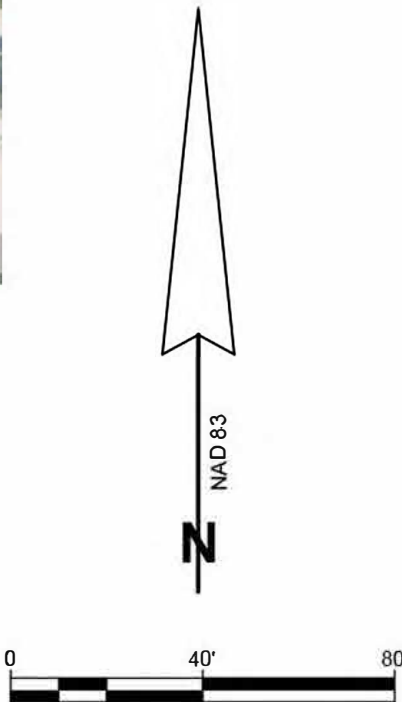


EXHIBIT D

SITE PLAN

OF THE LANDS OF

ASPIRE APARTMENTS

TAX MAP: 0028, GRID: 0020, PARCEL: 0186
ELECTION DISTRICT 01, TALBOT COUNTY, MARYLAND
ASPIRE OUTDOORS, LLC



Main Office: 106 N Harrison St - Easton, MD 21601
Web: www.rauch-inc.com | Email: design@rauch.com
Phone: 410 770 9381 | Fax: 410 770 3667

REVISIONS

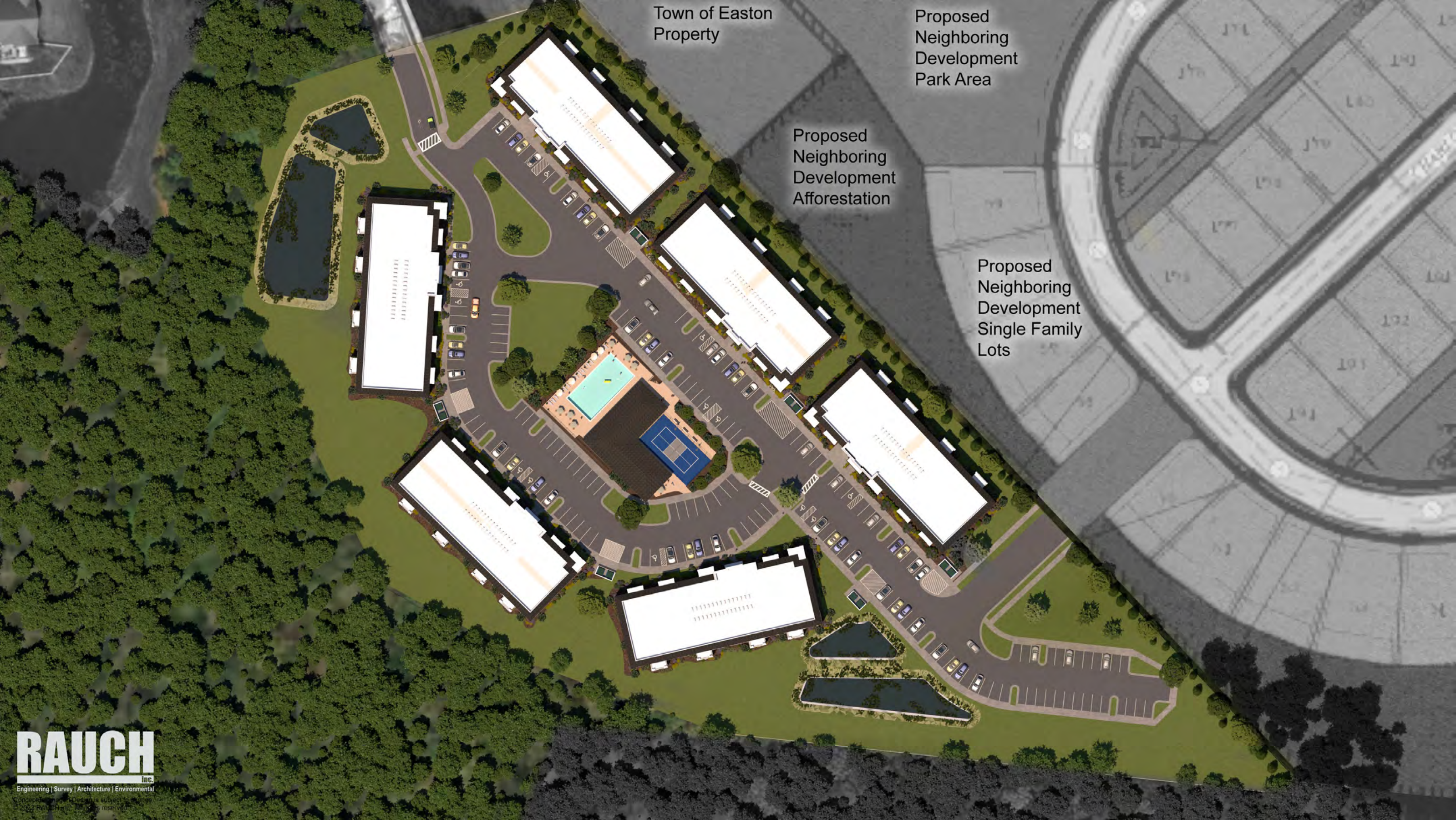
REV. #	DATE	DESCRIPTION
1	6/23/2023	REVISED TO CONNECT TO GANNON ESTATES (GANNON PLAN BY OTHERS) ADDED TO SHEETS
2	7/2/2023	



DATE: 7/28/2023
SCALE: 1" = 40'
DRAWN BY: BBF
DESIGNED BY: BBF
APPROVED BY: BBF

SHEET NO.: C-102

FOR REVIEW



RAUCH
Inc.

Engineering | Survey | Architecture | Environmental
Scenic | Land Use | Design is subject to change
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Proposed
Neighboring
Development
Single Family Lots

Proposed
Neighboring Development
Afforestation

Proposed
Neighboring Development
Park Area

Town of Easton
Property

Conceptual Image. Design is subject to change.
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inc.
Engineering | Survey | Architecture | Environmental



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Engineering | Survey | Architecture | Environmental



RAUCH
Inc.
Engineering | Survey | Architecture | Environmental

Conceptual Image. Design is subject to change.
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EXHIBIT K

PHASING PLAN

OF THE LANDS OF

ASPIRE APARTMENTS

TAX MAP: 0026, GRID: 0020, PARCEL: 0106

ELECTION DISTRICT 01, TALEBOT COUNTY, MARYLAND

ASPIRE OUTDOORS, LLC

RAUCH

Engineering | Survey | Architecture | Environmental

Main Office: 106 N Harrison St - Easton, MD 21601

Web: www.rauch-inc.com | Email: design@raucheng.com

Phone: 410 770 8081 | Fax: 410 770 3987

REV. #	DATE	DESCRIPTION
1	6/22/2023	REVISED TO CONNECT TO GANNON ESTATES
2	7/6/2023	GANNON PLAN (BY OTHERS) ADDED TO SHEETS

MISS UTILITY OF DELAWARE

811

DATE: 9/15/2023

SCALE: 1" = 40'

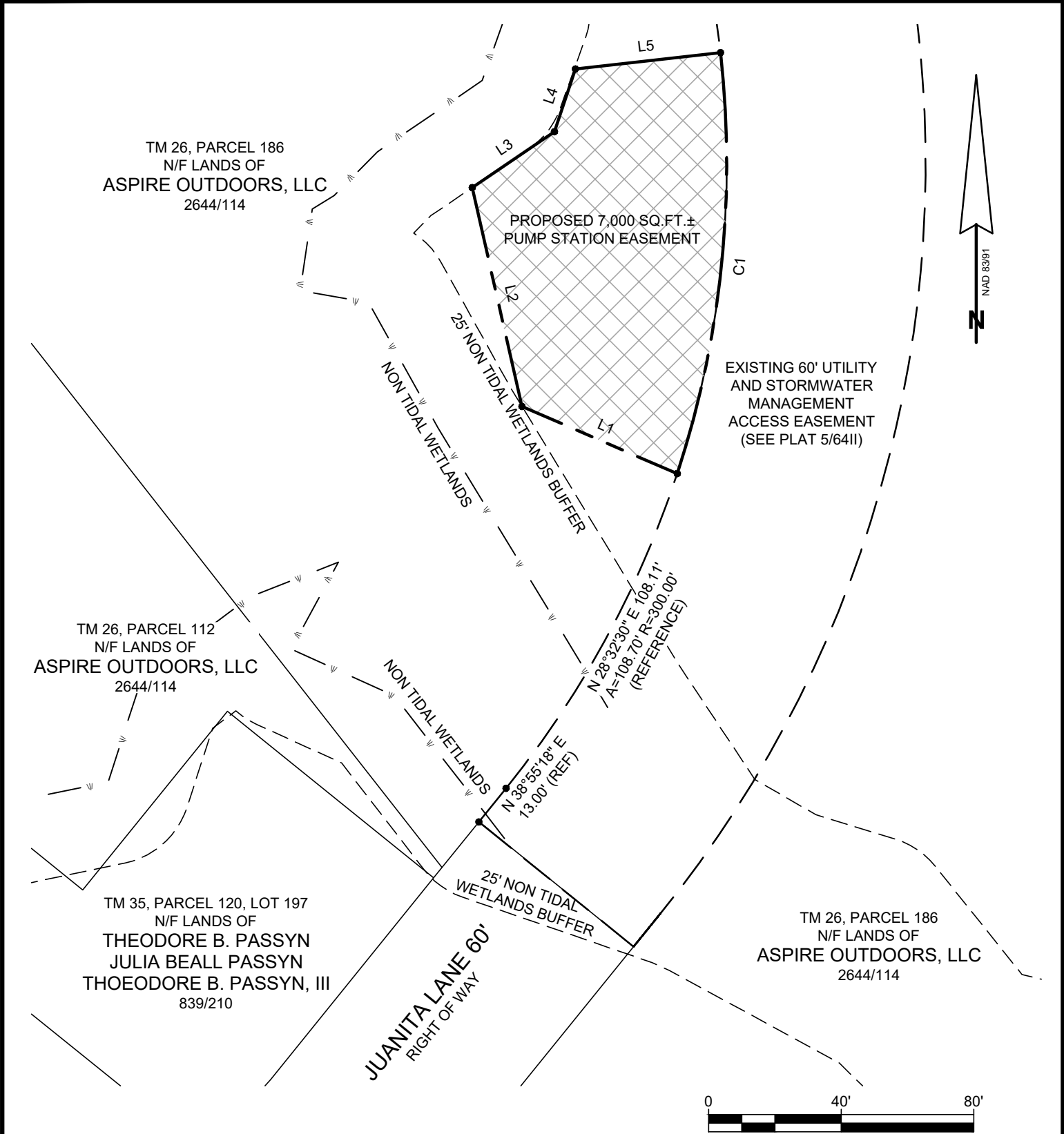
DRAWN BY: BBF

DESIGNED BY: BBF

APPROVED BY: BBF

SHEET NO.: C-103

FOR REVIEW



PROPOSED PUMP STATION EASEMENT
COURSES AND DISTANCES

LINE	BEARING	DISTANCE
L1	N 66°32'27" W	51.04'
L2	N 12°48'43" W	67.74'
L3	N 55°46'04" E	30.00'
L4	N 18°32'50" E	19.95'
L5	N 83°34'25" E	44.04'
C1	R = 300.00'	L = 128.74'
	S 05°52'03" W	127.76'

AREA = 7,000 SQ.FT.±



09/07/2023

NOTES

1. PROPERTY OWNER: ASPIRE OUTDOORS, LLC
29760 STANDISH STREET
EASTON, MD 21601
2. PROPERTY LOCATION:
TAX MAP 26, GRID 20, PARCEL 186
CAMAC STREET, EASTON, MD
3. DEED REFERENCE: 2644/114
4. PLAT REFERENCE: 82/151 AND 5/64II
5. THE PURPOSE OF THIS PLAT IS TO DEPICT A
PROPOSED PUMP STATION EASEMENT.

PROPOSED PUMP STATION EASEMENT
TAX MAP 26, GRID 20, PARCEL 186
ASPIRE OUTDOORS, LLC
FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND
PREPARED FOR ASPIRE OUTDOORS, LLC

DRAWN BY	T.COCHRUN
SCALE	1" = 40'
DATE	SEPTEMBER 2023
JOB NO.	

RAUCH

Engineering | Survey | Architecture | Environmental

Main Office: 106 N Harrison St - Easton, MD 21601
Web: www.rauch-inc.com | Email: design@raucheng.com
Phone: 410.770.9081 | Fax: 410.770.3667

September 14, 2023

DESCRIPTION OF 7,000 SQ.FT. MORE OR LESS,
A PUMP STATION EASEMENT OVER THE LANDS OF ASPIRE OUTDOORS, LLC
IN THE TOWN OF EASTON, FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND

BEGINNING for the same at a point located along the western side of an existing sixty (60) foot wide utility and stormwater management access easement over the lands of Aspire Outdoors, LLC (see deed 2644/114), said point being further located at the southeasternmost corner of the herein described easement area;

THENCE leaving said beginning point and crossing the aforesaid lands of Aspire Outdoors, LLC so fixed and binding on the outline of the herein described easement area;

1. North 66°32'27" West 51.04 feet to a point;
2. North 12°48'43" West 67.74 feet to a point;
3. North 55°46'04" East 30.00 feet to a point;
4. North 18°32'50" East 19.95 feet to a point;
5. North 83°34'25" East 44.04 feet to a point located along the aforementioned western side of an existing utility and stormwater management access easement;

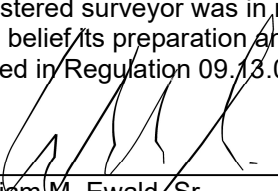
THENCE binding on the aforesaid easement;

with a curve to the right 128.74 feet to the place of beginning, said curve having a radius of 300.00 feet, and scribed by a chord of;

6. South 05°52'03" West 127.76 feet;

CONTAINING in all 7,000 Sq.Ft. of land, more or less, as described by RAUCH inc. in September 2023.

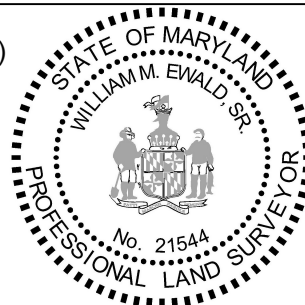
THE legal description contained herein was prepared by RAUCH, inc. at which time I, the undersigned registered surveyor was in responsible charge and to the best of my professional knowledge, information and belief its preparation and the surveying work reflected therein is in compliance with the requirements stated in Regulation 09.13.06.12 of the Maryland Minimum Standards for Surveyors.



William M. Ewald, Sr.
Professional Land Surveyor #21544 (renewal date 12-22-2023)

9/14/2023

Date



THIS DEED OF RIGHT-OF-WAY AND EASEMENT, made this 17 day of September, 2023, by and between Aspire Outdoors, LLC., a Maryland limited liability company ("Grantor") and the TOWN OF EASTON, a municipal corporation of the State of Maryland, ("Grantee").

WITNESSETH, that for no monetary consideration, the said Grantor does hereby grant and convey unto the TOWN OF EASTON, a municipal corporation of the State of Maryland, its successors and assigns, an easement, at all times, with or without vehicles, to enter upon, construct, install, operate, maintain, repair, reconstruct, improve, enlarge, replace and increase any and all structures, pipes, mains, lines, wires, or tubes as well as lines, pipes or conduits below the surface of the earth, for water, sewer (including a pump station and building), electric, gas, and communications, together with any and all necessary appurtenances, fittings and fixtures, through, under and across the premises located in the Town of Easton, Talbot County, Maryland and more particularly described as follows:

All that parcel of land designated as "PROPOSED 7,000 SQ.FT. +/- PUMP STATION EASEMENT" on the attached exhibit entitled "PROPOSED PUMP STATION EASEMENT TAX MAP 26, GRID 20, PARCEL 186 ASPIRE OUTDOORS, LLC FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND PREPARED FOR ASPIRE OUTDOORS, LLC" dated September 2023 prepared by Rauch Inc., which is attached to this Deed of Right-of-Way and Easement as Exhibit A, and which is further described on a Certificate of Survey entitled "DESCRIPTION OF 7,000 SQ. FT. MORE OR LESS, A PUMP STATION EASEMENT OVER THE LANDS OF ASPIRE OUTDOORS, LLC, IN THE TOWN OF EASTON, FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND", prepared by Rauch Inc., dated September 14, 2023, which is attached to this Deed of Right-of-Way and Easement as Exhibit B, said utility easement containing 7,000 square feet of land more or less.

BEING part of the property conveyed to Aspire Outdoors, LLC., by deed dated September 17th, 2019 and recorded among the Land Records of Talbot County in Liber 2644, folio 114, said property being further shown on the plat entitled "SUBDIVISION PLAT HUNTERS MILL - PHASE 1" dated August 22, 2007 prepared by Harms Engineering, Inc. and recorded among the Plat Records of Talbot County in Plat Book 82, page 151.

TO HAVE AND TO HOLD the said Right-of-way and Easement above described and mentioned, and hereby intended to be conveyed unto the TOWN OF EASTON, a municipal corporation of the State of Maryland, its successors and assigns, forever.

GRANTOR further agrees to diligently pursue a subdivision of its property to create a new lot for the easement area (the "Pump Station Lot") at its cost and expense and to initiate said subdivision process by the end of the 2023 calendar year. Upon approval of such subdivision, Grantor agrees to convey the Pump Station Lot in fee simple to the Grantee within thirty (30) days of approval for no consideration.

TALBOT COUNTY FINANCE OFFICE
RECORDATION TAX
AMT: \$0
DATE: 9/15/2023
INITIALS: SPH
Prop ID: 01-088793, 01-084062

1

EXHIBIT N

THIS DEED OF RIGHT-OF-WAY AND EASEMENT, made this 17 day of September, 2023, by and between **Aspire Outdoors, LLC.**, a Maryland limited liability company ("Grantor") and the **TOWN OF EASTON**, a municipal corporation of the State of Maryland, ("Grantee").

WITNESSETH, that for no monetary consideration, the said Grantor does hereby grant and convey unto the **TOWN OF EASTON**, a municipal corporation of the State of Maryland, its successors and assigns, an easement, at all times, with or without vehicles, to enter upon, construct, install, operate, maintain, repair, reconstruct, improve, enlarge, replace and increase any and all structures, pipes, mains, lines, wires, or tubes as well as lines, pipes or conduits below the surface of the earth, for water, sewer (including a pump station and building), electric, gas, and communications, together with any and all necessary appurtenances, fittings and fixtures, through, under and across the premises located in the Town of Easton, Talbot County, Maryland and more particularly described as follows:

All that parcel of land designated as **"PROPOSED 7,000 SQ.FT.+/- PUMP STATION EASEMENT"** on the attached exhibit entitled **"PROPOSED PUMP STATION EASEMENT TAX MAP 26, GRID 20, PARCEL 186 ASPIRE OUTDOORS, LLC FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND PREPARED FOR ASPIRE OUTDOORS, LLC"** dated **September 2023** prepared by Rauch Inc., which is attached to this Deed of Right-of-Way and Easement as Exhibit A, and which is further described on a Certificate of Survey entitled **"DESCRIPTION OF 7,000 SQ. FT. MORE OR LESS, A PUMP STATION EASEMENT OVER THE LANDS OF ASPIRE OUTDOORS, LLC, IN THE TOWN OF EASTON, FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND"**, prepared by Rauch Inc., dated September 14, 2023, which is attached to this Deed of Right-of-Way and Easement as Exhibit B, said utility easement containing **7,000** square feet of land more or less.

BEING part of the property conveyed to **Aspire Outdoors, LLC.**, by deed dated September 17th, 2019 and recorded among the Land Records of Talbot County in Liber 2644, folio 114, said property being further shown on the plat entitled **"SUBDIVISION PLAT HUNTERS MILL – PHASE 1"** dated **August 22, 2007** prepared by Harms Engineering, Inc. and recorded among the Plat Records of Talbot County in Plat Book 82, page 151.

TO HAVE AND TO HOLD the said Right-of-way and Easement above described and mentioned, and hereby intended to be conveyed unto the **TOWN OF EASTON**, a municipal corporation of the State of Maryland, its successors and assigns, forever.

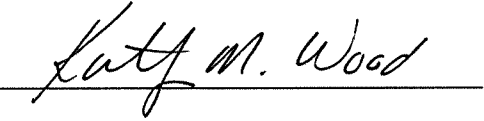
GRANTOR further agrees to diligently pursue a subdivision of its property to create a new lot for the easement area (the "Pump Station Lot") at its cost and expense and to initiate said subdivision process by the end of the 2023 calendar year. Upon approval of such subdivision, Grantor agrees to convey the Pump Station Lot in fee simple to the Grantee within thirty (30) days of approval for no consideration.

TALBOT COUNTY FINANCE OFFICE
RECORDATION TAX
AMT: SP
DATE: 9/15/2023
INITIALS: SPH
Prop ID: 01-088793, 01-084062

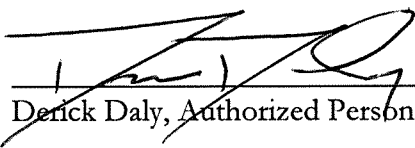
IN WITNESS WHEREOF, the parties hereto have caused this Deed of Right-of-Way and Easement to be executed by a duly authorized official as of the day and year first above written.

AS WITNESS the hand and seal of said Grantor.

WITNESS:



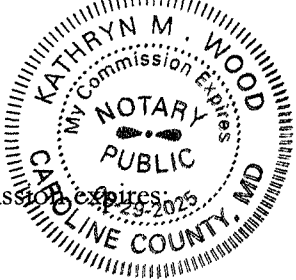
ASPIRE OUTDOORS, LLC

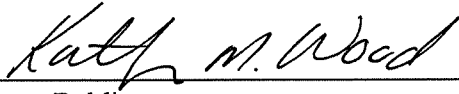
By:  (SEAL)
Derick Daly, Authorized Person

STATE OF MARYLAND, TALBOT COUNTY to wit:

I HEREBY CERTIFY, that on this 14th day of September, 2023, before me, the subscriber, a Notary Public in and for the State and County aforesaid personally appeared *Derick Daly* known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument and he/she acknowledged that he/she is an authorized member of ASPIRE OUTDOORS, LLC, a Maryland limited liability company, and that he/such, as such Authorized Person, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the Limited Liability Company by himself/herself as such Authorized Person, and further certifies said instrument to be the valid and proper act of said Limited Liability Company. He/she further made oath, under the penalties of perjury, that the consideration as recited herein is true and correct

AS WITNESS my hand and notarial seal.




Notary Public

CERTIFICATION

This is to certify that the within instrument was prepared by or under the supervision of the undersigned, an Attorney duly admitted to practice before the Court of Appeals of Maryland.

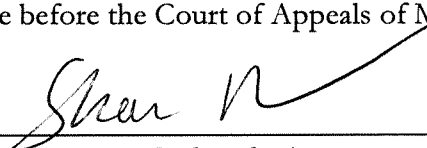
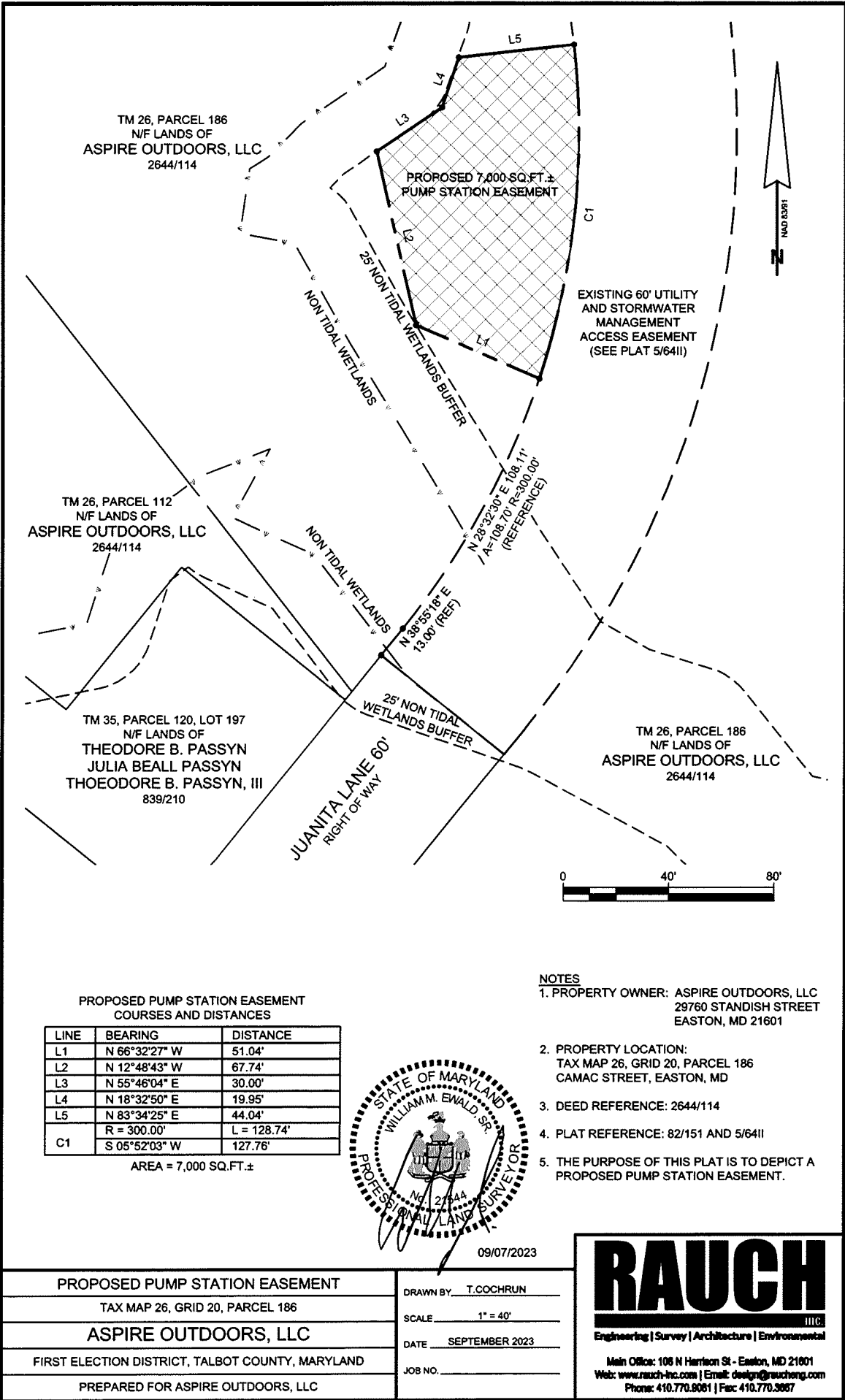

Sharon M. VanEmburch, Attorney at Law

EXHIBIT A

[Drawing of Easement Area]



September 14, 2023

**DESCRIPTION OF 7,000 SQ.FT. MORE OR LESS,
A PUMP STATION EASEMENT OVER THE LANDS OF ASPIRE OUTDOORS, LLC
IN THE TOWN OF EASTON, FIRST ELECTION DISTRICT, TALBOT COUNTY, MARYLAND**

BEGINNING for the same at a point located along the western side of an existing sixty (60) foot wide utility and stormwater management access easement over the lands of Aspire Outdoors, LLC (see deed 2644/114), said point being further located at the southeasternmost corner of the herein described easement area;

THENCE leaving said beginning point and crossing the aforesaid lands of Aspire Outdoors, LLC so fixed and binding on the outline of the herein described easement area;

1. North 66°32'27" West 51.04 feet to a point;
2. North 12°48'43" West 67.74 feet to a point;
3. North 55°46'04" East 30.00 feet to a point;
4. North 18°32'50" East 19.95 feet to a point;
5. North 83°34'25" East 44.04 feet to a point located along the aforementioned western side of an existing utility and stormwater management access easement;

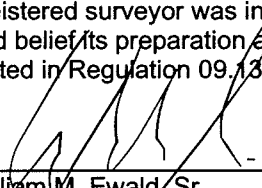
THENCE binding on the aforesaid easement;

with a curve to the right 128.74 feet to the place of beginning, said curve having a radius of 300.00 feet, and scribed by a chord of;

6. South 05°52'03" West 127.76 feet;

CONTAINING in all 7,000 Sq.Ft. of land, more or less, as described by RAUCH inc. in September 2023.

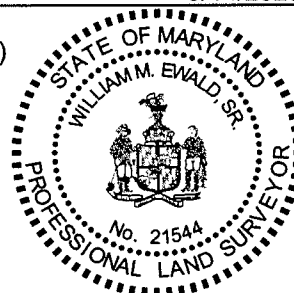
THE legal description contained herein was prepared by RAUCH, inc. at which time I, the undersigned registered surveyor was in responsible charge and to the best of my professional knowledge, information and belief its preparation and the surveying work reflected therein is in compliance with the requirements stated in Regulation 09.13.06.12 of the Maryland Minimum Standards for Surveyors.



William M. Ewald, Sr.
Professional Land Surveyor #21544 (renewal date 12-22-2023)

9/14/2023

Date



Main Office: 106 N Harrison St – Easton, MD 21601
Web: www.rauch-inc.com | Email: design@raucheng.com
Phone: 410.770.9081



Kathleen M. Duvall, Clerk
Circuit Court for Talbot County
11 N. Washington St., Suite 16
Easton, Maryland 21601

License and Recording
410-822-2611 Ext. 4

LR - Easement
(No-Taxes) Recording
Fee 20.00
Name: Asprie Outdoors
LLC/Town of Easton
Ref:
LR - Easement
(No-Taxes) Surcharge 40.00
=====

SubTotal:	60.00
=====	
Total:	60.00

09/15/2023 11:33
CC20-MG
#17560790 CC0205 -
Talbot
County/CC02.05.02 -
Register 02

DOCUMENT VALIDATION
(excluded from page count)

RE: Request**Horner, John** <jhorner@eucmail.com>

Mon 8/28/2023 9:35 AM

To: Dina Daly <dinadaly@baaminc.org>; Derick Daly <ddaly@jackresources.com>

Cc: Brian Fitzgerald <brian@raucheng.com>; Kendrick Daly - NAIMA VENTURES <kendrickdaly@naimaventures.com>; Paul Rogers <paul@raucheng.com>; Romont Fletcher <romontfletcher@naimaventures.com>; Virginia Richardson <virginia@raucheng.com>

 1 attachments (107 KB)

Aspire Pump Station Checklist.pdf;

Good morning.

Attached are my notes from our discussion Friday afternoon. Along with the points and action items listed within this document, we shared the following additional actions items:

- Aspire will work with Rauch to provide Easton Utilities a parcel which is at least 7,000 SF and does not impact the forest conservation area. This benefits both parties.
- Easton Utilities will consider paying for the larger wet well (now) at the new pump station and putting it in escrow along with the piece of the force main discussed within the attached document.
- Easton Utilities will provide Aspire and Rauch with the scope of the portion of the force main project which will be put into escrow. (pipe size, length, etc.)
- Since a subdivision plat is not being prepared, Aspire will work with Easton Utilities to provide the parcel at no cost in a fee simple transaction by the end of 2023 with a perpetual easement in the land records by September 15, 2023 in the meantime.
- Easton Utilities will summarize the estimated costs of the project to Aspire and Rauch. (capital charges, escrow costs, upsizing of pumps, etc.) Note: this will only include the costs associated with the water and sewer portion of the project.
- If the conditions within the attached document are met, Easton Utilities will share this with the Town's Planning Commission and BOZA to state a path forward for the pumping station location has been determined.

If I missed anything, please let me know.

Thanks,
John

John Horner

Executive VP & Chief Operations Officer
Easton Utilities | www.eastonutilities.com
201 N. Washington St. | Easton, MD 21601
Office: 410-763-9493 | Mobile: 410-733-4614
jhorner@eucmail.com

From: Dina Daly <dinadaly@baaminc.org>**Sent:** Friday, August 25, 2023 07:08 PM**To:** Horner, John <jhorner@eucmail.com>**Cc:** Brian Fitzgerald <brian@raucheng.com>; Derick Daly <ddaly@jackresources.com>; Kendrick Daly - NAIMA

VENTURES <kendrickdaly@naimaventures.com>; Paul Rogers <paul@raucheng.com>; Romont Fletcher <romontfletcher@naimaventures.com>; Virginia Richardson <virginia@raucheng.com>

Subject: Re: Request

Sounds good.

Have a wonderful weekend!!

Dina

On Fri, Aug 25, 2023 at 6:50 PM Horner, John <jhorner@eucmail.com> wrote:

Thanks, Dina.

I hope to send a summary of what I shared this afternoon with you over the weekend, but no later than Monday afternoon.

Thanks,
John

Sent from my iPhone so please excuse typos...



John Horner

Executive VP & Chief Operations Officer

Easton Utilities | www.eastonutilities.com

201 N. Washington St. | Easton, MD 21601

Office: 410-763-9493 | Mobile: 410-733-4614

jhorner@eucmail.com

On Aug 25, 2023, at 17:48, Dina Daly <dinadaly@baaminc.org> wrote:

Hi John,
Thanks for taking time out of your busy schedule to meet with us today.

We appreciate hearing you proposal. We look forward to getting your written proposal so that we can make a decision on how to proceed.

Have a great weekend,
Dina

On Fri, Aug 25, 2023 at 9:56 AM Dina Daly <dinadaly@baaminc.org> wrote:

Address Correction-[112 3rd Haven Heights.](#)
[Easton.](#)

Dina

On Fri, Aug 25, 2023 at 9:34 AM Dina Daly <dinadaly@baaminc.org> wrote:

Lets meet at 112 Fairhaven Heights, Easton where our office is as the BAAM space is being used today for programming.

Thanks,
Dina

On Fri, Aug 25, 2023 at 9:28 AM Horner, John <jhorner@eucmail.com> wrote:

Thanks, everyone.

I can come to the BAAM conference room if that works for you.

John

<EU-
Logo96_afea5e67-
9a5f-4f6c-90f4-
d8e72b6ef94b.png>

John Horner

Executive VP & Chief Operations Officer
Easton Utilities | www.eastonutilities.com
201 N. Washington St. | Easton, MD 21601
Office: 410-763-9493 | Mobile: 410-733-4614
jhorner@eucmail.com

From: Dina Daly <dinadaly@baaminc.org>

Sent: Friday, August 25, 2023 09:23 AM

To: Brian Fitzgerald <brian@raucheng.com>

Cc: Derick Daly <ddaly@jackresources.com>; Horner, John <jhorner@eucmail.com>; Kendrick Daly - NAIMA VENTURES <kendrickdaly@naimaventures.com>; Paul Rogers <paul@raucheng.com>; Romont Fletcher <romontfletcher@naimaventures.com>; Virginia Richardson <virginia@raucheng.com>

Subject: Re: Request

Hi John,

Thanks for making time on your calendar for us. 2:30 seems to work for us. Did you want to meet at your office?

On Fri, Aug 25, 2023 at 9:21 AM Brian Fitzgerald <brian@raucheng.com> wrote:

That works for me as well.

From: Derick Daly <ddaly@jackresources.com>

Sent: Friday, August 25, 2023 9:14 AM

To: Horner, John <jhorner@eucmail.com>

Cc: Brian Fitzgerald <brian@raucheng.com>; Dina Daly <dinadaly@baaminc.org>; Kendrick Daly - NAIMA VENTURES <kendrickdaly@naimaventures.com>; Paul Rogers <paul@raucheng.com>; Romont Fletcher <romontfletcher@naimaventures.com>; Virginia Richardson <virginia@raucheng.com>

Subject: Re: Request

That works for me.

On Fri, Aug 25, 2023 at 9:13 AM Horner, John <jhorner@eucmail.com> wrote:

Good morning, Dina & Derick.

I am available today from 2:30pm-3:00pm. My apologies for the tight window, but I am bookended today with appointments. Please let me know where you would like to meet. I will crisply share the status as I best know it to be, and also explain the opportunity in front of us to move forward. I would suggest someone from Rauch also be included.

Thanks,

John

<image001.png>

John Horner

Executive VP & Chief Operations Officer

Easton Utilities | www.eastonutilities.com

201 N. Washington St. | Easton, MD 21601

Office: 410-763-9493 | Mobile: 410-733-4614

jhorner@eucmail.com

From: Dina Daly <dinadaly@baaminc.org>

Sent: Thursday, August 24, 2023 07:49 PM

To: Horner, John <jhorner@eucmail.com>

Cc: Brian Fitzgerald <brian@raucheng.com>; Kendrick Daly - NAIMA VENTURES <kendrickdaly@naimaventures.com>; Paul Rogers <paul@raucheng.com>; Romont Fletcher <romontfletcher@naimaventures.com>; Virginia Richardson <virginia@raucheng.com>; Derick Daly <ddaly@jackresources.com>

Subject: Re: Request

Hi John,

Hope you had a great time away!!

I am also part of the ADI project as the CEO of Aspire Daly. I would like to set up a time for all of us to meet to discuss this face to face so that we can address everyone's issues/concerns.

If you can give me some date/time that you are available that would be great. Just as an FYI Derick and I are away from 9/2-9/11.

Thank you so much!!

Dina

On Tue, Aug 8, 2023 at 1:08 PM Horner, John <jhorner@eucmail.com> wrote:

Thank you!

<image001.png>

John Horner

Executive VP & Chief Operations Officer

Easton Utilities | www.eastonutilities.com

201 N. Washington St. | Easton, MD 21601

Office: 410-763-9493 | Mobile: 410-733-4614

jhorner@eucmail.com

From: Brian Fitzgerald <brian@raucheng.com>

Sent: Tuesday, August 8, 2023 08:13 AM

To: Horner, John <jhorner@eucmail.com>

Cc: Dina Daly <dinadaly@baaminc.org>; Kendrick Daly - NAIMA VENTURES <kendrickdaly@naimaventures.com>; Paul Rogers <paul@raucheng.com>; Romont Fletcher <romontfletcher@naimaventures.com>; Virginia Richardson <virginia@raucheng.com>; Derick Daly <ddaly@jackresources.com>

Subject: Re: Request

Mr. Horner,

Please find the attached DWG wetland delineation as well as the PDF document which was approved by MDE on May 5, 2021.

The wetland lines are good up through 5 years after the approved delineation but we do not estimate the wetland delineation will change much (if at all) due to the maturity of the system on the Aspire property.

Feel free to contact me if you have any questions or need any additional information.

Respectfully,

Brian Fitzgerald P.E. (MD & DE)

Project Engineer

Cell: 410-490-4980

On Mon, Aug 7, 2023 at 11:56 PM Derick Daly <ddaly@jackresources.com> wrote:

Team: John Horner is willing to listen to my request.

Brian, please provide him with the latest delineation study as soon as possible so that they can review it when they meet tomorrow.

Thanks

DD

----- Forwarded message -----

From: **Horner, John** <jhorner@eucmail.com>

Date: Mon, Aug 7, 2023 at 8:26 AM

Subject: RE: Request

To: Derick Daly <ddaly@jackresources.com>

Thanks, Derick.

We will take a review this location to see if it meets our needs. Please send along the current wetland delineation study from Rauch as time permits. We are reviewing your original request (below) internally tomorrow and will get back to you with next steps.

Best regards,

John

<image001.png>

John Horner

Executive VP & Chief Operations Officer

Easton Utilities | www.eastonutilities.com

201 N. Washington St. | Easton, MD 21601

Office: 410-763-9493 | Mobile: 410-733-4614

jhorner@eucmail.com

From: Derick Daly <ddaly@jackresources.com>

Sent: Monday, August 7, 2023 08:15 AM

To: Horner, John <jhorner@eucmail.com>

Subject: Re: Request

Good morning John:

Attached is Aspire Outdoors, LLC proposed site for the pump station. Please let me know if you have any questions.

Thanks

Derick

On Wed, Aug 2, 2023 at 11:16 AM Derick Daly <ddaly@jackresources.com> wrote:

John: I am willing to designate some of Aspire's property for this purpose, however, DR Horton has to build the station and add the connections for their project and ADI's.

I will have Rauch send you a copy of our current delineation study.

Please set up a meeting with all parties involved.

Thanks

Derick

On Tue, Aug 1, 2023 at 12:24 PM Horner, John <jhorner@eucmail.com> wrote:

Good afternoon, Derick.

I hope this email finds you and your family doing well.

The existing Matthewstown Run pumping station property is insufficient for expansion to serve the future developments currently being considered by DR Horton and Aspire. Attached is an exhibit for a piece of property owned by Aspire which would be the most effective location for the construction of a new pumping station to serve this purpose. Developers typically carve out a portion of their property for a pumping station when they file their subdivision plat, and they transfer ownership of the land required for the pumping station to the Town of Easton. Prior to the subdivision plat being filed, it is handled through a permanent easement. The schedule for moving forward with this plan (or another alternative) is tight, so we would appreciate your response to this request by or before August 11th.

Note: While we believe this property will serve this purpose, one outstanding item to verify would be an updated wetland delineation study. Has one been performed as part of your current development plans?

Thanks in advance for your consideration. Please let us know if you have any questions.

Best regards,

John

<image001.png>

John Horner
Executive VP & Chief Operations Officer
Easton Utilities | www.eastonutilities.com
201 N. Washington St. | Easton, MD 21601
Office: 410-763-9493 | Mobile: 410-733-4614
jhorner@eucmail.com

 RAU
CH
Logo

A [106 N. Harrison St. Easton, MD 21601](#)
P 410.770.9081
F 410.770.3667
W rauch-inc.com

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Aspire Pump Station Discussion

August 25, 2023

Summary

- ☐ A pump station is required for the Aspire development.
 - This is the most suitable location given its elevation.
- ☐ Easton Utilities does not want multiple pump stations this close to each other, and the existing pumping station is not large enough to handle the load of either Aspire or DR Horton.
- ☐ DR Horton wants to get started before the end of 2023 and appears to be willing to build the pump station for their needs plus the replacement of the existing pump station. This would include:
 - Gravity sewer from their development to the pump station using the existing utility right-of way on the Aspire property,
 - Connections to/from the existing pump station, and
 - A new force main up Milepost Road and through the north side of Mulberry station, per connection requirements to the EU collections system.
 - EU will pay for the piece of the force main (up front) required for the Aspire development (or another future development) and place this in escrow.
- ☐ Aspire appears to have a way forward after the planning commission meeting, and there is a suitable location for a pump station on their property.
- ☐ Alternatives exist, but they do not solve the above set of needs.

Aspire's Responsibilities

- ☐ Provide an easement and accessibility / lay down area for the new pumping station location and construction on their property (no immediate cost to Aspire)
 - Discuss location, size, and forest conservation issues.
- ☐ When the Aspire development is approved:
 - Upgrade the new pumping station wet well and pumps to meet the requirements of their wastewater load (less costly than building their own pumping station)
 - Connect their gravity sewer to an existing gravity sewer manhole feeding the new pump station using the existing utility right-of-way on the Aspire property.
- ☐ Pay for the piece of the new force main on Milepost Road through Mulberry Station carried by EU in escrow (cost either way)
- ☐ Pay their capital charges (cost either way)

Benefit to Aspire

- ☐ The cost of the new pump station is funded by someone else and Aspire only has to fund the upgrades required for their project once approved.
 - Aspire has indicated they have spoken to DR Horton through their lawyer about the new pumping station so perhaps this should be verified by Aspire and Rauch with DR Horton's lawyer.

Timing

- ☐ Time is of the essence for DR Horton to begin their project.
- ☐ A formal agreement for a perpetual easement and access to a suitable parcel on the Aspire property is required by September 1, 2023.
- ☐ Formal land records must be recorded by September 15, 2023.
- ☐ This agreement must indicate the parcel will be deeded at no cost to Easton Utilities (Town of Easton) by the end of 2023.
- ☐ If this schedule is unable to be met, EU and DR Horton will pursue an alternative plan forward which does not involve the Aspire property at all.
 - This means Aspire would fund the construction of an entire pumping station, likely on their property, including connection to/from the existing pump station.

Next Steps

- ☐ Aspire should discuss this plan with Rauch (and perhaps DR Horton) and let Easton Utilities know your thoughts on how you want to proceed.

EASTERN SHORE TITLE COMPANY
 114 N. West Street
 Easton, Maryland 21601
 410-820-4426 Fax: 410-820-4429
 Website: www.easternshoretitle.com
 Email: info@easternshoretitle.com

This Deed, made this 17th day of September, 2019, by and between **SHORE UNITED BANK**, a Maryland banking corporation, Grantor; and **ASPIRE OUTDOORS, LLC**, a Maryland limited liability company, Grantee.

- Witnesseth -

THAT FOR AND IN CONSIDERATION of the sum of **Three Hundred Thousand And 00/100 Dollars (\$300,000.00)** and other good, valuable and sufficient consideration, in hand paid, the receipt of which is hereby acknowledged, the said **SHORE UNITED BANK**, a Maryland banking corporation does hereby grant and convey unto the said **ASPIRE OUTDOORS, LLC**, a Maryland limited liability company, its successors and assigns, forever, in fee simple, all the hereinafter described property:

ALL those lots, pieces or parcels of ground situate, lying and being in the First Election District of Talbot County, State of Maryland and more particularly described as follows, that is to say:

BEGINNING for the same at the intersection of the division line between lots 227 and 228 of section six of Matthewstown Run with the southern right-of-way line of Matthewstown Road, a 60 foot wide right-of-way. Thence leaving said point of beginning so fixed and running with said Matthewstown Road, North 51 degrees 48 minutes 58 seconds East, 1462.80 feet to a point. Thence leaving said Matthewstown Road and binding on the land of Theodore B. Passyn and Julia B. Passyn, 948/830, South 43 degrees 27 minutes 28 seconds East, 2132.37 feet to a point and the Holly Park Subdivision, PC1-40A. Thence with said Holly Park Subdivision the following three (3) courses and distances; North 84 degrees 08 minutes 50 seconds West, 750.50 feet to a point. South 28 degrees 21 minutes 13 seconds West, 275.80 feet to a point. South 05 degrees 17 minutes 49 seconds West, 1643.65 feet to a point and the land now or formerly of Swan Haven Limited Partnership, 650/60. Thence with said Swan Haven Limited Partnership, 650/60. Thence with said Swan Haven Limited Partnership, North 79 degrees 04 minutes 09 seconds West, 135.17 feet to a point. Thence leaving said Swan Haven Limited Partnership and running with various lots in sections three, four and five of Matthewstown Run the following North 32 degrees 00 minutes 17 seconds West, 205.61 feet to a point, North 63 degrees 36 minutes 20 seconds West, 26.41 feet to a point. North 74 degrees 02 minutes 28 seconds East, 112.34 feet to a point. North 54 degrees 14 minutes 14 seconds West, 90.39 to a point, North 35 degrees 55 minutes 18 seconds East, 247.79 feet to a point. North 04 degrees 47 minutes 08 seconds West, 101.63 feet to point. North 17 degrees 20 minutes 13 seconds East, 28.07 feet to a point. North 08 degrees 22 minutes 16 seconds East, 18.71 feet to a point. North 05 degrees 15 minutes 35 seconds West, 96.57 feet to a point. North 12 degrees 10 minutes 27 seconds East, 38.78 feet to a point. North 51 degrees 04 minutes 42 seconds West, 180.84 feet to a point. North 63 degrees 40 minutes 19 seconds West, 54.93 feet to a point. North 13 degrees 48 minutes 27 seconds West, 24.93 feet to a point. North 31 degrees 36 minutes 57 seconds West, 18.76 feet to a point. North 85 degrees 26 minutes 14 seconds West, 36.61 feet to a point. North 51 degrees 04 minutes 42 seconds West, 79.79 feet to a point. North 63 degrees 42 minutes 04 seconds West, 14.21 feet to a point. North 43 degrees 08 minutes 41 seconds West, 22.10 feet point. North 80 degrees 24

EASTERN SHORE TITLE COMPANY

P.O. BOX 357

EASTON, MD 21601

TALBOT COUNTY FINANCE OFFICE

RECORDATION TAX

AMT: \$ 3,600.00

DATE: 9/25/2019

INITIALS: SSA

Prop ID: 01-083793-01-0834062

minutes 26 seconds West, 18.83 feet to a point. North 47 degrees 33 minutes 08 seconds West 54.99 feet to a point. North 79 degrees 16 minutes 10 seconds West, 35.85 feet to a point. South 38 degrees 55 minutes 18 seconds West, 85.88 feet to a point. North 51 degrees 04 minutes 42 seconds West, 53.81 feet to a point. With the arc of a curve to the right a distance of 47.12 feet to a point. Said curve having a radius of 30.00 feet and being scribed by a North 06 degrees 04 minutes, 42 seconds West, 42.43 feet. North 38 degrees 55 minutes 18 seconds East, 90.00 feet to a point. North 51 degrees 04 minutes 42 seconds West, 60.00 feet to a point South 38 degrees 55 minutes 18 seconds West, 21.82 feet to a point. North 51 degrees 04 minutes 42 seconds West; 80.00 feet to a point. South 38 degrees 55 minutes 18 seconds West, 69.42 feet to a point. North 51 degrees 04 minutes 42 seconds West, 25.00 feet to a point. South 38 degrees 55 minutes 18 seconds West, 39.33 feet to a point. With the arc of a curve to the left a distance of 146.41 feet to a point. Said curve having a radius of 100.00 feet and being scribed by a chord of South 80 degrees 51 minutes 47seconds West 133.68 feet. South 38 degrees 55 minutes 18 seconds West, 14.00 feet to a point. North 51 degrees 04 minutes 42 seconds West, 93.13 feet to a point. North 79 degrees 45 minutes 03 seconds West, 27.21 feet to a point. South 38 degrees 55 minutes 18 seconds West, 37.99 feet to a point. North 51 degrees 04 minutes 42 Seconds West, 40.47 feet to a point, North 05 degrees 50 minutes 22 seconds West, 41.30 feet to a point. North 68 degrees 35 minutes 41 seconds West, 103.45 feet to a point. South 38 degrees 55 minutes 18 seconds West, 47.83 feet to a point. South 04 degrees 17 minutes 36 seconds East, 82.33 feet to a point. South 65 degrees 18 minutes 00 seconds East, 132.49 feet to a point. South 38 degrees 55 minutes 18 seconds West, 22.98 feet to a point. South 34 degrees 40 minutes 37 seconds East, 21.00 feet to a point. South 74 degrees 40 minutes 14 seconds West, 39.61 feet to a point. South 38 degrees 55 minutes 18 seconds West, 41.94 feet to a point. North 51 degrees 04 minutes 42 seconds West, 20.00 feet to a point. South 38 degrees 55 minutes 18 seconds West, 90.00 feet; North 51 degrees 04 minutes 42 seconds West, 818.24 feet to a point. North 51 degrees 38 minutes 16 second East, 397.96 feet to a point. South 38 degrees 21 minutes 44 seconds East, 73.20 feet to a point. North 81 degrees 52 minutes 40 seconds East, 148.49 feet to a point. With the arc of a curve to the left a distance of 87.33 feet to a point. Said curve having a radius of 50.00 feet and being scribed by a chord of South 83 degrees 24 minutes 45 seconds East, 76.65 feet. South 46 degrees 26 minutes 58 seconds East, 13.31 feet to a point. North 58 degrees 33 minutes 43 seconds East, 151.43 feet to a point. North 45 degrees 04 minutes 24 seconds East, 53.18 feet to a point North 47 degrees 47 minutes 21 seconds East, 78.58 feet to a point. North 05 degrees 07 minutes 00 seconds East, 38.74 feet to a point. North 09 degrees 35 minutes 49 seconds West, 39.04 feet to a point. North 51 degrees 38 minutes 16 seconds East, 110.52 feet to a point, With the arc of a curve to the right a distance of 38.42 feet to a point. Said curve having a radius of 30.00 feet and being scribed by a chord of North 88 degrees 19 minutes 38 seconds East, 35.85 feet. With the arc of a curve to the right a distance of 75.23 feet to a point. Said curve having a radius of 700.00 feet and being scribed by a chord of South 51 degrees 54 minutes 18 seconds East, 75.19 feet. With the arc of a curve to the left a distance of 143.78 feet to a point. Said curve having a radius of 50.00 feet and being scribed by a chord of South 82 degrees 54 minutes 57 seconds East, 99.12 feet. With the arc of a curve to the right a distance of 63.49 feet. Said curve having a radius of 760.00 feet and being scribed by a chord of South 40 degrees 13 minutes 57 seconds East, 63.47 feet. South 37 degrees 50 minutes 22 seconds East, 111.83 feet to a point. North 16 degrees 22 minutes 32 seconds East, 64.98 feet to a point. North 08 degrees 11 minutes 01 seconds West, 100.21 feet to a point. North 02 degrees 46 minutes 32 seconds East. 67.42 feet to a point. South 73 degrees 44 minutes 44 seconds West, 25.69 feet to a point. North 29 degrees 32 minutes 27seconds West, 82.88 feet to a point. South 84 degrees 34 minutes 29 seconds West, 59.86 feet to a point. North 53 degrees 18 minutes 14 seconds West, 86.12 feet to a point, North 36 degrees 26 minutes 06 seconds West, 79.48 feet to a point. North 72 degrees 16 minutes 24 seconds West, 126.16 feet to a point. North 76 degrees 03 minutes 42 seconds West, 76.61 feet to a point. South 23 degrees 59 minutes 07 seconds West, 21.01 feet to a point. North 66 degrees 00 minutes 53 seconds West, 35.32 feet to a point. North 41 degrees 09 minutes 13 seconds West, 51.13 feet to a point. North 61 degrees 09 minutes 40 seconds West, 149.24 feet to a point, North 59 degrees 21 minutes 46 seconds West, 112.65 feet to a point. North

82 degrees 18 minutes 17 seconds West, 131.81 feet to the place of beginning, Containing in all 81.97 acres of land more or less.

SAVE AND EXCEPT THEREFROM, all those Lots 1 through 50, rights-of-ways and easements, shown on a Plat entitled "SUBDIVISION PLAT HUNTERS MILL - PHASE 1", dated August 22, 2007, prepared by Professional Land Surveyor, John E. Harris, Jr. & Associates, Inc., and recorded among the Plat Records of Talbot County, Maryland, in Plat Book MAS Liber 82, folio 151-53 (said Phase 1 more specifically shown on folio 152) and as modified by plats recorded in the said Plat Records at Liber 83, folio 164-65 and Liber 83, folio 176.

BUT INCLUDING from the above mentioned Plat recorded at Liber 82, folio 153 all of "Parcel E SWM Pond", "Parcel H" and "Parcel C Park Area."

BEING the same property conveyed unto SHORE UNITED BANK, a Maryland banking corporation from ALEXIS E. KRAMER and GARRETT M. FITZGERALD, SUBSTITUTE TRUSTEES, by Deed dated December 15, 2016 and recorded among the Land Records of Talbot County, Maryland in Liber No. 2410, folio 094.

Together with the buildings and improvements thereon erected, made or being; and all and every, the rights, alleys, ways, waters, privileges, appurtenances and advantages to the same belonging, or in anywise appertaining.

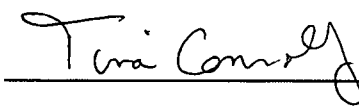
To Have and To Hold the said tract of ground and premises above described and mentioned, and hereby intended to be conveyed, together with the rights, privileges, appurtenances and advantages thereto belonging or appertaining unto and to the proper use and benefit of the said **ASPIRE OUTDOORS, LLC**, a Maryland limited liability company, its successors and assigns, forever, in fee simple.

And the said Grantor does hereby covenant that it has not done or suffered to be done any act, matter or thing whatsoever, to encumber the property hereby conveyed; that it will warrant specially the property hereby conveyed; and that it will execute such other and further assurances of the same, as may be requisite.

As Witness the hand and seal of said Grantor, the day and year first above written.

WITNESS:

SHORE UNITED BANK, A
MARYLAND BANKING
CORPORATION



 {Seal}
BY: W. DAVID MORSE, EXECUTIVE
VICE PRESIDENT

STATE OF MARYLAND, COUNTY OF TALBOT, to wit:

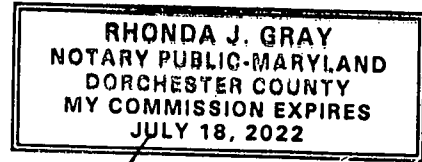
I hereby certify that on this 17th day of **September**, 2019 before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared **W. DAVID MORSE**, who acknowledged himself to be the **EXECUTIVE VICE PRESIDENT** of **SHORE UNITED BANK, a Maryland banking corporation** (the Corporation), and that as such officer, being authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the Corporation, by himself as such officer and further made oath that this conveyance is not part of a transaction in which there is a sale, lease, exchange or other transfer

or all, or substantially all, of the property and assets of the Corporation, giving oath under penalties of perjury that the consideration recited herein is correct.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Rhonda Gray
Notary Public

My commission expires: _____



This document was prepared under the supervision of an attorney admitted to practice before the Court of Appeals of Maryland, or by one of the parties named in the within instrument.

Willard C. Parker, II, Esquire
WILLARD C. PARKER, II, ESQUIRE

AFTER RECORDING, PLEASE RETURN TO:
EASTERN SHORE TITLE COMPANY
114 N. West Street
410-820-4426 fax 410-820-4429
Easton, Maryland 21601
File No. EST-2019-22640CLH

CERTIFICATION IS MADE THAT ALL TAXES
DUE ON THE PROPERTY INDICATED IN
THIS DEED HAVE BEEN PAID.

FINANCE OFFICER OF TALBOT COUNTY

ANDREW HOLLIS, FIN. OFFICER cl

DATE 9/25/2019 cl

Exhibit Q



TOWN OF EASTON

Planning & Zoning Department

14 South Harrison Street

P.O. Box 520

Easton, Maryland 21601

NOTICE OF APPLICATION SUMMARY

2023-10-24

SE-911 / SE 23-06 AND V-911 / V 23-06

Applicant notified of hearing date: Email: 2023-10-06 – 18 days

Exhibit A: Application – 2023-09-26 – 28 days

Exhibit B: Paid Receipt – 2023-03-30 – 208 days

Exhibit C: Picture of Property Sign Posting – 2023-10-06 – 18 days

Exhibit D: Staff Report – 2023-10-17 – 7 days

Exhibit E: Public Advertisement

Advertisement sent to the Star Democrat: 2023-09-26 – 28 days

Advertisement run in Star Democrat: 2023-10-08 – 16 days

Exhibit F: Notices

Applicant Hearing Letter: 2023-10-06 – 18 days

400' Notices Distributed: 2023-10-09 – 15 days

NOTICE

Notice is hereby given that Aspire Outdoors LLC has filed application SE-911 / SE 23-06, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to obtain a special exception for a Multifamily Apartment Complex, use (1) 105 in Table 2.1 of Section 28-201 in the R-10A zoning district. The applicant has also filed application V-911 / V 23-05, pursuant to Section 28-1303.5.C of the Zoning ordinance of the Town of Easton, to obtain a variance from Section 28-1007.1(1)14(l) which requires a minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot. The applicant is proposing to develop the property at the south end of Camac Street into a six-building apartment complex with twenty-seven units each, totaling 162 units. This is a continuation of the April 18, 2023 Board of Zoning Appeals meeting. The applicant has since received from the Planning Commission sketch site plan approval with conditions, and a positive recommendation to the Board of Zoning Appeals for the special exception and variance requests that includes recommended conditions.

The property is located on Camac Street, Easton, Maryland and is known as Tax Map 0026, Grid 0020, Parcel 0186. The property is situated in the R-10A – Residential District and is owned by Aspire Outdoors LLC. A copy of the application may be inspected during normal business hours in the Department of Planning and Zoning. The undersigned Board will hold a public hearing with respect to said application on **Tuesday, October 24, 2023 at 6:00 P.M.** in the Town Council Chambers, second floor, located at 14 S. Harrison Street. All interested parties are invited to attend. Please continue to check our website at <https://eastonmd.gov/129/Agendas-Minutes> for agenda updates.

EASTON BOARD OF ZONING APPEALS

Notice to Star Democrat: Please publish as indicated above and send Certificate of Publication to Planning and Zoning, Town of Easton, P.O. Box 520, Easton, Maryland 21601, prior to date of hearing.

APG Media of Chesapeake, LLC
29088 Airpark Drive
Easton, MD 21601

09/28/23

Phone: Fax:
<http://www.chespub.com>

Cust. AcctID:	Creation Date: 09/28/23
	Ad Date: 10/08/23
	Class:
Name: Joanne Drummer	Ad ID:
Company: TOWN OF EASTON (L)	Ad Taker:
Address: PO Box 520 EASTON, MD 21601	Sales Person:
	Words:
	Lines:
Telephone: (410) 822-2525	Agate Lines:
Email:	Depth:
Description: Application SE-911/SE	Inserts:
	Blind Box:

Other Charges:
Discount:
Surcharge:
Credits:
Bill Depth:

Total:
Paid Amount:
Amount Due:

CREDIT CARD DETAILS

PT	CT	CN	Number	Exp.	Amnt.

Publication	Start	Stop	Inserts	Cost
The Star Democrat	10/08/23	10/08/23	1	

NOTICE

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EASTON BOARD OF ZONING APPEALS

3035725 SD 10/8/2023

Ad Note:

Customer Note:

We Appreciate Your Business!
Thank You Joanne Drummer!



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

October 6, 2023

Derick Daly
Aspire Outdoors, LLC
29760 Standish Street
Easton, MD 21601

Re: Application No. SE-911 / SE 23-06
Camac Street
Tax Map 026, Grid 020, Parcel 0186
Easton, MD 21601

Mr. Daly,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, October 24th at 6:00 P. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. the proposed use conforms in all aspects to minimum requirements of the district in which it is located;
2. the proposed use is not adversely affecting the health, safety, and general welfare of residents of the area;
3. the proposed use will not interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exception;
4. the proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are provided;
5. the proposed use will not adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access;
6. the proposed use will not adversely affect the established character of the area;
7. the proposed use shall be in conformity with the provisions of the Easton

Comprehensive Plan including those provisions of the Comprehensive Plan relating to design and performance standards for the development or redevelopment of land. In addition to the criteria set forth elsewhere herein when considering an application for additional principal uses upon an approved lot, the proposed additional uses shall be compatible and complementary to uses customarily found near or in conjunction with one another. This provision may not be used to permit shopping centers which are governed by other provisions of this Ordinance.

NOTE: In the event your application pending before the Easton Board of Zoning Appeals requires a recommendation to the Board from the Easton Planning and Zoning Commission, the Appeals Board will not hear your application until it is in receipt of the Planning and Zoning Commission's recommendation. It is your responsibility to see that the recommendation required is before the Board of Zoning Appeals before any evidence is heard.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith

Samantha N. Smith, Administrative Specialist
Planning and Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

October 6, 2023

Derick Daly
Aspire Outdoors, LLC
29760 Standish Street
Easton, MD 21601

Re: Application No. V-911 / V 23-05
Camac Street
Tax Map 026, Grid 020, Parcel 0186
Easton, MD 21601

Mr. Daly,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, October 24th at 6:00 P. M.*** in the Chambers of the Mayor and Council of Easton. You should appear at the above time and place, together with any witnesses you may care to present and be prepared to submit evidence, which will establish:

1. That granting the application will not be contrary to the public interest;
2. that granting the application will be in harmony with the purpose and intent of the Ordinance;
3. that granting the application will not be injurious to the neighborhood or otherwise detrimental to the public welfare;
4. that owing to conditions peculiar to the property, which conditions are not the result of any action taken by the applicant, a literal enforcement of the Ordinance will result in practical difficulty to the applicant.

Please be prepared to answer the four listed items above at the time of the Hearing.

If there are any restrictions attached to the deed of the property subject to this application, please advise the Board thereof.

Samantha N. Smith

Samantha N. Smith, Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov



TOWN OF EASTON

14 South Harrison Street
Easton, Maryland 21601

October 9, 2023

Dear Resident,

The Easton Board of Zoning Appeals will hold a public meeting on **Tuesday, October 24, 2023 at 6:00 p.m.** in the Easton Town Council Chambers located on the second floor of 14 South Harrison Street. The Town of Easton Zoning Ordinance requires that owners of property located within 400 feet of a parcel on which certain types of applications are pending be given notice of upcoming meetings or hearings. If you are a tenant in or an owner of a multi-unit building, please distribute or post this notice in a visible location for all other tenants or owners to view. If you are a tenant of a rental property, please notify the property owner that this notice letter has been distributed to their property. Notice has also been sent to the Star Democrat, a sign has been posted at the subject property and the hearing agenda has been posted on the Town of Easton website: <http://eastonmd.gov/>.

This letter is sent to inform you that Aspire Outdoors LLC located on Camac Street, also known as Tax Map 0026, Grid 0020, Parcel 0186 has filed application SE-911 / SE 23-06, pursuant to Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton, to obtain a special exception for a Multifamily Apartment Complex, use (1) 105 in Table 2.1 of Section 28-201 in the R-10A zoning district. In addition, the applicant has filed application V-911 / V 23-05, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a variance from Section 28-1007.1.(1)14(l) which requires a minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot. The applicant is proposing to develop the property at the south end of Camac Street into a six-building apartment complex with twenty-seven units each, totaling 162 units. This is a continuation of the April 18, 2023 Board of Zoning Appeals meeting. The applicant has since received from the Planning Commission sketch site plan approval with conditions, and a positive recommendation to the Board of Zoning Appeals for the special exception and variance requests that includes recommended conditions.

Copies of the proposed application are on file and available for public review in the Town's Planning Office at 14 South Harrison Street between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday. **In addition, digital copies will be available for review one week prior to the scheduled meeting via the Town's website at <https://www.eastonmd.gov/129/Agendas-Minutes>.** If you have any questions regarding this application, please contact the Planning Office at (410) 822-1943 or via email at ssmith@eastonMD.gov.

Samantha N. Smith, Administrative Specialist
Planning & Zoning Department
410-822-1943 ssmith@eastonMD.gov



Sign posted on October 6, 2023



BOARD OF ZONING APPEALS FOR EASTON, MARYLAND

14 S. Harrison Street

Easton, Maryland 21601

Planning and Zoning Office: 410-822-1943

April 06, 2023

**RE: BOZA Application- Aspire Apartments
SE-911 / SE 23-06 and V-911 / V 23-06**

Aspire Outdoors LLC
29760 Standish Street
Easton, Maryland 21601

Tax Map 026, Grid 020, Parcel 0186
Easton, Maryland 21601
Zoning District: R-10A

Town of Easton
*** CUSTOMER RECEIPT ***
Oper: SMILES Type: OC Drawer: 1
Date: 3/31/23 01 Receipt no: 8362

Year	Number	Amount
2023	911	
PZ	PZ - PAYMENTS	\$950.00
ASPIRE DALY INC		
Tender detail		
CK CHECK	1157	\$700.00
CK CHECK	1158	\$250.00
Total tendered		\$950.00
Total payment		\$950.00
Trans date: 3/31/23	Time: 9:33:56	
THANK YOU FOR YOUR PAYMENT.		

- \$700.00 Application No. SE-911 / SE 23-06
- \$250.00 Application No. V-911 / V 23-05

Aspire

Talbot County, Maryland
July 19, 2023

ADT Evaluation

Prepared for:

Rauch, Inc.

Virginia Richardson, AIA
106 N. Harrison Street
Easton, MD 21601
(410) 770-9081
virginia@raucheng.com



Study Purpose

The Traffic Group, Inc. prepared a Traffic impact Study for the proposed Aspire residential development to be located on Matthewstown Road (MD328) in the Town of Easton, Talbot County, MD. The initial report was submitted on August 30, 2022, and was revised on January 6, 2023, to address comments received by the Maryland Department of Transportation State Highway Administration.

The development will consist of two parcels:

- Northern parcel with access through Hunters Mill via Camac Street and McCall Street and through the Gannon development via Charlotte Lane and Eleanor Way and Rhyan Drive.
- Southern parcel with access via Fishers Range Road.

The purpose of this ADT Evaluation is to determine if the Aspire northern parcel will be in compliance with the ADT restrictions presented in the Town of Easton's Subdivision Regulations, Section 702 "Street Hierarchy."

Street Hierarchy and existing ADT volumes

The apartment complex proposed for the northern parcel will have access to Matthewston Road (MD 328) via Camac Street and McCall Street in the Hunters Mill subdivision and via Charlotte Lane, Elenaor Way, and Rhyan Drive in the Gannon subdivision.

Camac Street (with residential homes) is classified as a Residential Sub-collector and is permitted a maximum of 500 ADT. McCall Street is classified as a Residential Collector and is permitted a maximum of 3,000 ADT.

Charlotte Lane and Eleanor Way are classified as Residential Sub-collector and are permitted a maximum of 500 ADT for a total of 1,000 ADT. Rhyan Drive is classified as a Residential Collector and is permitted a maximum of 3,000 ADT.

The existing homes along Camac Street and part of Captain Adamouski account for 200 of the permitted 500 ADT. The proposed homes along Charlotte Drive and Eleanor Way account for 380 of the permitted 1,000 ADT. Thus, 920 ADT in total are available on Camac Street, Charlotte Drive, and Eleanor Way.

Proposed ADT Volumes

The Aspire apartment complex is proposed to consist of a total of six buildings with 27 apartments in each building for a total of 162 apartments. According to the Town of Easton's Subdivision Regulations, each apartment will generate 5.4 daily trips per dwelling unit for a total of 875 ADT.

Summary

The proposed Aspire apartment complex to be located on Matthewstown Road (MD 328) in Easton, MD will have access through the Hunters Mill Subdivision and the Gannon Subdivision. The daily traffic volumes generated by the Aspire apartment complex will not exceed the maximum volumes permitted on these roadways according to the Town of Easton's Subdivision Regulations.

Aspire

Talbot County, Maryland
Revised January 6, 2023

Traffic Impact Study

Prepared for:

Rauch, Inc.

Virginia Richardson, AIA
106 N. Harrison Street
Easton, MD 21601
(410) 770-9081
virginia@raucheng.com



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APPENDICES

APPENDIX A – Intersection Aerial Photographs and Turning Movement Counts

APPENDIX B – Capacity Analysis Worksheets

APPENDIX C – Signal Timing

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. 18506, Expiration Date: 11/22/2023.



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INTRODUCTION AND SUMMARY OF FINDINGS

Study Purpose

The Traffic Group, Inc. has *revised a Traffic Impact Study (TIS), previously submitted on August 30, 2022, to address the comments received from the Maryland Department of Transportation State Highway Administration (MDOT SHA) on September 26, 2022.* The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be constructed in 2025.

Revisions are in italics for the convenience of the reader.

Study Criteria/Methodology

The study was conducted in accordance with the requirements established by MDOT SHA, specifically as outlined in the MDOT SHA Access Manual which was updated in part in August 2016. Chapter 1 of the Access Manual, “Traffic Impact Study Guidelines,” is currently under review.

Scope of Services

The scope of the TIS was conversations with MDOT SHA District 2, the Town of Easton, and Talbot County. Correspondence is contained in Appendix D.

- Conduct turning movement counts during the morning and evening peak hours from 7 to 9 AM and 4 to 6 PM on a weekday and from 10 AM to 2 PM on a summer Saturday at the following study intersections:
 - a. US 50 @ MD 328
 - b. MD 328 @ Elliot Road
 - c. MD 328 @ Gannon Circle
 - d. MD 328 @ Dyott Ct/Fisher Ranger Road
 - e. MD 328 @ Mile Post Drive
 - f. MD 328 at Hunters Mill
 - g. MD 328 @ Swann Haven Road
 - h. MD 328 @ Black Dog Alley

- Apply a regional growth rate to the turning movement counts for 3 years.
- Conduct trip generation and trip distribution analyses for the proposed Lands of Gannon Family residential development using the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) for inclusion in the analysis of background peak hour traffic conditions.
- Conduct trip generation and trip distribution analyses for the proposed residential development using ITE's Trip Generation Manual (11th Edition) for inclusion in the analysis of total peak hour traffic conditions.
- Prepare Level of Service evaluations for each of the study intersection and site accesses.
- Prepare queuing analyses for the study intersection and site accesses.
- Provide an overall assessment of the impact that the proposed development will have on surrounding roadways and identify any road improvements necessary to provide acceptable levels of operation.

Summary of Findings and Recommendations

Utilizing the Highway Capacity Manual (HCM) methodology, the study intersections are projected to operate at overall acceptable Levels of Service, LOS "D" or better, under total peak hour traffic conditions. Using the Critical Lane Volume (CLV) methodology, the study intersections are projected to have sufficient capacity for total peak hour traffic conditions.

The projected queues at the signalized intersections were analyzed using SimTraffic. The projected queues at the following intersections can be accommodated within the existing storage lengths:

- MD 328, Matthewstown Road and Elliot Road
- MD 328, Matthewstown Road and Dyott/Fisher Ranger Road
- MD 328, Matthewstown Road and Black Dog Alley

Signal timing adjustments are recommended to improve the queues and operations at the intersection of US 50 with MD 328, Matthewstown Road/Goldsborough Street.

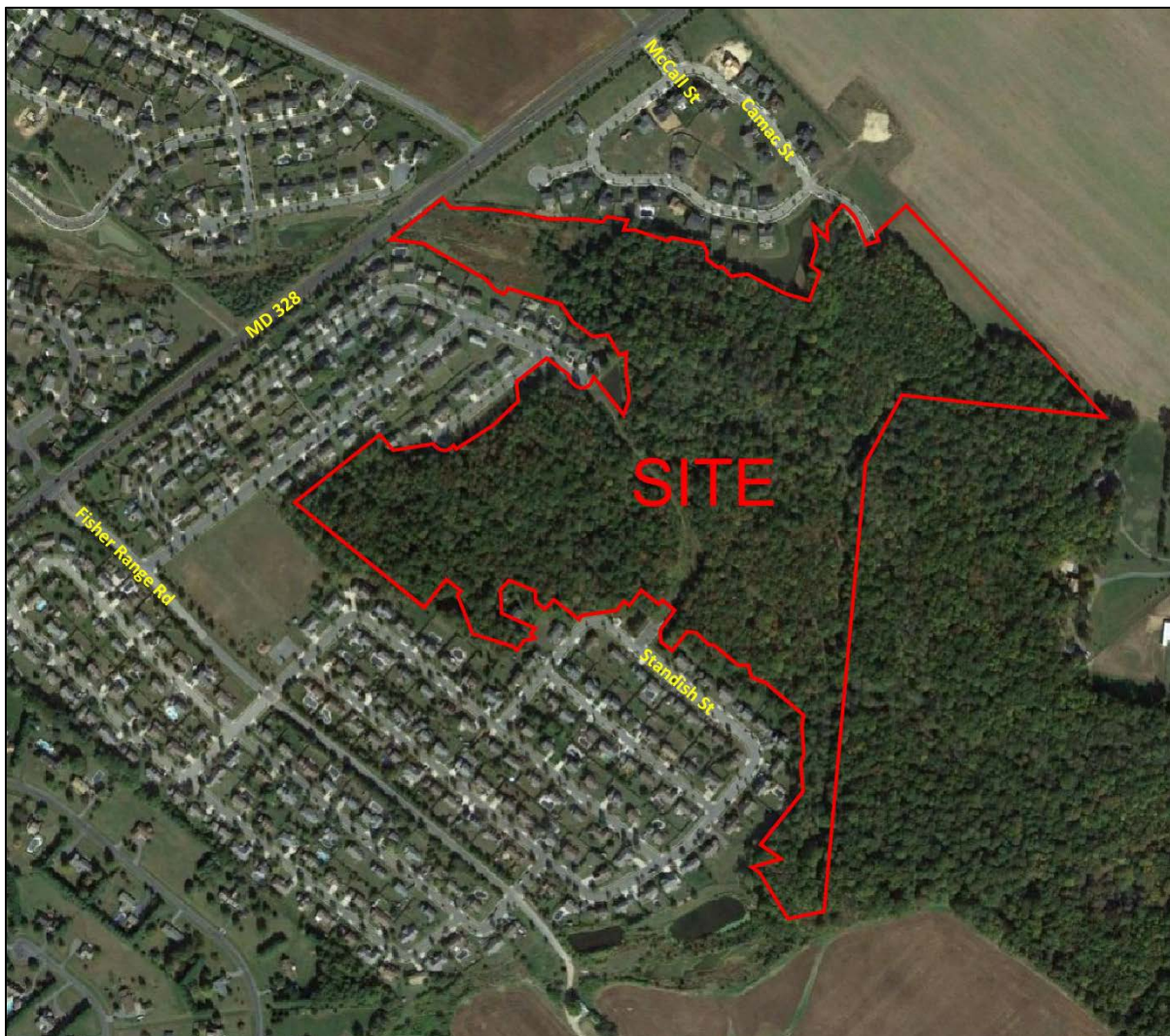
The data and methodology used to undertake this study are detailed in the sections that follow.

EXISTING TRAFFIC CONDITIONS

Site Information

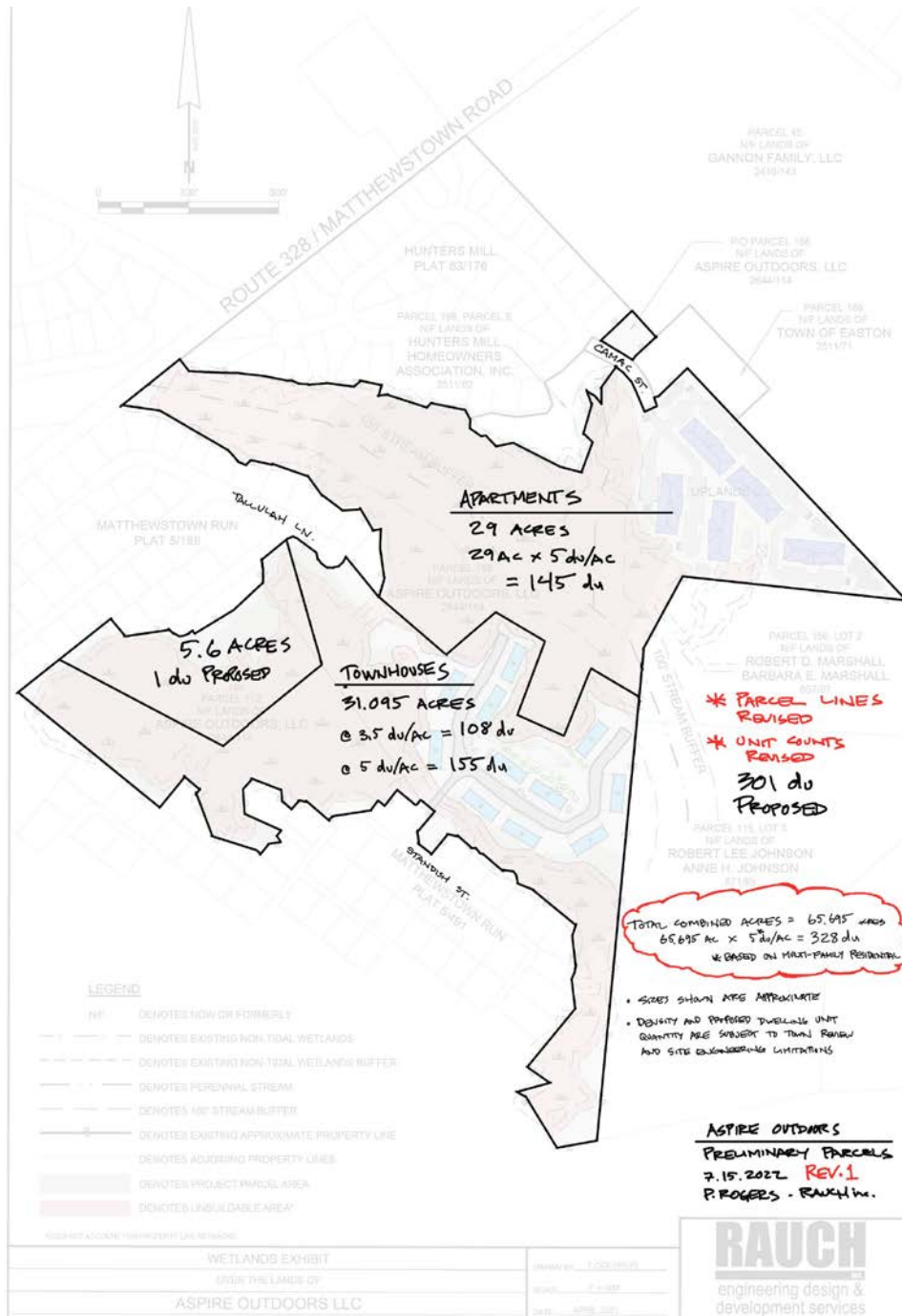
The Traffic Group, Inc. has revised a *Traffic Impact to Study*, previously submitted on August 30, 2022, to address the comments received from the MDOT SHA on September 26, 2022. The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be completed in 2025.



The northern parcel, to be accessed via McCall Street and Camac Street, consists of 29 acres and the southern parcel, to be access via Fisher Range Road to Standish Street, consists of 31.095 for a total of 65.095 acres. The maximum density for multi-family residential is 5 dwelling units/acre or, 328 dwelling units. It is likely that the number of dwelling units that will be proposed to be constructed is 301; however, the maximum number of dwelling units, 328, is used in this analysis.

A preliminary concept is provided below.



Study Area

The scope of the TIS was conversations with MDOT SHA District 2, the Town of Easton, and Talbot County. Correspondence is contained in Appendix D. The following intersections were selected for study. A site location map is provided in Figure 1.

- US 50 @ MD 328
- MD 328 @ Elliot Road
- MD 328 @ Gannon Circle
- MD 328 @ Dyott Ct/Fisher Ranger Road
- MD 328 @ Mile Post Drive
- MD 328 at Hunters Mill
- MD 328 @ Swann Haven Road
- MD 328 @ Black Dog Alley

Matthewstown Road, MD 328, is classified as a Major Collector with an AADT of 9,690 for the year 2021. The speed limit is posted as 50 mph north of the site, 40 mph adjacent to the site, and 30 mph south of the site.

The intersection of US 50 and Matthewstown Road, MD 328, is a signalized intersection. US 50 is classified as a Principal Arterial Other with an AADT of 33,990 for the year 2021. The speed limit on US 50 is posted as 35 mph.

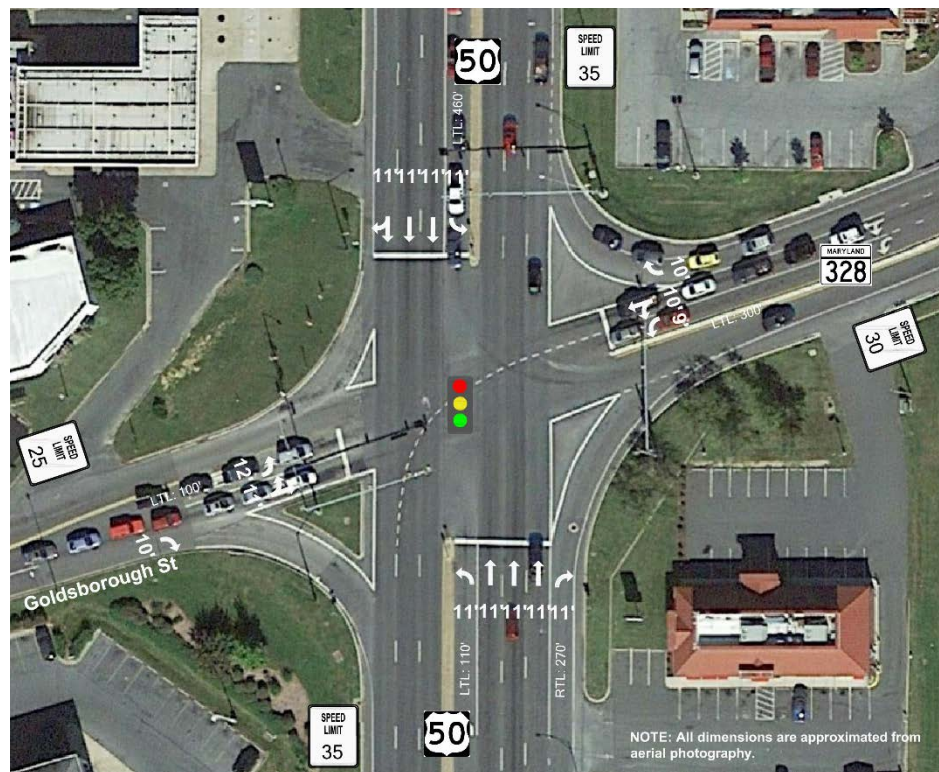
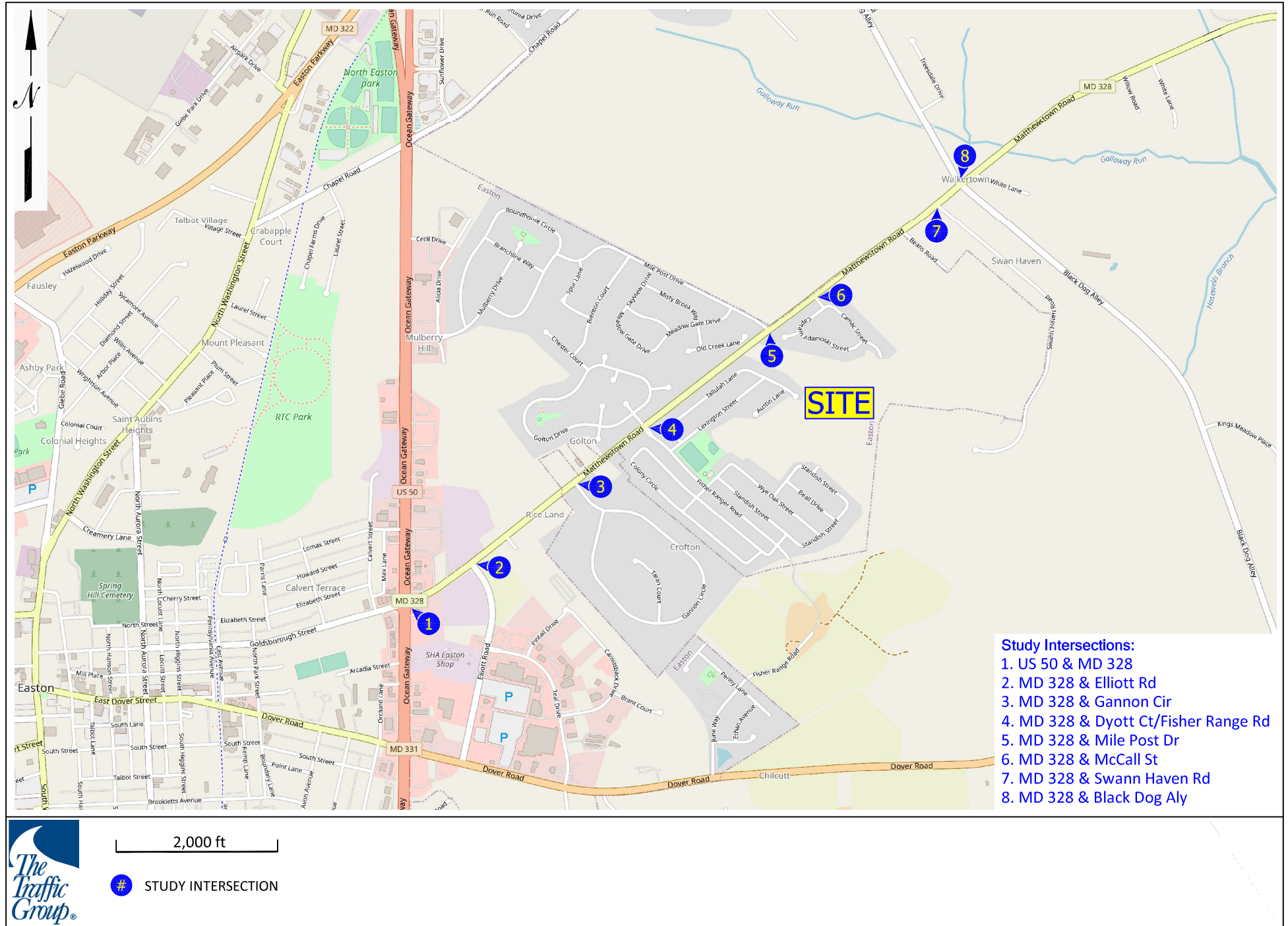
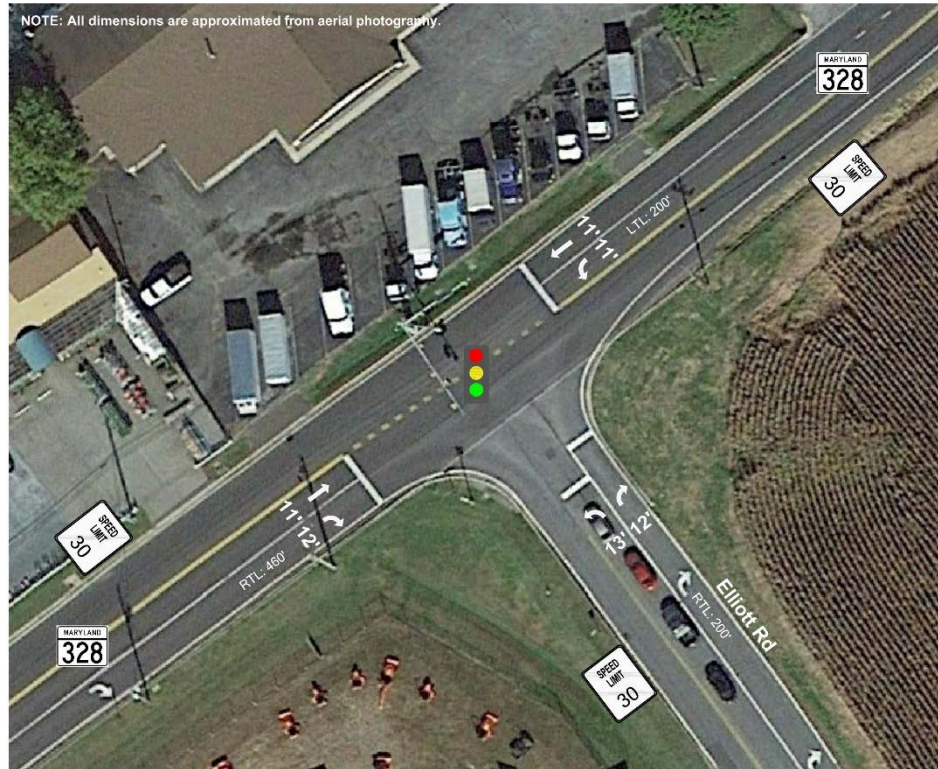


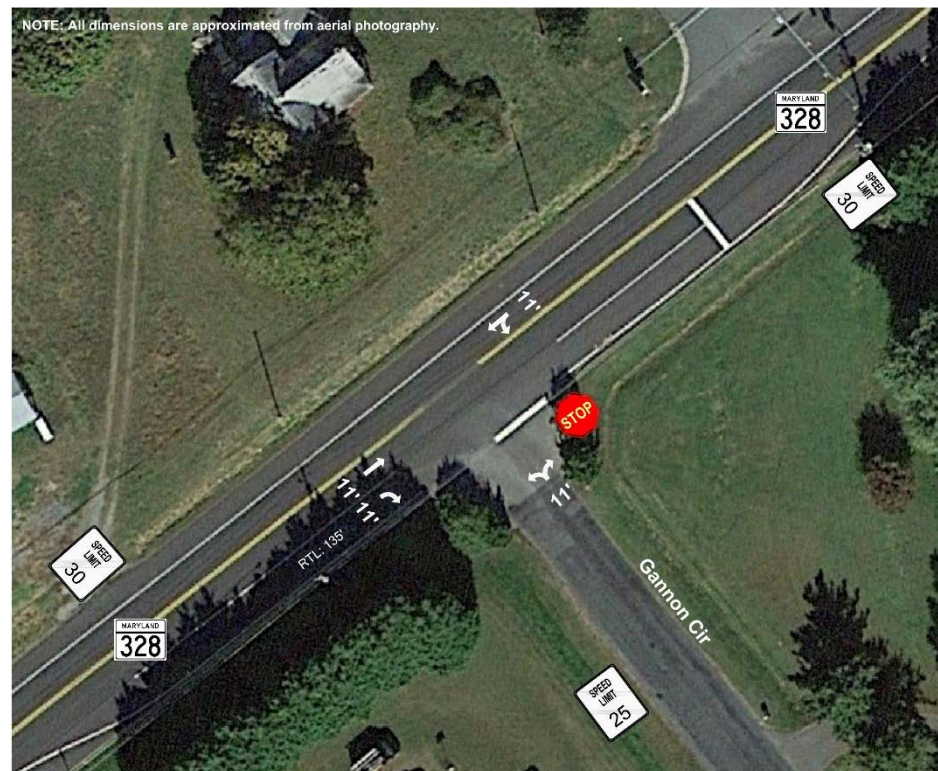
Figure 1. Site Location Map



The intersection of Elliot Road and Matthewstown Road, MD 328, is a signalized intersection. Elliot Road is classified as a Local Road with unknown AADT. The speed limit on Elliot Road is posted as 30 mph.



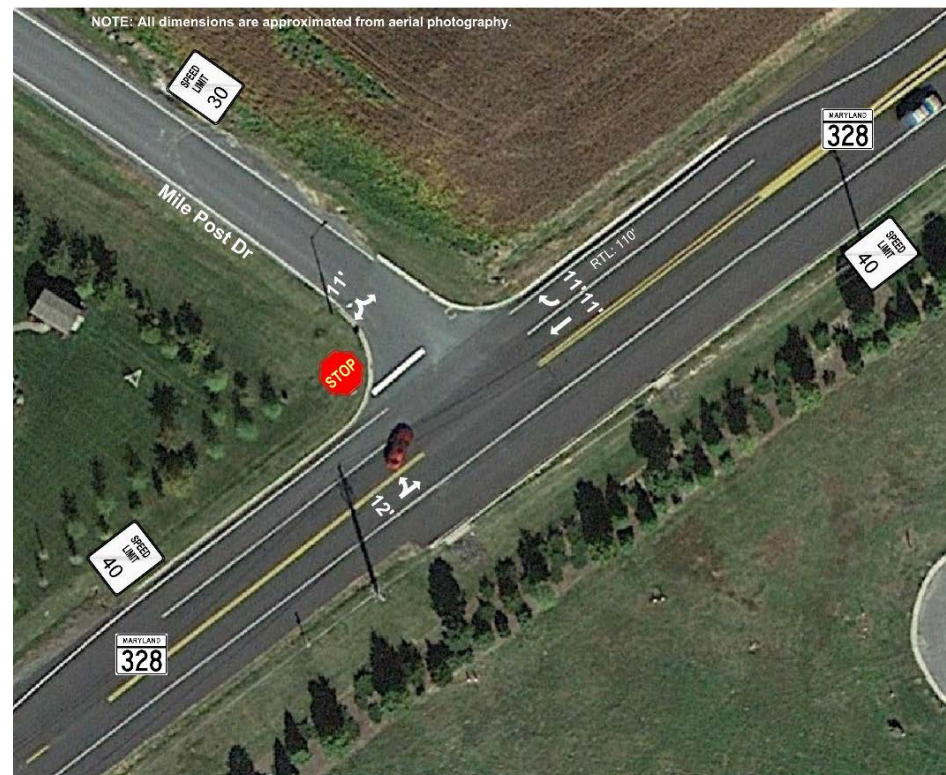
The intersection of Gannon Court and Matthewstown Road, MD 328, is STOP controlled. Gannon Court is classed as a Local Road with unknown AADT. The speed limit on Gannon Court is posted as 25 mph.



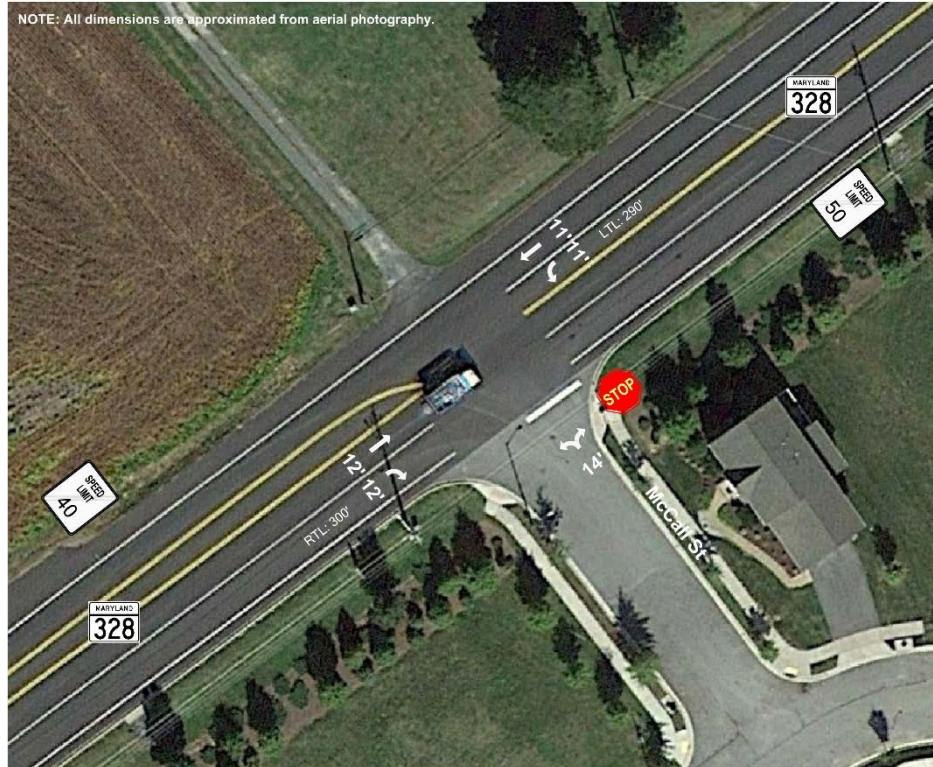
The intersection of Fisher Range Road/Dyott Ct is a signalized intersection. Fisher Range Road is classified as a Local Road with unknown AADT. The speed limit on Fisher Range Road is posted as 30 mph. Dyott Court is classified as a Local Road with unknown AADT. The speed limit on Dyott Court is posted as 25 mph. *While the Fisher Range Road approach is not marked, it is wide enough to function as two lanes.*



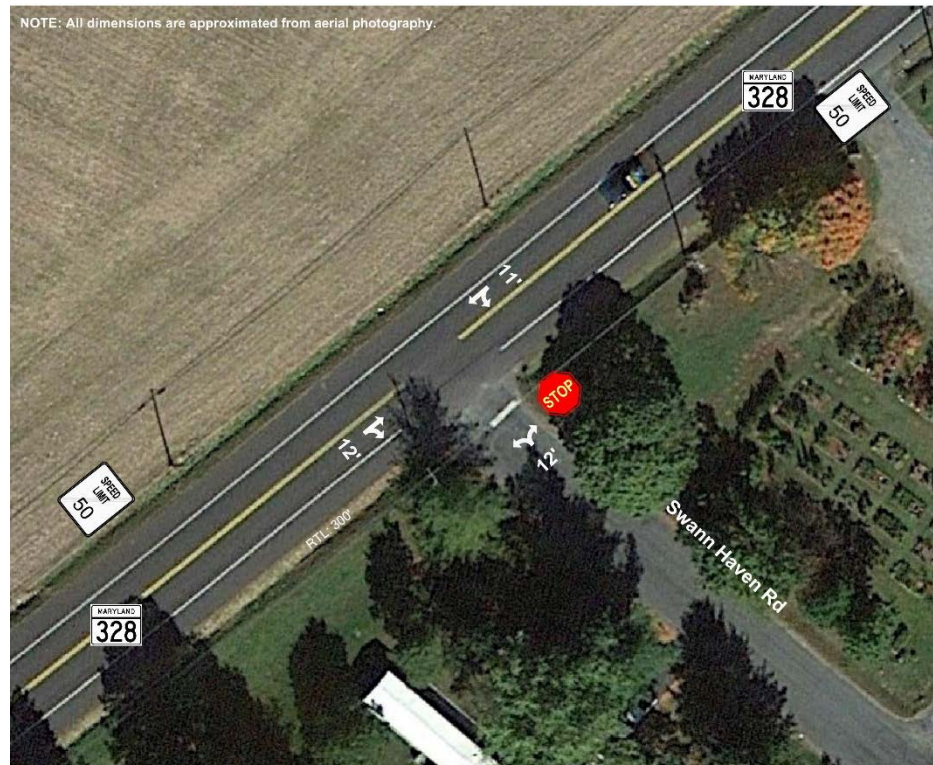
The intersection of Mile Post Drive and Matthewstown Road, MD 328, is STOP controlled. Mile Post Drive is classed as a Local Road with unknown AADT. The speed limit on Mile Post Drive is posted as 30 mph.



The intersection of McCall Street and Matthewstown Road, MD 328, is STOP controlled. McCall Street is classed as a Local Road with unknown AADT. The speed limit on McCall Street is not posted.



The intersection of Swann Haven Road and Matthewstown Road, MD 328, is STOP controlled. Swann Haven Road is classed as a Local Road with unknown AADT. The speed limit on Swann Haven Road is not posted.



The intersection of Black Dog Alley and Matthewstown Road, MD 328, is a signalized intersection. Black Dog Alley is classed as a Minor Collector with an AADT of 1,884, south of MD 328 and an AADT of 3,334, north of MD 328 for the year 2021. The speed limit on Black Dog Alley is posted as 30 mph, south of MD 328 and 35 mph, north of MD 328.



The lane use and intersection traffic control are illustrated on Figure 2.

Traffic Volumes

Intersection turning movement counts were collected in June 2022 during the weekday peak hour traffic periods from 7 to 9 AM and from 4 to 6 PM and on a summer Saturday from 10 AM to 2 PM. These turning movement counts are summarized on Figure 3. The turning movement count summaries and machine count summaries are provided in Appendix A.

Analysis of Existing Traffic Conditions

Using the CLV methodology, the study intersections were evaluated for capacity for the existing weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 1, the study intersections have sufficient capacity.

Figure 2. Existing Lane Use and Intersection Traffic Control

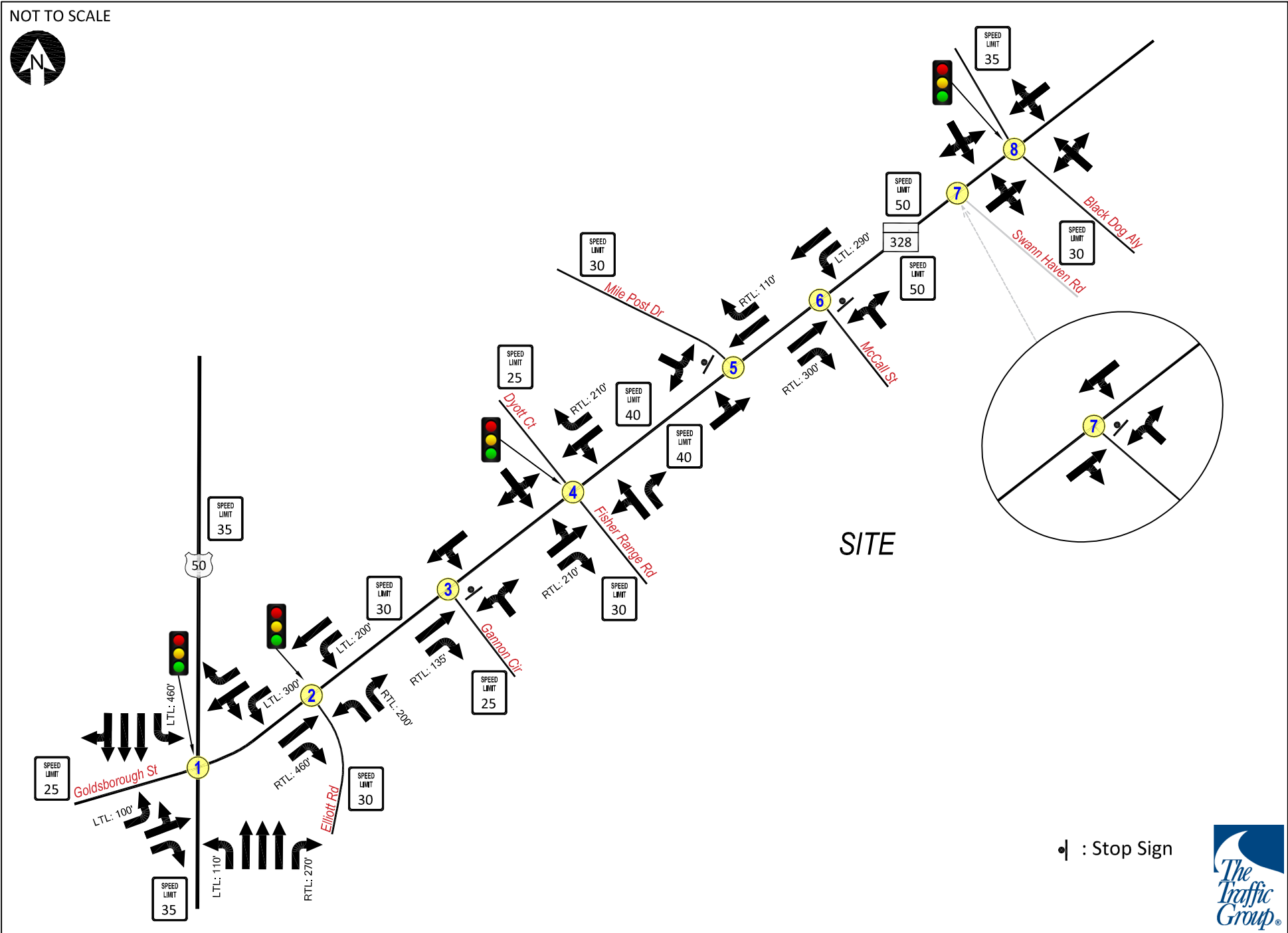


Figure 3. 2022 Existing Peak Hour Traffic Volumes

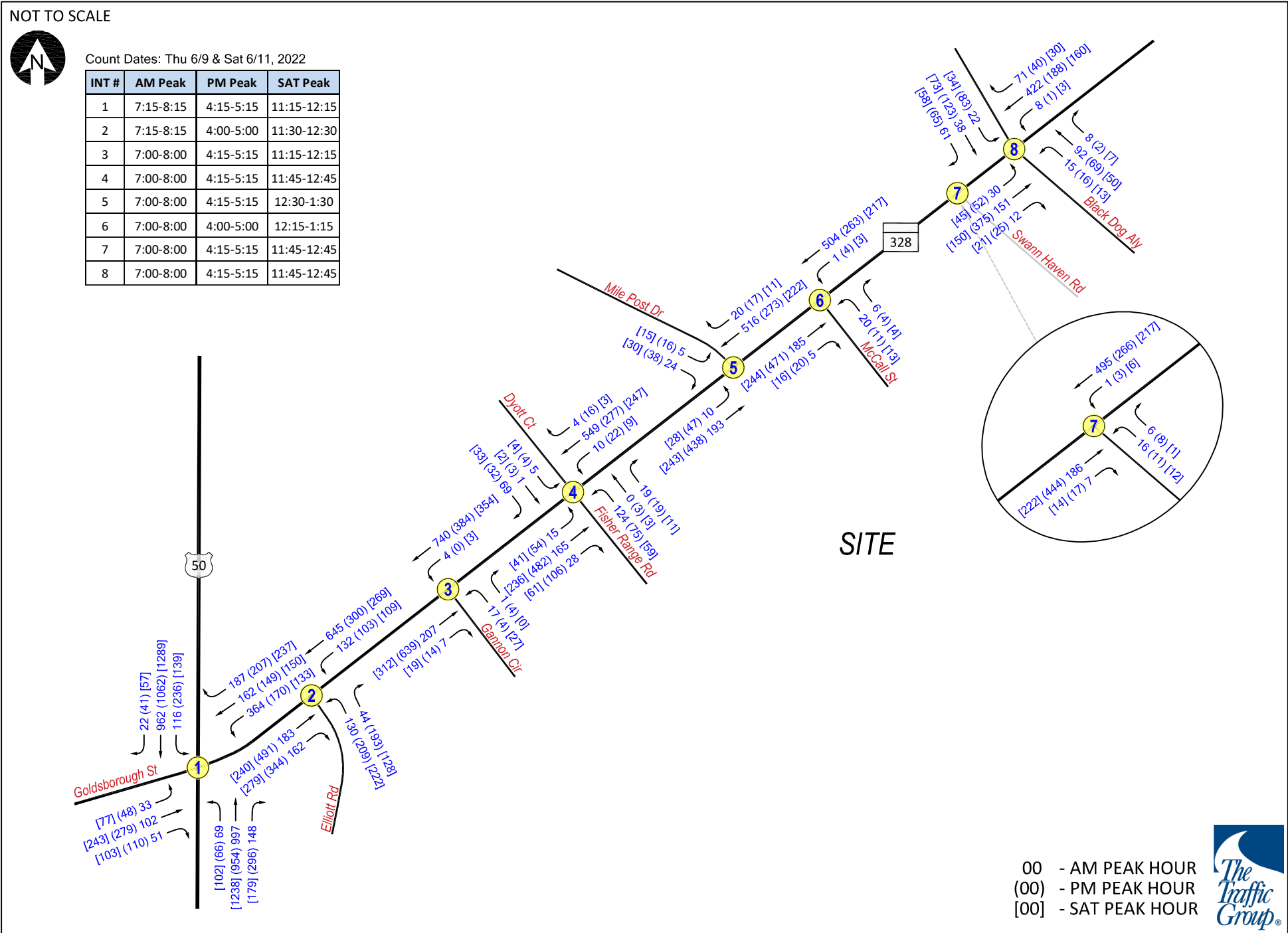


Table 1. Results of CLV Analysis – 2022 Existing Traffic

2022 Existing Traffic	AM Peak	PM Peak	SAT Peak
Intersection	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	A / 933	B / 1088	B / 1053
2. MD 328 & Elliott Rd	A / 775	A / 803	A / 571
3. MD 328 & Gannon Cir	A / 766	A / 647	A / 387
4. MD 328 & Fisher Range Rd	A / 775	A / 726	A / 425
5. MD 328 & Mile Post Dr	A / 555	A / 586	A / 344
6. MD 328 & McCall St	A / 530	A / 490	A / 264
7. MD 328 & Swann Haven Rd	A / 518	A / 483	A / 255
8. MD 328 & Black Dog Aly	A / 671	A / 800	A / 419

Using the HCM methodology, the study intersections were evaluated for operational Levels of Service for the existing weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 2, the study intersections are operating at overall acceptable Levels of Service (LOS “D” or better). The intersection capacity analysis worksheets are contained in Appendix B. Signal timing for the signalized intersections was obtained from MDOT SHA and is provided in Appendix C.

Table 2. Results of HCM Analysis – 2022 Existing Traffic

2022 Existing Traffic			AM	PM	SAT
Intersection	Type of Control	Movement	LOS / Delay (sec)		
1. US 50 & MD 328	Traffic Signal	Overall	C / 29.3	D / 35.3	C / 26.9
2. MD 328 & Elliott Rd	Traffic Signal	Overall	A / 10.0	B / 14.1	B / 12.6
3. MD 328 (E/W) & Gannon Cir (N/S)	Two Way Stop	NB LR WB L	C / 20.6 A / 8.0	C / 16.7 A / 0.0	C / 15.5 A / 8.0
4. MD 328 & Dyott Ct / Fisher Range Rd	Traffic Signal	Overall	A / 9.5	A / 7.8	A / 7.1
5. MD 328 (E/W) & Mile Post Dr (N/S)	Two Way Stop	EB L NB LR	A / 8.8 B / 13.4	A / 7.9 B / 12.5	A / 7.8 B / 11.0
6. MD 328 (E/W) & McCall St (N/S)	Two Way Stop	NB LR WB L	B / 14.0 A / 7.6	B / 14.5 A / 8.4	B / 11.5 A / 8.2
7. MD 328 (E/W) & Swann Haven Rd (N/S)	Two Way Stop	NB LR WB L	B / 14.3 A / 7.7	B / 13.9 A / 8.3	B / 11.9 A / 7.9
8. MD 328 & Black Dog Aly	Traffic Signal	Overall	A / 9.8	B / 11.1	A / 9.3

Notes: Results were based on Synchro 11 - HCM 6th reports.

BACKGROUND TRAFFIC CONDITIONS

Design Year

For the purpose of this TIS, the proposed residential development is anticipated to *be completed* in 2025. Historical AADT data was obtained from the MDOT SHA website for US 50 and MD 328/Goldsborough Street. As shown in Table 3, the AADT on US 50 has not significantly changes for the past 10 years. However, to be conservative, an annual growth rate of 1% for 3 years was applied to the peak hour turning movement volumes on US 50. The AADT on MD 328 has remained consistent, therefore, no growth was applied to the peak hour turning movement volumes on MD 328 *in the initial report. However, at the request of MDOT SHA, a 0.5% increase was applied to the volumes along MD 328.* Figure 4 illustrates the regional traffic growth, and Figure 5 provides the 2025 base peak hour traffic volumes.

Table 3. Historical AADT Data

LOCATION: US 50; North of MD 328					LOCATION: US 50; South of MD 328				
AVERAGE GROWTH:			-0.18%		AVERAGE GROWTH:			0.30%	
MATHEMATICAL GROWTH:			-0.27%		MATHEMATICAL GROWTH:			0.25%	
Year	ADT Volume	Vol. Increase	% Increase	Average %	Year	ADT Volume	Vol. Increase	% Increase	Average %
2010	35,872				2010	34,442			
2011	32,430	-3,442	-9.60%	-9.60%	2011	34,080	-362	-1.05%	-1.05%
2012	32,531	101	0.31%	-4.64%	2012	34,181	101	0.30%	-0.38%
2013	32,402	-129	-0.40%	-3.23%	2013	34,042	-139	-0.41%	-0.39%
2014	34,040	1,638	5.06%	-1.16%	2014	35,420	1,378	4.05%	0.72%
2015	35,471	1,431	4.20%	-0.08%	2015	36,911	1,491	4.21%	1.42%
2016	36,222	751	2.12%	0.28%	2016	37,692	781	2.12%	1.54%
2017	34,800	-1,422	-3.93%	-0.32%	2017	35,000	-2,692	-7.14%	0.30%
2018	34,591	-209	-0.60%	-0.35%	2018	34,791	-209	-0.60%	0.18%
2019	35,012	421	1.22%	-0.18%	2019	35,212	421	1.21%	0.30%
LOCATION: MD 328; East of US 50					LOCATION: Goldsborough St; West of US 50				
AVERAGE GROWTH:			-0.04%		AVERAGE GROWTH:			-0.23%	
			-0.05%		MATHEMATICAL GROWTH:			-0.33%	
Year	ADT Volume	Vol. Increase	% Increase	Average %	Year	ADT Volume	Vol. Increase	% Increase	Average %
2010	10,291				2010	9,230			
2011	10,332	41	0.40%	0.40%	2011	9,271	41	0.44%	0.44%
2012	10,140	-192	-1.86%	-0.73%	2012	9,202	-69	-0.74%	-0.15%
2013	10,161	21	0.21%	-0.42%	2013	8,480	-722	-7.85%	-2.72%
2014	10,132	-29	-0.29%	-0.38%	2014	8,461	-19	-0.22%	-2.09%
2015	10,010	-122	-1.20%	-0.55%	2015	8,682	221	2.61%	-1.15%
2016	10,201	191	1.91%	-0.14%	2016	8,180	-502	-5.78%	-1.92%
2017	10,452	251	2.46%	0.23%	2017	8,381	201	2.46%	-1.30%
2018	10,240	-212	-2.03%	-0.05%	2018	8,312	-69	-0.82%	-1.24%
2019	10,241	1	0.01%	-0.04%	2019	8,960	648	7.80%	-0.23%

Source: MDOT SHA.

Figure 4. Regional Traffic Growth

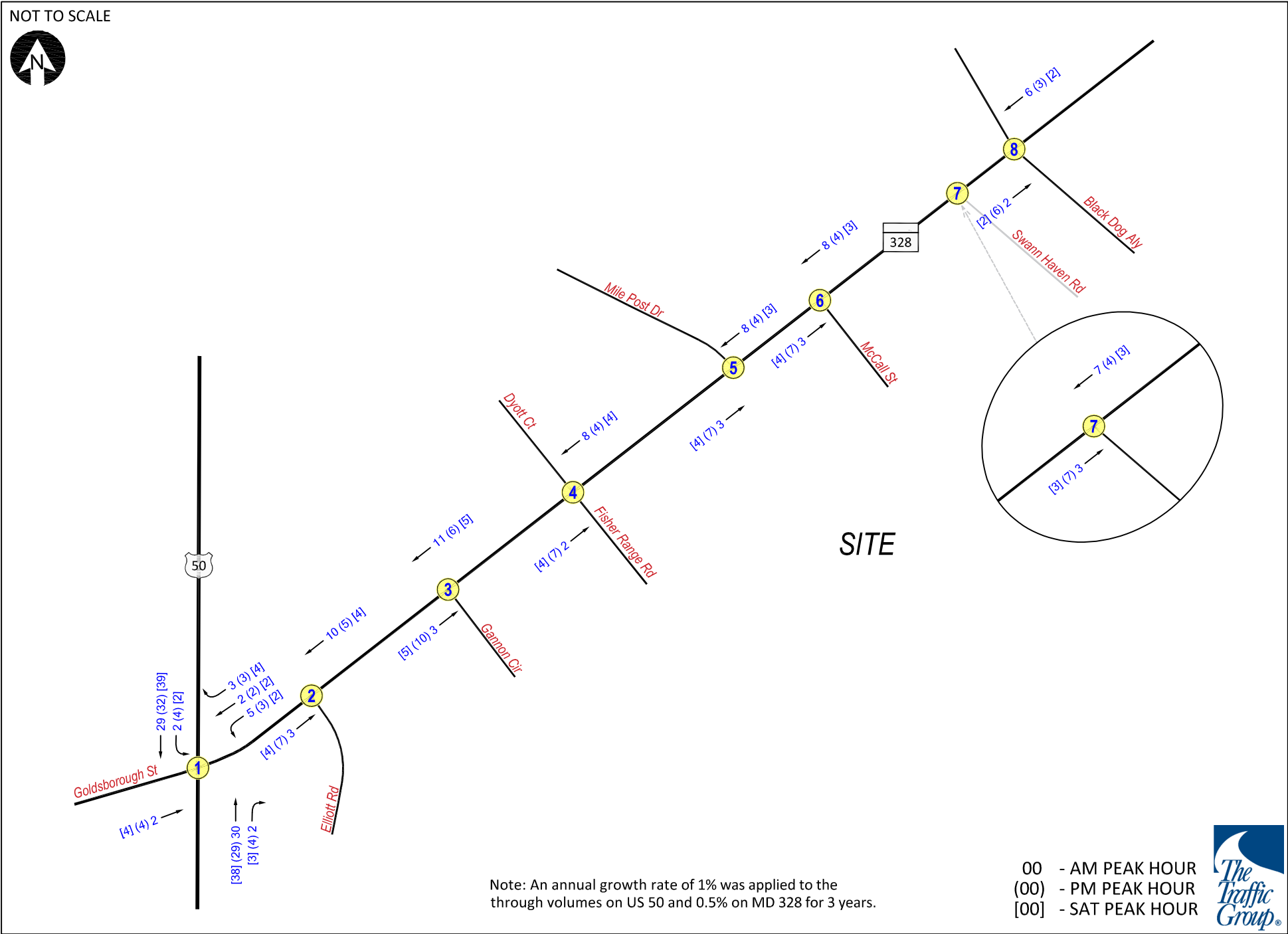
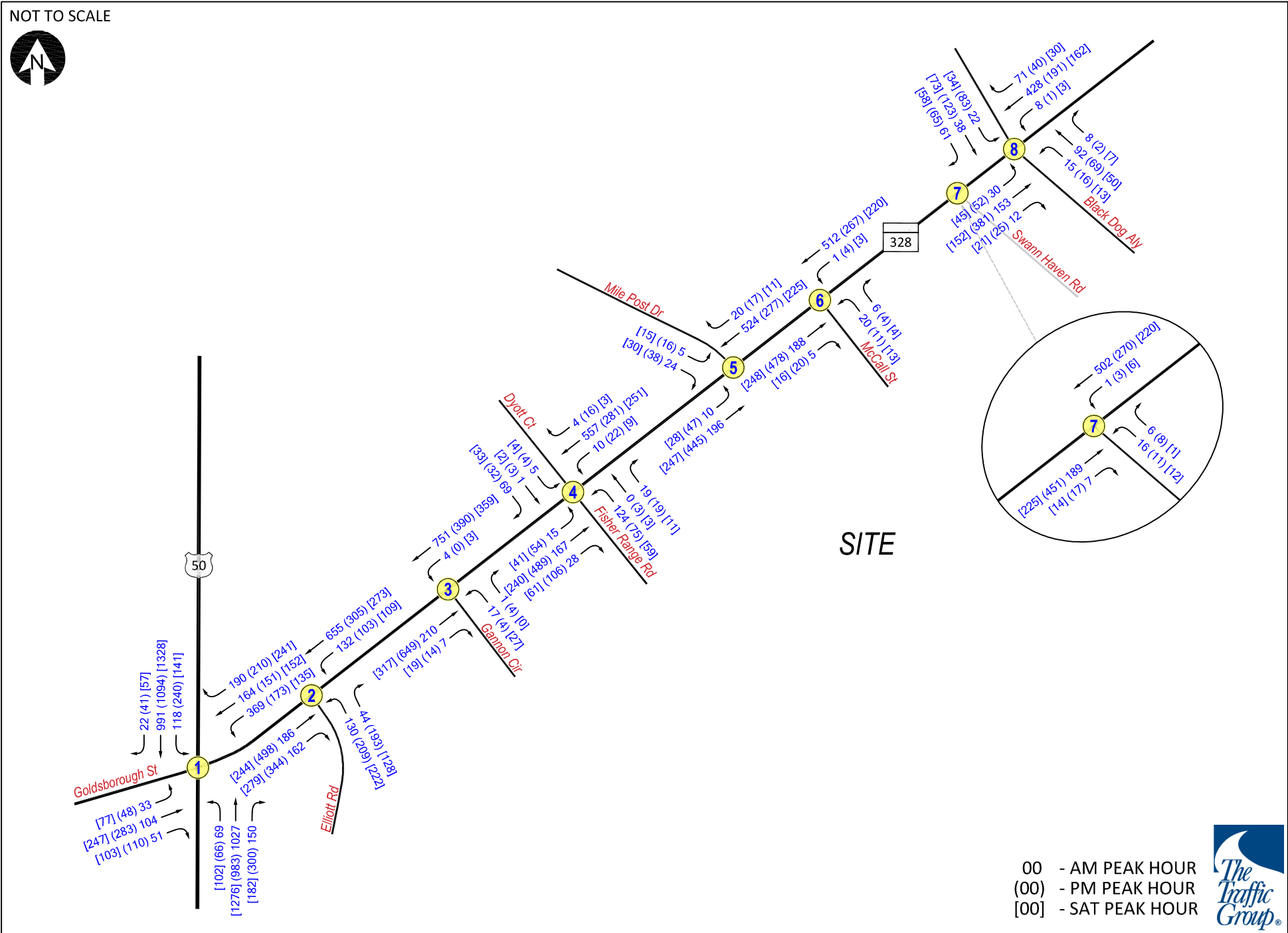


Figure 5. 2025 Base Peak Hour Traffic Volumes



Background Traffic

The Estates of Gannon Farm was identified as a committed development to be included in the analysis of the peak hour background traffic volumes. This residential development, to consist of 202 single-family homes, is located northeast of the subject site with access onto Matthewstown Road, MD 328 as shown in Figure 6.

ITE's Trip Generation Manual (11th Edition) was consulted to determine the peak hour volumes anticipated to be generated by the Estates at Gannon Farm as shown in Table 4.

Table 4. Trip Generation for The Estates at Gannon Farm

Trip Generation Rates - ITE 11th Edition										
Land Use (Source)	Formula/Rate	Directional Distribution								
		AM Peak Hour		PM Peak Hour		SAT Peak Hour				
		In	Out	In	Out	In	Out			
Single-Family	Ln(AM Peak Hour Trips) = 0.91 x Ln(Units) + 0.12									
Detached	Ln(PM Peak Hour Trips) = 0.94 x Ln(Units) + 0.27	26%	74%	63%	37%	54%	46%			
(ITE-210)	Sat. Midday Peak Hour Trips = 0.86 x Units + 9.72									
Trip Generation for The Estates at Gannon Farm										
Land Use	Size	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Detached	202 Units	37	104	141	121	71	192	99	84	183

These peak hour trips were distributed to the study intersections as shown on Figure 7 and added to the base peak hour traffic volumes to obtain the background peak hour traffic volumes for the year 2025 as shown on Figure 8.

Analysis of Background Traffic Conditions

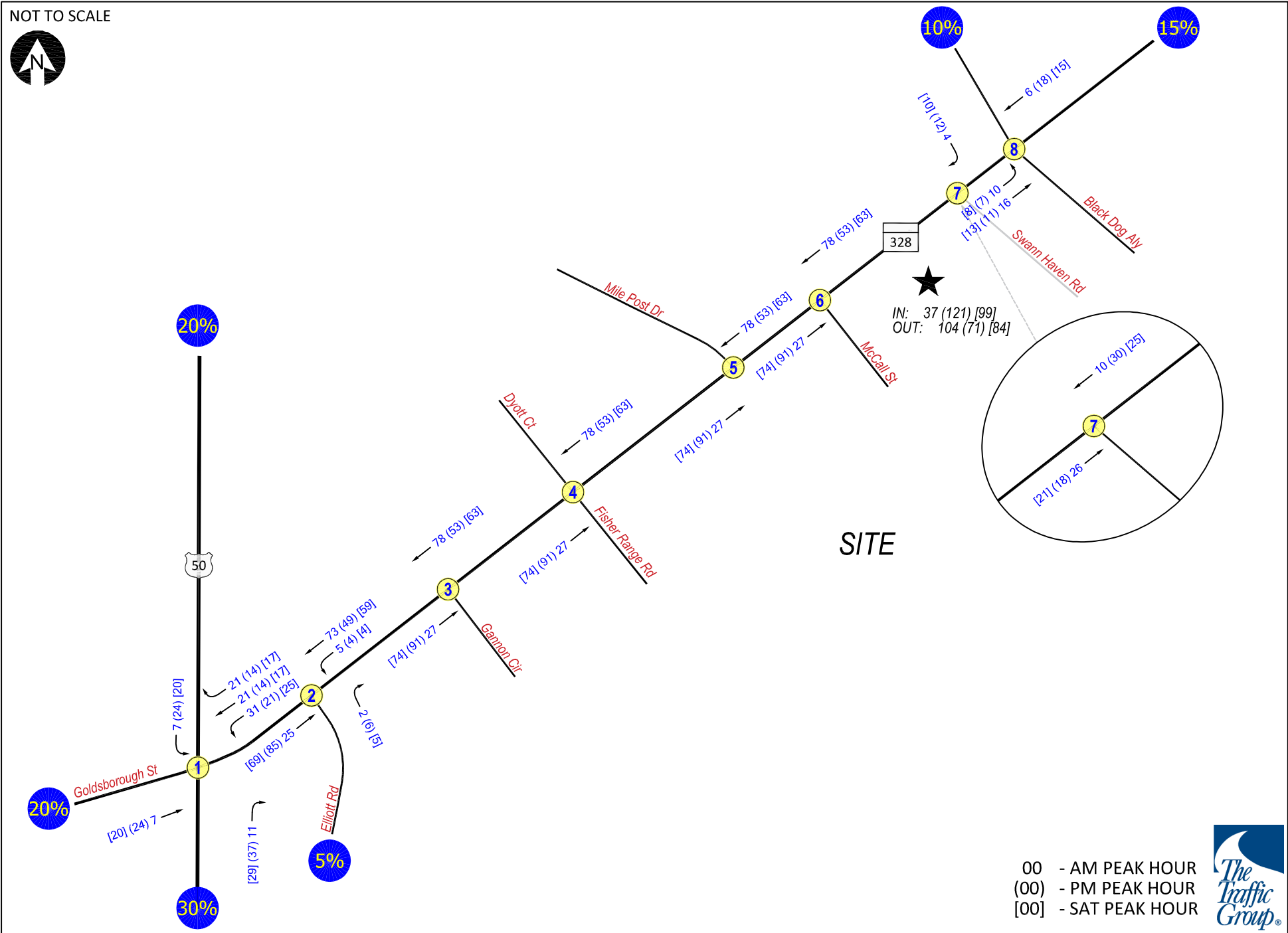
Using the CLV methodology, the study intersections were evaluated for capacity for the background weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 5, the study intersections are projected to have sufficient capacity.

Figure 6. Location Map for Background Developments

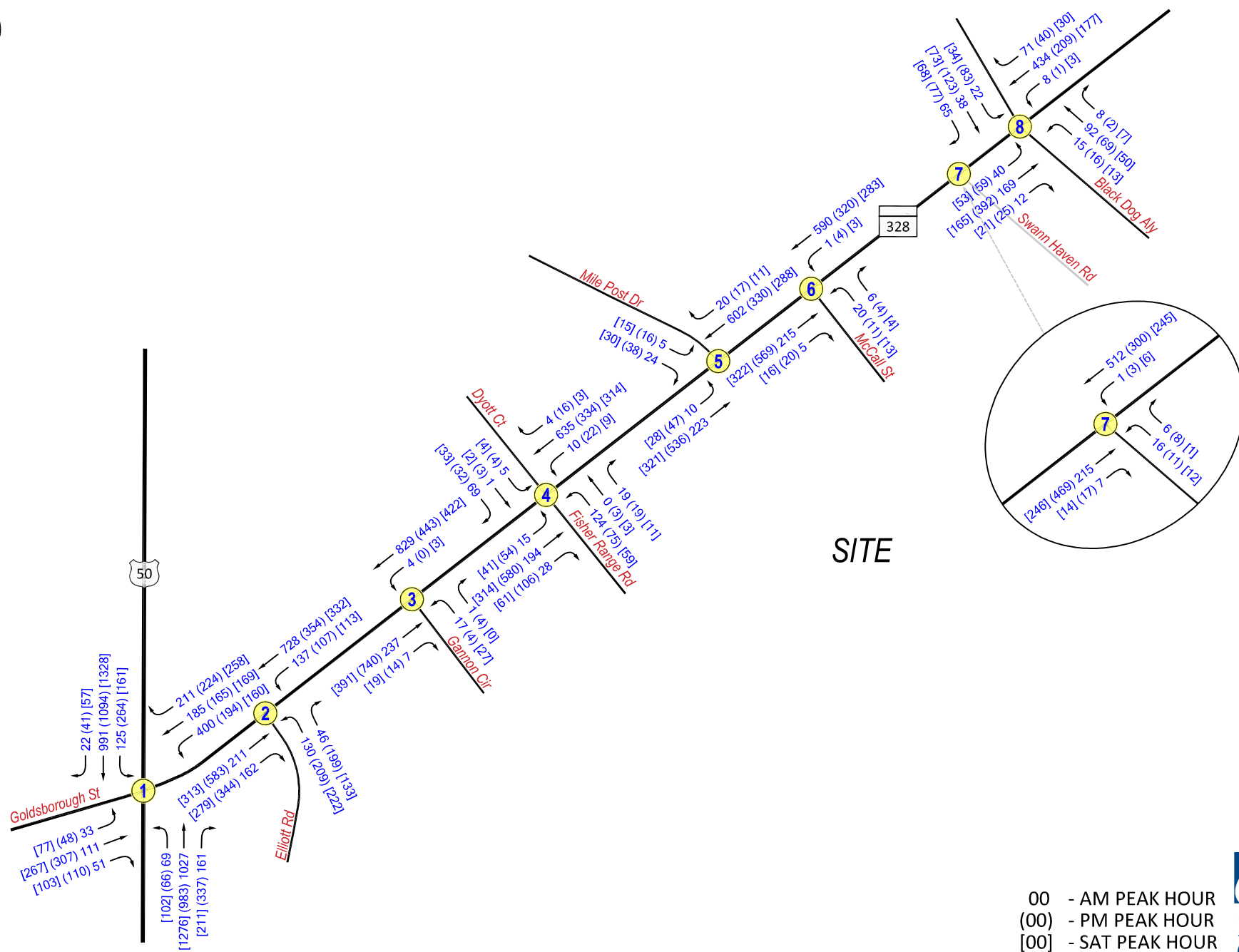


2,000 ft

Figure 7. Trip Assignment for The Estates at Gannon Farm



NOT TO SCALE



00 - AM PEAK HOUR
(00) - PM PEAK HOUR
[00] - SAT PEAK HOUR



Table 5. Results of CLV Analysis – 2025 Background Traffic

2025 Background Traffic	AM Peak	PM Peak	SAT Peak
Intersection	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	A / 998	C / 1179	B / 1135
2. MD 328 & Elliott Rd	A / 858	A / 899	A / 648
3. MD 328 & Gannon Cir	A / 855	A / 748	A / 455
4. MD 328 & Fisher Range Rd	A / 870	A / 824	A / 503
5. MD 328 & Mile Post Dr	A / 641	A / 684	A / 422
6. MD 328 & McCall St	A / 616	A / 588	A / 342
7. MD 328 & Swann Haven Rd	A / 536	A / 508	A / 279
8. MD 328 & Black Dog Aly	A / 696	A / 843	A / 486

Using the HCM methodology, the study intersections were evaluated for operational Levels of Service for the background weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 6, the study intersections are projected to operate at overall acceptable Levels of Service (LOS “D” or better). The intersection capacity analysis worksheets are contained in Appendix B.

Table 6. Results of HCM Analysis – 2025 Background Traffic

2025 Background Traffic			AM	PM	SAT
Intersection	Type of Control	Movement	LOS / Delay (sec)		
1. US 50 (N/S) & MD 328 / Goldsborough St (E/W)	Traffic Signal	Overall	C / 31.8	D / 39.6	C / 31.4
2. MD 328 (E/W) & Elliott Rd (N/S)	Traffic Signal	Overall	A / 10.0	B / 14.7	B / 12.6
3. MD 328 (E/W) & Gannon Cir (N/S)	Two Way Stop	NB LR WB L	C / 24.0 A / 8.1	C / 19.3 A / 0.0	C / 18.5 A / 8.3
4. MD 328 (E/W) & Dyott Ct / Fisher Range Rd (N/S)	Traffic Signal	Overall	A / 9.7	A / 7.9	A / 7.3
5. MD 328 (E/W) & Mile Post Dr (N/S)	Two Way Stop	EB L NB LR	A / 9.1 B / 14.8	A / 8.1 B / 14.0	A / 8.0 B / 12.1
6. MD 328 (E/W) & McCall St (N/S)	Two Way Stop	NB LR WB L	C / 15.7 A / 7.7	C / 16.8 A / 8.8	B / 12.9 A / 8.4
7. MD 328 (E/W) & Swann Haven Rd (N/S)	Two Way Stop	NB LR WB L	B / 15.0 A / 7.7	B / 14.6 A / 8.4	B / 12.4 A / 8.0
8. MD 328 (E/W) & Black Dog Aly (N/S)	Traffic Signal	Overall	A / 9.9	B / 11.3	A / 9.4

Notes: Results were based on Synchro 11 - HCM 6th reports.

TOTAL TRAFFIC CONDITIONS

Site Information

The Traffic Group, Inc. has revised a TIS, previously submitted on August 30, 2022, to address the comments received from MDOT SHA on September 26, 2022. The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be constructed in 2025.

Trip Generation/Distribution

Peak hour traffic volumes anticipated to be generated by the proposed development were determined utilizing information from ITE's Trip Generation Manual (11th Edition) as shown in Table 7.

Table 7. Trip Generation for Subject Site

Trip Generation Rates - ITE 11th Edition													
Land Use (Source)		Formula/Rate					Directional Distribution						
							AM Peak Hour		PM Peak Hour		SAT Peak Hour		
							In	Out	In	Out	In	Out	
Multifamily Housing, Low-Rise (ITE-220)	AM Peak Hour Trips = 0.31 x Units + 22.85												
	PM Peak Hour Trips = 0.43 x Units + 20.55					24%	76%	63%	37%	51%	49%		
	Sat. Midday Peak Hour Trips = 0.41 x Units												
	Daily Trips = 6.41 x Units + 75.31												
Single-Family Attached (ITE-215)	AM Peak Hour Trips = 0.52 x Units - 5.70												
	PM Peak Hour Trips = 0.60 x Units - 3.93					31%	69%	57%	43%	48%	52%		
	Ln(Sat. Midday Peak Hour Trips) = 0.82 x Ln(Units) + 0.43												
	Daily Trips = 7.62 x Units - 50.48												
Trip Generation for Subject Site													
Land Use	Size		AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily	
			In	Out	Total	In	Out	Total	In	Out	Total		
Apartments	158	units	17	55	72	55	33	88	33	32	65	1088	
Townhouses	170	units	26	57	83	56	42	98	50	54	104	1245	
Total	328	units	43	112	155	111	75	186	83	86	169	2333	

These trips were assigned to the study intersections as shown in Figure 9A for the north parcel and Figure 9B for the south parcel. *The trip distributions vary between the north and south parcels because the north parcel is close to Black Dog Alley.* The peak hour volumes anticipated to be generated by the proposed development were added to the background peak hour volumes to obtain the total peak hour traffic volumes for the year 2025 as shown in Figure 10.

Analysis of Total Traffic Conditions

Using the CLV methodology, the study intersections were evaluated for capacity for the total weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 8, the study intersections are projected to have sufficient capacity.

Table 8. Results of CLV Analysis – 2025 Total Traffic

2025 Total Traffic	AM Peak	PM Peak	SAT Peak
Intersection	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	B / 1051	C / 1252	C / 1199
2. MD 328 & Elliott Rd	A / 942	A / 987	A / 716
3. MD 328 & Gannon Cir	A / 945	A / 838	A / 525
4. MD 328 & Fisher Range Rd	A / 968	A / 910	A / 582
5. MD 328 & Mile Post Dr	A / 687	A / 732	A / 455
6. MD 328 & McCall St	A / 675	A / 640	A / 390
7. MD 328 & Swann Haven Rd	A / 543	A / 519	A / 292
8. MD 328 & Black Dog Aly	A / 710	A / 865	A / 508

Using the HCM methodology, the study intersections were evaluated for operational Levels of Service for the total weekday morning and evening peak hour periods and the summer Saturday midday peak hour period. As shown in Table 9, the study intersections are projected to operate at overall acceptable Levels of Service (LOS “D” or better). The intersection capacity analysis worksheets are contained in Appendix B.

Table 9. Results of HCM Analysis – 2025 Total Traffic

2025 Total Traffic			AM	PM	SAT
Intersection	Type of Control	Movement	LOS / Delay (sec)		
1. US 50 (N/S) & MD 328 / Goldsborough St (E/W)	Traffic Signal	Overall	C / 34.5	D / 43.8	D / 35.5
2. MD 328 (E/W) & Elliott Rd (N/S)	Traffic Signal	Overall	B / 10.3	B / 15.7	B / 12.7
3. MD 328 (E/W) & Gannon Cir (N/S)	Two Way Stop	NB LR WB L	D / 28.5 A / 8.2	C / 22.3 A / 0.0	C / 22.1 A / 8.5
4. MD 328 (E/W) & Dyott Ct / Fisher Range Rd (N/S)	Traffic Signal	Overall	B / 10.9	A / 8.4	A / 8.1
5. MD 328 (E/W) & Mile Post Dr (N/S)	Two Way Stop	EB L NB LR	A / 9.3 C / 15.7	A / 8.2 B / 14.9	A / 8.1 B / 12.7
6. MD 328 (E/W) & McCall St (N/S)	Two Way Stop	NB LR WB L	C / 18.8 A / 7.8	C / 19.5 A / 9.0	B / 13.9 A / 8.6
7. MD 328 (E/W) & Swann Haven Rd (N/S)	Two Way Stop	NB LR WB L	C / 15.4 A / 7.8	C / 19.1 B / 10.3	B / 12.7 A / 8.0
8. MD 328 (E/W) & Black Dog Aly (N/S)	Traffic Signal	Overall	A / 9.9	B / 11.5	A / 9.3

Notes: Results were based on Synchro 11 - HCM 6th reports.

Figure 9A. Trip Assignment for Subject Site - North Parcel

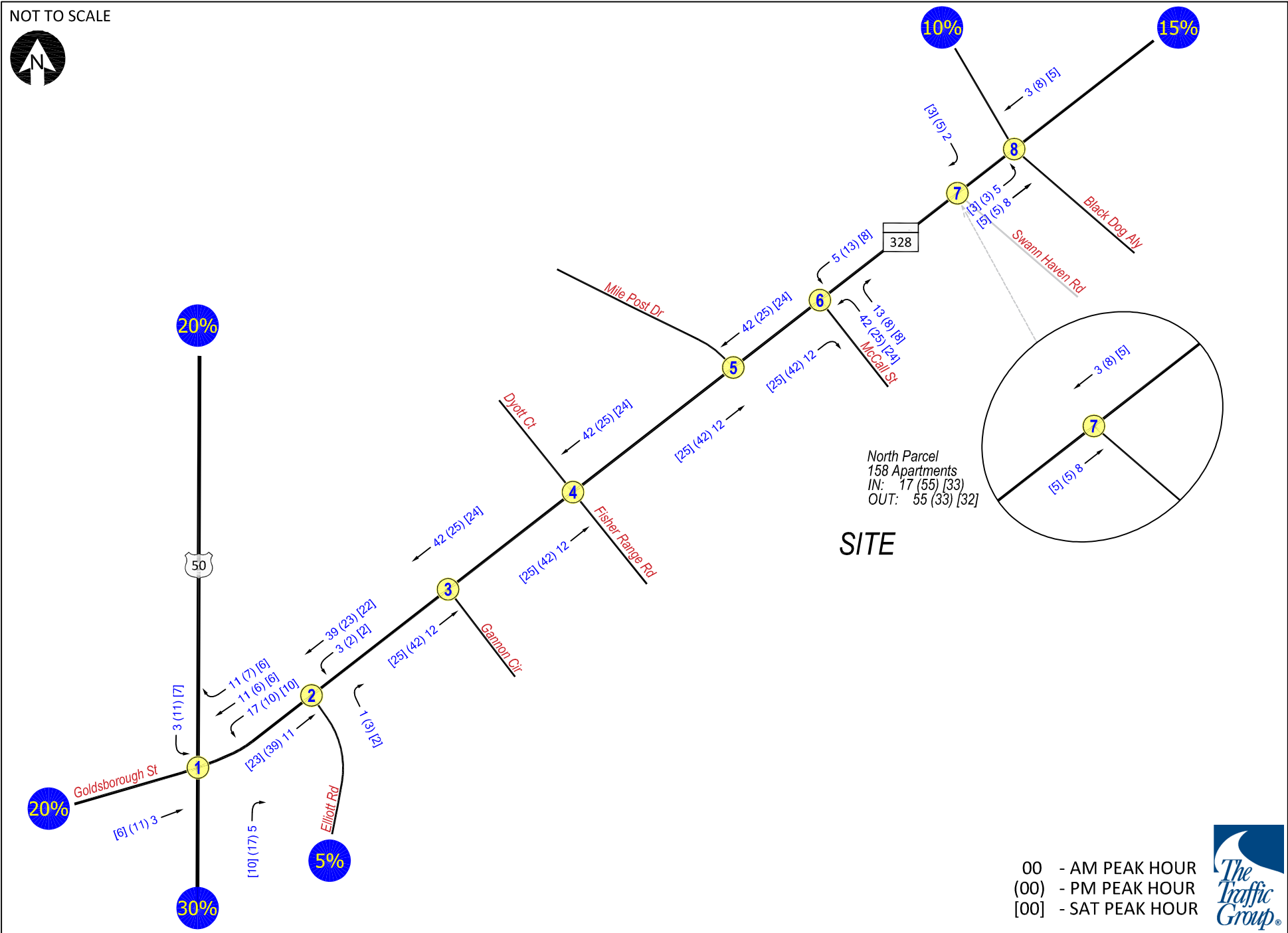


Figure 9B. Trip Assignment for Subject Site - South Parcel

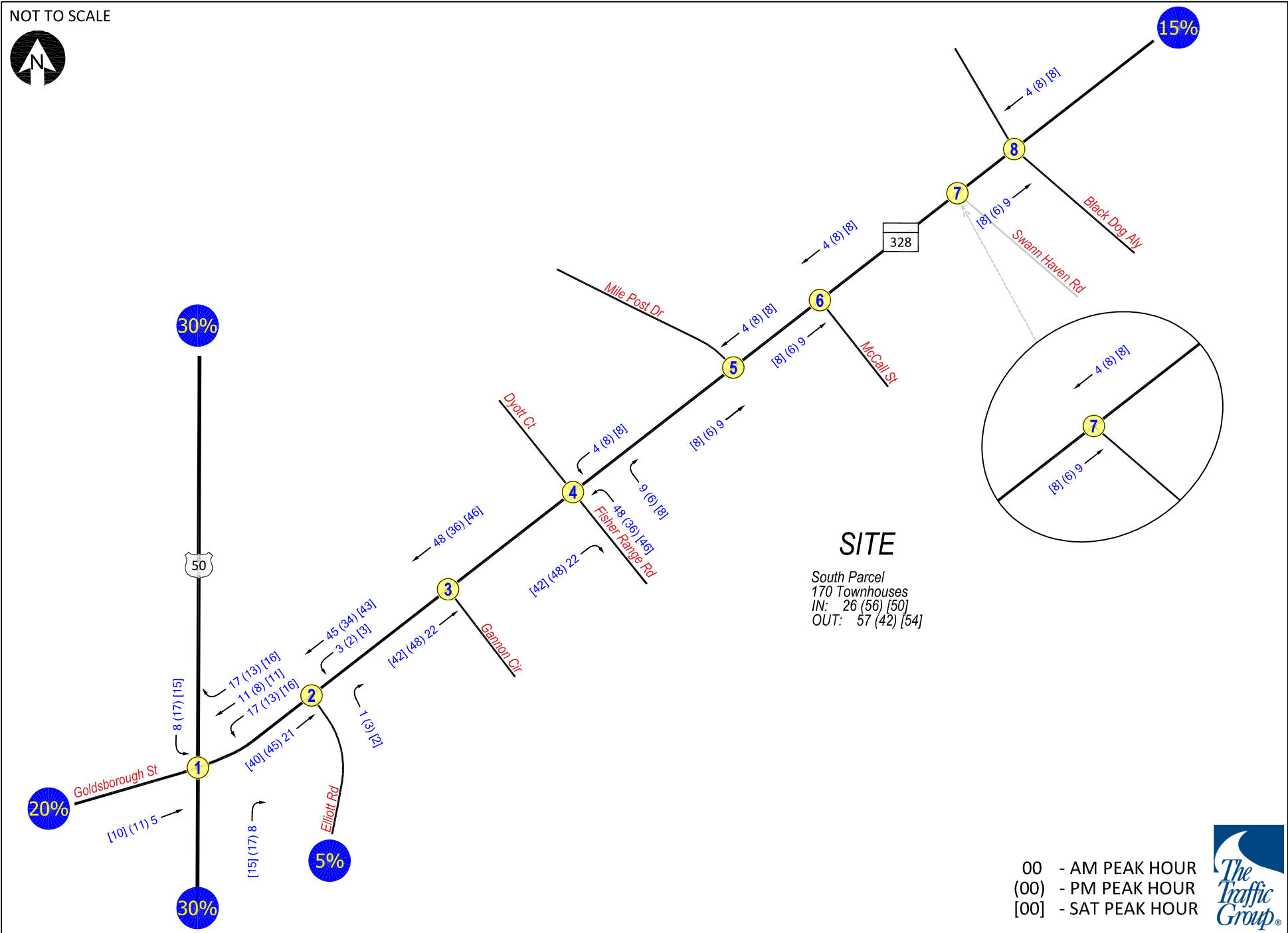
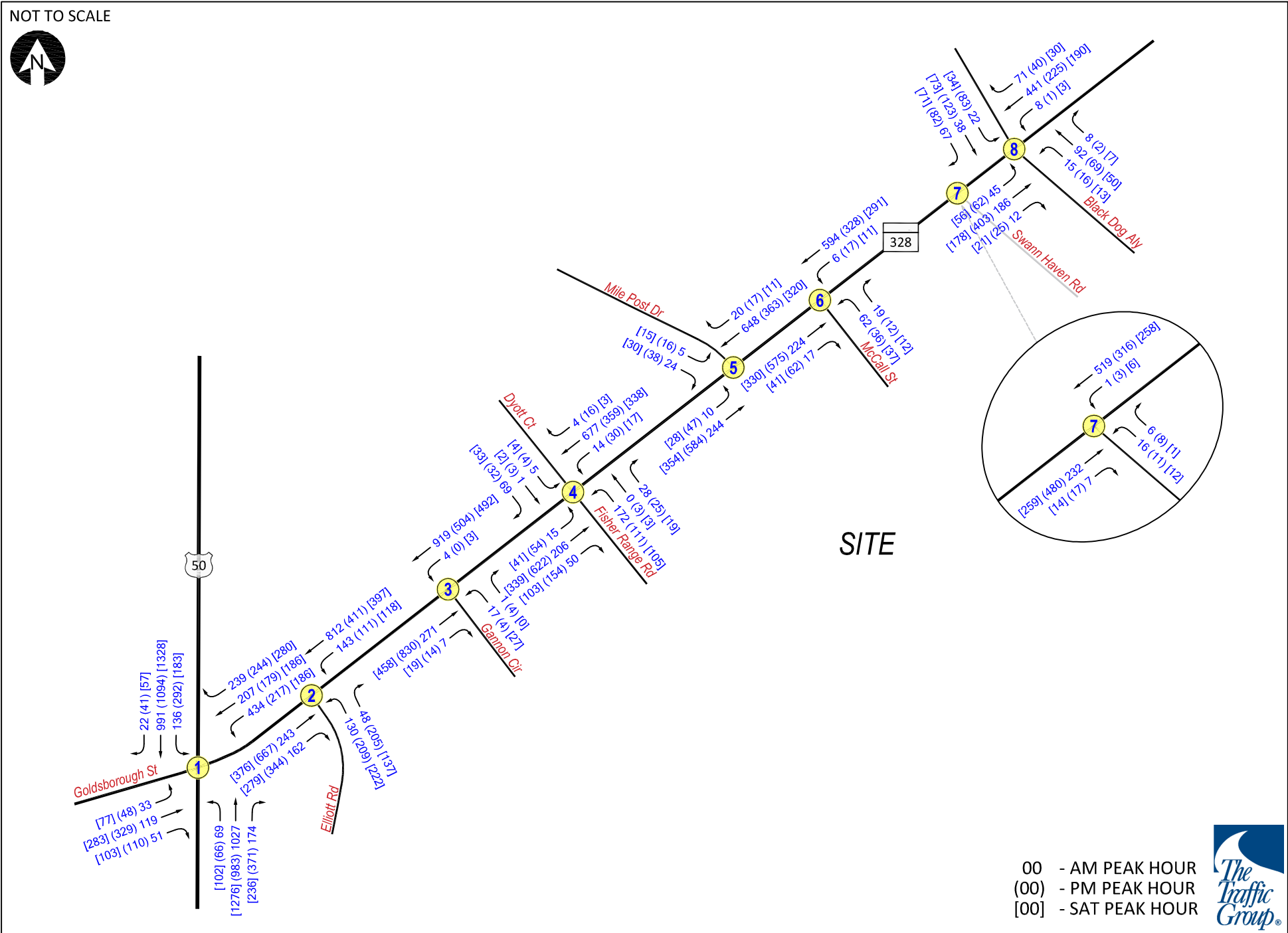


Figure 10. 2025 Total Peak Hour Traffic Volumes



For the convenience of the reader, the results of the intersection capacity analysis, CLV methodology, for the existing, background, and total peak hour traffic conditions are provided in Table 10, and the results using the HCM methodology are provided in Table 11.

Table 10. Results of CLV Analysis – All Scenarios

Intersection	2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
	AM Peak	PM Peak	SAT Peak	AM Peak	PM Peak	SAT Peak	AM Peak	PM Peak	SAT Peak
	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV
1. US 50 & MD 328	A / 933	B / 1088	B / 1053	A / 998	C / 1179	B / 1135	B / 1051	C / 1252	C / 1199
2. MD 328 & Elliott Rd	A / 775	A / 803	A / 571	A / 858	A / 899	A / 648	A / 942	A / 987	A / 716
3. MD 328 & Gannon Cir	A / 766	A / 647	A / 387	A / 855	A / 748	A / 455	A / 945	A / 838	A / 525
4. MD 328 & Fisher Range Rd	A / 775	A / 726	A / 425	A / 870	A / 824	A / 503	A / 968	A / 910	A / 582
5. MD 328 & Mile Post Dr	A / 555	A / 586	A / 344	A / 641	A / 684	A / 422	A / 687	A / 732	A / 455
6. MD 328 & McCall St	A / 530	A / 490	A / 264	A / 616	A / 588	A / 342	A / 675	A / 640	A / 390
7. MD 328 & Swann Haven Rd	A / 518	A / 483	A / 255	A / 536	A / 508	A / 279	A / 543	A / 519	A / 292
8. MD 328 & Black Dog Aly	A / 671	A / 800	A / 419	A / 696	A / 843	A / 486	A / 710	A / 865	A / 508

Table 11. Results of HCM Analysis – All Scenarios

Intersection		2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
Type of Control	Movement	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
		LOS / Delay (sec)			LOS / Delay (sec)			LOS / Delay (sec)		
1. US 50 (N/S) & MD 328/Goldsborough St (E/W)										
Traffic Signal	Overall	C / 29.3	D / 35.3	C / 26.9	C / 31.8	D / 39.6	C / 31.4	C / 34.5	D / 43.8	D / 35.5
	EB Approach	E / 69.2	F / 87.3	E / 58.5	E / 69.0	F / 88.6	E / 67.7	E / 69.7	F / 89.9	E / 74.1
	WB Approach	E / 63.7	F / 94.9	E / 63.5	E / 64.7	F / 97.7	E / 69.0	E / 66.1	F / 101	E / 71.2
	NB Approach	B / 14.7	B / 17.0	B / 15.9	B / 17.3	C / 21.6	B / 19.1	B / 19.8	C / 26.2	C / 22.6
	SB Approach	C / 20.8	C / 22.2	C / 23.1	C / 22.9	C / 25.4	C / 26.4	C / 24.8	C / 28.5	C / 29.5
2. MD 328 (E/W) & Elliott Rd (N/S)										
Traffic Signal	Overall	A / 10.0	B / 14.1	B / 12.6	A / 10.0	B / 14.7	B / 12.6	B / 10.3	B / 15.7	B / 12.7
	EB Approach	A / 10.0	B / 13.0	B / 11.7	A / 9.0	B / 13.5	B / 12.2	A / 8.2	B / 14.5	B / 12.7
	WB Approach	A / 7.6	A / 6.2	A / 6.0	A / 7.5	A / 6.6	A / 6.3	A / 7.4	A / 7.1	A / 6.6
	NB Approach	C / 20.8	C / 24.1	C / 21.0	C / 25.1	C / 26.9	C / 21.1	C / 30.6	C / 29.5	C / 21.1
3. MD 328 (E/W) & Gannon Cir (N/S)										
Two Way Stop	NB LR	C / 20.6	C / 16.7	C / 15.5	C / 24.0	C / 19.3	C / 18.5	D / 28.5	C / 22.3	C / 22.1
	WB L	A / 8.0	A / 0.0	A / 8.0	A / 8.1	A / 0.0	A / 8.3	A / 8.2	A / 0.0	A / 8.5
4. MD 328 (E/W) & Dyott Ct/Fisher Range Rd (N/S)										
Traffic Signal	Overall	A / 9.5	A / 7.8	A / 7.1	A / 9.7	A / 7.9	A / 7.3	B / 10.9	A / 8.4	A / 8.1
	EB Approach	A / 5.6	A / 7.3	A / 5.7	A / 5.2	A / 7.3	A / 6.2	A / 5.4	A / 7.4	A / 6.8
	WB Approach	A / 8.4	A / 5.9	A / 5.8	A / 8.4	A / 5.6	A / 6.2	A / 9.2	A / 5.7	A / 6.9
	NB Approach	B / 16.1	B / 15.1	B / 14.6	B / 18.8	B / 17.7	B / 14.6	C / 21.2	B / 19.9	B / 14.8
	SB Approach	B / 15.7	B / 14.8	B / 14.5	B / 18.2	B / 17.4	B / 14.5	B / 19.6	B / 18.8	B / 14.1

Table 11. Results of HCM Analysis – All Scenarios, Continued

Intersection		2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
Type of Control	Movement	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
		LOS / Delay (sec)			LOS / Delay (sec)			LOS / Delay (sec)		
5. MD 328 (E/W) & Mile Post Dr (N/S)										
Two Way Stop	EB L	A / 8.8	A / 7.9	A / 7.8	A / 9.1	A / 8.1	A / 8.0	A / 9.3	A / 8.2	A / 8.1
	NB LR	B / 13.4	B / 12.5	B / 11.0	B / 14.8	B / 14.0	B / 12.1	C / 15.7	B / 14.9	B / 12.7
6. MD 328 (E/W) & McCall St (N/S)										
Two Way Stop	NB LR	B / 14.0	B / 14.5	B / 11.5	C / 15.7	C / 16.8	B / 12.9	C / 18.8	C / 19.5	B / 13.9
	WB L	A / 7.6	A / 8.4	A / 8.2	A / 7.7	A / 8.8	A / 8.4	A / 7.8	A / 9.0	A / 8.6
7. MD 328 (E/W) & Swann Haven Rd (N/S)										
Two Way Stop	NB LR	B / 14.3	B / 13.9	B / 11.9	B / 15.0	B / 14.6	B / 12.4	C / 15.4	C / 19.1	B / 12.7
	WB L	A / 7.7	A / 8.3	A / 7.9	A / 7.7	A / 8.4	A / 8.0	A / 7.8	B / 10.3	A / 8.0
8. MD 328 (E/W) & Black Dog Aly (N/S)										
Traffic Signal	Overall	A / 9.8	B / 11.1	A / 9.3	A / 9.9	B / 11.3	A / 9.4	A / 9.9	B / 11.5	A / 9.3
	EB Approach	A / 6.2	A / 9.4	A / 6.2	A / 6.4	A / 9.9	A / 6.3	A / 6.5	B / 10.2	A / 6.4
	WB Approach	A / 8.8	A / 7.5	A / 6.0	A / 8.9	A / 7.9	A / 6.1	A / 8.9	A / 8.1	A / 6.2
	NB Approach	B / 14.8	B / 13.4	B / 14.1	B / 14.8	B / 13.2	B / 14.1	B / 15.0	B / 13.1	B / 14.1
	SB Approach	B / 15.3	B / 16.1	B / 15.4	B / 15.4	B / 16.1	B / 15.6	B / 15.6	B / 16.1	B / 15.7

Notes: Results were based on Synchro 11 - HCM 6th reports.

Queuing Analysis

A queuing analysis was completed using SimTraffic for the signalized study intersections. As shown in Table 12, all of the queues at the following two signalized intersections can be accommodated in the existing storage lengths.

- MD 328 and Elliott Road
- MD 328 and Dyott Court/Fisher Range Road
- MD 328 and Black Dog Alley

Table 12. Results of Queuing Analysis

Intersection / Movement	Storage length (ft)	2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
		AM	PM	Saturday	AM	PM	Saturday	AM	PM	Saturday
		95th Queue (ft)			95th Queue (ft)			95th Queue (ft)		
1. US 50 (N/S) & MD 328/Goldsborough St (E/W)										
EB L	100	71	107	122	69	114	129	68	99	135
EB LT	1500+	182	449	781	193	472	1295	202	601	1342
WB L	300	260	212	222	282	258	253	305	291	314
WB LT	830	319	275	341	349	349	372	407	428	554
WB R	300	89	67	145	119	176	227	224	240	320
NB L	110	143	146	157	145	141	144	150	142	146
NB T	1700	305	356	433	304	381	446	320	389	462
NB R	270	38	172	165	35	194	209	70	232	250
SB L	460	115	224	135	119	269	170	135	321	201
SB TR	2000+	249	312	380	254	332	395	265	331	398
2. MD 328 (E/W) & Elliott Rd (N/S)										
EB T	870	164	307	142	182	371	183	193	485	222
EB R	460	69	119	97	71	89	94	72	152	92
WB L	200	95	88	79	131	97	80	124	109	90
WB T	2000+	214	135	125	246	157	143	291	181	163
NB L	2000+	115	174	160	122	181	157	144	175	173
NB R	200	40	117	55	40	126	60	73	128	93
4. MD 328 (E/W) & Dyott Ct/Fisher Range Rd (N/S)										
EB LT	2000+	109	203	114	115	229	134	137	266	159
EB R	210	32	79	34	29	87	42	47	126	53
WB LT	2000+	200	115	93	255	145	121	265	175	135
WB R	210	13	19	7	9	29	10	36	20	7
NB LT	2000+	94	81	64	112	83	65	136	112	91
NB R	120	34	36	26	35	35	27	53	51	33
SB LTR	170	48	39	40	52	40	39	56	41	42
8. MD 328 (E/W) & Black Dog Aly (N/S)										
EB LTR	2000+	111	189	100	127	209	110	131	220	107
WB LTR	2000+	138	99	76	149	100	75	151	105	80
NB LTR	2000+	115	77	74	107	87	69	110	85	71
SB LTR	2000+	100	178	103	111	195	105	105	188	109

Notes:

1. All results are based on 10 simulation runs in SimTraffic 11.
2. Storage lengths are existing turn lane lengths or measured to the upstream signalized intersections.
3. For movements with two or more lanes, the longer storage length and longer queue are reported.

For the intersection of US 50 and MD 328, the eastbound approach on Goldsborough Street is experiencing some queuing beyond the existing storage lengths particularly for the summer Saturday midday peak hour period. This signal is split-phase, which means that vehicles on the eastbound approach on Goldsborough Street are permitted to move separately from vehicles on the westbound approach on Matthewstown Road. The lane use on Goldsborough Street and on Matthewstown Road consists of a separate left turn lane, a shared left through lane, and a right turn lane. The separate left turn lane on Goldsborough Street is 100 ft, which accommodates approximately four vehicles. Additional left turning vehicles will utilize the shared left through lane. For the summer Saturday midday peak hour, MDOT SHA provides 135 seconds of maximum green time on the mainline US 50 through movements, which results in longer queues on the side streets than for the weekday peak hour periods. For example, the maximum green time on the mainline US 50 through movements for the evening peak hour is 56.5 seconds, and the queues on eastbound Goldsborough Street are significantly shorter. Signal timing adjustments would improve the queues as well as provide for improved operations for the minor streets.

Arterial Analysis

At the request of the MDOT SHA, an arterial analysis was completed on MD 328 from US 50 to Black Dog Alley. SimTraffic was utilized for the analysis.

As noted in the User's Guide, "the arterial report uses origin destination data to only count vehicles that came from the arterial on the next upstream link. This is almost, but not exactly the same as taking the travel time of only those vehicles that travel the entire corridor. This allows the arterial report to be compared with car travel time studies."

The speed limit on MD 328 is 30 mph south of Fisher Range Road, 40 mph north of Fisher Range Road to McCall Street and 50 mph north of McCall Street.

MD 328 Arterial	2022 Existing Traffic			2025 Background Traffic			2025 Total Traffic		
	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
	Travel Time (Sec) / Arterial Speed (mph)			Travel Time (Sec) / Arterial Speed (mph)			Travel Time (Sec) / Arterial Speed (mph)		
Eastbound From US 50 to Black Dog Aly	190.1 / 31	207.0 / 28	186.4 / 32	192.8 / 31	207.7 / 28	189.9 / 31	197.2 / 30	226.0 / 26	195.4 / 30
Westbound from Black Dog Aly to US 50	263.4 / 25	291.5 / 23	291.1 / 23	264.7 / 25	304.3 / 22	302.5 / 22	273.6 / 24	314.8 / 21	316.3 / 21

Notes: All results are based on 10 simulation runs in SimTraffic 11.

RESULTS, RECOMMENDATIONS, AND CONCLUSIONS

Study Purpose

The Traffic Group, Inc. has revised a TIS, previously submitted on August 30, 2022, to address the comments received from MDOT SHA on September 26, 2022. The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to be located on Matthewstown Road (MD 328) in the Town of Easton, Talbot County, MD.

The development will consist of two parcels: one with access via McCall Street and the other with access via Fisher Range Road. The construction of the residential development is anticipated to be constructed in 2025.

Study Criteria/Methodology

The study was conducted in accordance with the requirements established by MDOT SHA, specifically as outlined in the MDOT SHA Access Manual which was updated in part in August 2016. Chapter 1 of the Access Manual, "Traffic Impact Study Guidelines," is currently under review.

Summary of Findings and Recommendations

Utilizing the HCM methodology, the study intersections are projected to operate at overall acceptable Levels of Service, LOS "D" or better, under total peak hour traffic conditions. Using the CLV methodology, the study intersections are projected to have sufficient capacity for total peak hour traffic conditions.

The projected queues at the signalized intersections were analyzed using SimTraffic. The projected queues at the following intersections can be accommodated within the existing storage lengths:

- MD 328, Matthewstown Road and Elliot Road
- MD 328, Matthewstown Road and Dyott/Fisher Ranger Road
- MD 328, Matthewstown Road and Black Dog Alley

Signal timing adjustments are recommended to improve the queues and operations at the intersection of US 50 with MD 328, Matthewstown Road/Goldsborough Street.

APPENDIX A

Intersection Aerial Photographs and Turning Movement Counts



1. US 50 (N/S) & MD 328 (E/W)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 50
and: MD 328
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 50					TRAFFIC FROM SOUTH on: US 50					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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	6	188	21	7	222	22	180	15	0	217	54	21	83	0	158	14	13	8	0	35	632
7:15 - 7:30	8	237	21	3	269	34	234	15	1	284	52	30	78	0	160	10	20	7	0	37	750
7:30 - 7:45	2	189	26	4	221	42	231	20	0	293	52	48	106	0	206	10	26	9	0	45	765
7:45 - 8:00	7	263	25	1	296	43	251	17	2	313	49	52	95	0	196	19	27	13	0	59	864
8:00 - 8:15	5	273	29	7	314	29	281	12	2	324	34	32	85	0	151	12	29	4	0	45	834
8:15 - 8:30	9	173	27	7	216	38	187	14	1	240	48	43	69	0	160	8	37	11	0	56	672
8:30 - 8:45	9	216	32	5	262	41	225	14	2	282	36	37	63	0	136	16	23	14	0	53	733
8:45 - 9:00	10	223	43	5	281	31	240	15	4	290	56	28	54	0	138	17	21	5	0	43	752
2 Hr Totals	56	1762	224	39	2081	280	1829	122	12	2243	381	291	633	0	1305	106	196	71	0	373	6002
1 Hr Totals																					
7:00 - 8:00	23	877	93	15	1008	141	896	67	3	1107	207	151	362	0	720	53	86	37	0	176	3011
7:15 - 8:15	22	962	101	15	1100	148	997	64	5	1214	187	162	364	0	713	51	102	33	0	186	3213
7:30 - 8:30	23	898	107	19	1047	152	950	63	5	1170	183	175	355	0	713	49	119	37	0	205	3135
7:45 - 8:45	30	925	113	20	1088	151	944	57	7	1159	167	164	312	0	643	55	116	42	0	213	3103
8:00 - 9:00	33	885	131	24	1073	139	933	55	9	1136	174	140	271	0	585	53	110	34	0	197	2991
PEAK HOUR																					
7:15 - 8:15	22	962	101	15	1100	148	997	64	5	1214	187	162	364	0	713	51	102	33	0	186	3213
PM																					
4:00 - 4:15	6	260	55	6	327	86	197	7	5	295	49	31	41	0	121	33	71	18	0	122	865
4:15 - 4:30	6	277	54	5	342	82	241	13	2	338	59	30	41	0	130	21	59	8	0	88	898
4:30 - 4:45	11	254	54	3	322	83	239	23	1	346	52	33	43	0	128	33	81	17	0	131	927
4:45 - 5:00	12	251	63	7	333	69	223	14	1	307	39	41	40	0	120	26	83	13	0	122	882
5:00 - 5:15	12	280	41	9	342	62	251	9	3	325	57	45	46	0	148	30	56	10	0	96	911
5:15 - 5:30	8	227	48	4	287	72	209	17	3	301	42	33	39	0	114	22	59	11	0	92	794
5:30 - 5:45	9	227	46	3	285	69	224	23	2	318	39	39	43	0	121	19	48	17	0	84	808
5:45 - 6:00	11	270	48	7	336	41	188	16	1	246	46	27	34	0	107	12	40	7	0	59	748
2 Hr Totals	75	2046	409	44	2574	564	1772	122	18	2476	383	279	327	0	989	196	497	101	0	794	6833
1 Hr Totals																					
4:00 - 5:00	35	1042	226	21	1324	320	900	57	9	1286	199	135	165	0	499	113	294	56	0	463	3572
4:15 - 5:15	41	1062	212	24	1339	296	954	59	7	1316	207	149	170	0	526	110	279	48	0	437	3618
4:30 - 5:30	43	1012	206	23	1284	286	922	63	8	1279	190	152	168	0	510	111	279	51	0	441	3514
4:45 - 5:45	41	985	198	23	1247	272	907	63	9	1251	177	158	168	0	503	97	246	51	0	394	3395
5:00 - 6:00	40	1004	183	23	1250	244	872	65	9	1190	184	144	162	0	490	83	203	45	0	331	3261
PEAK HOUR																					
4:15 - 5:15	41	1062	212	24	1339	296	954	59	7	1316	207	149	170	0	526	110	279	48	0	437	3618

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 50
and: MD 328
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 50					TRAFFIC FROM SOUTH on: US 50					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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																					
10:00 - 10:15	21	339	22	4	386	44	261	17	4	326	34	27	23	0	84	32	35	13	0	80	876
10:15 - 10:30	10	298	42	9	359	24	235	17	4	280	36	42	37	0	115	22	46	10	0	78	832
10:30 - 10:45	12	317	24	7	360	26	245	19	4	294	42	45	34	0	121	21	40	17	0	78	853
10:45 - 11:00	9	374	33	1	417	33	273	23	2	331	35	25	28	0	88	25	38	11	0	74	910
11:00 - 11:15	7	300	49	3	359	34	294	25	3	356	59	37	30	0	126	34	59	10	0	103	944
11:15 - 11:30	16	371	28	3	418	44	273	19	0	336	64	38	41	0	143	31	41	26	0	98	995
11:30 - 11:45	13	263	36	2	314	53	296	17	0	366	49	46	37	0	132	22	95	18	0	135	947
11:45 - 12:00	18	390	33	2	443	38	332	27	7	404	62	34	30	0	126	22	41	20	0	83	1056
12:00 - 12:15	10	265	29	6	310	44	337	28	4	413	62	32	25	0	119	28	66	13	0	107	949
12:15 - 12:30	9	312	39	4	364	51	328	27	4	410	57	32	33	0	122	31	37	14	0	82	978
12:30 - 12:45	11	265	45	9	330	51	282	16	2	351	36	37	24	0	97	23	48	14	0	85	863
12:45 - 1:00	13	327	34	10	384	42	357	16	2	417	39	30	35	0	104	22	45	10	0	77	982
1:00 - 1:15	12	261	36	5	314	36	263	17	0	316	47	37	23	1	108	24	39	12	0	75	813
1:15 - 1:30	9	302	39	3	353	39	344	25	7	415	40	37	32	0	109	28	52	14	0	94	971
1:30 - 1:45	13	303	33	3	352	55	269	15	2	341	48	33	25	0	106	21	27	26	0	74	873
1:45 - 2:00	10	267	23	3	303	32	274	19	1	326	50	29	37	0	116	25	36	17	0	78	823
4 Hr Totals	193	4954	545	74	5766	646	4663	327	46	5682	760	561	494	1	1816	411	745	245	0	1401	14665
1 Hr Totals																					
10:00 - 11:00	52	1328	121	21	1522	127	1014	76	14	1231	147	139	122	0	408	100	159	51	0	310	3471
10:15 - 11:15	38	1289	148	20	1495	117	1047	84	13	1261	172	149	129	0	450	102	183	48	0	333	3539
10:30 - 11:30	44	1362	134	14	1554	137	1085	86	9	1317	200	145	133	0	478	111	178	64	0	353	3702
10:45 - 11:45	45	1308	146	9	1508	164	1136	84	5	1389	207	146	136	0	489	112	233	65	0	410	3796
11:00 - 12:00	54	1324	146	10	1534	169	1195	88	10	1462	234	155	138	0	527	109	236	74	0	419	3942
11:15 - 12:15	57	1289	126	13	1485	179	1238	91	11	1519	237	150	133	0	520	103	243	77	0	423	3947
11:30 - 12:30	50	1230	137	14	1431	186	1293	99	15	1593	230	144	125	0	499	103	239	65	0	407	3930
11:45 - 12:45	48	1232	146	21	1447	184	1279	98	17	1578	217	135	112	0	464	104	192	61	0	357	3846
12:00 - 1:00	43	1169	147	29	1388	188	1304	87	12	1591	194	131	117	0	442	104	196	51	0	351	3772
12:15 - 1:15	45	1165	154	28	1392	180	1230	76	8	1494	179	136	115	1	431	100	169	50	0	319	3636
12:30 - 1:30	45	1155	154	27	1381	168	1246	74	11	1499	162	141	114	1	418	97	184	50	0	331	3629
12:45 - 1:45	47	1193	142	21	1403	172	1233	73	11	1489	174	137	115	1	427	95	163	62	0	320	3639
1:00 - 2:00	44	1133	131	14	1322	162	1150	76	10	1398	185	136	117	1	439	98	154	69	0	321	3480
PEAK HOUR																					
11:15 - 12:15	57	1289	126	13	1485	179	1238	91	11	1519	237	150	133	0	520	103	243	77	0	423	3947

2. MD 328 (E/W) & Elliott Rd (S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Elliott Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH Elliott Road					TRAFFIC FROM EAST MD 328					TRAFFIC FROM WEST MD 328					TOTAL N + S + 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	9	0	18	0	27	0	138	24	0	162	23	41	0	0	64	253
7:15 - 7:30	0	0	0	0	0	11	0	26	0	37	0	153	27	0	180	21	47	0	0	68	285
7:30 - 7:45	0	0	0	0	0	10	0	36	0	46	0	181	28	0	209	41	49	0	0	90	345
7:45 - 8:00	0	0	0	0	0	12	0	36	0	48	0	174	57	0	231	50	49	0	0	99	378
8:00 - 8:15	0	0	0	0	0	11	0	32	0	43	0	137	20	0	157	50	38	0	0	88	288
8:15 - 8:30	0	0	0	0	0	14	0	35	0	49	0	124	20	0	144	39	42	0	0	81	274
8:30 - 8:45	0	0	0	0	0	20	0	21	0	41	0	111	24	0	135	49	64	0	0	113	289
8:45 - 9:00	0	0	0	0	0	15	0	37	0	52	0	109	30	0	139	46	38	0	0	84	275
2 Hr Totals	0	0	0	0	0	102	0	241	0	343	0	1127	230	0	1357	319	368	0	0	687	2387
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	42	0	116	0	158	0	646	136	0	782	135	186	0	0	321	1261
7:15 - 8:15	0	0	0	0	0	44	0	130	0	174	0	645	132	0	777	162	183	0	0	345	1296
7:30 - 8:30	0	0	0	0	0	47	0	139	0	186	0	616	125	0	741	180	178	0	0	358	1285
7:45 - 8:45	0	0	0	0	0	57	0	124	0	181	0	546	121	0	667	188	193	0	0	381	1229
8:00 - 9:00	0	0	0	0	0	60	0	125	0	185	0	481	94	0	575	184	182	0	0	366	1126
PEAK HOUR																					
7:15 - 8:15	0	0	0	0	0	44	0	130	0	174	0	645	132	0	777	162	183	0	0	345	1296
PM																					
4:00 - 4:15	0	0	0	0	0	53	0	57	0	110	0	64	27	0	91	75	115	0	0	190	391
4:15 - 4:30	0	0	0	0	0	38	0	49	0	87	0	73	33	0	106	92	126	0	0	218	411
4:30 - 4:45	0	0	0	0	0	59	0	59	0	118	0	80	27	0	107	76	126	0	0	202	427
4:45 - 5:00	0	0	0	0	0	43	0	44	0	87	0	83	16	0	99	101	124	0	0	225	411
5:00 - 5:15	0	0	0	0	0	49	0	61	0	110	0	73	33	0	106	61	109	0	0	170	386
5:15 - 5:30	0	0	0	0	0	37	0	55	0	92	0	64	24	0	88	68	96	0	0	164	344
5:30 - 5:45	0	0	0	0	0	29	0	51	0	80	0	70	29	0	99	58	106	0	0	164	343
5:45 - 6:00	0	0	0	0	0	21	0	45	0	66	0	65	27	0	92	41	89	0	0	130	288
2 Hr Totals	0	0	0	0	0	329	0	421	0	750	0	572	216	0	788	572	891	0	0	1463	3001
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	193	0	209	0	402	0	300	103	0	403	344	491	0	0	835	1640
4:15 - 5:15	0	0	0	0	0	189	0	213	0	402	0	309	109	0	418	330	485	0	0	815	1635
4:30 - 5:30	0	0	0	0	0	188	0	219	0	407	0	300	100	0	400	306	455	0	0	761	1568
4:45 - 5:45	0	0	0	0	0	158	0	211	0	369	0	290	102	0	392	288	435	0	0	723	1484
5:00 - 6:00	0	0	0	0	0	136	0	212	0	348	0	272	113	0	385	228	400	0	0	628	1361
PEAK HOUR																					
4:00 - 5:00	0	0	0	0	0	193	0	209	0	402	0	300	103	0	403	344	491	0	0	835	1640

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Elliott Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH Elliott Road					TRAFFIC FROM EAST MD 328					TRAFFIC FROM WEST MD 328					TOTAL N + S + 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																					
10:00 - 10:15	0	0	0	0	0	21	0	46	0	67	0	60	20	0	80	55	54	0	0	109	256
10:15 - 10:30	0	0	0	0	0	21	0	49	0	70	0	70	21	0	91	67	43	0	0	110	271
10:30 - 10:45	0	0	0	0	0	29	0	54	0	83	0	74	34	0	108	51	43	0	0	94	285
10:45 - 11:00	0	0	0	0	0	28	0	48	0	76	0	63	37	0	100	72	42	0	0	114	290
11:00 - 11:15	0	0	0	0	0	27	0	55	0	82	0	54	27	0	81	76	49	0	0	125	288
11:15 - 11:30	0	0	0	0	0	29	0	69	0	98	0	77	37	0	114	54	64	0	0	118	330
11:30 - 11:45	0	0	0	0	0	23	0	52	0	75	0	63	30	0	93	85	54	0	0	139	307
11:45 - 12:00	0	0	0	0	0	29	0	54	0	83	0	78	27	0	105	68	52	0	0	120	308
12:00 - 12:15	0	0	0	0	0	34	0	60	0	94	0	53	29	0	82	67	55	0	0	122	298
12:15 - 12:30	0	0	0	0	0	42	0	56	0	98	0	75	23	0	98	59	79	0	0	138	334
12:30 - 12:45	0	0	0	0	0	24	0	44	0	68	0	65	19	0	84	87	57	0	0	144	296
12:45 - 1:00	0	0	0	0	0	32	0	47	0	79	0	60	32	0	92	71	58	0	0	129	300
1:00 - 1:15	0	0	0	0	0	43	0	48	0	91	0	42	21	0	63	55	56	0	0	111	265
1:15 - 1:30	0	0	0	0	0	31	0	56	0	87	0	63	33	0	96	60	70	0	0	130	313
1:30 - 1:45	0	0	0	0	0	33	0	46	0	79	0	60	20	0	80	57	51	0	0	108	267
1:45 - 2:00	0	0	0	0	0	20	0	47	0	67	0	66	18	0	84	43	49	0	0	92	243
4 Hr Totals	0	0	0	0	0	466	0	831	0	1297	0	1023	428	0	1451	1027	876	0	0	1903	4651
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	99	0	197	0	296	0	267	112	0	379	245	182	0	0	427	1102
10:15 - 11:15	0	0	0	0	0	105	0	206	0	311	0	261	119	0	380	266	177	0	0	443	1134
10:30 - 11:30	0	0	0	0	0	113	0	226	0	339	0	268	135	0	403	253	198	0	0	451	1193
10:45 - 11:45	0	0	0	0	0	107	0	224	0	331	0	257	131	0	388	287	209	0	0	496	1215
11:00 - 12:00	0	0	0	0	0	108	0	230	0	338	0	272	121	0	393	283	219	0	0	502	1233
11:15 - 12:15	0	0	0	0	0	115	0	235	0	350	0	271	123	0	394	274	225	0	0	499	1243
11:30 - 12:30	0	0	0	0	0	128	0	222	0	350	0	269	109	0	378	279	240	0	0	519	1247
11:45 - 12:45	0	0	0	0	0	129	0	214	0	343	0	271	98	0	369	281	243	0	0	524	1236
12:00 - 1:00	0	0	0	0	0	132	0	207	0	339	0	253	103	0	356	284	249	0	0	533	1228
12:15 - 1:15	0	0	0	0	0	141	0	195	0	336	0	242	95	0	337	272	250	0	0	522	1195
12:30 - 1:30	0	0	0	0	0	130	0	195	0	325	0	230	105	0	335	273	241	0	0	514	1174
12:45 - 1:45	0	0	0	0	0	139	0	197	0	336	0	225	106	0	331	243	235	0	0	478	1145
1:00 - 2:00	0	0	0	0	0	127	0	197	0	324	0	231	92	0	323	215	226	0	0	441	1088
PEAK HOUR																					
11:30 - 12:30	0	0	0	0	0	128	0	222	0	350	0	269	109	0	378	279	240	0	0	519	1247

3. MD 328 (E/W) & Gannon Cir (S)



Google Earth

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Gannon Circle
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + 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	0	3	0	3	0	160	1	0	161	1	48	0	0	49	213
7:15 - 7:30	0	0	0	0	0	0	0	4	0	4	0	184	0	0	184	2	55	0	0	57	245
7:30 - 7:45	0	0	0	0	0	0	0	6	0	6	0	183	0	0	183	2	52	0	0	54	243
7:45 - 8:00	0	0	0	0	0	1	0	4	0	5	0	213	3	0	216	2	52	0	0	54	275
8:00 - 8:15	0	0	0	0	0	1	0	3	0	4	0	140	0	0	140	3	43	0	0	46	190
8:15 - 8:30	0	0	0	0	0	0	0	8	0	8	0	133	0	0	133	1	56	0	0	57	198
8:30 - 8:45	0	0	0	0	0	0	0	7	0	7	0	136	0	0	136	1	74	0	0	75	218
8:45 - 9:00	0	0	0	0	0	1	0	2	0	3	0	128	1	0	129	1	54	0	0	55	187
2 Hr Totals	0	0	0	0	0	3	0	37	0	40	0	1277	5	0	1282	13	434	0	0	447	1769
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	1	0	17	0	18	0	740	4	0	744	7	207	0	0	214	976
7:15 - 8:15	0	0	0	0	0	2	0	17	0	19	0	720	3	0	723	9	202	0	0	211	953
7:30 - 8:30	0	0	0	0	0	2	0	21	0	23	0	669	3	0	672	8	203	0	0	211	906
7:45 - 8:45	0	0	0	0	0	2	0	22	0	24	0	622	3	0	625	7	225	0	0	232	881
8:00 - 9:00	0	0	0	0	0	2	0	20	0	22	0	537	1	0	538	6	227	0	0	233	793
PEAK HOUR																					
7:00 - 8:00	0	0	0	0	0	1	0	17	0	18	0	740	4	0	744	7	207	0	0	214	976
PM																					
4:00 - 4:15	0	0	0	0	0	2	0	1	0	3	0	79	0	0	79	4	153	0	0	157	239
4:15 - 4:30	0	0	0	0	0	3	0	0	0	3	0	114	0	0	114	2	151	0	0	153	270
4:30 - 4:45	0	0	0	0	0	1	0	2	0	3	0	86	0	0	86	4	176	0	0	180	269
4:45 - 5:00	0	0	0	0	0	0	0	1	0	1	0	85	0	0	85	4	158	0	0	162	248
5:00 - 5:15	0	0	0	0	0	0	0	1	0	1	0	99	0	0	99	4	154	0	0	158	258
5:15 - 5:30	0	0	0	0	0	1	0	3	0	4	0	88	1	0	89	7	118	0	0	125	218
5:30 - 5:45	0	0	0	0	0	2	0	2	0	4	0	91	0	0	91	2	138	0	0	140	235
5:45 - 6:00	0	0	0	0	0	1	0	4	0	5	0	88	1	0	89	6	109	0	0	115	209
2 Hr Totals	0	0	0	0	0	10	0	14	0	24	0	730	2	0	732	33	1157	0	0	1190	1946
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	6	0	4	0	10	0	364	0	0	364	14	638	0	0	652	1026
4:15 - 5:15	0	0	0	0	0	4	0	4	0	8	0	384	0	0	384	14	639	0	0	653	1045
4:30 - 5:30	0	0	0	0	0	2	0	7	0	9	0	358	1	0	359	19	606	0	0	625	993
4:45 - 5:45	0	0	0	0	0	3	0	7	0	10	0	363	1	0	364	17	568	0	0	585	959
5:00 - 6:00	0	0	0	0	0	4	0	10	0	14	0	366	2	0	368	19	519	0	0	538	920
PEAK HOUR																					
4:15 - 5:15	0	0	0	0	0	4	0	4	0	8	0	384	0	0	384	14	639	0	0	653	1045

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Gannon Circle
Location: Talbot County, Maryland

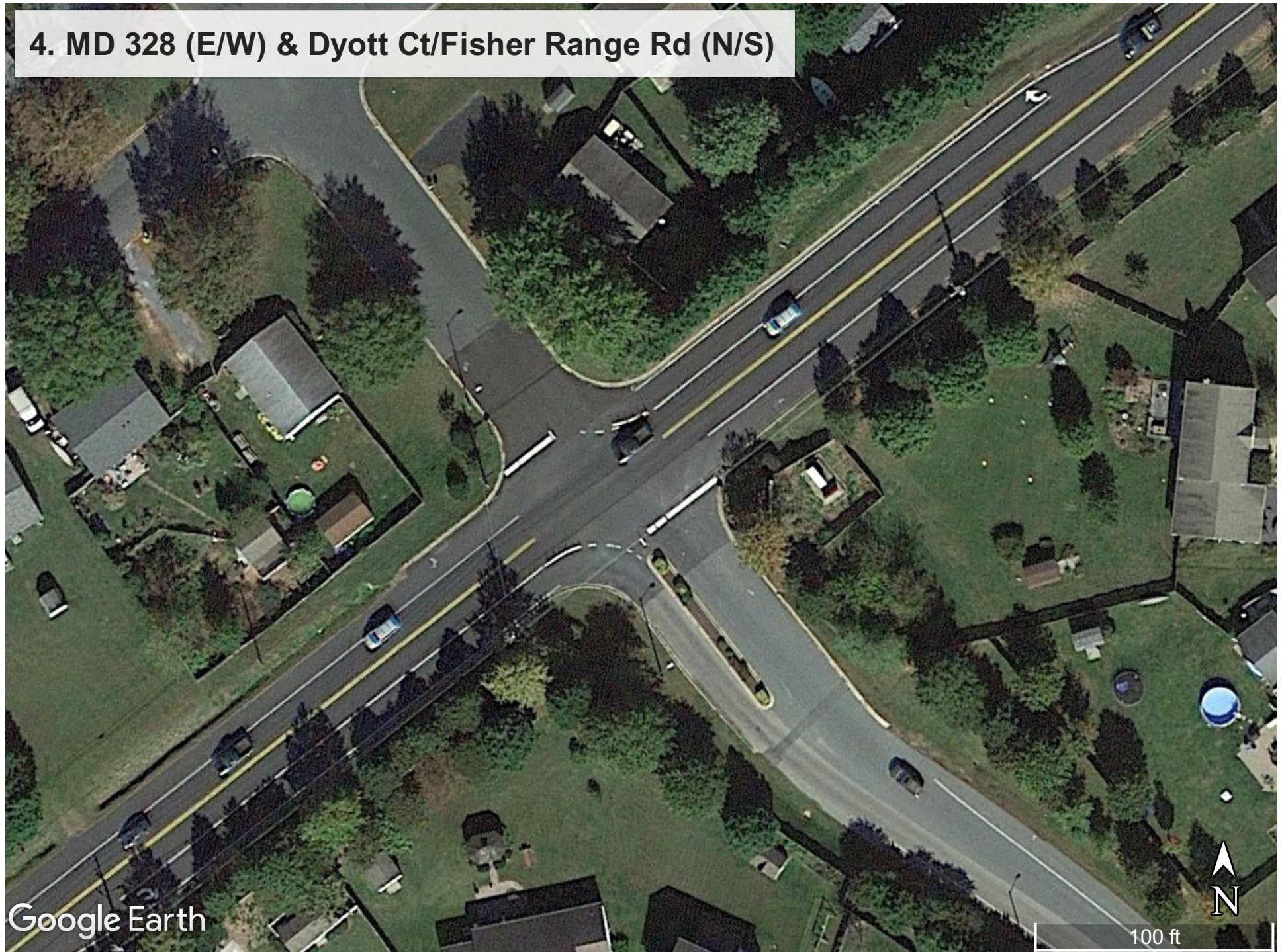
Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + 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																					
10:00 - 10:15	0	0	0	0	0	1	0	1	0	2	0	80	1	0	81	1	76	0	0	77	160
10:15 - 10:30	0	0	0	0	0	0	0	4	0	4	0	88	0	0	88	4	58	0	0	62	154
10:30 - 10:45	0	0	0	0	0	0	0	5	0	5	0	99	0	0	99	4	69	0	0	73	177
10:45 - 11:00	0	0	0	0	0	0	0	3	0	3	0	80	0	0	80	2	60	0	0	62	145
11:00 - 11:15	0	0	0	0	0	0	0	5	0	5	0	78	1	0	79	2	71	0	0	73	157
11:15 - 11:30	0	0	0	0	0	0	0	4	0	4	0	107	1	0	108	5	86	0	0	91	203
11:30 - 11:45	0	0	0	0	0	0	0	12	0	12	0	79	0	0	79	4	74	0	0	78	169
11:45 - 12:00	0	0	0	0	0	0	0	6	0	6	0	86	0	0	86	1	76	0	0	77	169
12:00 - 12:15	0	0	0	0	0	0	0	5	0	5	0	82	2	0	84	9	76	0	0	85	174
12:15 - 12:30	0	0	0	0	0	0	0	4	0	4	0	83	0	0	83	4	111	0	0	115	202
12:30 - 12:45	0	0	0	0	0	1	0	1	0	2	0	84	0	0	84	6	75	0	0	81	167
12:45 - 1:00	0	0	0	0	0	0	0	3	0	3	0	81	0	0	81	4	84	0	0	88	172
1:00 - 1:15	0	0	0	0	0	0	0	4	0	4	0	62	0	0	62	4	91	0	0	95	161
1:15 - 1:30	0	0	0	0	0	0	0	5	0	5	0	85	1	0	86	3	95	0	0	98	189
1:30 - 1:45	0	0	0	0	0	0	0	1	0	1	0	77	0	0	77	4	78	0	0	82	160
1:45 - 2:00	0	0	0	0	0	0	0	6	0	6	0	84	1	0	85	1	66	0	0	67	158
4 Hr Totals	0	0	0	0	0	2	0	69	0	71	0	1335	7	0	1342	58	1246	0	0	1304	2717
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	1	0	13	0	14	0	347	1	0	348	11	263	0	0	274	636
10:15 - 11:15	0	0	0	0	0	0	0	17	0	17	0	345	1	0	346	12	258	0	0	270	633
10:30 - 11:30	0	0	0	0	0	0	0	17	0	17	0	364	2	0	366	13	286	0	0	299	682
10:45 - 11:45	0	0	0	0	0	0	0	24	0	24	0	344	2	0	346	13	291	0	0	304	674
11:00 - 12:00	0	0	0	0	0	0	0	27	0	27	0	350	2	0	352	12	307	0	0	319	698
11:15 - 12:15	0	0	0	0	0	0	0	27	0	27	0	354	3	0	357	19	312	0	0	331	715
11:30 - 12:30	0	0	0	0	0	0	0	27	0	27	0	330	2	0	332	18	337	0	0	355	714
11:45 - 12:45	0	0	0	0	0	1	0	16	0	17	0	335	2	0	337	20	338	0	0	358	712
12:00 - 1:00	0	0	0	0	0	1	0	13	0	14	0	330	2	0	332	23	346	0	0	369	715
12:15 - 1:15	0	0	0	0	0	1	0	12	0	13	0	310	0	0	310	18	361	0	0	379	702
12:30 - 1:30	0	0	0	0	0	1	0	13	0	14	0	312	1	0	313	17	345	0	0	362	689
12:45 - 1:45	0	0	0	0	0	0	0	13	0	13	0	305	1	0	306	15	348	0	0	363	682
1:00 - 2:00	0	0	0	0	0	0	0	16	0	16	0	308	2	0	310	12	330	0	0	342	668
PEAK HOUR																					
11:15 - 12:15	0	0	0	0	0	0	0	27	0	27	0	354	3	0	357	19	312	0	0	331	715

4. MD 328 (E/W) & Dyott Ct/Fisher Range Rd (N/S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Fisher Range Road - Dyott Court
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Dyott Court					TRAFFIC FROM SOUTH on: Fisher Range Road					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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	18	1	1	0	20	7	0	39	0	46	1	105	3	0	109	9	36	2	0	47	222
7:15 - 7:30	23	0	1	0	24	4	0	28	0	32	0	135	4	0	139	8	42	4	0	54	249
7:30 - 7:45	15	0	2	0	17	5	0	29	0	34	2	140	0	0	142	2	48	4	0	54	247
7:45 - 8:00	13	0	1	0	14	3	0	28	0	31	1	169	3	0	173	9	39	5	0	53	271
8:00 - 8:15	18	0	2	0	20	9	0	20	0	29	0	101	3	0	104	9	34	3	0	46	199
8:15 - 8:30	12	0	1	0	13	3	0	16	0	19	0	105	3	0	108	8	42	4	0	54	194
8:30 - 8:45	8	0	0	0	8	1	0	15	0	16	0	109	1	0	110	9	60	4	0	73	207
8:45 - 9:00	10	0	0	0	10	1	0	22	0	23	0	94	5	0	99	9	41	3	0	53	185
2 Hr Totals	117	1	8	0	126	33	0	197	0	230	4	958	22	0	984	63	342	29	0	434	1774
1 Hr Totals																					
7:00 - 8:00	69	1	5	0	75	19	0	124	0	143	4	549	10	0	563	28	165	15	0	208	989
7:15 - 8:15	69	0	6	0	75	21	0	105	0	126	3	545	10	0	558	28	163	16	0	207	966
7:30 - 8:30	58	0	6	0	64	20	0	93	0	113	3	515	9	0	527	28	163	16	0	207	911
7:45 - 8:45	51	0	4	0	55	16	0	79	0	95	1	484	10	0	495	35	175	16	0	226	871
8:00 - 9:00	48	0	3	0	51	14	0	73	0	87	0	409	12	0	421	35	177	14	0	226	785
PEAK HOUR																					
7:00 - 8:00	69	1	5	0	75	19	0	124	0	143	4	549	10	0	563	28	165	15	0	208	989
PM																					
4:00 - 4:15	11	1	3	0	15	5	1	16	0	22	2	56	4	0	62	31	106	14	0	151	250
4:15 - 4:30	6	1	1	0	8	6	2	23	0	31	1	83	9	0	93	26	119	11	0	156	288
4:30 - 4:45	11	2	1	0	14	3	1	16	0	20	3	65	4	0	72	27	140	10	0	177	283
4:45 - 5:00	6	0	2	0	8	7	0	21	0	28	7	58	4	0	69	30	106	18	0	154	259
5:00 - 5:15	9	0	0	0	9	3	0	15	0	18	5	71	5	0	81	23	117	15	0	155	263
5:15 - 5:30	8	0	2	0	10	1	0	18	0	19	3	61	4	0	68	16	89	15	0	120	217
5:30 - 5:45	6	0	2	0	8	3	0	17	0	20	1	73	6	0	80	26	100	13	0	139	247
5:45 - 6:00	10	1	3	0	14	5	0	19	0	24	1	55	5	0	61	31	68	10	0	109	208
2 Hr Totals	67	5	14	0	86	33	4	145	0	182	23	522	41	0	586	210	845	106	0	1161	2015
1 Hr Totals																					
4:00 - 5:00	34	4	7	0	45	21	4	76	0	101	13	262	21	0	296	114	471	53	0	638	1080
4:15 - 5:15	32	3	4	0	39	19	3	75	0	97	16	277	22	0	315	106	482	54	0	642	1093
4:30 - 5:30	34	2	5	0	41	14	1	70	0	85	18	255	17	0	290	96	452	58	0	606	1022
4:45 - 5:45	29	0	6	0	35	14	0	71	0	85	16	263	19	0	298	95	412	61	0	568	986
5:00 - 6:00	33	1	7	0	41	12	0	69	0	81	10	260	20	0	290	96	374	53	0	523	935
PEAK HOUR																					
4:15 - 5:15	32	3	4	0	39	19	3	75	0	97	16	277	22	0	315	106	482	54	0	642	1093

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Fisher Range Road - Dyott Court
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Dyott Court					TRAFFIC FROM SOUTH on: Fisher Range Road					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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																					
10:00 - 10:15	6	0	1	0	7	2	0	19	0	21	0	59	0	0	59	21	48	8	0	77	164
10:15 - 10:30	7	0	0	0	7	3	0	11	0	14	1	65	1	0	67	13	42	3	0	58	146
10:30 - 10:45	9	1	0	0	10	4	0	19	0	23	1	75	4	0	80	12	50	5	0	67	180
10:45 - 11:00	10	0	1	0	11	5	0	13	0	18	0	57	0	0	57	14	39	9	0	62	148
11:00 - 11:15	6	0	1	0	7	2	0	13	0	15	1	63	1	0	65	5	51	14	0	70	157
11:15 - 11:30	19	0	1	0	20	5	0	15	0	20	0	69	4	0	73	16	60	10	0	86	199
11:30 - 11:45	10	0	3	0	13	2	0	21	0	23	0	48	4	0	52	8	62	4	0	74	162
11:45 - 12:00	6	1	1	0	8	4	2	19	0	25	0	64	4	0	68	14	53	8	0	75	176
12:00 - 12:15	10	0	1	0	11	2	0	11	0	13	0	64	2	0	66	14	55	7	0	76	166
12:15 - 12:30	9	1	1	0	11	3	1	19	0	23	1	55	0	0	56	19	77	16	0	112	202
12:30 - 12:45	8	0	1	0	9	2	0	10	0	12	2	64	3	0	69	14	51	10	0	75	165
12:45 - 1:00	13	0	0	0	13	1	0	11	0	12	2	58	3	0	63	21	55	9	0	85	173
1:00 - 1:15	8	0	0	0	8	1	0	10	0	11	3	42	3	0	48	8	79	4	0	91	158
1:15 - 1:30	10	0	0	0	10	4	1	14	0	19	1	63	3	0	67	17	70	7	0	94	190
1:30 - 1:45	8	0	1	0	9	3	1	8	0	12	1	60	3	0	64	14	58	6	0	78	163
1:45 - 2:00	3	1	2	0	6	2	0	23	0	25	1	57	3	0	61	11	47	8	0	66	158
4 Hr Totals	142	4	14	0	160	45	5	236	0	286	14	963	38	0	1015	221	897	128	0	1246	2707
1 Hr Totals																					
10:00 - 11:00	32	1	2	0	35	14	0	62	0	76	2	256	5	0	263	60	179	25	0	264	638
10:15 - 11:15	32	1	2	0	35	14	0	56	0	70	3	260	6	0	269	44	182	31	0	257	631
10:30 - 11:30	44	1	3	0	48	16	0	60	0	76	2	264	9	0	275	47	200	38	0	285	684
10:45 - 11:45	45	0	6	0	51	14	0	62	0	76	1	237	9	0	247	43	212	37	0	292	666
11:00 - 12:00	41	1	6	0	48	13	2	68	0	83	1	244	13	0	258	43	226	36	0	305	694
11:15 - 12:15	45	1	6	0	52	13	2	66	0	81	0	245	14	0	259	52	230	29	0	311	703
11:30 - 12:30	35	2	6	0	43	11	3	70	0	84	1	231	10	0	242	55	247	35	0	337	706
11:45 - 12:45	33	2	4	0	39	11	3	59	0	73	3	247	9	0	259	61	236	41	0	338	709
12:00 - 1:00	40	1	3	0	44	8	1	51	0	60	5	241	8	0	254	68	238	42	0	348	706
12:15 - 1:15	38	1	2	0	41	7	1	50	0	58	8	219	9	0	236	62	262	39	0	363	698
12:30 - 1:30	39	0	1	0	40	8	1	45	0	54	8	227	12	0	247	60	255	30	0	345	686
12:45 - 1:45	39	0	1	0	40	9	2	43	0	54	7	223	12	0	242	60	262	26	0	348	684
1:00 - 2:00	29	1	3	0	33	10	2	55	0	67	6	222	12	0	240	50	254	25	0	329	669
PEAK HOUR																					
11:45 - 12:45	33	2	4	0	39	11	3	59	0	73	3	247	9	0	259	61	236	41	0	338	709

5. MD 328 (E/W) & Mile Post Dr (N)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Mile Post Drive
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Mile Post Drive					TRAFFIC FROM SOUTH on:					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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	0	1	0	5	0	0	0	0	0	3	106	0	0	109	0	55	3	0	58	172
7:15 - 7:30	8	0	0	0	8	0	0	0	0	0	5	123	0	0	128	0	45	2	0	47	183
7:30 - 7:45	5	0	2	0	7	0	0	0	0	0	5	126	0	0	131	0	48	4	0	52	190
7:45 - 8:00	7	0	2	0	9	0	0	0	0	0	7	161	0	0	168	0	45	1	0	46	223
8:00 - 8:15	9	0	4	0	13	0	0	0	0	0	6	88	0	0	94	0	47	2	0	49	156
8:15 - 8:30	5	0	2	0	7	0	0	0	0	0	4	104	0	0	108	0	47	5	0	52	167
8:30 - 8:45	4	0	3	0	7	0	0	0	0	0	6	101	0	0	107	0	52	3	0	55	169
8:45 - 9:00	5	0	1	0	6	0	0	0	0	0	4	95	0	0	99	0	41	4	0	45	150
2 Hr Totals	47	0	15	0	62	0	0	0	0	0	40	904	0	0	944	0	380	24	0	404	1410
1 Hr Totals																					
7:00 - 8:00	24	0	5	0	29	0	0	0	0	0	20	516	0	0	536	0	193	10	0	203	768
7:15 - 8:15	29	0	8	0	37	0	0	0	0	0	23	498	0	0	521	0	185	9	0	194	752
7:30 - 8:30	26	0	10	0	36	0	0	0	0	0	22	479	0	0	501	0	187	12	0	199	736
7:45 - 8:45	25	0	11	0	36	0	0	0	0	0	23	454	0	0	477	0	191	11	0	202	715
8:00 - 9:00	23	0	10	0	33	0	0	0	0	0	20	388	0	0	408	0	187	14	0	201	642
PEAK HOUR																					
7:00 - 8:00	24	0	5	0	29	0	0	0	0	0	20	516	0	0	536	0	193	10	0	203	768
PM																					
4:00 - 4:15	6	0	0	0	6	0	0	0	0	0	8	50	0	0	58	0	111	11	0	122	186
4:15 - 4:30	10	0	4	0	14	0	0	0	0	0	6	68	0	0	74	0	115	16	0	131	219
4:30 - 4:45	6	0	1	0	7	0	0	0	0	0	3	68	0	0	71	0	111	7	0	118	196
4:45 - 5:00	16	0	5	0	21	0	0	0	0	0	2	78	0	0	80	0	97	14	0	111	212
5:00 - 5:15	6	0	6	0	12	0	0	0	0	0	6	59	0	0	65	0	115	10	0	125	202
5:15 - 5:30	7	0	4	0	11	0	0	0	0	0	9	58	0	0	67	0	110	6	0	116	194
5:30 - 5:45	10	0	4	0	14	0	0	0	0	0	4	64	0	0	68	0	94	9	1	104	186
5:45 - 6:00	3	0	2	0	5	0	0	0	0	0	4	56	0	0	60	0	85	15	0	100	165
2 Hr Totals	64	0	26	0	90	0	0	0	0	0	42	501	0	0	543	0	838	88	1	927	1560
1 Hr Totals																					
4:00 - 5:00	38	0	10	0	48	0	0	0	0	0	19	264	0	0	283	0	434	48	0	482	813
4:15 - 5:15	38	0	16	0	54	0	0	0	0	0	17	273	0	0	290	0	438	47	0	485	829
4:30 - 5:30	35	0	16	0	51	0	0	0	0	0	20	263	0	0	283	0	433	37	0	470	804
4:45 - 5:45	39	0	19	0	58	0	0	0	0	0	21	259	0	0	280	0	416	39	1	456	794
5:00 - 6:00	26	0	16	0	42	0	0	0	0	0	23	237	0	0	260	0	404	40	1	445	747
PEAK HOUR																					
4:15 - 5:15	38	0	16	0	54	0	0	0	0	0	17	273	0	0	290	0	438	47	0	485	829

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Mile Post Drive
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + E + W
	on: Mile Post Drive					on: MD 328					on: MD 328					on: MD 328					
	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																					
10:00 - 10:15	11	0	1	0	12	0	0	0	0	0	3	47	0	0	50	0	40	6	0	46	
10:15 - 10:30	9	0	5	0	14	0	0	0	0	0	0	57	0	0	57	0	43	2	0	45	
10:30 - 10:45	12	0	5	0	17	0	0	0	0	0	2	67	0	0	69	0	49	7	0	56	
10:45 - 11:00	7	0	2	0	9	0	0	0	0	0	4	51	0	0	55	0	41	2	0	43	
11:00 - 11:15	12	0	6	0	18	0	0	0	0	0	4	51	0	0	55	0	48	7	0	55	
11:15 - 11:30	15	0	2	0	17	0	0	0	0	0	1	63	0	0	64	0	60	6	0	66	
11:30 - 11:45	2	0	2	0	4	0	0	0	0	0	4	48	0	0	52	0	56	6	0	62	
11:45 - 12:00	9	0	4	0	13	0	0	0	0	0	1	61	0	0	62	0	51	9	0	60	
12:00 - 12:15	8	0	4	0	12	0	0	0	0	0	2	54	0	0	56	0	53	4	0	57	
12:15 - 12:30	4	0	2	0	6	0	0	0	0	0	4	56	0	0	60	0	69	8	0	77	
12:30 - 12:45	13	0	5	0	18	0	0	0	0	0	2	57	0	0	59	0	56	6	0	62	
12:45 - 1:00	6	0	3	0	9	0	0	0	0	0	6	57	0	0	63	0	52	4	0	56	
1:00 - 1:15	2	0	4	0	6	0	0	0	0	0	2	46	0	0	48	0	71	6	0	77	
1:15 - 1:30	9	0	3	0	12	0	0	0	0	0	1	62	0	0	63	0	64	12	0	76	
1:30 - 1:45	11	0	1	0	12	0	0	0	0	0	1	47	0	0	48	0	49	8	0	57	
1:45 - 2:00	13	0	1	0	14	0	0	0	0	0	2	51	0	0	53	0	47	8	0	55	
4 Hr Totals	143	0	50	0	193	0	0	0	0	0	39	875	0	0	914	0	849	101	0	950	
1 Hr Totals																					
10:00 - 11:00	39	0	13	0	52	0	0	0	0	0	9	222	0	0	231	0	173	17	0	190	
10:15 - 11:15	40	0	18	0	58	0	0	0	0	0	10	226	0	0	236	0	181	18	0	199	
10:30 - 11:30	46	0	15	0	61	0	0	0	0	0	11	232	0	0	243	0	198	22	0	220	
10:45 - 11:45	36	0	12	0	48	0	0	0	0	0	13	213	0	0	226	0	205	21	0	226	
11:00 - 12:00	38	0	14	0	52	0	0	0	0	0	10	223	0	0	233	0	215	28	0	243	
11:15 - 12:15	34	0	12	0	46	0	0	0	0	0	8	226	0	0	234	0	220	25	0	245	
11:30 - 12:30	23	0	12	0	35	0	0	0	0	0	11	219	0	0	230	0	229	27	0	256	
11:45 - 12:45	34	0	15	0	49	0	0	0	0	0	9	228	0	0	237	0	229	27	0	256	
12:00 - 1:00	31	0	14	0	45	0	0	0	0	0	14	224	0	0	238	0	230	22	0	252	
12:15 - 1:15	25	0	14	0	39	0	0	0	0	0	14	216	0	0	230	0	248	24	0	272	
12:30 - 1:30	30	0	15	0	45	0	0	0	0	0	11	222	0	0	233	0	243	28	0	271	
12:45 - 1:45	28	0	11	0	39	0	0	0	0	0	10	212	0	0	222	0	236	30	0	266	
1:00 - 2:00	35	0	9	0	44	0	0	0	0	0	6	206	0	0	212	0	231	34	0	265	
PEAK HOUR																					
12:30 - 1:30	30	0	15	0	45	0	0	0	0	0	11	222	0	0	233	0	243	28	0	271	

6. MD 328 (E/W) & McCall St (S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: McCall Street
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Private Driveway					TRAFFIC FROM SOUTH on: McCall Street					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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	0	0	0	0	1	0	5	0	6	0	102	1	0	103	1	47	0	0	48	157
7:15 - 7:30	0	0	0	0	0	2	0	6	0	8	0	130	0	0	130	0	49	0	0	49	187
7:30 - 7:45	0	0	0	0	0	2	0	4	0	6	0	120	0	0	120	3	47	0	0	50	176
7:45 - 8:00	0	0	0	0	0	1	0	5	0	6	0	152	0	0	152	1	42	0	0	43	201
8:00 - 8:15	0	0	0	0	0	2	0	4	0	6	0	86	0	0	86	4	47	0	0	51	143
8:15 - 8:30	0	0	0	0	0	0	0	6	0	6	0	95	0	0	95	1	52	0	0	53	154
8:30 - 8:45	0	0	0	0	0	0	0	5	0	5	0	95	0	0	95	2	44	0	0	46	146
8:45 - 9:00	0	0	0	0	0	0	0	1	0	1	0	89	2	0	91	0	39	0	0	39	131
2 Hr Totals	0	0	0	0	0	8	0	36	0	44	0	869	3	0	872	12	367	0	0	379	1295
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	6	0	20	0	26	0	504	1	0	505	5	185	0	0	190	721
7:15 - 8:15	0	0	0	0	0	7	0	19	0	26	0	488	0	0	488	8	185	0	0	193	707
7:30 - 8:30	0	0	0	0	0	5	0	19	0	24	0	453	0	0	453	9	188	0	0	197	674
7:45 - 8:45	0	0	0	0	0	3	0	20	0	23	0	428	0	0	428	8	185	0	0	193	644
8:00 - 9:00	0	0	0	0	0	2	0	16	0	18	0	365	2	0	367	7	182	0	0	189	574
PEAK HOUR																					
7:00 - 8:00	0	0	0	0	0	6	0	20	0	26	0	504	1	0	505	5	185	0	0	190	721
PM																					
4:00 - 4:15	0	0	0	0	0	1	0	2	0	3	0	65	2	0	67	2	114	0	0	116	186
4:15 - 4:30	0	0	0	0	0	0	0	4	0	4	0	74	0	0	74	5	120	0	0	125	203
4:30 - 4:45	0	0	0	0	0	3	0	4	0	7	0	65	0	0	65	6	130	0	0	136	208
4:45 - 5:00	0	0	0	0	0	0	0	1	0	1	0	59	2	0	61	7	107	0	0	114	176
5:00 - 5:15	0	0	0	0	0	2	0	2	0	4	0	65	1	0	66	4	111	0	0	115	185
5:15 - 5:30	0	0	0	0	0	0	0	2	0	2	0	70	2	0	72	1	90	0	0	91	165
5:30 - 5:45	0	0	0	0	0	2	0	4	1	7	0	73	1	0	74	9	90	0	0	99	180
5:45 - 6:00	0	0	0	0	0	0	0	3	1	4	0	52	1	0	53	5	62	0	0	67	124
2 Hr Totals	0	0	0	0	0	8	0	22	2	32	0	523	9	0	532	39	824	0	0	863	1427
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	4	0	11	0	15	0	263	4	0	267	20	471	0	0	491	773
4:15 - 5:15	0	0	0	0	0	5	0	11	0	16	0	263	3	0	266	22	468	0	0	490	772
4:30 - 5:30	0	0	0	0	0	5	0	9	0	14	0	259	5	0	264	18	438	0	0	456	734
4:45 - 5:45	0	0	0	0	0	4	0	9	1	14	0	267	6	0	273	21	398	0	0	419	706
5:00 - 6:00	0	0	0	0	0	4	0	11	2	17	0	260	5	0	265	19	353	0	0	372	654
PEAK HOUR																					
4:00 - 5:00	0	0	0	0	0	4	0	11	0	15	0	263	4	0	267	20	471	0	0	491	773

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: McCall Street
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Private Driveway					TRAFFIC FROM SOUTH on: McCall Street					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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																					
10:00 - 10:15	0	0	0	0	0	2	0	4	1	7	0	44	0	0	44	0	49	0	0	49	100
10:15 - 10:30	0	0	0	0	0	0	0	3	0	3	0	60	1	0	61	3	48	0	0	51	115
10:30 - 10:45	0	0	0	0	0	0	0	3	0	3	0	65	0	0	65	3	51	0	0	54	122
10:45 - 11:00	0	0	0	0	0	0	0	1	0	1	0	48	1	0	49	0	43	0	1	44	94
11:00 - 11:15	0	0	0	0	0	2	0	2	0	4	0	55	0	0	55	3	53	0	0	56	115
11:15 - 11:30	0	0	0	0	0	0	0	3	0	3	0	60	1	0	61	1	56	0	0	57	121
11:30 - 11:45	0	0	0	0	0	1	0	1	0	2	0	47	0	0	47	4	57	0	0	61	110
11:45 - 12:00	0	0	0	0	0	0	0	3	0	3	0	63	2	0	65	2	53	0	0	55	123
12:00 - 12:15	0	0	0	0	0	0	0	2	0	2	0	57	0	0	57	4	54	0	0	58	117
12:15 - 12:30	0	0	0	0	0	1	0	2	0	3	0	51	0	0	51	5	70	0	0	75	129
12:30 - 12:45	0	0	0	0	0	1	0	4	0	5	0	62	0	0	62	2	53	0	0	55	122
12:45 - 1:00	0	0	0	0	0	1	0	3	0	4	0	57	2	0	59	5	50	0	0	55	118
1:00 - 1:15	0	0	0	0	0	1	0	4	0	5	0	47	1	0	48	4	71	0	0	75	128
1:15 - 1:30	0	0	0	0	0	1	0	1	0	2	0	57	0	0	57	8	60	0	0	68	127
1:30 - 1:45	0	0	0	0	0	2	0	3	0	5	0	50	1	0	51	3	47	0	0	50	106
1:45 - 2:00	0	0	0	0	0	0	0	3	0	3	0	46	0	0	46	1	47	0	0	48	97
4 Hr Totals	0	0	0	0	0	12	0	42	1	55	0	869	9	0	878	48	862	0	1	911	1844
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	2	0	11	1	14	0	217	2	0	219	6	191	0	1	198	431
10:15 - 11:15	0	0	0	0	0	2	0	9	0	11	0	228	2	0	230	9	195	0	1	205	446
10:30 - 11:30	0	0	0	0	0	2	0	9	0	11	0	228	2	0	230	7	203	0	1	211	452
10:45 - 11:45	0	0	0	0	0	3	0	7	0	10	0	210	2	0	212	8	209	0	1	218	440
11:00 - 12:00	0	0	0	0	0	3	0	9	0	12	0	225	3	0	228	10	219	0	0	229	469
11:15 - 12:15	0	0	0	0	0	1	0	9	0	10	0	227	3	0	230	11	220	0	0	231	471
11:30 - 12:30	0	0	0	0	0	2	0	8	0	10	0	218	2	0	220	15	234	0	0	249	479
11:45 - 12:45	0	0	0	0	0	2	0	11	0	13	0	233	2	0	235	13	230	0	0	243	491
12:00 - 1:00	0	0	0	0	0	3	0	11	0	14	0	227	2	0	229	16	227	0	0	243	486
12:15 - 1:15	0	0	0	0	0	4	0	13	0	17	0	217	3	0	220	16	244	0	0	260	497
12:30 - 1:30	0	0	0	0	0	4	0	12	0	16	0	223	3	0	226	19	234	0	0	253	495
12:45 - 1:45	0	0	0	0	0	5	0	11	0	16	0	211	4	0	215	20	228	0	0	248	479
1:00 - 2:00	0	0	0	0	0	4	0	11	0	15	0	200	2	0	202	16	225	0	0	241	458
PEAK HOUR																					
12:15 - 1:15	0	0	0	0	0	4	0	13	0	17	0	217	3	0	220	16	244	0	0	260	497

7. MD 328 (E/W) & Swann Haven Rd (S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Swann Haven Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + 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	3	0	12	0	15	0	91	1	0	92	2	51	0	0	53	160
7:15 - 7:30	0	0	0	0	0	1	0	2	0	3	0	120	0	0	120	2	46	0	0	48	171
7:30 - 7:45	0	0	0	0	0	2	0	1	0	3	0	126	0	0	126	1	43	0	0	44	173
7:45 - 8:00	0	0	0	0	0	0	0	1	0	1	0	158	0	0	158	2	46	0	0	48	207
8:00 - 8:15	0	0	0	0	0	3	0	1	0	4	0	88	1	0	89	1	43	0	0	44	137
8:15 - 8:30	0	0	0	0	0	1	0	3	0	4	0	90	0	0	90	1	46	0	0	47	141
8:30 - 8:45	0	0	0	0	0	0	0	5	0	5	0	86	0	0	86	1	45	0	0	46	137
8:45 - 9:00	0	0	0	0	0	1	0	4	0	5	0	91	1	0	92	3	44	0	0	47	144
2 Hr Totals	0	0	0	0	0	11	0	29	0	40	0	850	3	0	853	13	364	0	0	377	1270
1 Hr Totals																					
7:00 - 8:00	0	0	0	0	0	6	0	16	0	22	0	495	1	0	496	7	186	0	0	193	711
7:15 - 8:15	0	0	0	0	0	6	0	5	0	11	0	492	1	0	493	6	178	0	0	184	688
7:30 - 8:30	0	0	0	0	0	6	0	6	0	12	0	462	1	0	463	5	178	0	0	183	658
7:45 - 8:45	0	0	0	0	0	4	0	10	0	14	0	422	1	0	423	5	180	0	0	185	622
8:00 - 9:00	0	0	0	0	0	5	0	13	0	18	0	355	2	0	357	6	178	0	0	184	559
PEAK HOUR																					
7:00 - 8:00	0	0	0	0	0	6	0	16	0	22	0	495	1	0	496	7	186	0	0	193	711
PM																					
4:00 - 4:15	0	0	0	0	0	0	0	2	0	2	0	56	1	0	57	4	102	0	0	106	165
4:15 - 4:30	0	0	0	0	0	5	0	4	0	9	0	76	1	0	77	5	110	0	0	115	201
4:30 - 4:45	0	0	0	0	0	1	0	2	0	3	0	58	2	0	60	4	116	0	0	120	183
4:45 - 5:00	0	0	0	0	0	1	0	3	0	4	0	61	0	0	61	3	106	0	0	109	174
5:00 - 5:15	0	0	0	0	0	1	0	2	0	3	0	71	0	0	71	5	112	0	0	117	191
5:15 - 5:30	0	0	0	0	0	0	0	1	0	1	0	68	0	0	68	3	89	0	0	92	161
5:30 - 5:45	0	0	0	0	0	3	0	5	0	8	0	59	2	0	61	1	92	0	0	93	162
5:45 - 6:00	0	0	0	0	0	2	0	5	0	7	0	52	2	0	54	1	74	0	0	75	136
2 Hr Totals	0	0	0	0	0	13	0	24	0	37	0	501	8	0	509	26	801	0	0	827	1373
1 Hr Totals																					
4:00 - 5:00	0	0	0	0	0	7	0	11	0	18	0	251	4	0	255	16	434	0	0	450	723
4:15 - 5:15	0	0	0	0	0	8	0	11	0	19	0	266	3	0	269	17	444	0	0	461	749
4:30 - 5:30	0	0	0	0	0	3	0	8	0	11	0	258	2	0	260	15	423	0	0	438	709
4:45 - 5:45	0	0	0	0	0	5	0	11	0	16	0	259	2	0	261	12	399	0	0	411	688
5:00 - 6:00	0	0	0	0	0	6	0	13	0	19	0	250	4	0	254	10	367	0	0	377	650
PEAK HOUR																					
4:15 - 5:15	0	0	0	0	0	8	0	11	0	19	0	266	3	0	269	17	444	0	0	461	749

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Swann Haven Road
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + 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																					
10:00 - 10:15	0	0	0	0	0	1	0	3	0	4	0	40	0	0	40	2	39	0	0	41	85
10:15 - 10:30	0	0	0	0	0	2	0	1	0	3	0	56	0	0	56	2	42	0	0	44	103
10:30 - 10:45	0	0	0	0	0	3	0	3	0	6	0	62	2	0	64	2	51	0	0	53	123
10:45 - 11:00	0	0	0	0	0	0	0	2	0	2	0	49	1	0	50	1	35	0	0	36	88
11:00 - 11:15	0	0	0	0	0	2	0	1	0	3	0	53	1	0	54	0	57	0	0	57	114
11:15 - 11:30	0	0	0	0	0	1	0	5	0	6	0	57	3	0	60	3	56	0	0	59	125
11:30 - 11:45	0	0	0	0	0	1	0	1	0	2	0	51	2	0	53	2	52	0	0	54	109
11:45 - 12:00	0	0	0	0	0	0	0	5	0	5	0	56	2	0	58	5	52	0	0	57	120
12:00 - 12:15	0	0	0	0	0	1	0	4	0	5	0	53	2	0	55	1	53	0	0	54	114
12:15 - 12:30	0	0	0	0	0	0	0	1	0	1	0	54	0	0	54	5	64	0	0	69	124
12:30 - 12:45	0	0	0	0	0	0	0	2	0	2	0	54	2	0	56	3	53	0	0	56	114
12:45 - 1:00	0	0	0	0	0	0	0	4	0	4	0	59	1	0	60	5	45	0	0	50	114
1:00 - 1:15	0	0	0	0	0	0	0	0	0	0	0	51	1	0	52	4	58	0	0	62	114
1:15 - 1:30	0	0	0	0	0	1	0	3	0	4	0	56	0	1	57	0	57	0	0	57	118
1:30 - 1:45	0	0	0	0	0	0	0	2	0	2	0	52	1	0	53	0	47	0	0	47	102
1:45 - 2:00	0	0	0	0	0	3	0	0	0	3	0	45	0	0	45	2	41	0	0	43	91
4 Hr Totals	0	0	0	0	0	15	0	37	0	52	0	848	18	1	867	37	802	0	0	839	1758
1 Hr Totals																					
10:00 - 11:00	0	0	0	0	0	6	0	9	0	15	0	207	3	0	210	7	167	0	0	174	399
10:15 - 11:15	0	0	0	0	0	7	0	7	0	14	0	220	4	0	224	5	185	0	0	190	428
10:30 - 11:30	0	0	0	0	0	6	0	11	0	17	0	221	7	0	228	6	199	0	0	205	450
10:45 - 11:45	0	0	0	0	0	4	0	9	0	13	0	210	7	0	217	6	200	0	0	206	436
11:00 - 12:00	0	0	0	0	0	4	0	12	0	16	0	217	8	0	225	10	217	0	0	227	468
11:15 - 12:15	0	0	0	0	0	3	0	15	0	18	0	217	9	0	226	11	213	0	0	224	468
11:30 - 12:30	0	0	0	0	0	2	0	11	0	13	0	214	6	0	220	13	221	0	0	234	467
11:45 - 12:45	0	0	0	0	0	1	0	12	0	13	0	217	6	0	223	14	222	0	0	236	472
12:00 - 1:00	0	0	0	0	0	1	0	11	0	12	0	220	5	0	225	14	215	0	0	229	466
12:15 - 1:15	0	0	0	0	0	0	0	7	0	7	0	218	4	0	222	17	220	0	0	237	466
12:30 - 1:30	0	0	0	0	0	1	0	9	0	10	0	220	4	1	225	12	213	0	0	225	460
12:45 - 1:45	0	0	0	0	0	1	0	9	0	10	0	218	3	1	222	9	207	0	0	216	448
1:00 - 2:00	0	0	0	0	0	4	0	5	0	9	0	204	2	1	207	6	203	0	0	209	425
PEAK HOUR																					
11:45 - 12:45	0	0	0	0	0	1	0	12	0	13	0	217	6	0	223	14	222	0	0	236	472

8. MD 328 (E/W) & Black Dog Rd (N/S)



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Black Dog Alley
Location: Talbot County, Maryland

Counted by: VCU
Date: June 09, 2022
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Black Dog Alley					TRAFFIC FROM SOUTH on: Black Dog Alley					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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	16	7	6	0	29	1	21	6	0	28	17	71	2	0	90	5	42	4	0	51	198
7:15 - 7:30	11	5	5	0	21	1	32	2	0	35	14	107	4	0	125	3	37	7	0	47	228
7:30 - 7:45	6	8	10	0	24	3	23	3	0	29	18	120	0	0	138	2	38	12	0	52	243
7:45 - 8:00	28	18	1	0	47	3	16	4	0	23	22	124	2	0	148	2	34	7	0	43	261
8:00 - 8:15	12	14	9	0	35	0	19	3	0	22	14	73	2	0	89	11	30	11	0	52	198
8:15 - 8:30	11	19	4	0	34	0	20	2	0	22	16	77	0	0	93	2	32	8	0	42	191
8:30 - 8:45	9	10	5	0	24	1	25	6	0	32	14	78	3	0	95	1	37	12	0	50	201
8:45 - 9:00	23	7	4	0	34	2	14	2	0	18	9	60	0	0	69	0	35	5	0	40	161
2 Hr Totals	116	88	44	0	248	11	170	28	0	209	124	710	13	0	847	26	285	66	0	377	1681
1 Hr Totals																					
7:00 - 8:00	61	38	22	0	121	8	92	15	0	115	71	422	8	0	501	12	151	30	0	193	930
7:15 - 8:15	57	45	25	0	127	7	90	12	0	109	68	424	8	0	500	18	139	37	0	194	930
7:30 - 8:30	57	59	24	0	140	6	78	12	0	96	70	394	4	0	468	17	134	38	0	189	893
7:45 - 8:45	60	61	19	0	140	4	80	15	0	99	66	352	7	0	425	16	133	38	0	187	851
8:00 - 9:00	55	50	22	0	127	3	78	13	0	94	53	288	5	0	346	14	134	36	0	184	751
PEAK HOUR																					
7:00 - 8:00	61	38	22	0	121	8	92	15	0	115	71	422	8	0	501	12	151	30	0	193	930
PM																					
4:00 - 4:15	17	31	14	0	62	1	14	6	0	21	5	39	1	0	45	4	81	22	0	107	235
4:15 - 4:30	20	28	28	0	76	0	16	2	0	18	11	53	0	0	64	8	90	12	0	110	268
4:30 - 4:45	12	24	15	0	51	1	18	5	0	24	12	47	0	0	59	4	103	15	0	122	256
4:45 - 5:00	11	35	17	0	63	1	17	5	0	23	10	39	1	0	50	9	89	10	0	108	244
5:00 - 5:15	22	36	23	0	81	0	18	4	0	22	7	49	0	0	56	4	93	15	0	112	271
5:15 - 5:30	12	22	23	0	57	2	18	8	0	28	19	47	0	0	66	10	66	11	0	87	238
5:30 - 5:45	19	18	19	0	56	1	22	2	0	25	10	46	0	0	56	8	67	18	0	93	230
5:45 - 6:00	16	29	12	0	57	4	13	3	0	20	10	35	0	0	45	5	51	18	0	74	196
2 Hr Totals	129	223	151	0	503	10	136	35	0	181	84	355	2	0	441	52	640	121	0	813	1938
1 Hr Totals																					
4:00 - 5:00	60	118	74	0	252	3	65	18	0	86	38	178	2	0	218	25	363	59	0	447	1003
4:15 - 5:15	65	123	83	0	271	2	69	16	0	87	40	188	1	0	229	25	375	52	0	452	1039
4:30 - 5:30	57	117	78	0	252	4	71	22	0	97	48	182	1	0	231	27	351	51	0	429	1009
4:45 - 5:45	64	111	82	0	257	4	75	19	0	98	46	181	1	0	228	31	315	54	0	400	983
5:00 - 6:00	69	105	77	0	251	7	71	17	0	95	46	177	0	0	223	27	277	62	0	366	935
PEAK HOUR																					
4:15 - 5:15	65	123	83	0	271	2	69	16	0	87	40	188	1	0	229	25	375	52	0	452	1039

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 328
and: Black Dog Alley
Location: Talbot County, Maryland

Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: Black Dog Alley					TRAFFIC FROM SOUTH on: Black Dog Alley					TRAFFIC FROM EAST on: MD 328					TRAFFIC FROM WEST on: MD 328					TOTAL N + S + 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																					
10:00 - 10:15	8	13	4	0	25	0	9	0	0	9	5	34	2	0	41	4	30	8	0	42	117
10:15 - 10:30	7	11	4	0	22	1	16	2	0	19	10	49	1	0	60	8	30	10	0	48	149
10:30 - 10:45	26	20	7	0	53	1	6	1	0	8	3	39	1	0	43	3	36	10	0	49	153
10:45 - 11:00	13	19	7	0	39	1	20	0	0	21	9	36	1	0	46	2	32	9	0	43	149
11:00 - 11:15	14	19	9	0	42	1	7	4	0	12	6	35	1	0	42	4	40	11	0	55	151
11:15 - 11:30	18	12	2	0	32	0	15	4	0	19	11	38	3	0	52	5	41	11	0	57	160
11:30 - 11:45	14	15	6	0	35	1	6	1	0	8	6	33	0	0	39	2	45	8	0	55	137
11:45 - 12:00	11	15	5	0	31	3	14	1	0	18	10	51	0	0	61	7	32	9	0	48	158
12:00 - 12:15	15	16	13	0	44	1	11	2	0	14	8	37	2	0	47	4	38	13	0	55	160
12:15 - 12:30	14	21	9	0	44	1	13	5	0	19	7	36	0	0	43	5	40	11	0	56	162
12:30 - 12:45	18	21	7	0	46	2	12	5	0	19	5	36	1	0	42	5	40	12	0	57	164
12:45 - 1:00	19	18	7	0	44	2	9	3	0	14	6	35	1	0	42	2	31	7	0	40	140
1:00 - 1:15	11	30	5	0	46	2	12	7	0	21	5	34	2	0	41	3	49	11	0	63	171
1:15 - 1:30	15	23	8	0	46	1	17	0	0	18	5	38	0	0	43	3	45	12	0	60	167
1:30 - 1:45	8	20	8	0	36	1	9	1	0	11	7	43	0	0	50	3	34	10	0	47	144
1:45 - 2:00	11	13	1	0	25	2	12	3	0	17	6	33	2	0	41	8	29	8	0	45	128
4 Hr Totals	222	286	102	0	610	20	188	39	0	247	109	607	17	0	733	68	592	160	0	820	2410
1 Hr Totals																					
10:00 - 11:00	54	63	22	0	139	3	51	3	0	57	27	158	5	0	190	17	128	37	0	182	568
10:15 - 11:15	60	69	27	0	156	4	49	7	0	60	28	159	4	0	191	17	138	40	0	195	602
10:30 - 11:30	71	70	25	0	166	3	48	9	0	60	29	148	6	0	183	14	149	41	0	204	613
10:45 - 11:45	59	65	24	0	148	3	48	9	0	60	32	142	5	0	179	13	158	39	0	210	597
11:00 - 12:00	57	61	22	0	140	5	42	10	0	57	33	157	4	0	194	18	158	39	0	215	606
11:15 - 12:15	58	58	26	0	142	5	46	8	0	59	35	159	5	0	199	18	156	41	0	215	615
11:30 - 12:30	54	67	33	0	154	6	44	9	0	59	31	157	2	0	190	18	155	41	0	214	617
11:45 - 12:45	58	73	34	0	165	7	50	13	0	70	30	160	3	0	193	21	150	45	0	216	644
12:00 - 1:00	66	76	36	0	178	6	45	15	0	66	26	144	4	0	174	16	149	43	0	208	626
12:15 - 1:15	62	90	28	0	180	7	46	20	0	73	23	141	4	0	168	15	160	41	0	216	637
12:30 - 1:30	63	92	27	0	182	7	50	15	0	72	21	143	4	0	168	13	165	42	0	220	642
12:45 - 1:45	53	91	28	0	172	6	47	11	0	64	23	150	3	0	176	11	159	40	0	210	622
1:00 - 2:00	45	86	22	0	153	6	50	11	0	67	23	148	4	0	175	17	157	41	0	215	610
PEAK HOUR																					
11:45 - 12:45	58	73	34	0	165	7	50	13	0	70	30	160	3	0	193	21	150	45	0	216	644

APPENDIX B

Capacity Analysis Worksheets



CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

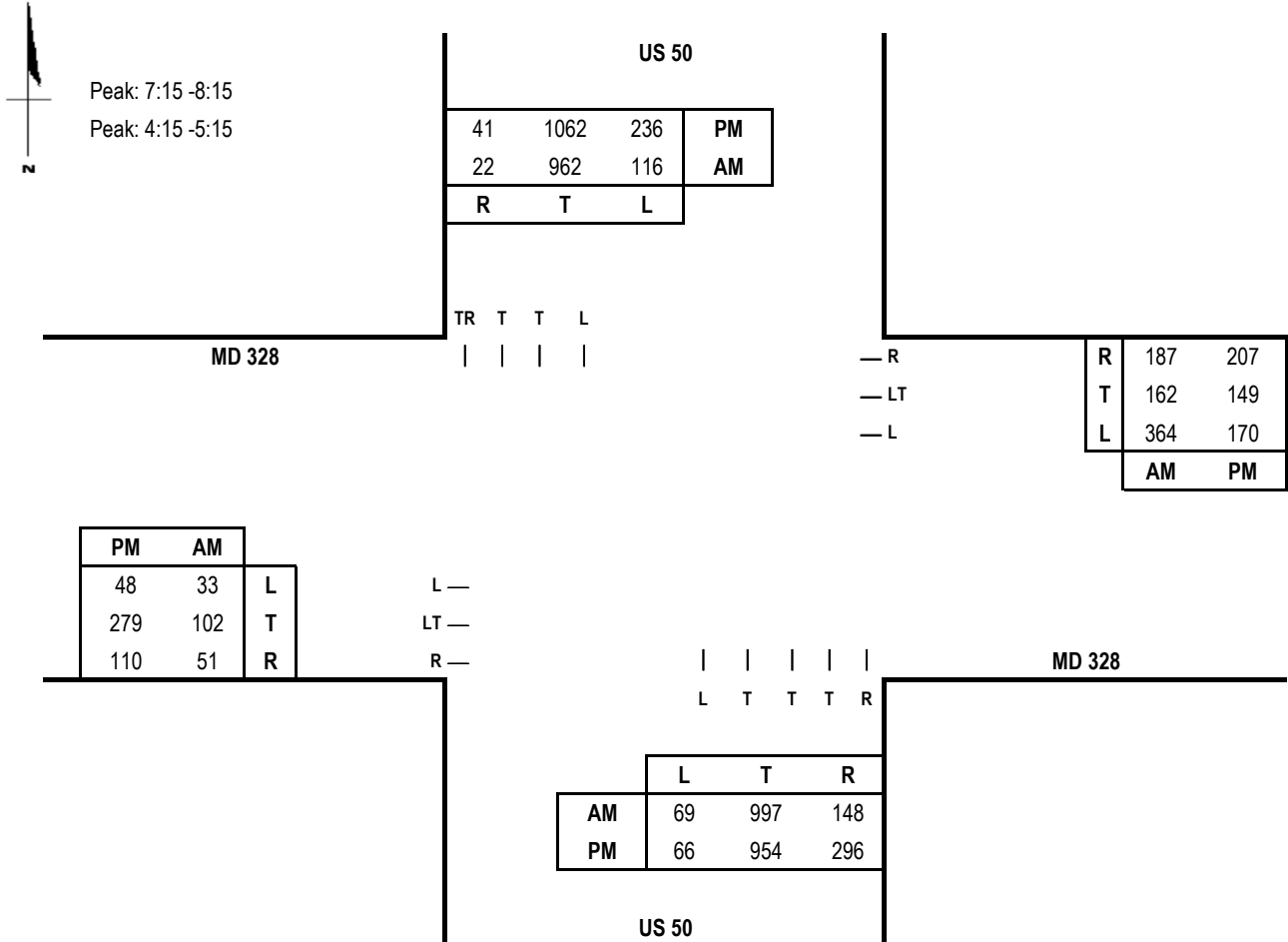
N/S Road: US 50

Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022

Day of Week: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	102	1.00	102				102
WB	526	0.60	316				316
NB	997	0.40	399	116	1.00	116	515
SB	984	0.40	394	69	1.00	69	
CLV TOTAL=							933
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	279	1.00	279				279
WB	319	0.60	191				191
NB	954	0.40	382	236	1.00	236	618
SB	1103	0.40	441	66	1.00	66	
CLV TOTAL=							1,088
Level of Service (LOS)=							B

Scenario ID - EXIST1

AM V/C =0.58

PM V/C =0.68

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

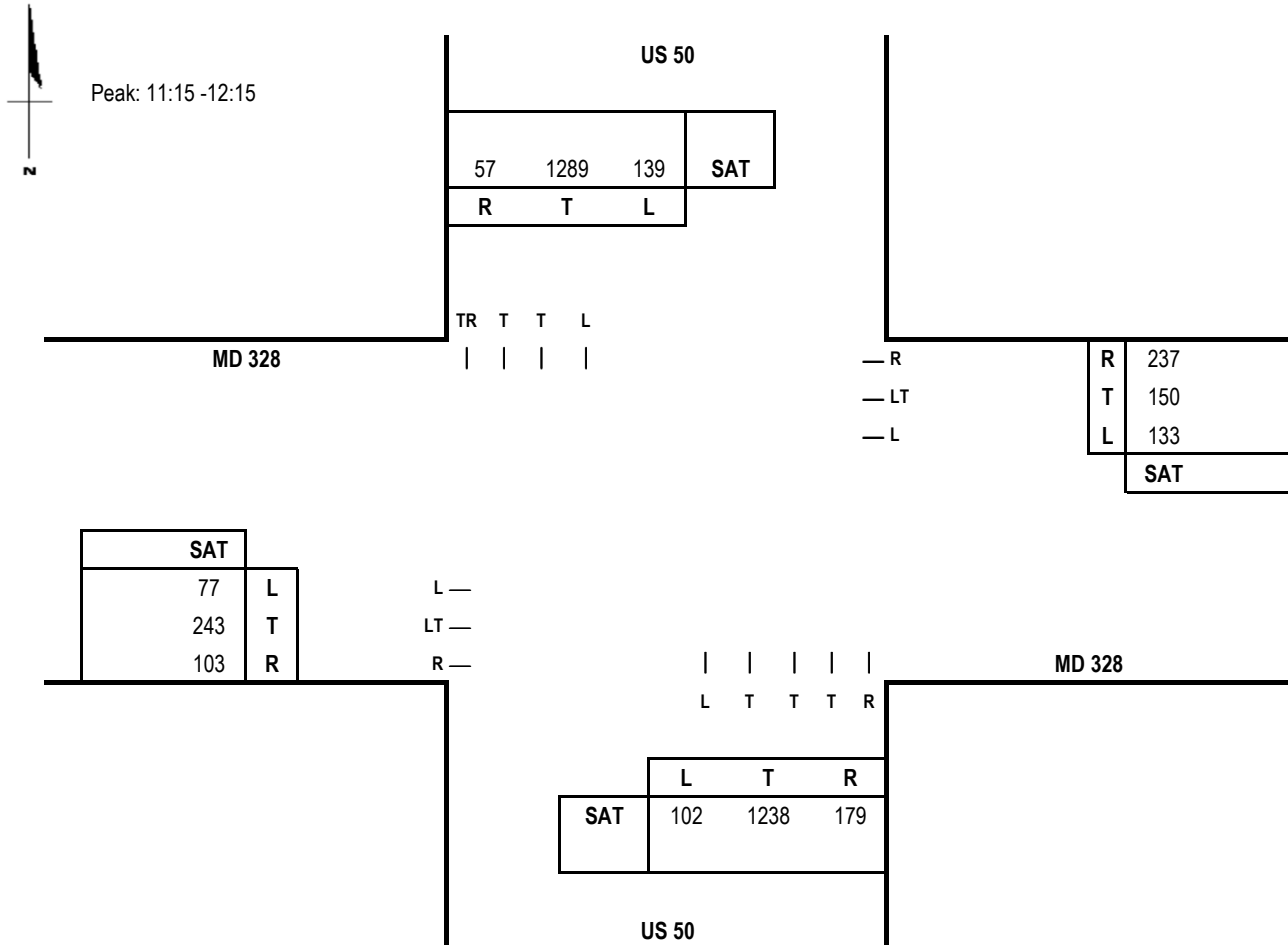
N/S Road: US 50

Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022

Day of Week: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	243	1.00	243				243
WB	283	0.60	170				170
NB	1238	0.40	495	139	1.00	139	640
SB	1346	0.40	538	102	1.00	102	
CLV TOTAL=							1,053
Level of Service (LOS)=							B

Scenario ID - EXIST1

SAT V/C =0.66

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

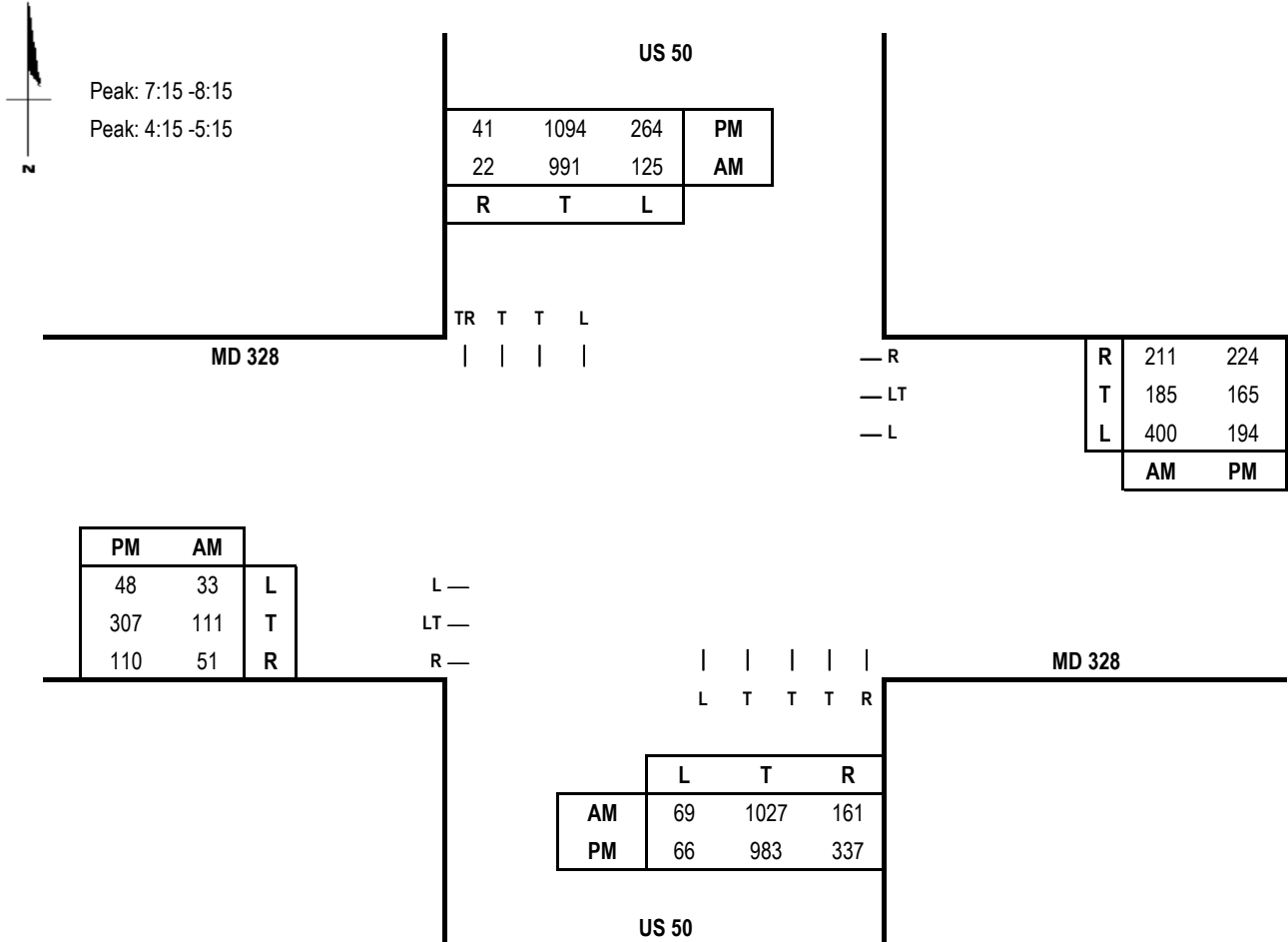
N/S Road: US 50

Conditions: 2025 Background Traffic

Date of Count: 6/9/2022

Day of Week: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	111	1.00	111				111
WB	585	0.60	351				351
NB	1027	0.40	411	125	1.00	125	536
SB	1013	0.40	405	69	1.00	69	
CLV TOTAL=							998
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	307	1.00	307				307
WB	359	0.60	215				215
NB	983	0.40	393	264	1.00	264	657
SB	1135	0.40	454	66	1.00	66	
CLV TOTAL=							1,179
Level of Service (LOS)=							C

Scenario ID - BACK1

AM V/C =0.62

PM V/C =0.74

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

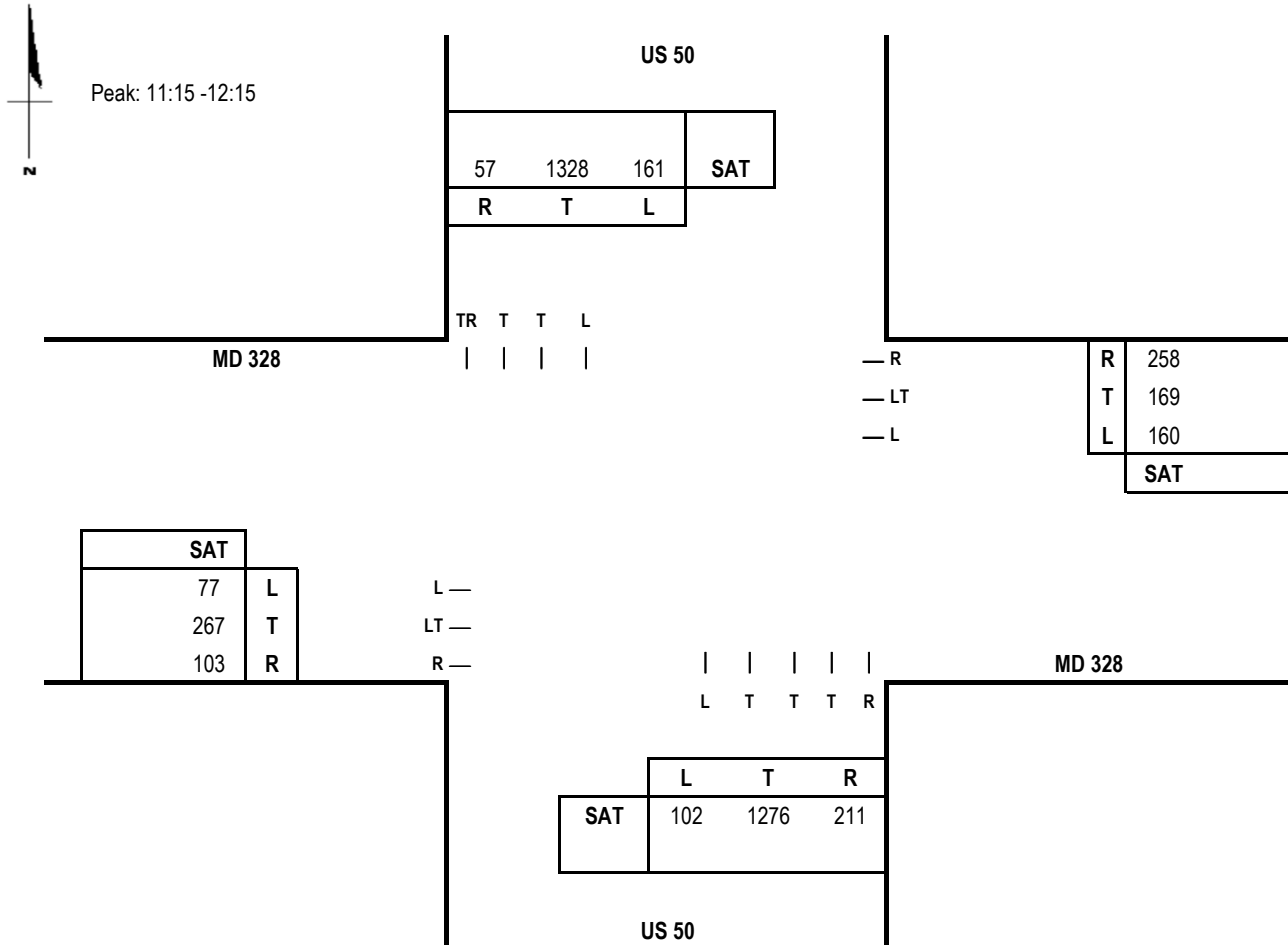
N/S Road: US 50

Conditions: 2025 Background Traffic

Date of Count: 6/11/2022

Day of Week: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	267	1.00	267				267
WB	329	0.60	197				197
NB	1276	0.40	510	161	1.00	161	671
SB	1385	0.40	554	102	1.00	102	
CLV TOTAL=							1,135
Level of Service (LOS)=							B

Scenario ID - BACK1

SAT V/C =0.71

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

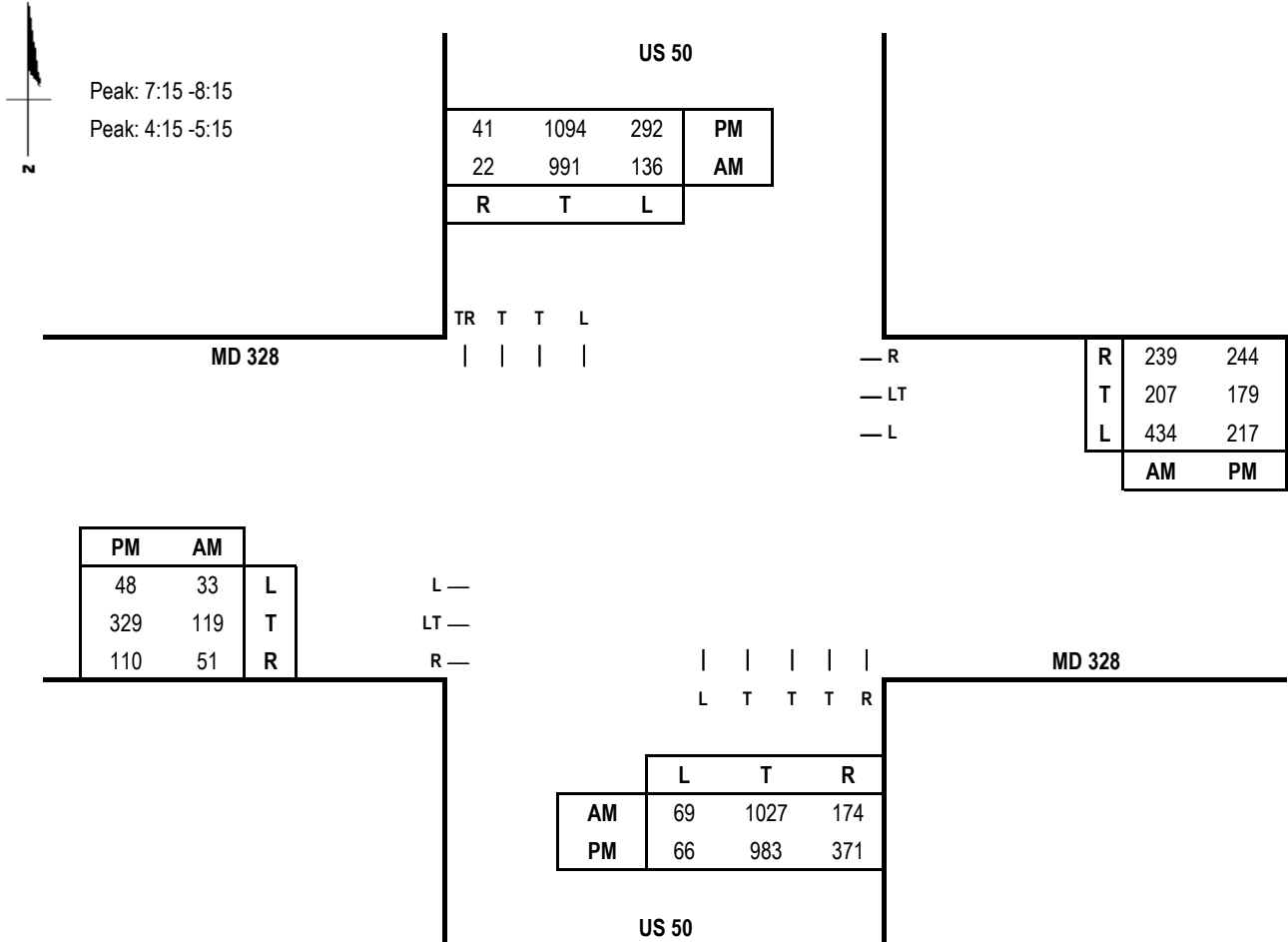
N/S Road: US 50

Conditions: 2025 Total Traffic

Date of Count: 6/9/2022

Day of Week: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	119	1.00	119				119
WB	641	0.60	385				385
NB	1027	0.40	411	136	1.00	136	547
SB	1013	0.40	405	69	1.00	69	
CLV TOTAL=							1,051
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	329	1.00	329				329
WB	396	0.60	238				238
NB	983	0.40	393	292	1.00	292	685
SB	1135	0.40	454	66	1.00	66	
CLV TOTAL=							1,252
Level of Service (LOS)=							C

Scenario ID - TOT1

AM V/C =0.66

PM V/C =0.78

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

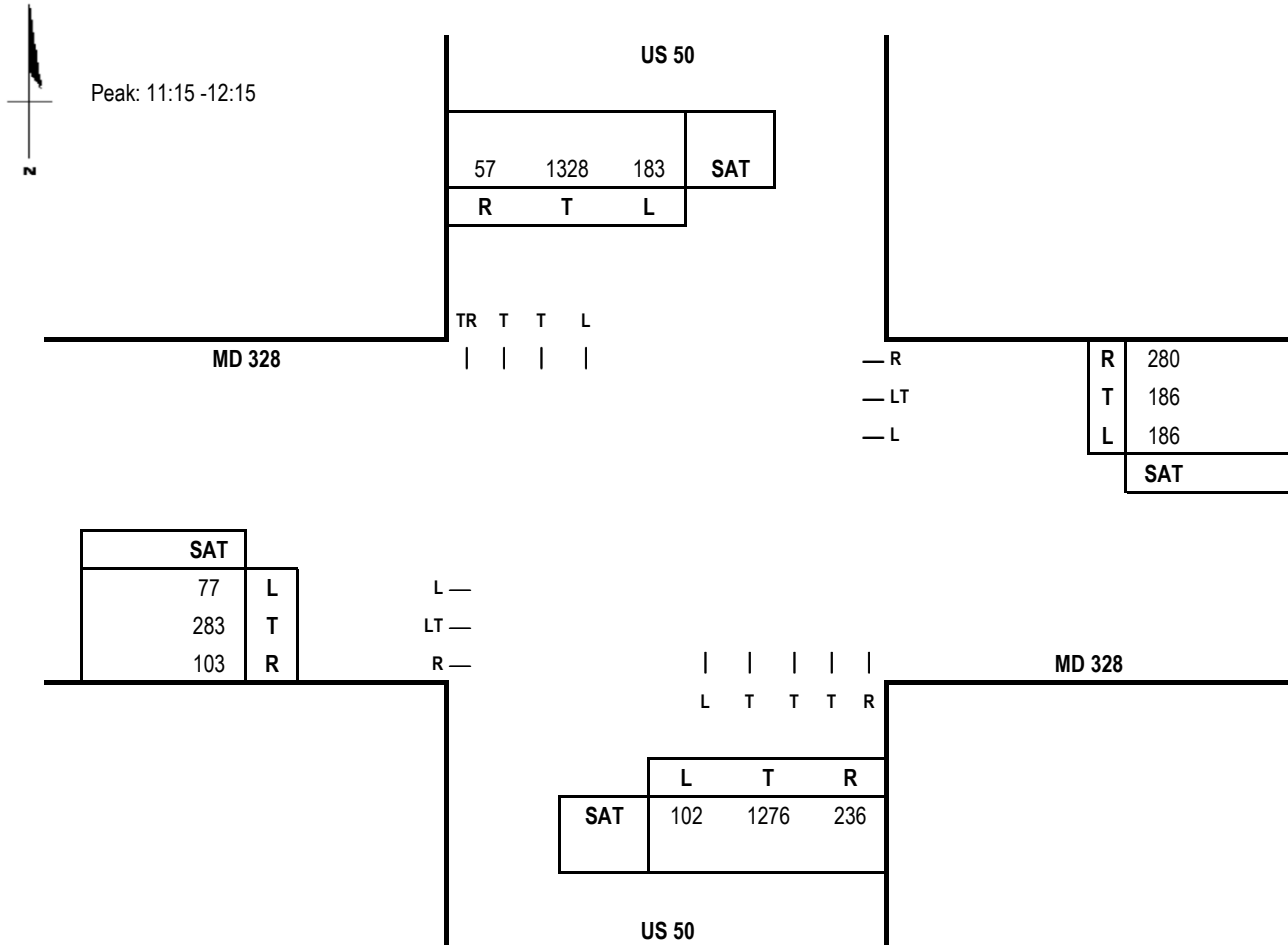
N/S Road: US 50

Conditions: 2025 Total Traffic

Date of Count: 6/11/2022

Day of Week: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis - East/West Split

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	283	1.00	283				283
WB	372	0.60	223				223
NB	1276	0.40	510	183	1.00	183	693
SB	1385	0.40	554	102	1.00	102	
CLV TOTAL=							1,199
Level of Service (LOS)=							C

Scenario ID - TOT1

SAT V/C =0.75

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

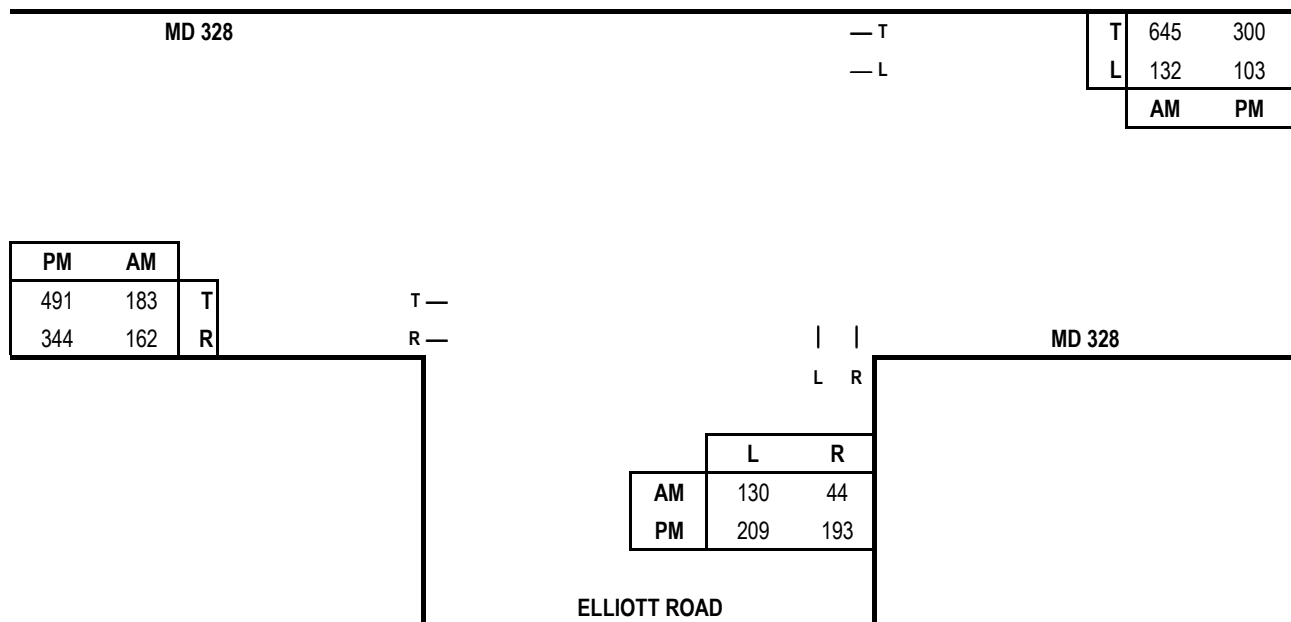
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:15 - 8:15

Peak: 4:00 - 5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	130	1.00	130				130
EB	183	1.00	183	132	1.00	132	645
WB	645	1.00	645				
CLV TOTAL=							775
Level of Service (LOS)=							A

CLV V/C =0.48

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	209	1.00	209				209
EB	491	1.00	491	103	1.00	103	594
WB	300	1.00	300				
CLV TOTAL=							803
Level of Service (LOS)=							A

CLV V/C =0.5

Scenario ID - EXIST2

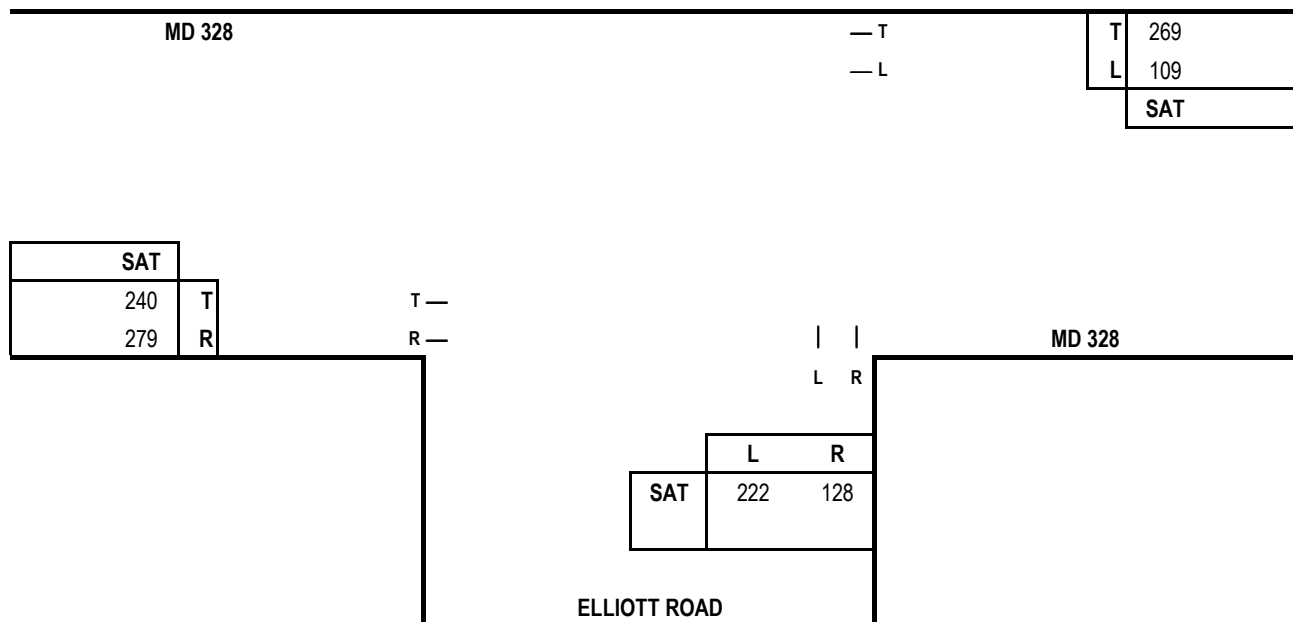
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:30 -12:30



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	222	1.00	222				222
EB	240	1.00	240	109	1.00	109	349
WB	269	1.00	269				
CLV TOTAL=							571
Level of Service (LOS)=							A

Scenario ID - EXIST2

CLV V/C =0.36

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

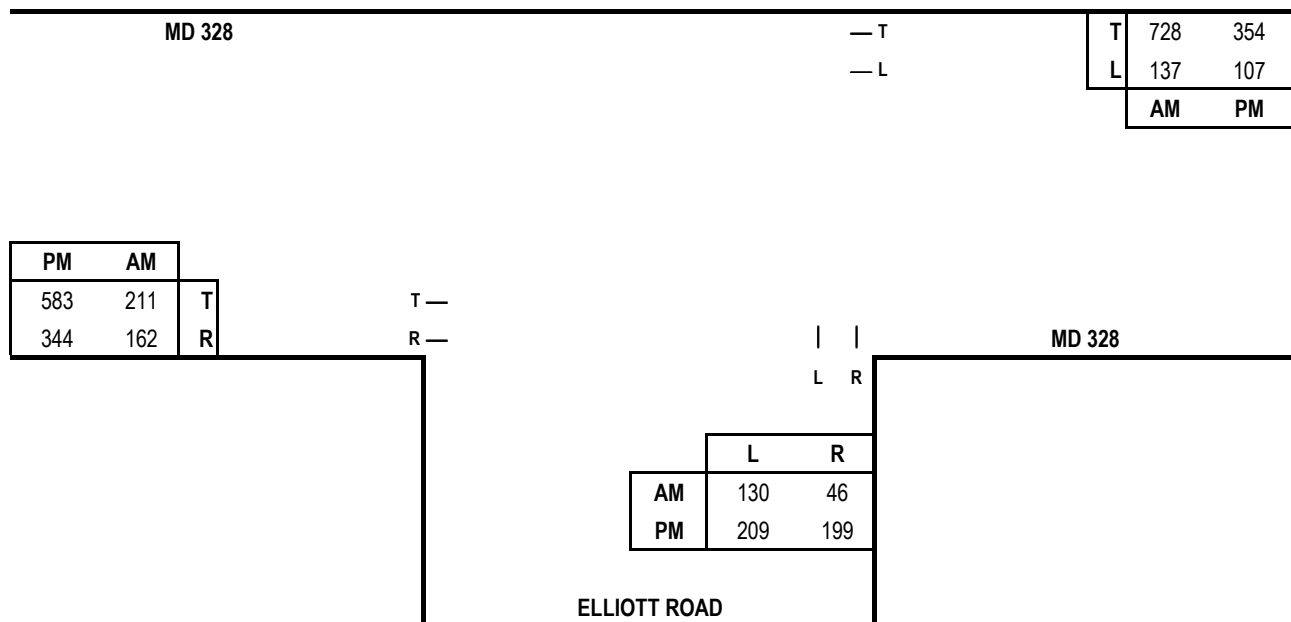
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:15 -8:15

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	130	1.00	130				130
EB	211	1.00	211	137	1.00	137	728
WB	728	1.00	728				
CLV TOTAL=							858
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	209	1.00	209				209
EB	583	1.00	583	107	1.00	107	690
WB	354	1.00	354				
CLV TOTAL=							899
Level of Service (LOS)=							A

Scenario ID - BACK2

CLV V/C =0.54

CLV V/C =0.56

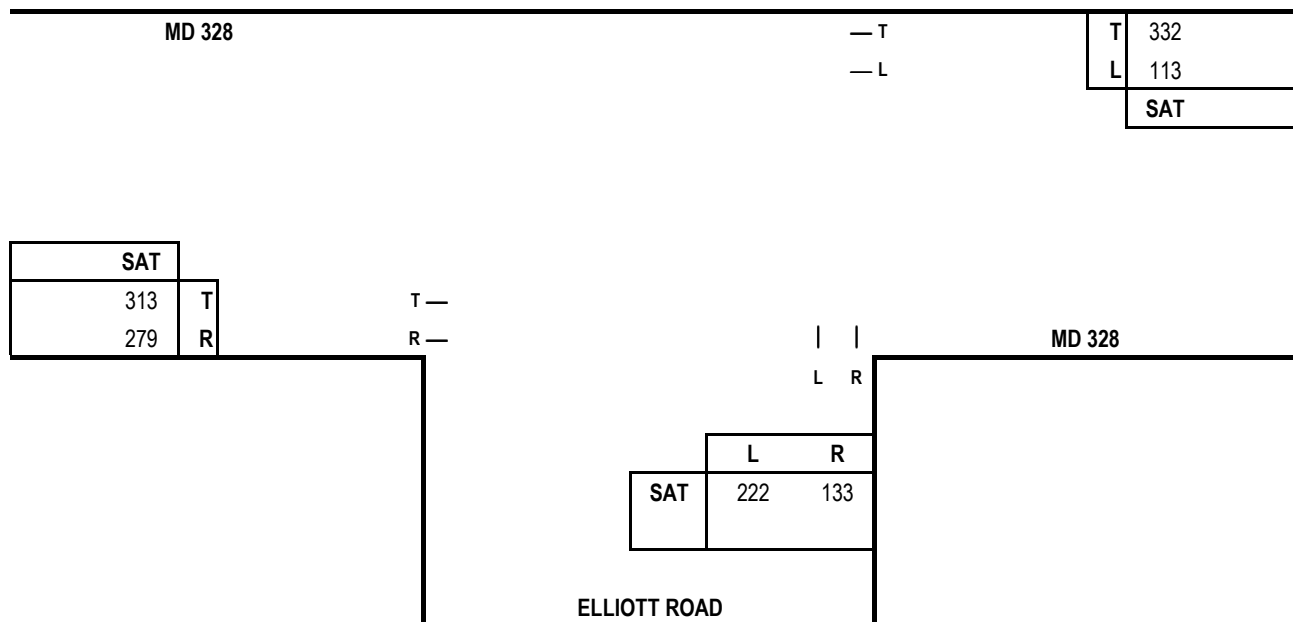
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Background Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:30 -12:30



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	222	1.00	222				222
EB	313	1.00	313	113	1.00	113	426
WB	332	1.00	332				
CLV TOTAL=							648
Level of Service (LOS)=							A

Scenario ID - BACK2

CLV V/C =0.41

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

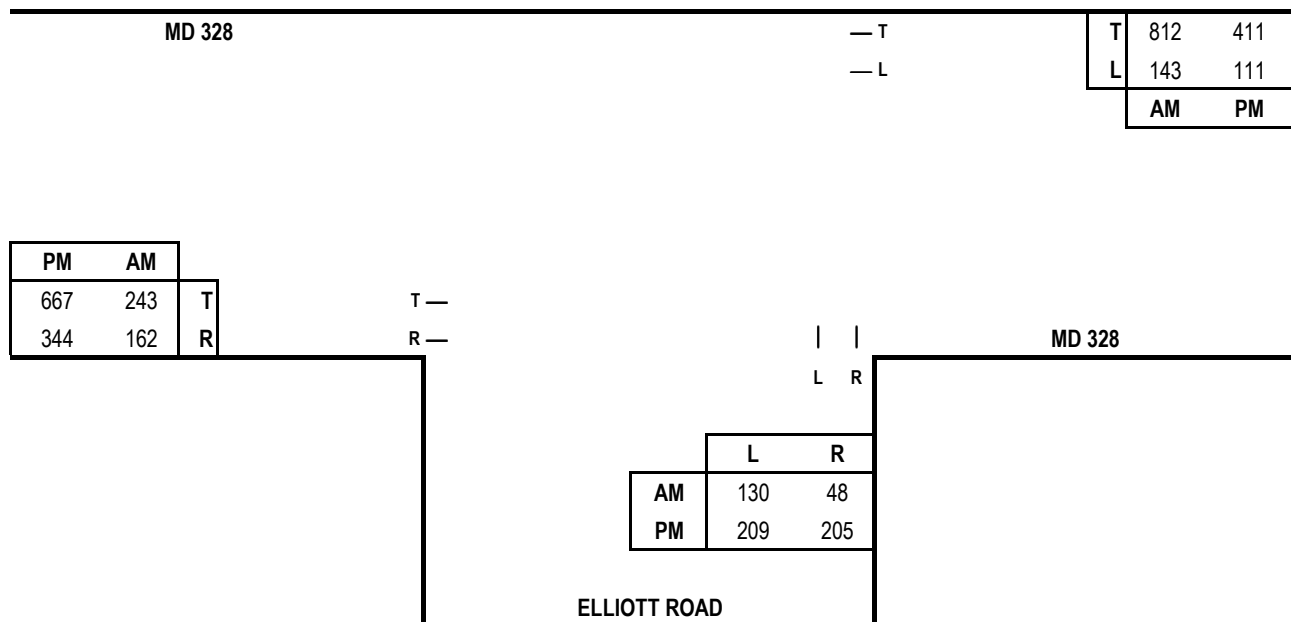
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:15 -8:15

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	130	1.00	130				130
EB	243	1.00	243	143	1.00	143	812
WB	812	1.00	812				
CLV TOTAL=							942
Level of Service (LOS)=							A

CLV V/C =0.59

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	209	1.00	209				209
EB	667	1.00	667	111	1.00	111	778
WB	411	1.00	411				
CLV TOTAL=							987
Level of Service (LOS)=							A

CLV V/C =0.62

Scenario ID - TOT2

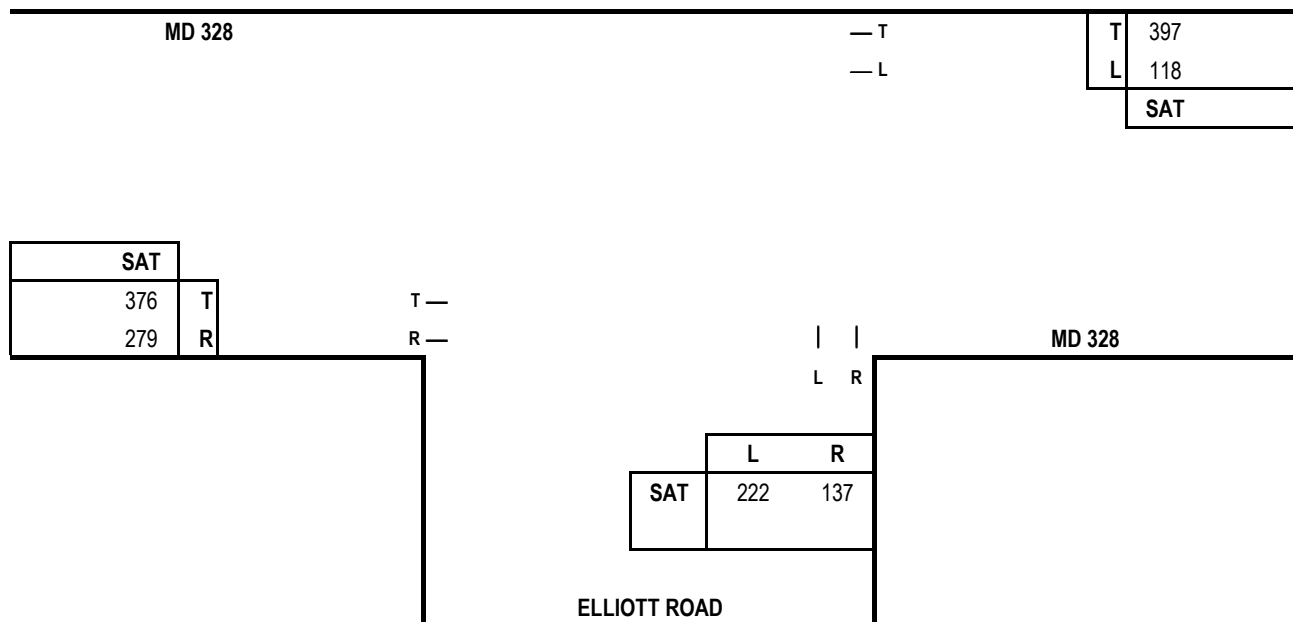
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:30 -12:30



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	222	1.00	222				222
EB	376	1.00	376	118	1.00	118	494
WB	397	1.00	397				
CLV TOTAL=							716
Level of Service (LOS)=							A

Scenario ID - TOT2

CLV V/C =0.45

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

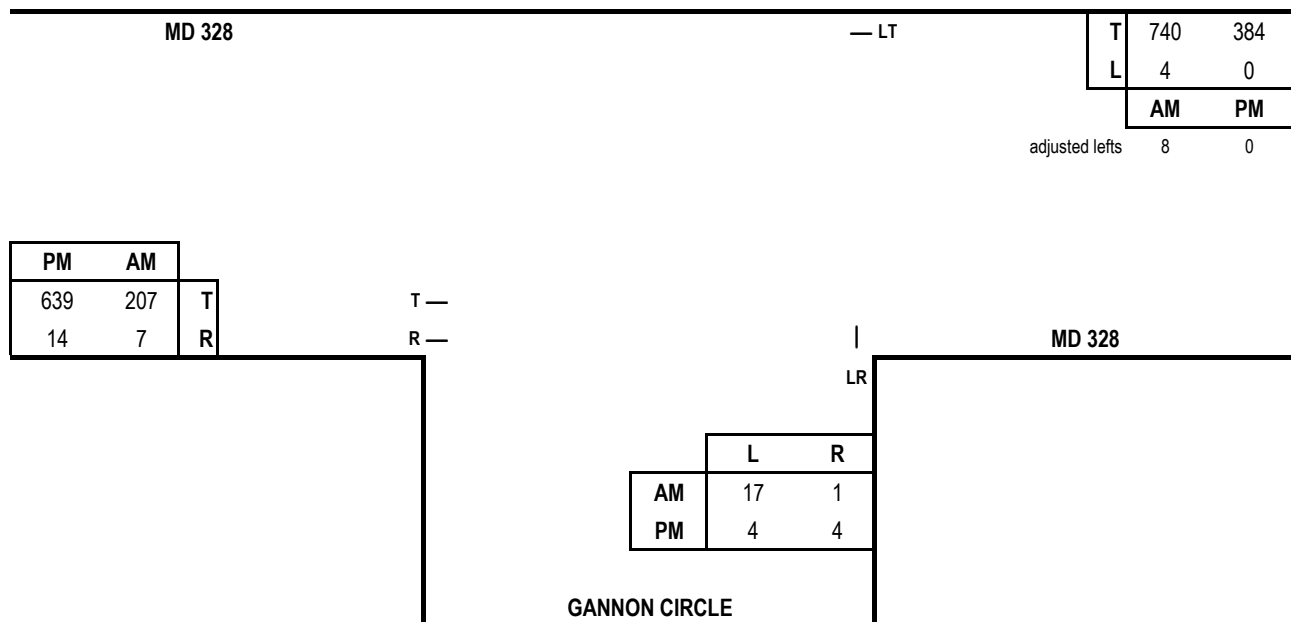
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

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	207	1.00	207	4	1.00	4	748
WB	748	1.00	748				
CLV TOTAL=							766
Level of Service (LOS)=							A

CLV V/C =0.48

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	639	1.00	639	0	1.00	0	639
WB	384	1.00	384				
CLV TOTAL=							647
Level of Service (LOS)=							A

CLV V/C =0.4

Scenario ID - EXIST3

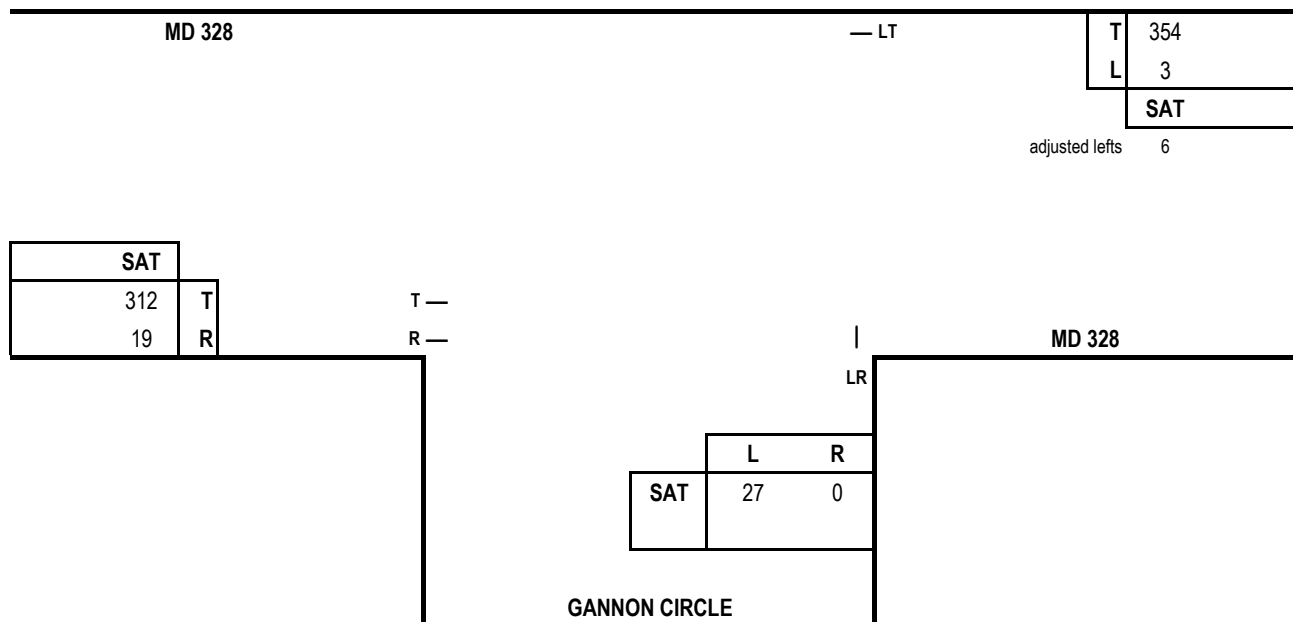
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	27	1.00	27				27
EB	312	1.00	312	3	1.00	3	360
WB	360	1.00	360				
CLV TOTAL=							387
Level of Service (LOS)=							A

Scenario ID - EXIST3

CLV V/C =0.24

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

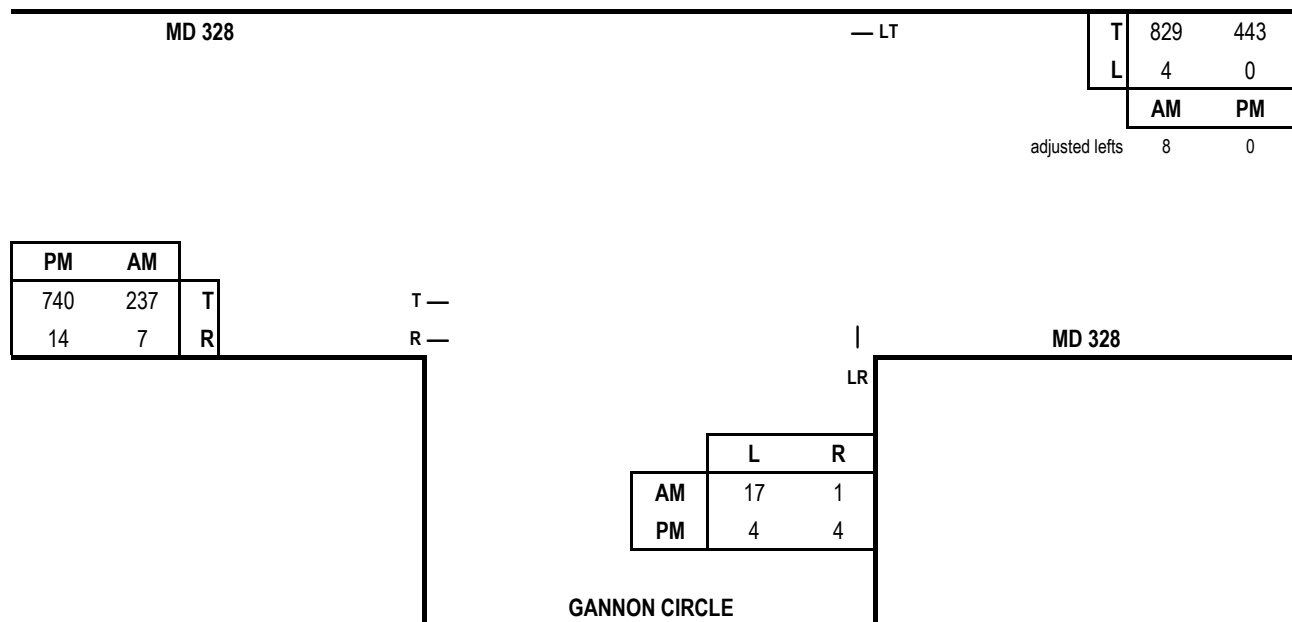
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

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	237	1.00	237	4	1.00	4	837
WB	837	1.00	837				
CLV TOTAL=							855
Level of Service (LOS)=							A

CLV V/C =0.53

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	740	1.00	740	0	1.00	0	740
WB	443	1.00	443				
CLV TOTAL=							748
Level of Service (LOS)=							A

CLV V/C =0.47

Scenario ID - BACK3

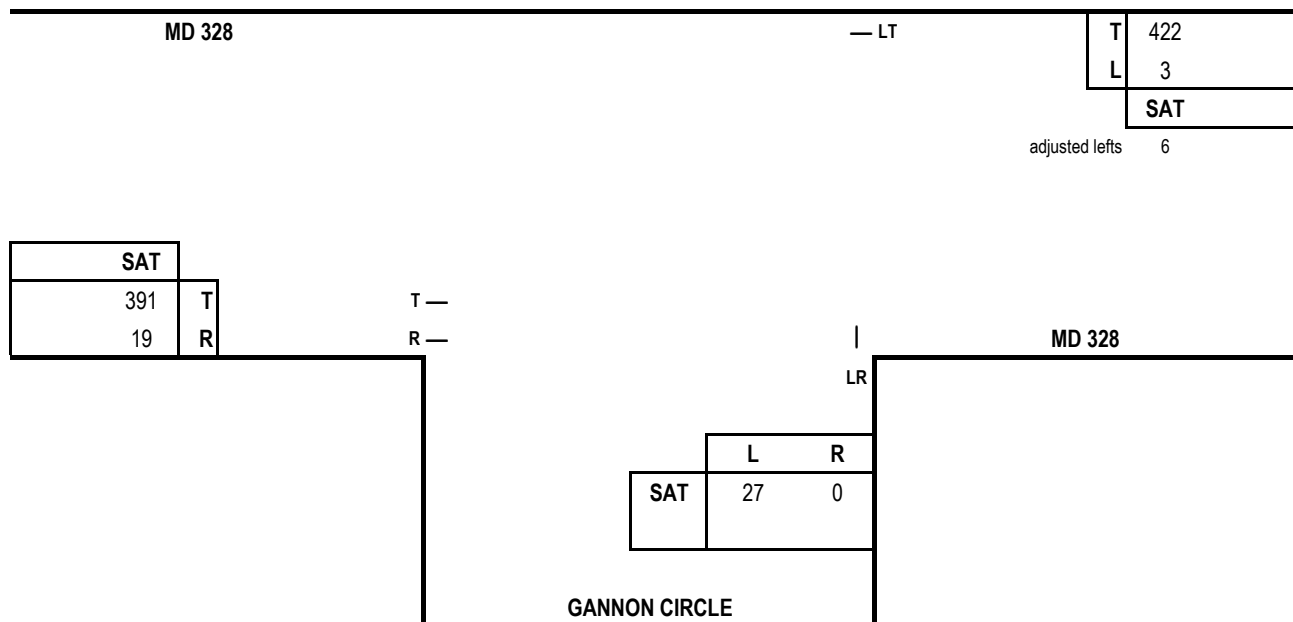
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Background Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	27	1.00	27				27
EB	391	1.00	391	3	1.00	3	428
WB	428	1.00	428				
CLV TOTAL=							455
Level of Service (LOS)=							A

Scenario ID - BACK3

CLV V/C =0.28

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

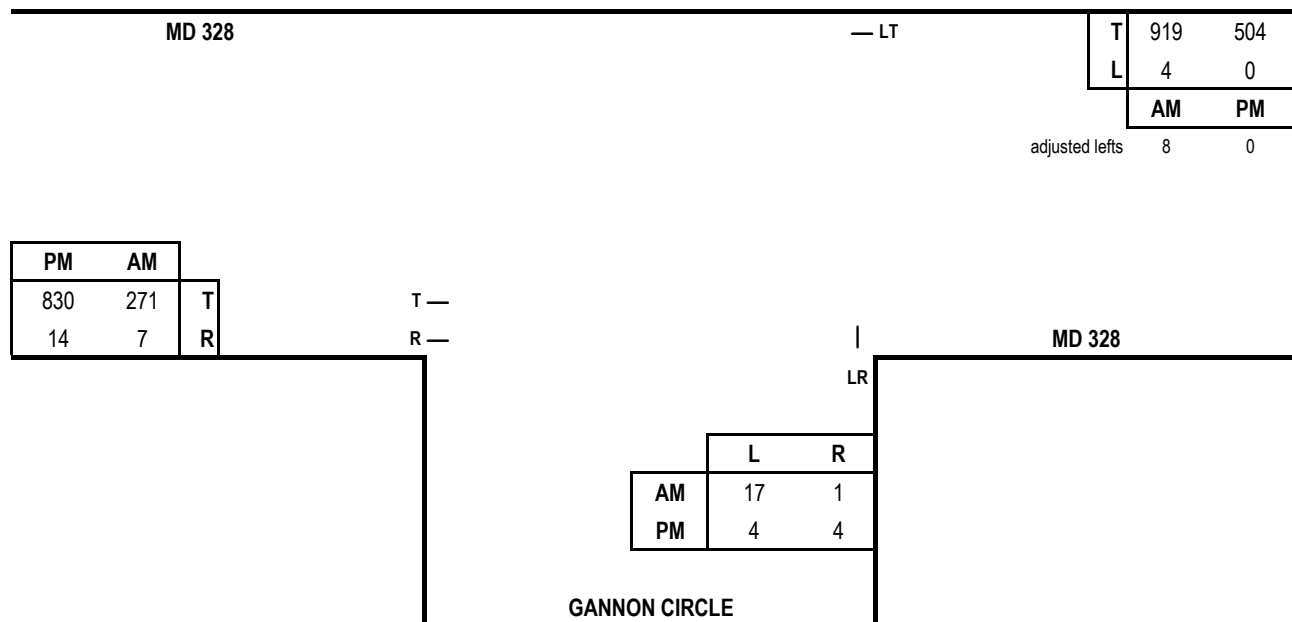
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

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	271	1.00	271	4	1.00	4	927
WB	927	1.00	927				
CLV TOTAL=							945
Level of Service (LOS)=							A

CLV V/C =0.59

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	830	1.00	830	0	1.00	0	830
WB	504	1.00	504				
CLV TOTAL=							838
Level of Service (LOS)=							A

CLV V/C =0.52

Scenario ID - TOT3

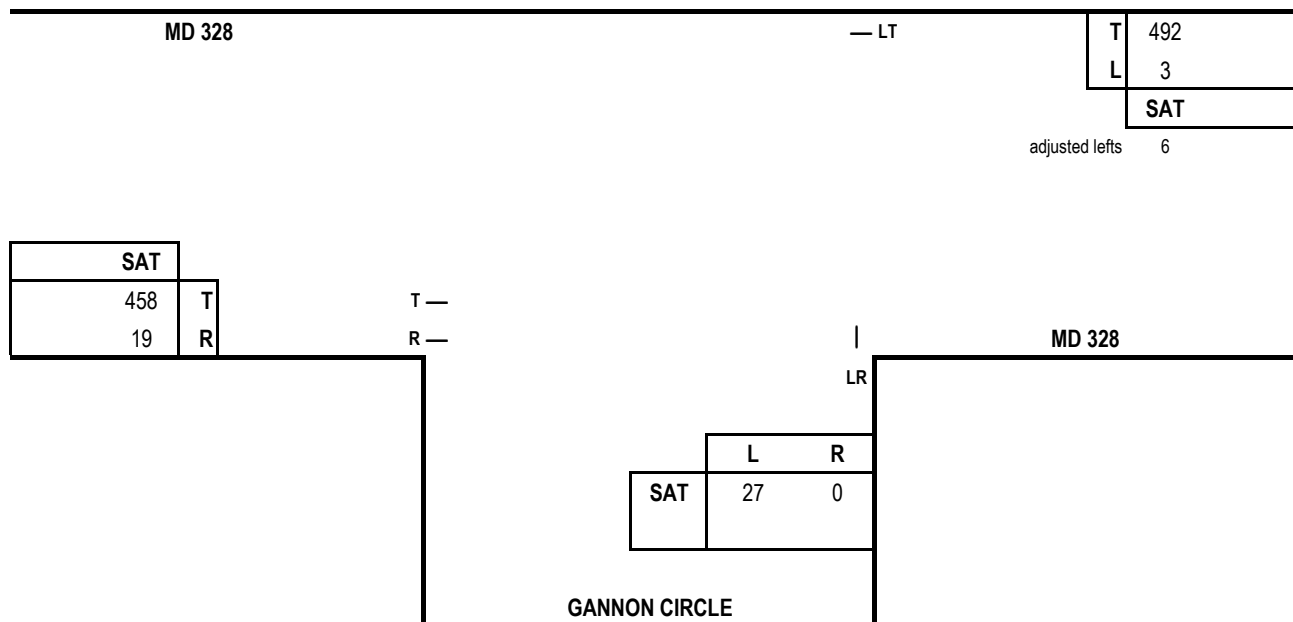
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	27	1.00	27				27
EB	458	1.00	458	3	1.00	3	498
WB	498	1.00	498				
CLV TOTAL=							525
Level of Service (LOS)=							A

Scenario ID - TOT3

CLV V/C =0.33

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

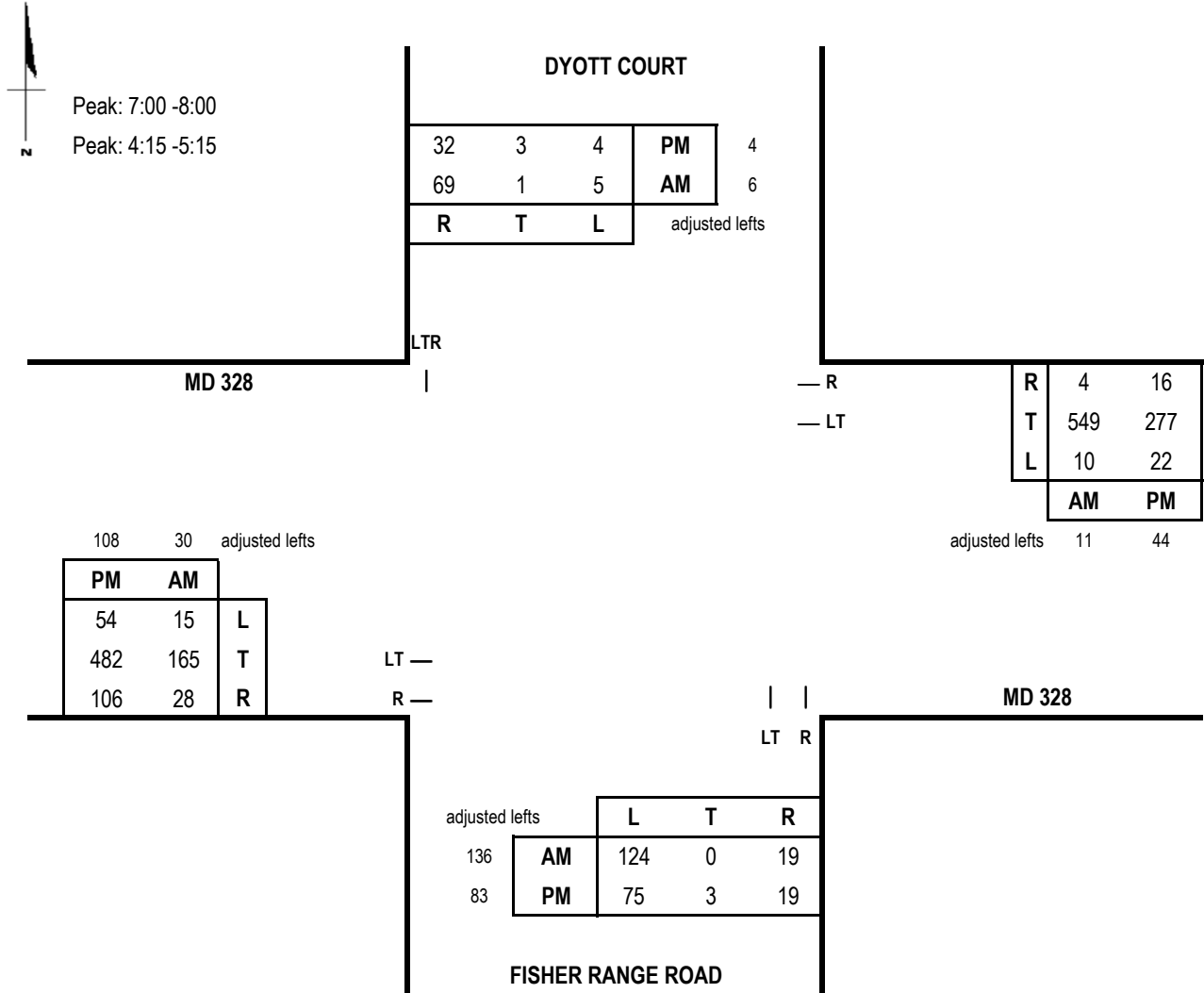
Date of Count: 6/9/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Thursday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	136	1.00	136	5	1.00	5	200
SB	76	1.00	76	124	1.00	124	
EB	195	1.00	195	10	1.00	10	575
WB	560	1.00	560	15	1.00	15	
CLV TOTAL=							775
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	86	1.00	86	4	1.00	4	114
SB	39	1.00	39	75	1.00	75	
EB	590	1.00	590	22	1.00	22	612
WB	321	1.00	321	54	1.00	54	
CLV TOTAL=							726
Level of Service (LOS)=							A

Scenario ID - EXIST4

AM V/C =0.48

PM V/C =0.45

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

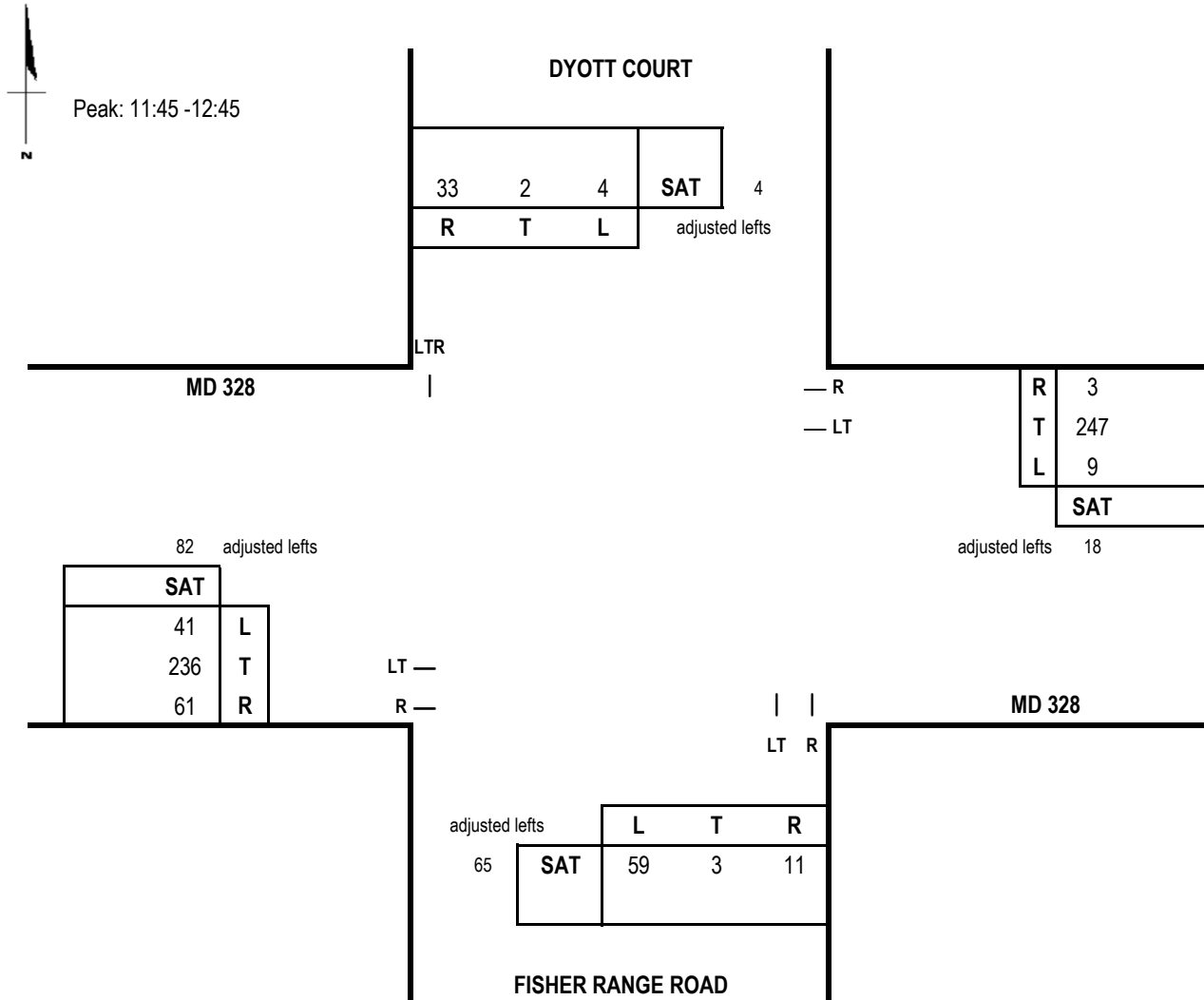
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	68	1.00	68	4	1.00	4	98
SB	39	1.00	39	59	1.00	59	
EB	318	1.00	318	9	1.00	9	327
WB	265	1.00	265	41	1.00	41	
CLV TOTAL=							425
Level of Service (LOS)=							A

Scenario ID - EXIST4

SAT V/C =0.27

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

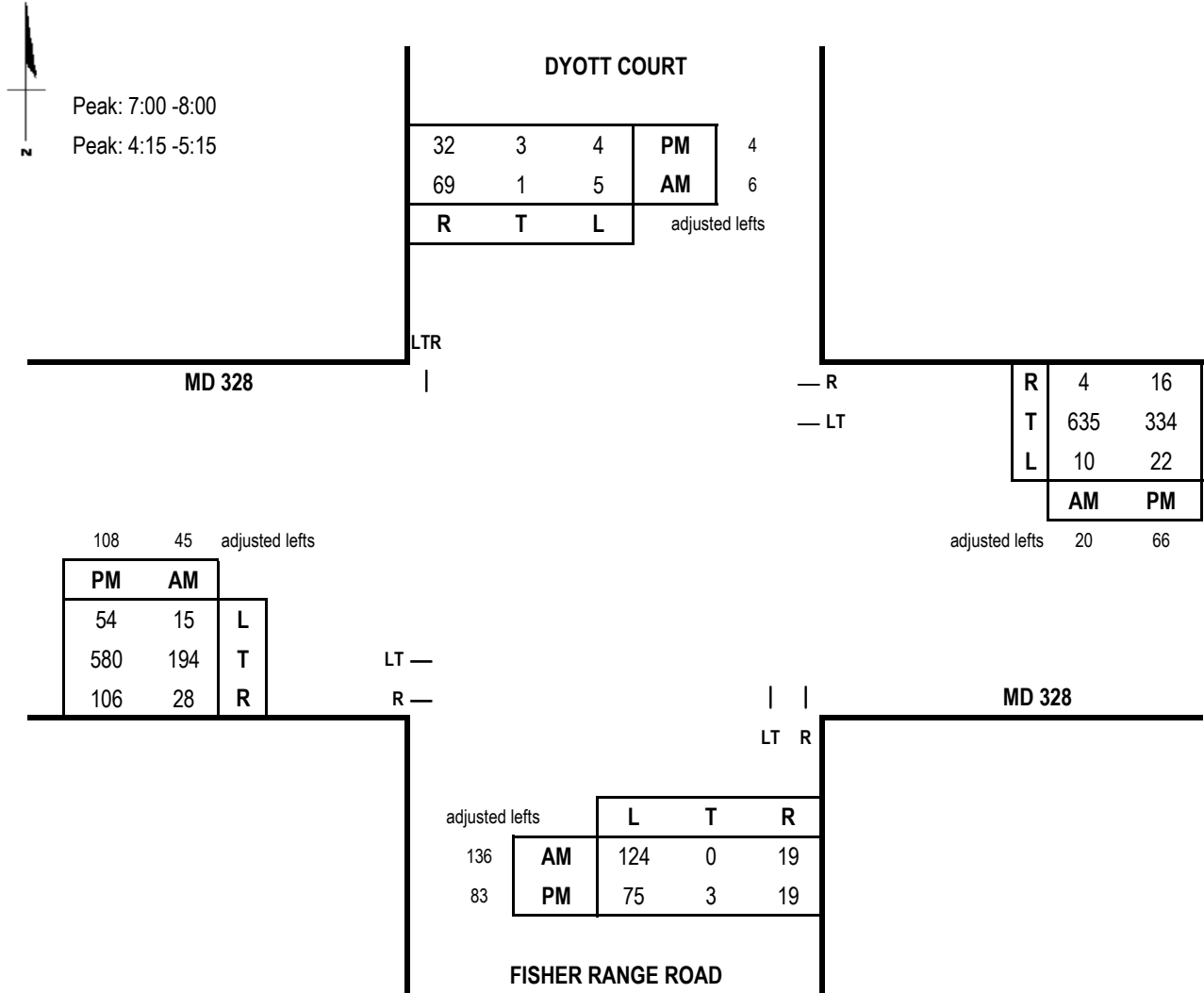
Date of Count: 6/9/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Thursday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	136	1.00	136	5	1.00	5
SB	76	1.00	76	124	1.00	124
EB	239	1.00	239	10	1.00	10
WB	655	1.00	655	15	1.00	15
CLV TOTAL=						870
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	86	1.00	86	4	1.00	4
SB	39	1.00	39	75	1.00	75
EB	688	1.00	688	22	1.00	22
WB	400	1.00	400	54	1.00	54
CLV TOTAL=						824
Level of Service (LOS)=						A

Scenario ID - BACK4

AM V/C =0.54

PM V/C =0.52

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

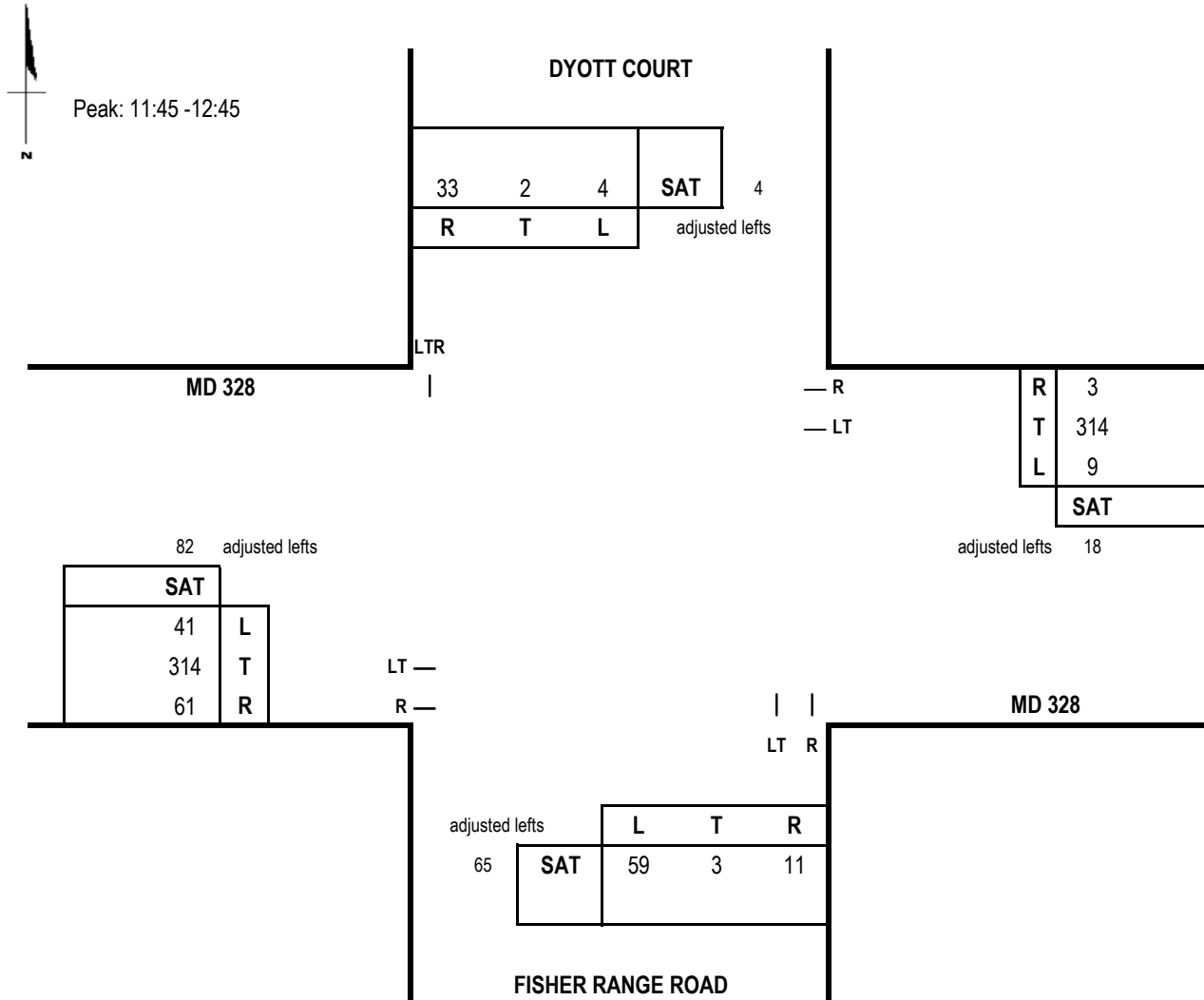
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	68	1.00	68	4	1.00	4	98
SB	39	1.00	39	59	1.00	59	
EB	396	1.00	396	9	1.00	9	405
WB	332	1.00	332	41	1.00	41	
CLV TOTAL=							503
Level of Service (LOS)=							A

Scenario ID - BACK4

SAT V/C = 0.31

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

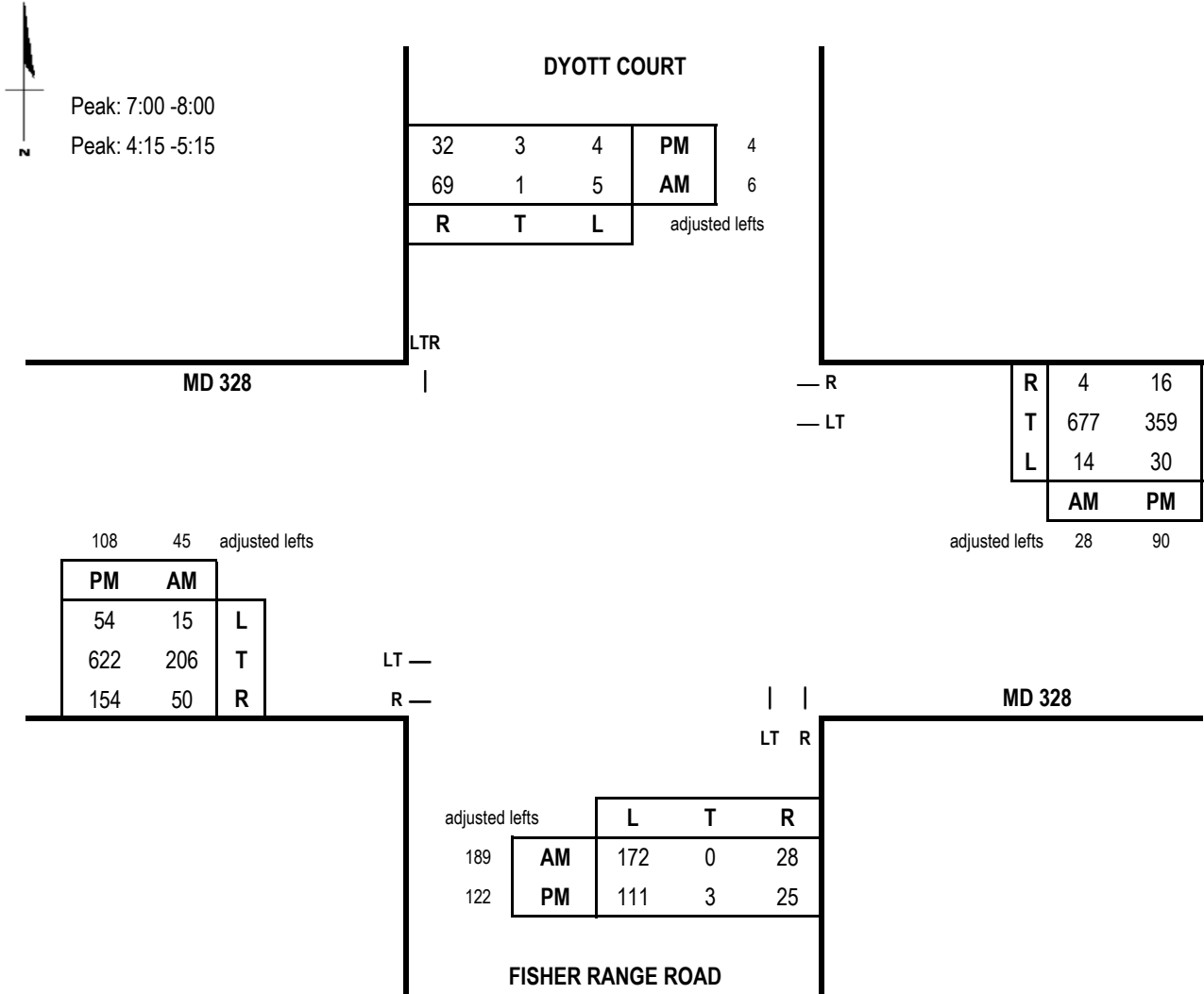
Date of Count: 6/9/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Thursday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	189	1.00	189	5	1.00	5	248
SB	76	1.00	76	172	1.00	172	
EB	251	1.00	251	14	1.00	14	720
WB	705	1.00	705	15	1.00	15	
CLV TOTAL=							968
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	125	1.00	125	4	1.00	4	150
SB	39	1.00	39	111	1.00	111	
EB	730	1.00	730	30	1.00	30	760
WB	449	1.00	449	54	1.00	54	
CLV TOTAL=							910
Level of Service (LOS)=							A

Scenario ID - TOT4

AM V/C =0.61

PM V/C =0.57

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

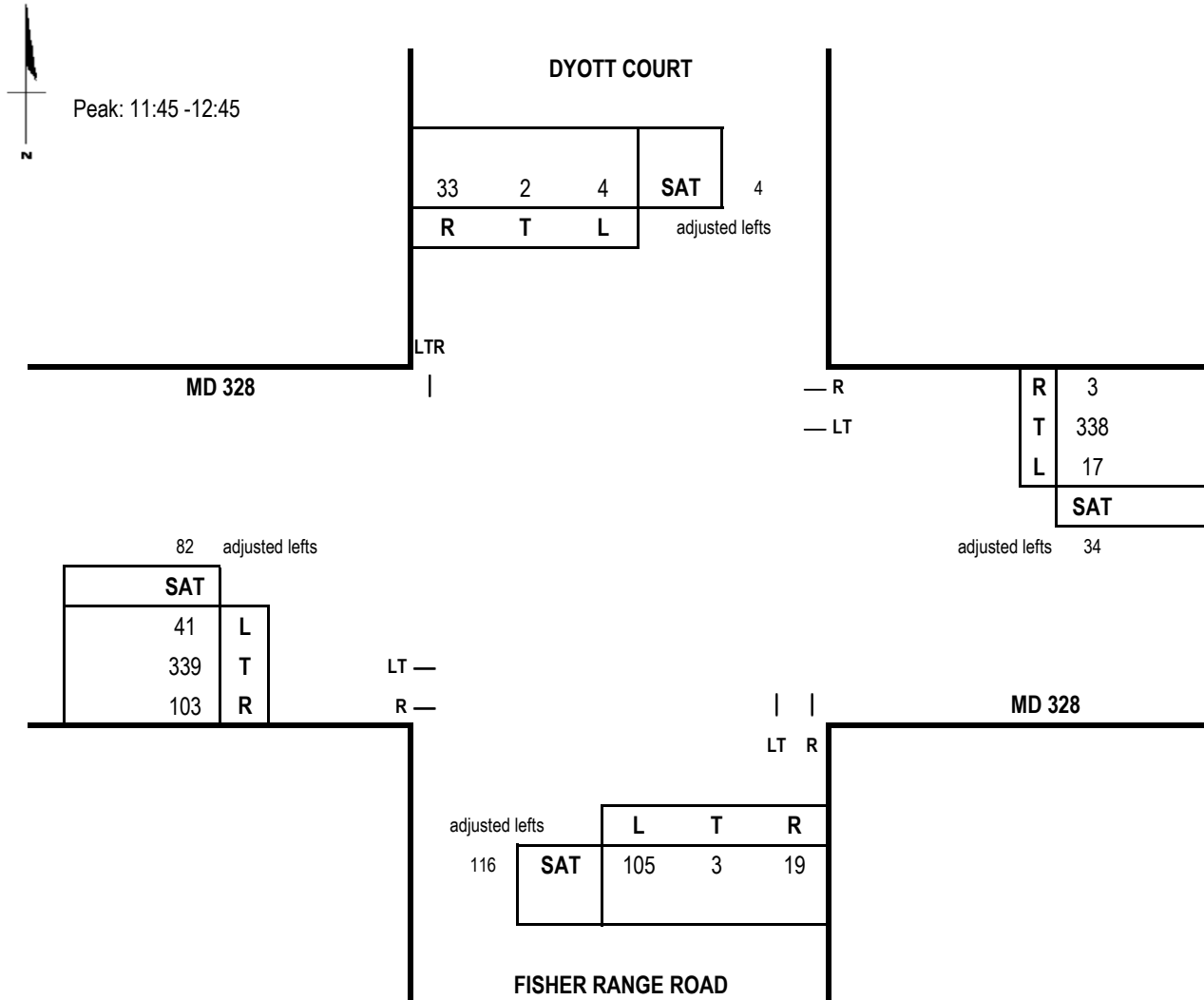
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	119	1.00	119	4	1.00	4	144
SB	39	1.00	39	105	1.00	105	
EB	421	1.00	421	17	1.00	17	438
WB	372	1.00	372	41	1.00	41	
CLV TOTAL=							582
Level of Service (LOS)=							A

Scenario ID - TOT4

SAT V/C = 0.36

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

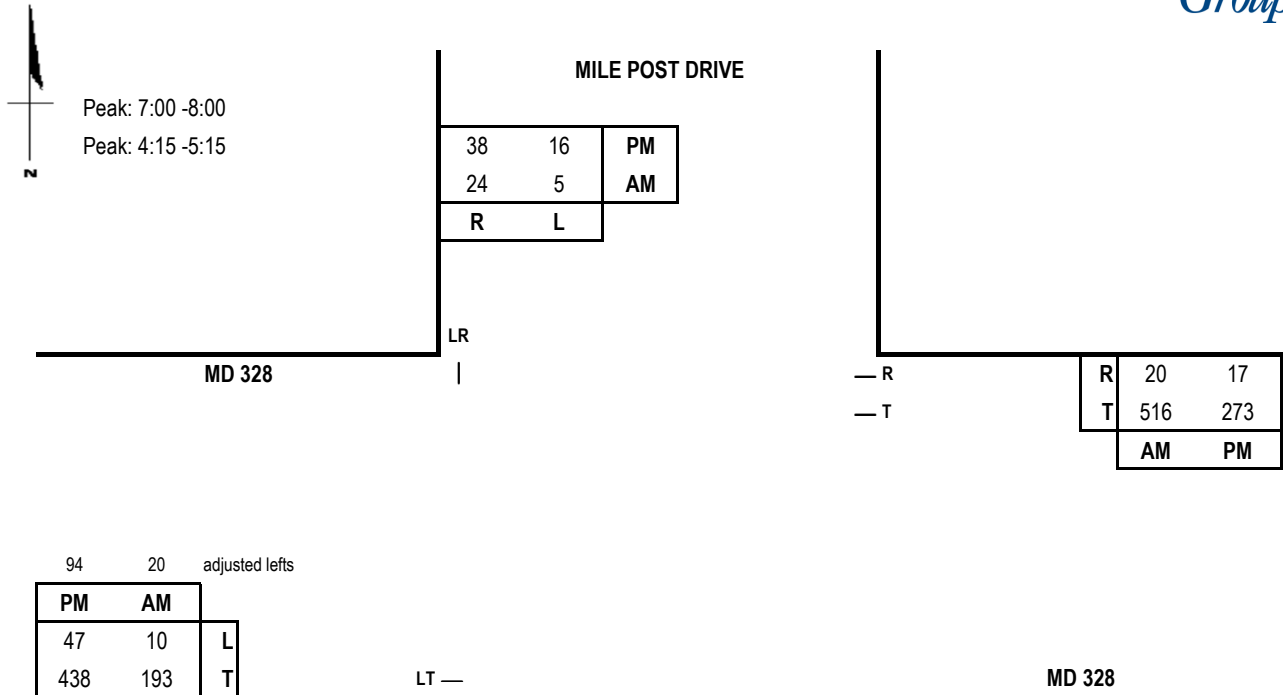
N/S Road: Mile Post Drive

Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022

Day of Count: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	29	1.00	29			
EB	213	1.00	213			
WB	516	1.00	516	10	1.00	10
CLV TOTAL=						555
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	54	1.00	54			
EB	532	1.00	532			
WB	273	1.00	273	47	1.00	47
CLV TOTAL=						586
Level of Service (LOS)=						A

Scenario ID - EXIST5

CLV V/C =0.35

CLV V/C =0.37

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

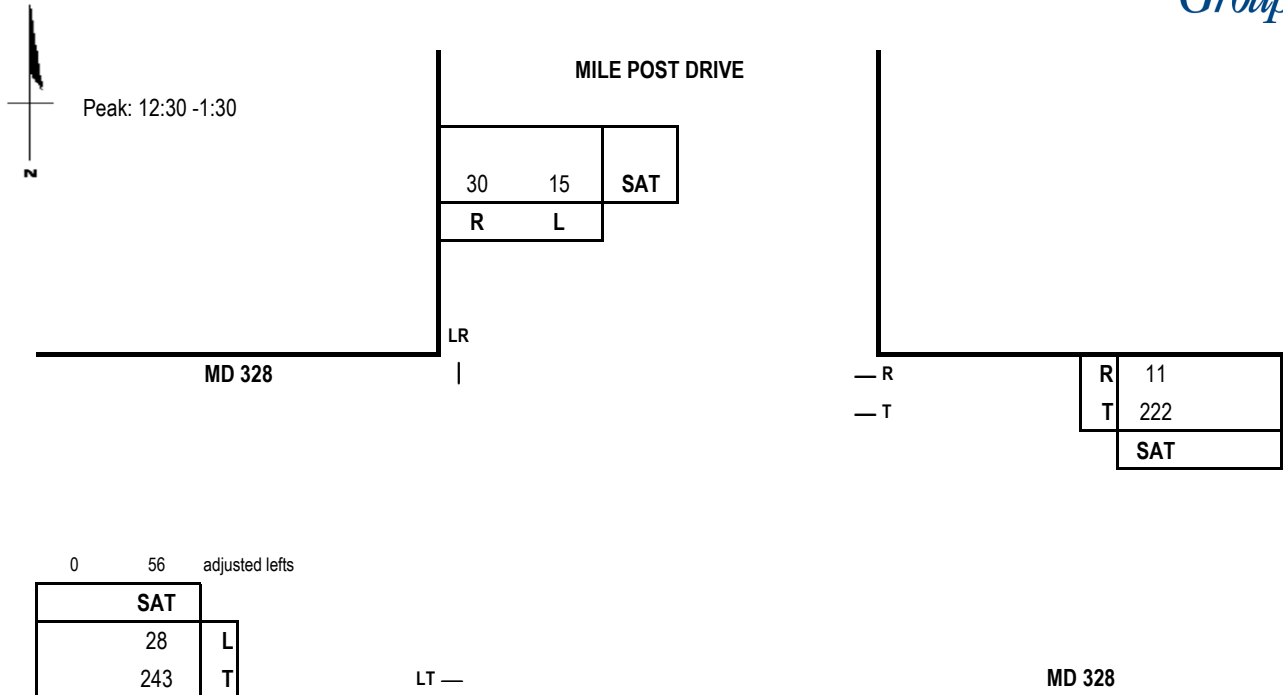
N/S Road: Mile Post Drive

Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	45	1.00	45			
EB	299	1.00	299			
WB	222	1.00	222	28	1.00	28
CLV TOTAL=						344
Level of Service (LOS)=						A

Scenario ID - EXIST5

CLV V/C =0.22

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

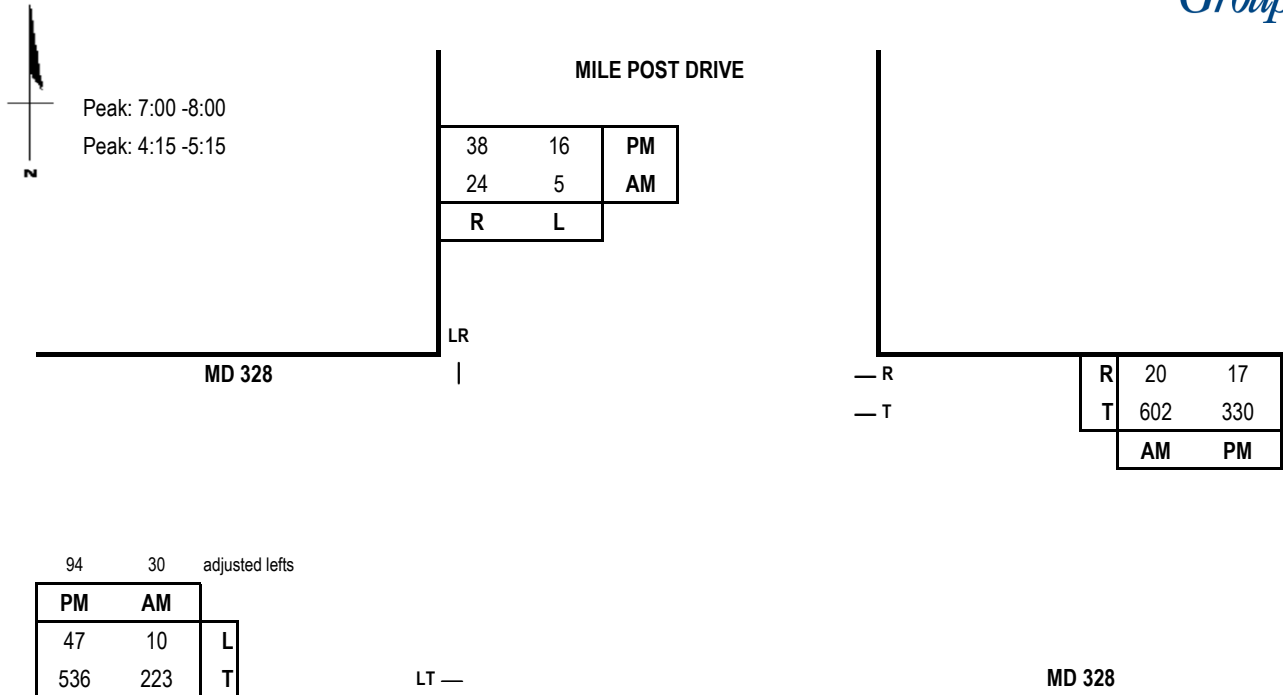
N/S Road: Mile Post Drive

Conditions: 2025 Background Traffic

Date of Count: 6/9/2022

Day of Count: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	29	1.00	29			
EB	253	1.00	253			
WB	602	1.00	602	10	1.00	10
CLV TOTAL=						641
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	54	1.00	54			
EB	630	1.00	630			
WB	330	1.00	330	47	1.00	47
CLV TOTAL=						684
Level of Service (LOS)=						A

Scenario ID - BACK5

CLV V/C =0.4

CLV V/C =0.43

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

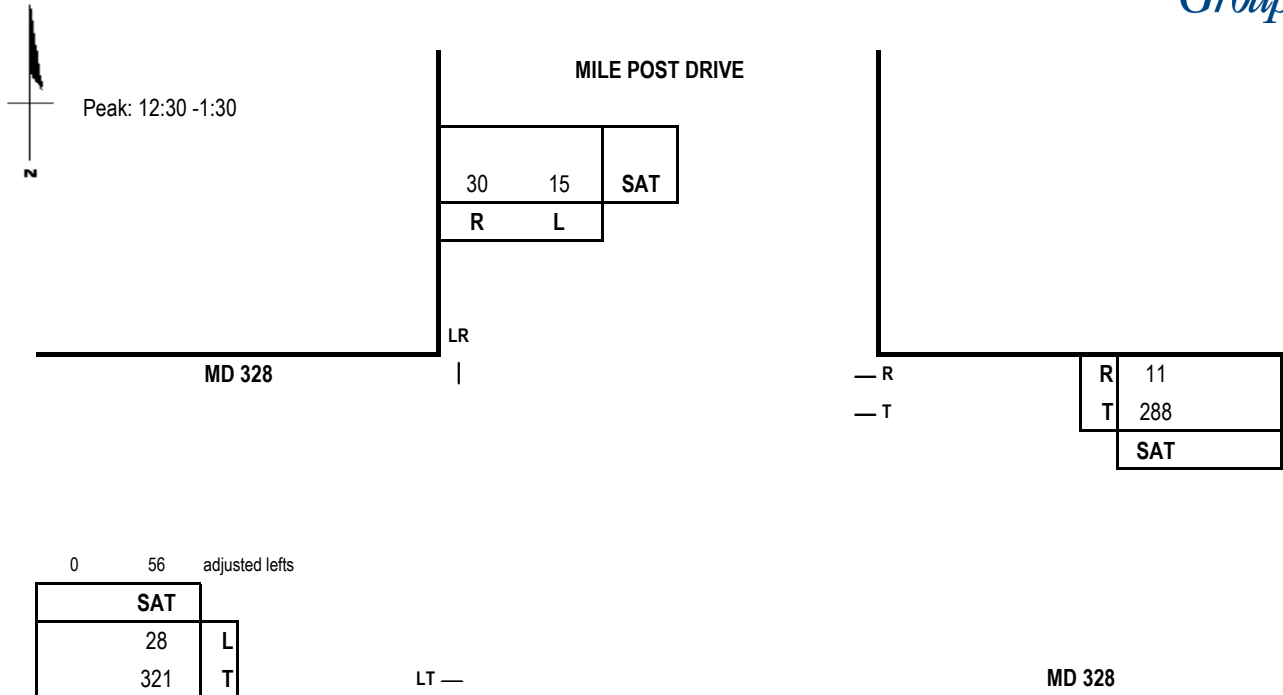
N/S Road: Mile Post Drive

Conditions: 2025 Background Traffic

Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	45	1.00	45			
EB	377	1.00	377			
WB	288	1.00	288	28	1.00	28
CLV TOTAL=						422
Level of Service (LOS)=						A

Scenario ID - BACK5

CLV V/C =0.26

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

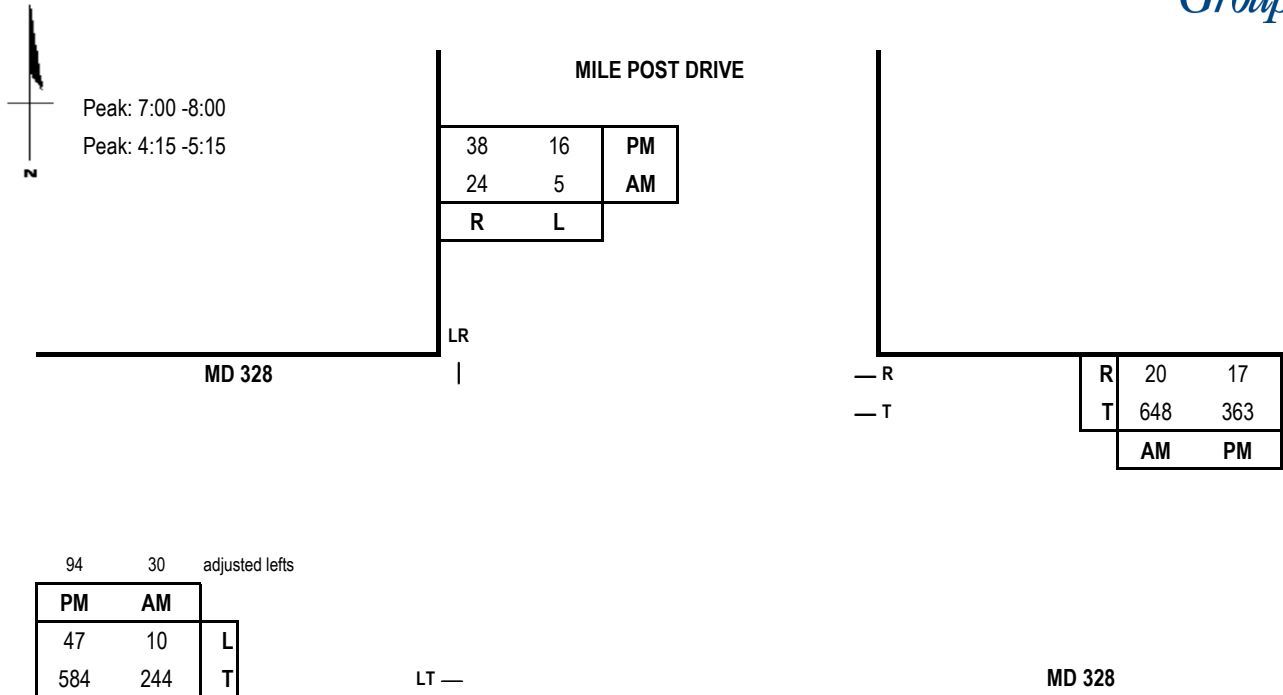
N/S Road: Mile Post Drive

Conditions: 2025 Total Traffic

Date of Count: 6/9/2022

Day of Count: Thursday

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	29	1.00	29			
EB	274	1.00	274			
WB	648	1.00	648	10	1.00	10
CLV TOTAL=						687
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	54	1.00	54			
EB	678	1.00	678			
WB	363	1.00	363	47	1.00	47
CLV TOTAL=						732
Level of Service (LOS)=						A

Scenario ID - TOT5

CLV V/C = 0.43

CLV V/C = 0.46

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

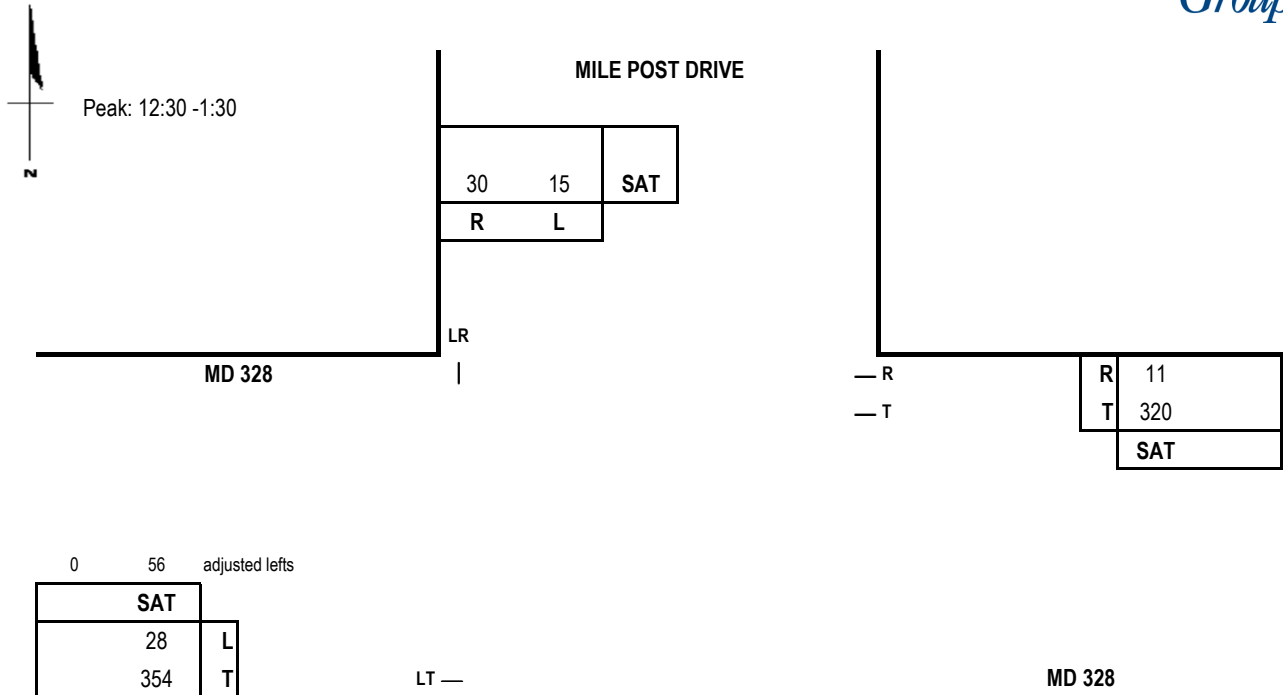
N/S Road: Mile Post Drive

Conditions: 2025 Total Traffic

Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	45	1.00	45			
EB	410	1.00	410			
WB	320	1.00	320	28	1.00	28
CLV TOTAL=						455
Level of Service (LOS)=						A

Scenario ID - TOT5

CLV V/C =0.28

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

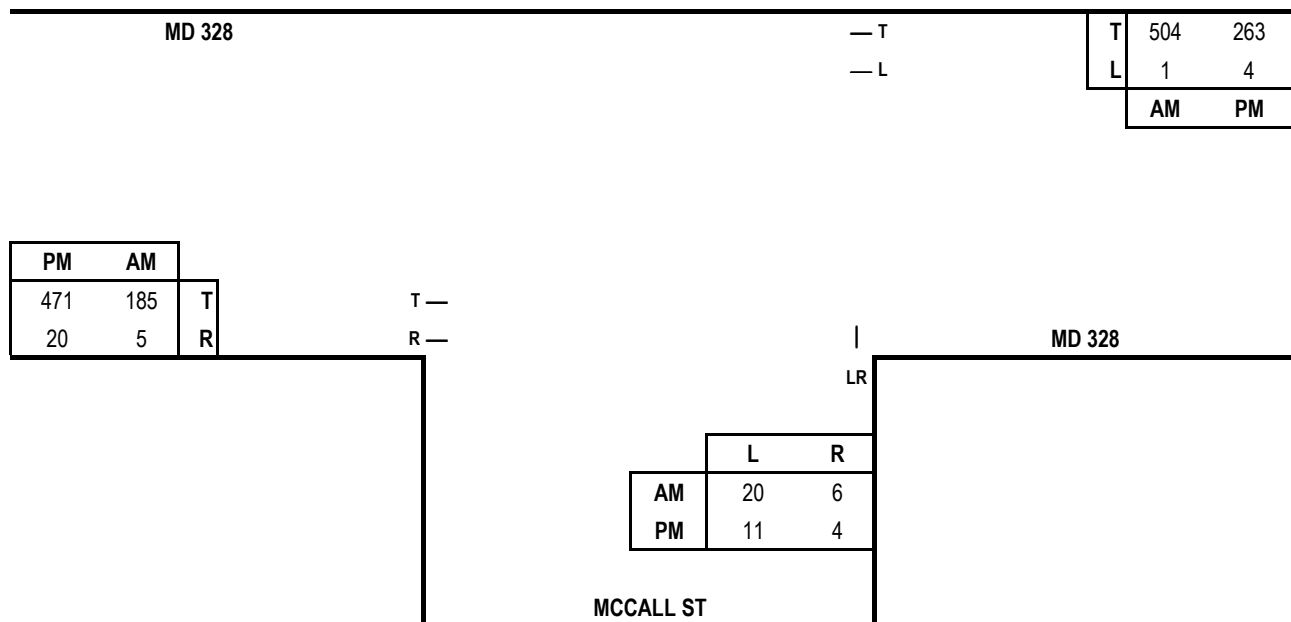
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	26	1.00	26				26
EB	185	1.00	185	1	1.00	1	504
WB	504	1.00	504				
CLV TOTAL=							530
Level of Service (LOS)=							A

CLV V/C =0.33

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	15	1.00	15				15
EB	471	1.00	471	4	1.00	4	475
WB	263	1.00	263				
CLV TOTAL=							490
Level of Service (LOS)=							A

CLV V/C =0.31

Scenario ID - EXIST6

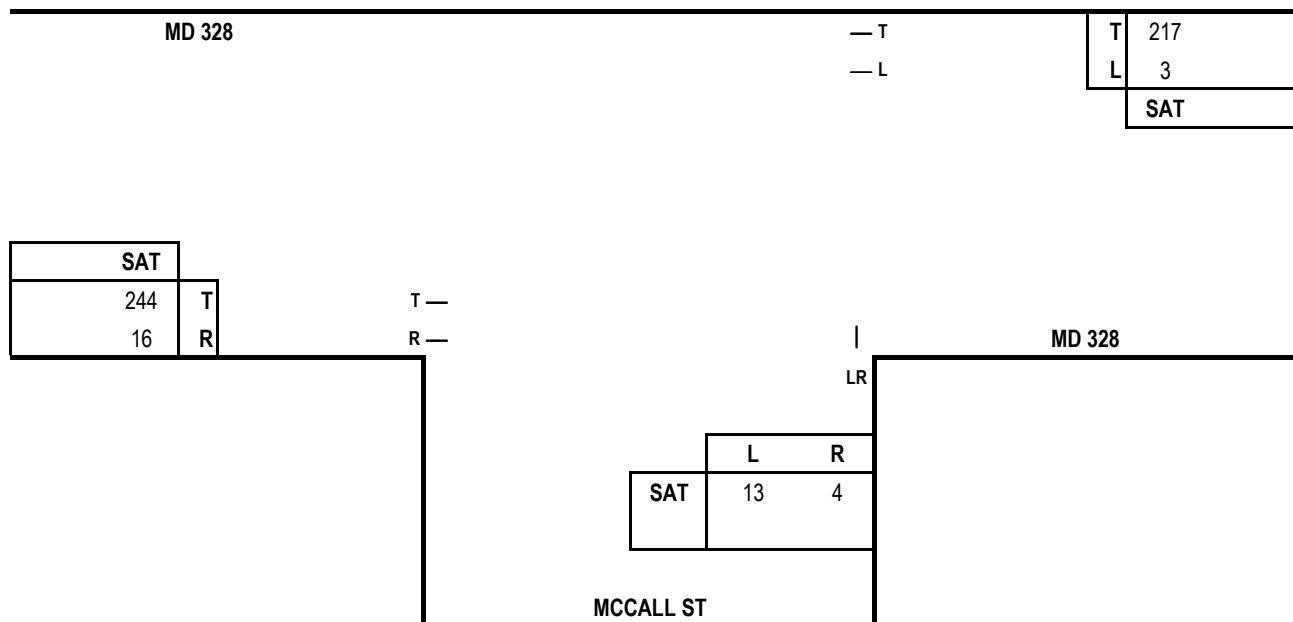
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: McCall St
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	17	1.00	17				17
EB	244	1.00	244	3	1.00	3	247
WB	217	1.00	217				
CLV TOTAL=							264
Level of Service (LOS)=							A

Scenario ID - EXIST6

CLV V/C =0.17

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

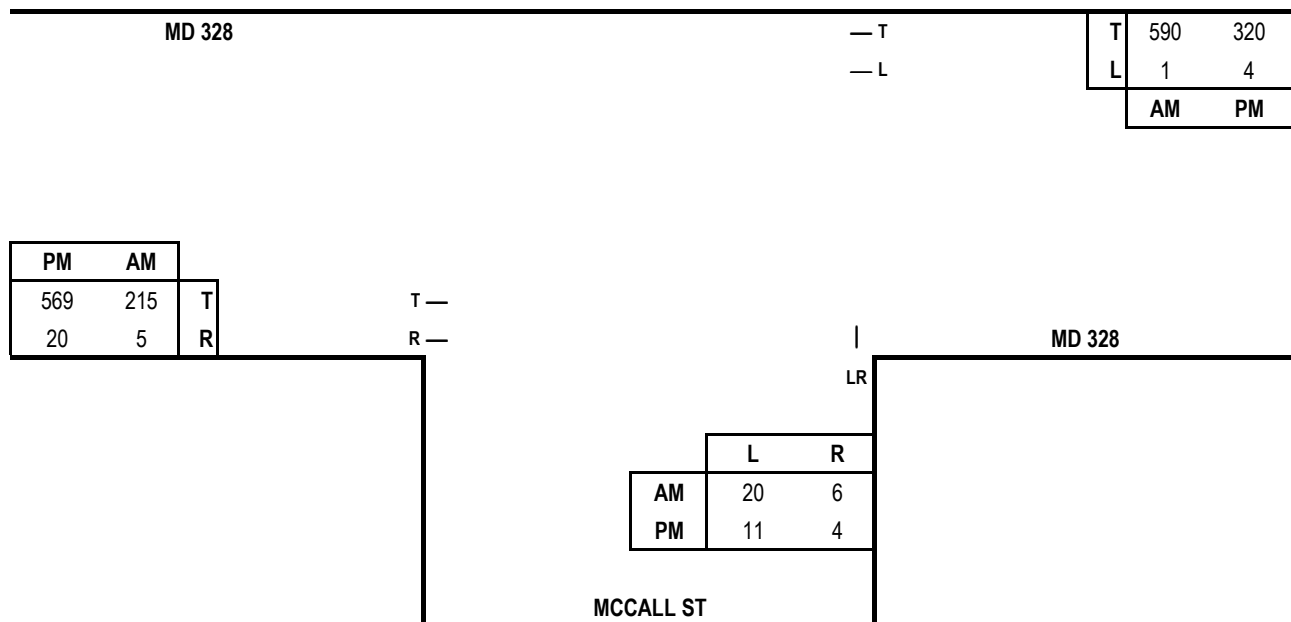
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	26	1.00	26				26
EB	215	1.00	215	1	1.00	1	590
WB	590	1.00	590				
CLV TOTAL=							616
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	15	1.00	15				15
EB	569	1.00	569	4	1.00	4	573
WB	320	1.00	320				
CLV TOTAL=							588
Level of Service (LOS)=							A

Scenario ID - BACK6

CLV V/C =0.39

CLV V/C =0.37

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

N/S Road: McCall St

Conditions: 2025 Background Traffic

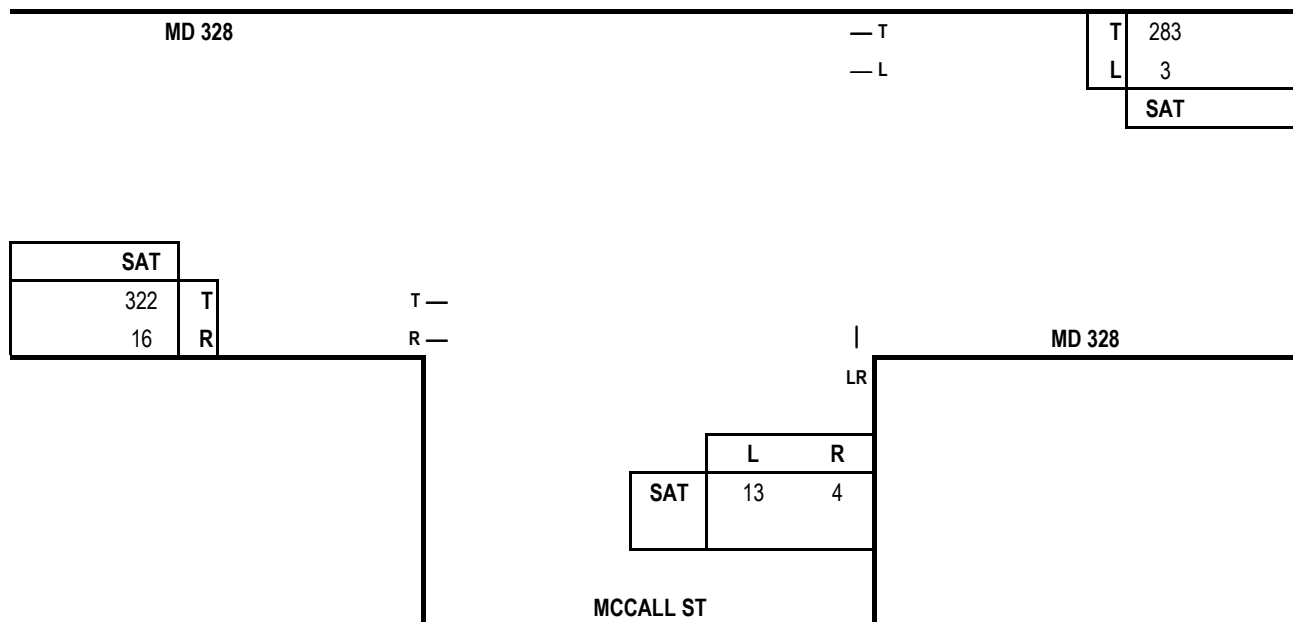
Date of Count: 6/11/2022

Day of Count: Saturday

Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	17	1.00	17				17
EB	322	1.00	322	3	1.00	3	325
WB	283	1.00	283				
CLV TOTAL=							342
Level of Service (LOS)=							A

Scenario ID - BACK6

CLV V/C =0.21

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

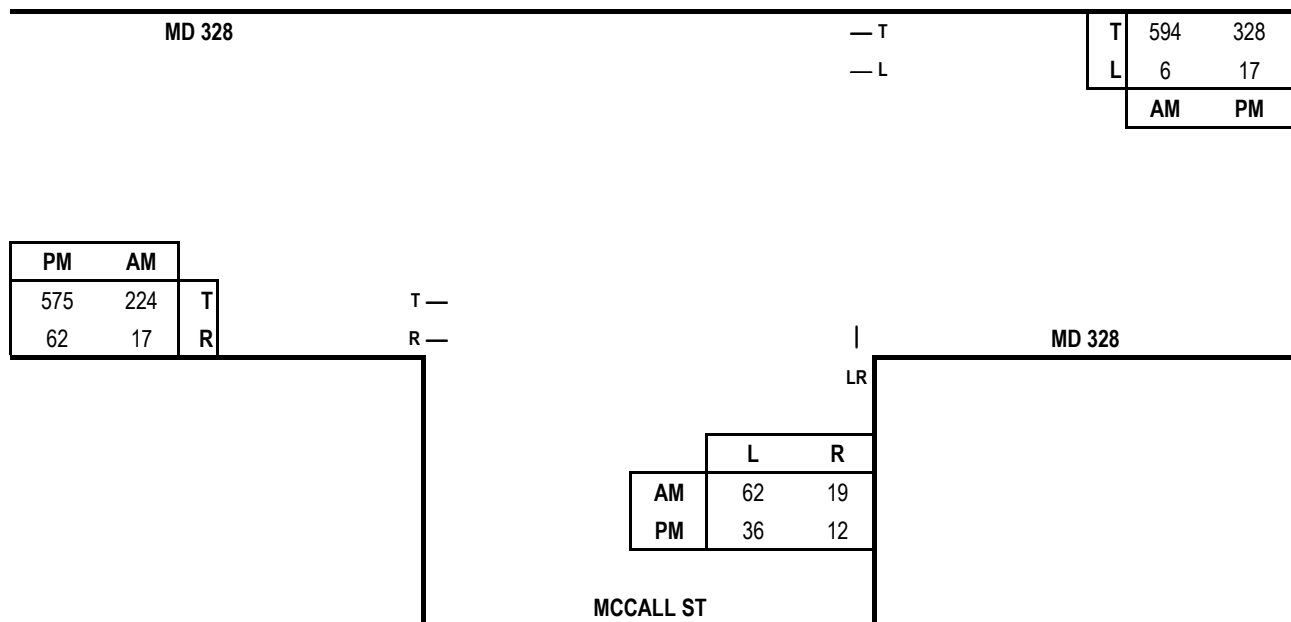
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	81	1.00	81				81
EB	224	1.00	224	6	1.00	6	594
WB	594	1.00	594				
CLV TOTAL=							675
Level of Service (LOS)=							A

CLV V/C =0.42

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	48	1.00	48				48
EB	575	1.00	575	17	1.00	17	592
WB	328	1.00	328				
CLV TOTAL=							640
Level of Service (LOS)=							A

CLV V/C =0.4

Scenario ID - TOT6

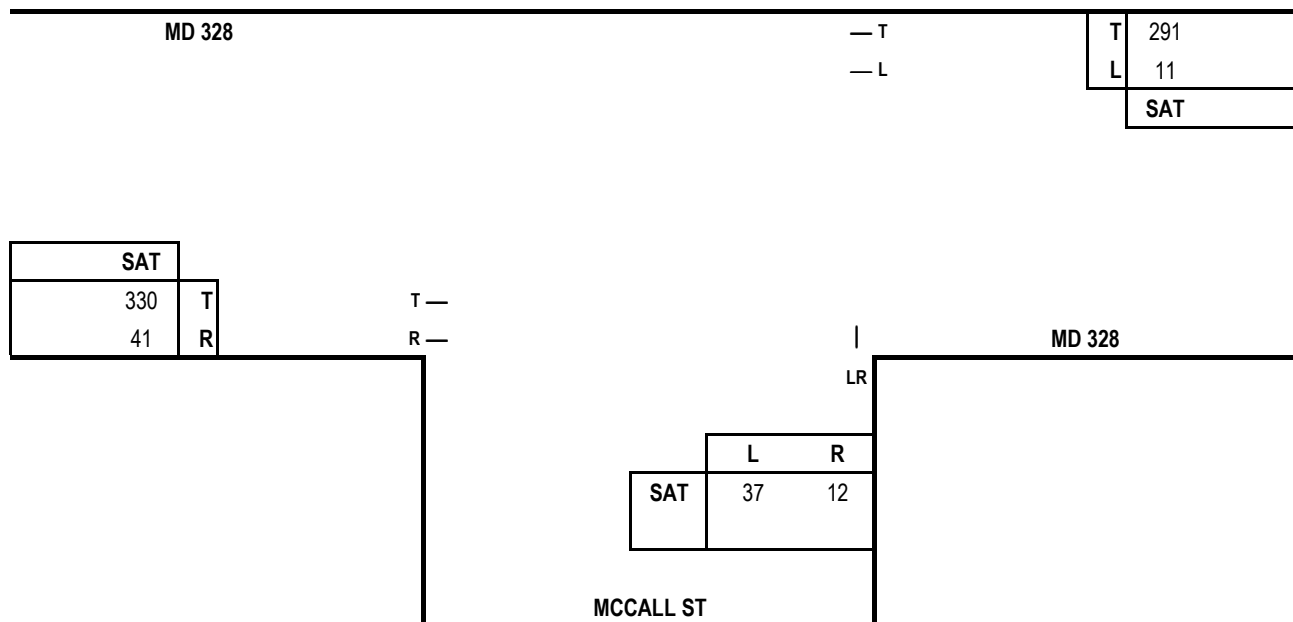
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Mccall St
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:15 -12:15



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	49	1.00	49				49
EB	330	1.00	330	11	1.00	11	341
WB	291	1.00	291				
CLV TOTAL=							390
Level of Service (LOS)=							A

Scenario ID - TOT6

CLV V/C =0.24

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

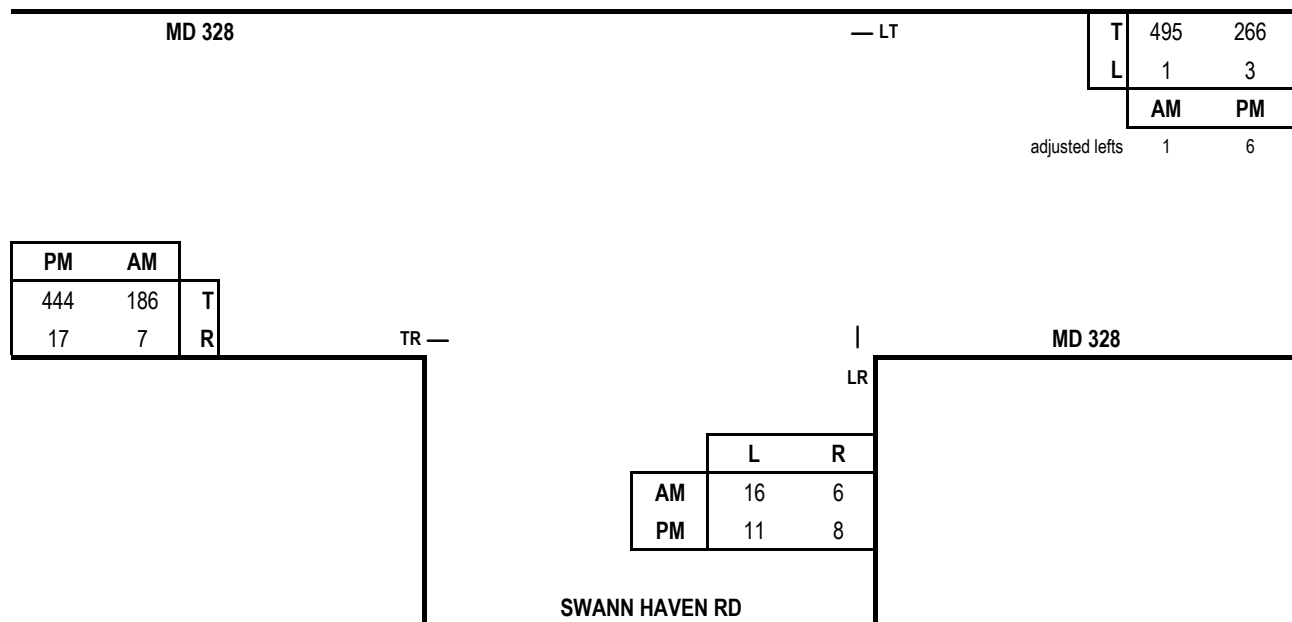
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2022 Existing Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

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	22	1.00	22				22
EB	193	1.00	193	1	1.00	1	496
WB	496	1.00	496				
CLV TOTAL=							518
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	19	1.00	19				19
EB	461	1.00	461	3	1.00	3	464
WB	272	1.00	272				
CLV TOTAL=							483
Level of Service (LOS)=							A

Scenario ID - EXIST7

CLV V/C =0.32

CLV V/C =0.3

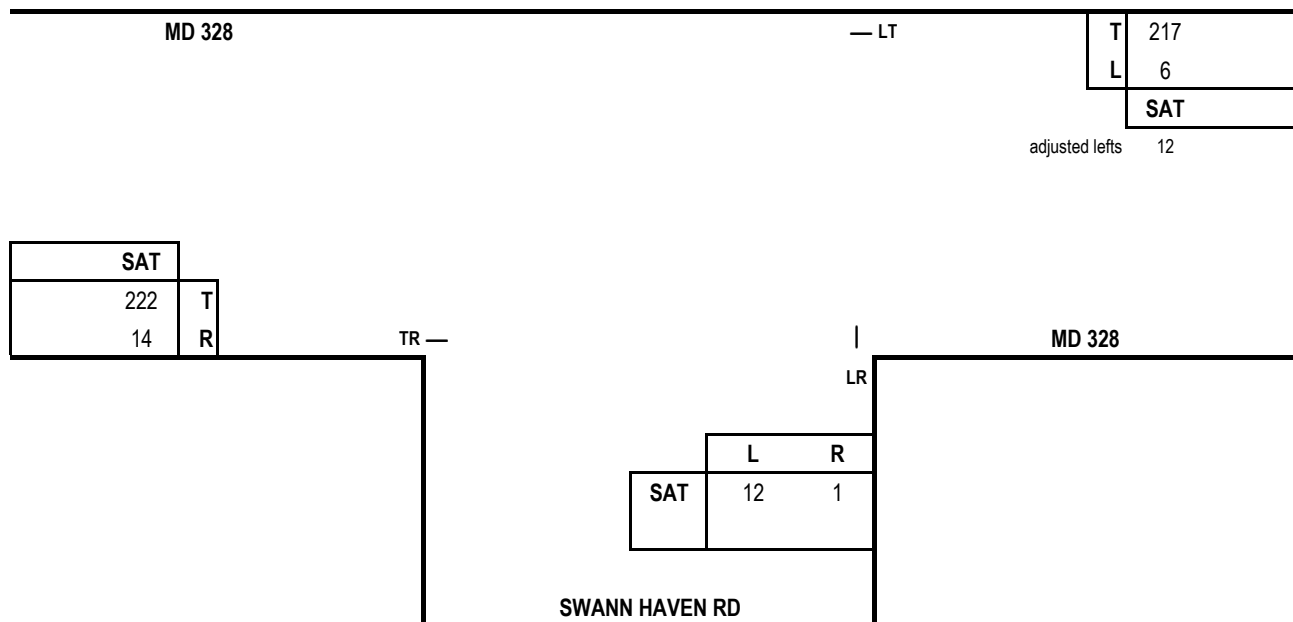
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2022 Existing Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:45 -12:45



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	13	1.00	13				13
EB	236	1.00	236	6	1.00	6	242
WB	229	1.00	229				
CLV TOTAL=							255
Level of Service (LOS)=							A

Scenario ID - EXIST7

CLV V/C =0.16

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

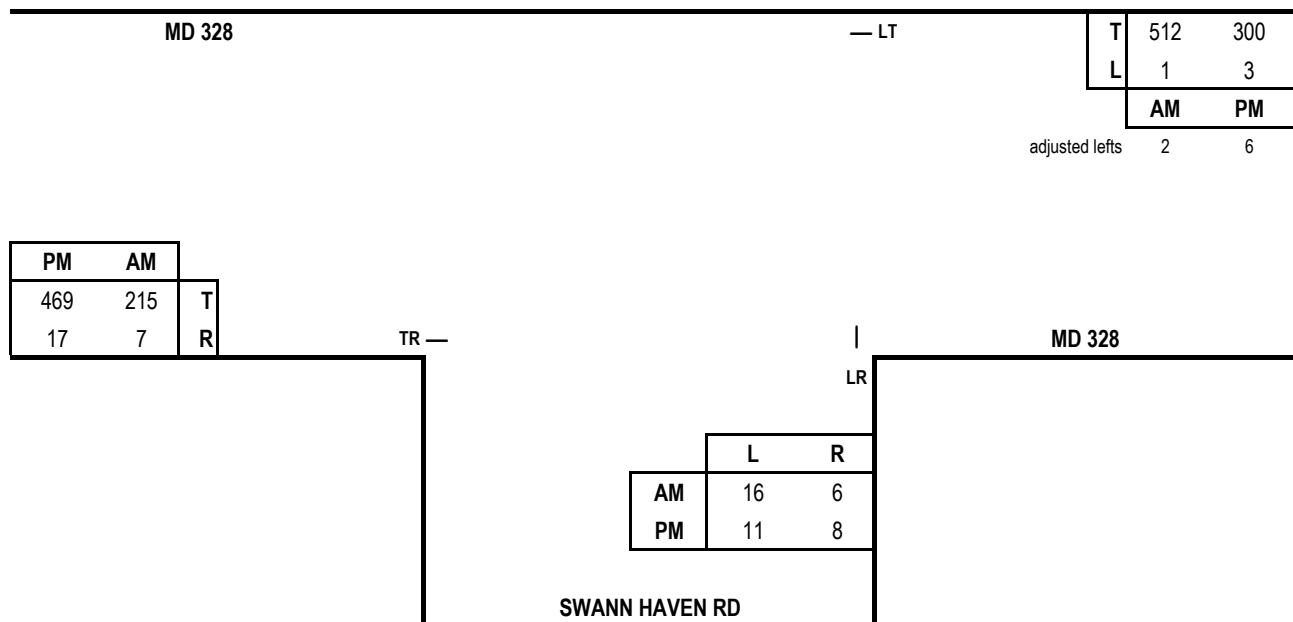
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Background Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

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	22	1.00	22				22
EB	222	1.00	222	1	1.00	1	514
WB	514	1.00	514				
CLV TOTAL=							536
Level of Service (LOS)=							A

Scenario ID - BACK7

CLV V/C =0.34

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	19	1.00	19				19
EB	486	1.00	486	3	1.00	3	489
WB	306	1.00	306				
CLV TOTAL=							508
Level of Service (LOS)=							A

CLV V/C =0.32

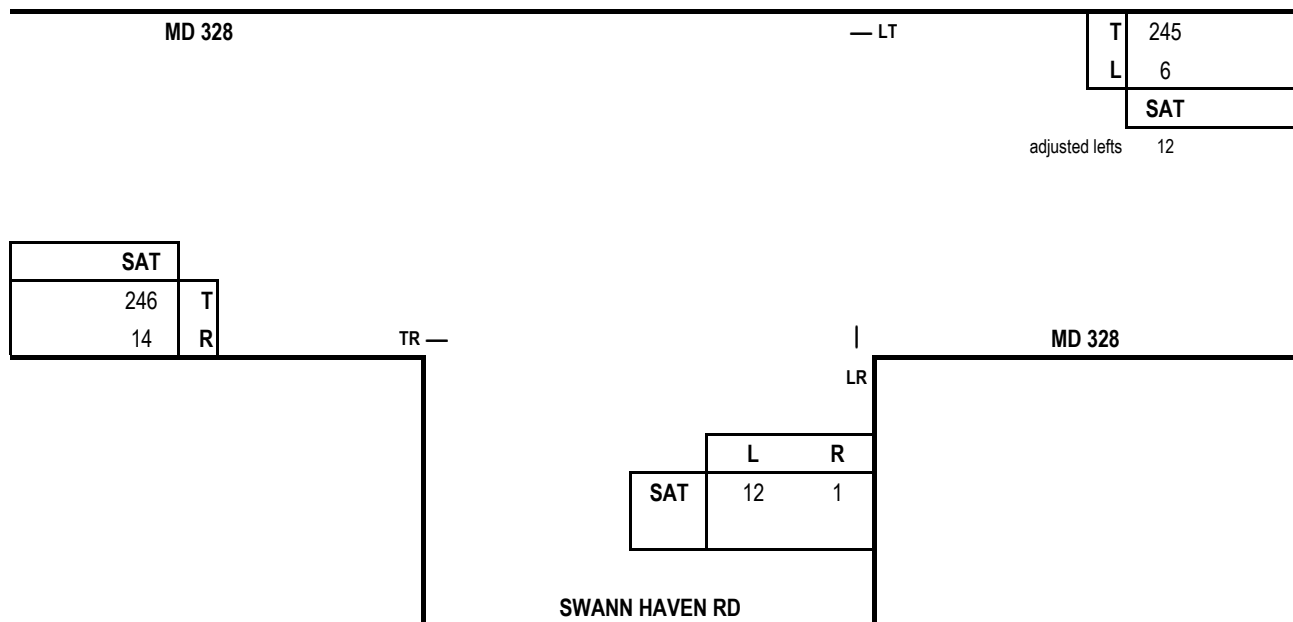
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Background Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:45 -12:45



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	13	1.00	13				13
EB	260	1.00	260	6	1.00	6	266
WB	257	1.00	257				
CLV TOTAL=							279
Level of Service (LOS)=							A

Scenario ID - BACK7

CLV V/C =0.17

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

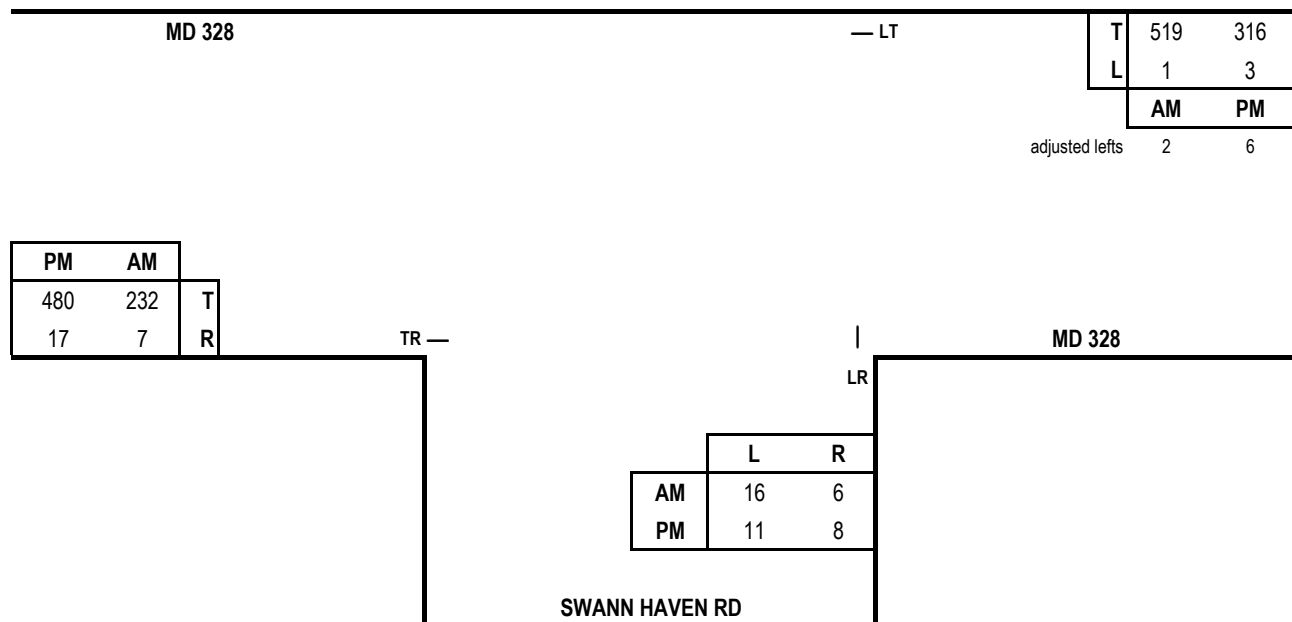
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Total Traffic

Date of Count: 6/9/2022
Day of Count: Thursday
Analyst: Ming-Yu Chien



Peak: 7:00 -8:00

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	22	1.00	22				22
EB	239	1.00	239	1	1.00	1	521
WB	521	1.00	521				
CLV TOTAL=							543
Level of Service (LOS)=							A

CLV V/C =0.34

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	19	1.00	19				19
EB	497	1.00	497	3	1.00	3	500
WB	322	1.00	322				
CLV TOTAL=							519
Level of Service (LOS)=							A

CLV V/C =0.32

Scenario ID - TOT7

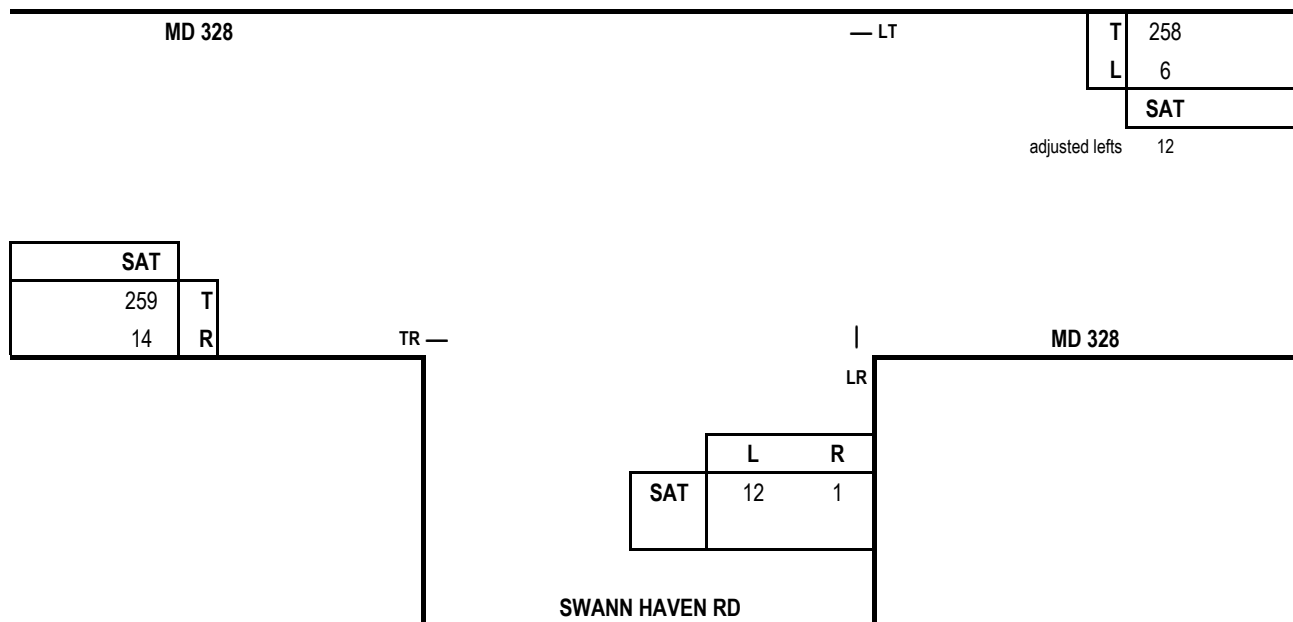
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Total Traffic

Date of Count: 6/11/2022
Day of Count: Saturday
Analyst: Ming-Yu Chien



Peak: 11:45 -12:45



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	13	1.00	13				13
EB	273	1.00	273	6	1.00	6	279
WB	270	1.00	270				
CLV TOTAL=							292
Level of Service (LOS)=							A

Scenario ID - TOT7

CLV V/C =0.18

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

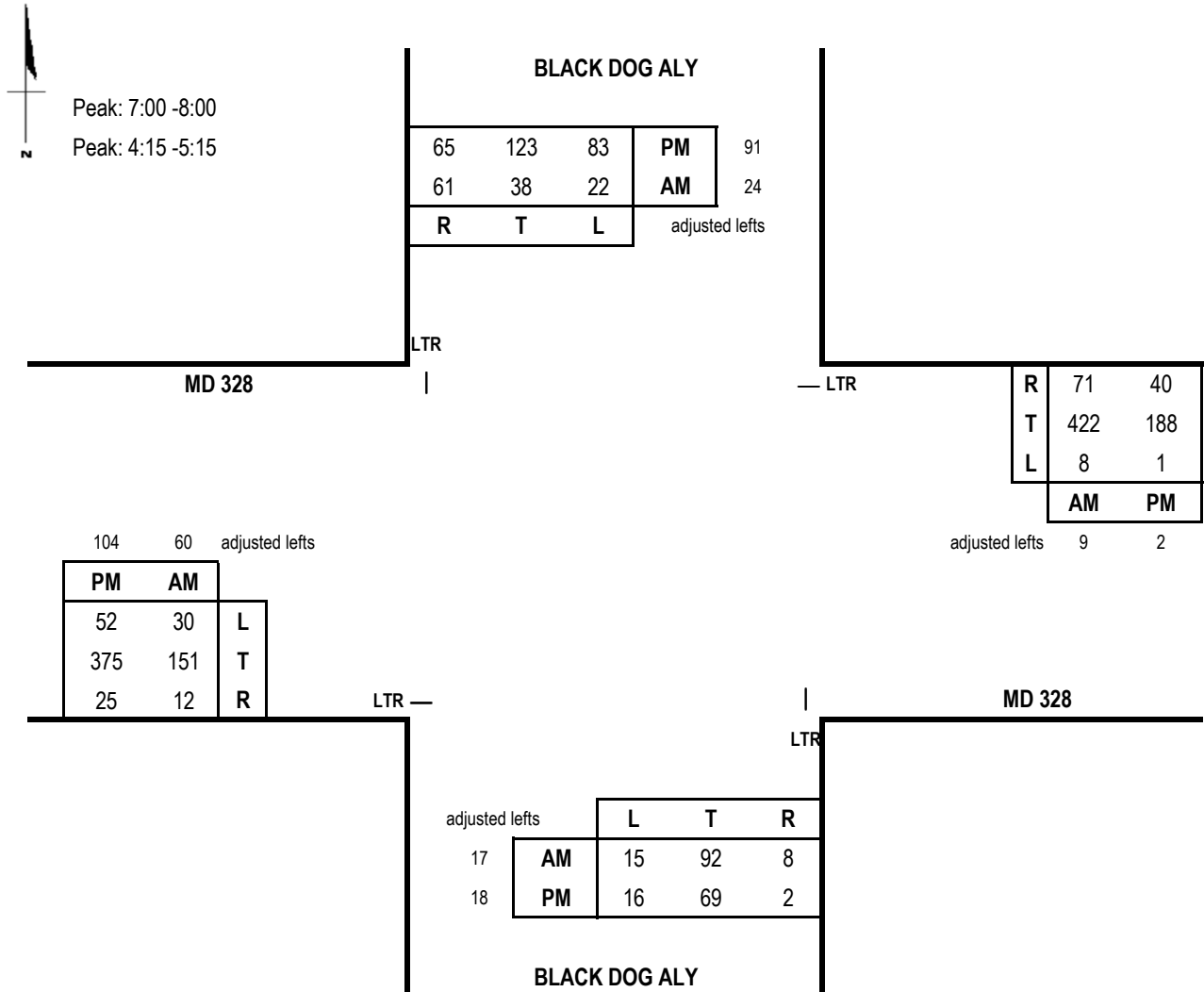
Date of Count: 6/9/2022

N/S Road: Black Dog Aly

Day of Count: Thursday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	117	1.00	117	22	1.00	22	139
SB	123	1.00	123	15	1.00	15	
EB	223	1.00	223	8	1.00	8	532
WB	502	1.00	502	30	1.00	30	
CLV TOTAL=							671
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	89	1.00	89	83	1.00	83	295
SB	279	1.00	279	16	1.00	16	
EB	504	1.00	504	1	1.00	1	505
WB	230	1.00	230	52	1.00	52	
CLV TOTAL=							800
Level of Service (LOS)=							A

Scenario ID - EXIST8

AM V/C =0.42

PM V/C =0.5

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

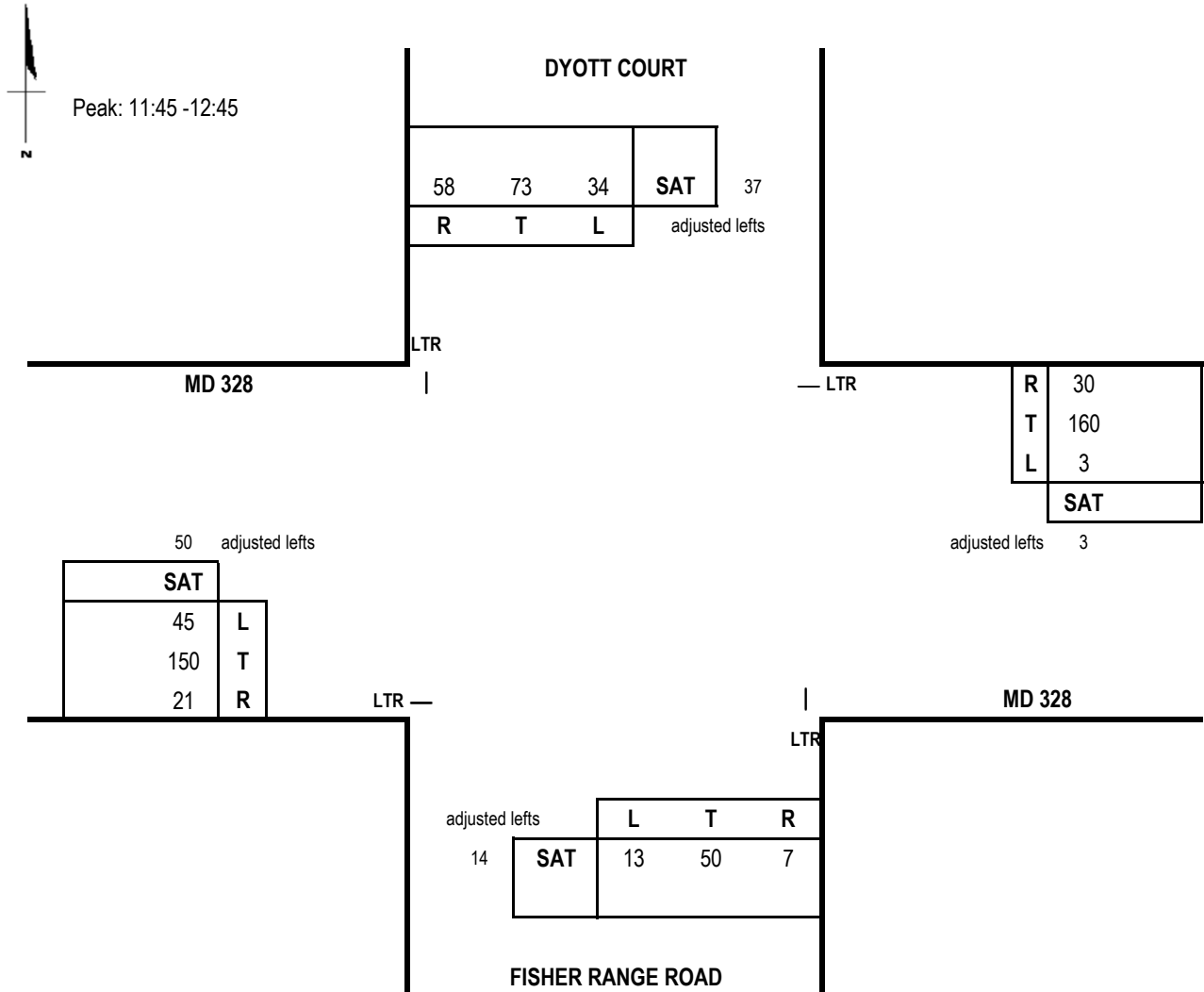
Date of Count: 6/11/2022

N/S Road: Dyott Court/Fisher Range Road

Day of Count: Saturday

Conditions: 2022 Existing Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	71	1.00	71	34	1.00	34	181
SB	168	1.00	168	13	1.00	13	
EB	221	1.00	221	3	1.00	3	238
WB	193	1.00	193	45	1.00	45	
CLV TOTAL=							419
Level of Service (LOS)=							A

Scenario ID - EXIST8

SAT V/C = 0.26

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

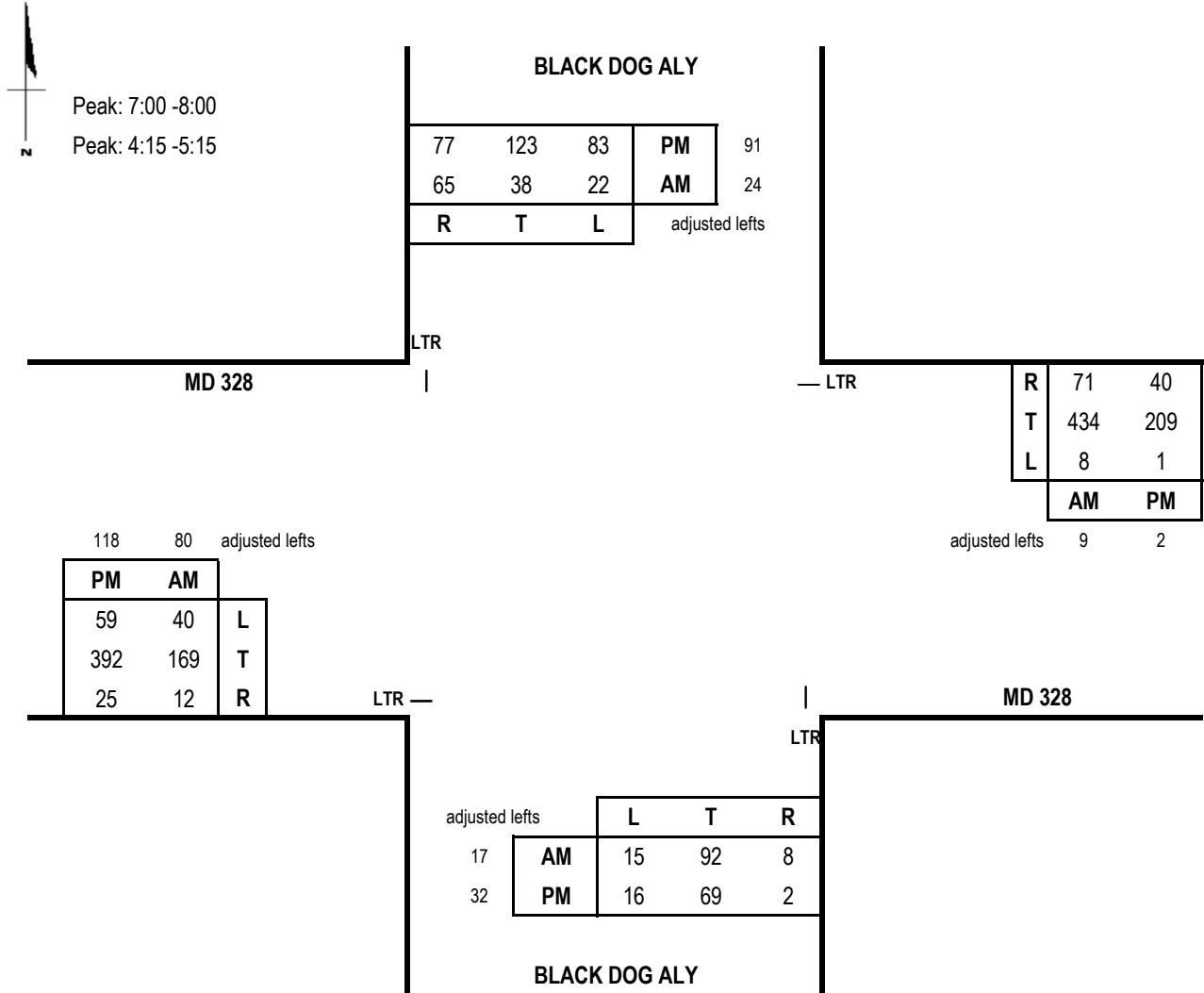
Date of Count: 6/9/2022

N/S Road: Black Dog Aly

Day of Count: Thursday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	117	1.00	117	22	1.00	22	142
SB	127	1.00	127	15	1.00	15	
EB	261	1.00	261	8	1.00	8	554
WB	514	1.00	514	40	1.00	40	
CLV TOTAL=							696
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	103	1.00	103	83	1.00	83	307
SB	291	1.00	291	16	1.00	16	
EB	535	1.00	535	1	1.00	1	536
WB	251	1.00	251	59	1.00	59	
CLV TOTAL=							843
Level of Service (LOS)=							A

Scenario ID - BACK8

AM V/C =0.44

PM V/C =0.53

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

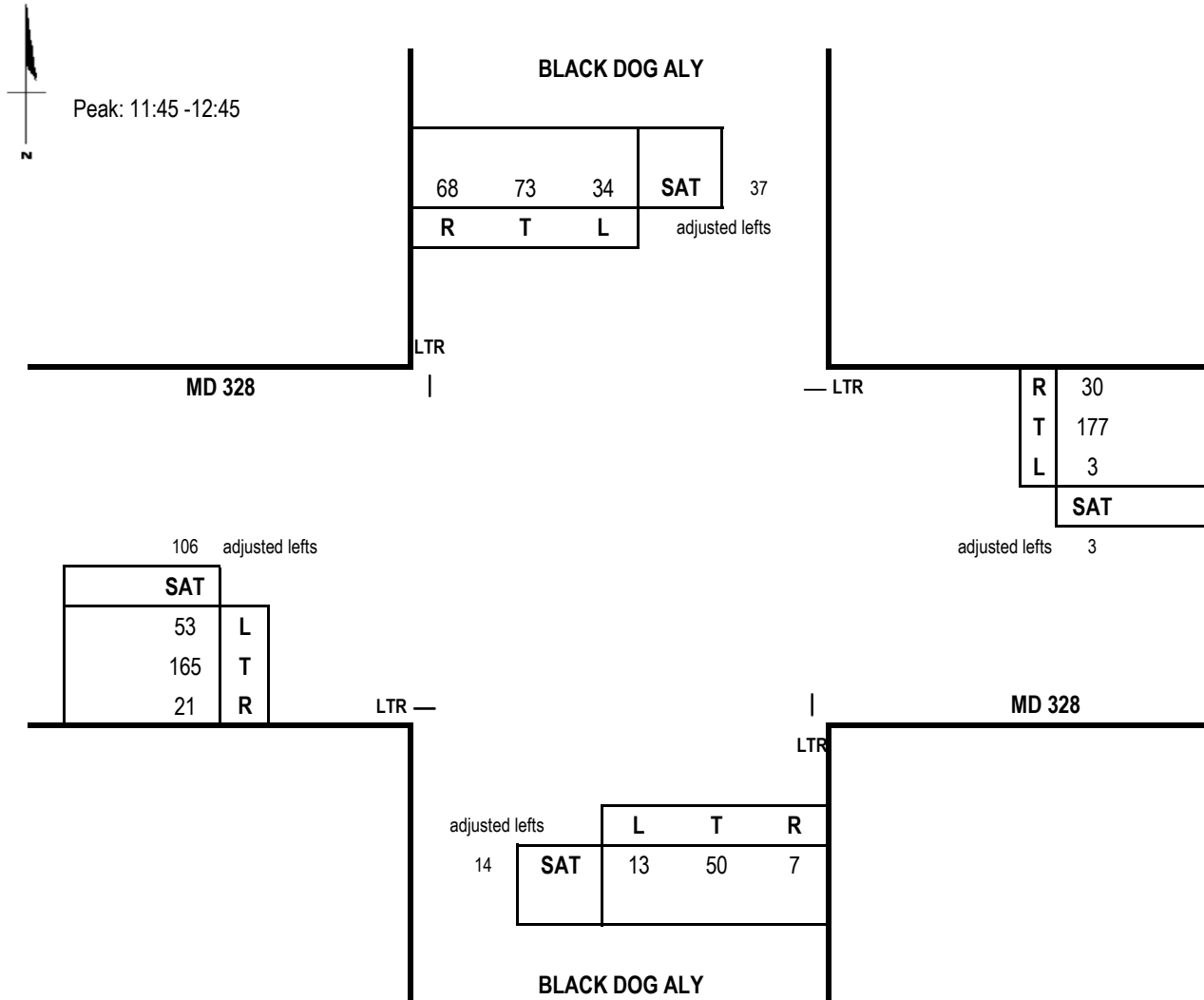
Date of Count: 6/11/2022

N/S Road: Black Dog Aly

Day of Count: Saturday

Conditions: 2025 Background Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	71	1.00	71	34	1.00	34	191
SB	178	1.00	178	13	1.00	13	
EB	292	1.00	292	3	1.00	3	295
WB	210	1.00	210	53	1.00	53	
CLV TOTAL=							486
Level of Service (LOS)=							A

Scenario ID - BACK8

SAT V/C = 0.3

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

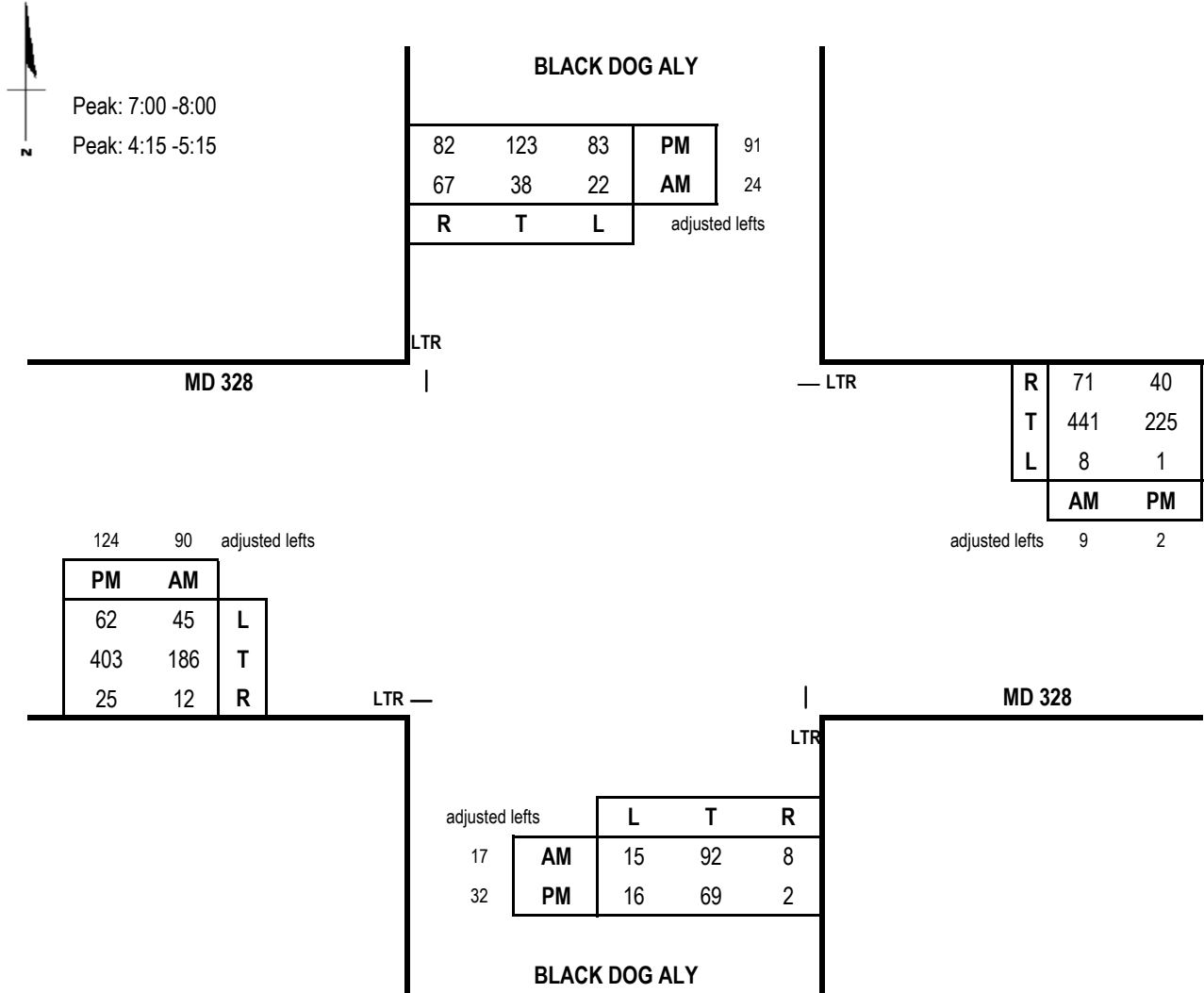
Date of Count: 6/9/2022

N/S Road: Black Dog Aly

Day of Count: Thursday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	117	1.00	117	22	1.00	22	144
SB	129	1.00	129	15	1.00	15	
EB	288	1.00	288	8	1.00	8	566
WB	521	1.00	521	45	1.00	45	
CLV TOTAL=							710
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	103	1.00	103	83	1.00	83	312
SB	296	1.00	296	16	1.00	16	
EB	552	1.00	552	1	1.00	1	553
WB	267	1.00	267	62	1.00	62	
CLV TOTAL=							865
Level of Service (LOS)=							A

Scenario ID - TOT8

AM V/C =0.44

PM V/C =0.54

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 328

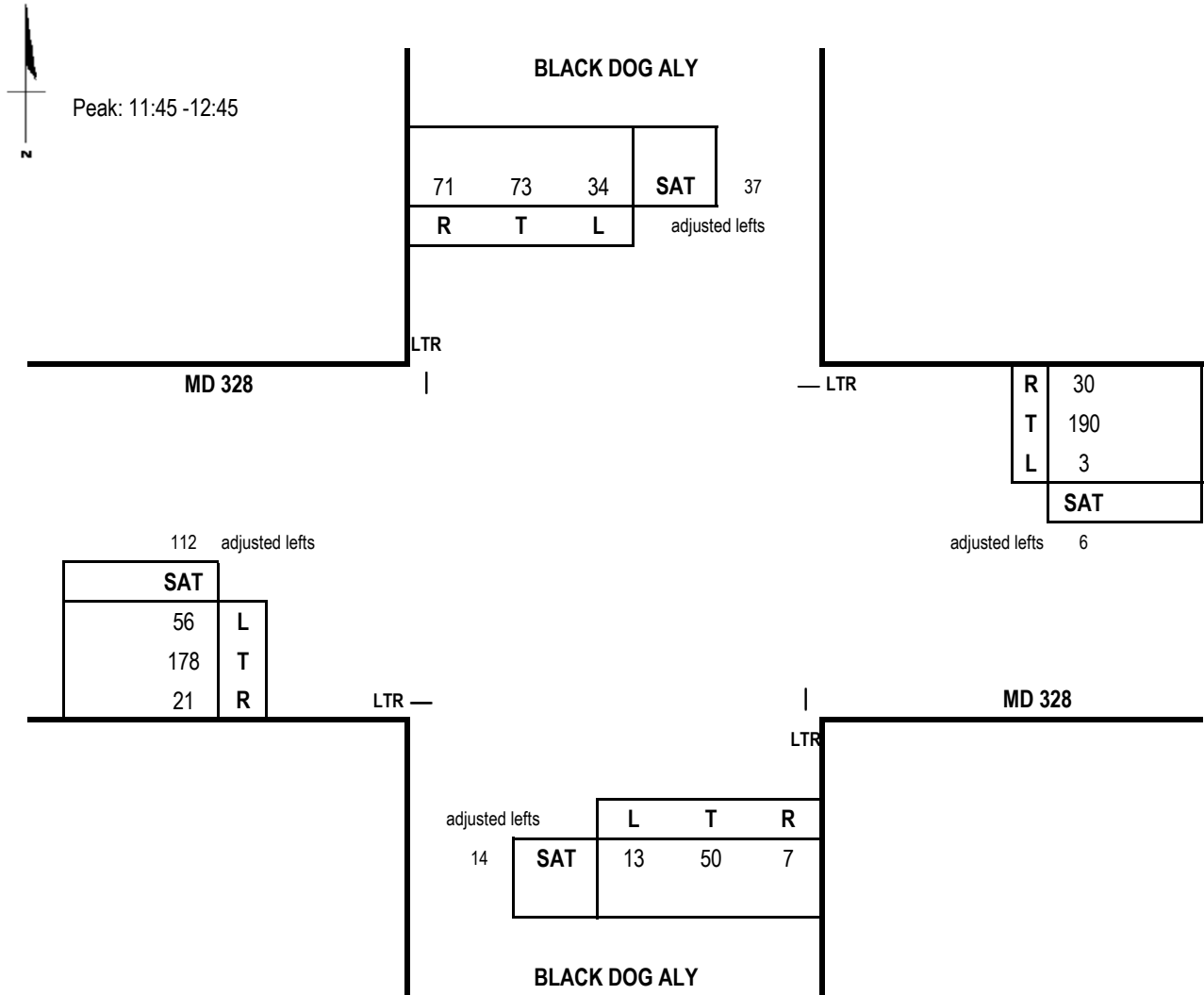
Date of Count: 6/11/2022

N/S Road: Black Dog Aly

Day of Count: Saturday

Conditions: 2025 Total Traffic

Analyst: Ming-Yu Chien



Capacity Analysis

Sat. Midday Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	71	1.00	71	34	1.00	34	194
SB	181	1.00	181	13	1.00	13	
EB	311	1.00	311	3	1.00	3	314
WB	226	1.00	226	56	1.00	56	
CLV TOTAL=							508
Level of Service (LOS)=							A

Scenario ID - TOT8

SAT V/C =0.32

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Existing AM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	102	51	364	162	187	69	997	148	116	962	22
Future Volume (veh/h)	33	102	51	364	162	187	69	997	148	116	962	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1781	1781	1856	1826	1856	1781	1781	1767	1781	1781
Adj Flow Rate, veh/h	35	110	0	282	326	0	74	1072	0	125	1034	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	8	3	3	5	3	8	8	9	8	8
Cap, veh/h	134	140		336	368		317	2412		334	2509	58
Arrive On Green	0.08	0.08	0.00	0.20	0.20	0.00	0.05	0.66	0.00	0.05	0.51	0.51
Sat Flow, veh/h	1753	1841	1510	1696	1856	1547	1767	4863	1510	1682	4890	113
Grp Volume(v), veh/h	35	110	0	282	326	0	74	1072	0	125	685	373
Grp Sat Flow(s),veh/h/ln	1753	1841	1510	1696	1856	1547	1767	1621	1510	1682	1621	1761
Q Serve(g_s), s	2.5	7.9	0.0	21.6	23.1	0.0	2.8	14.3	0.0	4.9	17.6	17.6
Cycle Q Clear(g_c), s	2.5	7.9	0.0	21.6	23.1	0.0	2.8	14.3	0.0	4.9	17.6	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	134	140		336	368		317	2412		334	1663	904
V/C Ratio(X)	0.26	0.78		0.84	0.89		0.23	0.44		0.37	0.41	0.41
Avail Cap(c_a), veh/h	234	245		402	440		498	2412		478	1663	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.72	0.72	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	61.3	0.0	52.0	52.6	0.0	16.3	14.0	0.0	15.9	20.3	20.3
Incr Delay (d2), s/veh	1.2	10.9	0.0	9.4	13.0	0.0	0.4	0.6	0.0	0.5	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	7.5	0.0	14.5	16.9	0.0	2.0	8.1	0.0	3.4	11.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	72.2	0.0	61.5	65.7	0.0	16.7	14.6	0.0	16.4	21.1	21.7
LnGrp LOS	E	E		E	E		B	B		B	C	C
Approach Vol, veh/h	145			608			1146			1183		
Approach Delay, s/veh	69.2			63.7			14.7			20.8		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	73.5		16.3	10.2	75.8		32.8				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	18.5	42.5		18.0	18.5	42.5		32.0				
Max Q Clear Time (g_c+I1), s	6.9	16.3		9.9	4.8	19.6		25.1				
Green Ext Time (p_c), s	0.2	14.2		0.4	0.1	12.5		1.7				

Intersection Summary

HCM 6th Ctrl Delay 29.3
HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Existing AM Peak
08/09/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	183	162	132	645	130	44
Future Volume (veh/h)	183	162	132	645	130	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1841	1870	1856	1899	1870
Adj Flow Rate, veh/h	213	188	153	750	151	51
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	9	4	2	3	5	2
Cap, veh/h	744	657	637	1130	272	239
Arrive On Green	0.42	0.42	0.09	0.61	0.15	0.15
Sat Flow, veh/h	1767	1560	1781	1856	1809	1585
Grp Volume(v), veh/h	213	188	153	750	151	51
Grp Sat Flow(s),veh/h/ln	1767	1560	1781	1856	1809	1585
Q Serve(g_s), s	4.0	4.0	2.1	13.2	3.9	1.4
Cycle Q Clear(g_c), s	4.0	4.0	2.1	13.2	3.9	1.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	744	657	637	1130	272	239
V/C Ratio(X)	0.29	0.29	0.24	0.66	0.55	0.21
Avail Cap(c_a), veh/h	1592	1406	1729	3158	1086	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	9.5	6.0	6.4	19.7	18.6
Incr Delay (d2), s/veh	0.4	0.5	0.3	1.4	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	2.2	1.1	6.6	2.9	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.0	10.0	6.2	7.8	21.4	19.1
LnGrp LOS	A	B	A	A	C	B
Approach Vol, veh/h	401			903	202	
Approach Delay, s/veh	10.0			7.6	20.8	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		36.4		13.5	9.4	27.0
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+I1), s		15.2		5.9	4.1	6.0
Green Ext Time (p_c), s		15.2		0.6	0.7	4.4
Intersection Summary						
HCM 6th Ctrl Delay			10.0			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	207	7	4	740	17	1
Future Vol, veh/h	207	7	4	740	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	17	25	3	2	100
Mvmt Flow	233	8	4	831	19	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	241	0	1072
Stage 1	-	-	-	-	233
Stage 2	-	-	-	-	839
Critical Hdwy	-	-	4.35	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.425	-	3.518
Pot Cap-1 Maneuver	-	-	1202	-	244
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	424
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1202	-	243
Mov Cap-2 Maneuver	-	-	-	-	243
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	421

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	-	-	1202	-
HCM Lane V/C Ratio	0.081	-	-	0.004	-
HCM Control Delay (s)	20.6	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Existing AM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	165	28	10	549	4	124	0	19	5	1	69
Future Volume (veh/h)	15	165	28	10	549	4	124	0	19	5	1	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1811	1811	1796	1856	1856	1900	1945	1945	1976	1976	1976	1976
Adj Flow Rate, veh/h	16	181	31	11	603	4	136	0	21	5	1	76
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	7	3	3	0	2	2	0	0	0	0
Cap, veh/h	117	886	796	90	962	842	428	0	293	96	14	273
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.18	0.00	0.18	0.18	0.18	0.18
Sat Flow, veh/h	51	1694	1522	9	1841	1610	1489	0	1675	41	82	1558
Grp Volume(v), veh/h	197	0	31	614	0	4	136	0	21	82	0	0
Grp Sat Flow(s),veh/h/ln	1745	0	1522	1850	0	1610	1489	0	1675	1681	0	0
Q Serve(g_s), s	0.0	0.0	0.4	0.0	0.0	0.1	1.4	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.4	10.2	0.0	0.1	3.2	0.0	0.5	1.8	0.0	0.0
Prop In Lane	0.08		1.00	0.02		1.00	1.00		1.00	0.06		0.93
Lane Grp Cap(c), veh/h	1003	0	796	1052	0	842	428	0	293	383	0	0
V/C Ratio(X)	0.20	0.00	0.04	0.58	0.00	0.00	0.32	0.00	0.07	0.21	0.00	0.00
Avail Cap(c_a), veh/h	2430	0	2123	2652	0	2245	1146	0	1167	1252	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.5	0.0	5.0	7.3	0.0	4.9	15.9	0.0	14.8	15.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.1	0.0	0.0	0.4	0.0	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.2	5.2	0.0	0.0	1.9	0.0	0.3	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	0.0	5.0	8.4	0.0	4.9	16.3	0.0	14.9	15.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	228		618				157		82			
Approach Delay, s/veh	5.6		8.4				16.1		15.7			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	29.5		13.5		29.5		13.5					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	12.2		3.8		4.5		5.2					
Green Ext Time (p_c), s	10.3		0.4		2.9		0.8					
Intersection Summary												
HCM 6th Ctrl Delay	9.5											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	193	516	20	5	24
Future Vol, veh/h	10	193	516	20	5	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	5	8	5	0	0
Mvmt Flow	12	224	600	23	6	28

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	623	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	968	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	968	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	968	-	-	-	462
HCM Lane V/C Ratio	0.012	-	-	-	0.073
HCM Control Delay (s)	8.8	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	185	5	1	504	20	6
Future Vol, veh/h	185	5	1	504	20	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	0	4	0	0
Mvmt Flow	206	6	1	560	22	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	212	0	768
Stage 1	-	-	-	-	206
Stage 2	-	-	-	-	562
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1370	-	373
Stage 1	-	-	-	-	833
Stage 2	-	-	-	-	575
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1370	-	373
Mov Cap-2 Maneuver	-	-	-	-	373
Stage 1	-	-	-	-	833
Stage 2	-	-	-	-	574

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	428	-	-	1370	-
HCM Lane V/C Ratio	0.067	-	-	0.001	-
HCM Control Delay (s)	14	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	186	7	1	495	16	6
Future Vol, veh/h	186	7	1	495	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	29	0	4	6	17
Mvmt Flow	216	8	1	576	19	7
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	224	0	798	220
Stage 1	-	-	-	-	220	-
Stage 2	-	-	-	-	578	-
Critical Hdwy	-	-	4.1	-	6.46	6.37
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.2	-	3.554	3.453
Pot Cap-1 Maneuver	-	-	1357	-	350	784
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	553	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1357	-	350	784
Mov Cap-2 Maneuver	-	-	-	-	350	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	552	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		14.3		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	412	-	-	1357	-	
HCM Lane V/C Ratio	0.062	-	-	0.001	-	
HCM Control Delay (s)	14.3	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Existing AM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	151	12	8	422	71	15	92	8	22	38	61
Future Volume (veh/h)	30	151	12	8	422	71	15	92	8	22	38	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1841	1841	1841	1884	1884	1884	1693	1693	1693
Adj Flow Rate, veh/h	34	170	13	9	474	80	17	103	9	25	43	69
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	4	4	4	6	6	6	14	14	14
Cap, veh/h	168	690	48	94	753	125	123	292	24	134	109	140
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	133	1400	98	8	1528	254	122	1557	126	154	584	749
Grp Volume(v), veh/h	217	0	0	563	0	0	129	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1631	0	0	1790	0	0	1805	0	0	1487	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.0	9.4	0.0	0.0	2.5	0.0	0.0	3.2	0.0	0.0
Prop In Lane	0.16		0.06	0.02		0.14	0.13		0.07	0.18		0.50
Lane Grp Cap(c), veh/h	906	0	0	972	0	0	438	0	0	383	0	0
V/C Ratio(X)	0.24	0.00	0.00	0.58	0.00	0.00	0.29	0.00	0.00	0.36	0.00	0.00
Avail Cap(c_a), veh/h	2384	0	0	2725	0	0	1407	0	0	1178	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	0.0	7.6	0.0	0.0	14.4	0.0	0.0	14.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	0.0	3.5	0.0	0.0	1.6	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	0.0	0.0	8.8	0.0	0.0	14.8	0.0	0.0	15.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	217			563			129			137		
Approach Delay, s/veh	6.2			8.8			14.8			15.3		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	27.0			13.6			27.0			13.6		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+I1), s	11.4			5.2			4.9			4.5		
Green Ext Time (p_c), s	8.1			0.7			2.7			0.7		
Intersection Summary												
HCM 6th Ctrl Delay	9.8											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Existing PM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	279	110	170	149	207	66	954	296	236	1062	41
Future Volume (veh/h)	48	279	110	170	149	207	66	954	296	236	1062	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1856	1810	1885	1856	1900	1811	1870	1856	1856	1856
Adj Flow Rate, veh/h	49	285	0	162	167	0	67	973	0	241	1084	42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	3	1	1	3	0	6	2	3	3	3
Cap, veh/h	303	318		186	204		315	2538		421	2809	109
Arrive On Green	0.17	0.17	0.00	0.11	0.11	0.00	0.04	0.68	0.00	0.08	0.56	0.56
Sat Flow, veh/h	1795	1885	1572	1724	1885	1572	1810	4944	1585	1767	5004	194
Grp Volume(v), veh/h	49	285	0	162	167	0	67	973	0	241	731	395
Grp Sat Flow(s),veh/h/ln	1795	1885	1572	1724	1885	1572	1810	1648	1585	1767	1689	1821
Q Serve(g_s), s	4.2	26.7	0.0	16.7	15.6	0.0	3.2	15.2	0.0	11.3	21.8	21.8
Cycle Q Clear(g_c), s	4.2	26.7	0.0	16.7	15.6	0.0	3.2	15.2	0.0	11.3	21.8	21.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	303	318		186	204		315	2538		421	1896	1022
V/C Ratio(X)	0.16	0.90		0.87	0.82		0.21	0.38		0.57	0.39	0.39
Avail Cap(c_a), veh/h	409	429		249	272		590	2538		605	1896	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.92	0.92	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.0	73.3	0.0	79.0	78.5	0.0	20.0	16.3	0.0	18.0	22.1	22.1
Incr Delay (d2), s/veh	0.3	17.9	0.0	19.9	12.5	0.0	0.3	0.4	0.0	0.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	20.8	0.0	13.1	12.9	0.0	2.5	9.0	0.0	8.4	13.8	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	91.2	0.0	98.9	91.1	0.0	20.3	16.7	0.0	18.9	22.7	23.2
LnGrp LOS	E	F		F	F		C	B		B	C	C
Approach Vol, veh/h	334			329			1040			1367		
Approach Delay, s/veh	87.3			94.9			17.0			22.2		
Approach LOS	F			F			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.3	98.9		36.3	10.6	107.6		25.5				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	32.5	56.5		41.0	32.5	56.5		26.0				
Max Q Clear Time (g_c+I1), s	13.3	17.2		28.7	5.2	23.8		18.7				
Green Ext Time (p_c), s	0.5	15.6		1.7	0.1	16.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay 35.3
HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Existing PM Peak
08/09/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	491	344	103	300	209	193
Future Volume (veh/h)	491	344	103	300	209	193
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1885	1841	1856	1945	1870
Adj Flow Rate, veh/h	511	358	107	312	218	201
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	4	3	2	2
Cap, veh/h	822	708	402	1124	330	283
Arrive On Green	0.44	0.44	0.07	0.61	0.18	0.18
Sat Flow, veh/h	1856	1598	1753	1856	1853	1585
Grp Volume(v), veh/h	511	358	107	312	218	201
Grp Sat Flow(s),veh/h/ln	1856	1598	1753	1856	1853	1585
Q Serve(g_s), s	11.8	8.9	1.6	4.4	6.1	6.6
Cycle Q Clear(g_c), s	11.8	8.9	1.6	4.4	6.1	6.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	822	708	402	1124	330	283
V/C Ratio(X)	0.62	0.51	0.27	0.28	0.66	0.71
Avail Cap(c_a), veh/h	1502	1294	1379	2838	1000	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	11.1	8.0	5.2	21.3	21.5
Incr Delay (d2), s/veh	1.6	1.2	0.5	0.3	2.3	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	5.2	0.9	2.3	4.7	9.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	12.3	8.5	5.5	23.5	24.8
LnGrp LOS	B	B	A	A	C	C
Approach Vol, veh/h	869			419	419	
Approach Delay, s/veh	13.0			6.2	24.1	
Approach LOS	B			A	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	39.7			15.9	9.0	30.6
Change Period (Y+Rc), s	6.0			6.0	5.0	6.0
Max Green Setting (Gmax), s	85.0			30.0	35.0	45.0
Max Q Clear Time (g_c+I1), s	6.4			8.6	3.6	13.8
Green Ext Time (p_c), s	4.4			1.3	0.5	10.9
Intersection Summary						
HCM 6th Ctrl Delay			14.1			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	639	14	0	384	4	4
Future Vol, veh/h	639	14	0	384	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	25
Mvmt Flow	659	14	0	396	4	4

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	673	0	1055	659
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	396	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	927	-	252	426
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	684	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	927	-	252	426
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	684	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	317	-	-	927	-
HCM Lane V/C Ratio	0.026	-	-	-	-
HCM Control Delay (s)	16.7	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Existing PM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	482	106	22	277	16	75	3	19	4	3	32
Future Volume (veh/h)	54	482	106	22	277	16	75	3	19	4	3	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1900	1870	1870	1900	1976	1976	1899	1976	1976	1976
Adj Flow Rate, veh/h	57	507	112	23	292	17	79	3	20	4	3	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	0	2	2	0	0	0	5	0	0	0
Cap, veh/h	150	875	838	120	916	838	403	12	254	109	35	223
Arrive On Green	0.52	0.52	0.52	0.52	0.52	0.52	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	99	1682	1610	47	1761	1610	1441	78	1609	70	220	1408
Grp Volume(v), veh/h	564	0	112	315	0	17	82	0	20	41	0	0
Grp Sat Flow(s),veh/h/ln	1782	0	1610	1808	0	1610	1519	0	1609	1698	0	0
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	0.2	0.9	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.5	0.0	1.4	3.9	0.0	0.2	1.8	0.0	0.4	0.8	0.0	0.0
Prop In Lane	0.10		1.00	0.07		1.00	0.96		1.00	0.10		0.83
Lane Grp Cap(c), veh/h	1025	0	838	1036	0	838	415	0	254	366	0	0
V/C Ratio(X)	0.55	0.00	0.13	0.30	0.00	0.02	0.20	0.00	0.08	0.11	0.00	0.00
Avail Cap(c_a), veh/h	2687	0	2389	2679	0	2389	1269	0	1194	1341	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.7	0.0	5.0	5.6	0.0	4.7	15.0	0.0	14.5	14.7	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.2	0.4	0.0	0.0	0.2	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	0.0	0.6	1.9	0.0	0.1	1.1	0.0	0.3	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.0	5.2	5.9	0.0	4.7	15.3	0.0	14.6	14.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	676				332		102				41	
Approach Delay, s/veh	7.3				5.9		15.1				14.8	
Approach LOS	A				A		B				B	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	28.0		12.4		28.0		12.4					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+l1), s	5.9		2.8		10.5		3.8					
Green Ext Time (p_c), s	4.7		0.2		10.6		0.5					
Intersection Summary												
HCM 6th Ctrl Delay	7.8											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔	↔	↔	
Traffic Vol, veh/h	47	438	273	17	16	38
Future Vol, veh/h	47	438	273	17	16	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	6	6	0
Mvmt Flow	49	456	284	18	17	40

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	302	0	-	0	838
Stage 1	-	-	-	-	284
Stage 2	-	-	-	-	554
Critical Hdwy	4.1	-	-	-	6.46
Critical Hdwy Stg 1	-	-	-	-	5.46
Critical Hdwy Stg 2	-	-	-	-	5.46
Follow-up Hdwy	2.2	-	-	-	3.554
Pot Cap-1 Maneuver	1270	-	-	-	331
Stage 1	-	-	-	-	755
Stage 2	-	-	-	-	568
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1270	-	-	-	314
Mov Cap-2 Maneuver	-	-	-	-	314
Stage 1	-	-	-	-	716
Stage 2	-	-	-	-	568

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1270	-	-	-	535
HCM Lane V/C Ratio	0.039	-	-	-	0.105
HCM Control Delay (s)	7.9	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	
Traffic Vol, veh/h	471	20	4	263	11	4
Future Vol, veh/h	471	20	4	263	11	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	5	0	3	0	0
Mvmt Flow	506	22	4	283	12	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	528	0	797
Stage 1	-	-	-	-	506
Stage 2	-	-	-	-	291
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1049	-	358
Stage 1	-	-	-	-	610
Stage 2	-	-	-	-	763
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1049	-	357
Mov Cap-2 Maneuver	-	-	-	-	357
Stage 1	-	-	-	-	610
Stage 2	-	-	-	-	760

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	397	-	-	1049	-
HCM Lane V/C Ratio	0.041	-	-	0.004	-
HCM Control Delay (s)	14.5	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	444	17	3	266	11	8
Future Vol, veh/h	444	17	3	266	11	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	18	0	2	0	25
Mvmt Flow	477	18	3	286	12	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	495
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1079
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1079
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	423	-	-	1079	-
HCM Lane V/C Ratio	0.048	-	-	0.003	-
HCM Control Delay (s)	13.9	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary
8: Black Dog Aly & MD 328

Existing PM Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	375	25	1	188	40	16	69	2	83	123	65
Future Volume (veh/h)	52	375	25	1	188	40	16	69	2	83	123	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1930	1930	1930	1856	1856	1856
Adj Flow Rate, veh/h	54	391	26	1	196	42	17	72	2	86	128	68
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	724	45	84	684	146	136	395	10	198	204	93
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	115	1566	98	1	1481	316	155	1662	41	377	860	393
Grp Volume(v), veh/h	471	0	0	239	0	0	91	0	0	282	0	0
Grp Sat Flow(s),veh/h/ln	1779	0	0	1798	0	0	1858	0	0	1630	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	0.0	3.6	0.0	0.0	1.6	0.0	0.0	6.8	0.0	0.0
Prop In Lane	0.11		0.06	0.00		0.18	0.19		0.02	0.30		0.24
Lane Grp Cap(c), veh/h	915	0	0	914	0	0	540	0	0	496	0	0
V/C Ratio(X)	0.51	0.00	0.00	0.26	0.00	0.00	0.17	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	2512	0	0	2571	0	0	1331	0	0	1219	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.4	0.0	0.0	7.2	0.0	0.0	13.2	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.5	0.0	0.0	1.5	0.0	0.0	1.1	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	0.0	0.0	7.5	0.0	0.0	13.4	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	471			239			91			282		
Approach Delay, s/veh	9.4			7.5			13.4			16.1		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	27.0			16.3			27.0			16.3		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+l1), s	5.6			8.8			9.9			3.6		
Green Ext Time (p_c), s	2.8			1.6			6.4			0.4		
Intersection Summary												
HCM 6th Ctrl Delay	11.1											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Existing Saturday Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	243	103	133	150	237	102	1238	179	139	1289	57
Future Volume (veh/h)	77	243	103	133	150	237	102	1238	179	139	1289	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1900	1810	1885	1885	1900	1870	1885	1885	1885	1885
Adj Flow Rate, veh/h	83	261	0	143	161	0	110	1331	0	149	1386	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	1	1	1	0	2	1	1	1	1
Cap, veh/h	293	308		186	204		255	2480		303	2513	111
Arrive On Green	0.16	0.16	0.00	0.11	0.11	0.00	0.06	0.65	0.00	0.06	0.50	0.50
Sat Flow, veh/h	1781	1870	1610	1724	1885	1598	1810	5106	1598	1795	5054	222
Grp Volume(v), veh/h	83	261	0	143	161	0	110	1331	0	149	941	506
Grp Sat Flow(s),veh/h/ln	1781	1870	1610	1724	1885	1598	1810	1702	1598	1795	1716	1845
Q Serve(g_s), s	5.4	17.8	0.0	10.6	10.9	0.0	4.0	18.5	0.0	5.4	24.9	24.9
Cycle Q Clear(g_c), s	5.4	17.8	0.0	10.6	10.9	0.0	4.0	18.5	0.0	5.4	24.9	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	293	308		186	204		255	2480		303	1706	918
V/C Ratio(X)	0.28	0.85		0.77	0.79		0.43	0.54		0.49	0.55	0.55
Avail Cap(c_a), veh/h	476	500		460	504		584	5260		609	3535	1901
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	53.1	0.0	56.8	57.0	0.0	17.9	15.2	0.0	16.9	22.8	22.8
Incr Delay (d2), s/veh	0.6	8.5	0.0	6.5	6.7	0.0	1.2	0.4	0.0	0.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	14.0	0.0	8.6	9.5	0.0	3.0	10.0	0.0	4.1	15.2	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	61.6	0.0	63.3	63.7	0.0	19.0	15.6	0.0	17.8	23.4	23.9
LnGrp LOS	D	E		E	E		B	B		B	C	C
Approach Vol, veh/h	344			304			1441			1596		
Approach Delay, s/veh	58.5			63.5			15.9			23.1		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.1	70.2		27.6	11.6	71.7		20.2				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	30.0	135.0		35.0	30.0	135.0		35.0				
Max Q Clear Time (g_c+I1), s	7.4	20.5		19.8	6.0	26.9		12.9				
Green Ext Time (p_c), s	0.3	34.3		1.8	0.3	38.3		1.3				

Intersection Summary

HCM 6th Ctrl Delay 26.9
HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Existing Saturday Peak
08/09/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↗	↙
Traffic Volume (veh/h)	240	279	109	269	222	128
Future Volume (veh/h)	240	279	109	269	222	128
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1961	1900
Adj Flow Rate, veh/h	258	300	117	289	239	138
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	1	1	1	0
Cap, veh/h	746	637	547	1091	339	293
Arrive On Green	0.40	0.40	0.08	0.58	0.18	0.18
Sat Flow, veh/h	1870	1598	1795	1885	1867	1610
Grp Volume(v), veh/h	258	300	117	289	239	138
Grp Sat Flow(s),veh/h/ln	1870	1598	1795	1885	1867	1610
Q Serve(g_s), s	4.8	7.0	1.7	3.8	6.0	3.8
Cycle Q Clear(g_c), s	4.8	7.0	1.7	3.8	6.0	3.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	746	637	547	1091	339	293
V/C Ratio(X)	0.35	0.47	0.21	0.26	0.70	0.47
Avail Cap(c_a), veh/h	1679	1434	1657	3197	1117	964
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	11.1	6.7	5.2	19.2	18.4
Incr Delay (d2), s/veh	0.6	1.2	0.3	0.3	2.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	4.0	0.9	2.0	4.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	12.3	7.0	5.5	21.9	19.5
LnGrp LOS	B	B	A	A	C	B
Approach Vol, veh/h	558			406	377	
Approach Delay, s/veh	11.7			6.0	21.0	
Approach LOS	B			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.0		15.1	9.0	26.0
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+I1), s		5.8		8.0	3.7	9.0
Green Ext Time (p_c), s		4.0		1.1	0.5	6.1
Intersection Summary						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	312	19	3	354	27	0
Future Vol, veh/h	312	19	3	354	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	355	22	3	402	31	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	377
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1193
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1193
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	374	-	-	1193	-
HCM Lane V/C Ratio	0.082	-	-	0.003	-
HCM Control Delay (s)	15.5	-	-	8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Existing Saturday Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	236	61	9	247	3	59	3	11	4	2	33
Future Volume (veh/h)	41	236	61	9	247	3	59	3	11	4	2	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1870	1870	1900	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	47	268	69	10	281	3	67	3	12	5	2	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	0	2	2	0	0	0	0	0	0	0
Cap, veh/h	176	839	826	104	944	826	400	14	257	116	27	219
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	137	1636	1610	17	1841	1610	1432	94	1675	85	177	1427
Grp Volume(v), veh/h	315	0	69	291	0	3	70	0	12	45	0	0
Grp Sat Flow(s),veh/h/ln	1773	0	1610	1857	0	1610	1526	0	1675	1690	0	0
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.8	3.5	0.0	0.0	1.4	0.0	0.2	0.9	0.0	0.0
Prop In Lane	0.15		1.00	0.03		1.00	0.96		1.00	0.11		0.84
Lane Grp Cap(c), veh/h	1016	0	826	1048	0	826	415	0	257	362	0	0
V/C Ratio(X)	0.31	0.00	0.08	0.28	0.00	0.00	0.17	0.00	0.05	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2753	0	2480	2918	0	2480	1316	0	1289	1386	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.6	0.0	4.8	5.5	0.0	4.6	14.5	0.0	14.1	14.3	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.3	0.0	0.0	0.2	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.3	1.6	0.0	0.0	0.9	0.0	0.1	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.9	0.0	4.9	5.8	0.0	4.6	14.7	0.0	14.1	14.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	384		294				82		45			
Approach Delay, s/veh	5.7		5.8				14.6		14.5			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	27.0		12.0		27.0		12.0					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	5.5		2.9		5.8		3.4					
Green Ext Time (p_c), s	4.0		0.2		5.1		0.4					
Intersection Summary												
HCM 6th Ctrl Delay	7.1											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	243	222	11	15	30
Future Vol, veh/h	28	243	222	11	15	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	9	0	0
Mvmt Flow	31	267	244	12	16	33

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	256	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1321	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1321	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1321	-	-	-	648
HCM Lane V/C Ratio	0.023	-	-	-	0.076
HCM Control Delay (s)	7.8	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	
Traffic Vol, veh/h	244	16	3	217	13	4
Future Vol, veh/h	244	16	3	217	13	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	33	1	8	0
Mvmt Flow	254	17	3	226	14	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	271	0	486
Stage 1	-	-	-	-	254
Stage 2	-	-	-	-	232
Critical Hdwy	-	-	4.43	-	6.48
Critical Hdwy Stg 1	-	-	-	-	5.48
Critical Hdwy Stg 2	-	-	-	-	5.48
Follow-up Hdwy	-	-	2.497	-	3.572
Pot Cap-1 Maneuver	-	-	1133	-	530
Stage 1	-	-	-	-	775
Stage 2	-	-	-	-	793
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1133	-	528
Mov Cap-2 Maneuver	-	-	-	-	528
Stage 1	-	-	-	-	775
Stage 2	-	-	-	-	791

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	573	-	-	1133	-
HCM Lane V/C Ratio	0.031	-	-	0.003	-
HCM Control Delay (s)	11.5	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	14	6	217	12	1
Future Vol, veh/h	222	14	6	217	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	17	2	8	100
Mvmt Flow	234	15	6	228	13	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	249	0	482	242
Stage 1	-	-	-	-	242	-
Stage 2	-	-	-	-	240	-
Critical Hdwy	-	-	4.27	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.353	-	3.572	4.2
Pot Cap-1 Maneuver	-	-	1234	-	532	606
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1234	-	529	606
Mov Cap-2 Maneuver	-	-	-	-	529	-
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	781	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0.2		11.9		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	534	-	-	1234	-	
HCM Lane V/C Ratio	0.026	-	-	0.005	-	
HCM Control Delay (s)	11.9	-	-	7.9	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th Signalized Intersection Summary
8: Black Dog Aly & MD 328

Existing Saturday Peak
08/09/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	150	21	3	160	30	13	50	7	34	73	58
Future Volume (veh/h)	45	150	21	3	160	30	13	50	7	34	73	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1914	1914	1914	1870	1870	1870
Adj Flow Rate, veh/h	46	153	21	3	163	31	13	51	7	35	74	59
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	219	651	80	93	756	142	135	272	33	149	161	109
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	225	1323	163	5	1537	288	156	1471	178	221	868	589
Grp Volume(v), veh/h	220	0	0	197	0	0	71	0	0	168	0	0
Grp Sat Flow(s),veh/h/ln	1712	0	0	1830	0	0	1806	0	0	1678	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.5	0.0	0.0	1.3	0.0	0.0	3.5	0.0	0.0
Prop In Lane	0.21		0.10	0.02		0.16	0.18		0.10	0.21		0.35
Lane Grp Cap(c), veh/h	950	0	0	991	0	0	440	0	0	418	0	0
V/C Ratio(X)	0.23	0.00	0.00	0.20	0.00	0.00	0.16	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	2593	0	0	2807	0	0	1408	0	0	1334	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.9	0.0	0.0	5.8	0.0	0.0	13.9	0.0	0.0	14.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0	2.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	0.0	0.0	6.0	0.0	0.0	14.1	0.0	0.0	15.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	220			197			71			168		
Approach Delay, s/veh	6.2			6.0			14.1			15.4		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	26.8			13.4			26.8			13.4		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+l1), s	4.5			5.5			4.8			3.3		
Green Ext Time (p_c), s	2.3			0.9			2.6			0.3		
Intersection Summary												
HCM 6th Ctrl Delay	9.3											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Background AM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	111	51	400	185	211	69	1027	161	125	991	22
Future Volume (veh/h)	33	111	51	400	185	211	69	1027	161	125	991	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1781	1781	1856	1826	1856	1781	1781	1767	1781	1781
Adj Flow Rate, veh/h	35	119	0	314	361	0	74	1104	0	134	1066	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	8	3	3	5	3	8	8	9	8	8
Cap, veh/h	142	149		364	398		295	2284		316	2405	54
Arrive On Green	0.08	0.08	0.00	0.21	0.21	0.00	0.05	0.62	0.00	0.06	0.49	0.49
Sat Flow, veh/h	1753	1841	1510	1696	1856	1547	1767	4863	1510	1682	4894	110
Grp Volume(v), veh/h	35	119	0	314	361	0	74	1104	0	134	706	384
Grp Sat Flow(s),veh/h/ln	1753	1841	1510	1696	1856	1547	1767	1621	1510	1682	1621	1762
Q Serve(g_s), s	2.5	8.6	0.0	24.1	25.6	0.0	2.9	16.5	0.0	5.5	19.1	19.1
Cycle Q Clear(g_c), s	2.5	8.6	0.0	24.1	25.6	0.0	2.9	16.5	0.0	5.5	19.1	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	142	149		364	398		295	2284		316	1593	866
V/C Ratio(X)	0.25	0.80		0.86	0.91		0.25	0.48		0.42	0.44	0.44
Avail Cap(c_a), veh/h	234	245		402	440		475	2284		452	1593	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.65	0.65	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.1	60.9	0.0	51.1	51.7	0.0	18.2	16.5	0.0	17.8	22.3	22.3
Incr Delay (d2), s/veh	1.1	11.0	0.0	11.2	15.1	0.0	0.4	0.7	0.0	0.7	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	7.9	0.0	15.8	18.5	0.0	2.2	9.2	0.0	3.9	11.9	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	71.9	0.0	62.3	66.8	0.0	18.6	17.3	0.0	18.5	23.2	24.0
LnGrp LOS	E	E		E	E		B	B		B	C	C
Approach Vol, veh/h	154			675			1178			1224		
Approach Delay, s/veh	69.0			64.7			17.3			22.9		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	69.9		17.0	10.2	72.8		35.0				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	18.5	42.5		18.0	18.5	42.5		32.0				
Max Q Clear Time (g_c+I1), s	7.5	18.5		10.6	4.9	21.1		27.6				
Green Ext Time (p_c), s	0.2	13.9		0.4	0.1	12.3		1.4				

Intersection Summary

HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Background AM Peak

12/13/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	211	162	137	728	130	46
Future Volume (veh/h)	211	162	137	728	130	46
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1841	1870	1856	1899	1870
Adj Flow Rate, veh/h	245	188	159	847	151	53
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	9	4	2	3	5	2
Cap, veh/h	862	761	656	1217	243	213
Arrive On Green	0.49	0.49	0.08	0.66	0.13	0.13
Sat Flow, veh/h	1767	1560	1781	1856	1809	1585
Grp Volume(v), veh/h	245	188	159	847	151	53
Grp Sat Flow(s),veh/h/ln	1767	1560	1781	1856	1809	1585
Q Serve(g_s), s	4.7	4.0	2.2	16.5	4.5	1.7
Cycle Q Clear(g_c), s	4.7	4.0	2.2	16.5	4.5	1.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	862	761	656	1217	243	213
V/C Ratio(X)	0.28	0.25	0.24	0.70	0.62	0.25
Avail Cap(c_a), veh/h	1390	1228	1604	2758	949	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	8.5	5.4	6.2	23.4	22.2
Incr Delay (d2), s/veh	0.4	0.4	0.3	1.6	2.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	2.1	1.1	8.0	3.5	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.1	8.9	5.7	7.8	26.0	22.8
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	433			1006	204	
Approach Delay, s/veh	9.0			7.5	25.1	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		43.5		13.7	9.6	33.9
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		18.5		6.5	4.2	6.7
Green Ext Time (p_c), s		19.0		0.6	0.7	4.8
Intersection Summary						
HCM 6th Ctrl Delay			10.1			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	237	7	4	829	17	1
Future Vol, veh/h	237	7	4	829	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	17	25	3	2	100
Mvmt Flow	266	8	4	931	19	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	274	0	1205	266
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	939	-
Critical Hdwy	-	-	4.35	-	6.42	7.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.425	-	3.518	4.2
Pot Cap-1 Maneuver	-	-	1168	-	203	586
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	380	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1168	-	202	586
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	377	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		24	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	210	-	-	1168	-	
HCM Lane V/C Ratio	0.096	-	-	0.004	-	
HCM Control Delay (s)	24	-	-	8.1	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Background AM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	194	28	10	635	4	124	0	19	5	1	69
Future Volume (veh/h)	15	194	28	10	635	4	124	0	19	5	1	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1796	1856	1856	1900	1945	1945	1976	1976	1976	1976
Adj Flow Rate, veh/h	16	213	31	11	698	4	136	0	21	5	1	76
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	7	3	3	0	2	2	0	0	0	0
Cap, veh/h	105	970	869	80	1052	919	389	0	267	86	13	248
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.16	0.00	0.16	0.16	0.16	0.16
Sat Flow, veh/h	45	1699	1522	8	1843	1610	1503	0	1675	41	82	1558
Grp Volume(v), veh/h	229	0	31	709	0	4	136	0	21	82	0	0
Grp Sat Flow(s),veh/h/ln	1744	0	1522	1851	0	1610	1503	0	1675	1681	0	0
Q Serve(g_s), s	0.0	0.0	0.4	0.0	0.0	0.1	1.6	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.4	12.8	0.0	0.1	3.7	0.0	0.5	2.1	0.0	0.0
Prop In Lane	0.07		1.00	0.02		1.00	1.00		1.00	0.06		0.93
Lane Grp Cap(c), veh/h	1075	0	869	1132	0	919	389	0	267	347	0	0
V/C Ratio(X)	0.21	0.00	0.04	0.63	0.00	0.00	0.35	0.00	0.08	0.24	0.00	0.00
Avail Cap(c_a), veh/h	2181	0	1896	2372	0	2006	1026	0	1043	1118	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.1	0.0	4.5	7.2	0.0	4.4	18.4	0.0	17.2	17.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.2	0.0	0.0	0.5	0.0	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	0.2	6.6	0.0	0.0	2.3	0.0	0.3	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	0.0	4.6	8.4	0.0	4.5	19.0	0.0	17.4	18.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	260				713				157			
Approach Delay, s/veh	5.2				8.4				18.8			
Approach LOS	A				A				B			
Timer - Assigned Phs	2				4				6			
Phs Duration (G+Y+Rc), s	34.5				13.7				34.5			
Change Period (Y+Rc), s	7.0				6.0				7.0			
Max Green Setting (Gmax), s	60.0				30.0				60.0			
Max Q Clear Time (g_c+I1), s	14.8				4.1				5.0			
Green Ext Time (p_c), s	12.7				0.4				3.4			
Intersection Summary												
HCM 6th Ctrl Delay	9.7											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↑	↗	↘	
Traffic Vol, veh/h	10	223	602	20	5	24
Future Vol, veh/h	10	223	602	20	5	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	5	8	5	0	0
Mvmt Flow	12	259	700	23	6	28

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	723	0	983
Stage 1	-	-	700
Stage 2	-	-	283
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	889	-	278
Stage 1	-	-	496
Stage 2	-	-	770
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	889	-	274
Mov Cap-2 Maneuver	-	-	274
Stage 1	-	-	488
Stage 2	-	-	770

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	889	-	-	-	400
HCM Lane V/C Ratio	0.013	-	-	-	0.084
HCM Control Delay (s)	9.1	0	-	-	14.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	215	5	1	590	20	6
Future Vol, veh/h	215	5	1	590	20	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	0	4	0	0
Mvmt Flow	239	6	1	656	22	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	245	0	897	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	658	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1333	-	313	805
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1333	-	313	805
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	518	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		15.7	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	364	-	-	1333	-	
HCM Lane V/C Ratio	0.079	-	-	0.001	-	
HCM Control Delay (s)	15.7	-	-	7.7	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	215	7	1	512	16	6
Future Vol, veh/h	215	7	1	512	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	29	0	4	6	17
Mvmt Flow	250	8	1	595	19	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	258	0	851	254
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	597	-
Critical Hdwy	-	-	4.1	-	6.46	6.37
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.2	-	3.554	3.453
Pot Cap-1 Maneuver	-	-	1318	-	325	749
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1318	-	325	749
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	541	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		15	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	384	-	-	1318	-	
HCM Lane V/C Ratio	0.067	-	-	0.001	-	
HCM Control Delay (s)	15	-	-	7.7	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Background AM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	169	12	8	434	71	15	92	8	22	38	65
Future Volume (veh/h)	40	169	12	8	434	71	15	92	8	22	38	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1841	1841	1841	1884	1884	1884	1693	1693	1693
Adj Flow Rate, veh/h	45	190	13	9	488	80	17	103	9	25	43	73
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	4	4	4	6	6	6	14	14	14
Cap, veh/h	187	673	42	94	758	123	123	291	24	132	106	144
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	168	1363	85	8	1535	248	121	1557	126	149	567	769
Grp Volume(v), veh/h	248	0	0	577	0	0	129	0	0	141	0	0
Grp Sat Flow(s),veh/h/ln	1615	0	0	1791	0	0	1804	0	0	1485	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	9.8	0.0	0.0	2.5	0.0	0.0	3.3	0.0	0.0
Prop In Lane	0.18		0.05	0.02		0.14	0.13		0.07	0.18		0.52
Lane Grp Cap(c), veh/h	902	0	0	974	0	0	438	0	0	382	0	0
V/C Ratio(X)	0.27	0.00	0.00	0.59	0.00	0.00	0.29	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	2331	0	0	2717	0	0	1401	0	0	1173	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	7.7	0.0	0.0	14.5	0.0	0.0	14.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.0	3.6	0.0	0.0	1.7	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.0	0.0	8.9	0.0	0.0	14.8	0.0	0.0	15.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	248		577				129		141			
Approach Delay, s/veh	6.4		8.9				14.8		15.4			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	27.1		13.6		27.1		13.6					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	11.8		5.3		5.3		4.5					
Green Ext Time (p_c), s	8.4		0.8		3.2		0.7					
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Background PM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	307	110	194	165	224	66	983	337	264	1094	41
Future Volume (veh/h)	48	307	110	194	165	224	66	983	337	264	1094	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1856	1810	1885	1856	1900	1811	1870	1856	1856	1856
Adj Flow Rate, veh/h	49	313	0	183	189	0	67	1003	0	269	1116	42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	3	1	1	3	0	6	2	3	3	3
Cap, veh/h	328	345		207	226		292	2343		406	2676	101
Arrive On Green	0.18	0.18	0.00	0.12	0.12	0.00	0.04	0.63	0.00	0.09	0.53	0.53
Sat Flow, veh/h	1795	1885	1572	1724	1885	1572	1810	4944	1585	1767	5010	188
Grp Volume(v), veh/h	49	313	0	183	189	0	67	1003	0	269	752	406
Grp Sat Flow(s),veh/h/ln	1795	1885	1572	1724	1885	1572	1810	1648	1585	1767	1689	1822
Q Serve(g_s), s	4.1	29.3	0.0	18.8	17.7	0.0	3.4	18.5	0.0	13.7	24.0	24.0
Cycle Q Clear(g_c), s	4.1	29.3	0.0	18.8	17.7	0.0	3.4	18.5	0.0	13.7	24.0	24.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	328	345		207	226		292	2343		406	1804	973
V/C Ratio(X)	0.15	0.91		0.89	0.84		0.23	0.43		0.66	0.42	0.42
Avail Cap(c_a), veh/h	409	429		249	272		564	2343		566	1804	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.90	0.90	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	72.1	0.0	78.0	77.5	0.0	23.3	20.9	0.0	21.4	25.1	25.1
Incr Delay (d2), s/veh	0.3	20.7	0.0	24.2	15.7	0.0	0.4	0.6	0.0	1.4	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.5	22.8	0.0	14.7	14.5	0.0	2.7	10.9	0.0	9.9	15.1	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.0	92.7	0.0	102.2	93.2	0.0	23.7	21.5	0.0	22.8	25.8	26.5
LnGrp LOS	E	F		F	F		C	C		C	C	C
Approach Vol, veh/h	362			372			1070			1427		
Approach Delay, s/veh	88.6			97.7			21.6			25.4		
Approach LOS	F			F			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.7	91.8		38.9	10.9	102.6		27.6				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	32.5	56.5		41.0	32.5	56.5		26.0				
Max Q Clear Time (g_c+I1), s	15.7	20.5		31.3	5.4	26.0		20.8				
Green Ext Time (p_c), s	0.5	15.6		1.6	0.1	16.3		0.7				

Intersection Summary

HCM 6th Ctrl Delay 39.6
 HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Background PM Peak

12/13/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	583	344	107	354	209	199
Future Volume (veh/h)	583	344	107	354	209	199
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1885	1841	1856	1945	1870
Adj Flow Rate, veh/h	607	358	111	369	218	207
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	4	3	2	2
Cap, veh/h	889	765	367	1167	328	281
Arrive On Green	0.48	0.48	0.07	0.63	0.18	0.18
Sat Flow, veh/h	1856	1598	1753	1856	1853	1585
Grp Volume(v), veh/h	607	358	111	369	218	207
Grp Sat Flow(s),veh/h/ln	1856	1598	1753	1856	1853	1585
Q Serve(g_s), s	15.7	9.3	1.8	5.7	6.8	7.6
Cycle Q Clear(g_c), s	15.7	9.3	1.8	5.7	6.8	7.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	889	765	367	1167	328	281
V/C Ratio(X)	0.68	0.47	0.30	0.32	0.66	0.74
Avail Cap(c_a), veh/h	1351	1163	1239	2552	899	769
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	10.8	8.9	5.3	23.7	24.1
Incr Delay (d2), s/veh	2.0	1.0	0.7	0.3	2.3	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	5.4	1.0	3.1	5.4	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.5	11.8	9.6	5.6	26.0	27.9
LnGrp LOS	B	B	A	A	C	C
Approach Vol, veh/h	965			480	425	
Approach Delay, s/veh	13.5			6.6	26.9	
Approach LOS	B			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.9		16.9	9.3	35.6
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		7.7		9.6	3.8	17.7
Green Ext Time (p_c), s		5.4		1.3	0.5	12.0
Intersection Summary						
HCM 6th Ctrl Delay			14.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	740	14	0	443	4	4
Future Vol, veh/h	740	14	0	443	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	25
Mvmt Flow	763	14	0	457	4	4

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	777	0	1220	763
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	848	-	201	370
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	642	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	848	-	201	370
Mov Cap-2 Maneuver	-	-	-	-	201	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	260	-	-	848	-
HCM Lane V/C Ratio	0.032	-	-	-	-
HCM Control Delay (s)	19.3	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Background PM Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	580	106	22	334	16	75	3	19	4	3	32
Future Volume (veh/h)	54	580	106	22	334	16	75	3	19	4	3	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1870	1870	1900	1976	1976	1899	1976	1976	1976
Adj Flow Rate, veh/h	57	611	112	23	352	17	79	3	20	4	3	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	0	2	2	0	0	0	5	0	0	0
Cap, veh/h	134	970	920	106	1010	920	365	11	235	96	32	206
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	86	1697	1610	40	1768	1610	1447	77	1609	69	221	1409
Grp Volume(v), veh/h	668	0	112	375	0	17	82	0	20	41	0	0
Grp Sat Flow(s),veh/h/ln	1783	0	1610	1808	0	1610	1524	0	1609	1699	0	0
Q Serve(g_s), s	0.1	0.0	1.5	0.0	0.0	0.2	1.1	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.1	0.0	1.5	4.9	0.0	0.2	2.0	0.0	0.5	1.0	0.0	0.0
Prop In Lane	0.09		1.00	0.06		1.00	0.96		1.00	0.10		0.83
Lane Grp Cap(c), veh/h	1104	0	920	1116	0	920	376	0	235	334	0	0
V/C Ratio(X)	0.61	0.00	0.12	0.34	0.00	0.02	0.22	0.00	0.09	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2371	0	2099	2366	0	2099	1116	0	1049	1179	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.6	0.0	4.5	5.3	0.0	4.3	17.6	0.0	17.0	17.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.1	0.4	0.0	0.0	0.3	0.0	0.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	0.6	2.4	0.0	0.1	1.3	0.0	0.3	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.0	4.7	5.7	0.0	4.3	17.9	0.0	17.2	17.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		780			392			102			41	
Approach Delay, s/veh		7.3			5.6			17.7			17.4	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.3		12.7		33.3		12.7				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s		6.9		3.0		13.1		4.0				
Green Ext Time (p_c), s		5.7		0.2		13.2		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			7.9									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	
Traffic Vol, veh/h	47	536	330	17	16	38
Future Vol, veh/h	47	536	330	17	16	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	6	6	0
Mvmt Flow	49	558	344	18	17	40
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	362	0	-	0	1000	344
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	656	-
Critical Hdwy	4.1	-	-	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.2	-	-	-	3.554	3.3
Pot Cap-1 Maneuver	1208	-	-	-	265	703
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	509	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1208	-	-	-	249	703
Mov Cap-2 Maneuver	-	-	-	-	249	-
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	509	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		14		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1208	-	-	-	456	
HCM Lane V/C Ratio	0.041	-	-	-	0.123	
HCM Control Delay (s)	8.1	0	-	-	14	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	569	20	4	320	11	4
Future Vol, veh/h	569	20	4	320	11	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	5	0	3	0	0
Mvmt Flow	612	22	4	344	12	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	634	0	964	612
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	352	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	959	-	286	497
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	959	-	285	497
Mov Cap-2 Maneuver	-	-	-	-	285	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	713	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		16.8	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	322	-	-	959	-	
HCM Lane V/C Ratio	0.05	-	-	0.004	-	
HCM Control Delay (s)	16.8	-	-	8.8	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	469	17	3	300	11	8
Future Vol, veh/h	469	17	3	300	11	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	18	0	2	0	25
Mvmt Flow	504	18	3	323	12	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	522	0	842	513
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	329	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	1055	-	337	518
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	734	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1055	-	336	518
Mov Cap-2 Maneuver	-	-	-	-	336	-
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	732	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		14.6	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	394	-	-	1055	-	
HCM Lane V/C Ratio	0.052	-	-	0.003	-	
HCM Control Delay (s)	14.6	-	-	8.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Background PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	392	25	1	209	40	16	69	2	83	123	77
Future Volume (veh/h)	59	392	25	1	209	40	16	69	2	83	123	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1930	1930	1930	1856	1856	1856
Adj Flow Rate, veh/h	61	408	26	1	218	42	17	72	2	86	128	80
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	3	3	3
Cap, veh/h	151	707	42	83	691	133	135	408	10	195	203	109
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	129	1546	93	1	1511	290	153	1664	41	359	826	443
Grp Volume(v), veh/h	495	0	0	261	0	0	91	0	0	294	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	0	1802	0	0	1857	0	0	1628	0	0
Q Serve(g_s), s	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0
Cycle Q Clear(g_c), s	8.7	0.0	0.0	4.0	0.0	0.0	1.6	0.0	0.0	7.2	0.0	0.0
Prop In Lane	0.12		0.05	0.00		0.16	0.19		0.02	0.29		0.27
Lane Grp Cap(c), veh/h	901	0	0	907	0	0	554	0	0	506	0	0
V/C Ratio(X)	0.55	0.00	0.00	0.29	0.00	0.00	0.16	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	2467	0	0	2550	0	0	1316	0	0	1205	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	7.5	0.0	0.0	13.1	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	0.0	1.7	0.0	0.0	1.1	0.0	0.0	4.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	0.0	0.0	7.9	0.0	0.0	13.2	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	495				261			91			294	
Approach Delay, s/veh	9.9				7.9			13.2			16.1	
Approach LOS	A				A			B			B	
Timer - Assigned Phs	2				4			6			8	
Phs Duration (G+Y+Rc), s	27.0				16.7			27.0			16.7	
Change Period (Y+Rc), s	7.0				6.0			7.0			6.0	
Max Green Setting (Gmax), s	60.0				30.0			60.0			30.0	
Max Q Clear Time (g_c+I1), s	6.0				9.2			10.7			3.6	
Green Ext Time (p_c), s	3.1				1.7			6.8			0.4	
Intersection Summary												
HCM 6th Ctrl Delay	11.3											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Background Saturday Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	267	103	160	169	258	102	1276	211	161	1328	57
Future Volume (veh/h)	77	267	103	160	169	258	102	1276	211	161	1328	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1810	1885	1885	1900	1870	1885	1885	1885	1885
Adj Flow Rate, veh/h	83	287	0	172	182	0	110	1372	0	173	1428	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	1	1	1	0	2	1	1	1	1
Cap, veh/h	312	328		209	228		238	2412		293	2486	106
Arrive On Green	0.18	0.18	0.00	0.12	0.12	0.00	0.06	0.63	0.00	0.07	0.49	0.49
Sat Flow, veh/h	1781	1870	1610	1724	1885	1598	1810	5106	1598	1795	5061	216
Grp Volume(v), veh/h	83	287	0	172	182	0	110	1372	0	173	968	521
Grp Sat Flow(s),veh/h/ln	1781	1870	1610	1724	1885	1598	1810	1702	1598	1795	1716	1846
Q Serve(g_s), s	5.8	21.6	0.0	14.1	13.6	0.0	4.5	22.5	0.0	7.1	28.9	28.9
Cycle Q Clear(g_c), s	5.8	21.6	0.0	14.1	13.6	0.0	4.5	22.5	0.0	7.1	28.9	28.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	312	328		209	228		238	2412		293	1685	907
V/C Ratio(X)	0.27	0.88		0.82	0.80		0.46	0.57		0.59	0.57	0.57
Avail Cap(c_a), veh/h	431	453		417	456		530	4768		549	3204	1724
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	58.1	0.0	62.0	61.8	0.0	20.9	18.4	0.0	20.2	26.1	26.1
Incr Delay (d2), s/veh	0.5	14.1	0.0	7.9	6.3	0.0	1.4	0.5	0.0	1.4	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.8	17.1	0.0	10.9	11.2	0.0	3.5	12.3	0.0	5.5	17.5	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	72.2	0.0	70.0	68.1	0.0	22.3	18.8	0.0	21.6	26.7	27.3
LnGrp LOS	D	E		E	E		C	B		C	C	C
Approach Vol, veh/h		370			354			1482			1662	
Approach Delay, s/veh		67.7			69.0			19.1			26.4	
Approach LOS		E			E			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	74.8		31.3	12.2	77.5		23.5				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	30.0	135.0		35.0	30.0	135.0		35.0				
Max Q Clear Time (g_c+I1), s	9.1	24.5		23.6	6.5	30.9		16.1				
Green Ext Time (p_c), s	0.3	36.2		1.7	0.3	40.1		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			31.4									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Background Saturday Peak

12/13/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↗	↙
Traffic Volume (veh/h)	313	279	113	332	222	133
Future Volume (veh/h)	313	279	113	332	222	133
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1961	1900
Adj Flow Rate, veh/h	337	300	122	357	239	143
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	1	1	1	0
Cap, veh/h	745	636	502	1092	340	293
Arrive On Green	0.40	0.40	0.08	0.58	0.18	0.18
Sat Flow, veh/h	1870	1598	1795	1885	1867	1610
Grp Volume(v), veh/h	337	300	122	357	239	143
Grp Sat Flow(s),veh/h/ln	1870	1598	1795	1885	1867	1610
Q Serve(g_s), s	6.6	7.0	1.8	4.9	6.0	4.0
Cycle Q Clear(g_c), s	6.6	7.0	1.8	4.9	6.0	4.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	745	636	502	1092	340	293
V/C Ratio(X)	0.45	0.47	0.24	0.33	0.70	0.49
Avail Cap(c_a), veh/h	1676	1431	1606	3190	1115	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	11.2	7.1	5.5	19.3	18.4
Incr Delay (d2), s/veh	0.9	1.2	0.4	0.4	2.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	4.0	1.0	2.6	4.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	12.4	7.5	5.9	21.9	19.7
LnGrp LOS	B	B	A	A	C	B
Approach Vol, veh/h	637			479	382	
Approach Delay, s/veh	12.2			6.3	21.1	
Approach LOS	B			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.1		15.1	9.1	26.0
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		6.9		8.0	3.8	9.0
Green Ext Time (p_c), s		5.1		1.2	0.5	7.4
Intersection Summary						
HCM 6th Ctrl Delay			12.6			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↗	↘	
Traffic Vol, veh/h	391	19	3	422	27	0
Future Vol, veh/h	391	19	3	422	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	444	22	3	480	31	0
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	466	0	930	444
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	486	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1106	-	299	618
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	623	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1106	-	298	618
Mov Cap-2 Maneuver	-	-	-	-	298	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	621	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		18.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	298	-	-	1106	-	
HCM Lane V/C Ratio	0.103	-	-	0.003	-	
HCM Control Delay (s)	18.5	-	-	8.3	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Background Saturday Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	314	61	9	314	3	59	3	11	4	2	33
Future Volume (veh/h)	41	314	61	9	314	3	59	3	11	4	2	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1870	1870	1900	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	47	357	69	10	357	3	67	3	12	5	2	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	0	2	2	0	0	0	0	0	0	0
Cap, veh/h	156	863	826	102	947	826	400	14	257	116	27	219
Arrive On Green	0.51	0.51	0.51	0.51	0.51	0.51	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	103	1682	1610	13	1845	1610	1432	94	1675	85	177	1427
Grp Volume(v), veh/h	404	0	69	367	0	3	70	0	12	45	0	0
Grp Sat Flow(s),veh/h/ln	1785	0	1610	1858	0	1610	1526	0	1675	1690	0	0
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.0	0.5	0.0	0.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.8	4.6	0.0	0.0	1.4	0.0	0.2	0.9	0.0	0.0
Prop In Lane	0.12		1.00	0.03		1.00	0.96		1.00	0.11		0.84
Lane Grp Cap(c), veh/h	1019	0	826	1048	0	826	415	0	257	362	0	0
V/C Ratio(X)	0.40	0.00	0.08	0.35	0.00	0.00	0.17	0.00	0.05	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2769	0	2479	2920	0	2479	1315	0	1289	1386	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.9	0.0	4.8	5.7	0.0	4.6	14.5	0.0	14.1	14.3	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.4	0.0	0.0	0.2	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	0.3	2.2	0.0	0.0	0.9	0.0	0.1	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.0	4.9	6.2	0.0	4.6	14.7	0.0	14.1	14.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		473			370			82			45	
Approach Delay, s/veh		6.2			6.2			14.6			14.5	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		12.0		27.0		12.0				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s		6.6		2.9		7.2		3.4				
Green Ext Time (p_c), s		5.3		0.2		6.7		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	28	321	288	11	15	30
Future Vol, veh/h	28	321	288	11	15	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	9	0	0
Mvmt Flow	31	353	316	12	16	33
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	328	0	-	0	731	316
Stage 1	-	-	-	-	316	-
Stage 2	-	-	-	-	415	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1243	-	-	-	392	729
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	671	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1243	-	-	-	380	729
Mov Cap-2 Maneuver	-	-	-	-	380	-
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	671	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		12.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1243	-	-	-	558	
HCM Lane V/C Ratio	0.025	-	-	-	0.089	
HCM Control Delay (s)	8	0	-	-	12.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	322	16	3	283	13	4
Future Vol, veh/h	322	16	3	283	13	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	33	1	8	0
Mvmt Flow	335	17	3	295	14	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	352
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.43
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.497
Pot Cap-1 Maneuver	-	-	1054
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1054
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	476	-	-	1054	-
HCM Lane V/C Ratio	0.037	-	-	0.003	-
HCM Control Delay (s)	12.9	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	246	14	6	245	12	1
Future Vol, veh/h	246	14	6	245	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	17	2	8	100
Mvmt Flow	259	15	6	258	13	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	274	0	537	267
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	270	-
Critical Hdwy	-	-	4.27	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.353	-	3.572	4.2
Pot Cap-1 Maneuver	-	-	1207	-	495	585
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1207	-	492	585
Mov Cap-2 Maneuver	-	-	-	-	492	-
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	757	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.4	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	498	-	-	1207	-	
HCM Lane V/C Ratio	0.027	-	-	0.005	-	
HCM Control Delay (s)	12.4	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Background Saturday Peak

12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	165	21	3	177	30	13	50	7	34	73	68
Future Volume (veh/h)	53	165	21	3	177	30	13	50	7	34	73	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1914	1914	1914	1870	1870	1870
Adj Flow Rate, veh/h	54	168	21	3	181	31	13	51	7	35	74	69
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	229	643	72	93	770	130	134	273	33	145	152	121
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	245	1306	147	5	1565	265	156	1471	178	207	817	648
Grp Volume(v), veh/h	243	0	0	215	0	0	71	0	0	178	0	0
Grp Sat Flow(s),veh/h/ln	1697	0	0	1835	0	0	1804	0	0	1673	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	0.0	2.7	0.0	0.0	1.3	0.0	0.0	3.8	0.0	0.0
Prop In Lane	0.22		0.09	0.01		0.14	0.18		0.10	0.20		0.39
Lane Grp Cap(c), veh/h	944	0	0	993	0	0	441	0	0	418	0	0
V/C Ratio(X)	0.26	0.00	0.00	0.22	0.00	0.00	0.16	0.00	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	2561	0	0	2804	0	0	1401	0	0	1326	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.0	0.0	0.0	5.9	0.0	0.0	13.9	0.0	0.0	14.9	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.3	0.0	0.0	6.1	0.0	0.0	14.1	0.0	0.0	15.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	243			215			71			178		
Approach Delay, s/veh	6.3			6.1			14.1			15.6		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	26.9			13.5			26.9			13.5		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+l1), s	4.7			5.8			5.1			3.3		
Green Ext Time (p_c), s	2.5			1.0			2.9			0.3		
Intersection Summary												
HCM 6th Ctrl Delay	9.4											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Total AM Peak
12/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	119	51	434	207	239	69	1027	174	136	991	22
Future Volume (veh/h)	33	119	51	434	207	239	69	1027	174	136	991	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1781	1781	1856	1826	1856	1781	1781	1767	1781	1781
Adj Flow Rate, veh/h	35	128	0	345	394	0	74	1104	0	146	1066	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	8	3	3	5	3	8	8	9	8	8
Cap, veh/h	151	158		387	424		284	2165		309	2309	52
Arrive On Green	0.09	0.09	0.00	0.23	0.23	0.00	0.05	0.59	0.00	0.06	0.47	0.47
Sat Flow, veh/h	1753	1841	1510	1696	1856	1547	1767	4863	1510	1682	4894	110
Grp Volume(v), veh/h	35	128	0	345	394	0	74	1104	0	146	706	384
Grp Sat Flow(s),veh/h/ln	1753	1841	1510	1696	1856	1547	1767	1621	1510	1682	1621	1762
Q Serve(g_s), s	2.5	9.2	0.0	26.6	28.1	0.0	3.1	17.9	0.0	6.3	19.9	19.9
Cycle Q Clear(g_c), s	2.5	9.2	0.0	26.6	28.1	0.0	3.1	17.9	0.0	6.3	19.9	19.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	151	158		387	424		284	2165		309	1529	831
V/C Ratio(X)	0.23	0.81		0.89	0.93		0.26	0.51		0.47	0.46	0.46
Avail Cap(c_a), veh/h	234	245		402	440		462	2165		435	1529	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.57	0.57	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	60.6	0.0	50.4	51.0	0.0	19.9	18.9	0.0	19.6	24.1	24.1
Incr Delay (d2), s/veh	0.9	12.2	0.0	13.2	17.3	0.0	0.5	0.9	0.0	0.8	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	8.5	0.0	17.1	19.9	0.0	2.3	10.1	0.0	4.5	12.3	13.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	72.8	0.0	63.6	68.3	0.0	20.4	19.8	0.0	20.4	25.1	25.9
LnGrp LOS	E	E		E	E		C	B		C	C	C
Approach Vol, veh/h	163			739			1178			1236		
Approach Delay, s/veh	69.7			66.1			19.8			24.8		
Approach LOS	E			E			B			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	66.6		17.6	10.4	70.2		36.8				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	18.5	42.5		18.0	18.5	42.5		32.0				
Max Q Clear Time (g_c+I1), s	8.3	19.9		11.2	5.1	21.9		30.1				
Green Ext Time (p_c), s	0.2	13.3		0.4	0.1	12.1		0.8				
Intersection Summary												
HCM 6th Ctrl Delay	34.5											
HCM 6th LOS	C											
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Total AM Peak
12/14/2022

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	243	162	143	812	130	48
Future Volume (veh/h)	243	162	143	812	130	48
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1767	1841	1870	1856	1899	1870
Adj Flow Rate, veh/h	283	188	166	944	151	56
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	9	4	2	3	5	2
Cap, veh/h	966	853	667	1294	216	189
Arrive On Green	0.55	0.55	0.07	0.70	0.12	0.12
Sat Flow, veh/h	1767	1560	1781	1856	1809	1585
Grp Volume(v), veh/h	283	188	166	944	151	56
Grp Sat Flow(s),veh/h/ln	1767	1560	1781	1856	1809	1585
Q Serve(g_s), s	5.7	4.1	2.3	20.5	5.3	2.1
Cycle Q Clear(g_c), s	5.7	4.1	2.3	20.5	5.3	2.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	966	853	667	1294	216	189
V/C Ratio(X)	0.29	0.22	0.25	0.73	0.70	0.30
Avail Cap(c_a), veh/h	1214	1072	1486	2408	828	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	7.7	4.9	6.1	27.7	26.3
Incr Delay (d2), s/veh	0.4	0.3	0.3	1.7	4.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.4	2.2	1.2	9.6	4.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	7.9	5.2	7.8	31.8	27.2
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	471			1110	207	
Approach Delay, s/veh	8.2			7.4	30.6	
Approach LOS	A			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		51.7		13.8	9.9	41.8
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		22.5		7.3	4.3	7.7
Green Ext Time (p_c), s		23.2		0.6	0.8	5.4
Intersection Summary						
HCM 6th Ctrl Delay			10.3			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	
Traffic Vol, veh/h	271	7	4	919	17	1
Future Vol, veh/h	271	7	4	919	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	17	25	3	2	100
Mvmt Flow	304	8	4	1033	19	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	312	0	1345	304
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	1041	-
Critical Hdwy	-	-	4.35	-	6.42	7.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.425	-	3.518	4.2
Pot Cap-1 Maneuver	-	-	1129	-	167	554
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	340	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1129	-	166	554
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	337	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		28.5	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	173	-	-	1129	-	
HCM Lane V/C Ratio	0.117	-	-	0.004	-	
HCM Control Delay (s)	28.5	-	-	8.2	0	
HCM Lane LOS	D	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

HCM 6th Signalized Intersection Summary 4: Fisher Range Rd/Dyott Ct & MD 328

Total AM Peak
12/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	206	50	14	677	4	172	0	28	5	1	69
Future Volume (veh/h)	15	206	50	14	677	4	172	0	28	5	1	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1796	1856	1856	1900	1945	1945	1976	1976	1976	1976
Adj Flow Rate, veh/h	16	226	55	15	744	4	189	0	31	5	1	76
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	6	6	7	3	3	0	2	2	0	0	0	0
Cap, veh/h	97	992	890	75	1074	942	391	0	288	78	15	271
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.17	0.00	0.17	0.17	0.17	0.17
Sat Flow, veh/h	44	1696	1522	12	1836	1610	1492	0	1675	38	86	1571
Grp Volume(v), veh/h	242	0	55	759	0	4	189	0	31	82	0	0
Grp Sat Flow(s),veh/h/ln	1740	0	1522	1847	0	1610	1492	0	1675	1695	0	0
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.1	3.9	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	0.8	15.4	0.0	0.1	6.2	0.0	0.8	2.3	0.0	0.0
Prop In Lane	0.07		1.00	0.02		1.00	1.00		1.00	0.06		0.93
Lane Grp Cap(c), veh/h	1089	0	890	1149	0	942	391	0	288	363	0	0
V/C Ratio(X)	0.22	0.00	0.06	0.66	0.00	0.00	0.48	0.00	0.11	0.23	0.00	0.00
Avail Cap(c_a), veh/h	1967	0	1707	2131	0	1805	926	0	939	1010	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.3	0.0	4.8	7.8	0.0	4.6	20.7	0.0	18.7	19.3	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.1	1.4	0.0	0.0	0.9	0.0	0.2	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.4	8.2	0.0	0.0	3.8	0.0	0.6	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.5	0.0	4.8	9.2	0.0	4.6	21.6	0.0	18.8	19.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	B	B	A	A
Approach Vol, veh/h	297		763				220		82			
Approach Delay, s/veh	5.4		9.2				21.2		19.6			
Approach LOS	A		A				C		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	38.3		15.2		38.3		15.2					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+l1), s	17.4		4.3		5.4		8.2					
Green Ext Time (p_c), s	13.9		0.4		3.8		1.2					
Intersection Summary												
HCM 6th Ctrl Delay	10.9											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↑	↗	↖	
Traffic Vol, veh/h	10	244	648	20	5	24
Future Vol, veh/h	10	244	648	20	5	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	5	8	5	0	0
Mvmt Flow	12	284	753	23	6	28

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	776	0	0 1061 753
Stage 1	-	-	- 753 -
Stage 2	-	-	- 308 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	849	-	- 250 413
Stage 1	-	-	- 469 -
Stage 2	-	-	- 750 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	849	-	- 246 413
Mov Cap-2 Maneuver	-	-	- 246 -
Stage 1	-	-	- 461 -
Stage 2	-	-	- 750 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	849	-	-	-	370
HCM Lane V/C Ratio	0.014	-	-	-	0.091
HCM Control Delay (s)	9.3	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	224	17	6	594	62	19
Future Vol, veh/h	224	17	6	594	62	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	0	0	4	0	0
Mvmt Flow	249	19	7	660	69	21
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	268	0	923	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	674	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1307	-	302	795
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	510	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1307	-	300	795
Mov Cap-2 Maneuver	-	-	-	-	300	-
Stage 1	-	-	-	-	797	-
Stage 2	-	-	-	-	507	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		18.8	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	351	-	-	1307	-	
HCM Lane V/C Ratio	0.256	-	-	0.005	-	
HCM Control Delay (s)	18.8	-	-	7.8	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	1	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	232	7	1	519	16	6
Future Vol, veh/h	232	7	1	519	16	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	29	0	4	6	17
Mvmt Flow	270	8	1	603	19	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	278	0	879	274
Stage 1	-	-	-	-	274	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	-	-	4.1	-	6.46	6.37
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.2	-	3.554	3.453
Pot Cap-1 Maneuver	-	-	1296	-	313	730
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	537	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1296	-	313	730
Mov Cap-2 Maneuver	-	-	-	-	313	-
Stage 1	-	-	-	-	763	-
Stage 2	-	-	-	-	536	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		15.4	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	371	-	-	1296	-	
HCM Lane V/C Ratio	0.069	-	-	0.001	-	
HCM Control Delay (s)	15.4	-	-	7.8	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Total AM Peak
12/14/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	186	12	8	441	71	15	92	8	22	38	67
Future Volume (veh/h)	45	186	12	8	441	71	15	92	8	22	38	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1841	1841	1841	1884	1884	1884	1693	1693	1693
Adj Flow Rate, veh/h	51	209	13	9	496	80	17	103	9	25	43	75
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	4	4	4	6	6	6	14	14	14
Cap, veh/h	192	676	38	93	767	122	122	289	23	130	104	145
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	177	1358	77	8	1539	245	122	1557	126	147	559	779
Grp Volume(v), veh/h	273	0	0	585	0	0	129	0	0	143	0	0
Grp Sat Flow(s),veh/h/ln	1611	0	0	1792	0	0	1804	0	0	1485	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	10.0	0.0	0.0	2.5	0.0	0.0	3.4	0.0	0.0
Prop In Lane	0.19		0.05	0.02		0.14	0.13		0.07	0.17		0.52
Lane Grp Cap(c), veh/h	906	0	0	981	0	0	434	0	0	379	0	0
V/C Ratio(X)	0.30	0.00	0.00	0.60	0.00	0.00	0.30	0.00	0.00	0.38	0.00	0.00
Avail Cap(c_a), veh/h	2299	0	0	2692	0	0	1387	0	0	1162	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	7.7	0.0	0.0	14.6	0.0	0.0	15.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.2	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	3.7	0.0	0.0	1.7	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	0.0	0.0	8.9	0.0	0.0	15.0	0.0	0.0	15.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	273			585			129			143		
Approach Delay, s/veh	6.5			8.9			15.0			15.6		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	27.5			13.6			27.5			13.6		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	60.0			30.0			60.0			30.0		
Max Q Clear Time (g_c+I1), s	12.0			5.4			5.7			4.5		
Green Ext Time (p_c), s	8.5			0.8			3.6			0.7		
Intersection Summary												
HCM 6th Ctrl Delay	9.9											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Total PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	329	110	217	179	244	66	983	371	292	1094	41
Future Volume (veh/h)	48	329	110	217	179	244	66	983	371	292	1094	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1856	1810	1885	1856	1900	1811	1870	1856	1856	1856
Adj Flow Rate, veh/h	49	336	0	202	210	0	67	1003	0	298	1116	42
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	3	1	1	3	0	6	2	3	3	3
Cap, veh/h	349	366		224	245		280	2166		404	2563	96
Arrive On Green	0.19	0.19	0.00	0.13	0.13	0.00	0.04	0.58	0.00	0.10	0.51	0.51
Sat Flow, veh/h	1795	1885	1572	1724	1885	1572	1810	4944	1585	1767	5010	188
Grp Volume(v), veh/h	49	336	0	202	210	0	67	1003	0	298	752	406
Grp Sat Flow(s),veh/h/ln	1795	1885	1572	1724	1885	1572	1810	1648	1585	1767	1689	1822
Q Serve(g_s), s	4.1	31.5	0.0	20.8	19.6	0.0	3.7	20.9	0.0	16.3	25.2	25.2
Cycle Q Clear(g_c), s	4.1	31.5	0.0	20.8	19.6	0.0	3.7	20.9	0.0	16.3	25.2	25.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	349	366		224	245		280	2166		404	1727	932
V/C Ratio(X)	0.14	0.92		0.90	0.86		0.24	0.46		0.74	0.44	0.44
Avail Cap(c_a), veh/h	409	429		249	272		550	2166		539	1727	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.89	0.89	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	71.1	0.0	77.2	76.7	0.0	26.5	25.5	0.0	24.7	27.6	27.6
Incr Delay (d2), s/veh	0.2	23.0	0.0	28.3	19.4	0.0	0.4	0.7	0.0	3.0	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	24.5	0.0	16.2	16.0	0.0	3.0	12.4	0.0	11.6	15.8	17.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	94.2	0.0	105.5	96.1	0.0	26.9	26.2	0.0	27.7	28.4	29.1
LnGrp LOS	E	F		F	F		C	C		C	C	C
Approach Vol, veh/h		385			412			1070			1456	
Approach Delay, s/veh		89.9			100.7			26.2			28.5	
Approach LOS		F			F			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.3	85.3		40.9	11.1	98.6		29.4				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	32.5	56.5		41.0	32.5	56.5		26.0				
Max Q Clear Time (g_c+I1), s	18.3	22.9		33.5	5.7	27.2		22.8				
Green Ext Time (p_c), s	0.5	15.1		1.5	0.1	15.9		0.6				

Intersection Summary

HCM 6th Ctrl Delay 43.8
HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary 2: Elliott Rd & MD 328

Total PM Peak
12/13/2022

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Traffic Volume (veh/h)	667	344	111	411	209	205
Future Volume (veh/h)	667	344	111	411	209	205
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1885	1841	1856	1945	1870
Adj Flow Rate, veh/h	695	358	116	428	218	214
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	1	4	3	2	2
Cap, veh/h	939	809	332	1198	328	281
Arrive On Green	0.51	0.51	0.07	0.65	0.18	0.18
Sat Flow, veh/h	1856	1598	1753	1856	1853	1585
Grp Volume(v), veh/h	695	358	116	428	218	214
Grp Sat Flow(s),veh/h/ln	1856	1598	1753	1856	1853	1585
Q Serve(g_s), s	20.0	9.7	1.9	7.2	7.4	8.7
Cycle Q Clear(g_c), s	20.0	9.7	1.9	7.2	7.4	8.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	939	809	332	1198	328	281
V/C Ratio(X)	0.74	0.44	0.35	0.36	0.66	0.76
Avail Cap(c_a), veh/h	1233	1061	1123	2328	820	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	10.6	10.4	5.5	26.0	26.5
Incr Delay (d2), s/veh	2.8	0.8	0.9	0.4	2.3	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.5	5.6	1.2	4.0	6.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	11.5	11.3	5.9	28.3	30.8
LnGrp LOS	B	B	B	A	C	C
Approach Vol, veh/h	1053			544	432	
Approach Delay, s/veh	14.5			7.1	29.5	
Approach LOS	B			A	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	49.7			18.0	9.4	40.3
Change Period (Y+Rc), s	6.0			6.0	5.0	6.0
Max Green Setting (Gmax), s	85.0			30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s	9.2			10.7	3.9	22.0
Green Ext Time (p_c), s	6.5			1.3	0.5	12.3
Intersection Summary						
HCM 6th Ctrl Delay			15.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	830	14	0	504	4	4
Future Vol, veh/h	830	14	0	504	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	0	0	2	0	25
Mvmt Flow	856	14	0	520	4	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	870	0	1376	856
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	783	-	162	325
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	783	-	162	325
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	420	-
Stage 2	-	-	-	-	601	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		22.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	216	-	-	783	-	
HCM Lane V/C Ratio	0.038	-	-	-	-	
HCM Control Delay (s)	22.3	-	-	0	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Total PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	622	154	30	359	16	111	3	25	4	3	32
Future Volume (veh/h)	54	622	154	30	359	16	111	3	25	4	3	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1870	1870	1900	1976	1976	1899	1976	1976	1976
Adj Flow Rate, veh/h	57	655	162	32	378	17	117	3	26	4	3	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	0	2	2	0	0	0	5	0	0	0
Cap, veh/h	126	1009	955	112	1013	955	358	8	238	88	33	208
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	82	1700	1610	59	1707	1610	1468	51	1609	65	225	1409
Grp Volume(v), veh/h	712	0	162	410	0	17	120	0	26	41	0	0
Grp Sat Flow(s),veh/h/ln	1782	0	1610	1765	0	1610	1519	0	1609	1699	0	0
Q Serve(g_s), s	0.7	0.0	2.3	0.0	0.0	0.2	2.5	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.8	0.0	2.3	5.7	0.0	0.2	3.5	0.0	0.7	1.0	0.0	0.0
Prop In Lane	0.08		1.00	0.08		1.00	0.97		1.00	0.10		0.83
Lane Grp Cap(c), veh/h	1135	0	955	1125	0	955	366	0	238	330	0	0
V/C Ratio(X)	0.63	0.00	0.17	0.36	0.00	0.02	0.33	0.00	0.11	0.12	0.00	0.00
Avail Cap(c_a), veh/h	2178	0	1925	2113	0	1925	1022	0	962	1081	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.7	0.0	4.6	5.3	0.0	4.2	19.6	0.0	18.5	18.7	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.0	0.0	0.5	0.0	0.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.5	0.0	1.0	2.9	0.0	0.1	2.2	0.0	0.5	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	0.0	4.8	5.7	0.0	4.2	20.1	0.0	18.7	18.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	B	B	A	A
Approach Vol, veh/h	874		427				146				41	
Approach Delay, s/veh	7.4		5.7				19.9				18.8	
Approach LOS	A		A				B				B	
Timer - Assigned Phs	2		4				6				8	
Phs Duration (G+Y+Rc), s	36.8		13.4				36.8				13.4	
Change Period (Y+Rc), s	7.0		6.0				7.0				6.0	
Max Green Setting (Gmax), s	60.0		30.0				60.0				30.0	
Max Q Clear Time (g_c+I1), s	7.7		3.0				14.8				5.5	
Green Ext Time (p_c), s	6.5		0.2				15.0				0.7	
Intersection Summary												
HCM 6th Ctrl Delay	8.4											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Vol, veh/h	47	584	363	17	16	38
Future Vol, veh/h	47	584	363	17	16	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	6	6	0
Mvmt Flow	49	608	378	18	17	40
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	396	0	-	0	1084	378
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	706	-
Critical Hdwy	4.1	-	-	-	6.46	6.2
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.2	-	-	-	3.554	3.3
Pot Cap-1 Maneuver	1174	-	-	-	236	673
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1174	-	-	-	221	673
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	641	-
Stage 2	-	-	-	-	482	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		14.9		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1174	-	-	-	419	
HCM Lane V/C Ratio	0.042	-	-	-	0.134	
HCM Control Delay (s)	8.2	0	-	-	14.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5	

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	575	62	17	328	36	12
Future Vol, veh/h	575	62	17	328	36	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	4	5	0	3	0	0
Mvmt Flow	618	67	18	353	39	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	685	0	1007	618
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	389	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	918	-	269	493
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	689	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	918	-	264	493
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	675	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		19.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	299	-	-	918	-	
HCM Lane V/C Ratio	0.173	-	-	0.02	-	
HCM Control Delay (s)	19.5	-	-	9	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	473	480	3	316	11	8
Future Vol, veh/h	473	480	3	316	11	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	18	0	2	0	25
Mvmt Flow	509	516	3	340	12	9

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	1025	0	1113	767
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	346	-
Critical Hdwy	-	-	4.1	-	6.4	6.45
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.525
Pot Cap-1 Maneuver	-	-	685	-	233	367
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	685	-	232	367
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	717	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	19.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	275	-	-	685	-
HCM Lane V/C Ratio	0.074	-	-	0.005	-
HCM Control Delay (s)	19.1	-	-	10.3	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Total PM Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	403	25	1	225	40	16	69	2	83	123	82
Future Volume (veh/h)	62	403	25	1	225	40	16	69	2	83	123	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1856	1856	1856	1930	1930	1930	1856	1856	1856
Adj Flow Rate, veh/h	65	420	26	1	234	42	17	72	2	86	128	85
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	3	3	3
Cap, veh/h	154	699	41	83	697	125	135	414	10	193	202	115
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	135	1535	90	1	1531	274	153	1663	41	352	813	463
Grp Volume(v), veh/h	511	0	0	277	0	0	91	0	0	299	0	0
Grp Sat Flow(s),veh/h/ln	1760	0	0	1805	0	0	1857	0	0	1628	0	0
Q Serve(g_s), s	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	0.0	4.3	0.0	0.0	1.6	0.0	0.0	7.3	0.0	0.0
Prop In Lane	0.13		0.05	0.00		0.15	0.19		0.02	0.29		0.28
Lane Grp Cap(c), veh/h	894	0	0	904	0	0	559	0	0	510	0	0
V/C Ratio(X)	0.57	0.00	0.00	0.31	0.00	0.00	0.16	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	2445	0	0	2543	0	0	1310	0	0	1199	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.0	0.0	0.0	7.7	0.0	0.0	13.0	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	0.0	0.0	1.9	0.0	0.0	1.1	0.0	0.0	4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	0.0	0.0	8.1	0.0	0.0	13.1	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	511		277				91		299			
Approach Delay, s/veh	10.2		8.1				13.1		16.1			
Approach LOS	B		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	27.0		16.9		27.0		16.9					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	6.3		9.3		11.3		3.6					
Green Ext Time (p_c), s	3.3		1.7		7.2		0.4					
Intersection Summary												
HCM 6th Ctrl Delay	11.5											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

1: US 50 & Goldsborough St/MD 328

Total Saturday Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	283	103	186	186	280	102	1276	236	183	1328	57
Future Volume (veh/h)	77	283	103	186	186	280	102	1276	236	183	1328	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1810	1885	1885	1900	1870	1885	1885	1885	1885
Adj Flow Rate, veh/h	83	304	0	200	200	0	110	1372	0	197	1428	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	0	1	1	1	0	2	1	1	1	1
Cap, veh/h	324	340		235	257		230	2306		292	2420	103
Arrive On Green	0.18	0.18	0.00	0.14	0.14	0.00	0.06	0.60	0.00	0.07	0.48	0.48
Sat Flow, veh/h	1781	1870	1610	1724	1885	1598	1810	5106	1598	1795	5061	216
Grp Volume(v), veh/h	83	304	0	200	200	0	110	1372	0	197	968	521
Grp Sat Flow(s),veh/h/ln	1781	1870	1610	1724	1885	1598	1810	1702	1598	1795	1716	1846
Q Serve(g_s), s	6.1	24.3	0.0	17.4	15.7	0.0	5.0	25.6	0.0	8.9	31.4	31.4
Cycle Q Clear(g_c), s	6.1	24.3	0.0	17.4	15.7	0.0	5.0	25.6	0.0	8.9	31.4	31.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	324	340		235	257		230	2306		292	1640	883
V/C Ratio(X)	0.26	0.89		0.85	0.78		0.48	0.60		0.67	0.59	0.59
Avail Cap(c_a), veh/h	407	427		394	431		499	4499		512	3023	1627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	61.2	0.0	64.6	63.9	0.0	23.6	21.9	0.0	23.5	29.1	29.1
Incr Delay (d2), s/veh	0.5	18.3	0.0	8.8	5.0	0.0	1.5	0.5	0.0	2.0	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	19.3	0.0	13.0	12.6	0.0	3.9	14.3	0.0	7.0	19.0	20.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	79.6	0.0	73.5	69.0	0.0	25.2	22.4	0.0	25.5	29.8	30.4
LnGrp LOS	D	E		E	E		C	C		C	C	C
Approach Vol, veh/h		387			400			1482			1686	
Approach Delay, s/veh		74.1			71.2			22.6			29.5	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.8	75.7		33.9	12.7	79.7		26.9				
Change Period (Y+Rc), s	5.5	6.5		6.0	5.5	6.5		6.0				
Max Green Setting (Gmax), s	30.0	135.0		35.0	30.0	135.0		35.0				
Max Q Clear Time (g_c+I1), s	10.9	27.6		26.3	7.0	33.4		19.4				
Green Ext Time (p_c), s	0.4	36.0		1.6	0.3	39.8		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary

2: Elliott Rd & MD 328

Total Saturday Peak
12/13/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Volume (veh/h)	376	279	118	397	222	137
Future Volume (veh/h)	376	279	118	397	222	137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1885	1885	1885	1961	1900
Adj Flow Rate, veh/h	404	300	127	427	239	147
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	1	1	1	0
Cap, veh/h	743	635	465	1092	340	293
Arrive On Green	0.40	0.40	0.08	0.58	0.18	0.18
Sat Flow, veh/h	1870	1598	1795	1885	1867	1610
Grp Volume(v), veh/h	404	300	127	427	239	147
Grp Sat Flow(s),veh/h/ln	1870	1598	1795	1885	1867	1610
Q Serve(g_s), s	8.4	7.0	1.8	6.2	6.0	4.1
Cycle Q Clear(g_c), s	8.4	7.0	1.8	6.2	6.0	4.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	743	635	465	1092	340	293
V/C Ratio(X)	0.54	0.47	0.27	0.39	0.70	0.50
Avail Cap(c_a), veh/h	1673	1429	1565	3184	1113	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	11.2	7.5	5.8	19.3	18.5
Incr Delay (d2), s/veh	1.3	1.2	0.4	0.5	2.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.6	4.1	1.0	3.2	4.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.0	12.4	8.0	6.2	21.9	19.8
LnGrp LOS	B	B	A	A	C	B
Approach Vol, veh/h	704			554	386	
Approach Delay, s/veh	12.7			6.6	21.1	
Approach LOS	B			A	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.2		15.2	9.2	26.0
Change Period (Y+Rc), s		6.0		6.0	5.0	6.0
Max Green Setting (Gmax), s		85.0		30.0	35.0	45.0
Max Q Clear Time (g_c+l1), s		8.2		8.0	3.8	10.4
Green Ext Time (p_c), s		6.4		1.2	0.6	8.5
Intersection Summary						
HCM 6th Ctrl Delay			12.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Traffic Vol, veh/h	458	19	3	492	27	0
Future Vol, veh/h	458	19	3	492	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	135	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	520	22	3	559	31	0

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	542	0	1085	520
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1037	-	242	560
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1037	-	241	560
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	571	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	22.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	241	-	-	1037	-
HCM Lane V/C Ratio	0.127	-	-	0.003	-
HCM Control Delay (s)	22.1	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

HCM 6th Signalized Intersection Summary

4: Fisher Range Rd/Dyott Ct & MD 328

Total Saturday Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	339	103	17	338	3	105	3	19	4	2	33
Future Volume (veh/h)	41	339	103	17	338	3	105	3	19	4	2	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1900	1870	1870	1900	1976	1976	1976	1976	1976	1976
Adj Flow Rate, veh/h	47	385	117	19	384	3	119	3	22	5	2	38
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	0	2	2	0	0	0	0	0	0	0
Cap, veh/h	148	843	805	109	904	805	434	9	294	113	33	251
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	98	1687	1610	29	1809	1610	1458	51	1675	77	187	1429
Grp Volume(v), veh/h	432	0	117	403	0	3	122	0	22	45	0	0
Grp Sat Flow(s),veh/h/ln	1785	0	1610	1838	0	1610	1509	0	1675	1692	0	0
Q Serve(g_s), s	0.0	0.0	1.6	0.0	0.0	0.0	1.8	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.0	0.0	1.6	5.5	0.0	0.0	2.7	0.0	0.4	0.9	0.0	0.0
Prop In Lane	0.11		1.00	0.05		1.00	0.98		1.00	0.11		0.84
Lane Grp Cap(c), veh/h	992	0	805	1013	0	805	442	0	294	397	0	0
V/C Ratio(X)	0.44	0.00	0.15	0.40	0.00	0.00	0.28	0.00	0.07	0.11	0.00	0.00
Avail Cap(c_a), veh/h	2698	0	2414	2791	0	2414	1277	0	1255	1350	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.5	0.0	5.4	6.4	0.0	5.0	14.7	0.0	13.8	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.5	0.0	0.0	0.3	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	0.7	2.8	0.0	0.0	1.6	0.0	0.3	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.2	0.0	5.6	6.9	0.0	5.0	15.0	0.0	13.9	14.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h		549			406			144			45	
Approach Delay, s/veh		6.8			6.9			14.8			14.1	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		13.0		27.0		13.0				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s		7.5		2.9		8.0		4.7				
Green Ext Time (p_c), s		6.0		0.2		7.8		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			8.1									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	354	320	11	15	30
Future Vol, veh/h	28	354	320	11	15	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	110	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	2	1	9	0	0
Mvmt Flow	31	389	352	12	16	33
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	364	0	-	0	803	352
Stage 1	-	-	-	-	352	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1206	-	-	-	355	696
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	646	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1206	-	-	-	343	696
Mov Cap-2 Maneuver	-	-	-	-	343	-
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	646	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		12.7		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1206	-	-	-	518	
HCM Lane V/C Ratio	0.026	-	-	-	0.095	
HCM Control Delay (s)	8.1	0	-	-	12.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	330	41	11	291	37	12
Future Vol, veh/h	330	41	11	291	37	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	300	290	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	33	1	8	0
Mvmt Flow	344	43	11	303	39	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	387	0	669	344
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	325	-
Critical Hdwy	-	-	4.43	-	6.48	6.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.497	-	3.572	3.3
Pot Cap-1 Maneuver	-	-	1021	-	414	703
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1021	-	409	703
Mov Cap-2 Maneuver	-	-	-	-	409	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	711	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		13.9	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	456	-	-	1021	-	
HCM Lane V/C Ratio	0.112	-	-	0.011	-	
HCM Control Delay (s)	13.9	-	-	8.6	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	259	14	6	258	12	1
Future Vol, veh/h	259	14	6	258	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	17	2	8	100
Mvmt Flow	273	15	6	272	13	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	288	0	565	281
Stage 1	-	-	-	-	281	-
Stage 2	-	-	-	-	284	-
Critical Hdwy	-	-	4.27	-	6.48	7.2
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.353	-	3.572	4.2
Pot Cap-1 Maneuver	-	-	1193	-	476	573
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1193	-	473	573
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	746	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		12.7	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	479	-	-	1193	-	
HCM Lane V/C Ratio	0.029	-	-	0.005	-	
HCM Control Delay (s)	12.7	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

HCM 6th Signalized Intersection Summary

8: Black Dog Aly & MD 328

Total Saturday Peak
12/13/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	178	21	3	190	30	13	50	7	34	73	71
Future Volume (veh/h)	56	178	21	3	190	30	13	50	7	34	73	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1885	1885	1885	1914	1914	1914	1870	1870	1870
Adj Flow Rate, veh/h	57	182	21	3	194	31	13	51	7	35	74	72
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	2	2	2
Cap, veh/h	227	650	68	93	779	123	134	274	33	144	149	124
Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	240	1320	137	5	1583	250	156	1472	178	204	803	665
Grp Volume(v), veh/h	260	0	0	228	0	0	71	0	0	181	0	0
Grp Sat Flow(s),veh/h/ln	1697	0	0	1837	0	0	1805	0	0	1671	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	0.0	2.9	0.0	0.0	1.3	0.0	0.0	3.9	0.0	0.0
Prop In Lane	0.22		0.08	0.01		0.14	0.18		0.10	0.19		0.40
Lane Grp Cap(c), veh/h	944	0	0	995	0	0	441	0	0	417	0	0
V/C Ratio(X)	0.28	0.00	0.00	0.23	0.00	0.00	0.16	0.00	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	2556	0	0	2805	0	0	1399	0	0	1323	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	5.9	0.0	0.0	13.9	0.0	0.0	15.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.4	0.0	0.0	6.2	0.0	0.0	14.1	0.0	0.0	15.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	A	B	A	A
Approach Vol, veh/h	260		228				71		181			
Approach Delay, s/veh	6.4		6.2				14.1		15.7			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	26.9		13.5		26.9		13.5					
Change Period (Y+Rc), s	7.0		6.0		7.0		6.0					
Max Green Setting (Gmax), s	60.0		30.0		60.0		30.0					
Max Q Clear Time (g_c+I1), s	4.9		5.9		5.4		3.3					
Green Ext Time (p_c), s	2.6		1.0		3.2		0.3					
Intersection Summary												
HCM 6th Ctrl Delay			9.3									
HCM 6th LOS			A									

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	3788	3816	3893	3764	3720	3911	3747
Vehs Exited	3804	3818	3873	3777	3742	3902	3757
Starting Vehs	150	132	125	153	154	144	152
Ending Vehs	134	130	145	140	132	153	142
Travel Distance (mi)	3380	3420	3472	3372	3271	3506	3358
Travel Time (hr)	147.3	148.3	152.7	145.4	143.2	151.3	146.4
Total Delay (hr)	40.1	39.8	42.4	38.8	39.0	40.5	39.7
Total Stops	3353	3475	3640	3379	3318	3345	3405
Fuel Used (gal)	112.8	114.7	116.2	112.2	109.2	116.2	111.7

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	3810	3822	3869	3812
Vehs Exited	3787	3840	3898	3820
Starting Vehs	134	158	149	140
Ending Vehs	157	140	120	133
Travel Distance (mi)	3457	3501	3522	3426
Travel Time (hr)	150.1	151.5	152.3	148.8
Total Delay (hr)	40.6	40.4	40.5	40.2
Total Stops	3512	3454	3461	3431
Fuel Used (gal)	115.6	116.2	116.7	114.1

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3788	3816	3893	3764	3720	3911	3747
Vehs Exited	3804	3818	3873	3777	3742	3902	3757
Starting Vehs	150	132	125	153	154	144	152
Ending Vehs	134	130	145	140	132	153	142
Travel Distance (mi)	3380	3420	3472	3372	3271	3506	3358
Travel Time (hr)	147.3	148.3	152.7	145.4	143.2	151.3	146.4
Total Delay (hr)	40.1	39.8	42.4	38.8	39.0	40.5	39.7
Total Stops	3353	3475	3640	3379	3318	3345	3405
Fuel Used (gal)	112.8	114.7	116.2	112.2	109.2	116.2	111.7

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3810	3822	3869	3812
Vehs Exited	3787	3840	3898	3820
Starting Vehs	134	158	149	140
Ending Vehs	157	140	120	133
Travel Distance (mi)	3457	3501	3522	3426
Travel Time (hr)	150.1	151.5	152.3	148.8
Total Delay (hr)	40.6	40.4	40.5	40.2
Total Stops	3512	3454	3461	3431
Fuel Used (gal)	115.6	116.2	116.7	114.1

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	115	212	308	386	172	134	338	333	263	73	154	264
Average Queue (ft)	15	106	164	209	8	57	207	187	135	5	58	163
95th Queue (ft)	71	182	260	319	89	143	305	290	241	38	115	242
Link Distance (ft)	1151		866				1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	16	0	1	0	0	28		0			
Queuing Penalty (veh)	0	3	0	3	0	1	19		0			

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	275	259
Average Queue (ft)	165	130
95th Queue (ft)	249	226
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	225	79	140	272	140	47
Average Queue (ft)	61	37	42	114	63	18
95th Queue (ft)	164	69	95	214	115	40
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				1		
Queuing Penalty (veh)				1		

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	140	49	245	20	116	40	53
Average Queue (ft)	47	8	110	2	54	10	25
95th Queue (ft)	109	32	200	13	94	34	48
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		0		0	0	
Queuing Penalty (veh)	0		0		0	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	134	187	150	126
Average Queue (ft)	50	72	59	52
95th Queue (ft)	111	138	115	100
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 27

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:30	3:30	3:30	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4490	4402	4330	4478	4340	4493	4469
Vehs Exited	4482	4394	4391	4459	4383	4516	4422
Starting Vehs	181	177	209	161	186	214	155
Ending Vehs	189	185	148	180	143	191	202
Travel Distance (mi)	3875	3814	3723	3831	3732	3840	3837
Travel Time (hr)	183.6	177.8	173.4	182.3	171.9	179.5	177.8
Total Delay (hr)	60.3	56.2	54.8	60.3	52.4	57.2	55.4
Total Stops	4345	4260	4184	4458	4132	4251	4241
Fuel Used (gal)	135.0	133.0	129.3	134.0	129.4	133.0	132.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4356	4387	4454	4419
Vehs Exited	4350	4374	4505	4426
Starting Vehs	156	195	200	184
Ending Vehs	162	208	149	170
Travel Distance (mi)	3751	3690	3908	3800
Travel Time (hr)	174.5	174.2	181.8	177.7
Total Delay (hr)	55.0	56.2	57.7	56.6
Total Stops	4227	4129	4428	4266
Fuel Used (gal)	130.5	128.5	135.3	132.1

Interval #0 Information Seeding

Start Time	3:30
End Time	4:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4490	4402	4330	4478	4340	4493	4469
Vehs Exited	4482	4394	4391	4459	4383	4516	4422
Starting Vehs	181	177	209	161	186	214	155
Ending Vehs	189	185	148	180	143	191	202
Travel Distance (mi)	3875	3814	3723	3831	3732	3840	3837
Travel Time (hr)	183.6	177.8	173.4	182.3	171.9	179.5	177.8
Total Delay (hr)	60.3	56.2	54.8	60.3	52.4	57.2	55.4
Total Stops	4345	4260	4184	4458	4132	4251	4241
Fuel Used (gal)	135.0	133.0	129.3	134.0	129.4	133.0	132.8

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4356	4387	4454	4419
Vehs Exited	4350	4374	4505	4426
Starting Vehs	156	195	200	184
Ending Vehs	162	208	149	170
Travel Distance (mi)	3751	3690	3908	3800
Travel Time (hr)	174.5	174.2	181.8	177.7
Total Delay (hr)	55.0	56.2	57.7	56.6
Total Stops	4227	4129	4428	4266
Fuel Used (gal)	130.5	128.5	135.3	132.1

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	LT	R	L	T	T	T	R	L
Maximum Queue (ft)	125	492	11	259	290	79	134	385	362	342	218	271
Average Queue (ft)	28	293	0	120	190	5	60	243	226	173	70	121
95th Queue (ft)	107	449	11	212	275	67	146	356	344	297	172	224
Link Distance (ft)		1151	1151		866			1576	1576	1576		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100			300		300	110				270	460
Storage Blk Time (%)	0	56		0	0	0	0	35		1	0	
Queuing Penalty (veh)	0	14		0	1	0	0	23		1	0	

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	322	329	307
Average Queue (ft)	197	196	172
95th Queue (ft)	312	311	301
Link Distance (ft)	2028	2028	2028
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	399	174	102	171	197	178
Average Queue (ft)	154	58	49	69	102	57
95th Queue (ft)	307	119	88	135	174	117
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)	0	0		0	0	0
Queuing Penalty (veh)	0	0		0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	265	121	157	26	98	51	50
Average Queue (ft)	97	19	56	4	43	11	16
95th Queue (ft)	203	79	115	19	81	36	39
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	1	0			0		
Queuing Penalty (veh)	1	0			0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	228	120	95	213
Average Queue (ft)	104	49	40	102
95th Queue (ft)	189	99	77	178
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 41

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	11:00	11:00	11:00	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4459	4592	4470	4526	4347	4627	4517
Vehs Exited	4492	4555	4470	4545	4373	4658	4491
Starting Vehs	207	158	188	189	162	184	137
Ending Vehs	174	195	188	170	136	153	163
Travel Distance (mi)	3498	3546	3456	3522	3389	3597	3484
Travel Time (hr)	168.7	177.9	163.4	167.1	155.4	175.2	173.5
Total Delay (hr)	56.9	63.9	52.5	54.2	46.5	59.8	61.7
Total Stops	3873	3973	3742	3806	3604	4038	3863
Fuel Used (gal)	121.4	124.6	119.0	121.7	115.3	125.6	122.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4528	4610	4612	4528
Vehs Exited	4549	4608	4575	4532
Starting Vehs	181	184	134	168
Ending Vehs	160	186	171	166
Travel Distance (mi)	3520	3636	3575	3522
Travel Time (hr)	173.9	175.7	179.6	171.0
Total Delay (hr)	60.8	59.4	65.2	58.1
Total Stops	3867	3927	4075	3879
Fuel Used (gal)	123.4	126.2	125.9	122.5

Interval #0 Information Seeding

Start Time	11:00
End Time	11:30
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4459	4592	4470	4526	4347	4627	4517
Vehs Exited	4492	4555	4470	4545	4373	4658	4491
Starting Vehs	207	158	188	189	162	184	137
Ending Vehs	174	195	188	170	136	153	163
Travel Distance (mi)	3498	3546	3456	3522	3389	3597	3484
Travel Time (hr)	168.7	177.9	163.4	167.1	155.4	175.2	173.5
Total Delay (hr)	56.9	63.9	52.5	54.2	46.5	59.8	61.7
Total Stops	3873	3973	3742	3806	3604	4038	3863
Fuel Used (gal)	121.4	124.6	119.0	121.7	115.3	125.6	122.0

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4528	4610	4612	4528
Vehs Exited	4549	4608	4575	4532
Starting Vehs	181	184	134	168
Ending Vehs	160	186	171	166
Travel Distance (mi)	3520	3636	3575	3522
Travel Time (hr)	173.9	175.7	179.6	171.0
Total Delay (hr)	60.8	59.4	65.2	58.1
Total Stops	3867	3927	4075	3879
Fuel Used (gal)	123.4	126.2	125.9	122.5

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	125	791	271	444	281	134	473	444	408	295	176	367
Average Queue (ft)	39	444	107	198	22	75	262	244	196	38	71	223
95th Queue (ft)	122	781	222	341	145	157	433	414	366	165	135	377
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)		0										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	70	0	2	0	2	32		3	0		
Queuing Penalty (veh)	1	27	0	5	0	7	33		5	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	371	343
Average Queue (ft)	228	202
95th Queue (ft)	380	361
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	174	127	98	160	187	66
Average Queue (ft)	71	52	44	63	95	31
95th Queue (ft)	142	97	79	125	160	55
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	151	44	116	10	74	28	48
Average Queue (ft)	54	11	44	1	32	7	17
95th Queue (ft)	114	34	93	7	64	26	40
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	126	94	99	130
Average Queue (ft)	49	37	34	55
95th Queue (ft)	100	76	74	103
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 77

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	3882	3986	4037	3924	3846	4138	3994
Vehs Exited	3835	3984	4053	3912	3857	4116	4008
Starting Vehs	134	140	160	160	155	158	160
Ending Vehs	181	142	144	172	144	180	146
Travel Distance (mi)	3515	3643	3638	3605	3520	3822	3649
Travel Time (hr)	154.0	158.5	159.0	157.0	155.5	171.3	160.9
Total Delay (hr)	42.9	43.0	43.7	43.2	43.7	50.1	45.0
Total Stops	3538	3657	3565	3615	3615	4005	3807
Fuel Used (gal)	118.1	122.0	121.2	120.6	118.1	128.5	122.7

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	3988	4108	4043	3991
Vehs Exited	4030	4084	4074	3995
Starting Vehs	189	163	169	157
Ending Vehs	147	187	138	156
Travel Distance (mi)	3728	3756	3729	3660
Travel Time (hr)	164.8	165.1	160.7	160.7
Total Delay (hr)	46.6	46.0	42.8	44.7
Total Stops	3759	3809	3606	3699
Fuel Used (gal)	125.7	126.3	123.1	122.6

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	3882	3986	4037	3924	3846	4138	3994
Vehs Exited	3835	3984	4053	3912	3857	4116	4008
Starting Vehs	134	140	160	160	155	158	160
Ending Vehs	181	142	144	172	144	180	146
Travel Distance (mi)	3515	3643	3638	3605	3520	3822	3649
Travel Time (hr)	154.0	158.5	159.0	157.0	155.5	171.3	160.9
Total Delay (hr)	42.9	43.0	43.7	43.2	43.7	50.1	45.0
Total Stops	3538	3657	3565	3615	3615	4005	3807
Fuel Used (gal)	118.1	122.0	121.2	120.6	118.1	128.5	122.7

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	3988	4108	4043	3991
Vehs Exited	4030	4084	4074	3995
Starting Vehs	189	163	169	157
Ending Vehs	147	187	138	156
Travel Distance (mi)	3728	3756	3729	3660
Travel Time (hr)	164.8	165.1	160.7	160.7
Total Delay (hr)	46.6	46.0	42.8	44.7
Total Stops	3759	3809	3606	3699
Fuel Used (gal)	125.7	126.3	123.1	122.6

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	94	227	317	442	257	134	332	322	263	61	145	272
Average Queue (ft)	14	113	176	222	15	60	212	195	143	8	63	174
95th Queue (ft)	69	193	282	349	119	145	304	288	245	35	119	250
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	21	0	1	0	0	30		0			
Queuing Penalty (veh)	0	3	0	5	0	0	21		0			

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	281	254
Average Queue (ft)	176	141
95th Queue (ft)	254	233
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	239	87	209	292	147	47
Average Queue (ft)	71	37	52	129	66	18
95th Queue (ft)	182	71	131	246	122	40
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				1	0	
Queuing Penalty (veh)				2	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	144	45	322	20	137	38	62
Average Queue (ft)	50	7	129	1	61	11	27
95th Queue (ft)	115	29	255	9	112	35	52
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)			1		1	0	
Queuing Penalty (veh)			0		0	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	159	190	130	134
Average Queue (ft)	59	78	58	57
95th Queue (ft)	127	149	107	111
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 32

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:30	3:30	3:30	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4594	4575	4653	4736	4575	4679	4703
Vehs Exited	4585	4553	4670	4715	4573	4691	4684
Starting Vehs	181	206	192	198	198	206	222
Ending Vehs	190	228	175	219	200	194	241
Travel Distance (mi)	4123	4029	4126	4205	4120	4145	4189
Travel Time (hr)	199.1	191.2	194.3	198.9	197.8	197.4	199.5
Total Delay (hr)	67.7	63.2	63.0	65.5	66.7	65.8	66.3
Total Stops	4732	4460	4711	4666	4683	4647	4777
Fuel Used (gal)	144.5	141.1	142.8	147.2	144.4	144.4	146.4

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:30	3:30	3:30	3:30
End Time	5:00	5:00	5:00	5:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4454	4586	4705	4629
Vehs Exited	4469	4606	4754	4631
Starting Vehs	223	214	227	203
Ending Vehs	208	194	178	196
Travel Distance (mi)	3994	4168	4235	4133
Travel Time (hr)	188.6	200.8	204.2	197.2
Total Delay (hr)	61.7	68.3	69.7	65.8
Total Stops	4450	4854	4893	4687
Fuel Used (gal)	139.7	145.9	149.0	144.5

Interval #0 Information Seeding

Start Time	3:30
End Time	4:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4594	4575	4653	4736	4575	4679	4703
Vehs Exited	4585	4553	4670	4715	4573	4691	4684
Starting Vehs	181	206	192	198	198	206	222
Ending Vehs	190	228	175	219	200	194	241
Travel Distance (mi)	4123	4029	4126	4205	4120	4145	4189
Travel Time (hr)	199.1	191.2	194.3	198.9	197.8	197.4	199.5
Total Delay (hr)	67.7	63.2	63.0	65.5	66.7	65.8	66.3
Total Stops	4732	4460	4711	4666	4683	4647	4777
Fuel Used (gal)	144.5	141.1	142.8	147.2	144.4	144.4	146.4

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4454	4586	4705	4629
Vehs Exited	4469	4606	4754	4631
Starting Vehs	223	214	227	203
Ending Vehs	208	194	178	196
Travel Distance (mi)	3994	4168	4235	4133
Travel Time (hr)	188.6	200.8	204.2	197.2
Total Delay (hr)	61.7	68.3	69.7	65.8
Total Stops	4450	4854	4893	4687
Fuel Used (gal)	139.7	145.9	149.0	144.5

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	125	511	296	430	276	134	410	404	370	276	314	335
Average Queue (ft)	32	314	154	227	29	56	276	256	198	81	147	211
95th Queue (ft)	114	472	258	349	176	141	381	366	315	194	269	322
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	60	0	2	0	0	40		1	0		
Queuing Penalty (veh)	0	14	0	7	0	0	27		3	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	345	317
Average Queue (ft)	211	189
95th Queue (ft)	332	310
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	502	110	130	199	238	179
Average Queue (ft)	179	53	51	80	103	63
95th Queue (ft)	371	89	97	157	181	126
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	1	0
Queuing Penalty (veh)				0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	278	178	188	46	96	46	47
Average Queue (ft)	112	20	71	4	44	11	17
95th Queue (ft)	229	87	145	29	83	35	40
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	1	0	0	0	0		
Queuing Penalty (veh)	1	0	0	0	0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	260	116	113	237
Average Queue (ft)	113	51	44	111
95th Queue (ft)	209	100	87	195
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 55

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	11:30	11:30	11:30	11:30	11:30	11:30	11:30
End Time	1:00	1:00	1:00	1:00	1:00	1:00	1:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4750	4775	4800	4674	4744	4701	4783
Vehs Exited	4786	4764	4763	4662	4730	4723	4741
Starting Vehs	208	217	161	234	196	187	200
Ending Vehs	172	228	198	246	210	165	242
Travel Distance (mi)	3877	3885	3864	3759	3863	3833	3808
Travel Time (hr)	199.4	200.9	216.7	214.8	207.3	190.6	204.5
Total Delay (hr)	75.3	76.7	93.1	94.9	83.7	68.3	82.7
Total Stops	4341	4492	4450	4249	4466	4261	4134
Fuel Used (gal)	137.0	137.1	140.9	138.0	139.3	135.4	137.5

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	11:30	11:30	11:30	11:30
End Time	1:00	1:00	1:00	1:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4754	4763	4624	4740
Vehs Exited	4703	4728	4649	4725
Starting Vehs	169	218	232	196
Ending Vehs	220	253	207	206
Travel Distance (mi)	3871	3885	3751	3840
Travel Time (hr)	271.1	200.1	206.9	211.2
Total Delay (hr)	147.2	75.7	87.3	88.5
Total Stops	4367	4420	4337	4353
Fuel Used (gal)	154.1	137.8	136.2	139.3

Interval #0 Information Seeding

Start Time	11:30
End Time	12:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	12:00
End Time	1:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4750	4775	4800	4674	4744	4701	4783
Vehs Exited	4786	4764	4763	4662	4730	4723	4741
Starting Vehs	208	217	161	234	196	187	200
Ending Vehs	172	228	198	246	210	165	242
Travel Distance (mi)	3877	3885	3864	3759	3863	3833	3808
Travel Time (hr)	199.4	200.9	216.7	214.8	207.3	190.6	204.5
Total Delay (hr)	75.3	76.7	93.1	94.9	83.7	68.3	82.7
Total Stops	4341	4492	4450	4249	4466	4261	4134
Fuel Used (gal)	137.0	137.1	140.9	138.0	139.3	135.4	137.5

Interval #1 Information Recording

Start Time	12:00
End Time	1:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4754	4763	4624	4740
Vehs Exited	4703	4728	4649	4725
Starting Vehs	169	218	232	196
Ending Vehs	220	253	207	206
Travel Distance (mi)	3871	3885	3751	3840
Travel Time (hr)	271.1	200.1	206.9	211.2
Total Delay (hr)	147.2	75.7	87.3	88.5
Total Stops	4367	4420	4337	4353
Fuel Used (gal)	154.1	137.8	136.2	139.3

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	LT	R	L	T	T	T	R	L
Maximum Queue (ft)	125	1096	583	315	489	325	134	446	450	391	294	230
Average Queue (ft)	46	869	242	137	227	48	66	278	262	210	58	87
95th Queue (ft)	129	1295	993	253	372	227	144	446	434	382	209	170
Link Distance (ft)		1151	1151		866			1576	1576	1576		
Upstream Blk Time (%)		21	4									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	100			300		300	110				270	460
Storage Blk Time (%)	0	82		0	3	0	1	34		3	0	
Queuing Penalty (veh)	0	31		0	10	0	5	35		7	0	

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	374	389	361
Average Queue (ft)	229	235	214
95th Queue (ft)	386	395	374
Link Distance (ft)	2028	2028	2028
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	231	115	94	169	182	72
Average Queue (ft)	97	52	46	76	96	33
95th Queue (ft)	183	94	80	143	157	60
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	175	65	146	20	86	33	46
Average Queue (ft)	59	11	59	1	33	7	16
95th Queue (ft)	134	42	121	10	65	27	39
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		0		0		
Queuing Penalty (veh)	0		0		0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	142	102	83	134
Average Queue (ft)	53	37	34	58
95th Queue (ft)	110	75	69	105
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 89

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4159	4210	4176	4196	4162	4217	4309
Vehs Exited	4108	4217	4189	4164	4168	4243	4296
Starting Vehs	155	171	179	166	178	204	167
Ending Vehs	206	164	166	198	172	178	180
Travel Distance (mi)	3867	3935	3915	3842	3878	3919	4027
Travel Time (hr)	174.4	178.6	179.6	172.5	177.2	176.6	182.6
Total Delay (hr)	51.6	53.7	55.1	50.0	53.5	51.8	54.4
Total Stops	4229	4206	4401	4058	4141	4230	4347
Fuel Used (gal)	131.2	133.9	132.9	129.6	132.1	133.6	136.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4189	4193	4174	4200
Vehs Exited	4195	4218	4176	4195
Starting Vehs	177	199	166	176
Ending Vehs	171	174	164	172
Travel Distance (mi)	3958	3858	3904	3910
Travel Time (hr)	178.0	172.4	175.2	176.7
Total Delay (hr)	52.1	49.1	51.5	52.3
Total Stops	4209	4044	4179	4204
Fuel Used (gal)	133.8	130.3	132.3	132.6

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4159	4210	4176	4196	4162	4217	4309
Vehs Exited	4108	4217	4189	4164	4168	4243	4296
Starting Vehs	155	171	179	166	178	204	167
Ending Vehs	206	164	166	198	172	178	180
Travel Distance (mi)	3867	3935	3915	3842	3878	3919	4027
Travel Time (hr)	174.4	178.6	179.6	172.5	177.2	176.6	182.6
Total Delay (hr)	51.6	53.7	55.1	50.0	53.5	51.8	54.4
Total Stops	4229	4206	4401	4058	4141	4230	4347
Fuel Used (gal)	131.2	133.9	132.9	129.6	132.1	133.6	136.1

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4189	4193	4174	4200
Vehs Exited	4195	4218	4176	4195
Starting Vehs	177	199	166	176
Ending Vehs	171	174	164	172
Travel Distance (mi)	3958	3858	3904	3910
Travel Time (hr)	178.0	172.4	175.2	176.7
Total Delay (hr)	52.1	49.1	51.5	52.3
Total Stops	4209	4044	4179	4204
Fuel Used (gal)	133.8	130.3	132.3	132.6

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	117	223	324	533	325	134	356	349	293	139	165	284
Average Queue (ft)	14	117	208	261	44	61	230	215	165	13	74	183
95th Queue (ft)	68	202	305	407	224	150	320	309	268	70	135	261
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	21	0	3	0	0	35		0	0		
Queuing Penalty (veh)	0	3	1	13	0	0	24		0	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	292	256
Average Queue (ft)	184	151
95th Queue (ft)	265	237
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	268	91	170	390	178	53
Average Queue (ft)	76	36	51	150	77	20
95th Queue (ft)	193	72	124	291	144	43
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				2	0	
Queuing Penalty (veh)				3	0	

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	182	67	307	48	160	89	62
Average Queue (ft)	60	13	156	3	80	16	28
95th Queue (ft)	137	47	265	36	136	53	56
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		2		3	0	
Queuing Penalty (veh)	0		0		1	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	160	184	134	137
Average Queue (ft)	67	83	59	56
95th Queue (ft)	131	151	110	105
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 46

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:30	6:30	6:30	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	5101	5198	5138	5190	5122	5332	5234
Vehs Exited	5064	5245	5154	5185	5102	5332	5222
Starting Vehs	187	257	223	208	216	230	217
Ending Vehs	224	210	207	213	236	230	229
Travel Distance (mi)	4371	4442	4469	4453	4404	4584	4470
Travel Time (hr)	213.4	217.9	221.0	222.0	218.0	230.7	219.5
Total Delay (hr)	73.7	76.1	78.7	79.4	76.9	83.9	76.4
Total Stops	5060	5157	5145	5246	5224	5547	5280
Fuel Used (gal)	154.5	156.5	157.9	158.7	157.1	163.1	158.6

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:30	6:30	6:30	6:30
End Time	8:00	8:00	8:00	8:00
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	5319	5218	5255	5212
Vehs Exited	5303	5194	5258	5207
Starting Vehs	215	207	216	217
Ending Vehs	231	231	213	217
Travel Distance (mi)	4554	4547	4514	4481
Travel Time (hr)	231.0	228.9	224.7	222.7
Total Delay (hr)	85.0	83.6	80.5	79.4
Total Stops	5543	5362	5295	5289
Fuel Used (gal)	162.3	162.3	160.7	159.2

Interval #0 Information Seeding

Start Time	6:30
End Time	7:00
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	5101	5198	5138	5190	5122	5332	5234
Vehs Exited	5064	5245	5154	5185	5102	5332	5222
Starting Vehs	187	257	223	208	216	230	217
Ending Vehs	224	210	207	213	236	230	229
Travel Distance (mi)	4371	4442	4469	4453	4404	4584	4470
Travel Time (hr)	213.4	217.9	221.0	222.0	218.0	230.7	219.5
Total Delay (hr)	73.7	76.1	78.7	79.4	76.9	83.9	76.4
Total Stops	5060	5157	5145	5246	5224	5547	5280
Fuel Used (gal)	154.5	156.5	157.9	158.7	157.1	163.1	158.6

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	5319	5218	5255	5212
Vehs Exited	5303	5194	5258	5207
Starting Vehs	215	207	216	217
Ending Vehs	231	231	213	217
Travel Distance (mi)	4554	4547	4514	4481
Travel Time (hr)	231.0	228.9	224.7	222.7
Total Delay (hr)	85.0	83.6	80.5	79.4
Total Stops	5543	5362	5295	5289
Fuel Used (gal)	162.3	162.3	160.7	159.2

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	R	L	T	T	T	R	L	T
Maximum Queue (ft)	125	613	324	505	325	134	424	404	377	284	357	330
Average Queue (ft)	26	394	173	259	51	58	287	265	215	111	179	210
95th Queue (ft)	99	601	291	428	240	142	389	372	330	232	321	327
Link Distance (ft)		1151		866			1576	1576	1576			2028
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		300		300	110				270	460	
Storage Blk Time (%)	0	66	0	5	0	0	43		1	0		
Queuing Penalty (veh)	0	16	1	17	0	0	28		5	0		

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	343	313
Average Queue (ft)	213	191
95th Queue (ft)	331	314
Link Distance (ft)	2028	2028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	764	186	147	217	222	169
Average Queue (ft)	239	62	57	97	104	68
95th Queue (ft)	485	152	109	181	175	128
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)	0	0		0	0	0
Queuing Penalty (veh)	1	0		0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	361	218	222	32	134	77	52
Average Queue (ft)	135	33	87	4	62	16	18
95th Queue (ft)	266	126	175	20	112	51	41
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	2	0	0		1	0	
Queuing Penalty (veh)	3	0	0		0	0	

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	269	138	105	233
Average Queue (ft)	127	52	42	109
95th Queue (ft)	220	105	85	188
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 73

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	11:00	11:00	11:00	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	4737	4838	4834	4827	4804	4870	4850
Vehs Exited	4779	4866	4809	4804	4756	4863	4834
Starting Vehs	217	211	195	232	170	214	219
Ending Vehs	175	183	220	255	218	221	235
Travel Distance (mi)	3994	3995	3951	4007	3937	4006	4009
Travel Time (hr)	222.7	271.8	246.7	289.1	234.8	258.0	235.2
Total Delay (hr)	94.4	143.9	120.1	160.6	108.4	129.6	107.1
Total Stops	4924	4693	4632	4663	4596	4748	4675
Fuel Used (gal)	146.4	157.4	150.3	161.4	146.8	154.4	149.6

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	11:00	11:00	11:00	11:00
End Time	12:30	12:30	12:30	12:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	4880	4980	4911	4853
Vehs Exited	4853	4970	4877	4840
Starting Vehs	206	231	201	206
Ending Vehs	233	241	235	219
Travel Distance (mi)	4013	4093	4001	4001
Travel Time (hr)	259.7	270.7	255.8	254.4
Total Delay (hr)	131.1	139.9	127.2	126.2
Total Stops	4712	4768	4784	4720
Fuel Used (gal)	155.3	160.1	153.8	153.6

Interval #0 Information Seeding

Start Time	11:00
End Time	11:30
Total Time (min)	30
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	4737	4838	4834	4827	4804	4870	4850
Vehs Exited	4779	4866	4809	4804	4756	4863	4834
Starting Vehs	217	211	195	232	170	214	219
Ending Vehs	175	183	220	255	218	221	235
Travel Distance (mi)	3994	3995	3951	4007	3937	4006	4009
Travel Time (hr)	222.7	271.8	246.7	289.1	234.8	258.0	235.2
Total Delay (hr)	94.4	143.9	120.1	160.6	108.4	129.6	107.1
Total Stops	4924	4693	4632	4663	4596	4748	4675
Fuel Used (gal)	146.4	157.4	150.3	161.4	146.8	154.4	149.6

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	4880	4980	4911	4853
Vehs Exited	4853	4970	4877	4840
Starting Vehs	206	231	201	206
Ending Vehs	233	241	235	219
Travel Distance (mi)	4013	4093	4001	4001
Travel Time (hr)	259.7	270.7	255.8	254.4
Total Delay (hr)	131.1	139.9	127.2	126.2
Total Stops	4712	4768	4784	4720
Fuel Used (gal)	155.3	160.1	153.8	153.6

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	LT	R	L	LT	R	L	T	T	T	R	L
Maximum Queue (ft)	125	1190	1170	324	693	325	134	479	461	422	295	268
Average Queue (ft)	49	1118	765	173	292	94	69	299	280	231	77	107
95th Queue (ft)	135	1342	1621	314	554	320	146	462	445	402	250	201
Link Distance (ft)		1151	1151		866			1576	1576	1576		
Upstream Blk Time (%)		70	21		0							
Queuing Penalty (veh)		0	0		1							
Storage Bay Dist (ft)	100			300		300	110				270	460
Storage Blk Time (%)	0	82		0	9	0	1	36		4	0	
Queuing Penalty (veh)	0	31		1	35	0	6	37		10	0	

Intersection: 1: US 50 & Goldsborough St/MD 328

Movement	SB	SB	SB
Directions Served	T	T	TR
Maximum Queue (ft)	394	392	366
Average Queue (ft)	239	240	220
95th Queue (ft)	393	398	376
Link Distance (ft)	2028	2028	2028
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Elliott Rd & MD 328

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	273	115	120	194	208	148
Average Queue (ft)	117	51	47	87	103	41
95th Queue (ft)	222	92	90	163	173	93
Link Distance (ft)	866			1552	480	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		460	200		200	
Storage Blk Time (%)				0	1	0
Queuing Penalty (veh)				0	1	0

Intersection: 4: Fisher Range Rd/Dyott Ct & MD 328

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	R	LT	R	LT	R	LTR
Maximum Queue (ft)	225	78	162	13	116	33	53
Average Queue (ft)	75	17	71	1	49	11	18
95th Queue (ft)	159	53	135	7	91	33	42
Link Distance (ft)	1046		1883		531		338
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		210		210		120	
Storage Blk Time (%)	0		0		0		
Queuing Penalty (veh)	0		0		0		

Intersection: 8: Black Dog Aly & MD 328

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	134	113	94	137
Average Queue (ft)	55	38	34	59
95th Queue (ft)	107	80	71	109
Link Distance (ft)	322	1114	595	438
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 122

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	10.1	31.0	0.2	21
Gannon Cir	3	2.5	37.9	0.3	29
Fisher Range Rd	4	6.9	32.2	0.2	23
Mile Post Dr	5	2.9	35.5	0.4	38
McCall St	6	0.6	12.5	0.1	39
Swann Haven Rd	7	1.7	28.1	0.4	46
Black Dog Aly	8	7.9	13.0	0.1	20
Total		32.6	190.1	1.6	31

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.2	24.9	0.2	32
Swann Haven Rd	7	2.9	8.0	0.1	32
McCall St	6	1.6	33.6	0.4	38
Mile Post Dr	5	1.4	13.3	0.1	37
Dyott Ct	4	9.7	50.8	0.4	26
Gannon Cir	3	3.4	28.6	0.2	26
Elliott Rd	2	9.3	45.3	0.3	24
US 50	1	40.5	58.9	0.2	11
Total		78.0	263.4	1.9	25

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	15.3	36.6	0.2	18
Gannon Cir	3	4.4	40.4	0.3	27
Fisher Range Rd	4	8.1	33.2	0.2	23
Mile Post Dr	5	4.8	38.0	0.4	35
McCall St	6	1.2	13.1	0.1	38
Swann Haven Rd	7	3.4	29.5	0.4	44
Black Dog Aly	8	11.1	16.3	0.1	16
Total		48.2	207.0	1.6	28

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.3	24.8	0.2	32
Swann Haven Rd	7	2.7	7.8	0.1	33
McCall St	6	0.8	32.2	0.4	40
Mile Post Dr	5	0.9	12.9	0.1	38
Dyott Ct	4	6.7	49.8	0.4	27
Gannon Cir	3	2.1	27.5	0.2	27
Elliott Rd	2	8.3	44.0	0.3	25
US 50	1	73.2	92.3	0.2	7
Total		104.0	291.5	1.9	23

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	9.6	30.2	0.2	22
Gannon Cir	3	2.9	37.4	0.3	30
Fisher Range Rd	4	6.0	30.1	0.2	25
Mile Post Dr	5	3.0	35.8	0.4	37
McCall St	6	0.7	12.9	0.1	38
Swann Haven Rd	7	1.8	27.4	0.4	47
Black Dog Aly	8	7.5	12.6	0.1	20
Total		31.5	186.4	1.6	32

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	7.3	22.7	0.2	35
Swann Haven Rd	7	2.5	7.6	0.1	34
McCall St	6	0.7	32.2	0.4	40
Mile Post Dr	5	0.8	13.0	0.1	38
Dyott Ct	4	5.3	48.2	0.4	28
Gannon Cir	3	2.0	26.4	0.2	28
Elliott Rd	2	7.7	43.9	0.3	25
US 50	1	77.8	97.1	0.2	7
Total		104.1	291.1	1.9	23

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	11.4	32.3	0.2	20
Gannon Cir	3	2.7	38.2	0.3	29
Fisher Range Rd	4	7.0	32.0	0.2	23
Mile Post Dr	5	3.1	35.4	0.4	38
McCall St	6	0.7	12.7	0.1	38
Swann Haven Rd	7	2.0	28.3	0.4	46
Black Dog Aly	8	8.9	14.0	0.1	18
Total		35.9	192.8	1.6	31

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.7	25.4	0.2	31
Swann Haven Rd	7	3.0	8.2	0.1	31
McCall St	6	1.7	32.3	0.4	40
Mile Post Dr	5	1.5	13.4	0.1	37
Dyott Ct	4	10.6	51.7	0.4	26
Gannon Cir	3	3.6	28.8	0.2	26
Elliott Rd	2	10.1	46.1	0.3	24
US 50	1	40.3	58.9	0.2	11
Total		80.5	264.7	1.9	25

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	15.4	36.9	0.2	18
Gannon Cir	3	4.6	40.5	0.3	27
Fisher Range Rd	4	8.6	33.4	0.2	22
Mile Post Dr	5	5.2	38.5	0.4	35
McCall St	6	1.4	13.3	0.1	37
Swann Haven Rd	7	3.2	27.7	0.4	47
Black Dog Aly	8	12.2	17.4	0.1	15
Total		50.6	207.7	1.6	28

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	9.4	25.0	0.2	32
Swann Haven Rd	7	2.7	7.8	0.1	33
McCall St	6	1.0	32.6	0.4	40
Mile Post Dr	5	1.1	13.0	0.1	38
Dyott Ct	4	7.8	51.0	0.4	26
Gannon Cir	3	2.5	28.0	0.2	27
Elliott Rd	2	8.9	45.0	0.3	25
US 50	1	82.2	101.8	0.2	6
Total		115.6	304.3	1.9	22

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	12.2	33.0	0.2	20
Gannon Cir	3	3.4	38.5	0.3	29
Fisher Range Rd	4	6.1	30.3	0.2	25
Mile Post Dr	5	3.5	36.6	0.4	37
McCall St	6	0.9	13.0	0.1	38
Swann Haven Rd	7	1.9	25.7	0.4	50
Black Dog Aly	8	7.7	12.8	0.1	20
Total		35.6	189.9	1.6	31

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	7.2	22.8	0.2	35
Swann Haven Rd	7	2.4	7.6	0.1	34
McCall St	6	0.8	31.2	0.4	41
Mile Post Dr	5	0.9	13.1	0.1	37
Dyott Ct	4	6.2	49.4	0.4	27
Gannon Cir	3	2.4	26.9	0.2	28
Elliott Rd	2	8.8	45.0	0.3	25
US 50	1	87.0	106.6	0.2	6
Total		115.7	302.5	1.9	22

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	11.0	32.1	0.2	21
Gannon Cir	3	2.9	38.8	0.3	28
Fisher Range Rd	4	8.9	34.2	0.2	22
Mile Post Dr	5	3.5	36.6	0.4	37
McCall St	6	0.8	12.9	0.1	38
Swann Haven Rd	7	2.2	28.3	0.4	46
Black Dog Aly	8	9.1	14.3	0.1	18
Total		38.4	197.2	1.6	30

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	10.1	25.8	0.2	31
Swann Haven Rd	7	3.2	8.3	0.1	31
McCall St	6	2.0	32.6	0.4	40
Mile Post Dr	5	1.7	13.5	0.1	36
Dyott Ct	4	12.2	53.4	0.4	25
Gannon Cir	3	3.9	29.2	0.2	26
Elliott Rd	2	11.2	47.2	0.3	23
US 50	1	44.6	63.4	0.2	10
Total		88.8	273.6	1.9	24

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	19.5	41.1	0.2	16
Gannon Cir	3	5.1	41.2	0.3	27
Fisher Range Rd	4	10.6	35.4	0.2	21
Mile Post Dr	5	5.7	39.1	0.4	34
McCall St	6	1.5	13.5	0.1	37
Swann Haven Rd	7	14.0	35.8	0.4	37
Black Dog Aly	8	14.9	20.0	0.1	13
Total		71.3	226.0	1.6	26

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	8.9	24.5	0.2	32
Swann Haven Rd	7	3.7	8.8	0.1	29
McCall St	6	1.2	32.7	0.4	40
Mile Post Dr	5	1.1	13.1	0.1	37
Dyott Ct	4	9.5	52.6	0.4	25
Gannon Cir	3	2.6	27.9	0.2	27
Elliott Rd	2	9.9	45.8	0.3	24
US 50	1	89.6	109.4	0.2	6
Total		126.5	314.8	1.9	21

Arterial Level of Service: EB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Elliott Rd	2	14.0	35.3	0.2	19
Gannon Cir	3	3.7	38.9	0.3	28
Fisher Range Rd	4	7.5	32.0	0.2	23
Mile Post Dr	5	3.9	37.0	0.4	36
McCall St	6	1.0	13.2	0.1	37
Swann Haven Rd	7	2.0	25.8	0.4	50
Black Dog Aly	8	8.0	13.1	0.1	20
Total		40.0	195.4	1.6	30

Arterial Level of Service: WB MD 328

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Dog Aly	8	7.2	22.8	0.2	35
Swann Haven Rd	7	2.4	7.5	0.1	34
McCall St	6	0.9	31.6	0.4	41
Mile Post Dr	5	0.9	13.1	0.1	37
Dyott Ct	4	7.5	50.8	0.4	26
Gannon Cir	3	2.5	27.1	0.2	28
Elliott Rd	2	9.3	45.6	0.3	24
US 50	1	98.3	117.9	0.2	6
Total		129.0	316.3	1.9	21

APPENDIX C

Signal Timing





MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Configuration Controller Sequence**Phase Ring Sequence and Assignment (MM) 1-1-1**

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B	B	B	B												

Sequence 1

Ring 1	1	2	3	4	9	10	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	.	.	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X										
Exclusive Ped																

Phase Compatibility (MM)**1-1-2**

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	4A29
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Disable		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	O				-	Auto	X		
2	2	O				-	Auto	X		X
3	3	O				-	Auto	X		
4	4	O				-	Auto	X		
5	5	O				-	Auto	X		
6	6	O				-	Auto	X		X
7	7	O				-	Auto	X		
8	8	O				-	Auto	X		
9	9	O				-	Auto	X		
10	10	O				-	Auto	X		
11	2	P				-	Auto			
12	6	P				-	Auto			
13	13	O				-	Auto	X		X

14	14	O				-	Auto	X		X
15	15	O				-	Auto	X		
16	16	O				-	Auto	X		

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modern - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	EBLT	WB	NB	SB	WBLT	EB										
Min Green	5	20	7	7	5	20	0	0	0	0	0	0	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	1	0	0	0	1	0	0	0	0	0	0	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	7	7	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	2.5	5.0	3.5	3.0	2.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	30	25	35	35	30	25	0	0	0	0	0	0	35	35	35	35
Max2	40	25	50	45	40	25	0	0	0	0	0	0	40	40	40	40
Max3	35	25	45	45	35	25	0	0	0	0	0	0	0	0	0	0
DYM Max	20	25	45	45	20	25	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.5	5.0	4.0	4.0	3.5	5.0	3.5	3.5	0.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	2.0	1.5	2.0	2.0	2.0	1.5	1.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	30	30	30	30	30	30	30	30	30	30	30	30	0	0	0	0
Time B4	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modern - Econolite Type - ASC/3

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
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Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
---------	-----------------------------	----------------------------------	-----------------------	--------------------------	--------------------	--------------------------	----------------------------	----------------------

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X					X										
Non-Act II																
Dual Entry																
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector			X	X												
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modern - Econolite Type - ASC/3

Coordination Pattern Data**Coordinator Pattern Data (MM) 3-2****Coordinator Pattern # 1**

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	135	Std (COS)	81	Offsets In	Percent
Offset Value	90%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 1)	18	36	18	28	18	36	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	54%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	150	Std (COS)	154	Offsets In	Percent
Offset Value	6%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 2)	18	35	27	20	18	35	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	53%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	135	Std (COS)	9	Offsets In	Percent
Offset Value	0%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 3)	18	32	25	25	18	32	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	50%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	180	Std (COS)	155	Offsets In	Percent
Offset Value	80%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 4)	21	35	26	18	21	35	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	56%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 1

Pattern	1	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 2

Pattern	2	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 3

Pattern	3	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 4

Pattern	4	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 97

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3			X													
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 98

Pattern	Free	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X															
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 99

Pattern	Free	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)	X															
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 100

Pattern	Flash	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.



MOVING TRAFFIC FORWARD

(d) US 50 @ MD 328 / Goldsborough - modem - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	98	00:00
2	1	06:30
3	3	08:30
4	4	15:30
5	98	18:30

Day Plan #2

Event	Action Plan	Start Time
1	99	00:00

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
						X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22

	X	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

Schedule Number - 4

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 5

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 6

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X		

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		

	X	X	X	X	X	X	X	X	X		
--	---	---	---	---	---	---	---	---	---	--	--



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Configuration Controller Sequence**Phase Ring Sequence and Assignment (MM) 1-1-1**

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B											

Sequence 1

Ring 1	1	11	2	3	4	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	12	6	8	10	.	.	.	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X										
Exclusive Ped																

Phase Compatibility (MM)**1-1-2**

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	C0A3
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	O				-	Auto	X		
2	2	O				-	Auto	X		X
3	3	O				-	Auto	X		
4	4	O				-	Auto	X		
5	5	O				-	Auto	X		
6	6	O				-	Auto	X		X
7	7	O				-	Auto	X		
8	8	O				-	Auto	X		
9	2	O				-	Auto	X		X
10	4	O				-	Auto	X		
11	6	O				-	Auto	X		X
12	8	O				-	Auto	X		
13	13	O				-	Auto	X		X

14	14	O				-	Auto	X		X
15	15	O				-	Auto	X		
16	16	O				-	Auto	X		

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	EBLT	WB	NB	SB	WBLT	EB										
Min Green	5	25	5	5	5	25	0	0	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	0	7	0	7	0	7	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	5.0	3.0	3.0	3.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	2.5	6.5	2.5	2.5	2.5	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	75	35	35	35	75	0	0	0	0	0	0	0	0	0	0
Max2	45	120	50	55	35	120	0	0	0	0	0	0	0	0	0	0
Max3	20	135	45	45	20	135	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	45	45	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.5	5.0	4.0	4.0	3.5	5.0	3.5	3.5	0.0	0.0	4.5	4.5	3.0	3.0	3.0	3.0
Red Clear	2.0	1.5	2.0	2.0	2.0	1.5	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	30	30	30	30	30	30	30	30	30	30	30	30	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
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Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
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Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X				X											
Non-Act II																
Dual Entry																
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector			X	X												
Vehicle Recall		X				X					X	X				
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Coordination Pattern Data**Coordinator Pattern Data (MM) 3-2****Coordinator Pattern # 1**

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	135	Std (COS)	81	Offsets In	Percent
Offset Value	67%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 1)	16	32	24	28	16	32	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	48%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	150	Std (COS)	154	Offsets In	Percent
Offset Value	9%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 2)	20	32	24	24	20	32	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	135	Std (COS)	9	Offsets In	Percent
Offset Value	25%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 3)	21	30	25	24	21	30	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	51%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	180	Std (COS)	155	Offsets In	Percent
Offset Value	82%	Dwell/Add Time	0		
Actuated Coord	No	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	EBLT	WB	NB	SB	WBLT	EB										
Splits (Split Pat 4)	22	30	25	23	22	30	0	0	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	52%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase													X	X	X	X
Special Function Outputs																



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 1

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 2

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 3

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 4

Pattern	4	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 92

Pattern	Free	Override Sys	Yes
Timing Plan	2	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3	X	X			X	X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 93

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3		X				X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 94

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3	X	X	X	X	X	X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 95

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3	X	X			X	X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 96

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2	X	X	X	X	X	X										
Veh Recall																
Max Recall																
Max 2																
Max 3		X				X										
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 97

Pattern	Free	Override Sys	Yes
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2	X	X	X	X	X	X										
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 98

Pattern	Free	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)	X															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 99

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 100

Pattern	Flash	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(e) US 50 @ MD 331 / Dover - US 50 @ MD 331 / Dover - Econolite Type - ASC/3

Time Base Day Plan/Schedule Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	98	00:00
2	1	06:30
3	3	08:30
4	4	15:30
5	98	18:30

Day Plan #2

Event	Action Plan	Start Time
1	98	00:00
2	97	11:45

Day Plan #3

Event	Action Plan	Start Time
1	96	00:00
2	95	08:00
3	94	12:00

Day Plan #4

Event	Action Plan	Start Time
1	93	00:00
2	92	09:00
3	96	22:00

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X							X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
						X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22

	X	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31			
	X	X	X	X	X	X	X	X	X			

Schedule Number - 4

Day Plan No.: 3

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 5

Day Plan No.: 4

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 6

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
					X	X	X	X	X	X		

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X		

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		

	X	X	X	X	X	X	X	X	X		
--	---	---	---	---	---	---	---	---	---	--	--



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Configuration Controller Sequence**Phase Ring Sequence and Assignment (MM) 1-1-1**

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B									

Sequence 1

Ring 1	1	2	3	4	9	10	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	.	.	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use		X		X	X	X										
Exclusive Ped																

Phase Compatibility (MM)

1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description		SB		WB	SBLT	NB										
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet	No
Interlock CRC	
CRC (16 bit)	D6ED
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase Disable	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	O				-	Auto	X		
2	2	O				-	Auto	X		X
3	3	O				-	Auto	X		
4	4	O				-	Auto	X		
5	5	O				-	Auto	X		
6	6	O				-	Auto	X		X
7	7	O				-	Auto	X		
8	8	O				-	Auto	X		
9	2	P				-	Auto			

10	4	P				-	Auto			
11	6	P				-	Auto			
12	8	P				-	Auto			
13	13	O				-	Auto	X		
14	14	O				-	Auto	X		
15	15	O				-	Auto	X		
16	16	O				-	Auto	X		

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction		SB		WB	SBLT	NB										
Min Green	20	20	0	8	5	20	0	0	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	16	0	16	0	16	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	5.0	5.0	0.0	3.0	4.0	5.0	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	45	45	0	30	35	45	0	0	35	35	35	35	35	35	35	35
Max2	60	60	0	40	35	60	0	0	40	40	40	40	40	40	40	40
Max3	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	2.0	1.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	30	30	30	30	30	30	30	30	30	30	30	30	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
---------	-----------------------------	----------------------------------	-----------------------	--------------------------	--------------------	--------------------------	----------------------------	----------------------

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5

O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X					X										
Non-Act II																
Dual Entry																
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X					X									
Ped Recall																
Max Recall		X														
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Time Base Action Plan Action Plan (MM) 5-2

Action Plan - 99

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Action Plan - 100

Pattern	Flash	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	



MOVING TRAFFIC FORWARD

(h) MD 328 @ Elliott - MD 328 @ Elliott - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	99	00:00

Schedule (MM) 5-4**Schedule Number - 1**

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X	X	X	X	X	X	X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B								
Sequence 1																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 2																	
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 3																	
Ring 1		1	2		4	3		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 4																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.
Sequence 5																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		8	7		11	12		15	16		.	.	.	.
Sequence 6																	
Ring 1		1	2		3	4		10	9		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 7																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		12	11		15	16		.	.	.	.
Sequence 8																	
Ring 1		2	1		4	3		9	10		13	14		.	.	.	.
Ring 2		5	6		7	8		11	12		15	16		.	.	.	.
Sequence 9																	
Ring 1		1	2		3	4		9	10		13	14		.	.	.	.
Ring 2		6	5		8	7		11	12		15	16		.	.	.	.
Sequence 10																	
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.
Ring 2		5	6		8	7		11	12		15	16		.	.	.	.
Sequence 11																	
Ring 1		1	2		4	3		9	10		13	14		.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.
Sequence 12																	
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.
Sequence 13																	

Ring 1		1	2		4	3		9	10		13	14		.	.	.	.	.	.	.	.
Ring 2		5	6		8	7		11	12		15	16		.	.	.	.	.	.	.	.
Sequence 14																					
Ring 1		2	1		4	3		9	10		13	14		.	.	.	.	.	.	.	.
Ring 2		6	5		7	8		11	12		15	16		.	.	.	.	.	.	.	.
Sequence 15																					
Ring 1		1	2		4	3		9	10		14	13		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		12	11		16	15		.	.	.	.	.	.	.	.
Sequence 16																					
Ring 1		2	1		3	4		9	10		13	14		.	.	.	.	.	.	.	.
Ring 2		6	5		8	7		11	12		15	16		.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use		X		X		X		X								
Exclusive Ped																

Phase Compatibility (MM)**1-1-2**

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description																
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	F779
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing Phases	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Simultaneous Gap (MM) 1-1-4

Phases		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Must Gap With Phase Disable	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.
	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	0	O				-	Auto	X		
2	2	O				-	Auto		X	X
3	0	O				-	Auto	X		
4	4	O				-	Auto	X		X
5	0	O				-	Auto	X		
6	6	O				-	Auto		X	X
7	0	O				-	Auto	X		
8	8	O				-	Auto	X		X
9	0	P				-	Auto			

10	0	P				-	Auto			
11	0	P				-	Auto			
12	0	P				-	Auto			
13	0	O				-	Auto	X		
14	0	O				+	Auto	X		X
15	0	O				-	Auto	X		
16	0	O				+	Auto	X		X

Maryland State Highway Administration



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction																
Min Green	0	20	0	8	0	20	0	8	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	0	7	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	0.0	5.0	0.0	3.0	0.0	5.0	0.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	0	60	0	30	0	60	0	30	35	35	35	35	35	35	35	35
Max2	0	60	0	35	0	60	0	35	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	5.0	3.0	4.0	3.0	5.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Controller Overlaps**Vehicle Overlaps (MM) 2-2**

Overlap	Type	Lag Green	Yellow	Red	Adv. Green
---------	------	-----------	--------	-----	------------

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	1	Yes	No	No	No		No	No	.
B	2	Yes	No	No	No		No	No	.
C	3	Yes	No	No	No		No	No	.
D	4	Yes	No	No	No		No	No	.
E	5	Yes	No	No	No		No	No	.
F	6	Yes	No	No	No		No	No	.
G	7	Yes	No	No	No		No	No	.
H	8	Yes	No	No	No		No	No	.
I	9	Yes	No	No	No		No	No	.
J	10	Yes	No	No	No		No	No	.
K	11	Yes	No	No	No		No	No	.
L	12	Yes	No	No	No		No	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable
---------	-----------------------------	----------------------------------	-----------------------	--------------------------	--------------------	--------------------------	----------------------------	----------------------

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5

O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Controller Options**Controller Options (MM) 2-6-1**

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I	X				X											
Non-Act II																
Dual Entry	X	X	X	X	X											
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8**Plan # 1**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall	X					X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2
Action Plan - 99

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
LP 91-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	



MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Schedule (MM) 5-4



Town of Easton
Engineering, Planning and Zoning
14 South Harrison Street, Easton, MD 21601

RECEIVED
SEP 26 2023
TOWN OF EASTON

Board of Zoning Appeals Application

Application Type

☒ Variance ☐ Appeal ☒ Special Exception

Property Information

Address Camac St, Easton, MD, 21601
Tax Map 0026 Grid 0020 Parcel 0186 Lot
Deed Reference: Liber 02644 Folio 00114
Plat Reference: Liber 82 Folio 151
Existing Use Residential
Zoning District R10A
Historic District Y ☐ N ☐ PRD Y ☐ N ☒

Owner

Name Aspire Outdoors LLC
Mailing Address 29760 Standish St, Easton, MD 21601
Telephone No. 410-310-6241 Email ddaly@baamboys.com

Applicant or Agent

Name Aspire Outdoors LLC
Mailing Address 29760 Standish St, Easton, MD 21601
Telephone No. 410-310-6241 Email ddaly@baamboys.com

Surveyor / Engineer

Name Robert Rauch License No. 11024 Expiration Date 7/24/2024
Mailing Address 106 N. Harrison St, Easton, MD, 21601
Telephone No. 410-770-9081 Email robert@raucheng.com; brian@raucheng.com

Request Details

Subject to Previous BOZA Application Y ☐ N ☒

Zoning Ordinance Section 28-201 & 28-303
Change From to

Please describe the purpose of the request being made to the Board of Appeals including all information pertinent to said request. Attach a formal letter detailing request.

Aspire Outdoors LLC is seeking a special exception for use of an Apartment Complex within the R-10A zone. There are 6 apartment buildings proposed on the Aspire property just South of the end of Camac St in Easton. The plan for this complex will meet all requirements within the ordinance.

- If the applicant is other than the owner, include a letter of certification from the owner.
- Attach five (5) copies of the recorded Deed conveying present ownership of the property.
- Attach five (5) copies of scaled plat sketch or site plan with all dimensions of lot, setbacks, improvements and the distances between any improvements.

- Provide all information related to any restrictions to the property recorded among the Land Records of Talbot County.
- Provide all information related to any restrictions imposed by Homeowner Associations, etc.
- Include any additional information, related to the request being made of the Board of Appeals.
- Fee Payment

Any modifications during review shall warrant an updated application.

I do hereby solemnly declare and affirm that the information provided by this application and the documents attached hereto accurately represent the conditions of the request and that submission of an incomplete application will be returned for correction prior to processing.

Signature of Applicant or Agent

Date 01/23/2023 ~~2/30/2023~~ **9/26/2023**

Printed Name of Applicant or Agent

Robert D. Rauch

For Office Use Only

Project Number	SE 23-06 / V 23-05	Fee Received	
Application Number	SE/V-911	Application Notification	10/09/2023
Filing Date (Original)	03/30/2023	Property Posting Date	10/09/2023
BOZA Hearing Date	10/24/2023	Notice(s) Published	10/08/2023
If ESDR, Date			

**\$700.00 Special Exception Review
\$200.00 Variance Review**

Revised 2-2019



EASTON BOARD OF ZONING APPEALS
APPLICATIONS FOR
VARIANCES, SPECIAL EXCEPTIONS AND APPEALS
Revised 02-2019

- 1.) Applications are available at the Town Office located at 14 S. Harrison Street, Easton, Maryland or online at www.town-eastonmd.com.
- 2.) The applicant shall submit one (1) copy of the 2-sided application and five (5) copies of the current deed of the subject property.
- 3.) The application should include five (5) copies of all information, including plans, sketches, required by the regulations for proper consideration of the application by the Board of Zoning Appeals.
- 4.) The fees for the application are:

Variance:

Commercial	\$250
Residential	\$200

Special Exception: \$700

Appeal: \$550 (Refunded if Appeal is successful)

- 5.) Combined applications for Variances and Special Exceptions for the same parcel are acceptable.
- 6.) Copies of the Town of Easton Zoning Ordinance are available on the Town's website. The Ordinance includes detailed information and requirements for Variances and Special Exceptions. It is recommended that all applicants refer to this Ordinance prior to filing an application.
- 7.) Applicants may represent themselves or have legal representation.
- 8.) The Planning Office will provide reasonable assistance to all applicants however, it is the applicant's responsibility to present all information required for proper consideration of the application by the Board of Zoning Appeals.
- 9.) After the application has been filed, each applicant will receive notice from the Board of Zoning Appeals of the scheduled public hearing requirements, which must



Samantha Smith <ssmith@eastonmd.gov>

Proposed Apartment Complex

1 message

lillitibb17@gmail.com <lillitibb17@gmail.com>

Tue, Oct 24, 2023 at 4:16 PM

To: ssmith@eastonmd.gov

To whom it may concern,

I will not be able to attend the meeting tonight that will involve the construction of the proposed apartment complex on Camac Street in Hunters Mill, so I have decided to write my opposing argument and hope the local government will agree with the community and oppose the construction. The construction will only cause problems for the community as it will result in damage to the local wildlife and environment, increase in traffic issues/accidents on Mathewstown Road and Black Dog Alley, not to mention put the lives of many at risk and school resources will be stretched thin, meaning teachers would be outnumbered and classrooms overcrowded. The constructions will only do more harm than good to the community. I hope that members of my community will voice their opposition tonight and the local government will listen and vote against the apartment complex.

Sincerely,

Lilli Tibbitt.



Samantha Smith <ssmith@eastonmd.gov>

negative impacts on A to G , for BOZA

John Franczak <zakzaktahoe@gmail.com>

Tue, Oct 24, 2023 at 12:32 PM

To: Joe Mayer <jmayer@eastonmd.gov>, Samantha Smith <ssmith@eastonmd.gov>

These are special exception findings with negative impacts, This project should receive no special exception or variances, The board should follow the rules of the Town of Easton's Comprehensive plan. The following are responses to the 7 categories of Special Exception Findings:

- a) the project would change the current zoning of the 62 acre parcel which was dedicated to single family housing
- b) Apartments would create car pollution, noise pollution and excess traffic beyond the capacity on a residential sub collector street, way beyond the 500 ADT's capacity
- c) there would be a huge impact on public facilities, sewerage, police, fire, schools and a huge impact on Mathewstown Rd which is already stressed
- d) the traffic from 162 apartments would exceed the 500 ADT limit of a residential sub-collector street, even at 33% of 1750 it is 578 ADT well beyond Camac's capacity. BTW, McCall St is only 49 yards long, absurd to say it could handle 3000 ADT, when frankly it is an entrance way to Hunter's Mill, hardly a residential collector street
- e) How could 162 apartments with excess of 300 people and cars not impact the HM neighborhood with undue odor, smoke, noise, drainage and inadequate access
- f) the proposed project will destroy the established character from a single family community with no through traffic to an over run line of as many as 1750 cars. Hunter's Mill is a diverse, established community and should not be asked to shoulder the tax burden of apartments next to us. The project should have it's own entrance not through Camac Street
- g) the proposed use does not comply with the current Town of Easton's Comprehensive Plan. Also Mr Daly is talking about retail shops in the proposal which is not allowed in this zoning

Thank you for your time. I hope these responses are taken very seriously. The Aspire project does not belong next to single family housing. There would be no objection by us locals if the original phase 2 of Hunter's Mill, the building of 27 single family houses that was proposed 17 years ago.

One other item ,is the kid's park recently installed 12 years after it was promised creates an extremely dangerous area where excessive traffic could result in serious injury or even death to the children, parents and grandparents or friends. A project this large should have all the money and resources to handle the impact fees as well as build their own access road to service their project, not through an established neighborhood that only has a residential sub collector street that residents back onto from their garages. This is an unacceptable danger to all our residents. Thank you.

John Franczak
John Franczak
Independent Insurance Agent
Asset Preservation
Phone: 775-770-0747
Email: zakzaktahoe@gmail.com
MD License # 2102588

avid Milligan

12:07 PM (2 hours ago)

to pcotter@parkercountslaw.com, zkrebeck@eastonmd.gov, gmolchan@eastonmd.gov, lthomas@eastonmd.gov

BOZA Committee & Town Officials/Planners:

As a resident and home owner in Hunters Mill, I am writing to express my opposition to granting Aspire Outdoors a zoning exception and variance that would allow the development of a multifamily development on the property located just south of our current development.

When I initially decided to purchase my home in 2017, it was with the understanding that the next phase would be comprised of approximately an additional 50 single family homes, which was perfectly fine and acceptable.

However, the proposed 162 apartments (six buildings) would, in arguably, be a significant deviation from what was initially planned.

The majority of my fellow homeowners are in agreement that this project would negatively impact our community in the following ways:

- A significant increase in traffic and safety concerns on Camac street, which would exceed it's current capacity per town/county code
- Bottlenecks on McCall street, resulting in unacceptable safety concerns as primary entrance to our development
- Increased traffic and safety concerns on Matthewstown Rd
- Increased traffic congestion at the Matthewstown & Rt 50 intersection, which is currently an issue and will only get worse

More over, it is my understanding that the proposed apartments will rent for between \$2,000 to \$2,500 monthly, which in no way serves to address the lack of affordable housing that currently exists in Easton & Talbot County, which could be a justification for approving this project.

To be quite frank, I do not anticipate that this will be a financially successful venture for the developer, nor will it be a successful housing solution for Easton (as a whole), and to repeat, certainly not for our community. So what we have here is lose-lose proposition.

And so to close, in the best interest of all stakeholders, I implore you reject this proposed development project in its current form.

Respectfully,

David Milligan
8672 Camac St



John Franczak <zakzaktahoe@gmail.com>

3 turn school bus turnaround

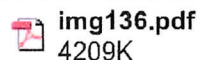
8 messages

John Franczak <zakzaktahoe@gmail.com>

Mon, Oct 23, 2023 at 3:36 PM

To: Mark Gabler <mgabler@hwlaw.com>, Kyra Wheatley <KWheatley@hwlaw.com>

Taken by me at 3:05 PM at McCall and Camac. Captain Adamouski is only 28 feet wide from Gabler Ct to Camac Ave, also Camac is only 28 feet wide at the po boxes and children's park. I assume that due to the narrowness of Captain Adamouski and cars parked on both sides that it is too risky for the bus to take the circle around Hunter's houses.

John Franczak**Independent Insurance Agent****Asset Preservation****Phone: 775-770-0747****Email: zakzaktahoe@gmail.com****MD License # 2102588****Mark Gabler** <MGabler@hwlaw.com>

Mon, Oct 23, 2023 at 4:26 PM

To: John Franczak <zakzaktahoe@gmail.com>, Kyra Wheatley <KWheatley@hwlaw.com>

John – Thank you. These look fine. I would send the photos in by email to replace the prior power point.

Mark F. Gabler, Esq.

Hyatt & Weber, P.A.

[Quoted text hidden]

John Franczak <zakzaktahoe@gmail.com>

Tue, Oct 24, 2023 at 7:41 AM

To: Joe Mayer <jmayer@eastonmd.gov>, Samantha Smith <:ssmith@eastonmd.gov>

John Franczak









Samantha Smith <ssmith@eastonmd.gov>

FW: Disapproval of road for apartment by Camac Street

1 message

Peter Cotter <pcotter@parkercountslaw.com>
To: "ssmith@eastonmd.gov" <ssmith@eastonmd.gov>

Mon, Oct 23, 2023 at 10:32 AM

From: lmtesay@yahoo.com <lmtesay@yahoo.com>
Sent: Monday, October 23, 2023 10:31 AM
To: Peter Cotter <pcotter@parkercountslaw.com>
Subject: Disapproval of road for apartment by Camac Street

Good morning,

I am against the apartment road to pass through our neighborhood. Especially the traffic and safety of our kids. Hope you don't go through with that. Thanks Alimatu Sesay



Samantha Smith <ssmith@eastonmd.gov>

Fwd: Hunters Mill - Aspire zoning exception

1 message

Peter Cotter <pcotter@parkercountslaw.com>
 To: "ssmith@eastonmd.gov" <ssmith@eastonmd.gov>

Sun, Oct 22, 2023 at 3:12 PM

From: Heidi Clymer <heidiclymer@yahoo.com>

Sent: Sunday, October 22, 2023 1:49:58 PM

To: Peter Cotter <pcotter@parkercountslaw.com>; zkrebeck@eastonmd.gov <zkrebeck@eastonmd.gov>;
 gmolchan@eastonmd.gov <gmolchan@eastonmd.gov>; lthyomas@eastonmd.com
 <lthyomas@eastonmd.com>; msalini@eastonmd.gov <msalini@eastonmd.gov>; mcook@eastonmd.gov
 <mcook@eastonmd.gov>; jdindinger@eastonmd.gov <jdindinger@eastonmd.gov>;
 vmcandrews@eastonmd.gov <vmcandrews@eastonmd.gov>; pweber@eastonmd.gov
 <pweber@eastonmd.gov>; ptoussant@eastonmd.gov <ptoussant@eastonmd.gov>;
 wryall@eastonmd.gov <wryall@eastonmd.gov>; zakzaktahoe@gmail.com <zakzaktahoe@gmail.com>

Subject: Hunters Mill - Aspire zoning exception

Dear Planning Commission and Board of Zoning Appeals members,

Thank you for your time and effort on behalf of the town of Easton. My husband and I moved into Hunters Mill two years ago because it offered a safe place to walk our dogs and future grandchildren. We are excited about the new park being built at the end of the street. We were under the impression that the land on the other side of the park was zoned for single family housing and that the neighborhood streets were set up to accommodate that plan.

The neighborhood streets were NOT created to accommodate 1750 daily car trips that the Aspire Apartments would create. We live on Camac Street. Backing out onto Camac will be next to impossible with that amount of traffic. The whole character of the neighborhood will be irrevocably altered by ignoring the traffic limitations of the established road that are not, and were never intended to handle that amount of additional traffic.

We have SAFETY CONCERNS for the many children that live and will live in this quiet neighborhood. The school bus has to back-up at the entrance and do a three point turn, twice a day, in order to get out of the neighborhood. That will be IMPOSSIBLE to do with the amount of traffic generated by the apartments. This is a huge problem!

Please respect YOUR OWN traffic studies regarding the limitations of the existing roads and their intended purpose. Please OPPOSE the zoning exceptions and variances for the Aspire Project.

Sincerely,
 Robert and Heidi Clymer

Samantha Smith <ssmith@eastonmd.gov>

Fwd: Aspire Project

1 message

Peter Cotter <pcotter@parkercountslaw.com>
To: "ssmith@eastonmd.gov" <ssmith@eastonmd.gov>

Sat, Oct 21, 2023 at 10:45 PM

From: Schiming, Richard C <richard.schiming@mnsu.edu>
Sent: Saturday, October 21, 2023 10:18:35 PM
To: Peter Cotter <pcotter@parkercountslaw.com>
Subject: Aspire Project

QDear Commissioner,
I am a resident of Hunters Mill and am writing to urge you not to approve the proposed variances for the Aspire project.
My main concern is the amount of traffic that these apartments will impose on our development. Right now, we have about 50 homes in Hunters Mill. The proposed apartments will more than triple the amount of traffic in our neighborhood and significantly burden Carmac Street.
Why can't the developer provide its own access to Matthewstown Road in stead of piggybacking on our infrastructure?
Again, I urge you not to approve the proposed variances.
Richard C. Schiming
29759 Gabler Court

Sent from my iPad



Samantha Smith <ssmith@eastonmd.gov>

October 24th Planning and Zoning Meeting

1 message

C Johnson <cass4316@gmail.com>

Thu, Oct 19, 2023 at 2:49 PM

To: Samantha Smith <ssmith@eastonmd.gov>

Hello Ms. Smith,

Please forward the following to the appropriate persons. Thank you.

We respect and applaud Mr. Derick Daly's good works on behalf of the residents of Easton. Aspire's programs and initiatives are commendable and have generated a great deal of positive press. Aspire Daly, Inc., describes itself as having a single focus: improving the quality of life and the standard of living for as many families as possible. However, this goal does not seem to apply to the residents of Hunters Mill since Aspire's plan is to use McCall St. and Camac St. in our community as egress/ingress for 162 apartment units.

This plan, which would greatly increase the traffic in our community, comes with additional baggage: decreased residential safety, quietness, and environmental welfare. It is also likely to lower our property values. In addition, The Traffic Planning & Design report comes to a different conclusion from that of The Traffic Group (commissioned by Aspire), and indicates that Mr. Daly's plan would exceed the average daily trips allowed by Easton's Subdivision Regulation.

We have attached a photo we took of McCall Street as work was being done on our property. Please note this example of how narrow the road can become when home projects (or any type of major works) are in progress and consider how easily traffic can back up, especially during rush hour. It is for all of these reasons we strongly oppose Aspire being granted the right to use our community as a major route for 162 apartments and surely more than 162 vehicles.

Cassandra and Elmer Johnson
29757 Captain Adamouski St.





Samantha Smith <ssmith@eastonmd.gov>

Aspire Daly Development

1 message

D Mon <dmon11@ymail.com>

Sat, Oct 14, 2023 at 10:47 AM

To: ssmith@eastonmd.gov

To: Samantha Smith
Administrative Specialist,
Planning and Zoning Dept.
Easton, MD

Hello Ms. Smith,

I'm writing to express both my enthusiastic support for the Aspire Daly project, and my concerns regarding the nature of the opposition to this critically needed investment in our community.

Of course there is a practical need for more mixed income housing in Easton, as evidenced by the most recent census and local school enrollment data, but what has always differentiated this project from other residential and commercial developments are its philanthropic origins and the Aspire Daly mission statement:

<https://www.aspiredaly.com/#:~:text=Aspire%20Daly%20Inc.%2C%20is%20a,sustaining%2C%20and%20locally%20focused%20mandate.>

(<https://www.aspiredaly.com/#:~:text=Aspire%20Daly%20Inc.%2C%20is%20a,sustaining%2C%20and%20locally%20focused%20mandate.>)

I find myself always drawn to, "We will invest in the Eastern shore. We will invest in our People...." Reason being, is that this literally speaks to the purpose of ours, and really any community.

Contrarily, what I've found deeply concerning is that those against the organic growth of our community continue to use buzz words and phrases that sound like cliched opposition to any development that may impact their bottom line; exclusively, from a supply and demand perspective. Unsurprisingly, this is also consistent with another mission statement; one that belongs to all HOAs; that which is to exclusively maximize the profits and increase the property value, for a specific and relatively exclusive club of small investors.

For these reasons I believe that there's an economic, but more importantly, a moral obligation to support the Aspire Daly project.

Thank you,

Mr. Dario Monteiro
Congregation member of PVM Ministries

Samatha Smith
Administrative Specialist
Planning and Zoning Dept
Board of Zoning Appeals
14 S Harrison St.
Easton, MD 21601

Dear Samantha Smith,

As a dedicated real estate associate broker with Keller Williams Flagship of Maryland, I am writing to provide my wholehearted support for the proposed luxury apartment development in Easton, MD. As a lifelong resident of the Mid Shore area, along with 9+ years of experience in the real estate industry, I have seen firsthand the benefits that well-planned developments can bring to a community, and I believe this project will fill a significant void that will advance the area.

The proposed luxury apartments align seamlessly with the aspirations and requirements of the Easton real estate market and reflect a thoughtful approach to both design and community integration. I would like to emphasize a few key points that underscore my endorsement of this project:

Market Demand: The demand for housing in Easton drastically outweighs the supply. Causing inflationary pricing in the housing market as a whole. The addition of luxury apartments will not only meet this demand but also stimulate interest from a diverse range of residents, professionals, retirees, and families that are searching for housing in the area. Especially those looking for elegant and low-maintenance living. Currently, those interested in living in Easton are forced to rent or purchase a single family home, townhouse, or condo with little to no amenities. This one of its kind development in the Easton area will be a great addition to the housing market.

Sustainability Considerations: It is encouraging to see the developer's commitment to sustainability in the proposed development. Features such as dedicated forest conservation and not disturbing wetlands demonstrate a dedication to environmental responsibility, which aligns with the consistency of Easton being classified as a rural area.

Community Enhancement: The development offers an opportunity to create additional community spaces for residents, amenities, opportunity for public involvement, along with a philanthropic commitment to an established non profit organization based in Easton, MD. These features will enhance the overall quality of life for Easton residents and contribute to a sense of community spirit.

I firmly believe that this luxury apartment complex is not only a sound business opportunity but also a meaningful addition to the Easton real estate landscape. It represents a step forward in

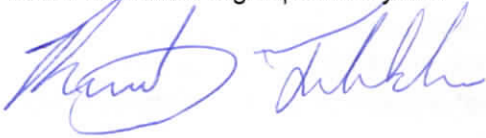
accommodating the evolving needs and preferences of our community while preserving the town's distinctive character.

As a real estate associate broker invested in the growth and prosperity of Easton and the Mid Shore, I endorse this project wholeheartedly and urge the Development Board to consider its many merits. I have confidence that, with careful planning and supervision, it will bring substantial value to our community and reinforce Easton's reputation as a desirable place to live.

Thank you for your time and consideration. I look forward to the positive impact this project will have on Easton's real estate market and overall development.

Sincerely,

Romont Fletcher, Associate Broker
Keller Williams Flagship of Maryland



RECEIVED
OCT 16 2023
TOWN OF EASTON



TRAFFIC PLANNING AND DESIGN, INC.

WWW.TRAFFICPD.COM

October 13, 2023

John Franczak
Hunter's Mill Homeowners Association
127 North Washington Street
Easton, MD 21601

RE: Aspire Traffic Report - Review

Town of Easton, Talbot County, MD
TPD No. HMHA.00001

Dear Mr. Franczak:

As requested, Traffic Planning and Design, Inc. (TPD) has reviewed the average daily traffic (ADT) evaluation for the proposed Aspire residential development, completed by the Traffic Group, Inc., and dated July 19, 2023. Briefly, the Aspire residential development is proposed as 162 apartments, to be located southeast of Matthewstown Road in the Town of Easton, Maryland. Access to Matthewstown Road is proposed via interconnection to the existing Hunter's Mill residential development and the proposed Gannon Property residential development. The purpose of this letter is to summarize our review of the report prepared by the Traffic Group, as well as list our comments regarding the proposed interconnection to the Hunter's Mill development.

PURPOSE OF THE TRAFFIC GROUP'S REPORT

The Traffic Group prepared their report utilizing the guidelines contained in Section 702 (Street Hierarchy) of the Subdivision Regulations for the Town of Easton. The goal of their report was to demonstrate that the projected ADT generated by the proposed Aspire development would not exceed the ADT thresholds for the existing subdivision streets in the Hunter's Mill development.

OVERVIEW OF SECTION 702 OF THE TOWN OF EASTON'S SUBDIVISION REGULATIONS

Section 702 provides daily trip generation rates for different residential uses, at 5.4 trips per dwelling unit for apartments and 10.0 trips per units for single-family houses. Additionally, the section provides ADT thresholds for subdivision streets as follows:

- 1) Residential Access Streets – ADT may not exceed 200;
- 2) Residential Subcollector Streets – ADT may not exceed 500;
- 3) Residential Collector Streets – ADT may not exceed 3,000.

CLASSIFICATION OF STREETS IN HUNTER'S MILL AND GANNON PROPERTY

Of the streets that will be affected by the proposed interconnection to the Aspire development, for those within the existing Hunter's Mill development, Camac Street is classified as a Residential Subcollector Street, while McCall Street is classified as a Residential Collector Street. For those within the proposed Gannon Property development, Charlotte Lane and Eleanor Way are classified as Residential Subcollector Streets, while Rhyon Drive is classified as a Residential Collector.

SUMMARY OF THE TRAFFIC GROUP'S REPORT

Using the trip generation rates per Section 702, The Traffic Group calculated the projected ADT for the proposed Aspire development as 875 ADT. They also calculated that 200 ADT would be present on Camac Street in the Hunter's Mill development, and 380 ADT would be present on Charlotte Drive and Eleanor Way. They then added those values together at 580 ADT, and noting that the roads listed above are permitted for 500 ADT each, they calculated that 920 ADT was still available to be utilized. As the 875 ADT that would be generated by the proposed Aspire development would be less than 920 ADT, they concluded that the ADT generated by the Aspire development would not exceed the thresholds for those streets.

REVIEW OF THE TRAFFIC GROUP'S REPORT

While the ADT calculation for the proposed Aspire development is correct at 875 trips per day, at question is the ADT calculation for Camac Street. Based on the layout of the houses in the Hunter's Mill development and considering the distance from their driveways to the McCall Street access on Matthewstown Road, it is likely that 25 of the 51 houses in the development will utilize Camac Street to travel to the McCall Street Access, which would equate to 250 ADT. Considering the most recent plan for the Aspire development, it is likely that the traffic generated by the four (2) apartment buildings on the northern side of the property (listed as buildings 1, 2, 5 and 6 on the attached plan) will utilize Camac Street as the main point of access to and from the development. As those buildings contain 108 units in total, that would equate to 583 ADT. Adding this to the 250 ADT existing on Camac Street would equate to a total of 833 ADT, which would exceed the 500 ADT threshold for the street per the Subdivision Regulations.

ARGUMENTS AGAINST INTERCONNECTION TO HUNTER'S MILL

Aside from the exceeding the ADT threshold on Camac Street, there are a number of other arguments that can be made against an interconnection between Hunter's Mill and the proposed Aspire development; they are as follows:

- 1) Availability of parking: the current plan shows approximately 200 parking spaces, which is 1.23 parking spaces per unit. Given the nature of rental units, it is likely that more apartment units will be occupied by tenants that have two or more vehicles per unit. There is a distinct likelihood that these tenants may be forced to park along Camac Street if there are no parking spaces available on site. In its current configuration, Camac Street is not suitable for a significant amount of on-street parking.

- 2) Traffic safety: traditionally, developments that share different types of residential units are designed to have areas of each type of unit served by their own streets, which then connect to a main service road in the development that leads to an external access. Larger numbers of turning movements associated with driveways create more opportunities for safety hazards when coupled with higher traffic flows along the street. In this case, adding traffic from the Aspire development along Camac Street would increase the risk of safety hazards.

CONCLUSIONS

Based on our review of the Traffic Group's report, we find that the projected amount of traffic along Camac Street is higher than indicated in their report, and would likely exceed the 500 ADT threshold. Additionally, due to parking and safety concerns, it is our opinion that the no interconnection from the proposed Aspire development to Hunter's Mill be permitted.

If you have any questions or comments, please feel free to contact us.

Sincerely,

TRAFFIC PLANNING AND DESIGN INC



Troy Brestel, P.E.

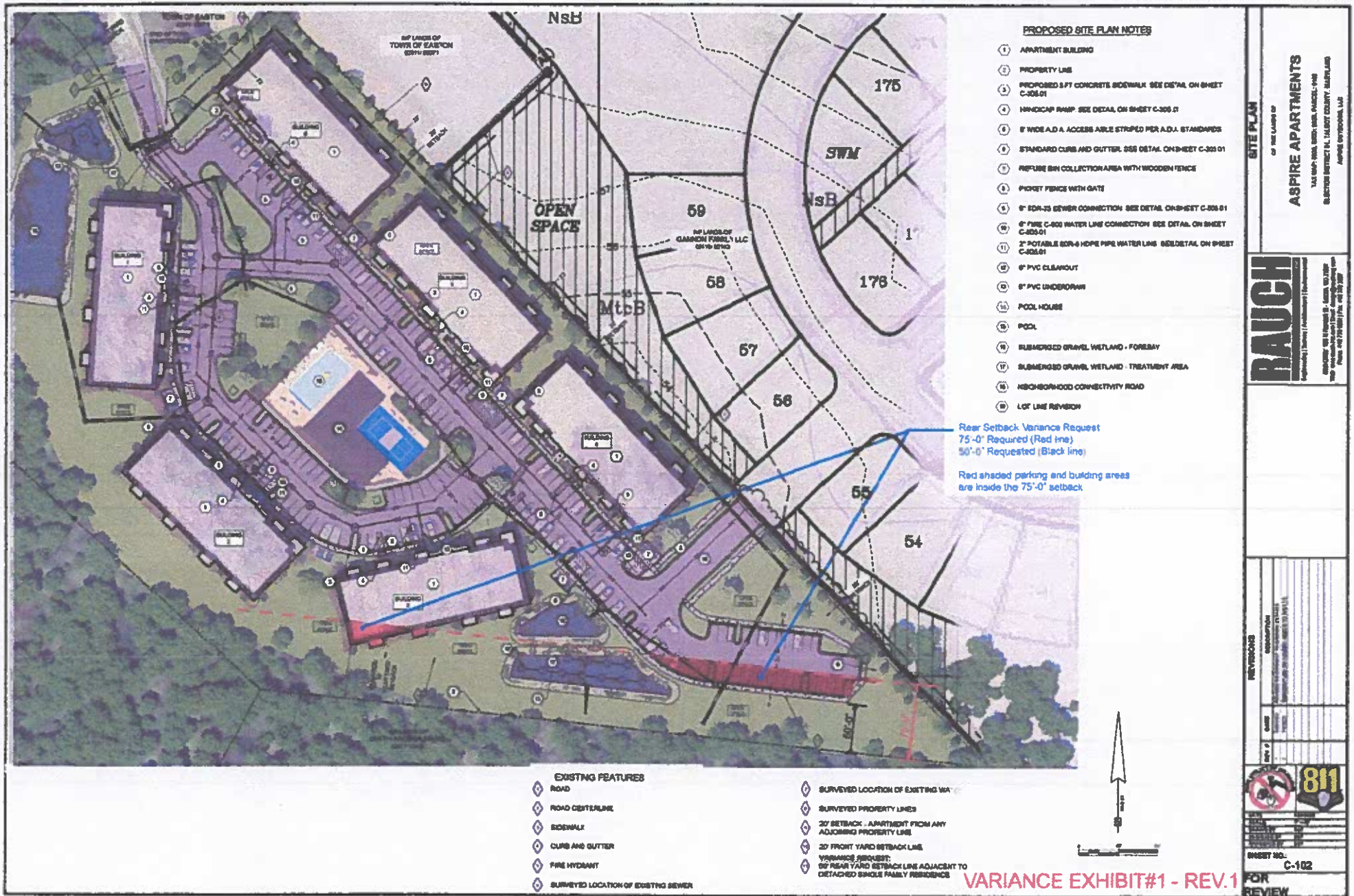
Project Manager - Transportation Planning

Attachments: Aspire Site Plan (dated 7/28/23)

RECEIVED

OCT 16 2023

TOWN OF EASTON



John Franczak

Independent Insurance Agent
Asset Preservation

29756 Captain Adamowski Street
Easton, MD 21601

Phone: 775-770-0747

Email: zakzaktahoe@gmail.com

MD License # 2102588



Samantha Smith <ssmith@eastonmd.gov>

opposition to Aspire

1 message

John Franczak <zakzaktahoe@gmail.com>

Fri, Oct 13, 2023 at 10:39 AM

To: Joe Mayer <jmayer@eastonmd.gov>, Samantha Smith <ssmith@eastonmd.gov>, Miguel Salinas <msalinas@eastonmd.gov>, Nicholas Johnson <njohnson@eastonmd.gov>, Lynn Thomas <lthomas@eastonmd.gov>, pcotter@eastonmd.gov, Megan Cook <mcook@eastonmd.gov>

To All,

Attached is the business card for Mark Gabler, attorney who will be representing The Hunter's Mill HOA and residents. John Franczak will also be speaking on behalf of the HOA as will many residents. We will need approximately 15 to 30 minutes to reveal all our findings.

As protocol was not followed at the last BOZA meeting, when we were never given a chance to voice our opposition, a violation of rule 7 E and F took place, according to the Rules of Procedure Board of Zoning appeals.

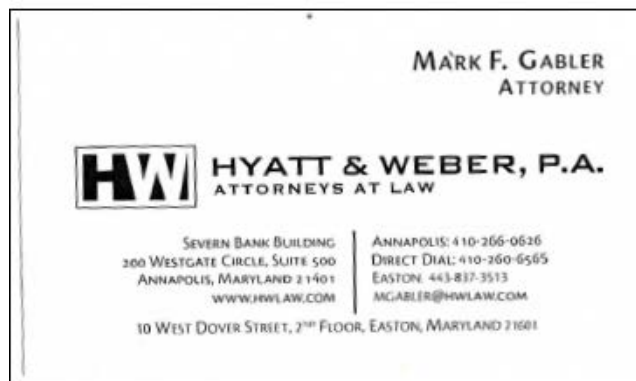
We look forward to the meeting on October 24th at 6 PM.

Thank you.

John

John Franczak
Independent Insurance Agent
Asset Preservation
Phone: 775-770-0747
Email: zakzaktahoe@gmail.com
MD License # 2102588

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261K



MD 328 Planning and Environmental Linkages Study

The Maryland Department of Transportation State Highway Administration (SHA)
is evaluating improvements along MD 328 (Matthewstown Road)
between US 50 and Black Dog Alley in Talbot County.

We want to hear from you!

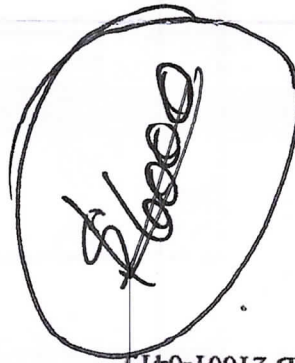
Please take our survey to help the study team identify needs and develop potential
improvements along the MD 328 corridor. The survey can be accessed on the Project Portal page
at <https://bit.ly/MDOTSHA-MD328-US50-PEL> or by using the QR code to the right.



Wes Moore, Governor | Aruna Miller, Lt. Governor | Paul J. Wiedefeld, Secretary | Tim Smith P.E., Administrator

printed on recycled paper

Stop at Black Dog Alley

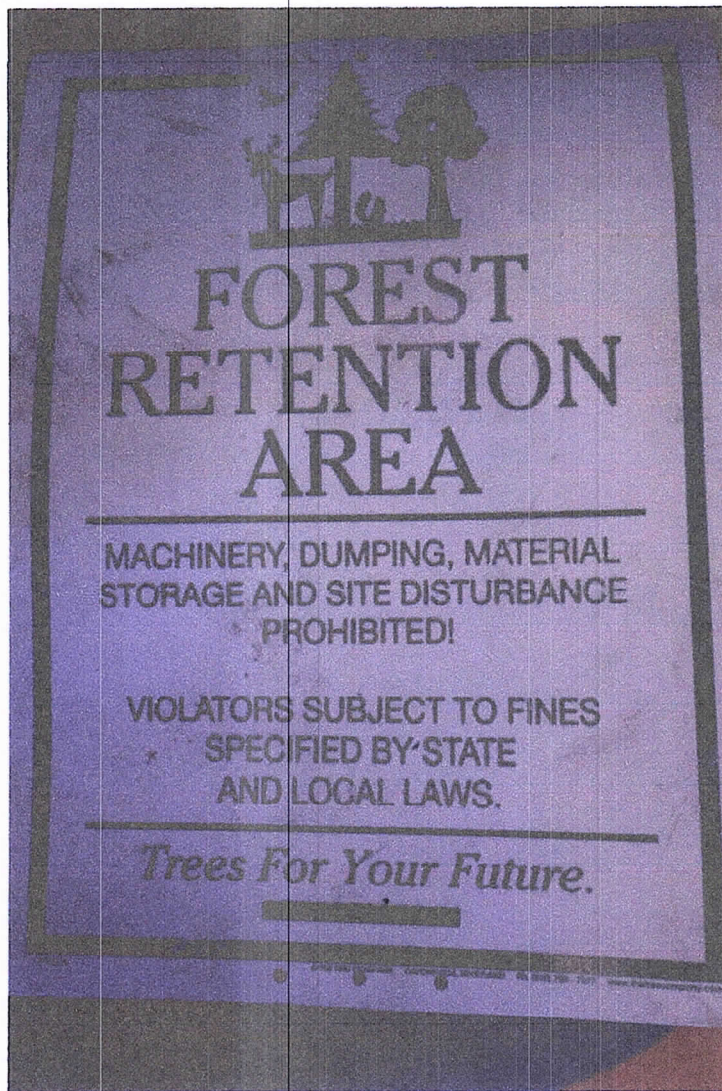


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STATE HIGHWAY ADMINISTRATION
OFFICE OF PLANNING AND PRELIMINARY ENGINEERING
707 NORTH CALVERT STREET, MAIL STOP C-301
BALTIMORE, MARYLAND 21202



FOR PRESENTATION
10/24/23

McCAIL is ONLY 49 YARDS LONG



McCAIL STREET
DURING CONSTRUCTION
OCT., 2023



CAMACAT MAIL BOXES
28' WIDE



Samantha Smith <ssmith@eastonmd.gov>

Proposed Development On Camac Street In Hunter's Mills

Lilli Tibbitt

Thu, Sep 21, 2023 at 10:29 AM

To: Samantha Smith <ssmith@eastonmd.gov>

Good morning,

I am writing in regard to more information about the proposal on Camac Street. I tried to attend the meeting in August but was unable to due to a family event. I and many other citizens are against the apartment complex because of the negative impact it will have on our environment, community, resources, etc. I and others hope the board and council disapprove of the proposed apartment complex because of the negative impacts and because it simply does not belong in our community. We are a small town, not a city like Baltimore or Salisbury. I hope to raise my children here one day so they can enjoy the small town I did as a child.

STATEMENT REGARDING SPECIAL EXCEPTION REQUEST (Aspire Outdoors, LLC)
Tuesday, April 18, 2023

In January we purchased our residence on Captain Adamouski St. Our home is located at the corner of McCall and Captain Adamouski and one side of our house faces the community's only entry/exit roadway.

We moved here from Florida in part because so much of the green space in our city was being replaced with new housing which contributed to an ever-swelling population, and in turn was a major reason for significant increases in clogged roads. We believed that our move here would allow us to live our retirement years in a smaller community that didn't have such sustained levels of traffic invasiveness and noise. And the benefits of being able to travel easily in and around Easton were attractive draws to living here.

Matthewstown Rd., which runs along the back of our home, is admittedly more of a conduit for vehicle noise and pollution than we anticipated. But to allow a Special Exception to build a 162-unit apartment complex whose residents use the street adjacent to our home as the entry/exit would only add to those issues. In addition, it would deny our neighborhood its current quality of existence. The inevitable road jams would be detrimental to the safety of pedestrians, bikers and skate boarders and most certainly decrease property values.

At the very least, if an apartment complex is to be built near our community it should have its own egress/ingress. Our small neighborhood should not suffer the consequences of Mr. Daly's unwillingness to provide a basic, separate roadway for the complex he intends to build.

Cassandra and Elmer Johnson
29757 Captain Adamouski St.

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