



Board of Zoning Appeals MEETING AGENDA

Tuesday, April 16, 2024 - 9:00 AM
Council Chambers, Easton Town Office
14 S Harrison Street

1. Call to Order

2. Approval of Minutes.

- a. Approval of the Draft Decision Summary from the March 19, 2024 meeting.

3. Applications

- a. **Application:** V - 1130 / V 24 - 03
Applicant: Fink, Whitten & Associates, LLC
c/o Elizabeth Fink
Location: 220 South Street
Tax Map 104, Grid 0EA, Parcel 1902
Zoning District: R-7A
Request: Variance request pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a variance from Section 28-302.2.C.2, the minimum 25' rear setback for all uses and structures in the R-7A zoning district, and from Section 28-302.2.C.3, the minimum 8' side setback for all uses and structures in the R-7A zoning district. The applicant is seeking to subdivide the existing parcel located on the property at 220 South Street.
- b. **Application:** A - 1117 / A 24 - 01
Applicant: Aspire Outdoors, LLC
Location: Camac Street
Tax Map 026, Grid 0020, Parcel 0186
Zoning District: R - 10A
Request: Appeal pursuant to Section 28-1303.3.A of the Town of Easton Code, concerning interpretation or administration of Chapter 28 of the Town Code. The Applicant has filed an appeal to the

Board of Zoning Appeals alleging an error in the decision or determination by the Planning and Zoning Director, in a written decision dated January 3, 2024, that a revised set of plans submitted by the Applicant on November 8, 2023 did not represent a substantial change to the original proposal dated September 26, 2023.

On October 24, 2023 the Town of Easton Board of Zoning Appeals (Board) heard the Special Exception application SE-991 / SE 23-06 for a Multifamily apartment Complex Use; and the Variance application V-911 / V 23-05 for a Variance request from the minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot. At the conclusion of the hearing, the Board voted (3-0) to approve the Variance request as submitted. The Board voted (3-0) to deny the Special Exception request as submitted.

Following the denial of the Special Exception, a revised set of plans was submitted by the applicant on November 8, 2023. Section 28-1303.F of the Zoning Ordinance states that if any application or request is disapproved on the merits by the Board, the Board shall not accept the application for substantially the same proposal, on the same premises, until after one (1) year from the date of such disapproval. Staff compared the submission against the Board's findings for denial and subsequently determined that the revised submission does not represent a substantial change.

4. Discussion Item



Town of Easton Board of Zoning Appeals

Draft Decision Summary

Tuesday, March 19, 2024 at 9:00 a.m.

Town Hall Chamber 2

14 S. Harrison Street, Easton, Maryland

Archived video of the meeting is available at:

[Town of Easton Agendas and Minutes](https://www.eastonmd.gov/AgendasAndMinutes)
(eastonmd.gov)

Attendance:

Board Members:

Peter Cotter, Chairman
Gary Molchan, Vice Chairman
Zakary A. Krebeck
Paul Weber, Alternate

Staff:

Miguel Salinas, Planning and Zoning Director
Lynn B. Thomas, Town Planner - Long Range
Joseph Mayer, Plan Reviewer
Nicholas Johnson, Town Planner - Current
Sharon Van Emburgh, Town Attorney
Samantha Smith, Administrative Specialist

1. Call to Order — Chairman Cotter called the meeting to order at 9:00 a.m.

2. Decision Summary Review —

Vice Chair Molchan moved to approve the 2024 Decision Summary. Board Member Krebeck seconded the motion.

Vote	3 - 0
FOR:	3 - Cotter, Molchan, Krebeck
AGAINST:	0
ABSTAIN:	0
ABSENT:	0

3. Applications —

a. File No.: V - 1136 / V 24 - 02
Applicant: The Deck and Fence Company LLC
Location: 29555 Meadow Gate Drive, Easton, MD 21601
Tax Map 102, Grid 0EA, Parcel 2939A, Lot 11

Zoning: R-10A

Request: The applicant is seeking a variance from the following section of the Zoning Ordinance Section 28-303.2.C.2, the minimum 30' rear setback for all uses and structures in the R-10A zoning district. The applicant is proposing to construct a 16' x 16' open deck in the rear yard that extends 3' beyond the building restriction line. According to Section 28-1006(F) of the Zoning Ordinance, decks are permitted to encroach beyond the required rear setback by no more than 10'. However, decks are defined by the Ordinance as "an open-air structure above grade, but not more than thirty (30) inches above grade, and immediately adjacent or attached to the principal structure." The proposed structure is 30" in height above grade, and does not meet the Zoning Ordinance definition of a deck; therefore it is required to meet the rear setback of the R-10A Zoning District.

Staff Presentation:

Nicholas Johnson, Planner

Miguel Salinas, Director of Planning and Zoning

Joseph Mayer, Plan Reviewer

Applicant Presentation:

Chris Langford, the Deck and Fence Company

Public Comment — None

**Vice Chairman Molchan moved to approve the variance request as submitted.
Board Member Krebeck seconded the motion.**

Vote	2 - 1
FOR:	2 - Molchan, Krebeck
AGAINST:	1 - Cotter
ABSTAIN:	0
ABSENT:	0

b. File No.: SE - 1141 / SE 24 - 01

Applicant: Carson Beasley

Location: 364 Ashby Commons Drive, Easton, MD 21601
Tax Map 101, Grid 0EA, Parcel 0265A, Lot 71

Zoning: R-7A with a PUD Overlay

Request: The applicant is seeking a special exception from the following section of the Zoning Ordinance: Section 28-201 of Permitted Uses (Table 2.1 (1) (121)) to allow the operation of a short-term housing unit within the R-7A Zoning District in the Planned Unit Development (PUD) known as Ashby Commons.

Staff recommends the following condition:

- 97 1. The applicant shall obtain a rental license to operate a short term rental
98 through the Town's Rental Housing Program.
99

100 **Staff Presentation:**

101 Nicholas Johnson, Planner
102 Miguel Salinas, Director of Planning and Zoning
103 Lynn B. Thomas, Town Planner - Long Range
104 Sharon Van Emburgh, Town Attorney
105

106 **Applicant Presentation:**

107 Carson Beasley
108

109 **Public Comment:**

110 Jeffrey Medred, 401 Crowberry Circle
111 Cindy Hammons, 7 Crab Alley Court, Ashby Commons HOA Board of Directors
112 John Plaskon, 348 Ashby Commons Drive
113

114 **Public Comment Written:**

115 Kathleen Pulver, 417 Bodkin Street
116 Michael S. Neall & Associates, P.C. on behalf of the Ashby Commons HOA
117

118 **Chairman Cotter moved to approve the special exception request as submitted. Vice**
119 **Chairman Molchan seconded the motion.**
120

121	<u>Vote</u>	<u>3 - 0</u>
122	FOR:	3 - Cotter, Molchan, Krebeck
123	AGAINST:	0
124	ABSTAIN:	0
125	ABSENT:	0

126
127

128 **4. Discussion Item — None**
129
130

131 **5. Adjournment —** Chairman Cotter motioned to adjourn. Vice Chairman Molchan
132 seconded. The meeting was adjourned at 9:43 a.m.

Exhibit 'A'



TOWN OF EASTON
PLANNING AND ZONING
14 SOUTH HARRISON STREET, EASTON, MD 21601

RECEIVED
MAR 19 2024
TOWN OF EASTON

BOARD OF ZONING APPEALS APPLICATION

APPLICATION TYPE

☒ VARIANCE ☐ APPEAL ☐ SPECIAL EXCEPTION

PROPERTY INFORMATION

ADDRESS	220 SOUTH STREET				
TAX MAP	104	GRID	EA	PARCEL	1900
DEED REFERENCE	LIBER	2615	FOLIO	306	LOT
PLAT REFERENCE	LIBER	4	FOLIO	50HH	
EXISTING USE	RESIDENTIAL				
ZONING DISTRICT	R-7A				

HISTORIC DISTRICT Y ☒ N ☐ Planned Redevelopment District Y ☐ N ☒

OWNER

NAME	PAMELA INTO				
MAILING ADDRESS	220 SOUTH ST EASTON, MD 21601				
TELEPHONE NO.	530-306-5032	EMAIL	pamelainto@yahoo.com		

APPLICANT OR AGENT

lesterbrophy@gmail.com

NAME	FINK, WHITTEN & ASSOC - ELIZABETH FINK				
MAILING ADDRESS	113 E DOVER ST UNIT C EASTON, MD 21601				
TELEPHONE NO.	410 822 8484	EMAIL	efink@finkwhitten.com		

Surveyor / Engineer

NAME	FINK, WHITTEN & ASSOC - STEVEN WHITTEN				
License Number and Expiration	LIC NO. 21326 EXP 1-8-2025				
MAILING ADDRESS	504 MARYLAND AVE CAMBRIDGE, MD 21613				
TELEPHONE NO.	410 228 8885	EMAIL	steverwhitten.15@gmail.com		

REQUEST DETAILS

SUBJECT TO PREVIOUS BOZA APPLICATION Y ☒ N ☐

ZONING ORDINANCE SECTION 28-302.2CL(3) AND 28.302.2CL(2)

☐ INCLUDE ALL REQUIRED ITEMS FROM THE APPLICABLE CHECKLIST

A NY 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	<i>Elizabeth Fink</i>
Date	3-19-24
PRINTED NAME OF APPLICANT OR AGENT	ELIZABETH FINK, FWA-AGENT

For Office Use Only

Project Number	V 24-03	Fee Received	\$250.00
Application Number	V-1130	Application Notification	04/01/2024
Filing Date	03/18/2024	Property Posting Date	04/01/2024
BOZA Hearing Date	04/18/2024	Notice(s) Published	03/31/2024
If ESDR, Date			

Revised 11-2023



Board of Zoning Appeals Checklist Variance Application

Application review shall not commence unless a complete application is submitted. A complete application includes all **minimum** submission materials and documents on this Checklist of Minimum Submission Requirements.

	Provided	N/A
Required fee payment as determined by the fee schedule adopted by the Town Council	✓	
Completed application along with a written, detailed explanation for the purpose of the request	✓	
Survey plat, site plan, or other accurate drawings, drawn to scale, to include at a minimum the items listed below.	✓	
Property boundaries and dimensions	✓	
Locations and dimensions of all existing and proposed structures and their locations measured from the nearest property lines	✓	
Setbacks from property lines	✓	
Adjoining roads	✓	
Accurate illustration of the requested variance	✓	
Scale Bar	✓	
Established easements	✓	
Perennial and intermittent streams	NA	
Tidal and non-tidal wetlands	NA	
Critical Area and 100-foot shoreline buffer boundary	NA	
Architectural drawings, photographs, elevations, specifications, or other detailed information depicting the exterior appearance of existing and proposed construction, including parking, access, exterior lighting, and signs	NA	

If the applicant is not the owner of the subject property, documentation of legal interest in the property or authorization to file application from or on behalf of the owner	✓	
A copy of the deed conveying present ownership of the property	✓	
A copy of any covenants or restrictions on the property recorded among the Land Records of Talbot County	NA	
Additional documents, records, and exhibits that the applicant intends to introduce or rely upon at the public hearing	✓	
Written responses to all the Board's required consideration of the principles relevant to the request (see attached)	✓	

Variance Findings of Fact

1. Would the granting of the Variance you have requested impede or in any way be detrimental to satisfying any of the following objectives of the Zoning Ordinance:
 - help accomplish the coordinated, adjusted, and harmonious development of the Town and its environs in accordance with present and future needs;
 - promote health, safety, morals, order, convenience, prosperity, and general welfare; including among other things, adequate provisions for traffic, the promotion of public safety, adequate provision for light and air, conservation of natural resources, the prevention of environmental pollution, and the promotion of the healthful and convenient distribution of population;
 - encourage and, where necessary, require land use development and uses which exemplify good civic design and arrangement and the stewardship of the Chesapeake Bay and the land as a universal ethic;
 - encourage the conservation of resources, including a reduction in resource consumption;
 - locate development in locations suitable for it given existing and reasonably foreseeable development; and
 - encourage appropriate and sustainable economic growth.
2. Describe how the proposed variance will be in harmony with the Town's Zoning Ordinance, Comprehensive Plan, and any applicable small area plans.

*See
Attached
for
All
Responses*

3. Describe how the proposed variance will not be harmful to the neighborhood or endanger public safety, health, or welfare.
4. What conditions are peculiar to the property? (ie, an unusual or extraordinary circumstance regarding your property that warrants a variance being granted.)
5. Did you (the applicant) take any action that resulted in the need for a variance to be granted?
6. Please describe how a literal enforcement of the Ordinance you are requesting a variance from as written would place a practical hardship or difficulty upon you.



FINK, WHITTEN & ASSOCIATES, LLC

Land Surveying • Land Planning • Environmental Consulting • Permitting
www.finkwhitten.com

**504 Maryland Avenue
Cambridge, MD 21613
410-228-8885 phone
410-228-8845 fax**

**113 East Dover Street
Unit C, 1st Floor
Easton, MD 21601
410-822-8484**

March 14, 2024

Board of Zoning Appeals
Town of Easton – Engineering, Planning and Zoning
14 South Harrison Street
Easton, MD 21601

RE: Variance Request – Pamela Into, owner and applicant
220 South Street, Easton
Map 104, Parcel 1902 – Zoned R-7A

Dear Members of the Board of Zoning Appeals:

Ms. Pamela Into is the owner of property located at 220 South Street, which currently consists of a main dwelling and (2) existing accessory dwelling units. Ms. Into currently resides in the small cottage on proposed Lot 2, labeled as “existing accessory dwelling unit to be used as dwelling unit”. She is renovating the main dwelling as she can due to limited financial abilities and is using the “garage” as her artist studio and storage area. She intends to live in the cottage and eventually, pending approvals and licenses from the Town, operate the main dwelling as a rental. This will give her the additional income she needs in order to financially support herself for the rest of her natural life.

The cottage on Lot 2 and the main dwelling each have separate water, sewer and electric bills – and are individual units by all counts, except for the underlying land. Ms. Into is working as diligently as she can, given her circumstances, to enhance the main dwelling and would like the opportunity to rent the main house, or perhaps sell it if warranted. In order to do so, the existing parcel must be formally subdivided in which case, a variance of the following are required:

Town of Easton Zoning Code, Section 28-302.2C (3) which states that “Side setback – two side setbacks are required of eight (8) feet each”. Per the attached subdivision plat, the southerly line of Lot 2 is considered a “side” with a front off of S. Aurora Street. Interestingly enough, as the entire parcel before subdivision fronted on (2) streets (a corner lot), this same southerly line was also considered a side. Thus, the “new line of division” is not creating the need for a variance as the cottage on Lot 2 was already non-conforming to the side yard setback. With the approval of the proposed subdivision, we are formally requesting a variance of the side yard setback from the required 8 feet to 5.23 feet, or a variance of 2.77 feet.

Town of Easton Zoning Code, Section 28-302.2C (2) which states that a “Rear setback of twenty five (25) feet” is required. Per the attached subdivision plat, Lot 2 will front on S. Aurora Street, making the opposite side a “rear” which a required setback of 25 feet. Prior to subdivision, this “rear” was considered a side (corner lot provisions), having a setback of 8 feet. The proposed subdivision is creating the nonconformity and a variance is thus required. As the structure is existing, we request the Board’s approval to reduce the rear setback for Lot 2 from the required 25 feet to 21.71 feet, which is the closest dimension of the existing cottage to the rear property line. This is a variance request of 3.29 feet.

In light of the above, we respectfully ask that you grant relief with the variance requests as outlined. Thank you in advance of this consideration.

Sincerely,
Fink, Whitten & Associates, LLC

Elizabeth

Elizabeth Fink
Co-owner, Planner



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March 14, 2024

Board of Zoning Appeals
Town of Easton – Engineering, Planning and Zoning
14 South Harrison Street
Easton, MD 21601

RE: Variance Request – Pamela Into, owner and applicant
220 South Street, Easton
Map 104, Parcel 1902 – Zoned R-7A

ZONING ORDINANCE SECTION(S)

Seeking relief from:

1. 28-302.2C(3)
2. 28-302.2C(2)

CHANGE FROM:

1. Side setback for Lot 2 from 8 feet to 5.23 feet (variance of 2.77 feet)
2. Rear setback for Lot 2 from 25 feet to 21.71 feet (variance of 3.29 feet)

Sincerely,
Fink, Whitten & Associates, LLC

Elizabeth

Elizabeth Fink, Co-owner, Planner



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113 E. Dover Street
Unit C
Easton, MD 21601
410-822-8484 phone

Variance Responses
Pamela Into
220 South Street in Easton, MD 21601
104-EA-1920, Zoned R-7A

Responses to Requirements:

Would the granting of the Variance you have requested impede or in any way be detrimental to satisfying any of the following objectives of the Zoning Ordinance:

Help accomplish the coordinated, adjusted, and harmonious development of the Town and its environs in accordance with present and future needs;

The subdivision of the existing parcel, to include an existing cottage to be used as a main dwelling, is harmonious with respect to development. An existing residential “use” is being subdivided from an original parcel to create a second residential lot. No “new” lands are being developed as the site is already developed with residential structures. Granting the variances requested will permit the “coordinated, adjusted and harmonious development” of the Lot, in accordance with the Town’s present and future needs.

Promote health, safety, morals, order, convenience, prosperity , and general welfare; among other things, adequate provisions for traffic, the promotion of public safety, adequate provision for light and air, conservation of natural resources, the prevention of environmental pollution, and the promotion of the healthful and convenient distribution of population;

The granting of the setback variances, allowing for the creation of Lot 2, will promote all of the above, while conserving natural resources, preventing pollution and further promoting the convenient distribution of population. As the parcel and structures are existing, and as no new lands are being developed, the creation of Lot 2 is the best scenario possible.

Encourage and, where necessary, require land use development and uses which exemplify good civic design and arrangement and the stewardship of the Chesapeake Bay and the land as a universal ethic;

The variances required in the creation of Lot 2, to include the existing cottage to be used as a primary dwelling, exemplify good civic design and stewardship of the Bay in that, essentially, nothing is changing with the overall site. That is, no new structures or infrastructure is proposed and no new lands are slated for development.

Encourage the conservation of resources, including a reduction in resource consumption;

The variances necessary to subdivide Lot 2, including the reduction of the required side and rear yard setbacks, will permit the creation of a “new” lot around existing structures. That is, resources are conserved as both the revised parcel and new Lot 2 are already developed, with access to water, sewer and electric. There is no need for new infrastructure. Resources are conserved with “redevelopment” through the placement of lot lines on an already developed parcel.

Locate development in locations suitable for it given existing and reasonably foreseeable development; and

The property is located within an already residentially developed area. Creating an infill lot from an already established parcel, having all utilities and necessary infrastructure available, and within an area that supports a residential use is suitable for the area.

Encourage appropriate and sustainable economic growth

The variances necessary to subdivide Lot 2 will encourage appropriate and sustainable economic growth with an infill subdivision of a residential lot.

And further,

2. Describe how the proposed variance will be in harmony with the Town’s Zoning Ordinance, Comprehensive Plan, and any applicable small area plans.

The proposed variances for the side and rear yard setbacks, to permit the subdivision of Lot 2, will be in harmony with the Town’s Ordinance and Comprehensive plan and any applicable small area plans. The new lot does not encourage new growth, but residential development within an existing residentially zoned area without the need for additional infrastructure.

3. Describe how the proposed variance will not be harmful to the neighborhood or endanger public safety, health or welfare.

The granting of the variances will not be harmful to any neighbor nor will the creation of Lot 2 endanger public health, safety or welfare. The creation of a new lot around existing residential structures in an already residentially established neighborhood is benign in nature.

4. What conditions are peculiar to the property? (Ie, an unusual or extraordinary circumstances regarding your property that warrants a variance being granted).

The site is a corner lot, meaning that both South Street and Aurora Street are fronts (15' setback) and the property lines opposite both are sides (8' setback each, no rear). That creates a unique situation as far as setbacks prior to subdivision. Further, the site is already improved with structures, the smaller cottage on Lot 2 already nonconforming to the side yard setback at 5.23' (8' required). Both of these yield to a peculiar situation.

5. Did you (the applicant) take any action that resulted in the need for a variance to be granted?

The property has been developed for some time and no new structures are proposed. The applicant, Pamela Into, did not develop the property. The former owner of the lot had separate utilities to accommodate the main dwelling vs the "cottage" on Lot 2, such that each of these structures receives their own water/sewer and electric bills. Creating Lot 2 to include the existing cottage warrants no further action other than the placement of new property markers.

6. Please describe how a literal enforcement of the Ordinance you are requesting a variance from as written would place a practical hardship or difficulty upon you.

If the variance is not granted, to reduce the side yard setback by 2.77' and the rear yard setback by 3.29' to accommodate the existing cottage, then the subdivision cannot move forward. The only "new" variance really required is that of the rear setback, as the cottage was already nonconforming to the side yard setback due to the corner lot provisions. That is, both South Street and Aurora Street are considered "fronts", with the opposite lines from each considered "sides". The creation of the Lot 2, fronting on Aurora Street, causes the line opposite to become a rear, necessitating the variance of 3.29' from 25' to 21.71'. Without the granting of this variance, a practical hardship would be placed upon Ms. Into financially. She is pursuing the subdivision in order to provide financial stability, allowing her to live the rest of her natural life in her home.



TOWN OF EASTON

Planning & Zoning Department

14 South Harrison Street

P.O. Box 520

Easton, Maryland 21601

Easton Staff Development Review Worksheet

Date: February 29, 2024

Project: 220 South Street - Minor Subdivision

To: Elizabeth Fink - Fink, Whitten & Associates, LLC.

CC: Ms. Pamela Into, Owner

The Easton Staff Development Review (ESDR) Committee meeting was held on February 28th at 11:00 am. Staff reviewed the Minor Subdivision Plat for the proposed two lots on the property located at 220 South Street, also known as Tax Map 104, Parcel 1902.

The Committee determined that the project will need to address all agency comments as specified in the attached review letters and at ESDR.

The Committee determined that the application may be scheduled for the Planning Commission to review a Supplemental Waiver Request Application for parking spaces. Additionally, the applicant may schedule for the Board of Zoning Appeals to obtain a Variance for side and rear setbacks for Lot 1.

The next Planning Commission meeting is scheduled for **Thursday, March 21, 2024 at 1:00 pm**. Submit all documentation to the Planning and Zoning Department no later than Monday, March 4th at 1:00 pm. Files for presentation at the Planning Commission need to be provided on a flash drive. In addition, provide a digital submittal (via email) of all supporting documents necessary for the Planning Commissions review, including **six paper copies**.

The next Board of Zoning Appeals meeting is scheduled for **Tuesday, April 16, 2024 at 10:00 am**. Submit all documentation to the Planning and Zoning Department no later than Tuesday, March 19th at 12:00 pm. Provide a digital submittal (via email) of all supporting documents necessary for the Board of Zoning Appeals review, including **four paper copies**.

Please contact the Planning & Zoning Department at 410 822-1943 with any questions.

Sincerely,

Joseph A. Mayer
Plan Reviewer



TOWN OF EASTON PLANNING & ZONING DEPARTMENT

P.O. Box 520
Easton, Maryland 21601
410-822-1943
www.EastonMD.gov

DATE: February 29, 2024
TO: Elizabeth Fink – Fink Whitten & Associates, LLC, (Agent)
Pamela Into - Owner
Cc: Miguel Salinas – Director of Planning & Zoning Department
Rick Van Emburgh – Town Engineer, Department of Engineering
FROM: Joseph A. Mayer - Plan Reviewer, Planning & Zoning Department
SUBJECT: 220 South Street – Minor Subdivision

We reviewed the **February 6, 2024** Minor Subdivision Submittal for the Subject Project and have the following comments:

PLANNING & ZONING COMMENTS

Minor-Subdivision Review #1

1. The existing masonry building on lot 1 is currently an accessory dwelling unit. Changing the use of the existing structure to a primary residence for proposed Lot 1 would require a side and rear yard setback variance. Please submit an application for a variance to the Board of Zoning Appeals for review.
2. Off-Street parking is required for all three dwelling units; the primary residence and two accessory dwelling units. The applicant may submit a Supplemental Waiver Request Application for parking spaces to the Planning Commission for review.
3. Label the proposed lot at the corner of South Street and S. Aurora Street as Lot 2.
4. The existing structure labeled as *"Frame Building"* needs to be revised to *"Existing Accessory Dwelling Unit"*. The existing masonry building on Lot 1 needs to be labeled as *"Existing Accessory Dwelling Unit to be used as Dwelling Unit."*
5. Add a note to the General Notes to read; *"The use of short-term housing for the accessory dwelling unit on Lot 2 would require a Special Exception request from the Board of Zoning Appeals and an Application for Rental License. The use adheres to Ordinance 680 effective 9/27/2016. The Town, via the Code Enforcement Office, regulates Short Term Housing. Ordinance 680, § 14-19.1 thru § 14-19.5 ."*
6. Add a note to the General Notes to reference all previous Board of Zoning Appeals decisions to application numbers SE-308, SE-707, V-332 and V-673.

7. Add a note to the General Notes to read; *“No proposed roof overhang or building foundation shall extend beyond any utility distribution right-of-way and easement.”*
8. Add note to the General Notes to read; *“The property shown hereon is located within the PUD Infill Boundary.”*
9. Verify any existing easements within the property.
10. Label adjacent property owners adjacent to South Street and S. Aurora Street.
11. A space or recording block shall be provided of not less than (3) inches by four (4) inches located three inches from the top right corner of all pages of a final plat to accommodate the County Clerk’s recording information and seal.
12. Upon approval from all agencies, please provide four (4) reproducible film copies, and three (3) paper copies for processing and recording of the record plat. We’ll forward all necessary copies to you.
13. All signatures on the plat shall be placed directly on the plat in black ink.
14. Prior to recording, please provide CAD/GIS compatible files.
15. Upon recording, have all plats Notarized with signature and seal.

Plan Review Status

Minor Subdivision Review			Comments
Plans Approved	☐ Y	☒ N	Please review the comments above. Revise and resubmit.

Forest Stand Delineation & Forest Conservation Plan		
☐ Required ☐ Submitted ☐ Approved		<i>The Easton Forest Conservation Requirements of the Town Code, Article III, § 31-3.1 Relevance, states that the requirements are applicable to any person making application for a subdivision, project plan, grading, or sediment and erosion control approval on units of land 40,000 square feet or greater after the effective date of the Ordinance.</i> Analysis - This site is within a priority funding area and is within a residential area. The overall site area is 21,622 square feet and is under the required 40,000 square foot minimum. Therefore, Forest Conservation is not required.
Other		
☒ Required ☐ Submitted ☐ Approved		<u>IMPACT FEES</u> Please note, there will be a required Impact Fee for any proposed structures. The Town's Impact Fees and Inspection Fees are to be paid upon the time you pick up your Building Permit. Please provide building square footage with appropriate impact fee use category for calculation of Impact Fee. Talbot County Impact Fees are due prior to obtaining your Building Permit. Please provide receipt of payment to the Town's Building Inspection Division.

Please contact me if you have any questions. Thank you.



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: February 28th, 2024
TO: Pamela Into – Owner
Elizabeth Fink - Fink, Whitten & Associates
Cc: Rick Van Emburgh – Town Engineer
Lynn Thomas – Town Planner
Aaron Goller – EUC
FROM: Sierra Clem – Engineering Department
SUBJECT: 220 South Street – Subdivision Proposal for ESDR

Our office has reviewed the Application for the Subject project received on 2/7/2024 which is scheduled for the 2/28/2024 ESDR meeting. The subject application intends to subdivide parcel 1902 into two lots. Our office has no objection to the application as proposed.

Please be advised that access to the site and potential impacts to the utility pole will need to be addressed at the time of Grading Permit application.

Please contact me if you have any questions. Thank you.



Easton Utilities Commission

Plan Review Comments

Date: Monday, February 19, 2024

To: Joe Mayer; Nicholas Johnson; Sierra Clem

From: Kia Gibbs on behalf of Aaron Goller, PE

No. of Pages: 2

Regarding: 220 South Street

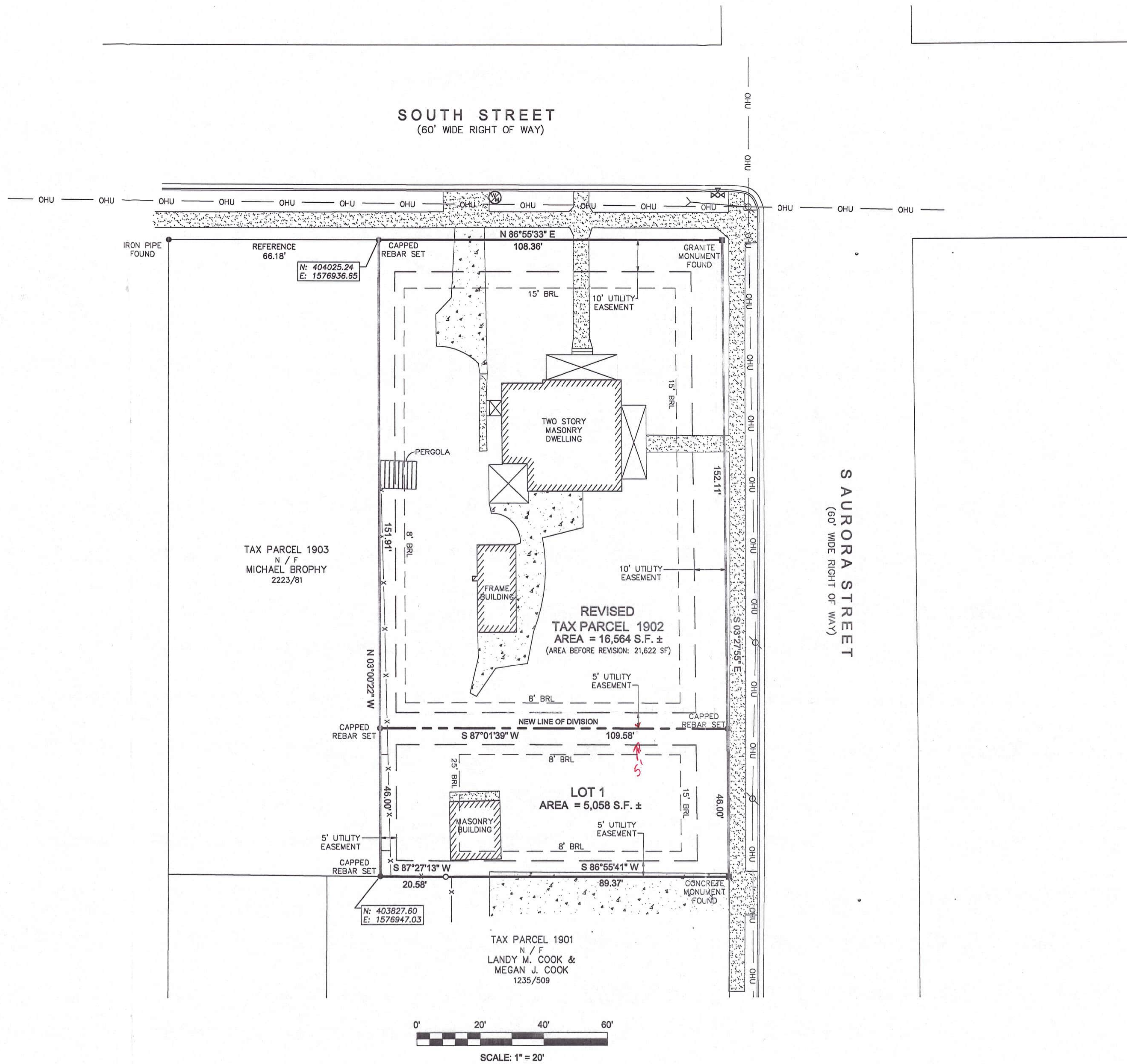
Phase: Lot Line Revision

SUBM: 1

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	Capital charges required for the creation of lot.



- LEGEND:**
- = CONCRETE SURFACE
 - = GRAVEL SURFACE
 - = FENCE
 - = BUILDING RESTRICTION LINE
 - = COMPUTED POINT
 - = WATER METER
 - = OVERHEAD UTILITY LINES
 - = UTILITY POLE
 - = GUY WIRE
 - = FIRE HYDRANT



VICINITY MAP
SCALE: 1" = 200'

GENERAL NOTES:

- OWNER: PAMELA INTO
220 SOUTH STREET
EASTON, MD 21601
PHONE: 530-306-5032
TAX MAP 104 GRID EA PARCEL 1902
DEED REF.: 2615 / 306
PLAT REF.: 4 / 50HH
- SITE ADDRESS: 220 SOUTH STREET
EASTON, MARYLAND 21601
- CURRENT ZONING INFORMATION:
DISTRICT: R-7A - RESIDENTIAL DISTRICT
MINIMUM LOT SIZE: 5,000 SQ.FT.
MINIMUM FRONTAGE: 30'
MAXIMUM LOT COVERAGE: 100% OF BUILDING ENVELOPE
MINIMUM SETBACKS:
FRONT 15'
SIDE 8'
REAR 25'
- THE PROPERTY SHOWN HEREON IS LOCATED WITH THE HISTORIC DISTRICT OVERLAY.
- THE PROPERTY SHOWN HEREON IS NOT LOCATED WITHIN THE COASTAL FLOOD PLAIN AS SHOWN ON THE FEDERAL FLOOD INSURANCE RATE MAPS COMMUNITY PANEL NO. 24041C0187C FOR TALBOT COUNTY, MARYLAND DATED JULY 20, 2016.
- THE PROPERTY SHOWN HEREON IS LOCATED ENTIRELY OUTSIDE OF THE CHESAPEAKE BAY CRITICAL AREA.
- SETBACK DIMENSIONS SHOWN HEREON ARE ROUNDED TO THE NEAREST 0.1'.
- WATER SUPPLY & SEWAGE DISPOSAL: TOWN OF EASTON
- ALL STREETS AND STREET WIDENINGS, PARKS AND OTHER LANDS INTENDED FOR PUBLIC USE ARE RESERVED BY THE OWNER FOR FUTURE CONVEYANCE TO THE TOWN OF EASTON.
- ALL EASEMENTS SHOWN HEREBY DEDICATED FOR PUBLIC USE.
- A UTILITIES DISTRIBUTION RIGHT-OF-WAY AND EASEMENT IS HEREBY DEDICATED TO THE TOWN OF EASTON IN AND OVER STRIPS OF LAND TEN (10) FEET IN WIDTH ALONG THOSE BOUNDARY LINES CONTIGUOUS TO ANY STREET OR ALLEY AND FIVE (5) FEET IN WIDTH IN EACH SIDE OF SIDE LOT LINES.
- THE PLANNING AND ZONING COMMISSION MAY WAIVE OR TERMINATE, UPON RESUBDIVISION, SUCH UTILITY EASEMENT WHICH HAS NOT BEEN ACCEPTED BY USE THEREOF, UPON RECEIVING APPROVAL FROM THE TOWN ENGINEER.
- BUILDING PERMITS SHALL BE ISSUED ONLY IF SUFFICIENT CAPACITY IS AVAILABLE IN THE COMMUNITY WATER SUPPLY SYSTEM, SEWERAGE SYSTEM, AND SOLID WASTE ACCEPTANCE FACILITY SERVING THE SUBDIVISION.
- LAND SHOWN UPON THIS PLAT MAY CONTAIN NONTIDAL WETLANDS REGULATED UNDER COMAR 08.05.04; THE FEDERAL WATER POLLUTION ACT SECTION 404; OR THE RIVERS HARBOR ACT SECTION 10. DEVELOPMENT AND CONSTRUCTION WITHIN WETLANDS ARE SUBJECT TO FEDERAL AND STATE REGULATIONS AND MAY BE PROHIBITED OR RESTRICTED BY SUCH REGULATIONS.
- THE PURPOSE OF THIS PLAT IS TO SUBDIVIDE TAX PARCEL 1902 TO CREATE NEW LOT 1 AND REVISED TAX PARCEL 1902.

OWNER CERTIFICATION:

PAMELA INTO, OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON, HEREBY ADOPTS THIS PLAN OF SUBDIVISION.

PAMELA INTO _____ DATE _____

THE OWNER HAS SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF _____, 2024.

NOTARY _____

THIS MINOR SUBDIVISION PLAT IS APPROVED BY THE TALBOT COUNTY HEALTH DEPARTMENT.

REVISED TAX PARCEL 1902 AND LOT 1 AS SHOWN HEREON ARE APPROVED FOR COMMUNITY WATER SUPPLY AND COMMUNITY SEWAGE AND THEIR USE IS IN ACCORDANCE WITH TALBOT COUNTY COMPREHENSIVE WATER AND SEWERAGE PLAN AND MDE REGULATION 26.04.03.

TALBOT COUNTY APPROVING AUTHORITY _____ DATE _____

APPROVALS:

APPROVED: _____

CHAIRMAN OF PLANNING AND ZONING COMMISSION _____ DATE _____

THE TOWN PLANNER _____ DATE _____

UNDERGROUND UTILITY WARNING:

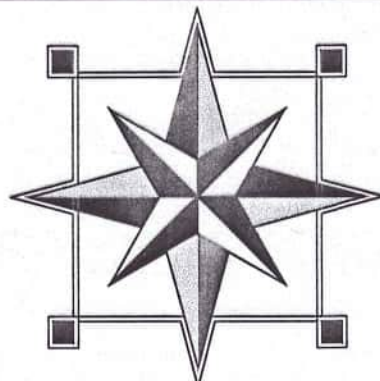
NO INVESTIGATION AS TO THE EXISTENCE OF ANY UNDERGROUND UTILITIES WAS CONDUCTED IN THE PREPARATION OF THIS PLAT. IT IS THE RESPONSIBILITY OF THE OWNER, SUCCESSORS, OR ASSIGNS, AND/OR ANY CONTRACTOR TO COMPLY WITH THE UNDERGROUND FACILITIES DAMAGE PREVENTION LAW AND THE REQUISITE PERMITS ARISING THEREFROM.

SURVEYOR'S CERTIFICATE:

I, STEVEN W. WHITTEN, HEREBY CERTIFY THAT THE FINAL PLAT HEREON IS CORRECT; THAT IT IS A SUBDIVISION OF THE LANDS CONVEYED BY JOHN N. INTO, TRUSTEE OF THE ELLEN C. INTO LIVING TRUST, DATED JULY 20, 1998, AS RESTATED IN FULL MAY 1, 2008 BY DEED DATED MAY 28, 2019 AND RECORDED AMONG THE LAND RECORDS OF TALBOT COUNTY, MARYLAND IN LIBER 2615, FOLIO 306, AND THAT THE REQUIREMENTS OF THE TOWN OF EASTON SUBDIVISION REQUIREMENTS IN SO FAR AS THEY MAY CONCERN THE MAKING OF THIS PLAT AND THE SETTING OF MONUMENTS AND MARKERS HAVE BEEN COMPLIED WITH. I ALSO CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECT SUPERVISION AND COMPLIES WITH SECTION 09.13.06.12 OF THE ANNOTATED CODE OF MARYLAND TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF. THIS PLAT WAS PREPARED WITHOUT BENEFIT OF AN ABSTRACT OF TITLE.

STEVEN W. WHITTEN
PROFESSIONAL LAND SURVEYOR MD. NO. 21326
(CURRENT LICENSE EXPIRES/ RENEWS: 1 / 8 / 2025)

2/7/2024
DATE



FINK, WHITTEN & ASSOCIATES, LLC.

LAND SURVEYING
CIVIL ENGINEERING
ENVIRONMENTAL CONSULTING

EASTON
410-822-8484
8628 Brooks Drive Unit 103
Easton, Maryland 21601

CAMBRIDGE
410-223-8885
108 Dorchester Avenue
Cambridge, Maryland 21601

www.FINKWHITTEN.com

DATE	REVISION

MINOR SUBDIVISION
OF THE LANDS OF

PAMELA INTO

TAX MAP 104, GRID EA, PARCEL 1920
IN THE TOWN OF EASTON
TALBOT COUNTY, MARYLAND

DRAWN
B.S.F.

CHECKED
S.W.W.

DATE

2/5/2024

SCALE

1" = 20'

JOB NO.

T-104-EA-1902

2/29/23

220 South St minor subdivision

Good afternoon Joe Mayer,

When my mother, Dr Ellen Into, purchased the property at 220 South St in Easton, from Joyce DeLaurentis, in December of 2012, it was presented to us as two parcels, with a plot plan & a survey, with two separate prices. Joyce had mentioned that she had offered the minor subdivision lot in question to both of her neighbors, the Cook's, & the Brophy's, in the past, which they declined. Both neighbors, since have also relayed that information to me.

Joyce DeLaurentis had rented both cottages, & rooms in the main house, prior to our purchasing the property, both as an Airbnb, & as long-term rentals. I still receive mail addressed to a couple of those long-term tenants.

I have been living in the cottage on the south side of my property for over 5 years. It has a living space, a separate full bathroom, & a kitchenette. I continue to use the living space in the main house, & slowly renovate, as my limited funds provide.

The middle cottage is being used as my artist studio, & storage.

This minor subdivision will hopefully open opportunities of providing extra income, as possible rental property, with proper permits & licenses of course, to help me, financially, through my last years.

Thank you for your time & consideration.

Kindly,

Pamela Into

A handwritten signature in dark ink, appearing to be 'P. Into', written over a light blue circular stamp.

Ps-

I believe Joyce had run the electric, to the back cottage, underground, from Thoroughgood, & the water & sewer from S Aurora. They are on separate meters from the main house.

brophy no objection letter B of Appeals

From: michael brophy (lesterbrophy@gmail.com)
To: pamelainto@yahoo.com; lesterbrophy@gmail.com
Date: Wednesday, March 20, 2024 at 08:13 AM EDT

Town of Easton Md., Board of Appeals

March 20 2024

I Michael Brophy of 216 South Street have no objection to Ms. Pamela Into (neighbour) requesting a reduction of the rear setback from 25' to 21.71'. I understand this request is necessary for her to create the new minor subdivision lot in order to accommodate the existing cottage that Ms. Into currently resides in.

Ms. Into 220 South Street Tax lot104 parcel 1920

Sincerely Michael Brophy

RECEIVED
MAR 20 2024
TOWN OF EASTON



EASTON BOARD OF ZONING APPEALS

P. O. Box 520
Easton, Maryland 21601

March 30, 1988

Ms. Joyce DeLaurentis
220 South Street
Easton, Maryland 21601

Re: Application No. SE-308
V-332

Dear Ms. DeLaurentis:

This is to advise you that March 30, 1988, the Easton Board of Zoning Appeals filed a decision regarding the above application. A copy of the decision is enclosed, and if any conditions or restrictions were imposed by the Board, you will find them stated at length therein.

An Appeal from said decision to the Circuit Court for Talbot County may be taken in accordance with law within thirty days from the date on which the decision was filed.

Very truly yours,

EASTON BOARD OF ZONING APPEALS

A handwritten signature in cursive script, reading "Janice H. Higgins".

Janice H. Higgins
Executive Secretary

IN THE MATTER OF : BEFORE THE EASTON
THE APPLICATION OF BOARD OF ZONING APPEALS
JOYCE DELAURENTIS : APPLICATION SE-308
V-332

The Easton Board of Zoning Appeals (the Board) met on March 23, 1988 to consider the application of Joyce DeLaurentis for a Special Exception and Variance pursuant to Sections 502-D(8) and 502-E(3) of the Zoning Ordinance of the Town of Easton (the Ordinance).

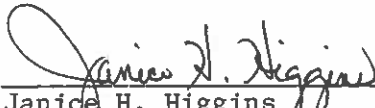
The Applicant is the owner of two adjoining properties known as 216 and 220 South Street. The Applicant seeks a Special Exception and Variance to utilize cottage located at 220 South Street in conjunction with her day care facility at 216 South Street as it would accommodate six additional children.

Members of the Board present at the hearing were Walter W. Claggett, Chairman, Norris L. Harrison, Member and Ian M. Morrell, Member. Mr. Howard H. Wooters, Jr., Town Building Inspector, was present and commented upon the application.

After reviewing the application and testimony at the hearing, it appears to the Board that either the boundary line should be moved to include the cottage as a part of 216 South Street, or the building should be moved onto property known as 216 South Street. When either of these two conditions have been accomplished, the Applicant may apply for an amendment to the existing Special Exception for the cottage. Section 502-E(2) of the Zoning Ordinance prohibits more than one principal use on an individual lot in the R-7A zoning district.

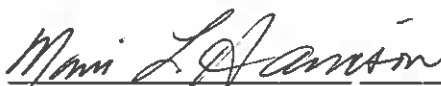
It is therefore this 30 day of March, 1988, by the Easton Board of Zoning Appeals, ordered that the Special Exception and Variance requested be, and the same hereby are DISMISSED without prejudice.

Filed in the Town Office of Easton,
Maryland on March 30, 1988.


Janice H. Higgins
Executive Secretary
Town of Easton


WALTER W. CLAGGETT, CHAIRMAN


IAN M. MORRELL, MEMBER


NORRIS L. HARRISON, MEMBER



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

May 21, 2008

Joyce DeLaurentis
220 South Street
Easton, MD. 21601

Re: Application No. SE-707

To Whom It May Concern:

This is to advise you that on May 21, 2008 the Easton Board of Zoning Appeals filed a Decision granting the above application. A copy of the Decision is enclosed, and if any conditions or restrictions were imposed by the Board, you will find them stated at length therein.

An appeal from said Decision to the Circuit Court for Talbot County may be taken in accordance with law within thirty days from the date on which the Decision was filed.

Sincerely,

Stacie S. Rice

✓ Stacie S. Rice
Planning Secretary

IN THE MATTER OF : BEFORE THE EASTON BOARD
THE APPLICATION OF : OF ZONING APPEALS
JOYCE DELAURENTIS : APPLICATION NO. SE-707 & V-673

The Easton Board of Zoning Appeals (the "Board") met on November 27, 2007 to consider the application of Michael Hicks, (the "Applicant") for a Special Exception and a Variance pursuant to the provisions of Sections 1303.5 B and 1303.5 C of the Zoning Ordinance of the Town of Easton (the "Ordinance"). The applicant seeks approval of the Special Exception in order to permit the operation of a Bed and Breakfast operation. The Variance is requested from the provisions of Section 1008 A (2) d, in order to permit the use of accessory structures as units in the Bed and Breakfast.

The subject property is located at 220 South Street, at the corner of South Street and Aurora Street. It is zoned R-7A (Residential). It also lies within both the Planned Redevelopment Overlay District (PR) and the Historic District.

Members of the Board present at the Hearing were Michael O'Connor, Alternate Member and Acting Chair, Brad Watts, Member, and Richard Tettlebaum, Member. Staff members present were Tom Hamilton, Town Planner, Zachary Smith, Current Planner, and Lynn Thomas, Long-Range Planner.

The applicant was present and represented herself at the Hearing. There were no others present to testify either in support of, or opposition to, the application.

The Hearing began with Ms. DeLaurentis explaining the history of her use of the property. She stated that she purchased the property 24 years ago when this was a neighborhood where not a lot of investment was occurring. She added that she had always had the thought that she would like to open a Bed and Breakfast (B&B) operation on the subject property.

Ms. DeLaurentis then presented the Board with photographs from a book prepared by Historic Easton, depicting the historic appearance of the subject property. She also showed the board contemporary photographs that she had recently taken herself. She then described the photos and what was shown on each as they related to this application.

The applicant continued by describing that the property consists of a two-story main house, a cottage which is a licensed rental unit, and a brick garage located towards the rear of the property. She stated that she would like to use the primary residence and the cottage as a four room B&B. She would start renting the two cottage units until she retires, at which time she would rent two rooms in

her primary residence.

The applicant then read through the Supplemental Standards for B&B's. She pointed out that item d represents a problem in that it requires the B&B units to be within the primary residence. The applicant has therefore requested a Variance from this provision.

Mr. Hamilton suggested that this is not legal because it is a use Variance. If you grant a Variance from this provision, you are changing the nature of the use; hence it is a "use variance" which is illegal. He suggested that perhaps following the Planned Redevelopment application process is a better, more legitimate option.

Mr. O'Connor asked about the outside units. The applicant explained that they would have their own bathrooms. They would also have a small refrigerator but no formal kitchen.

Mr. O'Connor then read through the required Special Exception Findings with the applicant. This was followed by a discussion of the required Variance findings.

DECISION AND FINDINGS OF THE BOARD

Upon consideration of the testimony given and upon motion by Mr. Tettlebaum, seconded by Mr. Watts, the Board recorded the following vote on whether the application of Joyce DeLaurnetis, for a Special Exception for a Bed and Breakfast in the R-7A Zoning District should be granted:

Mr. O'Connor - Yes

Mr. Tettlebaum – Yes

Mr. Watts - Yes

Pursuant to Section 1303.5-B of the Ordinance, the Board makes the following findings of fact relative to the application for Special Exception:

1. The Board finds that the subject property was properly posted and that requisite notice of the application was given in the *Easton Star Democrat*.
2. The Board finds that with the relief afforded under the provisions of the PR District the proposed use conforms in all respects to the minimum requirements of the R-7A Zoning District.
3. The Board finds that the proposed use will not adversely affect the health, safety, or general welfare of the residents of the area.
4. The Board finds that 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.
5. The Board finds that the proposed use will not create congestion in the streets or undue traffic hazards, and that adequate ingress and egress are provided.
6. The Board finds that 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.

7. The Board finds that the proposed use will not adversely affect the established character of the area. The Board finds that a B&B is generally acknowledged to preserve residential character as opposed to a larger-scale hotel or inn.

8. The Board finds that the proposed use is in conformity with the provisions of the Easton Comprehensive Plan. Mr. Hamilton concurred with this finding.

9. The Board finds that it is empowered by Section 1303.5 B (5) of the Ordinance to grant the Special Exception, and that the granting of the Special Exception will not adversely affect the public health, safety, security, morals, or general welfare, nor will it result in dangerous traffic conditions, nor will it jeopardize the lives or property of the people living in the neighborhood. The Board further finds that it is empowered by Section 1303.5 B (5) of the Ordinance to prescribe appropriate conditions and safeguards when granting Special Exception applications.

In the matter of the Variance from the provisions of the Ordinance limiting a B&B to the primary residence of the owner and upon motion by Mr. Watts, seconded by Mr. Tettlebaum, the Board recorded the following vote on whether the application should be granted:

Mr. O'Connor - No

Mr. Tettlebaum - No

Mr. Watts - No

Pursuant to Section 1303.5-C of the Ordinance, the Board makes the following findings of fact relative to the application for a Variance:

1. The Board finds that the subject property was properly posted and that requisite notice of the application was given in the *Easton Star Democrat*.

2. The Board finds that the granting of this Variance would not be contrary to the public interest.

3. The Board finds that the granting of this Variance would not be in harmony with the purpose and intent of the Ordinance.

4. The Board finds that the granting of this Variance would not be injurious to the neighborhood or otherwise detrimental to the public welfare.

5. The Board determined that there are indeed many practical difficulties associated with this application, but provisions of the Ordinance preclude them from being presented.

In conclusion, the Board finds that the request as presented by the applicant is presently prohibited by the Ordinance. However, the Board is not opposed to what the applicant is requesting and therefore encourages her to work with the Planning staff to find another option by which this

request might be permitted. Furthermore, the Board will recommend to the Planning Commission and Town Council that the Ordinance be amended to allow the use of outbuildings in a B&B operation.

It is, therefore, this 27th day of November, 2007, by the Easton Board of Zoning Appeals, ordered that, subject to the following conditions, the Special Exception requested be, and the same hereby is, GRANTED and that the Variance requested be, and hereby is, DENIED:

- A) The Special Exception for the Bed and Breakfast is limited to three units in the main house (there are presently four bedrooms available and one must be dedicated to the owner).
- B) The Board recommends to the Easton Planning and Zoning Commission and the Easton Town Council that the Ordinance be amended to allow for the use of outbuildings as units in a B&B establishment. If such an amendment is approved, the Board supports and hereby approves the subject property for a four unit B&B.

*

MICHAEL O'CONNOR, ALT. MEMBER



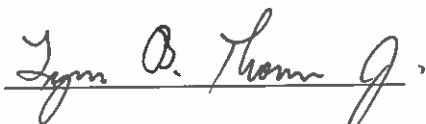
RICHARD TETTLEBAUM, MEMBER



BRAD WATTS, MEMBER

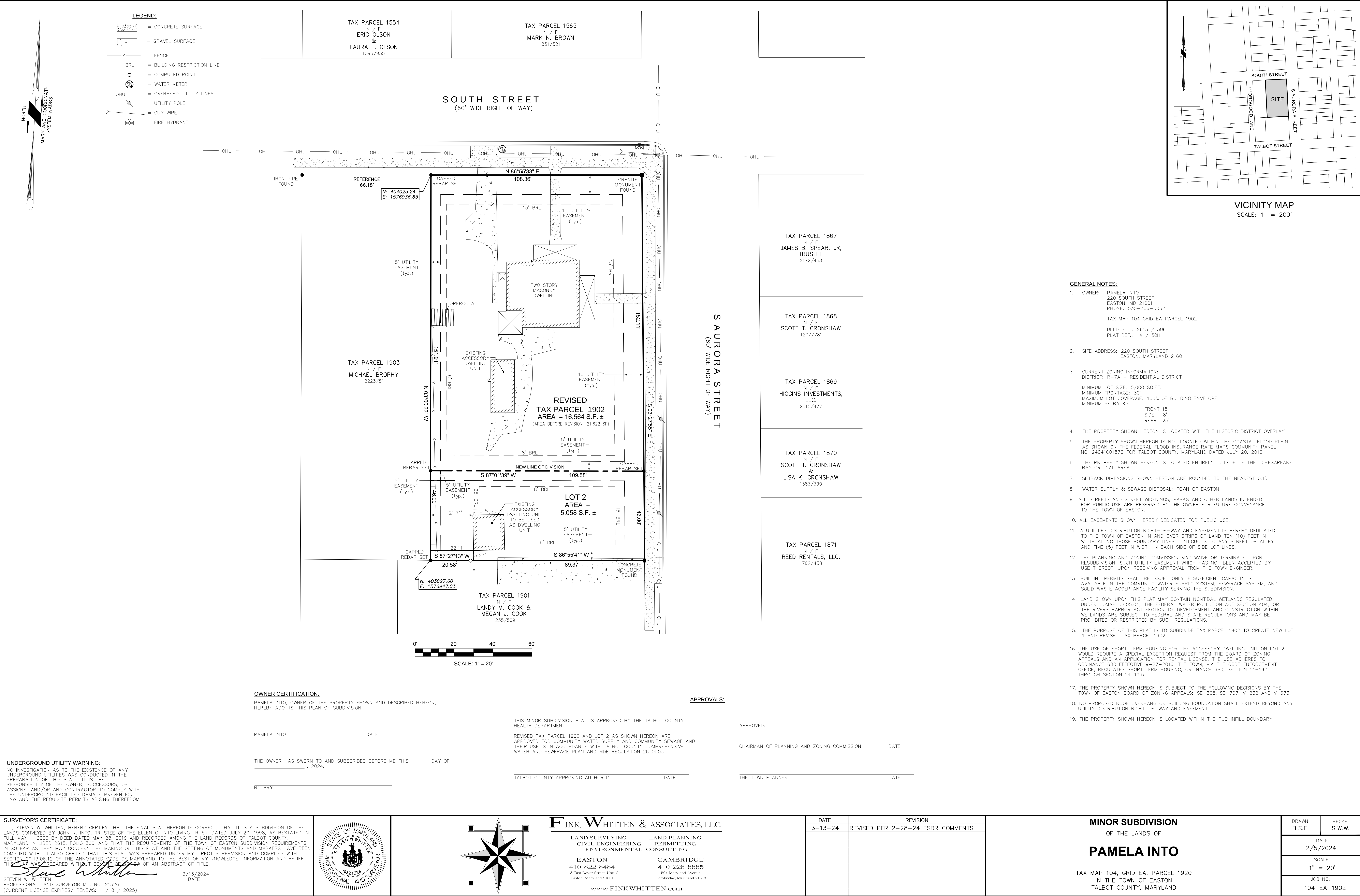
* Board member O'Connor participated in the hearing and deliberations on this matter but died before the written decision of the board was finalized.

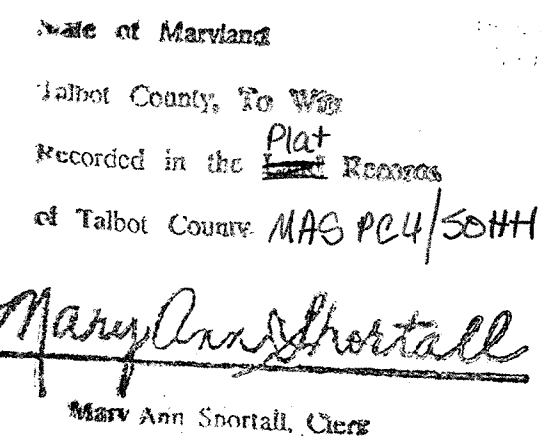
Filed in the Town Office of Easton, Maryland on 5/21, 200⁰⁸~~7~~.



Lynn B. Thomas, Jr., AICP

Long-Range Planner





HEALTH DEPARTMENT
THIS LOT LINE REVISION IS APPROVED FOR COMMUNITY WATER SUPPLY AND COMMUNITY SEWAGE AND THEIR USE IS IN ACCORDANCE WITH THE TALBOT COUNTY COMPREHENSIVE WATER AND SEWERAGE PLAN AND MDE REGULATION 26.04.03.

John M. Ryan, MD 17 Sept 97
TALBOT COUNTY APPROVING AUTHORITY DATE

DEPARTMENT OF PUBLIC WORKS

Thyl E. Lunden 10/8/97

TOWN OF EASTON ENGINEER DATE

PLANNING AND ZONING

James H. Marshall *10/06/97*

CHAIRMAN, TOWN OF EASTON PLANNING AND ZONING DATE

NOTES: (1) PARCEL "B" IS TO BECOME PART OF PARCEL "C" AND PARCEL "B" IS NOT APPROVED AS A SEPARATE LOT FOR BUILDING PURPOSES.

OWNER'S CERTIFICATE:

I, JOYCE M. DeLAURENTIS, OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON, HEREBY ADOPT THIS PLAN.

Joyce M. DeLaurentis 10/3/97
JOYCE M. DeLAURENTIS DATE

50 0 50 100 150

GRAPHIC SCALE - FEET

SURVEYOR'S CERTIFICATE:

I CERTIFY TO JOYCE M. DeLAURENTIS THAT THIS PLAT WAS MADE FROM NOTES OF A PRECISE FIELD SURVEY, WITHOUT REVIEW OF AN ABSTRACT OF TITLE, AND IS ACCURATE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

WILLIAM C. CRAIG
DATE 8/7/97

LOT LINE REVISION
LAND OF

JOYCE M. DeLAURENTIS

TOWN OF EASTON
TALBOT COUNTY, MARYLAND

*WILLIAM C. CRAIG & COMPANY
LICENSED SURVEYOR*

300 Academy Street, Suite 202
Cambridge, Maryland 21613
(410) 228-2295
Facsimile (410) 228-3238

COMPUTER FILE:

COORD.: DELRNTAS
SCREEN: DELRNTAS

DATE: 6/24/97

SCALE: 1" = 50'

JOB NO.: 104/ /1903-97

SHEET

OF

NO CONSIDERATION**NO TITLE EXAMINATION**

THIS DEED, made this 28 day of MAY, in the year two thousand nineteen, by **JOHN N. INTO, TRUSTEE OF THE ELLEN C. INTO LIVING TRUST DATED JULY 20, 1998, AS RESTATED IN FULL, MAY 1, 2006**, Grantor, and **PAMELA INTO**, Grantee.

WHEREAS, this transfer is exempt under Estates and Trusts Article, Section 14.5-1001(b)(2).

WITNESSETH that for no cash consideration, but to distribute a trust to the beneficiaries, said Grantor does hereby grant, convey, release unto Grantee, as sole owner, her personal representatives and assigns, in fee simple, the following described property:

ALL that lot or parcel of ground situate, lying and being in the Town of Easton, Talbot County, Maryland and designated as Parcel "A" & "B", as shown on a plat entitled: "Lot Line Revision lands of Joyce M. DeLaurentis, dated 6/24/1997, prepared by William C. Craig & Company, Licensed Surveyor, and recorded among the Plat Records of Talbot County in Plat Cabinet 4, Plat 50HH, to which plat reference is hereby made for a more complete description by metes and bounds, courses and distances.

BEING the property conveyed unto The Ellen C. Into Living Trust Dated July 20, 1998, As Restated In Full, May 1, 2006, by deed dated April 29, 2019, from John N. Into,

TALBOT COUNTY CIRCUIT COURT (Land Records) KMD 2615, p. 0306, MSA_CE91_2554. Date available 06/06/2019. Printed 12/05/2023.
Hopen-Collison, LLP, PO Box 1028, Easton, MD 21601; 410-822-3900

Personal Representative of the Estate of Ellen C. Into, and recorded among the Land Records of Talbot County, in Liber 2612, folio 102.

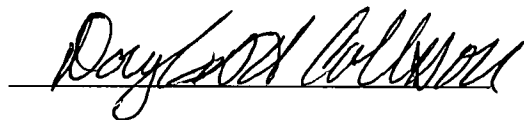
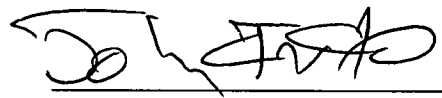
SUBJECT TO all Restrictions, Agreements, Easements, Rights of Way, Utility Rights of Way of record.

TOGETHER with the buildings and improvements thereupon erected, made or being; and all and every, the rights, alleys, ways, waters, privileges, appurtenances and advantages to the same belonging and in any wise appertaining.

TO HAVE AND TO HOLD said lots or parcels of ground and premises above described and mentioned and hereby intended to be conveyed, together with the rights, privileges, appurtenances and advantages to the same belonging or appertaining to and to the proper use and benefit of said Grantee, as sole owner, her personal representatives and assigns, in fee simple.

AS WITNESS the hands and seals of said Grantor.

WITNESS:

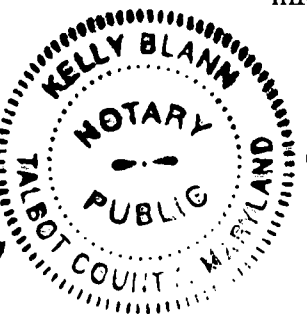

 (SEAL)
**JOHN N. INTO, TRUSTEE OF
 THE ELLEN C. INTO LIVING
 TRUST DATED JULY 20, 1998, AS
 RESTATED IN FULL, MAY 1, 2006**

STATE OF MARYLAND, COUNTY OF TALBOT TO WIT:

I HEREBY CERTIFY that on this 28th day of May, 2019, before me, the subscriber, a Notary Public of the aforesaid State and County, personally appeared **JOHN N. INTO, TRUSTEE OF THE ELLEN C. INTO LIVING TRUST DATED JULY 20, 1998, AS RESTATED IN FULL, MAY 1, 2006**, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within Instrument, and he acknowledged that, as Personal Representative, he executed the same for the purposes therein

contained, and further affirmed under the penalties of perjury that the matters, facts, and consideration recited in the above instrument are true and correct to the best of his knowledge, information and belief, and in my presence signed and sealed the same.

AS WITNESS my hand and Notarial Seal.



Kelly Blann

Notary Public

My Commission Expires: 6-27-2023

AFFIDAVIT OF NO CONSIDERATION

THE UNDERSIGNED HEREBY CERTIFIES, under penalty of perjury, that no cash consideration has been paid or will be paid for the foregoing conveyance.

WITNESS the hand and seal of Grantor, this 28th day of May, 2019.

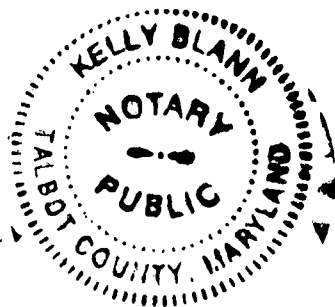
WITNESS:

Douglas A. Collison

John N. Into (SEAL)

JOHN N. INTO, TRUSTEE OF
THE ELLEN C. INTO LIVING
TRUST DATED JULY 20, 1998, AS
RESTATED IN FULL, MAY 1, 2006

Sworn and subscribed to before me on this 28th day of May, 2019.



Kelly Blann

Notary Public

My Commission Expires: 6-27-2023

CERTIFICATION

I hereby certify that I am an attorney admitted to practice before the Court of Appeals of the State of Maryland and that the foregoing Instrument was prepared by me or under my supervision.

Douglas A. Collison
Douglas A. Collison

CERTIFICATION IS MADE THAT ALL TAXES
DUE ON THE PROPERTY INDICATED IN
THIS DEED HAVE BEEN PAID.
FINANCE OFFICER OF TALBOT COUNTY
R ANDREW HOLLIS, FIN. OFFICER u

DATE 5/29/2019 u Page 37 of 444

TALBOT COUNTY FINANCE OFFICE
RECORDATION TAX
AMT: \$0
DATE: 5/29/2019
INITIALS: SRH
Prop ID: 01-001922



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 - Deed (No-Taxes)
Recording Fee 20.00
Name: Into/Into
Ref:
LR - Deed (No-Taxes)
Surcharge 40.00
=====

SubTotal:	60.00
=====	
Total:	120.00
05/29/2019 10:24	
CC20-MG	
#12196486 CC0205 -	
Talbot	
County/CC02.05.02 -	
Register 02	

DOCUMENT VALIDATION
(excluded from page count)

State of Maryland Land Instrument Intake Sheet

☐ Baltimore City ☒ County: Talbot
Information provided is for the use of the Clerk's Office, State Department of Assessments and Taxation, and County Finance Office Only.
(Type or Print in Black Ink Only—All Copies Must Be Legible)

Space Reserved for Circuit Court Clerk Recording Validation

1	Type(s) of Instruments	(☐ Check Box if addendum Intake Form is Attached)			
		1 Deed Deed of Trust	Mortgage Lease	Other _____	Other _____
2	Conveyance Type Check Box	☐ Improved Sale Arms-Length [1]	☐ Unimproved Sale Arms-Length [2]	☐ Multiple Accounts Arms-Length [3]	☐ Not an Arms-Length Sale [9]
3	Tax Exemptions (if applicable) Cite or Explain Authority	Recordation			
		State Transfer			
		County Transfer			

4	Consideration and Tax Calculations	Consideration Amount		Finance Office Use Only Transfer and Recordation Tax Consideration	
		Purchase Price/Consideration	\$ 0.00	Transfer Tax Consideration	\$
		Any New Mortgage	\$	X () % =	\$
		Balance of Existing Mortgage	\$	Less Exemption Amount	- \$
		Other:	\$	Total Transfer Tax	= \$
		Other:	\$	Recordation Tax Consideration	\$
		Full Cash Value:	\$	X () per \$500 =	\$
		TOTAL DUE	\$		

5	Fees	Amount of Fees		Doc. 1	Doc. 2	Agent: Tax Bill: C.B. Credit: Ag. Tax/Other:
		Recording Charge	\$ 20.00	\$		
		Surcharge	\$ 40.00	\$		
		State Recordation Tax	\$	\$		
		State Transfer Tax	\$	\$		
		County Transfer Tax	\$	\$		
		Other	\$	\$		
		Other	\$	\$		

6	Description of Property SDAT requires submission of all applicable information. A maximum of 40 characters will be indexed in accordance with the priority cited in Real Property Article Section 3-104(g)(3)(i).	District	Property Tax ID No. (1)	Grantor Liber/Folio	Map	Parcel No.	Var. LOG	
		01	001922	2612 / 102	0104	1902	(5)	
		Subdivision Name		Lot (3a)	Block (3b)	Sect/AR (3c)	Plat Ref.	SqFt/Acreage (4)
		Location/Address of Property Being Conveyed (2)						
		220 South Street, Easton, Maryland 21601						
		Other Property Identifiers (if applicable)						Water Meter Account No.
		Residential ☒ or Non-Residential ☐ Fee Simple ☒ or Ground Rent ☐ Amount:						
		Partial Conveyance? ☐ Yes ☒ No Description/Amt. of SqFt/Acreage Transferred:						
		If Partial Conveyance, List Improvements Conveyed:						

7	Transferred From	Doc. 1 – Grantor(s) Name(s)		Doc. 2 – Grantor(s) Name(s)	
		John N. Into, Trustee of the Ellen C. Into Living Trust Dated July 20, 1998			
		Doc. 1 – Owner(s) of Record, if Different from Grantor(s)		Doc. 2 – Owner(s) of Record, if Different from Grantor(s)	

8	Transferred To	Doc. 1 – Grantee(s) Name(s)		Doc. 2 – Grantee(s) Name(s)	
		Pamela Into			
		New Owner's (Grantee) Mailing Address			
220 South Street, Easton, Maryland 21601					

9	Other Names to Be Indexed	Doc. 1 – Additional Names to be Indexed (Optional)		Doc. 2 – Additional Names to be Indexed (Optional)	

10	Contact/Mail Information	Instrument Submitted By or Contact Person			☐ Return to Contact Person
		Name:			☒ Hold for Pickup
		Firm Kopen & Collison, LLP			
		Address: PO Box 1028, Easton, Maryland 21601			
			Phone: (410) 822-3900	☐ Return Address Provided	

11	IMPORTANT: BOTH THE ORIGINAL DEED AND A PHOTOCOPY MUST ACCOMPANY EACH TRANSFER			
	Assessment Information	☒ Yes ☐ No	Will the property being conveyed be the grantee's principal residence?	
		☐ Yes ☒ No	Does transfer include personal property? If yes, identify: _____	
		☐ Yes ☒ No	Was property surveyed? If yes, attach copy of survey (if recorded, no copy required).	

Assessment Use Only – Do Not Write Below This Line							
Terminal Verification		Agricultural Verification		Whole		Part	
Transfer Number		Date Received:		Deed Reference:		Assigned Property No.:	
Year	20	20	Geo.	Map	Sub	Block	
Land			Zoning	Grid	Plat	Lot	
Buildings			Use	Parcel	Section	Occ. Cd.	
Total			Town Cd.	Ex. St.	Ex. Cd.		

REMARKS:							

Space Reserved for County Validation



Exhibit 'B'

RECEIPT

TOWN OF EASTON

Planning & Zoning Department

P.O. BOX 520

Easton, Maryland 21601

APPLICATION #	DATE
2024 - 1130	3/28/2024
PROJECT ID	
V 24-03	0013410100

TO:

Pamela Into
c/o Fink, Whitten & Associates
113 E. Dover Street Unit C
Easton, Maryland 21601

RE: Application: 2024 - 1172

220 South Street
Tax Map 104, Grid 0EA, Parcel 1902
Easton, Maryland 21601

Date	Description	Transaction	Amount
03/21/2024	BOZA - VARIANCE	Check # 265	250.00
			-
			-
			-
			-
			-
			-
Thank you!			TOTAL \$250.00

Paid in full. Thank you!

If you have any questions about this invoice, please contact
Samantha N. Smith, Administrative Specialist (410) 822-1943, ssmith@eastonmd.gov

Exhibit 'C'



Sign posted April 1, 2024

Exhibit 'D'

Date of Hearing: April 16, 2024

3a

BOARD OF ZONING APPEALS PUBLIC HEARING STAFF REPORT

SUBJECT: **VARIANCE 1130**

ELECTION WARD: Ward 4

CRITICAL ACTION DATE: At the pleasure of the Board.

STAFF CONTACTS: Nicholas Johnson - Planner
Lynn Thomas – Town Planner

APPLICANT: Elizabeth Fink on behalf of Pamela Into

PURPOSE: The applicant is seeking variances from §28-302.2.C(2) and §28-302.2.C(3) to subdivide a 21,622 square foot lot into two parcels. The newly formed lot known as Lot 2 will be 5,058 square feet and the revised lot will be 16,564 square feet. The existing accessory dwelling unit located along the southern property line will be located entirely on lot 2 and would become a primary dwelling unit that violates the side and rear setback requirements of the R-7A Zoning District.

RECOMMENDATION: Staff supports a Board **denial** of the application based on the findings; 1) that there are no peculiar conditions associated with this property that necessitate the need for a variance. 2) the conditions associated with the need for the variance are the result of action taken by the applicant and, 3) a literal interpretation of the Zoning Ordinance will not result in a practical difficulty. The applicant's proposal to subdivide the property creates the necessity for an additional variance request that would not otherwise be required if the property was not subdivided.

APPLICATION INFORMATION:	
APPLICANTS: Pamela Into 220 South Street Easton MD, 21601	REPRESENTATIVE: Elizabeth Fink Fink, Whitten, and Associates 113 E Dover Street Unit C Easton MD, 21601

PARCELS/ACREAGE:	
Parcel Information	Acres
Map 104, Parcel 1902	0.496
ACCEPTANCE DATE: March 19, 2024	LOCATION: 220 South Street
EXISTING ZONING R-7A	EXISTING LAND USE: Residential
HISTORIC DISTRICT: Yes	FUTURE LAND USE: Residential

CONTEXT:

Location/Site Access – The subject property is located at the corner of South Street and S Aurora Street. There is an existing curb cut on South Street providing access to the property’s off-street parking and sidewalk connections on both South Street and S Aurora Street

Existing Conditions – The subject property contains a historic 2 story single-family dwelling unit, a historic carriage house, a brick outbuilding, a pergola structure, and a large Magnolia tree.

Surrounding Properties –

	Land Use	Zoning District(s)	Future Planned Land Use
South	Residential	R-7A	Residential
West	Residential	R-7A	Residential



Figure 1: Vicinity Map

PROPOSAL: The applicant is proposing to subdivide the existing 21,622 square foot parcel into a 16,564 square foot parcel and a 5,058 square foot parcel. The smaller parcel (Lot 2) will contain the existing outbuilding that is being used as an accessory dwelling unit. This structure would then violate the minimum side setback on the southern property line (§28-302.2.C(3)) and the minimum rear setback (§28-302.2.C(2)).

OUTSTANDING ISSUES:

1. Off-street parking will need to be provided for the single-family dwelling unit on Lot 2. Once subdivided, the off-street parking will be located entirely on the revised parcel containing the two-story dwelling unit. Single-family detached dwelling units within the R-7A Zoning District are required to provide a minimum of two (2) vehicle spaces (28-1101.3.A(1)). In order to conform to this standard, the applicant will either need to provide the required off-street parking spaces or obtain a parking waiver from the Planning Commission.
2. There is no record of any permits or approvals allowing this structure to operate as an accessory dwelling unit. A variance was granted by the Board of Zoning Appeals in November of 1985 permitting the larger accessory structure to operate as an accessory

dwelling unit. However, there is no record of any building permits or zoning approvals being issued for the small carriage house to be converted into an accessory dwelling unit. Furthermore §28-1007.1(7) prohibits more than one granny flat (accessory dwelling unit) being created on a single lot. Given that there have been no inspections conducted on this structure, it is uncertain whether it meets the minimum livability codes.

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 – The creation of a new residential lot similarly sized to other residential lots in the neighborhood poses no immediate issues regarding the public interest or welfare. There is no proposed increase in the structure’s footprint or change in use that would have detrimental effects on the community. The proposed subdivision creates a new theoretically buildable lot that could accommodate future residential development to serve the community. Although the new lot will be less than the minimum 7,500 square foot lot size, this is permitted per Section 28 - 302.2 A 1, which allows up to 50% of the lots within a R-7A subdivision to be less than 7,500 square feet, provided further that at least 75% of these smaller lots are at least 5,000 square feet in area.

- 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 are no particular peculiarities associated with this lot that necessitate the need for a variance. This is one of the largest lots in this particular neighborhood and thus has one of the largest building envelopes in the area. Prior to any subdivision of the property, the outbuilding only violates the eight (8) foot minimum side setback requirement from the southern property line. There is no record of when this structure was built but given the age of the other structures on the property, it is likely considered a legally grandfathered non-conforming structure. Given that the proposed subdivision of this property results in the need for an additional rear setback variance, the finding cannot be made that the conditions are not the result of any action taken by the applicant. There is also no practical difficulty associated with a literal interpretation of the Zoning Ordinance as the structure is treated as legally non-conforming and is subject to §28-1204. This section of the Zoning Ordinance allows for legally non-conforming structures to be continued and even enlarged or altered as long as the non-conformity is not increased.

DRAFT MOTIONS:

1. I move that the Board of Zoning Appeals **deny** Variance 1130 as submitted based on staff’s draft findings.

OR

2. I move that the Board of Zoning Appeals approve Variance 1130 based on the following findings...

OR

3. I move an alternate motion.



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: February 28th, 2024
TO: Pamela Into – Owner
Elizabeth Fink - Fink, Whitten & Associates
Cc: Rick Van Emburgh – Town Engineer
Lynn Thomas – Town Planner
Aaron Goller – EUC
FROM: Sierra Clem – Engineering Department
SUBJECT: 220 South Street – Subdivision Proposal for ESDR

Our office has reviewed the Application for the Subject project received on 2/7/2024 which is scheduled for the 2/28/2024 ESDR meeting. The subject application intends to subdivide parcel 1902 into two lots. Our office has no objection to the application as proposed.

Please be advised that access to the site and potential impacts to the utility pole will need to be addressed at the time of Grading Permit application.

Please contact me if you have any questions. Thank you.

Exhibit 'E'

THE STAR DEMOCRAT - ONE TIME - SUNDAY, MARCH 31, 2024

NOTICE

Notice is hereby given that Application V-1130 / V 24-03 has been filed by Fink, Whitten & Associates LLC, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a variance from Section 28-302.2.C.2, the minimum 25' rear setback for all uses and structures in the R-7A zoning district; and from Section 28-302.2.C.3, the minimum 8' side setback for all uses and structures in the R-7A zoning district. The applicant is seeking to subdivide the existing parcel located on the property at 220 South Street.

The property is located at 220 South Street, Easton, Maryland, also known as Tax Map 104, Grid 0EA, Parcel 1902, and is situated in the R-7A – Residential District. The property is owned by Pamela Into. 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, April 16, 2024 at 9:00 A.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

03/27/24

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

Cust. AcctID:	Creation Date: 03/27/24
	Ad Date: 03/31/24
	Class:
Name: Joanne Drummer	Ad ID:
Company: TOWN OF EASTON (L)	Ad Taker: AHALL
Address: PO Box 520	Sales Person: 503
EASTON, MD 21601	Words: 205
	Lines: 23
Telephone: (410) 822-2525	Agate Lines: 72
Email:	Depth: 3.0
Description: PH - Application V-1130/V	Inserts: 2
	Blind Box:

Other Charges:

Total:

Discount:

Paid Amount:

Surcharge:

Credits:

Amount Due:

Bill Depth:

CREDIT CARD DETAILS

PT	CT	CN	Number	Exp.	Amnt.

Publication	Start	Stop	Inserts	Cost
The Star Democrat	03/31/24	03/31/24	1	

NOTICE

Notice is hereby given that Application V-1130 / V 24-03 has been filed by Fink, Whitten & Associates LLC, pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a variance from Section 28-302.2.C.2, the minimum 25' rear setback for all uses and structures in the R-7A zoning district; and from Section 28-302.2.C.3, the minimum 8' side setback for all uses and structures in the R-7A zoning district. The applicant is seeking to subdivide the existing parcel located on the property at 220 South Street.

The property is located at 220 South Street, Easton, Maryland, also known as Tax Map 104, Grid 0EA, Parcel 1902, and is situated in the R-7A - Residential District. The property is owned by Pamela Into. 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, April 16, 2024 at 9:00 A.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

3050231 SD 3/31/2024

Ad Note:

Customer Note:

We Appreciate Your Business!
Thank You Joanne Drummer!

Exhibit 'F'



TOWN OF EASTON

Planning & Zoning Department

14 South Harrison Street

P.O. Box 520

Easton, Maryland 21601

NOTICE OF APPLICATION SUMMARY

2024-04-16

V-1130 / V 24-03

Applicant notified of hearing date: Email: 2024-03-28 – 19 days

Exhibit A: Application – 2024-03-19 – 28 days

Exhibit B: Paid Receipt – 2024-03-19 – 28 days

Exhibit C: Picture of Property Sign Posting – 2024-04-01 – 15 days

Exhibit D: Staff Report – 2024-04-09 – 7 days

Exhibit E: Public Advertisement

Advertisement sent to the Star Democrat: 2024-03-27 – 20 days

Advertisement run in Star Democrat: 2024-03-31 – 16 days

Exhibit F: Notices

Applicant Hearing Letter: 2024-03-28 – 19 days

400' Notices Distributed: 2024-04-01 – 15 days



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

March 28, 2024

Pamela Into
% Fink, Whitten & Associates
113 E. Dover Street Unit C
Easton, Maryland 21601

Re: BOZA Application V-1130/ V 24-03
220 South Street
Tax Map 104, Grid 0EA, Parcel 1920
Easton, Maryland 21601

Ms. Into,

The above matter has been scheduled for a public hearing before the Town of Easton Board of Zoning Appeals on ***Tuesday, April 16th at 9:00 A. 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 and Zoning Department
410-822-1943 ssmith@eastonMD.gov

CC: Elizabeth "Ebie" Fink, Fink Whitten & Associates
Michael Brophy



TOWN OF EASTON

14 South Harrison Street
Easton, Maryland 21601

April 1, 2024

Dear Resident,

The Easton Board of Zoning Appeals will hold a public meeting on **Tuesday, April 16, 2024 at 9:00 a.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 Application V-1130 / V 24-03 has been filed by Fink, Whitten & Associates LLC (Applicant), pursuant to Section 28-1303.5.C of the Zoning Ordinance of the Town of Easton, to obtain a variance from Section 28-302.2.C.2, the minimum 25' rear setback for all uses and structures in the R-7A zoning district; and from Section 28-302.2.C.3, the minimum 8' side setback for all uses and structures in the R-7A zoning district. The Applicant is seeking to subdivide the existing parcel located on the property at 220 South Street.

The property is located at 220 South Street, Easton, Maryland, also known as Tax Map 104, Grid 0EA, Parcel 1902, and is situated in the R-7A – Residential District. The property is owned by Pamela Into. 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

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

**EXHIBIT A**

TOWN OF EASTON

Town of Easton

Engineering, Planning and Zoning

14 South Harrison Street, Easton, MD 21601

RECEIVED

JAN 23 2024

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
Deed Reference:	Liber	02644	Folio	00114	Lot
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@jackresources.com

Applicant or Agent

Name	Aspire Outdoors, LLC	
Mailing Address	29760 Standish St. Easton, MD 21601	
Telephone No.	(410) 310-6241	Email ddaly@jackresources.com

Surveyor / Engineer

Name	Robert Rauch	License No.	11024	Expiration Date	07/24/2024
Mailing Address	106 N Harrison St. Easton, MD 21601				
Telephone No.	(410) 770-9081	Email	robert@raucheng.com ; brian@raucheng.com		

Request DetailsSubject to Previous BOZA Application Y ☒ N ☐

Zoning Ordinance Section	28-1303	
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.

See the attached letter

- 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

Printed Name of Applicant or Agent

[Handwritten Signature]
1/23/24
Derrick Daly

For Office Use Only

Project Number	A 24-01	Fee Received	\$550.00
Application Number	2024-1117	Application Notification	03/20/2024
Filing Date	01/23/2024	Property Posting Date	04/01/2024
BOZA Hearing Date	04/16/2024	Notice(s) Published	03/31/2024
If ESDR, Date			

Revised 2-2019

**ASPIRE OUTDOORS, LLC
29760 Standish Street
Easton, MD 21601**

January 23, 2024

Town of Easton
Board of Zoning Appeals
P.O. Box 520
Easton, MD 21601
Att: Miguel Salinas, Director

Dear Board of Zoning Appeals Members and Town of Easton Planner:

Please accept this letter as a request for Appeal of the Staff Decision (Letter dated 1/3/2024) regarding Aspire Outdoors, LLC's revised set of plans for the Aspire Apartments project that was submitted on 11/8/2023.

Aspire Outdoors, LLC would like to appeal section 2, 3 and 4 of the staff interpretation of the zoning ordinance.

Section 1: The proposed project would create undue traffic hazards and congestion on Camac Street.

Response: We concur with Staff Comment.

Section 2: The proposed project adversely affects the health, safety, and welfare of the surrounding residents and the established character of the area:

Response: Hunter's Mills residents are the only surrounding residents in the area. Aspire's new submission will be completely blocked off from the existing Hunter's Mill Community and residents. Aspire Outdoors intends on modifying the property line creating a dead end at the end of Camac Street protected by a chain link fence. Aspire Apartments will only be accessible through Camac St. in case of an emergency. Visibility of the Aspire Apartments will be next to none due to the existing tree lines as well as the elimination of the 6th building located adjacent to the Town of Easton's property line. In regards to the staff comment, we'd like to note the land owned by Aspire Outdoors currently does not have any protected forest area. However, it is proposed as a part of our new submission.

Section 3: The proposed project provides inadequate parking

Response: The Hunter's Mills community will not be affected by onsite parking due to the fact that the Aspire Apartments Project will not be accessible to Camac Street/Hunter's Mills Community.

Section 4 : The proposed project eliminates interconnectivity:

Response: The staff comments state that the revised submission does not eliminate the Board's finding; the interconnection between Hunters Mill and Gannon Range does not include a public road through the subject property.

In addressing the Board of Zoning Appeals concerns regarding Hunter's Mills traffic concern, Aspire Outdoors eliminated the connectivity between the Hunter's Mills community and the proposed Aspire Apartment Project. Therefore, we cannot meet the needs of the Hunter's Mill community and the town of Easton's connectivity plans. Connectivity is a requirement that must be waived for this project to be implemented as stated in Section 1.

Based on the aforementioned, we request an Appeal Meeting to discuss this further. I can be reached at 410-310-6241.

Sincerely,



Derick W. Daly, Co-Owner
Aspire Outdoors, LLC

Cc: Sharon M. VanEmburg; Ewing, Dietz, Fountain and Kaludis
Lynn Thomas: Department of Planning and Zoning



TOWN OF EASTON

PLANNING & ZONING

PO Box 520
Easton, Maryland 21601
(410)-822-2526

EXHIBIT B

TOWN OF EASTON

January 3, 2024

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

Dear Mr. Daly,

§ 28-1303.5.B of the Town Code (Zoning Ordinance) gives the Town of Easton Board of Zoning Appeals (Board) the power and duties to hear and decide Special Exception applications as specifically authorized and to determine whether Special Exceptions should be granted. § 28-1303.5.B further states that in determining whether Special Exceptions should be granted by the Board, the application shall not be granted unless and until it makes a finding or findings that the granting of the Special Exception will not adversely affect the public health, safety, security, morals, or general welfare; would not result in dangerous traffic conditions; or would not jeopardize the lives or property of the people living in the neighborhood.

§ 28-1303.5.B.6 of the Zoning Ordinance states that when hearing the evidence necessary for the granting of a Special Exception, the Board shall consider all pertinent facts in the case and render a decision in accordance with specific principles, to include whether:

- a) the proposed use conforms in all aspects to minimum requirements of the district in which it is located
- b) the proposed use is not adversely affecting the health, safety, and general welfare of residents of the area
- 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 exception
- d) the proposed use will not create congestion in the streets or undue traffic hazards, and that adequate egress and ingress are 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
- f) the proposed use will not adversely affect the established character of the area
- 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

On October 24, 2023, the Board heard Special Exception application SE-911 / SE 23-06 (Aspire Apartments) submitted by Aspire Outdoors LLC (Applicant) to permit six three-story apartments buildings consisting of a total of 162 dwelling units on a property zoned R-10A and located on a vacant

parcel of land located adjacent to Matthewstown Road (MD 328); also known as Map 26, Grid 20, Parcel 186. The property is zoned R-10A where a Multi-Family Apartment Complex land use is permitted by Special Exception and subject to supplemental use standards, or development standards.

§ 28-1303.5.C of the Zoning Ordinance gives the Board the power and duties to grant variances from the literal application with regard to provisions of the Ordinance related to density, bulk, or area requirements subject to the applicant complying with certain standards and findings as outlined in § 28-1303.5.C.4 of the Zoning Ordinance. The supplemental use standards for a Multi-Family Apartment Complex include a requirement that rear yard setback requirements for apartment buildings adjacent to a single family residence or vacant residential lot shall be seventy-five (75) feet, including parking areas. Based on the proposed site plan, the Applicant also submitted Variance application V- 911 / V 23-05 for relief from the minimum 75' rear yard setback.

At the conclusion of the hearing, the Board voted (3-0) to approve the Variance request as submitted. The Board voted (3-0) to deny the Special Exception request as submitted.

Following the denial of the Special Exception, a revised set of plans for the Aspire Apartments project was submitted on November 8, 2023. In the transmittal email from Brian Fitzgerald of Rauch Engineering, agent for the Applicant, Mr. Fitzgerald noted that the Applicant made a considerable change to the scope of the project, which included the elimination of one 3-story multi-family building. The application denied by the Board proposed three vehicular ingress/egress locations at full build-out, with one entrance at the current dead-end stub of Camac Street in the Hunters Mill subdivision and two locations at the boundary line of the Gannon Range PUD. Mr. Fitzgerald also noted that the Applicant's revised submission blocks ingress/egress and construction access at the end of Camac Street with a fence and gate to be used only for emergency vehicle access; all vehicular trips will be through Gannon Range at the location consistent with the Gannon Range preliminary plat currently under review by the Town of Easton. Lastly, Mr. Fitzgerald noted that pedestrian connectivity with the adjacent Hunters Mill subdivision and the Gannon Range development will remain.

The Applicant also provided the Department of Planning and Zoning with a letter from Zach A. Smith of Armistead, Lee Rust & Wright, P.A. on behalf of D.R. Horton, Inc., the purchaser of the Gannon Range property. The letter, Dated October 18, 2023, acknowledges that there is one vehicular access between Gannon Range and the Aspire project shown specifically on the Gannon Range PUD site plan (and the preliminary plat). Mr. Smith stated that D.R. Horton will plat and dedicate the right-of-way for the connection as part of its build-out. The Applicant may then, at its expense, construct a connection with the ROW pursuant to applicable Town standards and requirements. However, the letter stated that if the connection is constructed prior to the streets within Gannon Range being accepted by the Town, D.R. Horton may require an agreement and surety from the Applicant to guarantee the repair of any damage that may be caused to the streets within Gannon Range by traffic from the Aspire Apartments. Mr. Smith also made clear that no additional vehicular access across any portion of Gannon Range will be allowed.

§ 28-1303.F of the Zoning Ordinance states that If any application or request is disapproved on the merits by the Board, thereafter the Board shall not accept the application for substantially the same proposal, on the same premises, until after one (1) year from the date of such disapproval. In determining whether the revised submission is substantially the same proposal on the same premises,

staff compared the submission against the Board's findings for denial, several of which are summarized below:

1. **The proposed project would create undue traffic hazards and congestion on Camac Street.** The Board stated that, based on trip distribution assumptions, Camac Street will be the primary thoroughfare for the majority of vehicular trips; even with three ingress/egress locations at full build-out it would be unlikely that the majority of vehicle trips will go through Gannon Range, a more circuitous route. As such, there is a potential for back-up on McCall Street in Hunters Mill and an undue burden on Camac Street when taking into account all vehicular trips on Camac resulting from both the Hunters Mill subdivision and Aspire Apartments. The Board noted that Camac Street is 28-feet in width (as opposed to the Town's 36-foot width requirement for residential subcollector streets), Camac Street permits on-street parking, mailboxes for Hunters Mill residents are located on Camac Street, and a future Town park and playground are planned adjacent to the street. The Board also noted that absent a temporary construction access elsewhere, construction will impose an undue hardship on Hunters Mill residents due to dust, noise, and heavy truck traffic; the Applicant did not provide a good analysis on whether Camac Street could safely accommodate sanitation trucks, emergency vehicles, moving vans, construction vehicles, and construction equipment

Staff Comment: The closing of Camac Street with a fence and a gate to limit ingress/egress to the Aspire Apartments for emergency vehicle access only, and the elimination of the ingress/egress through the Gannon Range development off of Camac Street, addresses the Board's findings that the proposed project would create undue traffic hazards and congestion on Camac Street, a residential subcollector that does not meet the Town's minimum width requirements. Under the revised submission, all vehicle trips from the Aspire Apartments would circulate through Gannon Range. In addition, with limited access, the concern for back-up on McCall Street is eliminated as well as the concern for construction traffic and moving vans traversing through Hunters Mill via Camac Street.

2. **The proposed project adversely affects the health, safety, and welfare of the surrounding residents and the established character of the area.** The Board stated that the increased traffic through Camac Street changes the neighborhood; based on the layout of Hunters Mill with Camac Street as its main thoroughfare, adding 162 dwelling units negatively impacts the small, tightly-packed, quiet, residential community.

The Board also stated that the community character element in the Comprehensive Plan calls for ensuring that infill development is compatible with existing housing types. The Board found that the proposed project is a single-use, suburban style apartment building development where the intensity of the proposed project is not compatible with the existing single-family detached communities in the area.

Staff Comment: The elimination of one multi-family building under the revised submission does not address the Board's finding that the intensity of the proposed project is incompatible with the adjacent communities. The Applicant's revised submission proposes a single-use apartment complex. Staff notes the elimination of one building reduces the overall gross density of the property from 2.62 dwelling units per acre to 2.184 dwelling units per acre. However, staff also notes the buildable area for Aspire Apartments, which is constrained due to the adjacent protected forest area which covers a large portion of the property, is approximately 6.5 acres

(excluding setbacks and bufferyards). The density in this buildable area under the revised submission is approximately 21 dwelling units per acre.

3. **The proposed project provides inadequate parking.** The Board stated that the number of parking spaces proposed on the site were on the low side of the range of parking required by the Zoning Ordinance; inadequate on-site parking will impact the Hunters Mill and Gannon Range neighborhood due to spillover of on-street parking.

Staff Comment: The Applicant's revised submission is not at the higher end of the Town's range for required off-street parking. The total site parking required for 135 units is within a range of 135 - 270 off-site parking spaces. The revised submission provides 201 spaces.

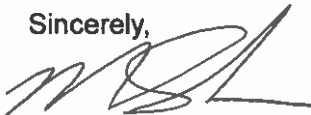
4. **The proposed project eliminates interconnectivity.** The Board stated that the proposed Aspire Apartments ignores one of the Town's comprehensive plan policies regarding connectivity; the land use chapter of the Comprehensive Plan states that future development should be well-defined, interconnected neighborhoods. The Board noted that the project eliminates a planned interconnection of a public road between two single-family detached communities, Hunters Mill and Gannon Range. The Board also noted that the project denies the Hunters Mill residents access to the neighboring Gannon property; residents of Hunters Mill and Gannon Range will have to walk, bike and drive through private property and a private parking lot to visit friends.

Staff Comment: The revised submission does not eliminate the Board's finding; the interconnection between Hunters Mill and Gannon Range does not include a public road through the subject property.

For these reasons, staff has determined that the revised submission for Aspire Apartments does not represent a substantial change.

Per § 28-1303.3 of the Zoning Ordinance, appeals concerning an interpretation or administration of the ordinance may be taken by any person aggrieved by such decision. Such appeals shall be taken within thirty (30) days after the date of this letter by filing with the Town Planner and with the Board of Zoning Appeals a notice of appeal specifying the grounds thereof.

Sincerely,



Miguel Salinas
Director

CC: Sharon M. VanEmburch; Ewing, Dietz, Fountain and Kaludis
Lynn Thomas; Department of Planning and Zoning

IN THE MATTER OF : BEFORE THE EASTON BOARD
THE APPLICATION OF : OF ZONING APPEALS
ASPIRE OUTDOORS, LLC : **APPLICATION NO. SE/V-911**

The Easton Board of Zoning Appeals (the "Board") met on October 24, 2023 to consider the application of Aspire Outdoors, LLC (the "Applicant") for a Special Exception pursuant to the provisions of Section 28-1303.5.B of the Zoning Ordinance of the Town of Easton (the "Ordinance") and a variance of the rear yard setback pursuant to the provisions of Section 28-1303.5.C of the Ordinance. The subject property is located at the end of Camac Street (Talbot County Tax Map 26, Parcel 186) and is zoned R-10A (the "Property" or "Subject Property") and is 61.81 acres in size. The applicant seeks approval of this Special Exception in order to construct six (6) apartment buildings on the Property (Multifamily Apartment Complex (Use 105) and is a special exception use in the R-10A zoning district on Table 2.1 of the Ordinance). Pursuant to Section 28-1007.1.(1)14.1, multi-family apartment complexes have a rear yard setback of seventy-five (75) feet when they are adjacent to single family residences or vacant residential lots. The Applicant seeks a variance to reduce the rear yard setback for one of the apartment buildings and for the parking area to fifty (50) feet.

The hearing is a continuation of the April 18, 2023 Board of Zoning Appeals meeting. By letter dated October 17, 2023, the Planning and Zoning Commission communicated its positive recommendation to the Board on both the special exception and variance with recommended conditions.

The Application is to build 162 apartments in six (6) three story apartment buildings, a pool/clubhouse, parking facilities, and stormwater management features at the end of Camac Street in the Hunters Mill subdivision. The application also provides a connection to the neighboring Gannon Range residential subdivision which was previously approved as a Planned Unit Development and is proposed to be built.

Members of the Board present at the Hearing were Gary Molchan, Member, Zachary Krebeck, Member and Peter Cotter, Chair. Also present at the Hearing were staff members Lynn Thomas, Town Planner, Samantha Smith, Board Secretary, Joseph Mayer, Plan Reviewer, Nicholas Johnson, Planner, Richard VanEmburch, Town Engineer, and Sharon VanEmburch, Town Attorney.

The Planning and Zoning staff provided a detailed staff report to the Board. The Property was previously approved for single family development as part of a second phase of the Hunters Mill subdivision.

Derick Daly was present as a representative of the Applicant. The Applicant was represented by Ryan Showalter, Esquire. The Applicant had members of its design team present to testify including Paul Rogers, AIA IDSA and Brian Fitzgerald, P.E. of Rauch inc. and Betty H. Tustin, P.E. of The Traffic Group. The Hunters Mill Homeowners Association (HOA) was present in opposition and was represented by Mark Gabler, Esquire. The Hunters Mill Homeowners Association had its own traffic engineer, Troy Brestel, P.E. of Traffic Planning and Design Inc., present to testify. There were also many members of the Public who spoke for and against the Application, and numerous individuals submitted written letters in support and in opposition to the request.

PLANNING COMMISSION RECOMMENDATION

Pursuant to Section 28-1303.5.B.2, the Board of Zoning Appeals can ask the Planning and Zoning Commission for a recommendation. At its April 18, 2023 Board of Zoning Appeals meeting, the Board requested a Planning and Zoning Commission recommendation for this project. By letter dated October 17, 2023, the Planning and Zoning Communication communicated its 4-1 recommendation that the special exception and variance be granted 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 a controlled access gate 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 Planning and Zoning Commission also approved the Sketch Site Plan with the same conditions, plus some additional conditions more pertinent to the site plan review process.

APPLICANT'S CASE

Derick Daly testified first on behalf of the Applicant. He indicated that this project will provide needed housing in Easton, which is consistent with the Town of Easton Comprehensive Plan. Twenty-five percent (25%) of the profits from this project will be paid to Polaris Village

Ministries to support the Polaris Village Academy, a tuition-free private school to be developed in partnership with the Building African American Minds (BAAM) Center.

Since the hearing got continued in April, the Applicant has now addressed several key components of the project including the sewer pump station, a traffic study, and Planning Commission approval of the sketch site plan. The Applicant has provided land to the Town for a pump station to be built to serve this project and the Gannon Range project, as well as other growth. The easement is recorded in the land records. Mr. Daly described the recommendation from the Planning Commission and the phasing of the project with 54 units able to be constructed with just the access off of Camac Street, an additional 54 units to be constructed when the connection to Gannon Range becomes available, and the final 54 units to be constructed when a third access point becomes available. Mr. Daly indicated that he is comfortable with that condition.

In response to questions from the Board, Mr. Daly indicated that these will be higher end rents possibly to serve new employees of the hospital and will be a mix of one, two, and three-bedroom apartment units. The Board questioned the ability for the Applicant to provide its own access without going through other subdivisions. Mr. Daly indicated that the Property was limited by wetlands and forest conservation areas. The Board asked about which access would be used for construction. Mr. Daly indicated that he was hoping to work out an agreement with Gannon Range to have a construction access across their property. If that fails, he indicated that the construction access would be across Camac Street. When asked about school capacity, Mr. Daly indicated that he talked to the County. The schools don't build for future development

projections. He is building a school himself and so he is providing capacity. Mr. Daly did not think the schools are at their limits.

On cross examination, Mr. Daly acknowledged that he does not have a third access point to the Property, but there are three access points to leave the Property and reach 328, i.e. through Gannon Range to 328, through Gannon Range to Swann Haven to 328 and through Hunters Mill.

Paul Rogers, AIA, IDSA, architect from Rauch inc. testified next. He indicated that the R-10A zoning allows five units per acre which would allow 165 units on the Property. The project contains 162 units. There are six buildings with twenty-seven units in each one. Within each building eight of the units are one bedroom units, thirteen are two bedroom units, and six are three bedroom units. All six buildings have the same floor plan. They are three stories and meet the maximum height requirement in the zoning district.

As Property is entered from Camac Street, there is a looped connector for apartments that has been vetted and verified for large vehicles such as school buses, trash trucks, and delivery vehicles. The Planning Commission approval was for two buildings at a time to be phased in.

The apartments have an amenity area with open space, a swimming pool with appropriate safety measures, and a clubhouse. It is still to be determined what amenities will be in the clubhouse. Some possibilities are a resident coffee shop or a pickleball court.

Mr. Rogers explained the location of the setbacks and the need for the variance. The Supplemental Standards in the Ordinance for Multi-family apartment complexes has a rear yard setback of seventy-five (75) feet. The Applicant is requesting a variance to allow a fifty (50) feet setback in the rear (a 33% variance). The only portion of the Property affected is a small corner of the building and some parking spaces.

The parking provided is one to two spaces per unit. The Applicant is trying to maximize parking on the Property which is why they are requesting a variance. There is existing forest and there will be bufferyards established to protect nearest residential uses. All of the parking is open surface parking.

Mr. Rogers explained exhibits D-J provided by the Applicant. On Exhibit D, the area in red shows the encroachment into the seventy-five (75) ft rear setback. Exhibit E shows the neighboring Gannon property to give context and shows the proposed road connection to the Gannon Range development. Exhibit F is a conceptual aerial depiction from above Gannon Range. Exhibit G shows the Property from another angle. The vast majority of the Property remains forested. Exhibit H is the current design for the amenity area including pickleball. The clubhouse would have an open room, workspace, fitness center, coffee bar, and restrooms for the swimming pool. Some parking is provided but since the facilities are only for residents and guests, there is overlap. Exhibit I is a close up of the pool. Exhibit J is another view of the buildings and a typical Stormwater Management facility. Exhibit K is the site plan with the proposed phasing plan based on Planning Commission recommendation and variance road access points. Green is Phase 1. Red is Phase 2, and Blue is Phase 3. The phasing plan is subject to change.

Mr. Rogers identified the location of the proposed pump station to serve this Property. The Applicant has had a number of conversations with Easton Utilities which resulted in the pump station easement. Capacity is available in the wastewater treatment plant. There is a letter from Easton Utilities confirming the understanding. There is also water capacity.

In Mr. Rogers opinion and based in part on the staff report, the project meets the zoning requirements with the exception of the rear setback that is the subject of the variance request. The Comprehensive Plan demonstrates a housing issue with availability of units and also seeks a diversity of housing types.

The Applicant contacted the Director of Transportation for the school district related to the video of the three point turn the school bus makes. The response was that the three-point turn is a known and accepted practice for the school bus. If Aspire apartments are built, the school bus would be able to use the Property to turn around or to continue through to Gannon Range. The Aspire apartments internal streets will be private and not public. Upon questions by the Board, the Applicant agreed it would provide a public access easement across the Property for pedestrians and vehicles.

The Applicant is willing to enter into a Public Works Agreement with the Town to provide that the connections between the Applicant's property and the public road intersections would be maintained by the Applicant at its expense.

There was no indication from the Board of Education that the school system does not have capacity to address the increased population from the project. The Applicant will pay the County impact fees that have a school component.

Mr. Rogers indicated that the project would have no undue effect on smoke, odor, noise, or drainage. The drainage may even be improved with the facilities constructed.

Mr. Rogers described the exterior lighting. The Applicant will submit an illumination study as part of the site plan review process. With respect to the character of the area, he indicated that the design of the buildings are in keeping with the single family structures in the

area. With the retention of forest, the six buildings will be minimally visible from Hunters Mill properties. In discussing the character of the area, Mr. Molchan pointed out that the character is more than just the buildings. It also includes the traffic. Mr. Rogers responded that some traffic is part of any development. Mr. Rogers indicated that access onto Matthewstown Road (also referred to as 328 and Maryland 328) is more than just challenging. There would be significant stream crossings and other environmental challenges involved in accessing 328 directly from the Property.

The Board and Mr. Rogers discussed compatibility. The Board asked for clarification from Lynn Thomas, Town Planner. He indicated that compatibility is a balancing act and whether it is consistent not just with the words, but with the spirit and intent as well.

Mr. Rogers discussed the variance request. It is not injurious to the public interest. The nearest residential property is separated by woods. Any visibility will not be injurious. The closest residence is 180 ft measured by aerial photograph. With respect to harmony with the purpose and intent of the ordinance, the variance process is available for situations like this with unique character and geometry features. Without the variance, the Applicant would have to reduce parking and eliminate one building.

Mr. Krebeck asked for further clarification on the practical difficulty particularly given that the Property is a greenfield. Mr. Rogers responded that the density permitted by the base zoning is not achievable without a variance given the challenges of the site. The determination of which yard is a rear and which is a side yard had a significant impact on the design.

Upon cross examination by Mr. Gabler, Mr. Rogers indicated that it is a reasonable expectation to achieve the base density maximum. If one or two buildings were removed, there

would be more land for parking. Mr. Rogers is aware of other projects accessed through subdivisions, but not specifically apartments. There are 201 parking spaces for 312 bedrooms across all buildings. The parking provided satisfies the ordinance. Camac Street is wide enough to support parking along a portion of it.

Brian Fitzgerald from Rauch inc. testified next as the project engineer. Mr. Fitzgerald explained the drainage and stormwater management plan for the Property. The Applicant has conceptual stormwater management approval from the Town.

With respect to the access from Maryland 328, the State requires avoiding or minimizing impacts. Mr. Fitzgerald believes that Camac Street provides a viable access to the Property to avoid disturbing the wetlands. Clearing trees for road and stormwater management would be wider than just the width of the road. The widths of the streets accommodate school buses and emergency vehicles.

Upon cross-examination by Mr. Gabler, Mr. Fitzgerald indicated that Rauch has done some preliminary internal studies on the feasibility of the Maryland 328 access. Camac was chosen after evaluating the information and given the environmental effects.

Upon cross-examination by Mr. Waltrip, Mr. Fitzgerald indicated that he was not sure whether an 18-wheeler could make the radius within the Property.

Betty Tustin from the Traffic Group, Inc. testified next. She is the Senior Project Manager working out of the Delaware office. She is a professional engineer licensed in Maryland and Delaware. She summarized the findings of the Traffic Impact Study (TIS) and Average Daily Trip (ADT) evaluation. They looked at eight intersections as required by the State Highway Administration (SHA) and the Town. The study includes other projects known

and approved into the numbers. The conclusion was that all intersections will operate at an acceptable level of service. SHA has approved the study and is requiring the lengthening of the westbound left turn lane at Matthewstown Road. That was for both the Aspire parcel and the neighboring parcel owned by the Applicant being developed. It is not clear if it will be required just for Aspire. According to Town code, there are 5.4 daily trips per apartment dwelling. For 162 apartments, it results in 875 trips per day. The Town standards have three levels of residential streets. Access streets are allowed ADT of 200. Subcollector streets are allowed ADT of 500, and collectors are allowed ADT of 3,000. Essentially, the ADT study is to determine if the surrounding roads have capacity to serve the proposed development. The conclusion was that there is sufficient capacity within Gannon Range and Hunters Mill to handle the traffic for Aspire apartments. They reached the conclusion by using 10 trips per day for the single-family homes in the developments. That was subtracted from the capacity and over 900 trips were left which is enough for Aspire apartments trips.

Ms. Tustin reviewed the opposition's report. The difference is the opposition included the trips from the homes on Captain Adamowski in the calculations for Camac Street. Camac Street has 18 homes fronting on it which generates 180 trips. The street capacity is 500 so it leaves 320 trips available. The first two buildings have 54 apartments times 5.4 trips for apartments is 291 trips. Camac has capacity for two buildings. The Planning Commission required the Gannon Range access for the next two buildings. The additional capacity for those two buildings is available through Gannon Range.

Drivers have various factors they use to determine which route to take such as destination, whether there are stops along the way, are there impediments on a route, etc. The

Traffic Group did not do a speed study. The design of Camac Street lends itself to low speeds. At the connection to Camac from the apartments, there could be traffic calming devices such as speed humps, speed tables, chokers, etc. Those implementations could encourage the use of Gannon Range.

Based on questions by the Board members, Ms. Tustin indicated that the 5.4 ADT for apartments does not distinguish between the number of bedrooms. These trip rates are based on hundreds of studies nationwide and include deliveries, friends, mail, school busses, etc. All accounted for in studies to come up with average daily trip rates. Determining which way people will go is an engineering judgment call.

Lynn Thomas indicated that his interpretation of the language in the ordinance is that the capacity includes not just those houses fronting on the street but also the traffic emptying onto the street.

Ms. Tustin indicated that between Gannon Range and Hunters Mill there is sufficient capacity. To deter all of the traffic going down Camac Street, traffic calming can be implemented on the Applicant's private property.

Ms. Tustin explained that 10 trips are used for single family residents and 5.4 trips are used for apartments. These numbers are close to the numbers in the ITE manual. They also performed traffic counts at McCall and Matthewstown Rd. from 5 a.m.-8 p.m. on a Thursday in June. The results were 383 trips in and out (186 in and 197 out). That is traffic from both Captain Adamowski Street which has a capacity of 500 ADT and Camac Street which also has a capacity of 500 ADT so of the total 1000 trips available, only 383 are currently being used, although it was not for a full 24 hour period.

Ms. Tustin provided the level of service (LOS) at McCall and Matthewstown Road. Currently, it is within LOS A and B. With all 162 units, it will drop to LOS C, but that is still an acceptable LOS.

Upon questioning by Mr. Krebeck, Ms. Tustin admitted that she only looks at the traffic and not the geometry of the road and whether construction and fire trucks can meet the turning radius on Camac. With a 36 ft street, parking is 8 ft on each side so it leaves 20 ft for the travel portion of the road. Upon question by Mr. Waltrip, the traffic study does take into account the Gannon development but does not take into account the apartments at Elliott Road.

There were no additional witnesses for the Applicant.

HUNTER'S MILL HOA CASE

Mr. Gabler called Troy Brestel to the stand. He works for Traffic Planning and Design. The Company is based in Pennsylvania but does work all along the east coast. He is a project manager and a professional engineer with 17 years of experience. Mr. Brestel has worked in Maryland, Pennsylvania, New Jersey, and Delaware. He was engaged by the Hunters Mill HOA to review the Traffic Group ADT evaluation. The Traffic Group concluded that Camac Street would not have more than 200 ADT from the Aspire development. The additional development from Aspire would not exceed 1,500 ADT.

Mr. Brestel testified that while he agrees with the Traffic Group that the Aspire project will create 875 ADT, he disagrees on the amount of traffic that will be on Camac Street after the Aspire development. Mr. Brestel looked at houses not just on Camac but also the houses on Captain Adamouski that would likely use Camac to exit the subdivision based on their distance to the exit. 25 of the 51 homes would likely use Camac to exit the subdivision. People

generally take the shortest route. Looking at the Aspire development, it is likely that the four apartment buildings closest to Camac Street would exit on Camac Street through the Hunters Mill subdivision. The result is 833 ADT on Camac Street which exceeds the 500 ADT capacity allowed for subcollector streets.

Mr. Brestel also explained that at the time of his report, he was not sure of the number of bedrooms in each apartment. Based on the number of bedrooms given at hearing, it is likely that at least 250 parking spaces would be needed for Aspire. With insufficient parking, people will likely park along Camac Street which is not suitable for parking, at least not on both sides. With respect to traffic safety, mixed residential communities, if well designed, generally have a connector road to the main entrance with the different types of uses in their own area and coming onto the connector road. Traffic patterns are different for single family homes versus apartments. If possible, traffic from different types of residential uses should not go past other residential use types.

Upon questioning by the Board, Mr. Brestel indicated that the basis for his ADT numbers for Camac Street is that people will generally use the shortest distance between A and B and go that way. The parking space numbers that he used to come up with 250 parking spaces are: one bedroom apartments would generally have one vehicle; the 78 apartments that are two bedrooms, assume half have one vehicle and half have two vehicles; and the same for the three bedroom units. The total of all apartments is 312 bedrooms. Given that these are rental units without transit services and away from downtown, there will probably be more drivers than walking or biking commuters. Mr. Brestel is licensed in Delaware and not Maryland. His applications in Maryland and New Jersey are pending approval by reciprocity.

On cross-examination, Mr. Brestel stated that the ADT rates are based on hundreds and thousands of sites to come up with the ADT rates. Getting a traffic signal approved is a rigorous process to see if warranted. In Mr. Brestel's opinion the four northern apartments will use Camac Street. The two apartment buildings in the back may go through Gannon. His estimate is conservative.

The opposition next called John Franczak, the Vice President of the Hunters Mill HOA to testify. He lives on Captain Adamowski Street. The HOA does not support this project and believes that the Comprehensive Plan should be followed without the allowance for a special exception or a variance for this project. They purchased their homes to be away from traffic. The project could comply with setbacks if it had less apartments. They did the traffic study because they did not think the traffic study performed by the Applicant was accurate. His home office faces McCall Street. He sees everyone that comes in and out of the subdivision. The majority of the people living on the east side of Captain Adamowski use Camac Street to exit. There is a new park being installed. The apartments would go right by the park which is dangerous.

Mr. Franczak showed various photographs that he took including construction, where the mail boxes are located, and a bus making a three-point turn. The bus makes the three-point turn which occurs four times a day. In the seven years he has lived there, he has never seen the bus go around the circle.

Mr. Franczak is concerned about the parking being provided and where the excess cars are going to park. Mr. Franczak described the traffic study on the Town website. The Elliott Road apartments were not even included in the numbers.

There were no additional witnesses for the opposition.

PUBLIC COMMENT

The following comments were then made by members of the Public:

Dennis Freeman, 8687 Camac Street – He was concerned about the Applicant’s ability to fund the apartments.

Mark Walter, 29849 Standish Street – He indicated that when he bought his property, he knew the Property could be developed but not at this density. The proposed development changes the character of the neighborhood.

Akshay Dhawan, 8658 Camac Street – He believes that the traffic from the apartments is more likely to use Camac Street. The projections by the Applicant are way off. He works from home and sees the character of the neighborhood.

Keasha Haythe, 8671 Camac Street – She was present in her individual capacity and not as part of the County Council. She moved to Hunters Mill because it was affordable. The neighborhood is a community and like a big family. She opposes the project because (1) It is not consistent with the Comprehensive Plan; (2) There is negative effect on the health and welfare of the residents including the children; and (3) The project interferes with the provision of services. The Town does not have full capacity of police officers and the fire department is also challenged.

David Milligan, 8672 Camac Street – Mr. Daly claims that part of the rationale is to provide housing for health care workers. Mr. Daly claims he has been in talks with Shore Health System. Mr. Milligan spoke to the Chairman of the Board for Shore Health who called Ken Kozel as well. They have no knowledge of anyone having talks with Mr. Daly. The Chairman even

surveyed the rest of the Board. The hospital is a replacement hospital which is essentially the same size. There is not a surge of demand for housing.

Larry Smith, 8501 Swann Haven Road – He lives in Swann Haven. He thinks they need barriers to protect the children from the hunting on neighboring properties.

Kendrick Daly, 111 Parris Lane – He indicated that there are apartments behind Parris Lane which are accessed through a residential neighborhood with one access point. The Comprehensive Plan calls for mixed types of housing.

Dana Bowser, 300 Dixon Street –She is a Board member for BAAM. She thinks there is an invisible class issue and people believe that people with deeds are better than people with leases.

Deeya Mitra, 8658 Camac Street – She used to live in apartments but is transitioning into home ownership. Apartments are needed.

DECISION AND FINDINGS OF THE BOARD

As a preliminary matter, The Board finds that the subject property was properly posted and that requisite notice of the application was given in the Easton *Star Democrat*. In addition, property owners within 400 feet of the Property were mailed a notice.

VARIANCE

The Board considered the variance request first and pursuant to Section 28-1303.5.C made the following findings of fact relative to the application for a variance:

1. ***Granting the application will not be contrary to the public interest.***

The Board noted that the impact on the surrounding properties is minimal. The nearest residence is over 180 feet from the property line. There are significant woods between the nearest residence and the proposed apartments.

2. ***Granting the application will be in harmony with the purpose and intent of the Ordinance.***

The Board finds that balancing the sensitive environmental features and allowing the minimal encroachment into the setback is more in keeping with the spirit and intent of the Ordinance than requiring strict compliance with the setbacks.

3. ***Granting the application will not be injurious to the neighborhood or otherwise detrimental to the public welfare.***

The Board finds that given that the nearest residence is over 180 feet from the proposed apartment building and parking that will encroach into the setback, and given the small encroachment, there is minimal to no impact on the neighborhood.

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

The Board finds that the Property has a peculiar shape to it. There is also a significant amount of wetland issues and other sensitive environmental features that make the building envelope a peculiar shape. In order to protect these environmental features, the structures and parking are clustered in the north-eastern corner of the Property. Locating the structures within the rear setback protects these environmentally sensitive areas.

Upon consideration of the testimony given, and upon the motion of Mr. Cotter, seconded by Mr. Molchan, the Board recorded the following vote on whether the application of Aspire Outdoors, LLC, for a variance from the rear yard setback from 75 ft to 50 ft should be granted:

Mr. Cotter - Yes

Mr. Molchan – Yes

Mr. Krebeck – Yes

SPECIAL EXCEPTION

Pursuant to Section 28-1303.5.B of the Ordinance, the Board makes the following findings of fact relative to the application for Special Exception:

1. The proposed use conforms in all respects to the minimum requirements of the district in which it is located.

The Property is located in the Residential (R-10A) zoning district. Other than the rear setback which the Board agreed to grant a variance for above, the proposed use conforms to the requirements for density, front and side setbacks. Off-street parking is provided in accordance with the parking requirements for multi-family residential buildings. Landscape buffering is being provided between the existing Hunters Mill subdivision and the Gannon Estates subdivision. The height of the proposed apartments meets the maximum 35-foot height requirement of the R-10A zoning district.

2. The proposed use will adversely affect the health, safety, or general welfare of the residents of the area.

Without a temporary construction entrance to the site from Matthewstown Road, the proposed use will adversely affect the existing residents of Hunters Mill with noise, dust, mud and excess heavy truck traffic.

3. ***The proposed use will interfere with the adequate and orderly provision of public facilities necessary to service the area or the proposed special exception.***

While the Applicant has provided an easement for a pump station to serve the proposed development and surrounding development, the Applicant did not provide information sufficient to prove that the public schools have the capacity to serve the 162 apartment units.

4. ***The proposed use will create congestion in the streets and undue traffic hazards, and that adequate ingress and egress has not been provided.***

There was significant testimony, evidence submitted, and discussion regarding the traffic. The Board finds that the road width, orientation and existing capacity of Camac Street is not sufficient to support the additional traffic generated by the project that will use Camac Street. While admittedly the traffic study performed by the Applicant finds the intersections to be at acceptable levels of service, the Board finds that traffic congestion and undue traffic hazards, as well as adequate ingress and egress is about more than just levels of service at intersections.

The Board believes that a significant number of the residents of the apartments would choose to use Camac Street rather than go through Gannon Range, even if the traffic calming measures suggested by the Applicant's traffic consultant are implemented. The majority of the people living in the proposed apartments will probably be headed to Route 50 and Easton making Camac Street the more likely route. The Applicant looked only at the houses existing on Camac Street for their capacity evaluation, but the Board does not find that to be credible. The

mailboxes are located on Camac Street, and several witnesses discussed the Captain Adamowski residents using Camac Street as well. The combination of the existing traffic and the additional traffic generated by the apartments would overload the traffic on Camac Street by exceeding the ADT limitations in the subdivision regulations and generally creating congestion in the streets of Hunters Mill. In addition, there will likely be backup on McCall Street trying to turn onto Matthewstown Road.

The Board finds that the geometry of Camac Street makes accessing the Property by emergency vehicles, sanitation trucks, moving vans, and construction vehicles difficult if not impossible, particularly when there is parking on both sides of Camac Street.

5. ***The proposed use will adversely affect the area and surrounding property due to adverse environmental characteristics including undue smoke, odor, noise, improper drainage, or inadequate access.***

While the proposed use will not adversely affect the surrounding properties due to smoke, odor, noise or improper drainage, as referenced in item 4 above, the proposed use has inadequate access which will adversely affect the area and surrounding neighborhood. Camac Street narrows down to 28 feet as it approaches the Property which is not sufficient for a development of the size proposed and the resulting traffic.

6. ***The proposed use will adversely affect the established character of the area.***

Hunters Mill is a quiet neighborhood. The proposed development will turn it into a bustling thoroughfare for cars, delivery trucks, contractor vehicles, etc. The result will change the character of the neighborhood in a negative way. While the Comprehensive Plan calls for diversity of housing types, the Community Character element of the Plan also calls for ensuring

that housing types are compatible with existing housing types in the case of infill development. The proposed development is a single use suburban style apartment project. The intensity of the developed portion of the site is not compatible with the single family detached suburban style communities in the area. Adding the additional traffic from the apartments will also have a negative effect on the character of the Hunters Mill neighborhood.

7. *The proposed use is in conformity with some of the provisions of the Easton Comprehensive Plan and not in conformity with other provisions of the Easton Comprehensive Plan.*

The proposed use is consistent with some portions of the Comprehensive Plan and in particular, its stated goal of providing a variety of housing options in Easton. There is an entire chapter of the Comprehensive Plan devoted to housing. (Town of Easton 2010 Comprehensive Plan p. 132-142). The Housing Chapter supports having a diversity of housing types.

However, as noted in Item 6 above, the Community Character also calls for ensuring that housing types are compatible. In this case, the intensity of the proposed development is not compatible with the suburban style neighborhood adjacent to it, particularly when all of the traffic for the proposed development must traverse through the nearby neighborhoods.

8. *The adverse effects of the proposed use are greater at this location than they would be generally elsewhere within the zoning district.*

In reviewing a special exception, the Board must determine whether the adverse effects of the proposed use are greater at this location than they would be generally elsewhere within the zoning district. The Board finds that the proposed development would have a significantly greater impact at this location than it would in other locations in the R-10A zoning district

particularly with respect to the traffic congestion and inadequate access and given the width and geometry of Camac Street and the small size of the Hunters Mill subdivision. Even if Camac Street was not used and all traffic went through Gannon Range, the Board is concerned that four apartment buildings would be problematic to the traffic through Gannon Range, and the resulting project would not meet the connectivity requirements of the Comprehensive Plan.

Most apartment complexes in Town have direct access to larger and more substantial streets. Apartments have a big impact and an appropriate street network is required to accommodate that level of demand and traffic.

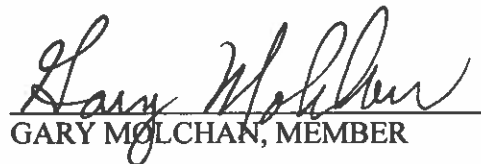
Upon consideration of the testimony given, and upon the motion of Mr. Cotter, seconded by Mr. Molchan, the Board recorded the following vote on whether the application of Aspire Outdoors, LLC, for a Special Exception to construct 162 apartment units in the R-10A Zoning District should be denied:

Mr. Cotter - Yes

Mr. Molchan – Yes

Mr. Krebeck – Yes

It is, therefore, this 29th day of December, 2023, by the Easton Board of Zoning Appeals, ordered that, the variance be, and the same hereby is, GRANTED, and the special exception requested be, and the same hereby is, DENIED.


GARY MOLCHAN, MEMBER


ZACHARY KREBECK, MEMBER


PETER COTTER, CHAIR



TOWN OF EASTON

P.O. Box 520
Easton, Maryland 21601

November 1, 2023

Aspire Outdoors, LLC
% Ryan D. Showalter Esq.
29760 Standish Street
Easton, Maryland 21601

Re: BOZA: SE-911 / SE 23-06 & V-911 / V 23-05
Camac Street
Tax Map 0026, Grid 0020, Parcel 0186
Easton, Maryland, 21601

Dear Mr. Showalter,

At the special hearing held on October 24, 2023, the Town of Easton Board of Zoning Appeals (Board) heard the Special Exception application SE-911 / SE 23-06 for a Multifamily Apartment Complex Use; and the Variance application V- 911 / V 23-05 for a variance request from the minimum 75' rear yard setback for apartment buildings and parking areas adjacent to a single-family residence or vacant residential lot.

At the conclusion of the hearing, the Board voted (3-0) to approve the Variance request as submitted.

The Board also voted (3-0) to deny the Special Exception request as submitted.

You will receive a written Decision from the Board detailing the above. The decisions are subject to a 30-day appeal period from the date of the written decision. Should you have questions concerning the above conditions, please contact this office at 410-822-1943.

Sincerely,

Samantha N. Smith

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

CC: Rauch Engineering

EXHIBIT A

Purpose of Appeal

Aspire Outdoors LLC (“Applicant”), is seeking approval from the Board of Zoning Appeals for Aspire Outdoor LLC’s property at the end of Camac Street in Easton, Maryland and Charlotte Lane in the Gannon Range PUD 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 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 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 Exhibit
- Traffic Impact Study, The Traffic Group, revised January 6, 2023
- Firetruck and School Bus Turning Movement Exhibits
- Letter from Gannon stating the understanding of Aspire’s Vehicular Access

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.

An Average Daily Traffic (ADT) exhibit is included to address the Town of Easton's street hierarchy standards. The Applicant coordinated the main point of access to the street network approved in the adjacent Gannon Farm PUD. With this access the ADT Exhibit confirms that the proposed project will "not exceed the maximum volumes permitted on" Gannon Farm PUD roadway under the Town's Subdivision regulations.

- 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.

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.



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

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@jackresources.com

Applicant or Agent

Name Aspire Outdoors LLC
Mailing Address 29760 Standish St, Easton, MD 21601
Telephone No. 410-310-6241 Email ddaly@jackresources.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 5 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 11/8/2023

Printed Name of Applicant or Agent

Derick Dalv

For Office Use Only

Project Number		Fee Received	
Application Number		Application Notification	
Filing Date		Property Posting Date	
BOZA Hearing Date		Notice(s) Published	
If ESDR, Date			

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



TOWN OF
EASTON
ENGINEERING DEPARTMENT

DATE: August 10th, 2023
TO: Brian Fitzgerald - Rauch Engineering
cc: Derick Daly - Aspire Outdoors
Sierra Clem - Town of Easton Engineering Department
Joe Mayer - Town of Easton Planning & Zoning Department
FROM: Rick Van Emburgh, P.E. – Town Engineer
SUBJECT: Aspire
Sketch Site Plan and
Sketch Stormwater Management Plan Review

I reviewed the revised Application for the Subject project received on 07/31/2023.

Sketch Site Plan

The **Sketch Site Plan** is **acceptable** with the following comments:

1. Connect Camac Street sidewalk on the northeast side to the proposed sidewalks and provide connection from the proposed community to the Town Park. Proposed sidewalk is shown to the vicinity of the existing sidewalk, but they don't connect.
2. The Preliminary Site Plan application should provide more detail for the pool fence/sidewalk/deck and label trash location for the pool.
3. Prior to Final Site Plan approval, provide a PWA (Public Works Agreement) to address Phasing of the project.
4. As a condition of approval, two (2) proposed buildings may be constructed to existing Camac Street. Additional buildings will require the construction of the connection to the intersection of Eleanor Way in Gannon Estates, including improvement in the future Charlotte Lane right-of-way needed to make the physical connection. The internal roads in Gannon Estates must also be constructed and connect to Matthewstown Road for additional buildings to be approved and permitted.

Please address the comments above and submit a Preliminary Site Plan.

Stormwater Management

The **Sketch Stormwater Management Plan** is **approved** with the following:

5. At the Preliminary Stormwater Management Plan Review, provide project specific cross sections (not typical sections) through the embankments of the Submerged Gravel Wetlands to illustrate side

P.O. Box 520, Easton, Maryland 21601
410-820-8822
Engineering@EastonMD.gov - www.EastonMD.gov

slopes, top of embankment width, and proximity to property lines and LOD.

6. At the Preliminary Stormwater Management Plan Review, provide a note or detail on how the Pool Equipment will discharge to the proposed stormwater management system. Pool water must be dechlorinated before released to the stormwater system or it will be an Illicit Discharge.

Please address the comments above and submit a Preliminary Stormwater Management Plan.

Please contact me if you have any questions. Thank you.



TOWN OF EASTON
Planning & Zoning Department
P.O. Box 520
Easton, Maryland 21601

August 25, 2023

Mr. Paul Rogers
% Aspire Outdoors LLC
29760 Standish Street
Easton, Maryland 21601

Re: Site Plan Application 2023 - 004
Camac Street - Aspire Apartments
Tax Map 026, Grid 020, Parcel 0186
Easton, Maryland 21601

Dear Mr. Rogers:

At their regularly scheduled meeting on August 17, 2023, the Town of Easton Planning Commission 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 of approval 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 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 voted 5-0 to approve the Sketch Site Plan with the following conditions:

1. Two (2) proposed buildings may be constructed 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 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.

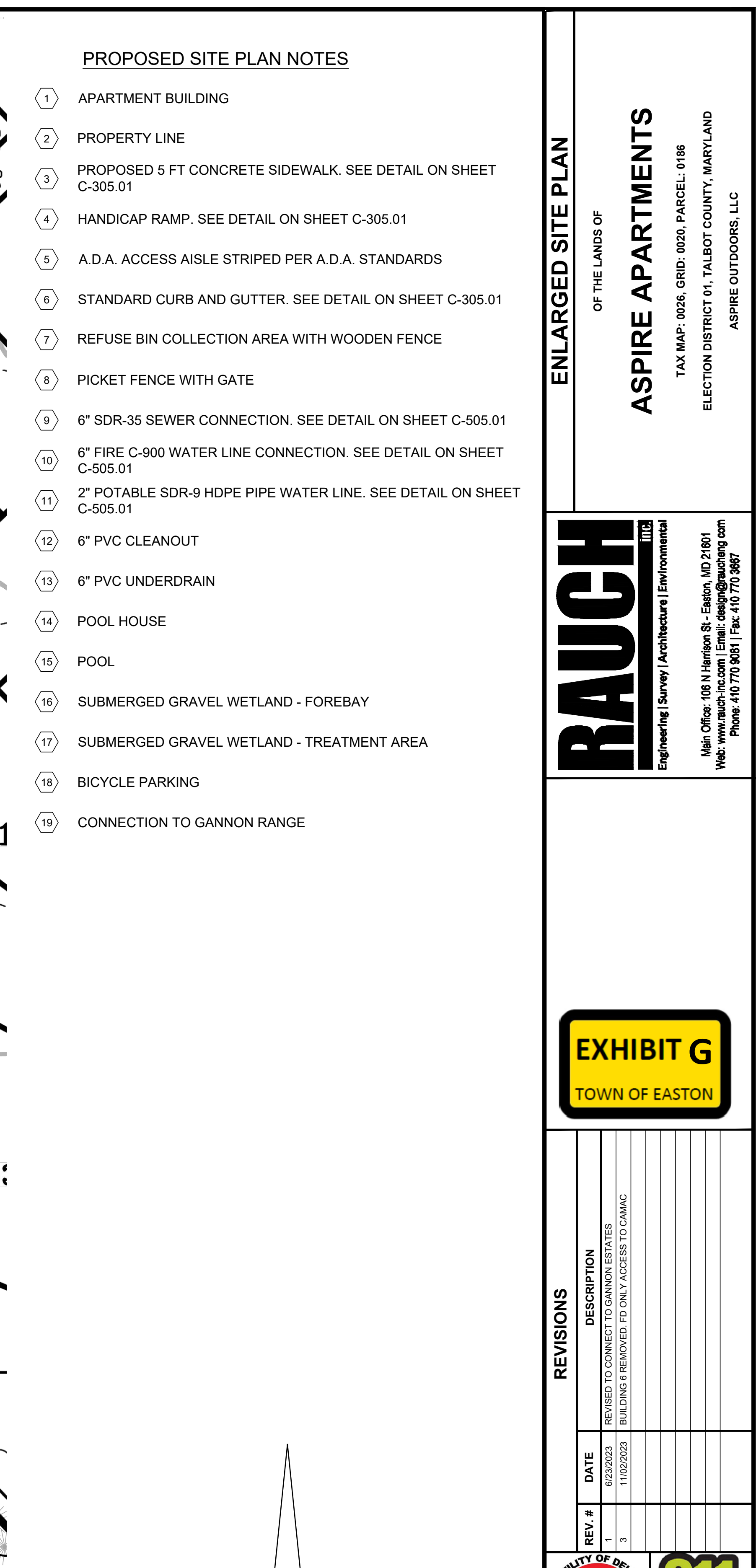
Any person aggrieved by this decision may, within thirty (30) days of the Planning Commission's decision, file an appeal with the Town Planner and with the Board of Zoning Appeals specifying the grounds thereof. Should you have questions concerning the above finding, please contact this office at 410-822-1943.

Sincerely,

Samantha N. Smith

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

CC: Brian Fitzgerald, Rauch Engineering
Derick Daly, Aspire Outdoors LLC

[illegible]

CHAIN LINK FENCE WITH
LOCKED GATE. EMERGENCY
VEHICLE ACCESS ONLY

Town of Easton
Property

Proposed
Neighboring
Development
Park Area

BUILDING 6
REMOVED

Proposed
Neighboring
Development
Afforestation

Proposed
Neighboring
Development
Single Family
Lots

MAIN ENTRANCE OFF
PUBLIC ROAD STUB
FROM GANNON

RAUCH
Inc.

Engineering | Survey | Architecture | Environmental
Geographic Information Systems | Design is subject to change
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MAIN ENTRANCE OFF
PUBLIC ROAD STUB
FROM GANNON

Proposed
Neighboring
Development
Single Family Lots

Proposed
Neighboring Development
Afforestation

Proposed
Neighboring Development
Park Area

Town of Easton
Property

BUILDING 6
REMOVED

CHAIN LINK FENCE WITH
LOCKED GATE. EMERGENCY
VEHICLE ACCESS ONLY

Conceptual Image. Design is subject to change.
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CHAIN LINK FENCE WITH
LOCKED GATE. EMERGENCY
VEHICLE ACCESS ONLY

BUILDING 6
REMOVED

Town of Easton
Property

Proposed Neighboring
Development Afforestation

Proposed
Neighboring Development
Park Area

Proposed
Neighboring
Development
Single Family Lots

MAIN ENTRANCE OFF
PUBLIC ROAD STUB
FROM GANNON



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

EXHIBIT K
TOWN OF EASTON

EXHIBIT H



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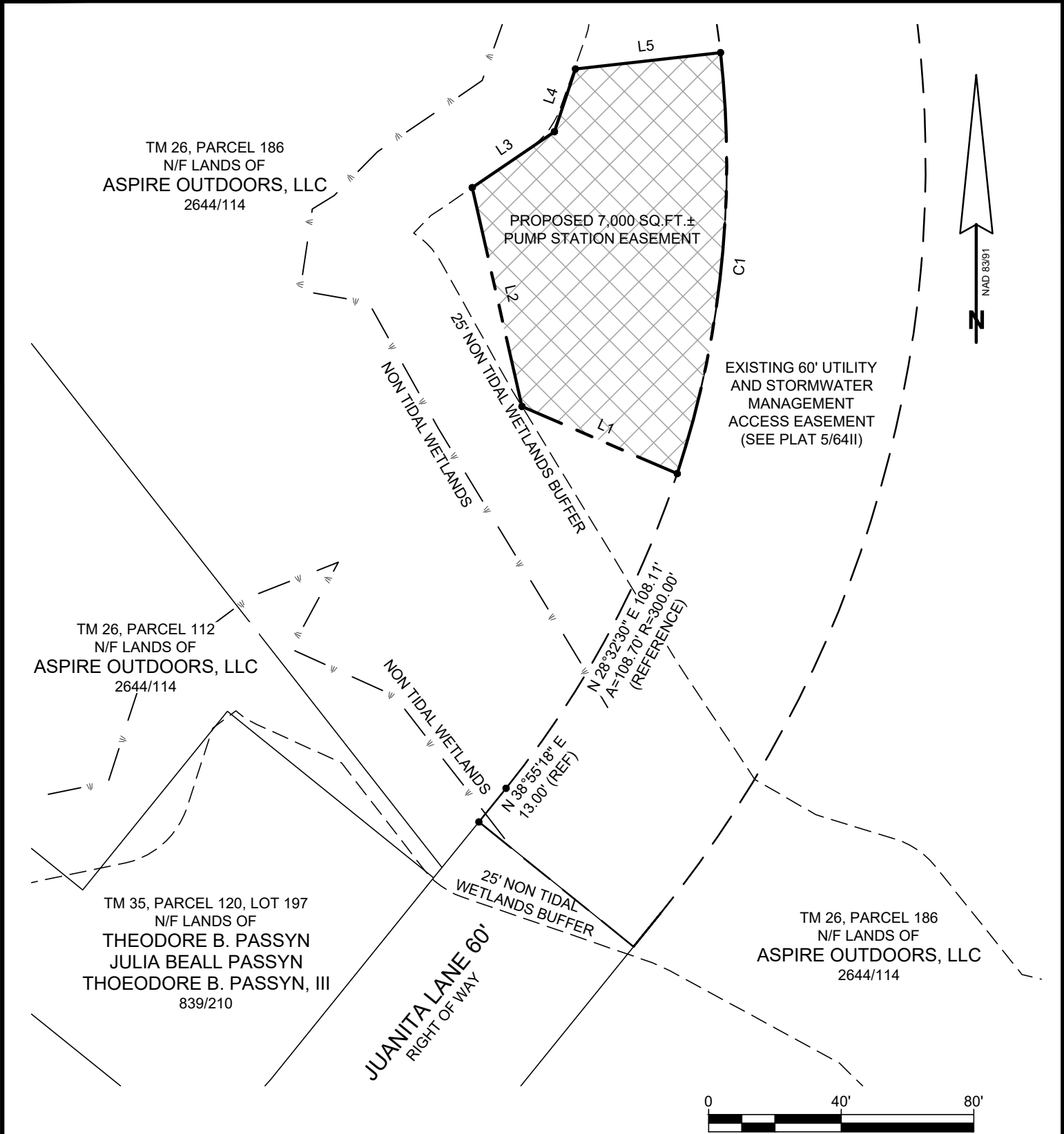
RAUCH
inc.
Engineering | Survey | Architecture | Environmental

EXHIBIT L
TOWN OF EASTON

EXHIBIT I



BUILDING 6
REMOVED
(not pictured)



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

INC.

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;

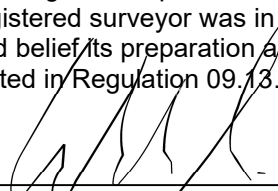
THENCE binding on the aforesaid easement;

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.

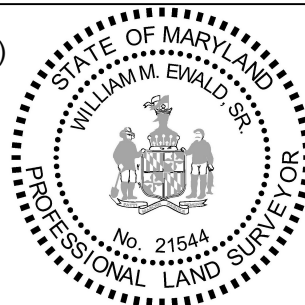
THE legal description contained herein was prepared by RAUCH, inc. at which time I, the undersigned registered surveyor was in responsible charge and to the best of my professional knowledge, information and belief its preparation and the surveying work reflected therein is in compliance with the requirements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

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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.

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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.

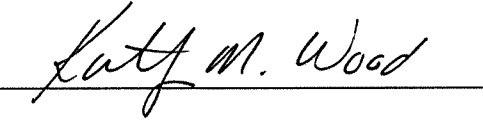
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TALBOT COUNTY FINANCE OFFICE
RECORDATION TAX
AMT: \$0
DATE: 9/15/2023
INITIALS: SPH
Prop ID: 01-088793, 01-084062

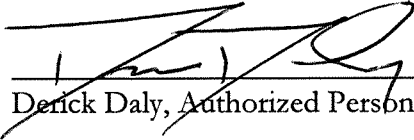
IN WITNESS WHEREOF, the parties hereto have caused this Deed of Right-of-Way and Easement to be executed by a duly authorized official as of the day and year first above written.

AS WITNESS the hand and seal of said Grantor.

WITNESS:



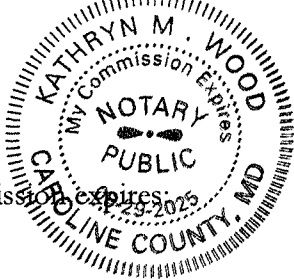
ASPIRE OUTDOORS, LLC

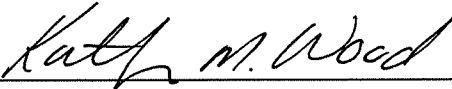
By:  (SEAL)
Derick Daly, Authorized Person

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.

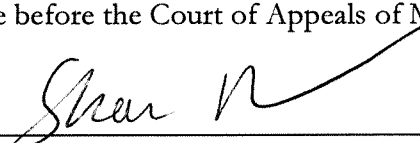
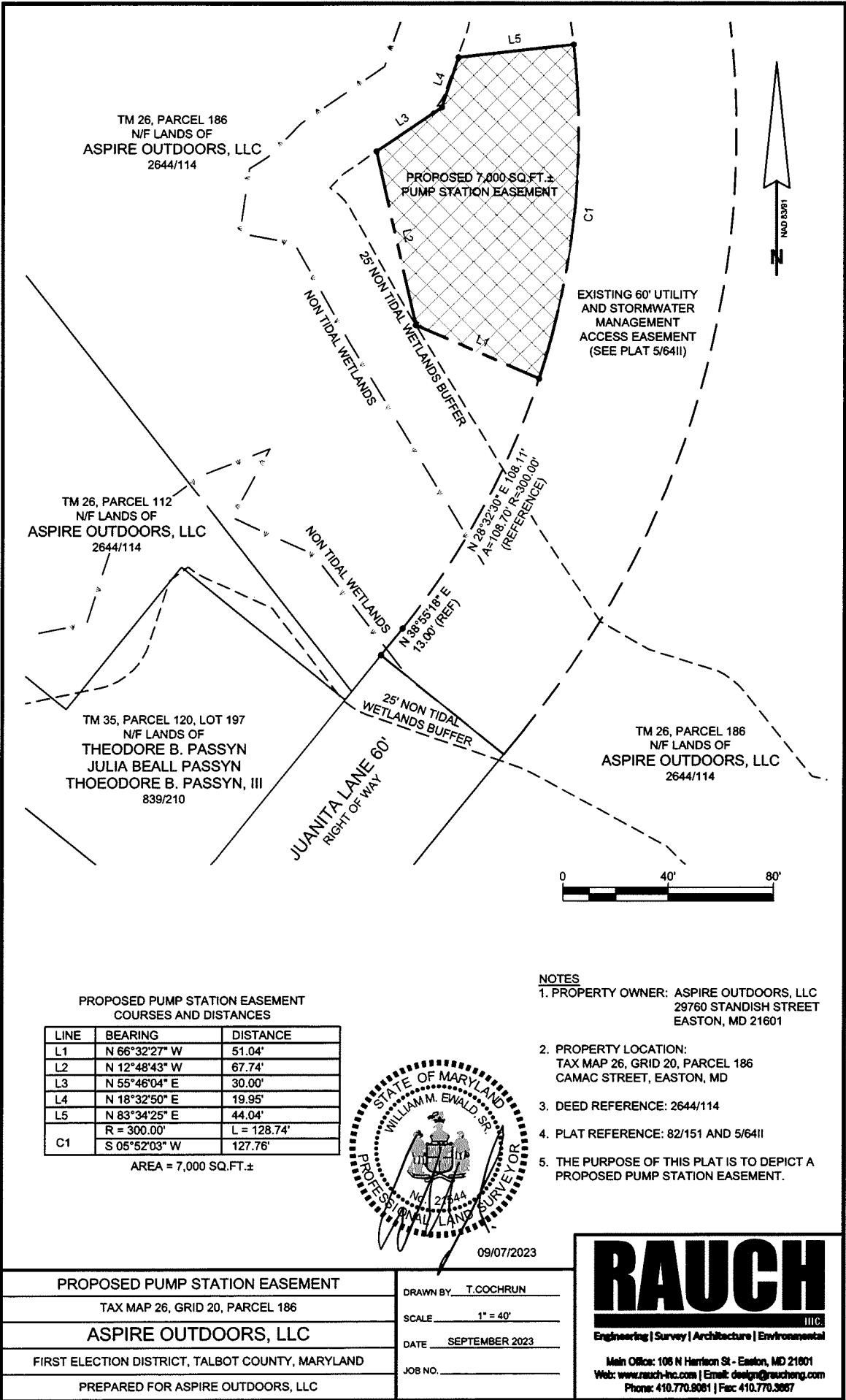

Sharon M. VanEmburch, Attorney at Law

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

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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;

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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;

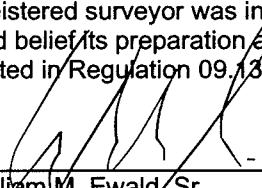
THENCE binding on the aforesaid easement;

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.

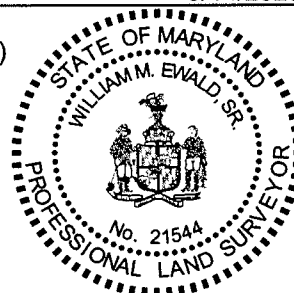
THE legal description contained herein was prepared by RAUCH, inc. at which time I, the undersigned registered surveyor was in responsible charge and to the best of my professional knowledge, information and belief its preparation and the surveying work reflected therein is in compliance with the requirements 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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or copying of this information is strictly prohibited. If you have received this e-mail in error, please notify the sender and delete this message immediately.

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.

EXHIBIT R

TOWN OF EASTON

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: 01-083793-01-083462

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.

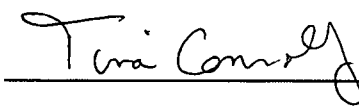
To Have and To Hold the said tract of ground and premises above described and mentioned, and hereby intended to be conveyed, together with the rights, privileges, appurtenances and advantages thereto belonging or appertaining unto and to the proper use and benefit of the said **ASPIRE OUTDOORS, LLC**, 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:

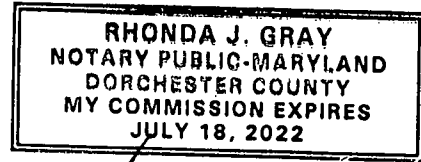
I hereby certify that on this 17th day of September, 2019 before me, the subscriber, a Notary Public of the State and County aforesaid, personally appeared W. DAVID MORSE, who acknowledged himself to be the EXECUTIVE VICE PRESIDENT of SHORE UNITED BANK, a Maryland banking corporation (the Corporation), 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
WILLARD C. PARKER, II, ESQUIRE

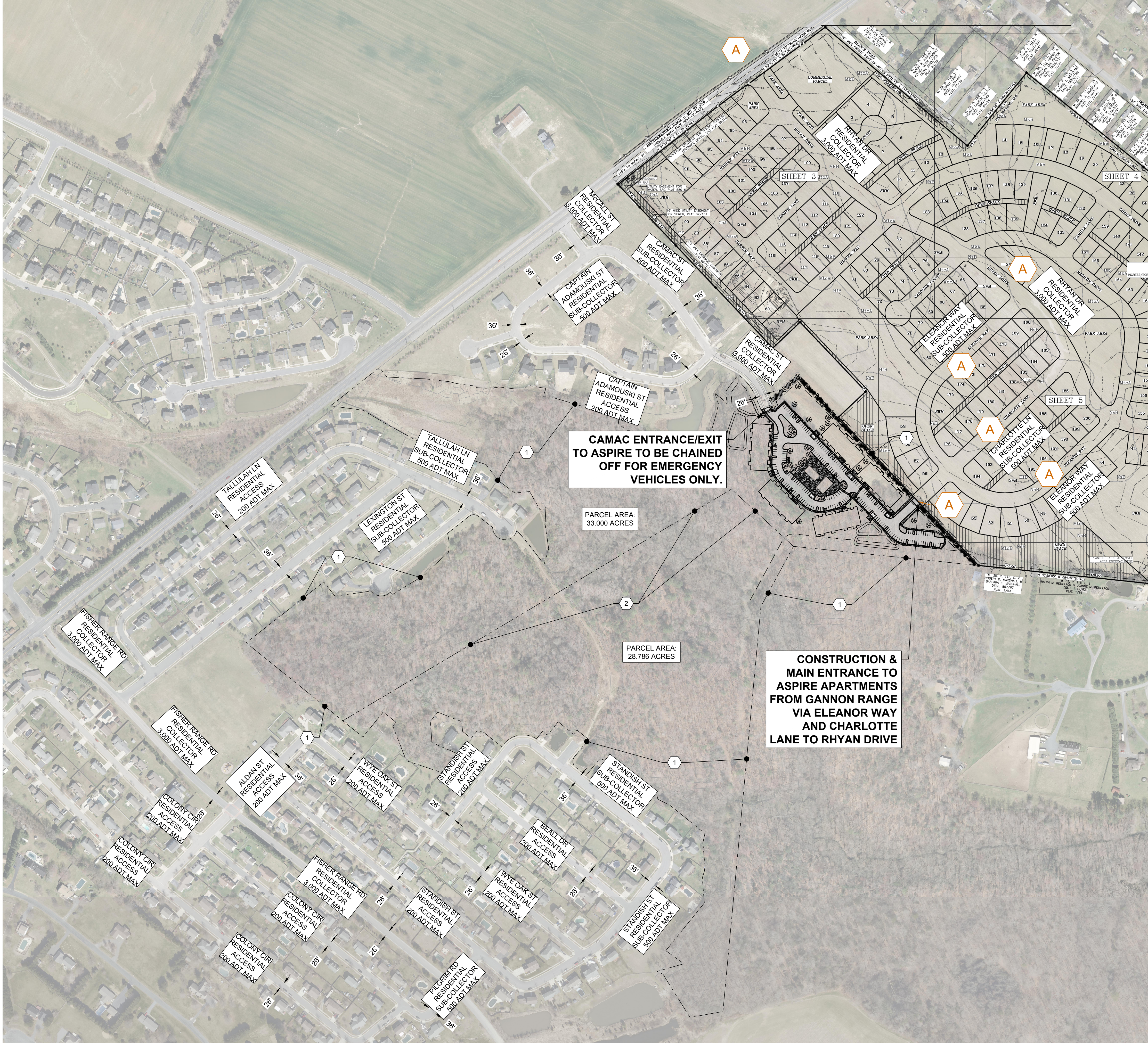
AFTER RECORDING, PLEASE RETURN TO:
EASTERN SHORE TITLE COMPANY
114 N. West Street
410-820-4426 fax 410-820-4429
Easton, Maryland 21601
File No. EST-2019-22640CLH

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



NOTES:

- 1 EXISTING PROPERTY LINE
2 PROPOSED PROPERTY LINE

TRAFFIC CALCULATIONS

5 BUILDINGS - (GANNON ESTATES) CHARLOTTE + ELEANOR -> RHYAN
MAXIMUM ALLOWABLE TRIPS TO RT 328 VIA CHARLOTTE & ELEANOR:
CHARLOTTE LANE (500 ADT) + ELEANOR WAY (500 ADT) + ELEANOR WAY (LOOP; 500 ADT)
= 1,500 ADT MAX
EXISTING:
55 SINGLE FAMILY @ 10 TRIPS/DU (PER TOWN SUBDIVISION REGULATIONS; (SINGLE FAMILIES
COUNTED ONLY THOSE FRONTING STREETS BEING ANALYZED) = 550 ADT
AVAILABLE:
1,500 ADT MAX - 550 ADT EXISTING = 950 ADT
950 ADT AVAILABLE FOR ASPIRE TO RHYAN
950 TOTAL ADT / 5.4 TRIPS PER DU (PER TOWN SUBDIVISION REGULATIONS) = 175 UNITS

A

A

A

A

A

A

DENSITY CALCULATIONS:

5 BUILDINGS W/ 27 UNITS EACH = 135 TOTAL DWELLING UNITS
ZONE R10A MAXIMUM DENSITY = 5 DWELLING UNITS PER ACRE
135 UNITS / 5 UNITS PER ACRE = **27 ACRES (MINIMUM)**



LEGEND

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

LOCAL ROAD TRAFFIC EXHIBIT

OF THE LANDS OF

ASPIRE APARTMENTS

TAX MAP: 0026, GRID: 0020, PARCEL: 0166
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 9081 | Fax: 410 770 3987

EXHIBIT S

TOWN OF EASTON

REVISIONS

REV. #	DATE	DESCRIPTION
1	6/22/2023	REVISED TO CONNECT TO GANNON ESTATES
3	11/02/2023	BUILDING 6 REMOVED. FD ACCESS ONLY TO CAMAC



DATE: 10/17/2023
SCALE: 1" = 200'
DRAWN BY: BBF
DESIGNED BY: BBF
APPROVED BY: BBF

SHEET NO.:
ADT EXHIBIT

FOR
REVIEW

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.



Prepared by: Betty H. Tustin, P.E., PTOE
Ming Yu-Chien, P.E., PTOE

BHT:amr
(F:\2021\2021-1217_Aspire\DOCS\REPORTS\REV1\TISRev.docx)

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

Merging Innovation and Excellence®

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

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.

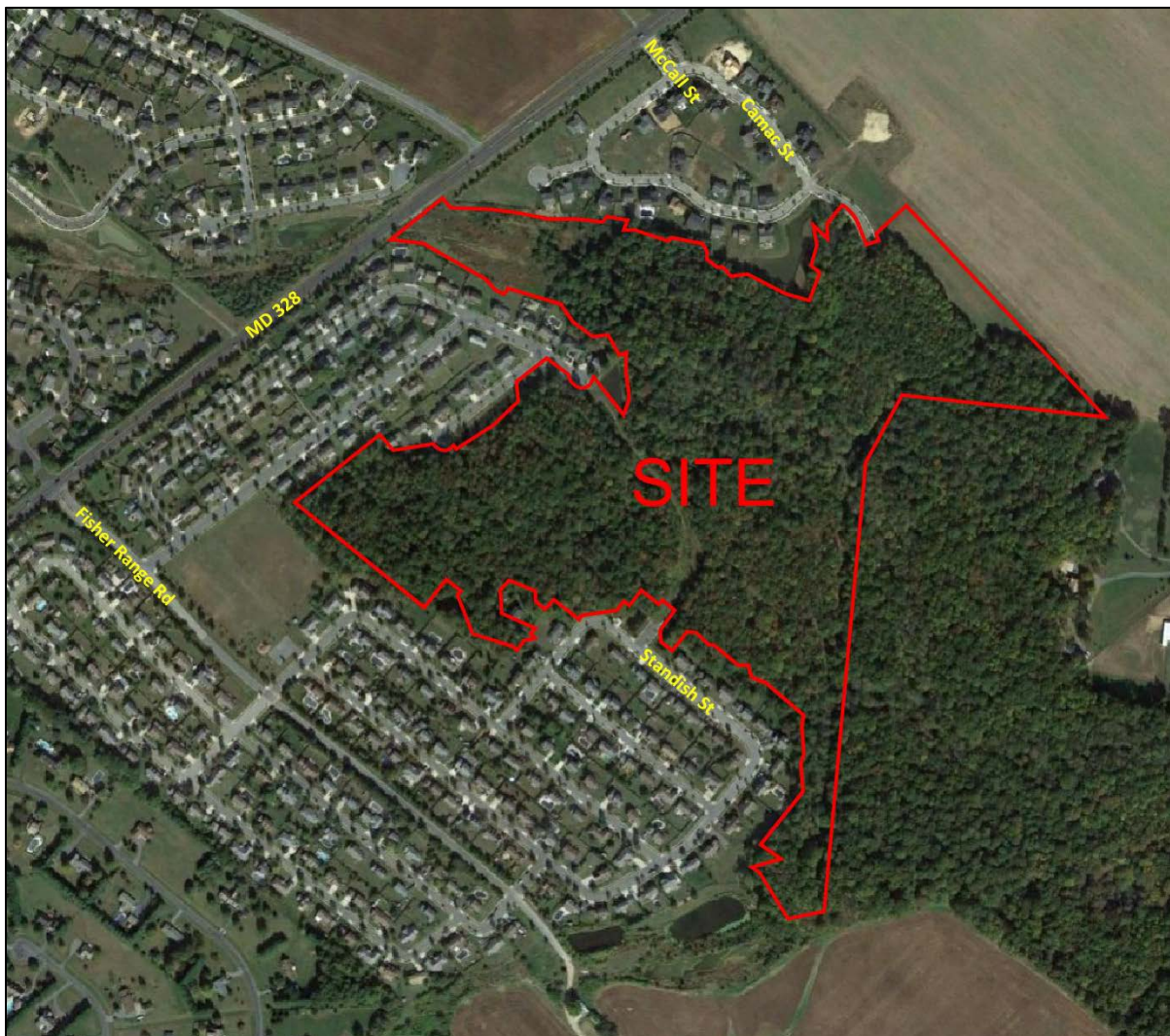
The data and methodology used to undertake this study are detailed in the sections that follow.

EXISTING TRAFFIC CONDITIONS

Site Information

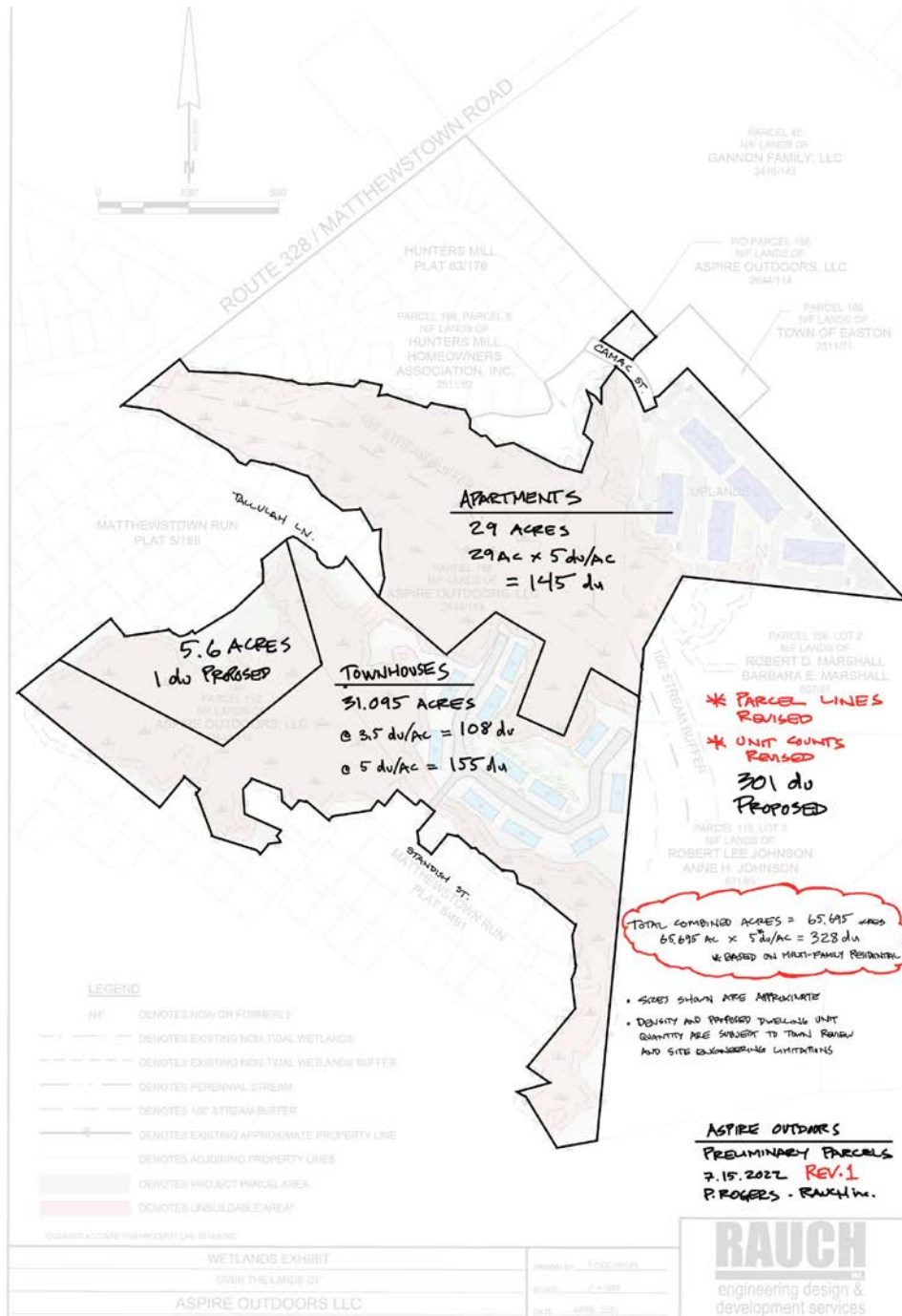
The Traffic Group, Inc. has revised a *Traffic Impact to Study*, previously submitted on August 30, 2022, to address the comments received from the MDOT SHA on September 26, 2022. The purpose of the TIS is to determine the impact on the surrounding road system of a proposed residential development to 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.

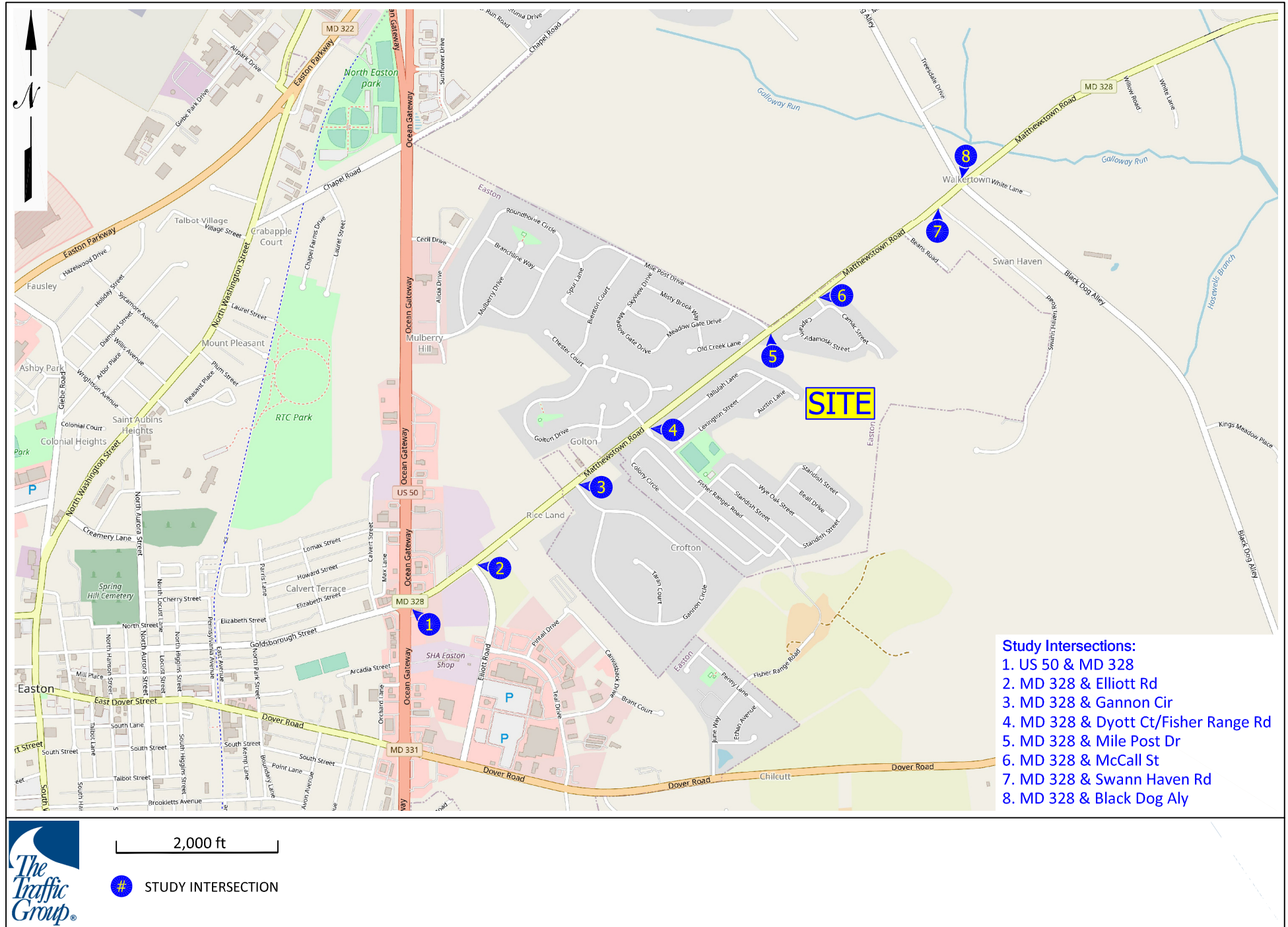
- US 50 @ MD 328
- MD 328 @ Elliot Road
- MD 328 @ Gannon Circle
- MD 328 @ Dyott Ct/Fisher Ranger Road
- MD 328 @ Mile Post Drive
- MD 328 at Hunters Mill
- MD 328 @ Swann Haven Road
- MD 328 @ Black Dog Alley

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.

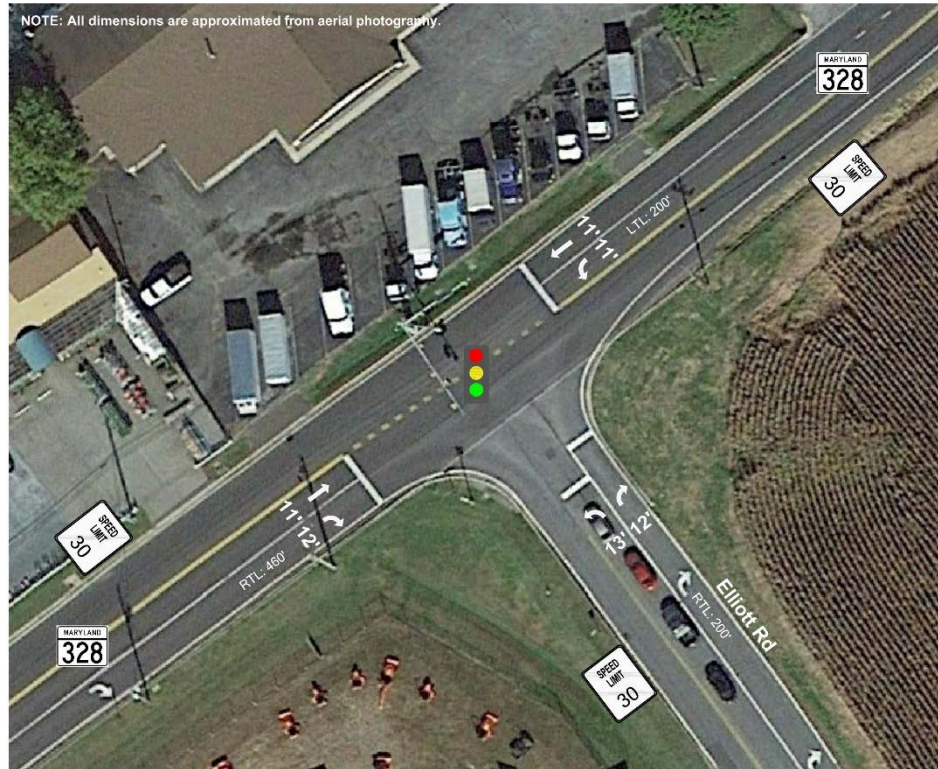
The intersection of US 50 and Matthewstown Road, MD 328, is a signalized intersection. US 50 is classified as a Principal Arterial Other with an AADT of 33,990 for the year 2021. The speed limit on US 50 is posted as 35 mph.



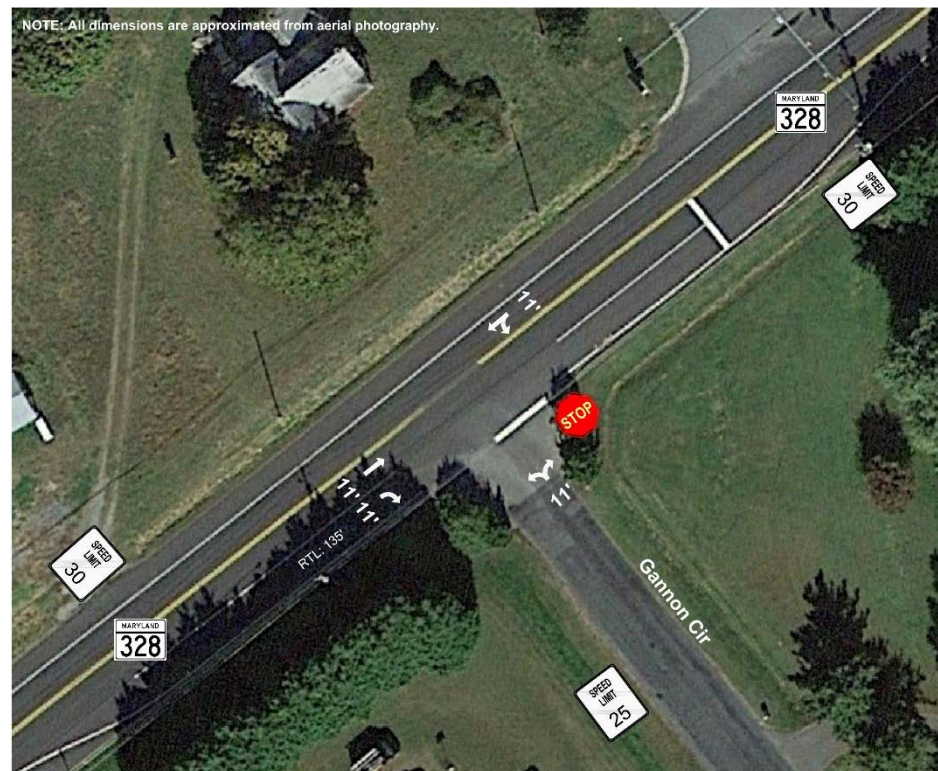
Figure 1. Site Location Map



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.



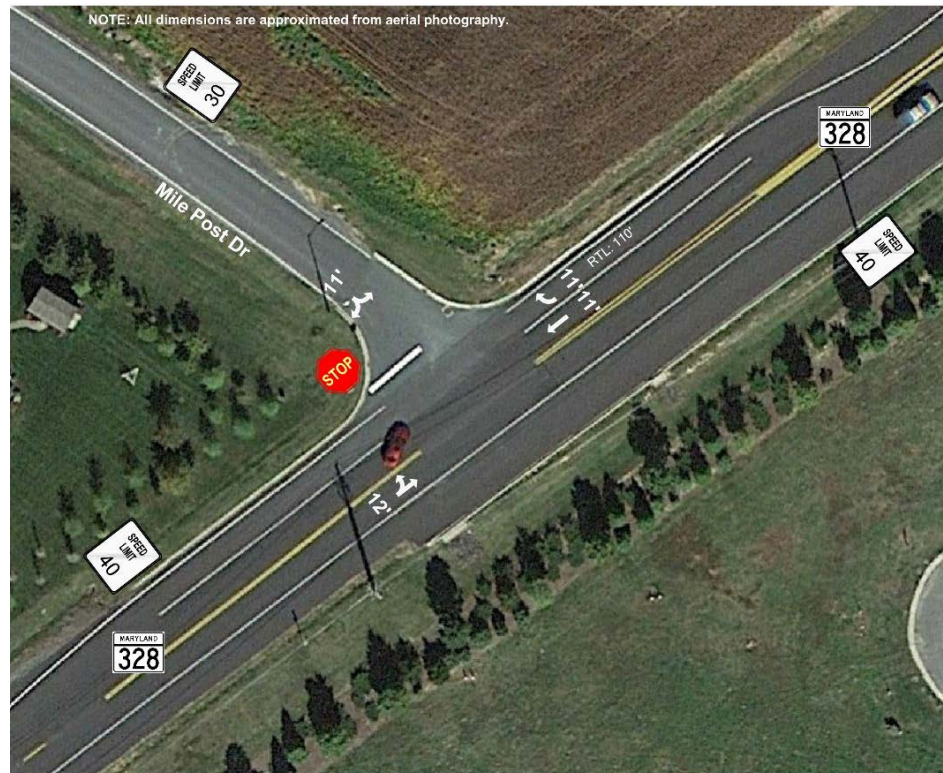
The intersection of Gannon Court and Matthewstown Road, MD 328, is STOP controlled. Gannon Court is classed as a Local Road with unknown AADT. The speed limit on Gannon Court is posted as 25 mph.



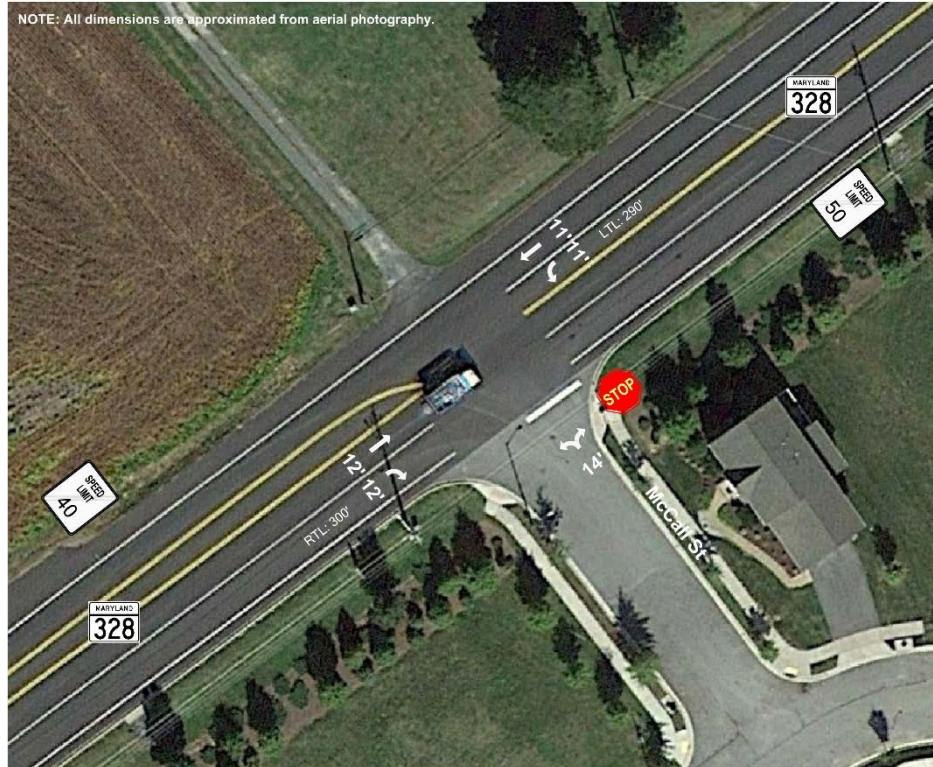
The intersection of Fisher Range Road/Dyott Ct is a signalized intersection. Fisher Range Road is classified as a Local Road with unknown AADT. The speed limit on Fisher Range Road is posted as 30 mph. Dyott Court is classified as a Local Road with unknown AADT. The speed limit on Dyott Court is posted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



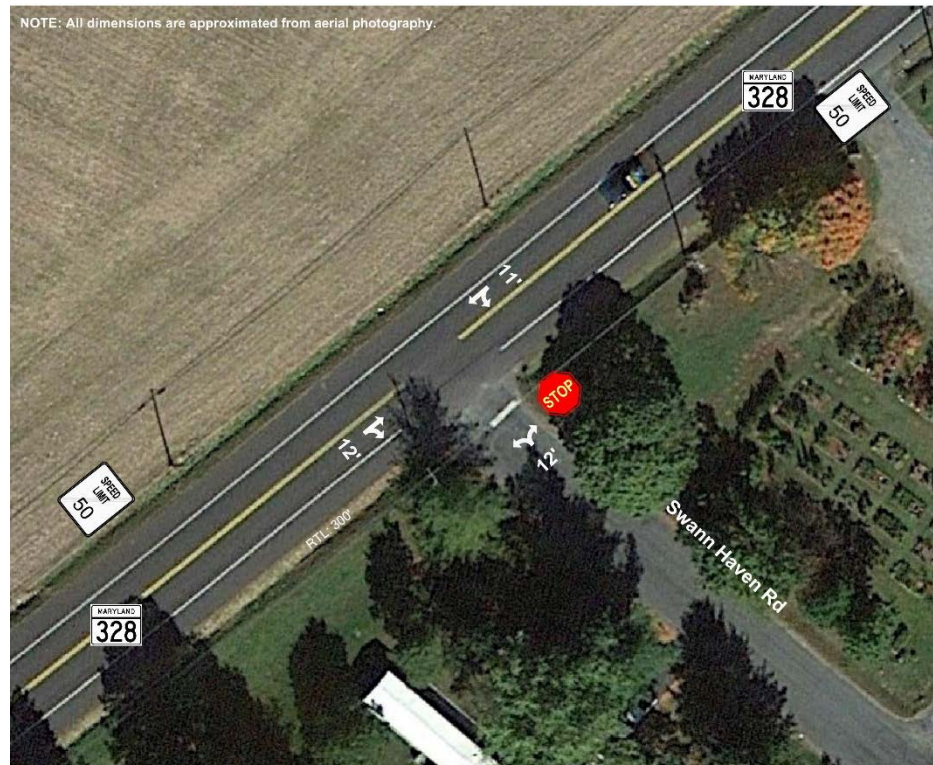
The intersection of Mile Post Drive and Matthewstown Road, MD 328, is STOP controlled. Mile Post Drive is classed as a Local Road with unknown AADT. The speed limit on Mile Post Drive is posted as 30 mph.



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.

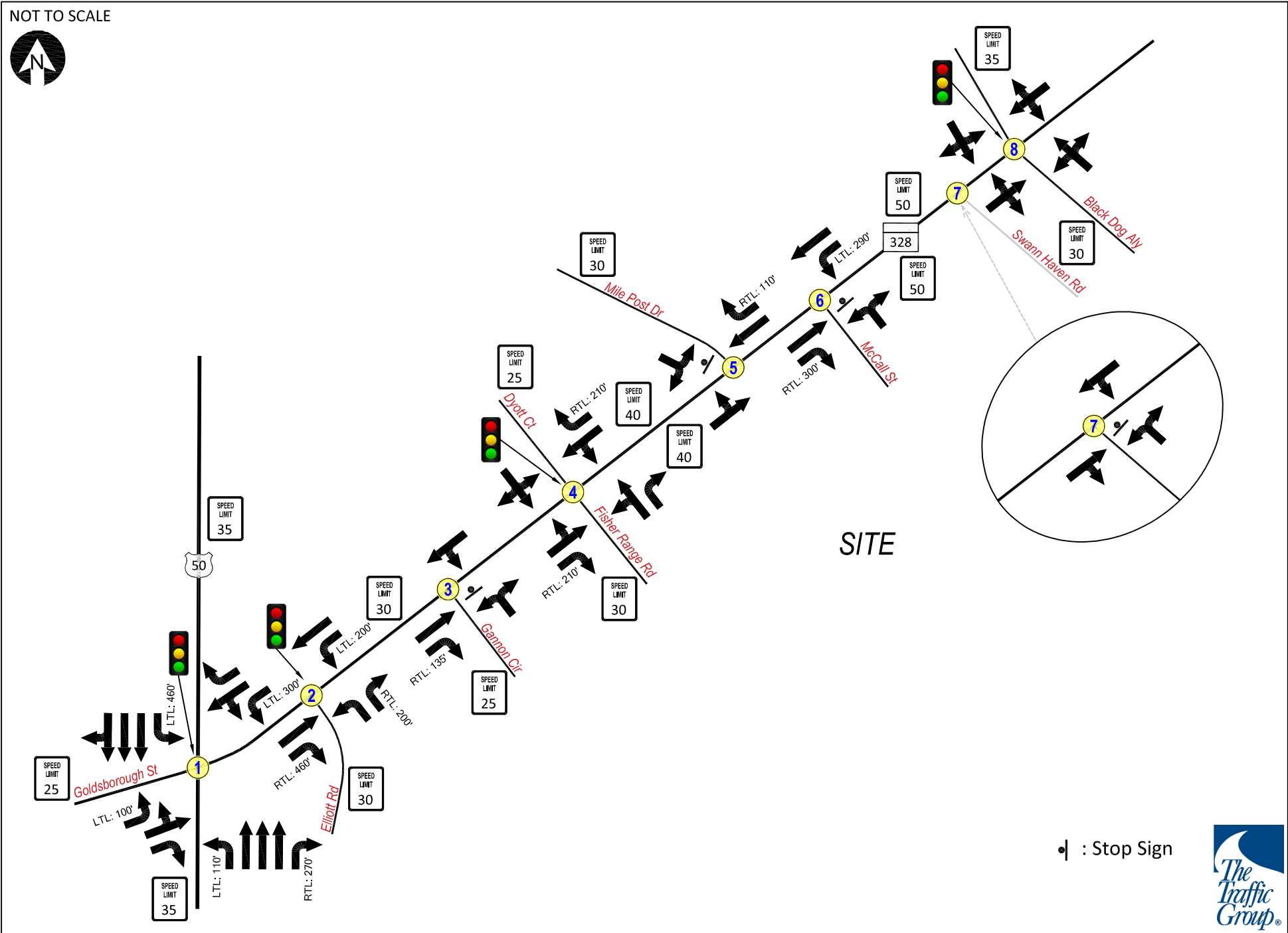
Traffic Volumes

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.

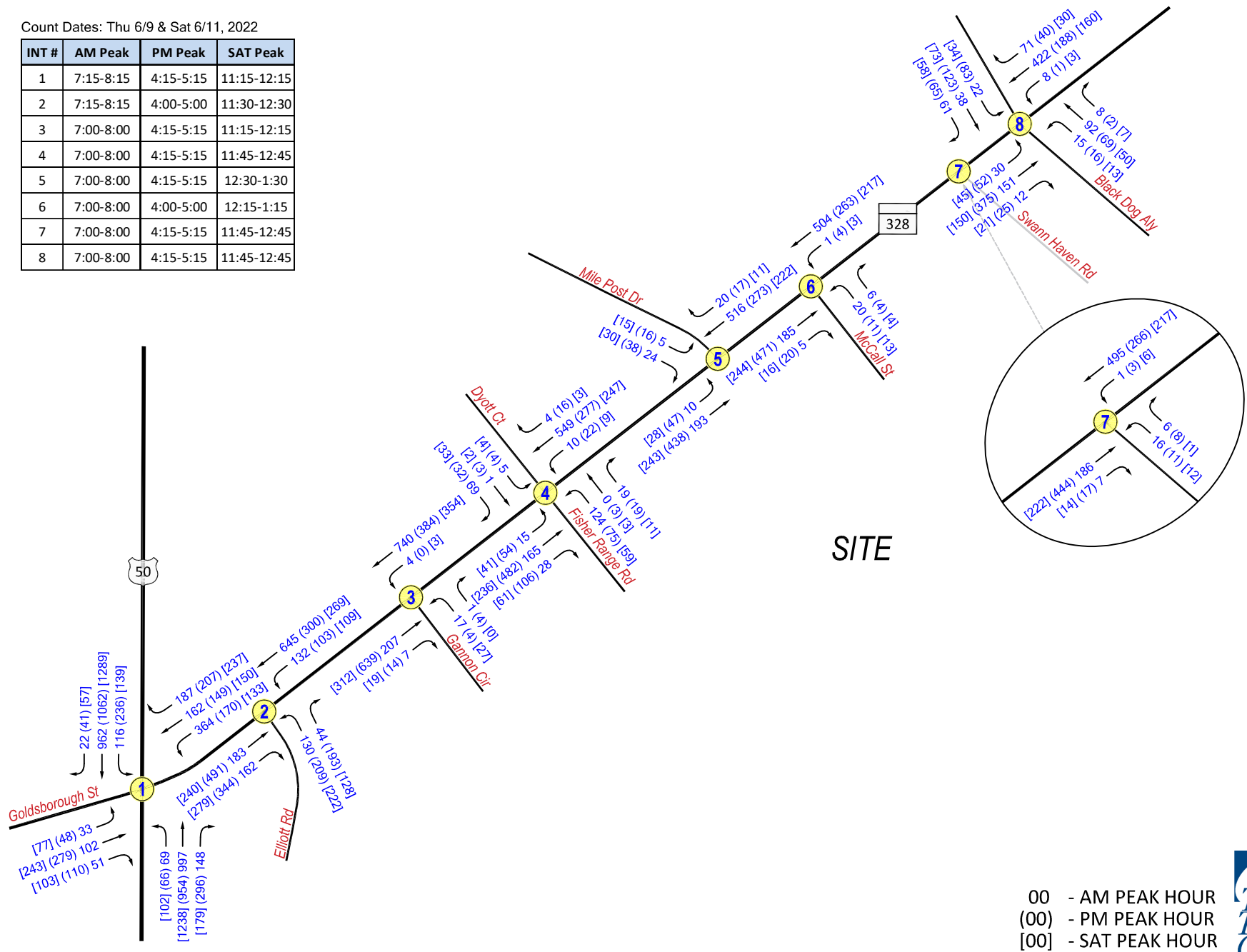
Figure 2. Existing Lane Use and Intersection Traffic Control



NOT TO SCALE



INT #	AM Peak	PM Peak	SAT Peak
1	7:15-8:15	4:15-5:15	11:15-12:15
2	7:15-8:15	4:00-5:00	11:30-12:30
3	7:00-8:00	4:15-5:15	11:15-12:15
4	7:00-8:00	4:15-5:15	11:45-12:45
5	7:00-8:00	4:15-5:15	12:30-1:30
6	7:00-8:00	4:00-5:00	12:15-1:15
7	7:00-8:00	4:15-5:15	11:45-12:45
8	7:00-8:00	4:15-5:15	11:45-12:45



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



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

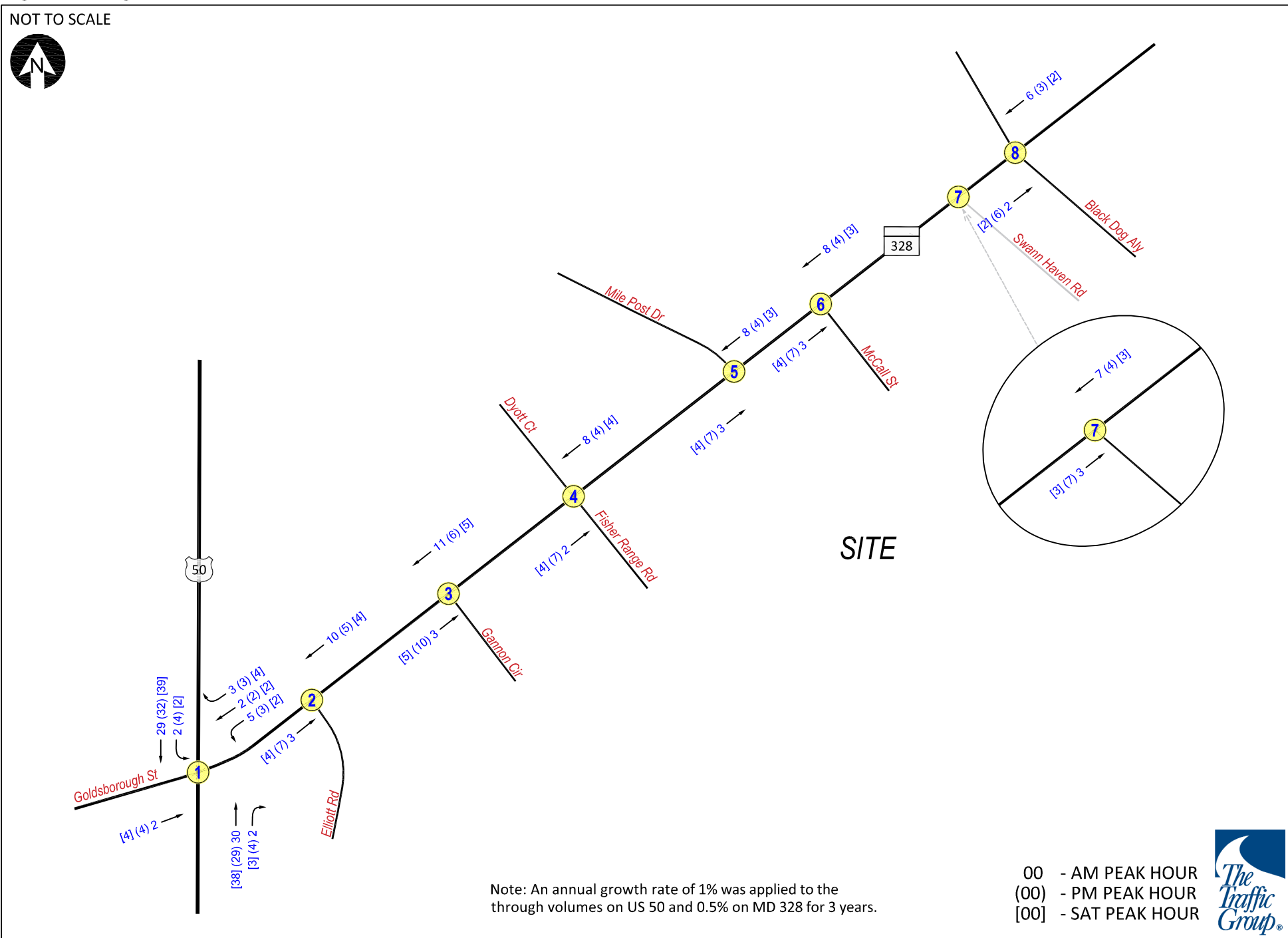
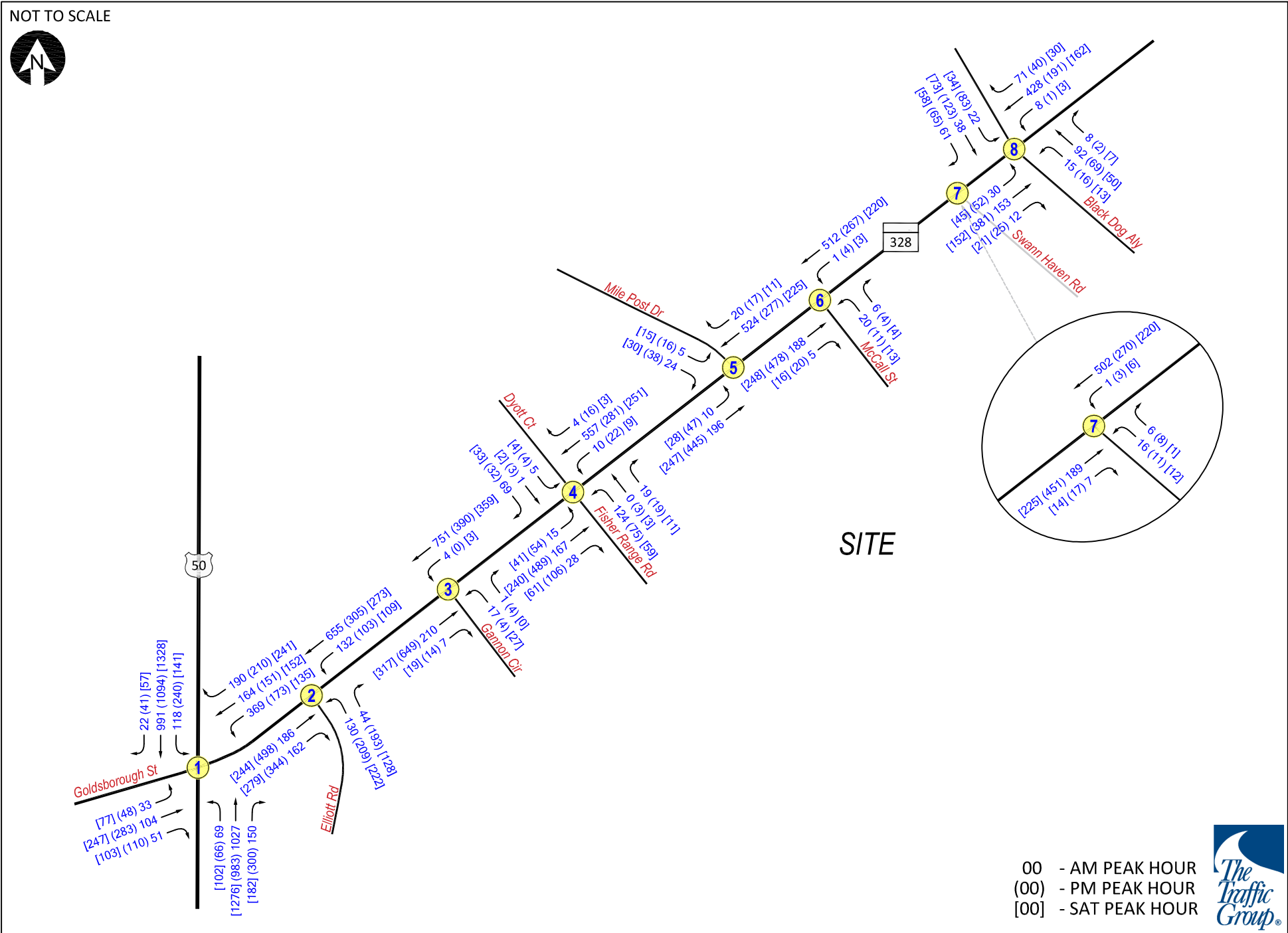


Figure 5. 2025 Base Peak Hour Traffic Volumes



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

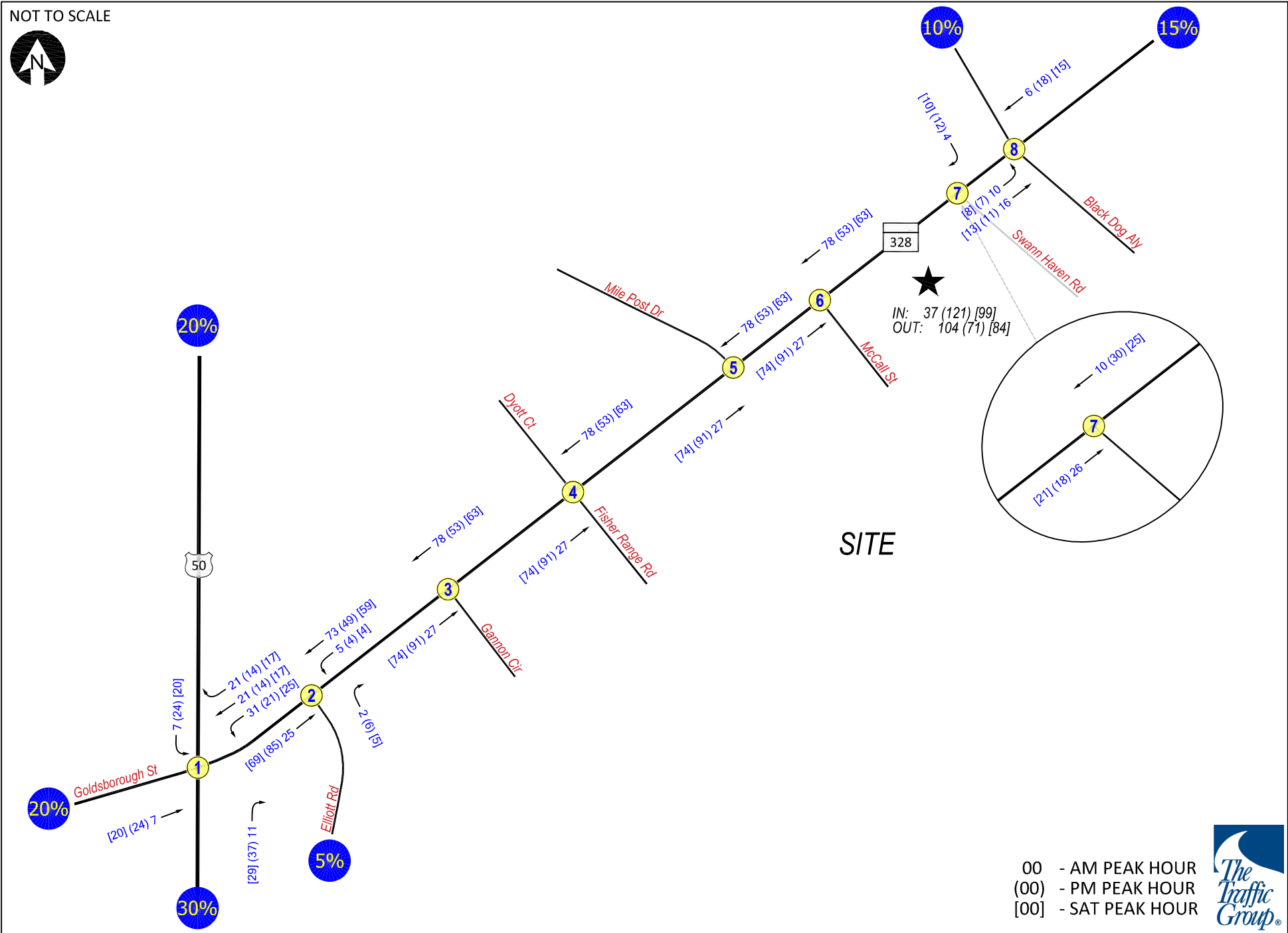


Figure 8. 2025 Background Peak Hour Traffic Volumes

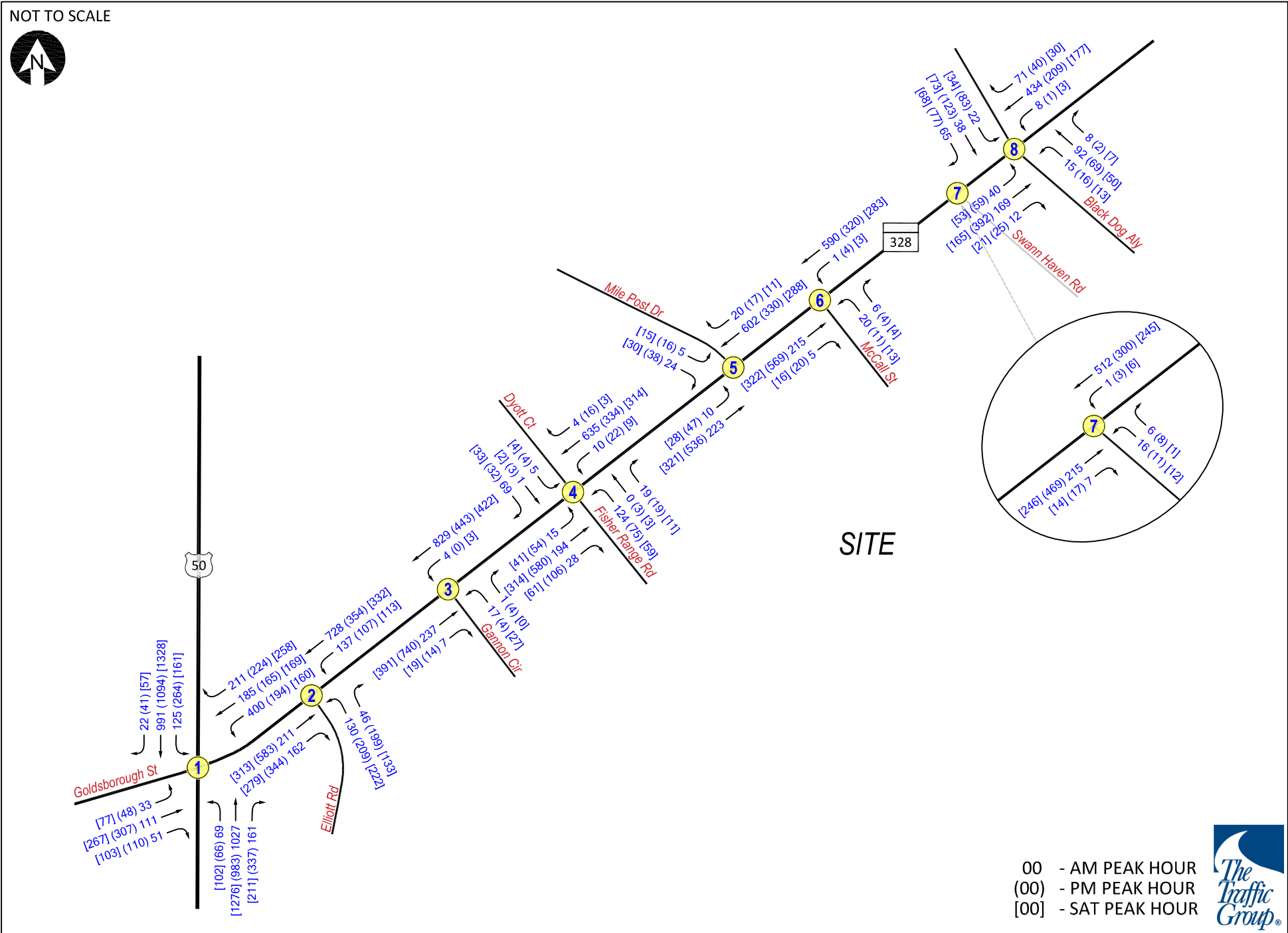


Table 5. Results of CLV Analysis – 2025 Background Traffic

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

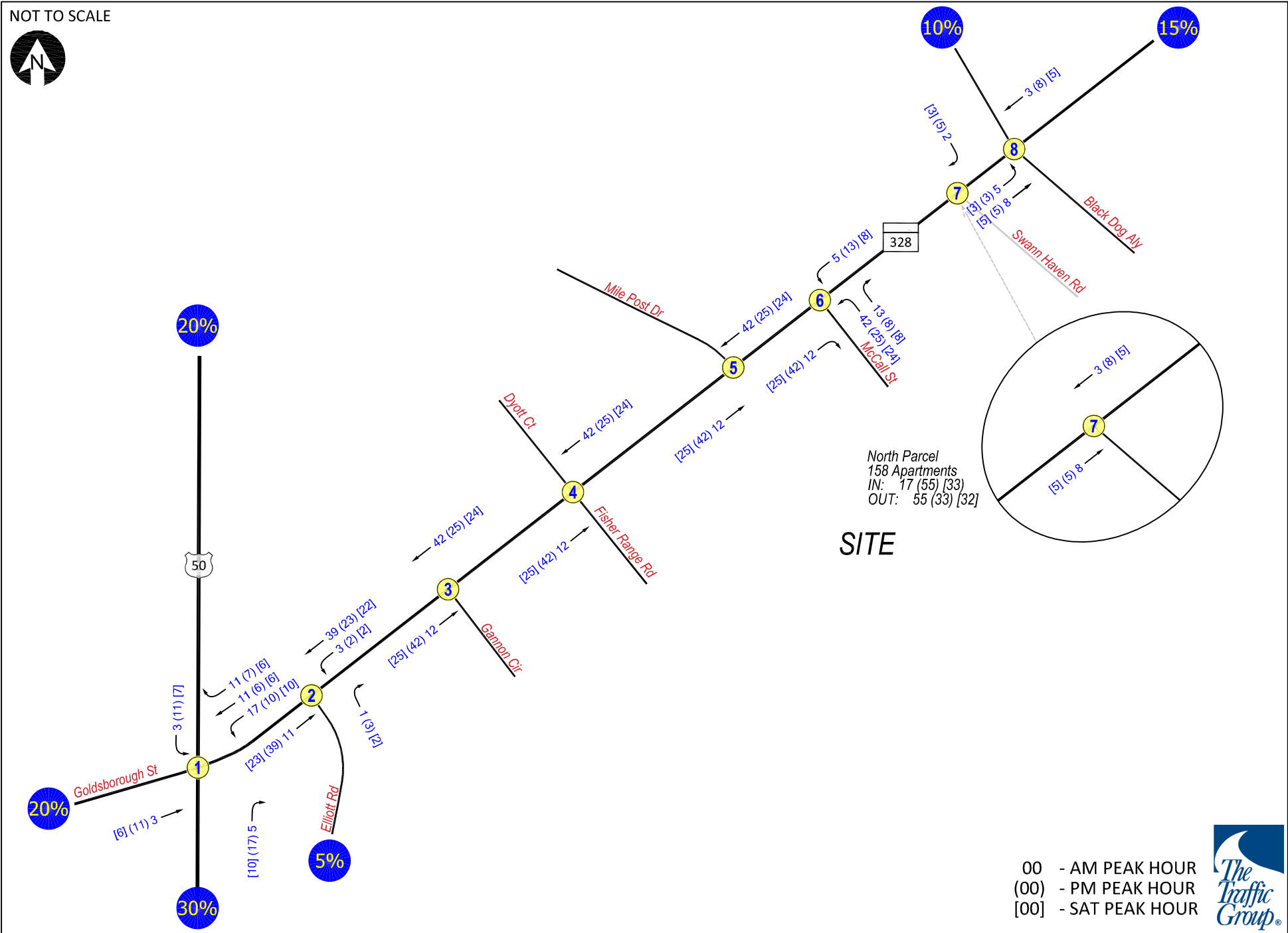


Figure 9B. Trip Assignment for Subject Site - South Parcel

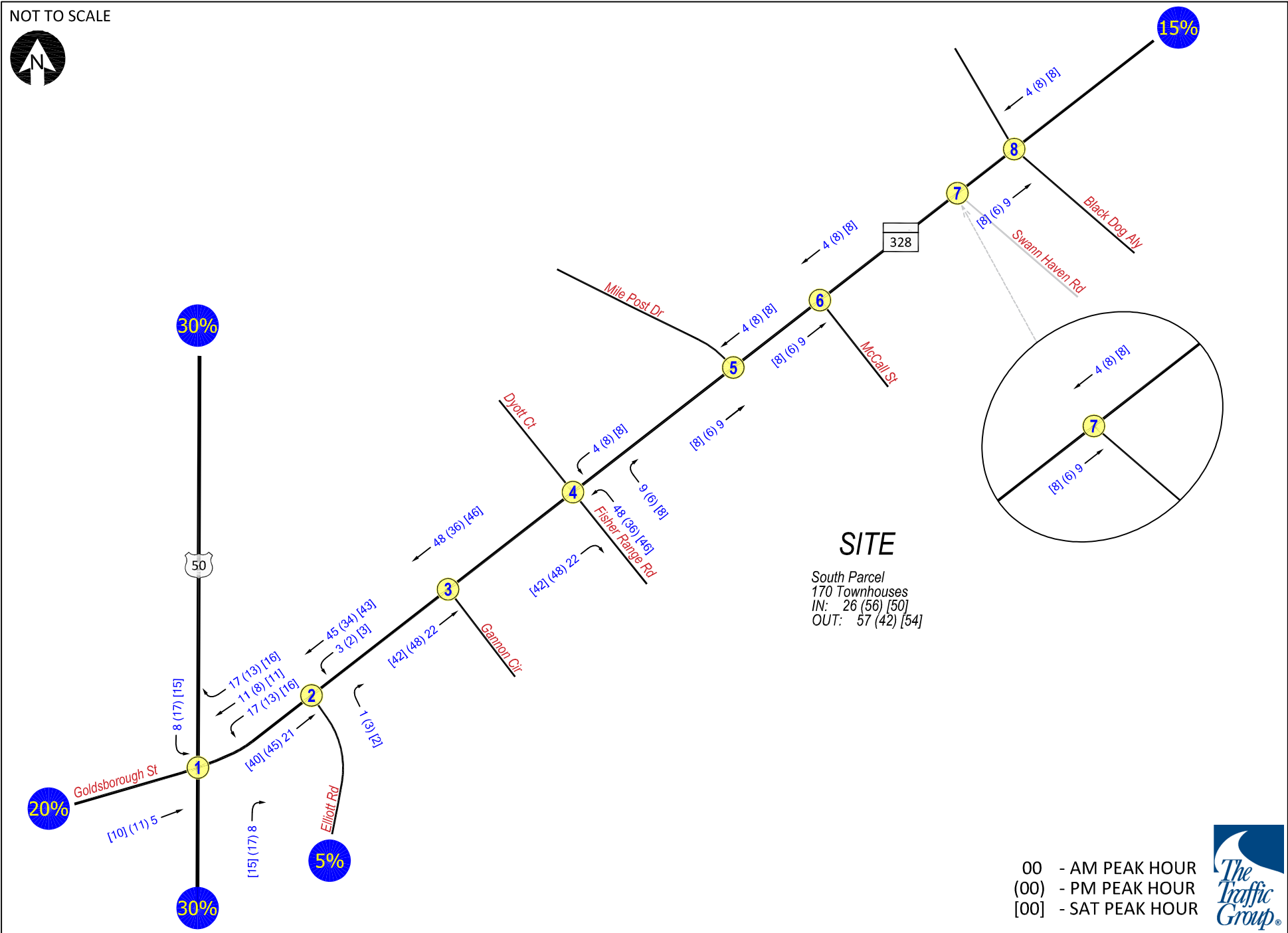
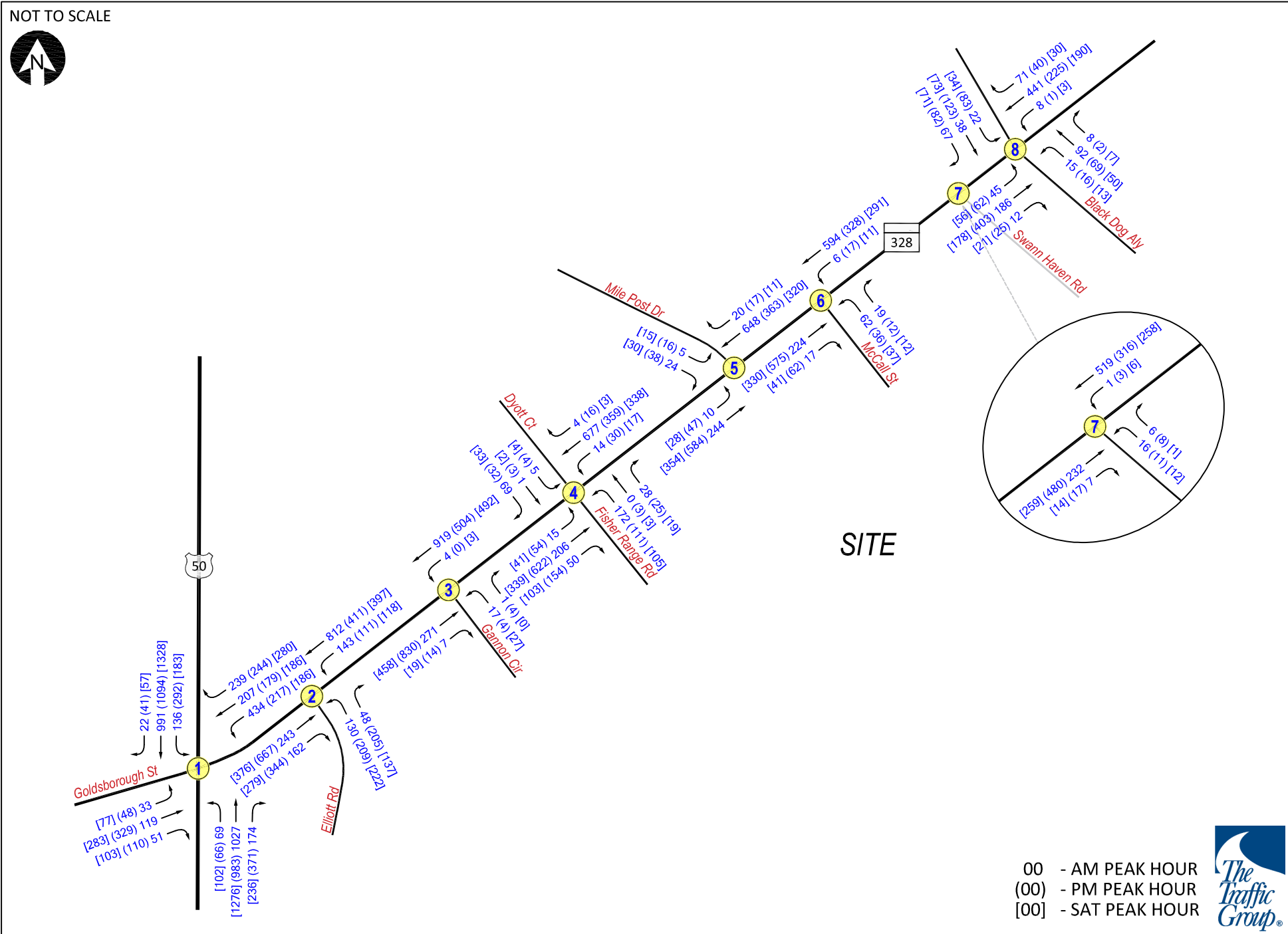


Figure 10. 2025 Total Peak Hour Traffic Volumes



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)



Google Earth

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					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	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

100 ft

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

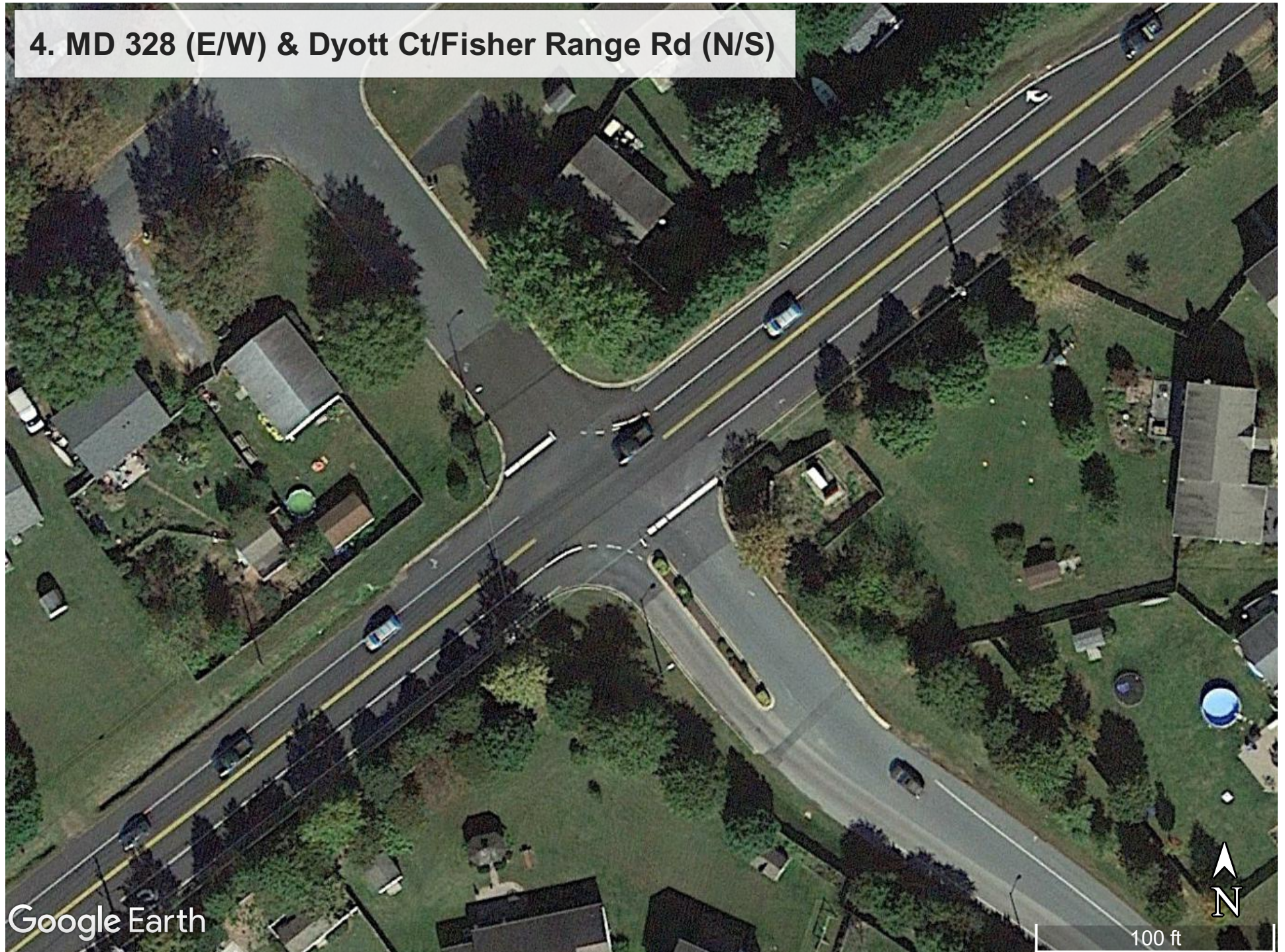
Counted by: VCU
Date: June 11, 2022
Weather: Sunny/Warm
Entered by: SN

Saturday
Star Rating: 4



TIME	TRAFFIC FROM NORTH					TRAFFIC FROM SOUTH					TRAFFIC FROM EAST					TRAFFIC FROM WEST					TOTAL N + S + E + W
	on:					on:					on:					on:					
	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	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 on: Mile Post Drive					TRAFFIC FROM SOUTH on: MD 328					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	11	0	1	0	12	0	0	0	0	0	3	47	0	0	50	0	40	6	0	46	108
10:15 - 10:30	9	0	5	0	14	0	0	0	0	0	0	57	0	0	57	0	43	2	0	45	116
10:30 - 10:45	12	0	5	0	17	0	0	0	0	0	2	67	0	0	69	0	49	7	0	56	142
10:45 - 11:00	7	0	2	0	9	0	0	0	0	0	4	51	0	0	55	0	41	2	0	43	107
11:00 - 11:15	12	0	6	0	18	0	0	0	0	0	4	51	0	0	55	0	48	7	0	55	128
11:15 - 11:30	15	0	2	0	17	0	0	0	0	0	1	63	0	0	64	0	60	6	0	66	147
11:30 - 11:45	2	0	2	0	4	0	0	0	0	0	4	48	0	0	52	0	56	6	0	62	118
11:45 - 12:00	9	0	4	0	13	0	0	0	0	0	1	61	0	0	62	0	51	9	0	60	135
12:00 - 12:15	8	0	4	0	12	0	0	0	0	0	2	54	0	0	56	0	53	4	0	57	125
12:15 - 12:30	4	0	2	0	6	0	0	0	0	0	4	56	0	0	60	0	69	8	0	77	143
12:30 - 12:45	13	0	5	0	18	0	0	0	0	0	2	57	0	0	59	0	56	6	0	62	139
12:45 - 1:00	6	0	3	0	9	0	0	0	0	0	6	57	0	0	63	0	52	4	0	56	128
1:00 - 1:15	2	0	4	0	6	0	0	0	0	0	2	46	0	0	48	0	71	6	0	77	131
1:15 - 1:30	9	0	3	0	12	0	0	0	0	0	1	62	0	0	63	0	64	12	0	76	151
1:30 - 1:45	11	0	1	0	12	0	0	0	0	0	1	47	0	0	48	0	49	8	0	57	117
1:45 - 2:00	13	0	1	0	14	0	0	0	0	0	2	51	0	0	53	0	47	8	0	55	122
4 Hr Totals	143	0	50	0	193	0	0	0	0	0	39	875	0	0	914	0	849	101	0	950	2057
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	473
10:15 - 11:15	40	0	18	0	58	0	0	0	0	0	10	226	0	0	236	0	181	18	0	199	493
10:30 - 11:30	46	0	15	0	61	0	0	0	0	0	11	232	0	0	243	0	198	22	0	220	524
10:45 - 11:45	36	0	12	0	48	0	0	0	0	0	13	213	0	0	226	0	205	21	0	226	500
11:00 - 12:00	38	0	14	0	52	0	0	0	0	0	10	223	0	0	233	0	215	28	0	243	528
11:15 - 12:15	34	0	12	0	46	0	0	0	0	0	8	226	0	0	234	0	220	25	0	245	525
11:30 - 12:30	23	0	12	0	35	0	0	0	0	0	11	219	0	0	230	0	229	27	0	256	521
11:45 - 12:45	34	0	15	0	49	0	0	0	0	0	9	228	0	0	237	0	229	27	0	256	542
12:00 - 1:00	31	0	14	0	45	0	0	0	0	0	14	224	0	0	238	0	230	22	0	252	535
12:15 - 1:15	25	0	14	0	39	0	0	0	0	0	14	216	0	0	230	0	248	24	0	272	541
12:30 - 1:30	30	0	15	0	45	0	0	0	0	0	11	222	0	0	233	0	243	28	0	271	549
12:45 - 1:45	28	0	11	0	39	0	0	0	0	0	10	212	0	0	222	0	236	30	0	266	527
1:00 - 2:00	35	0	9	0	44	0	0	0	0	0	6	206	0	0	212	0	231	34	0	265	521
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	549

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

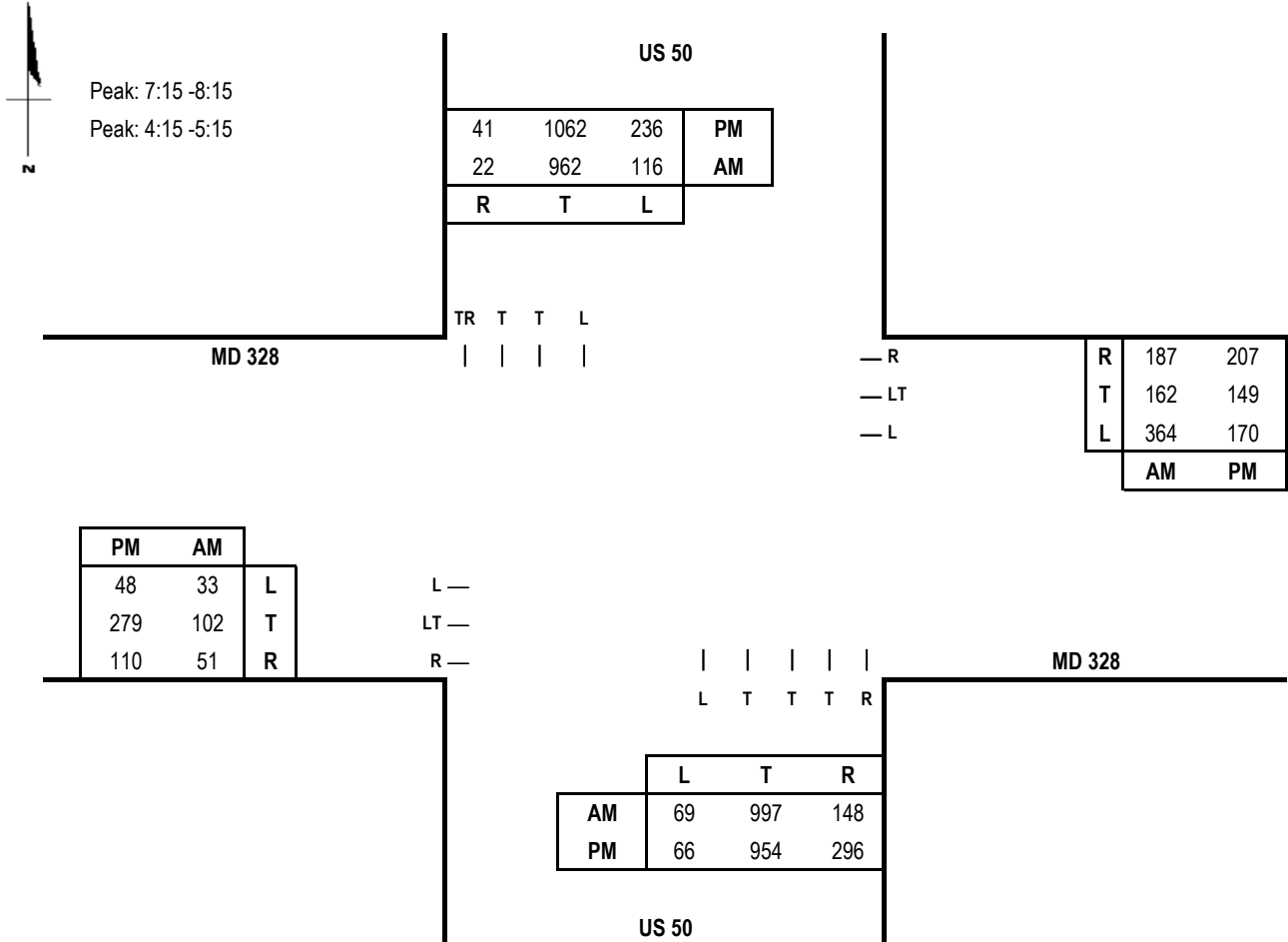
N/S Road: US 50

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

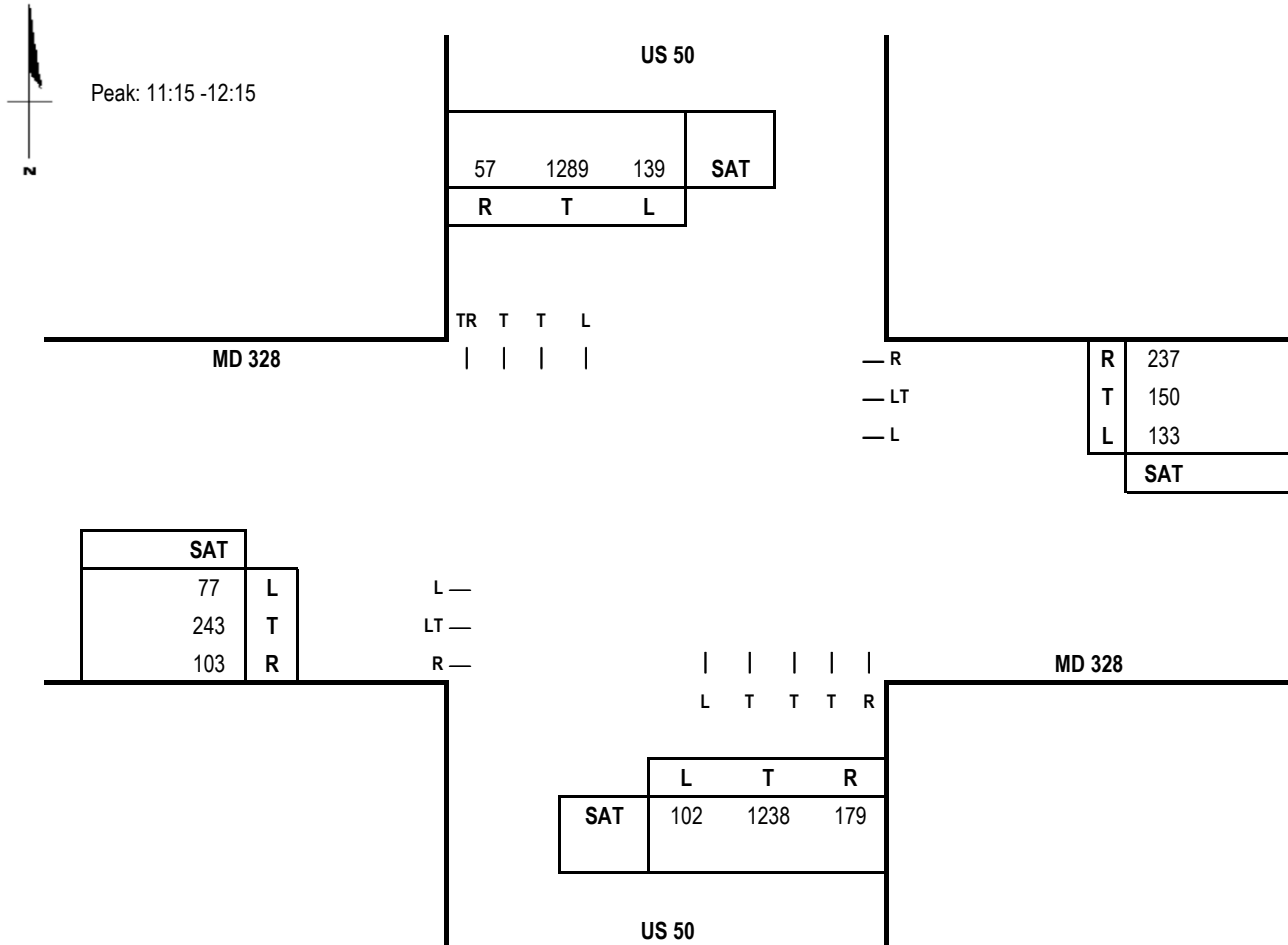
N/S Road: US 50

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

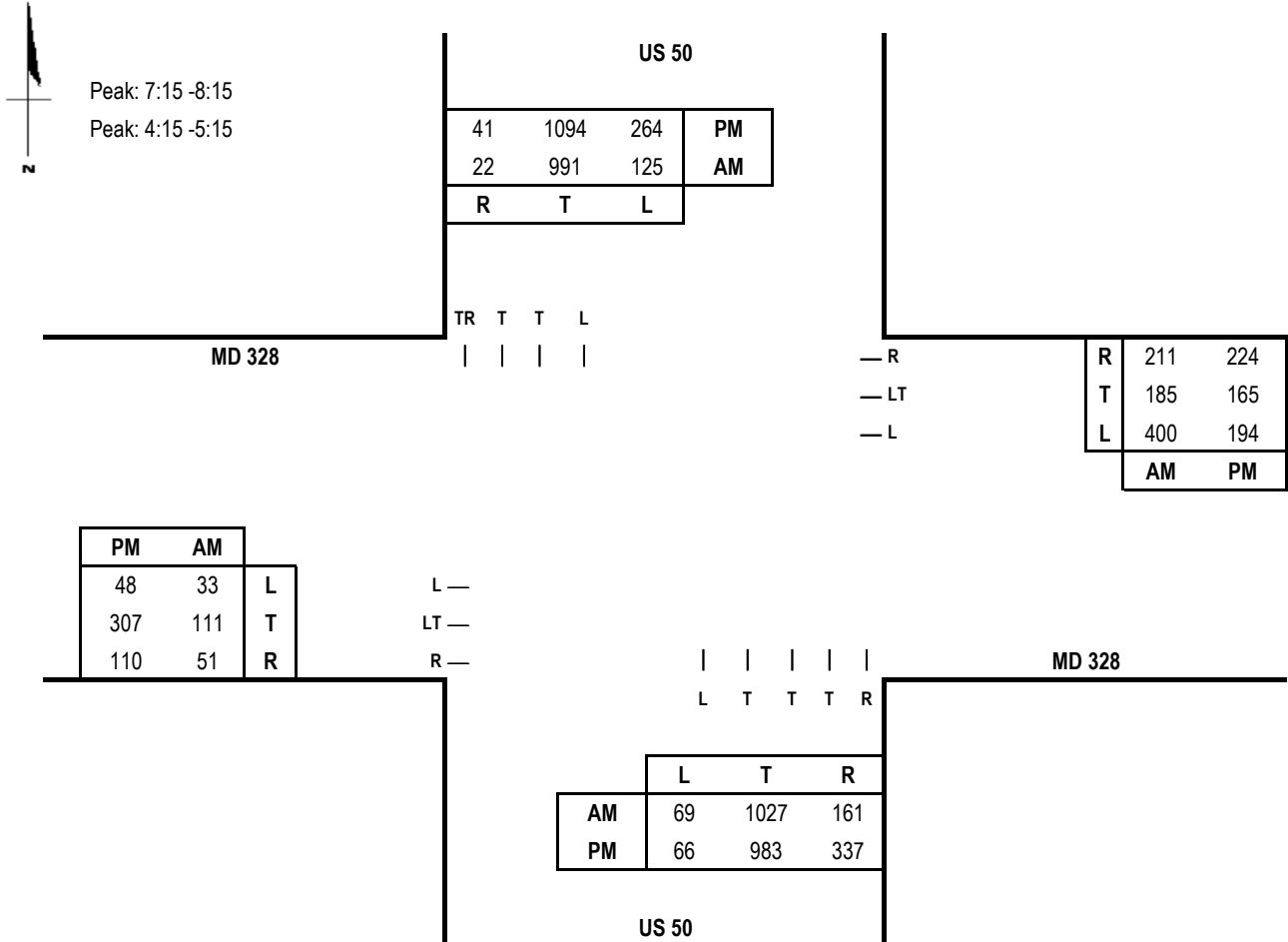
N/S Road: US 50

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

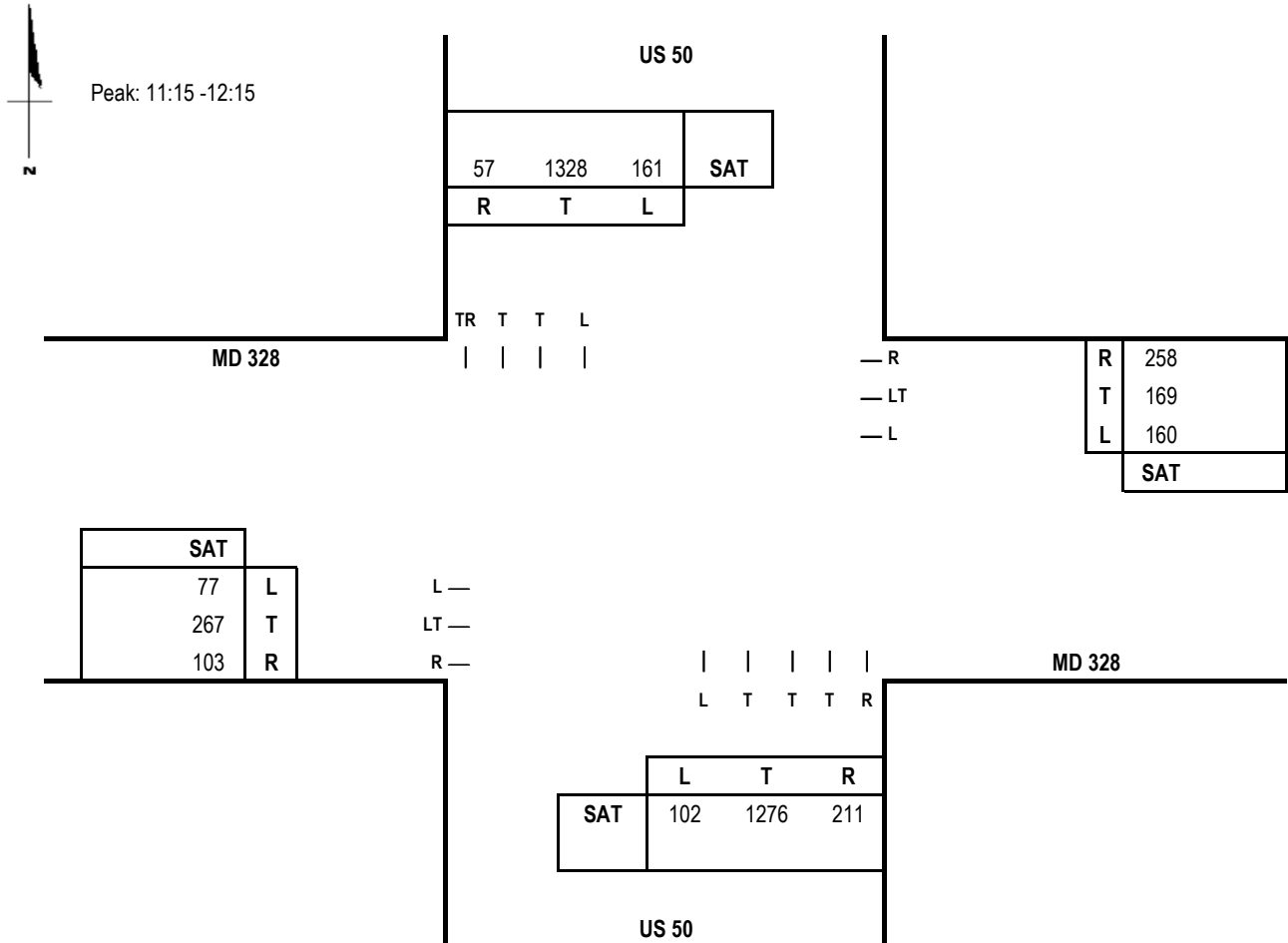
N/S Road: US 50

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

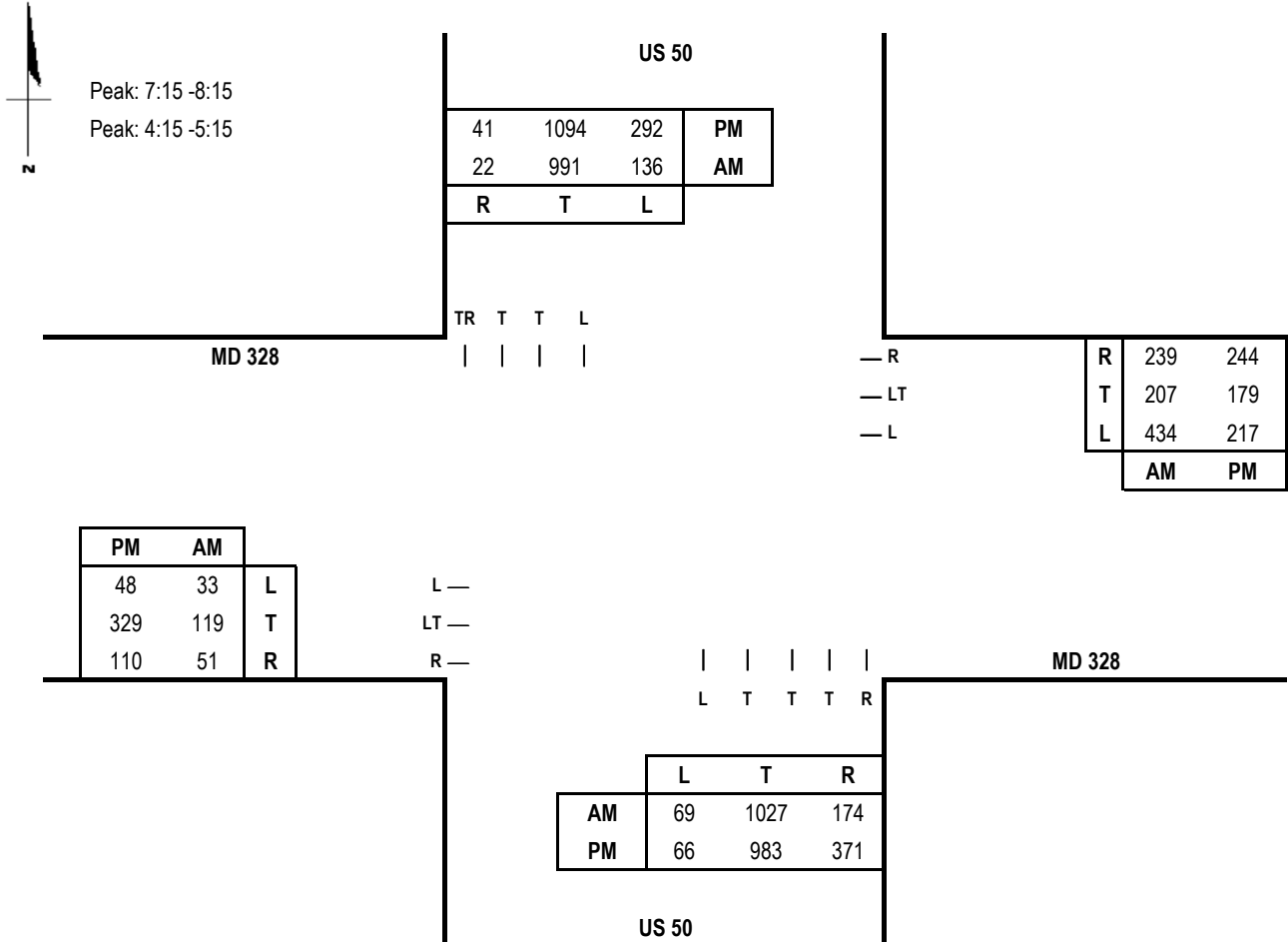
N/S Road: US 50

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

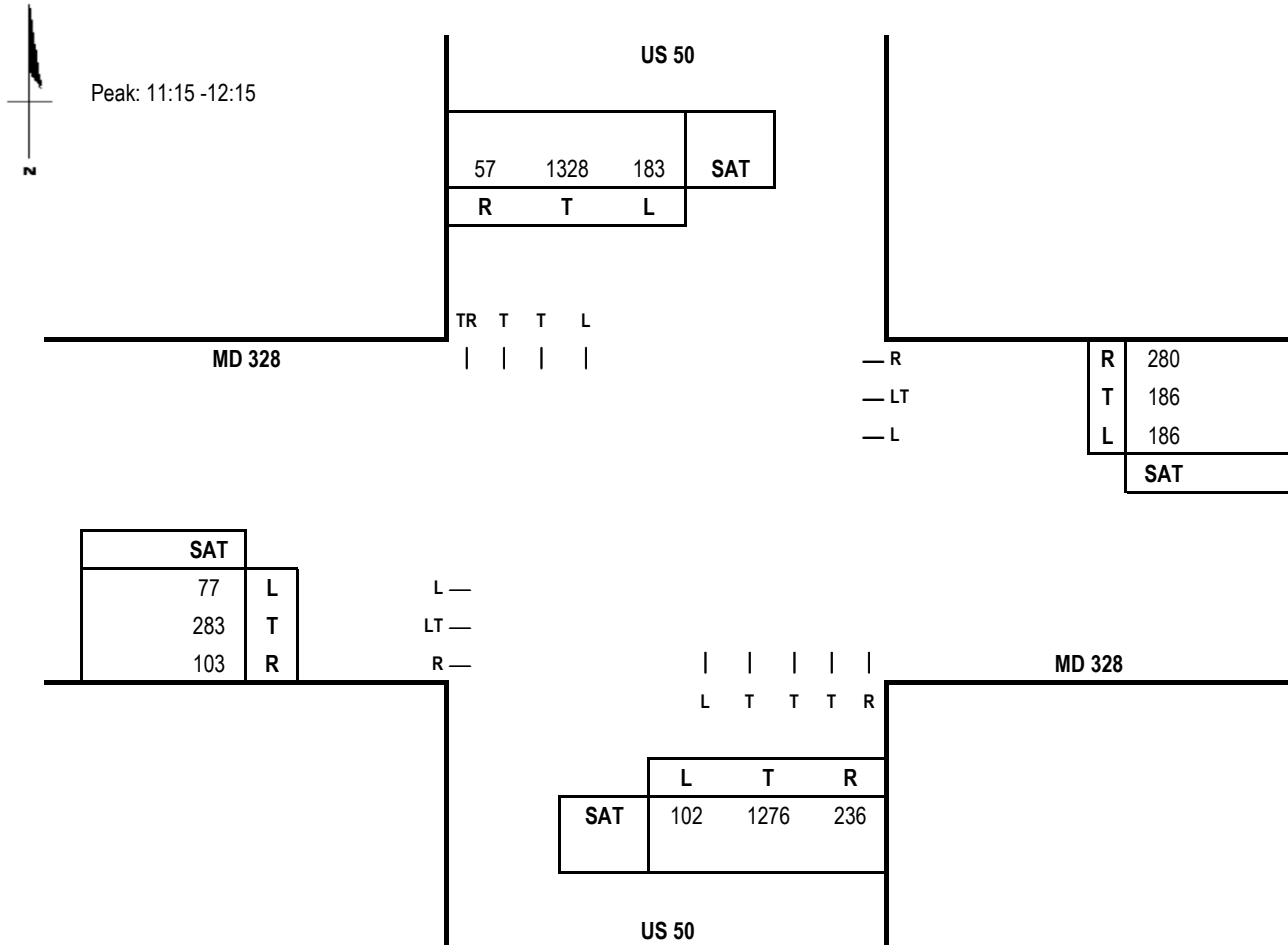
N/S Road: US 50

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

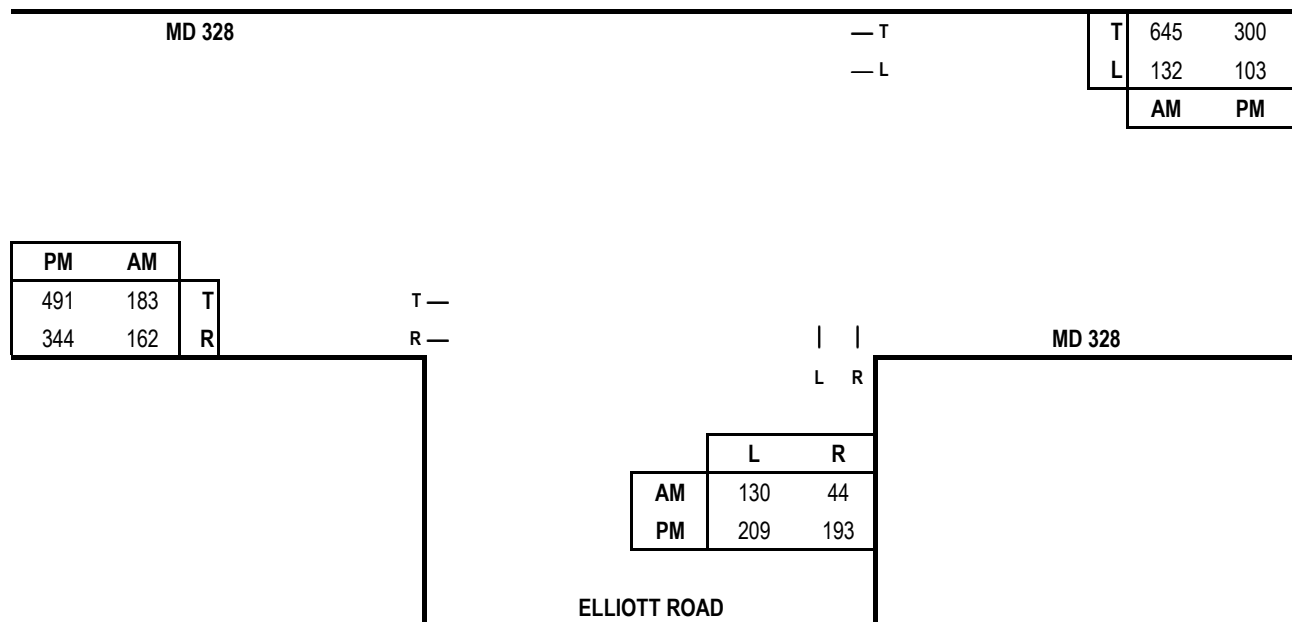
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2022 Existing Traffic

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

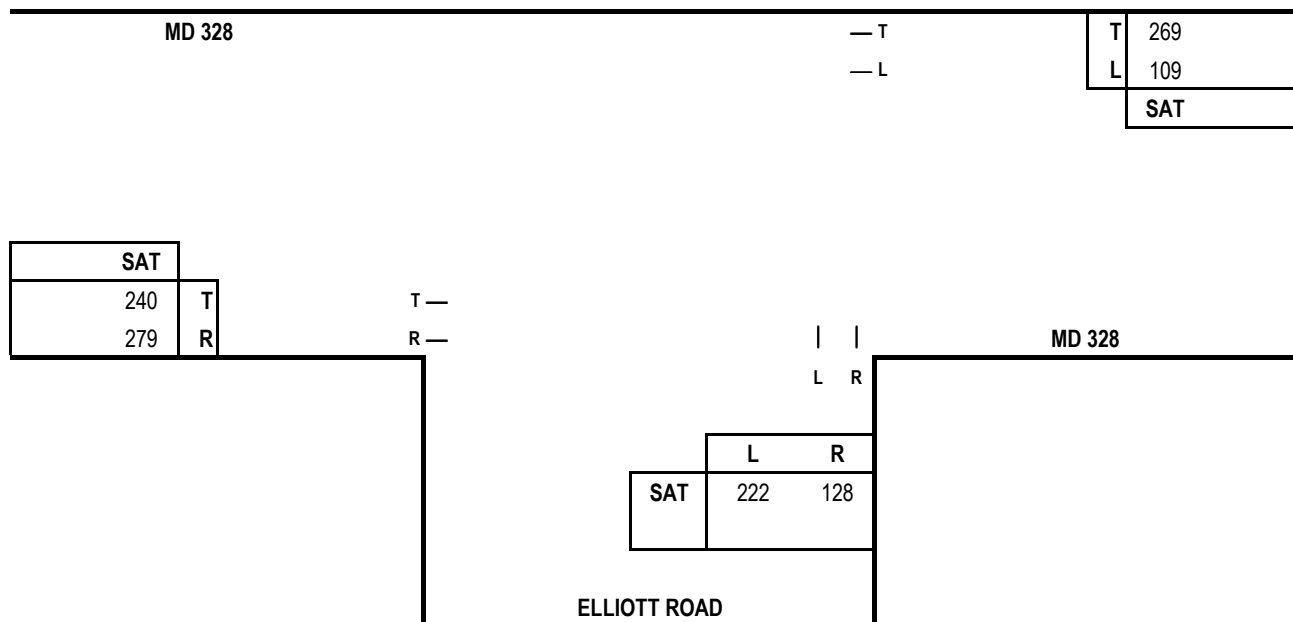
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

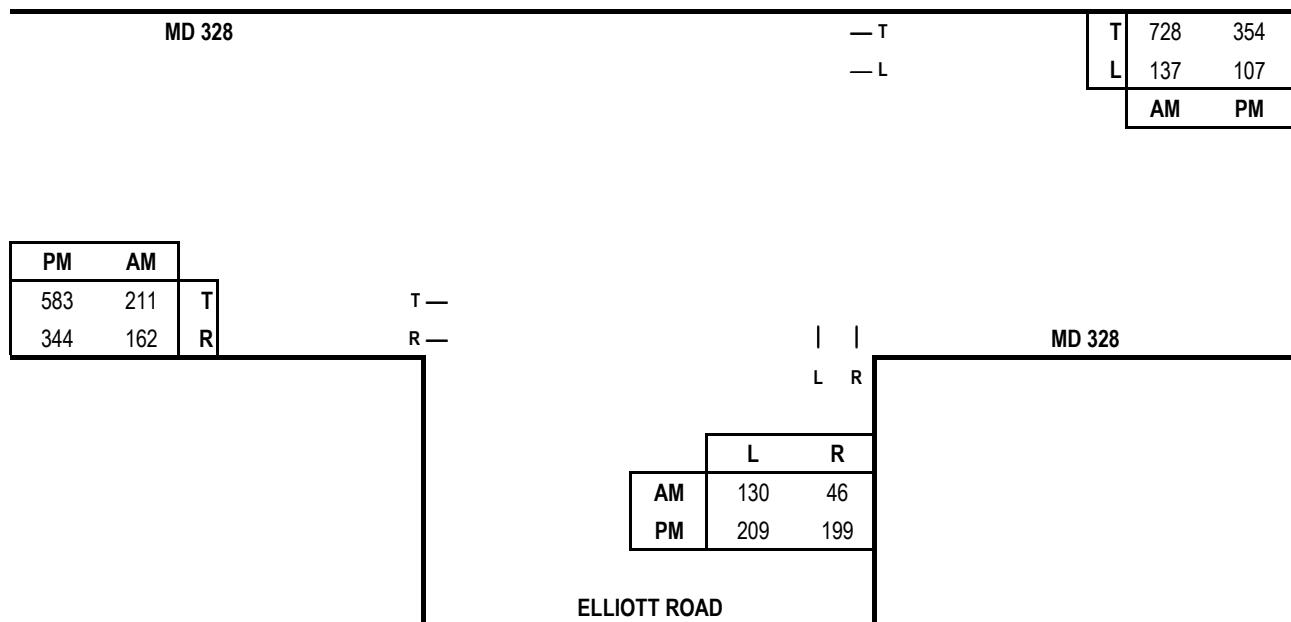
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Background Traffic

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

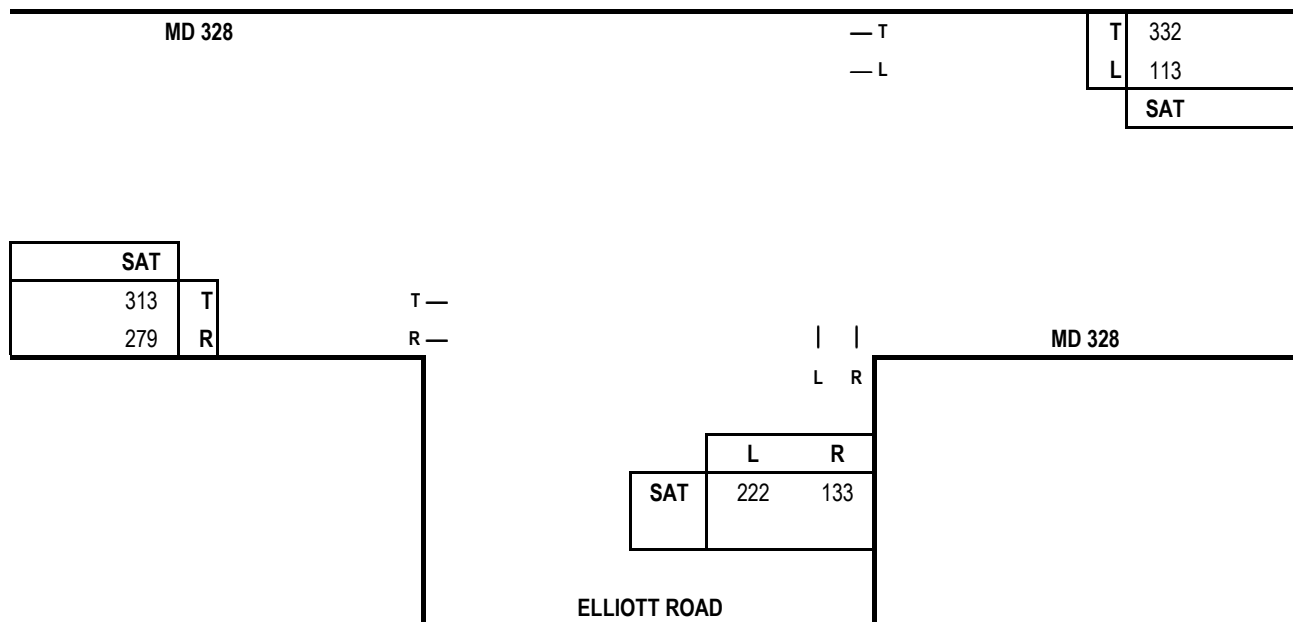
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

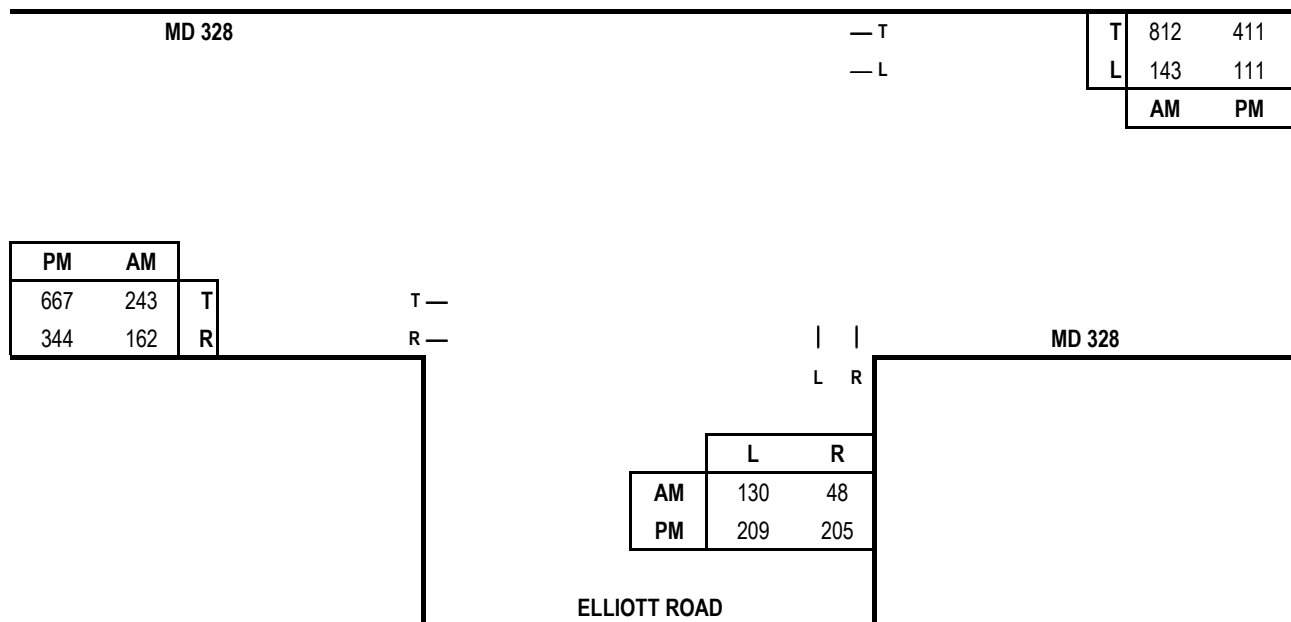
E/W Road: MD 328
N/S Road: Elliott Road
Conditions: 2025 Total Traffic

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

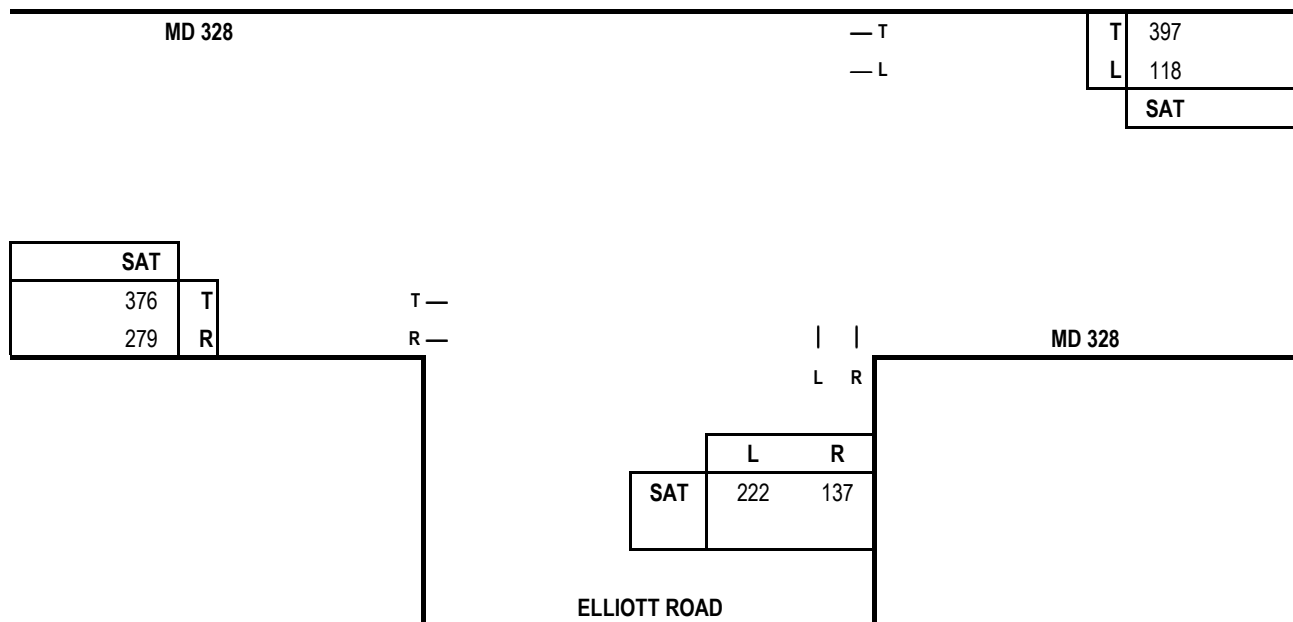
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

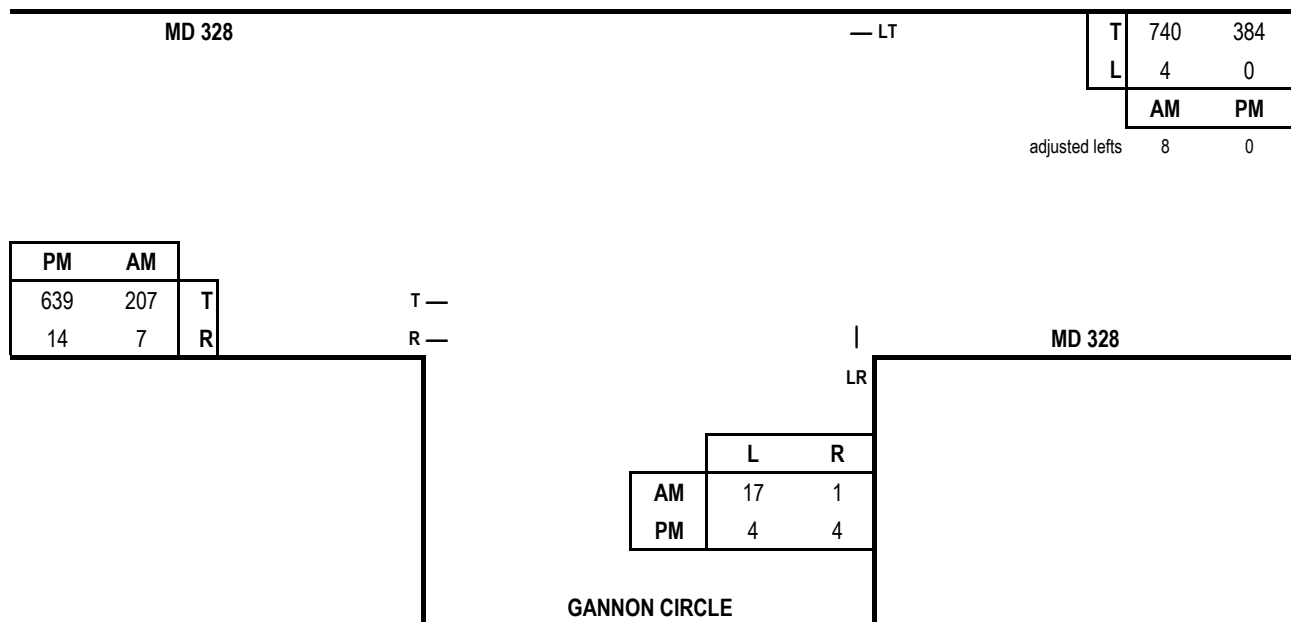
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2022 Existing Traffic

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

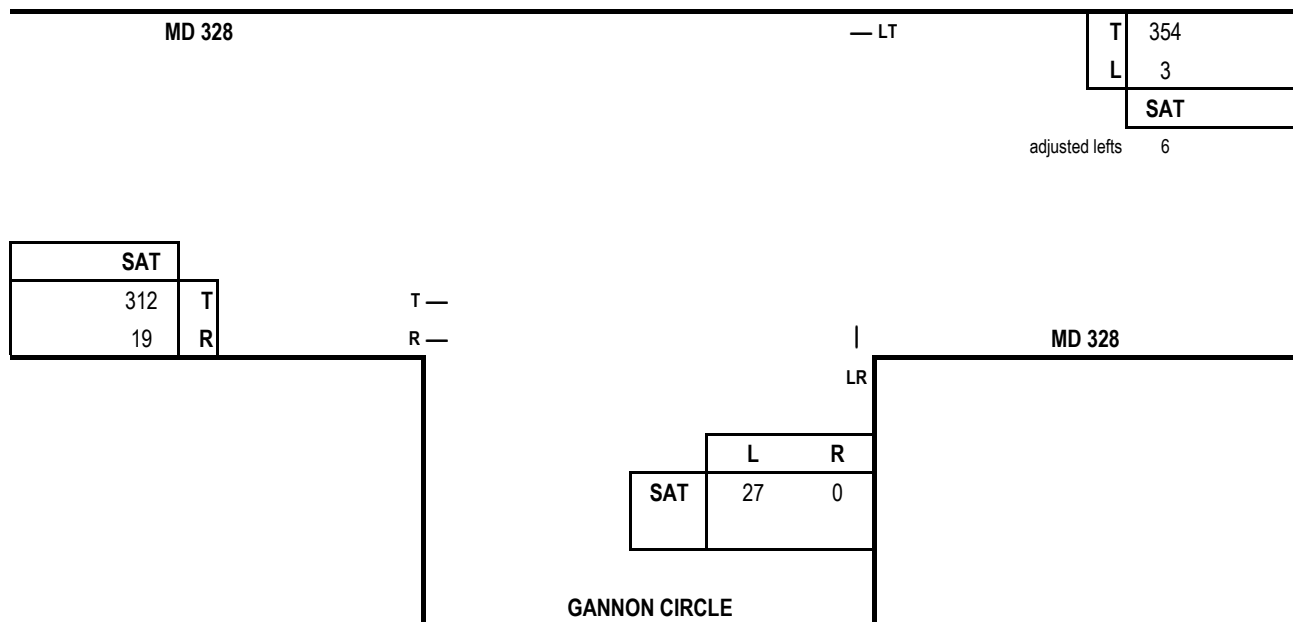
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

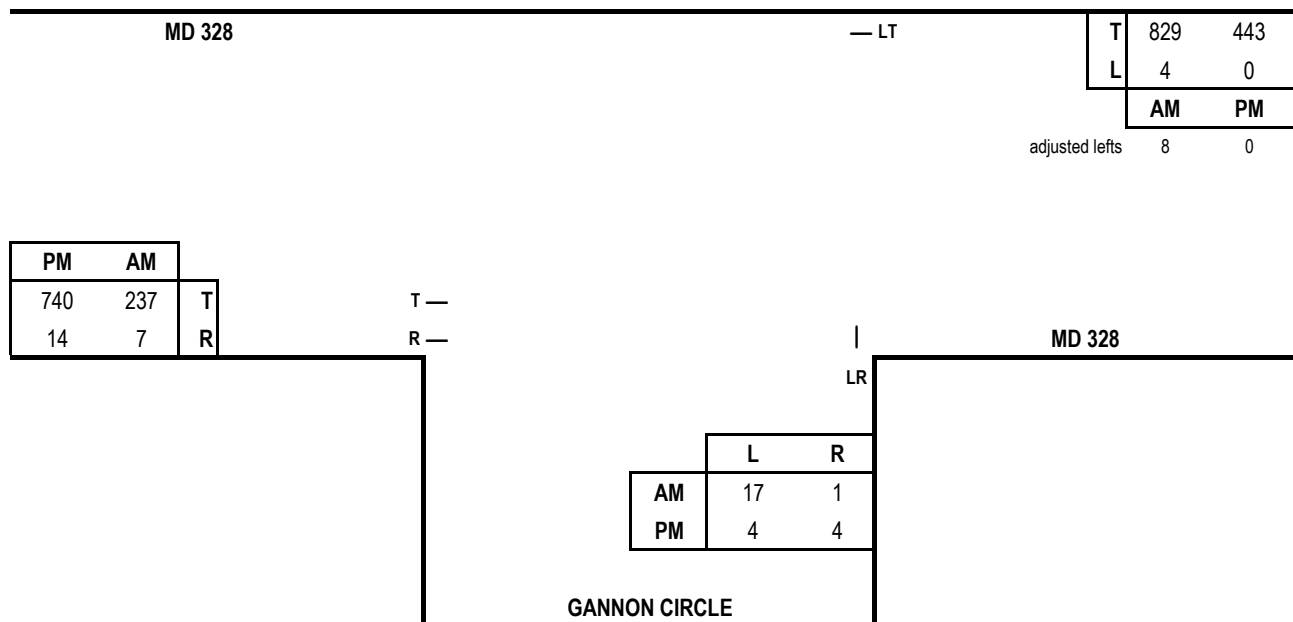
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Background Traffic

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

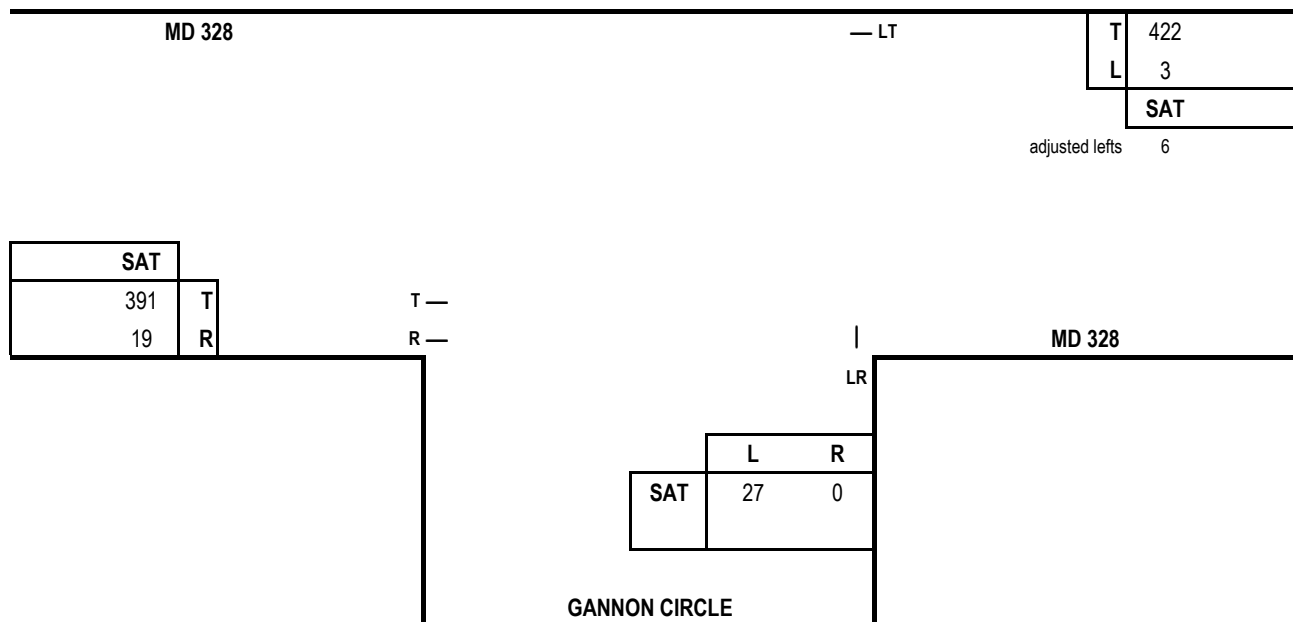
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

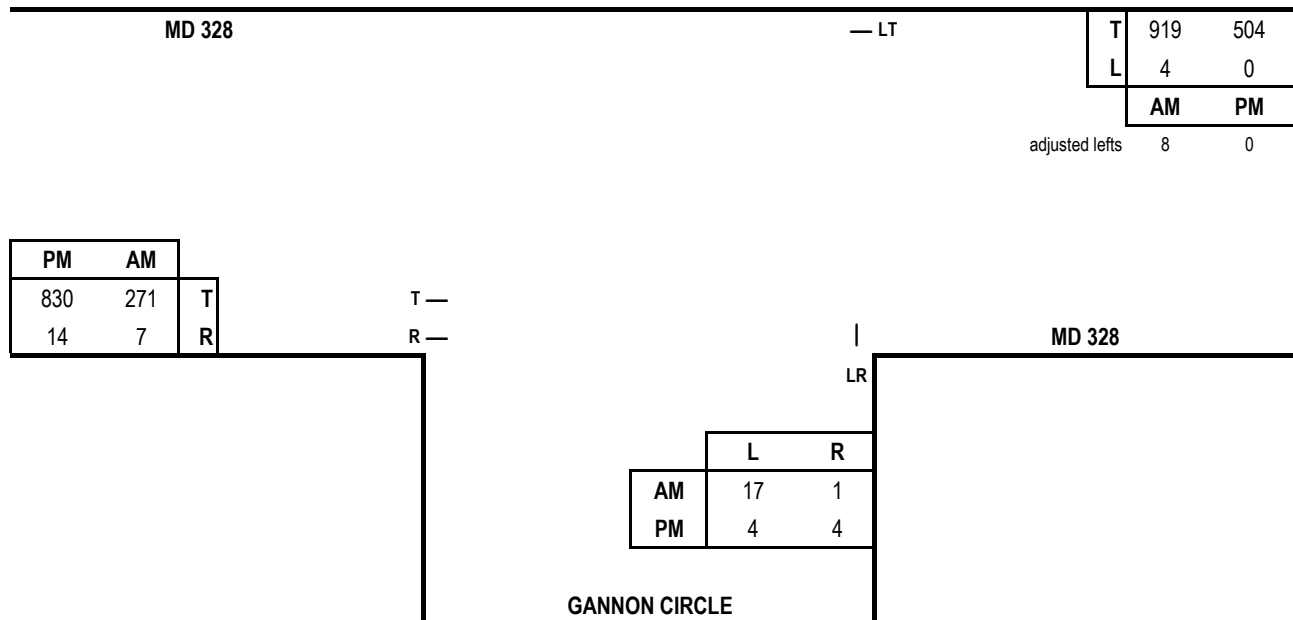
E/W Road: MD 328
N/S Road: Gannon Circle
Conditions: 2025 Total Traffic

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

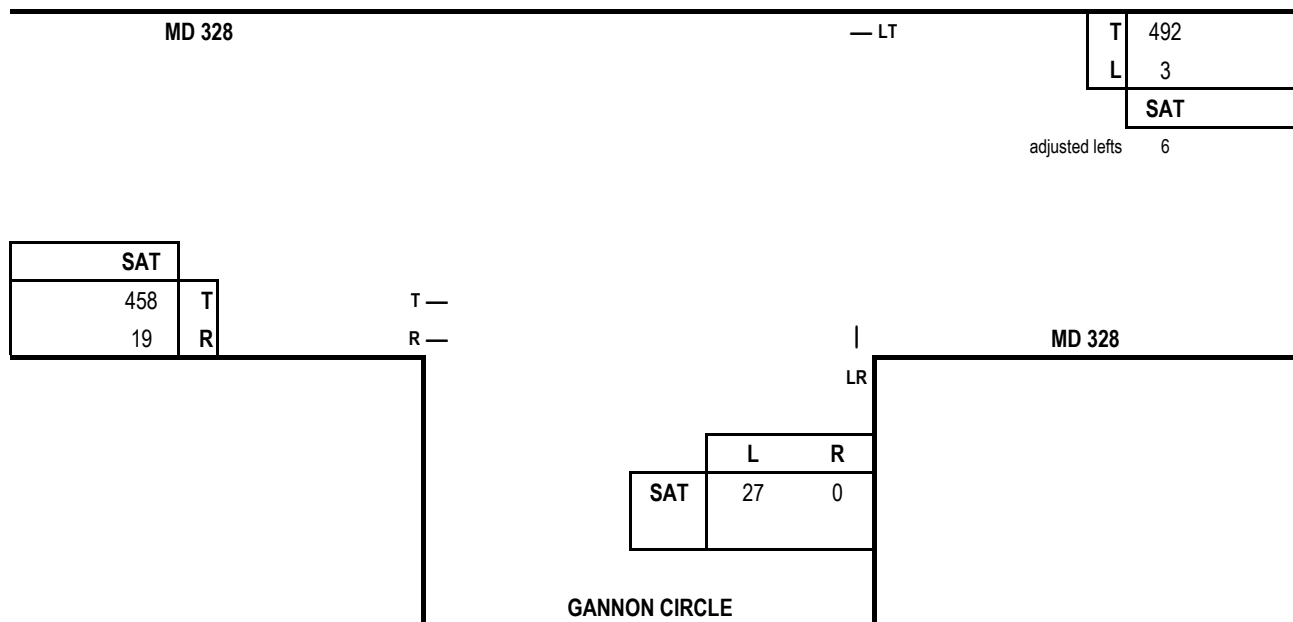
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

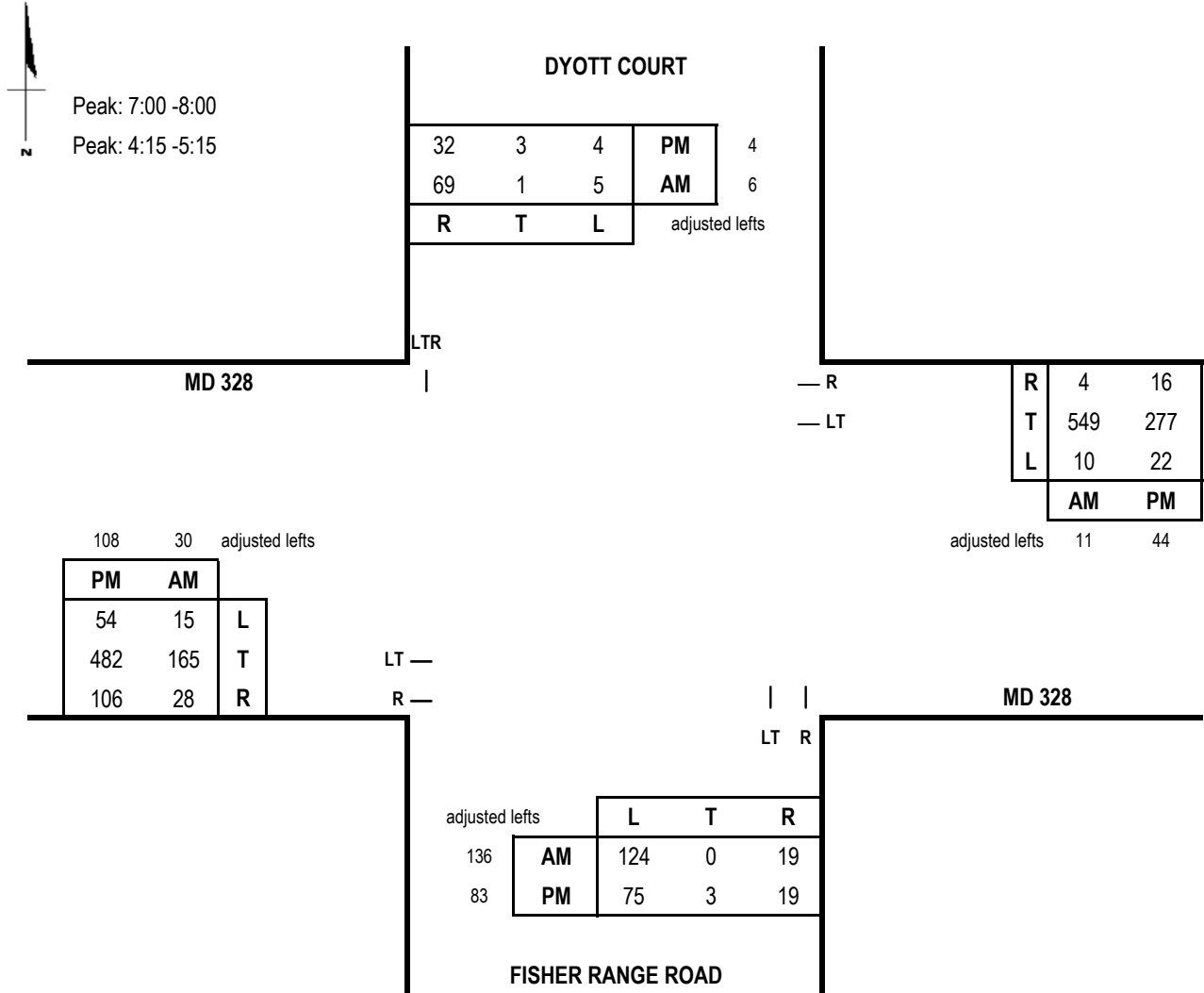
Date of Count: 6/9/2022

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		
	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	195	1.00	195	10	1.00	10
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		
	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	590	1.00	590	22	1.00	22
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

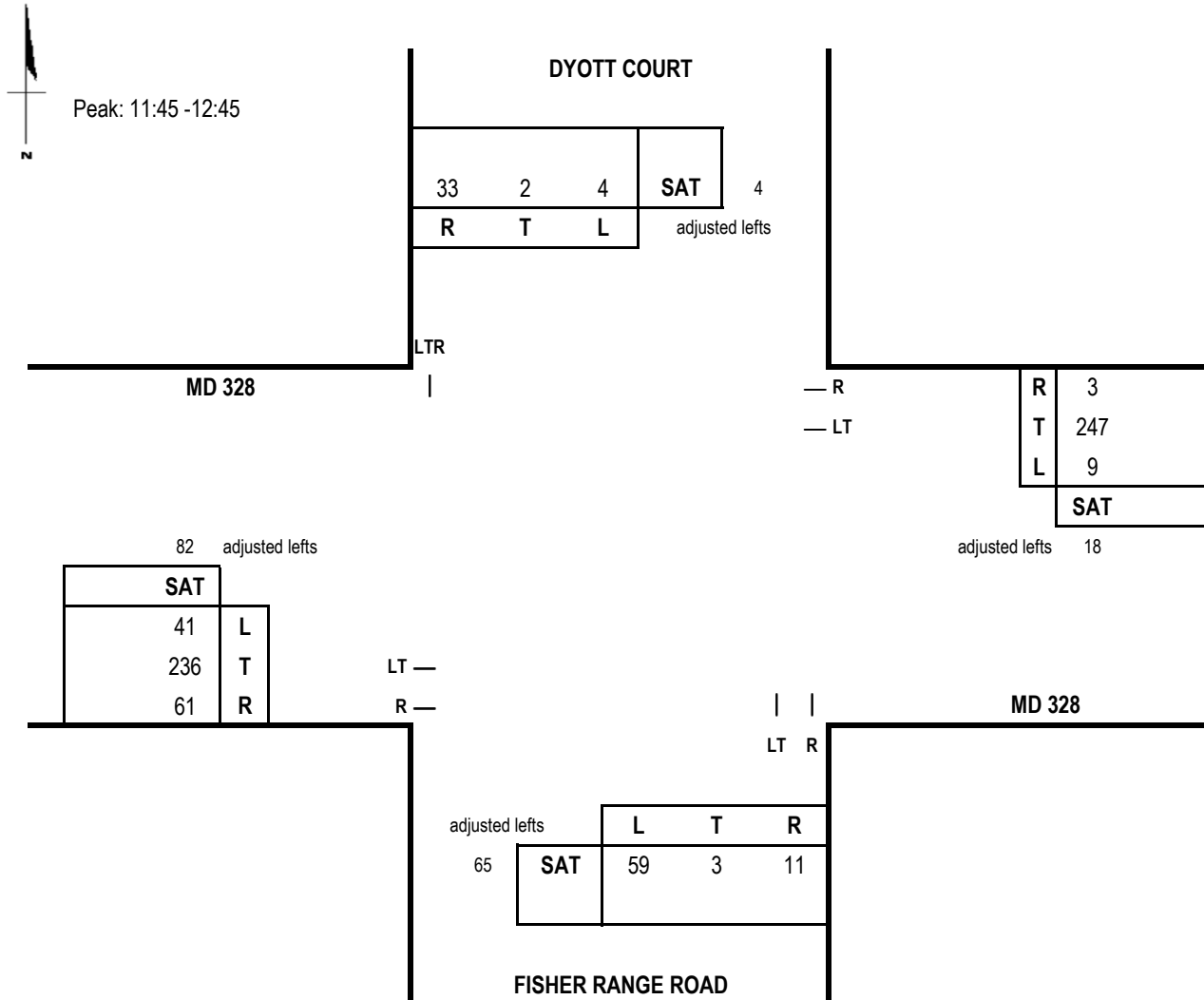
Date of Count: 6/11/2022

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		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	68	1.00	68	4	1.00	4
SB	39	1.00	39	59	1.00	59
EB	318	1.00	318	9	1.00	9
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

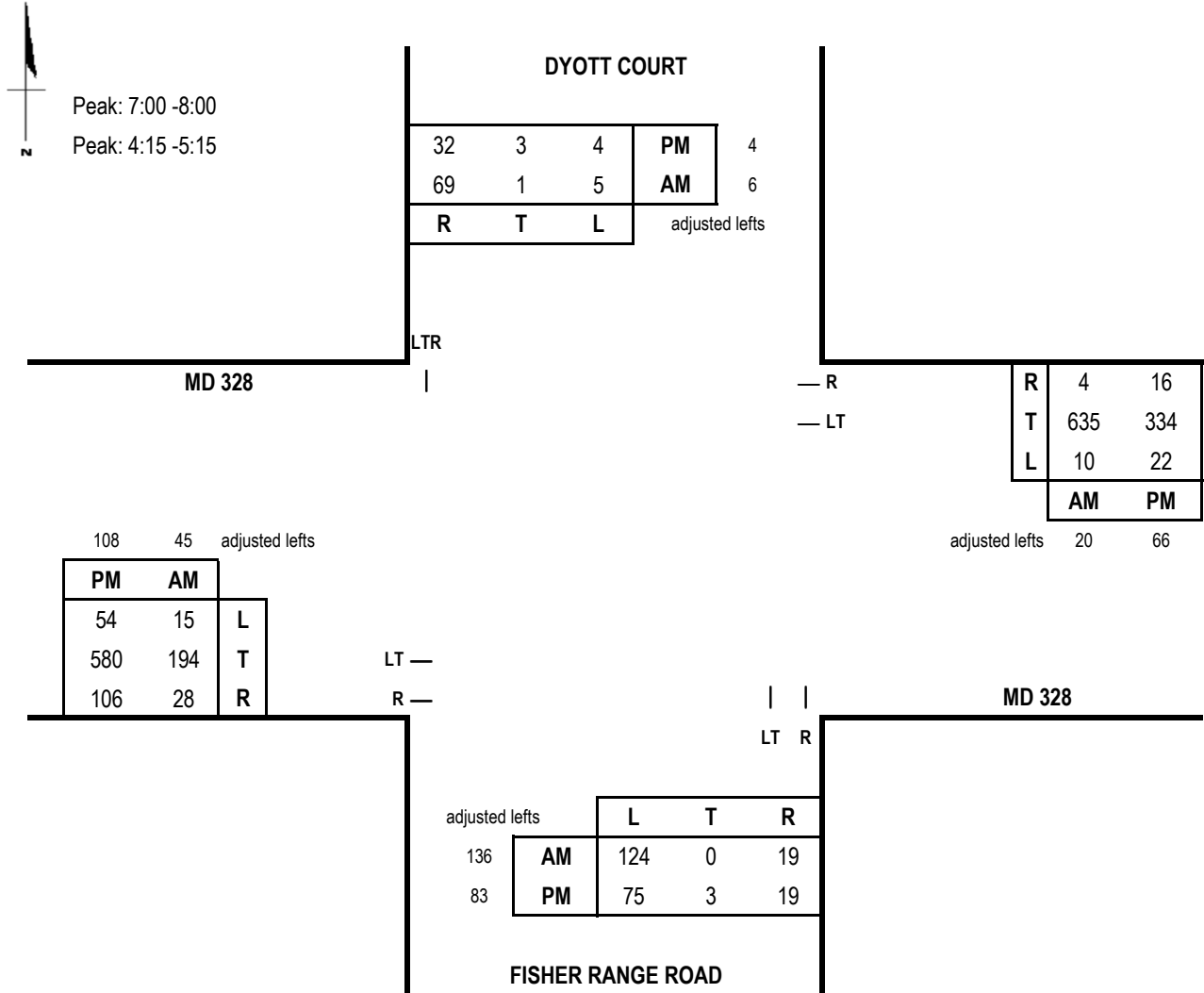
Date of Count: 6/9/2022

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

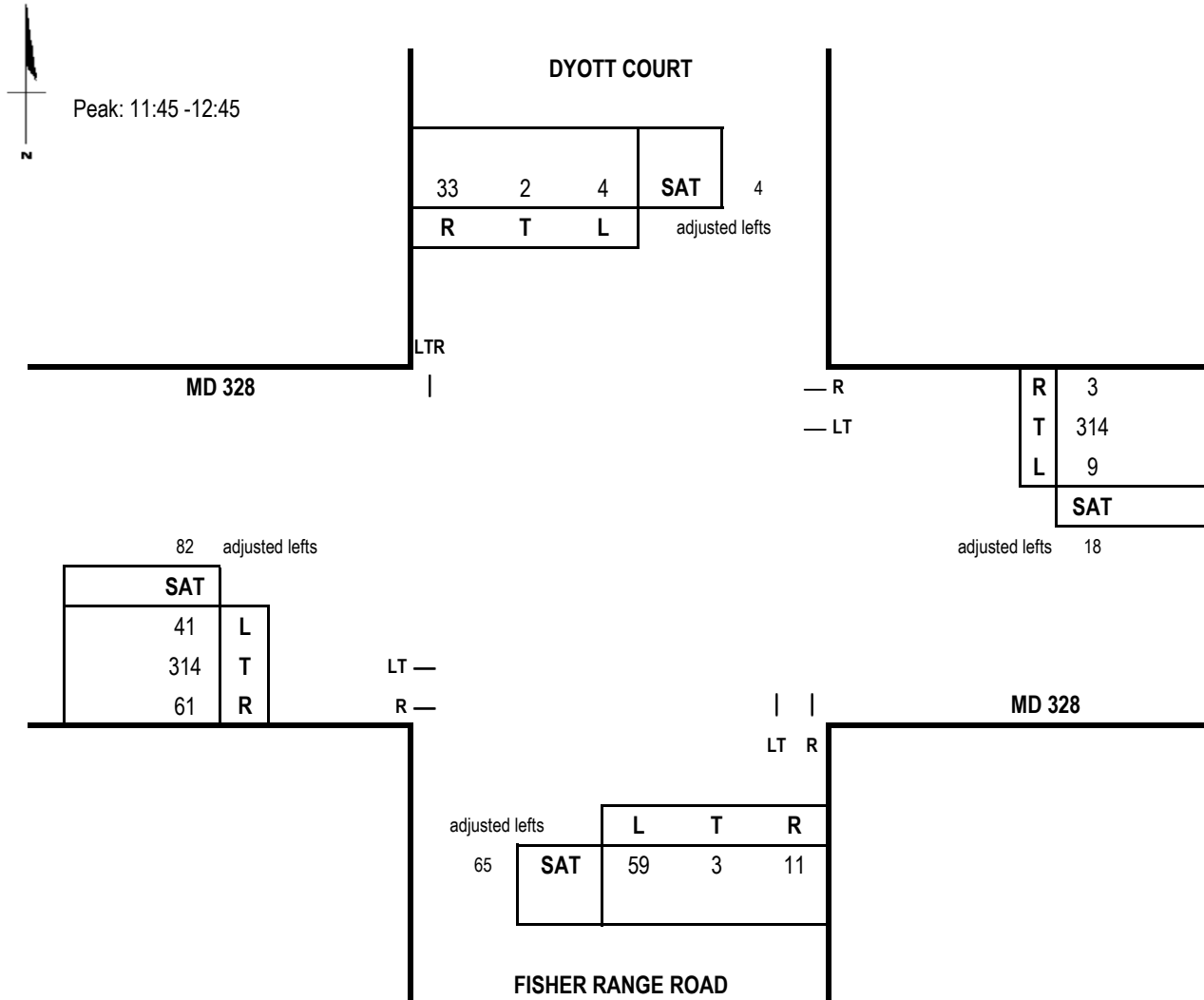
Date of Count: 6/11/2022

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

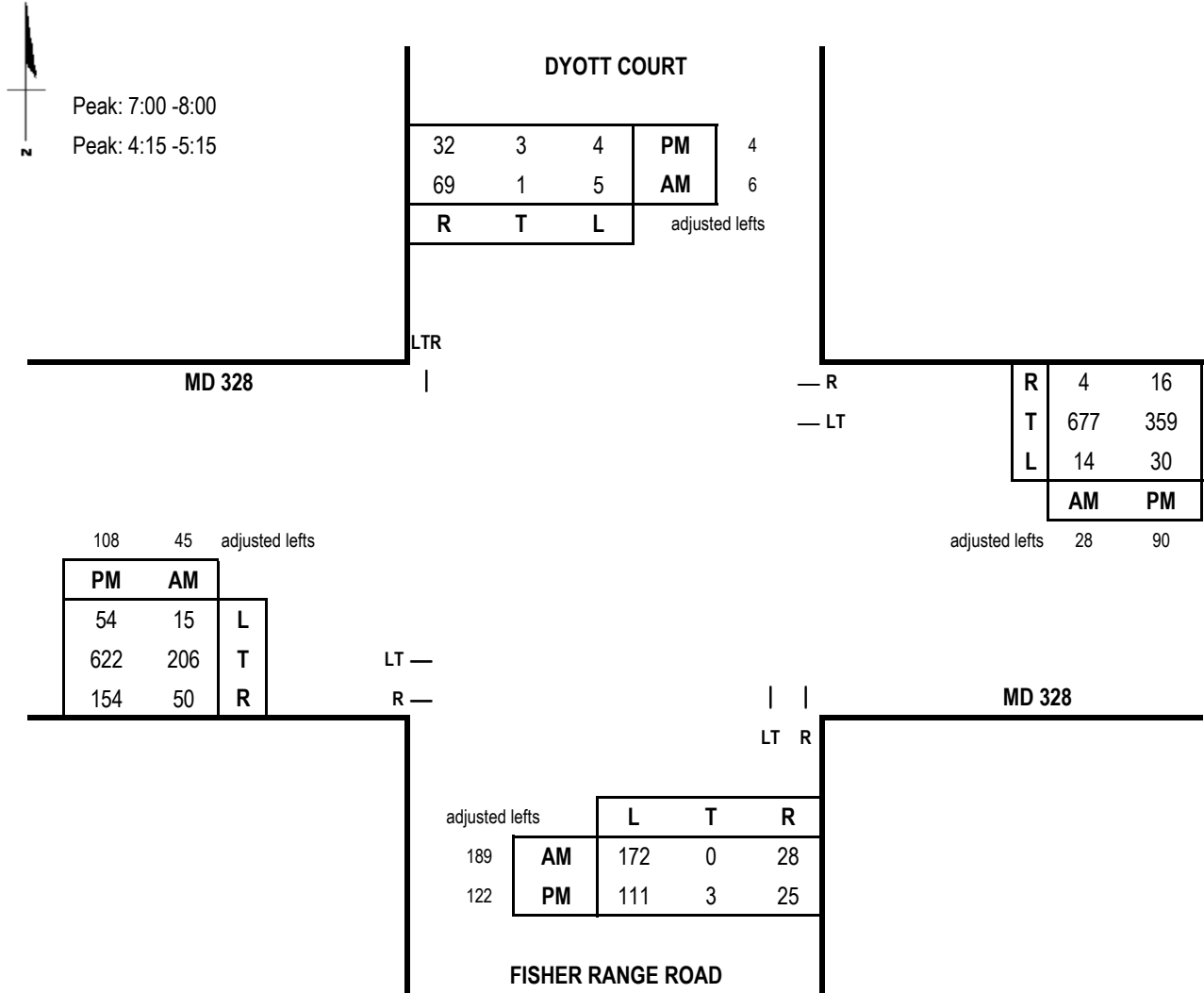
Date of Count: 6/9/2022

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

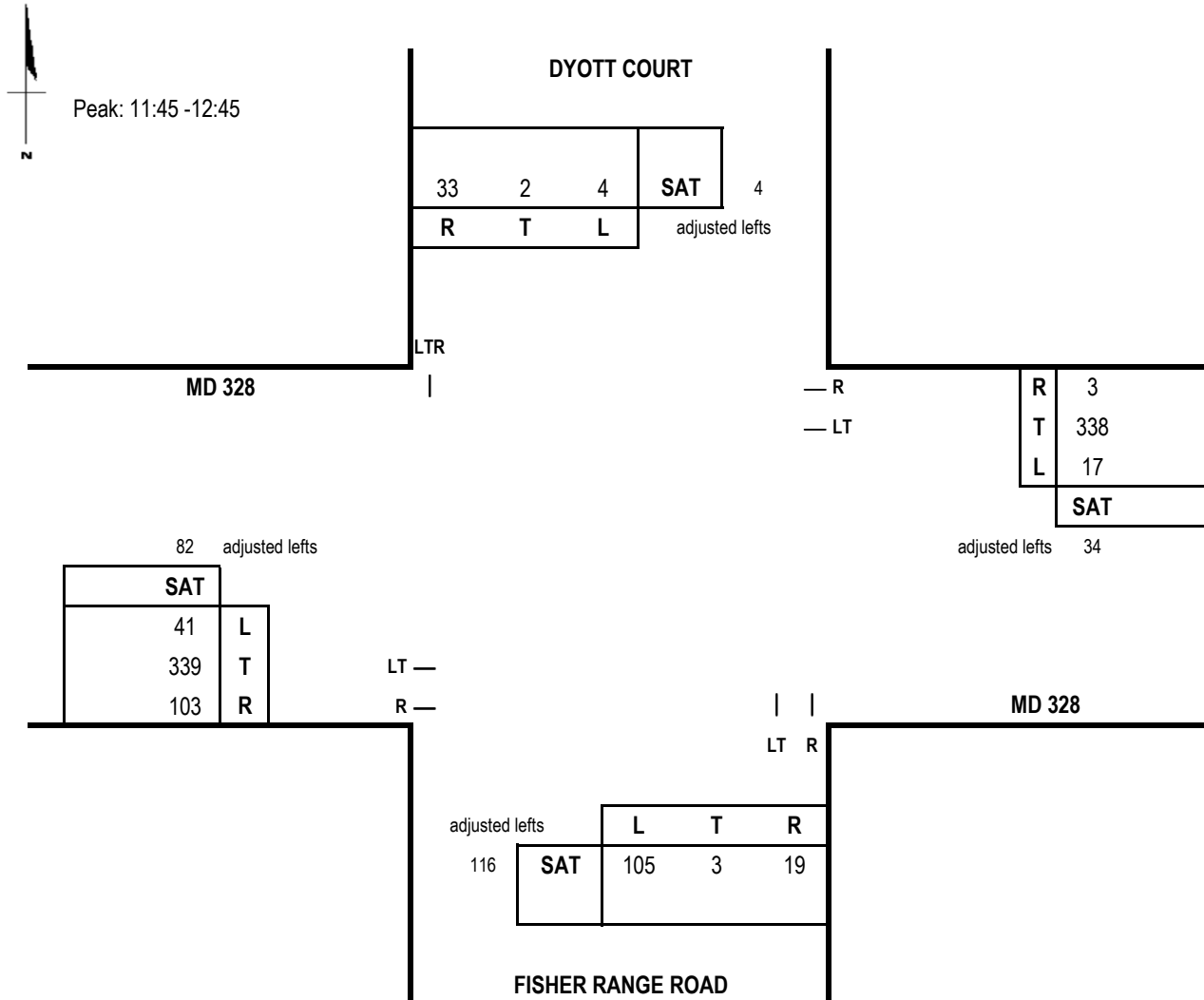
Date of Count: 6/11/2022

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

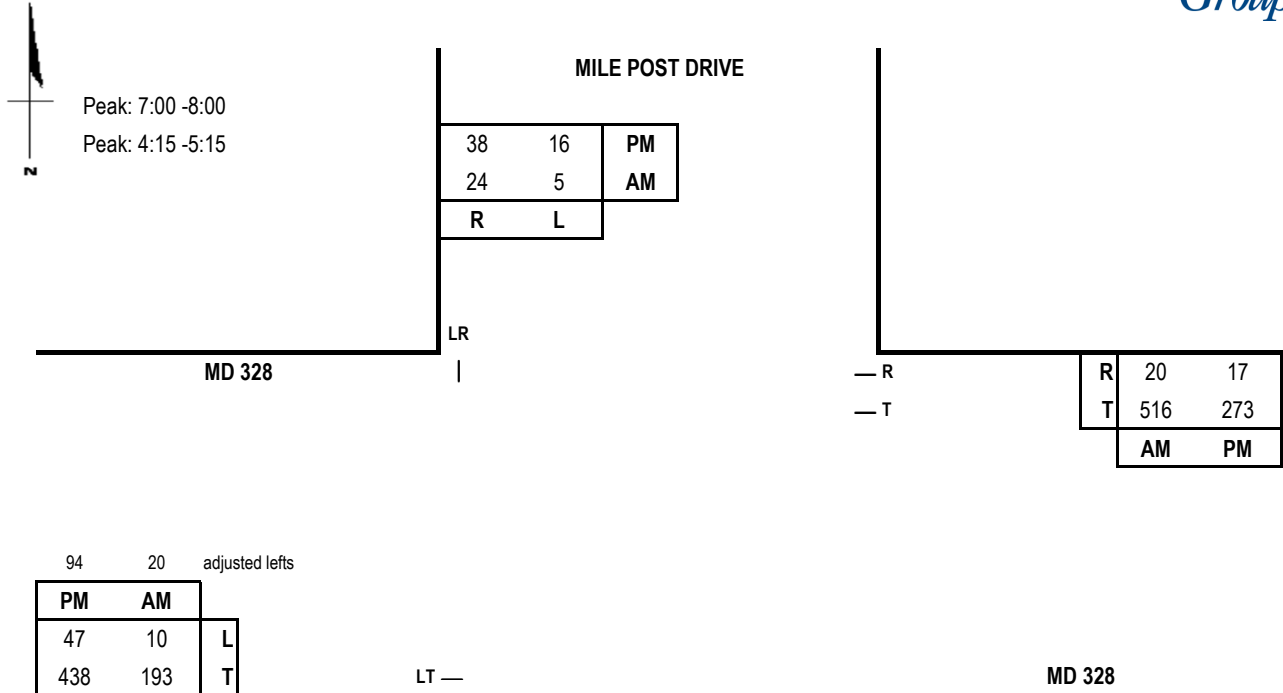
N/S Road: Mile Post Drive

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

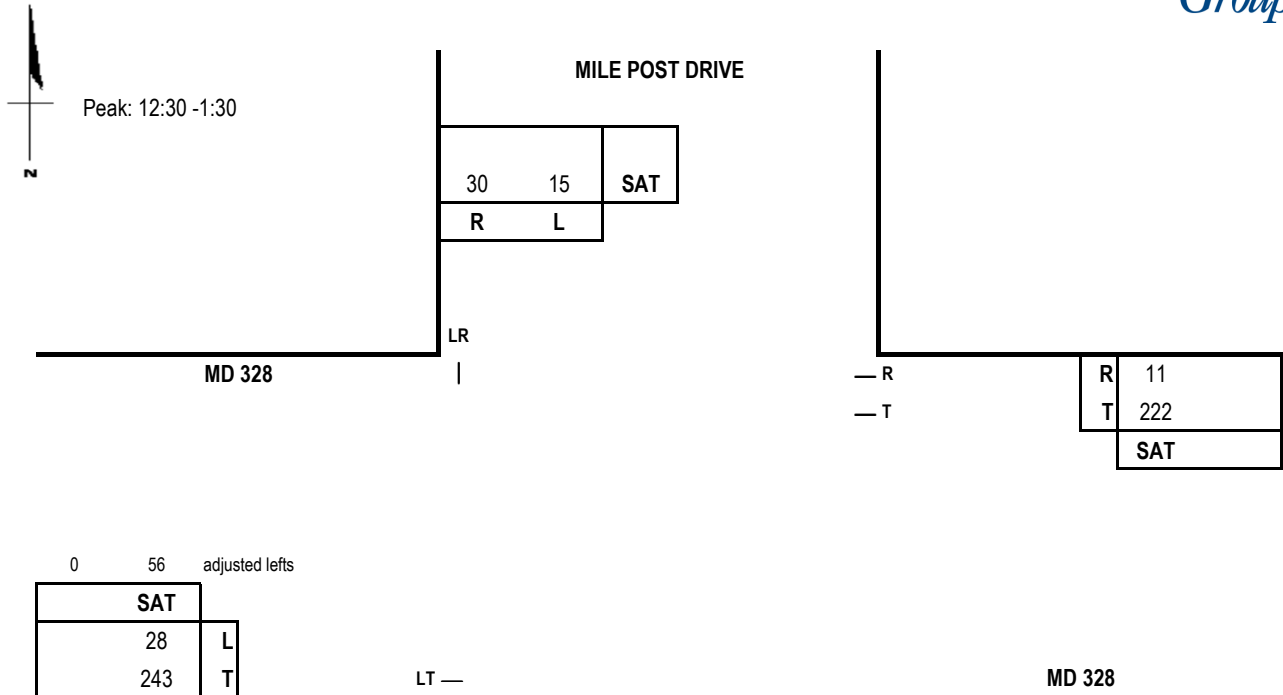
N/S Road: Mile Post Drive

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			SAT
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
SB	45	1.00	45				45
EB	299	1.00	299				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

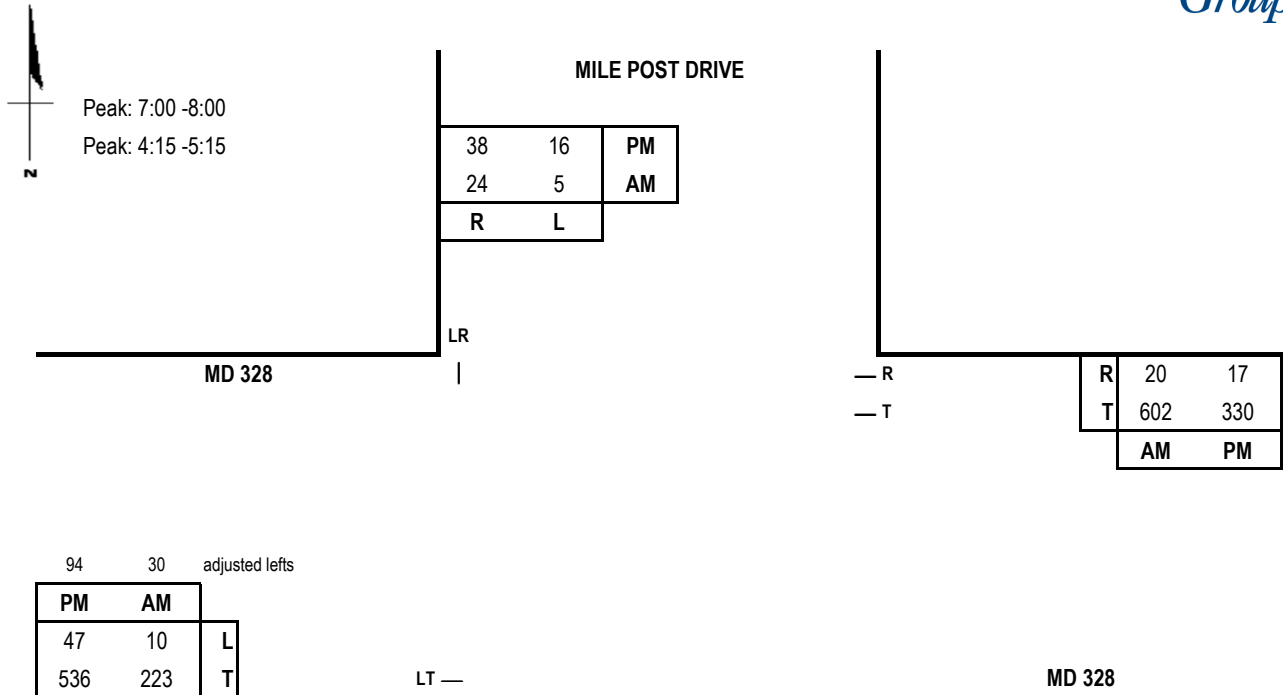
N/S Road: Mile Post Drive

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

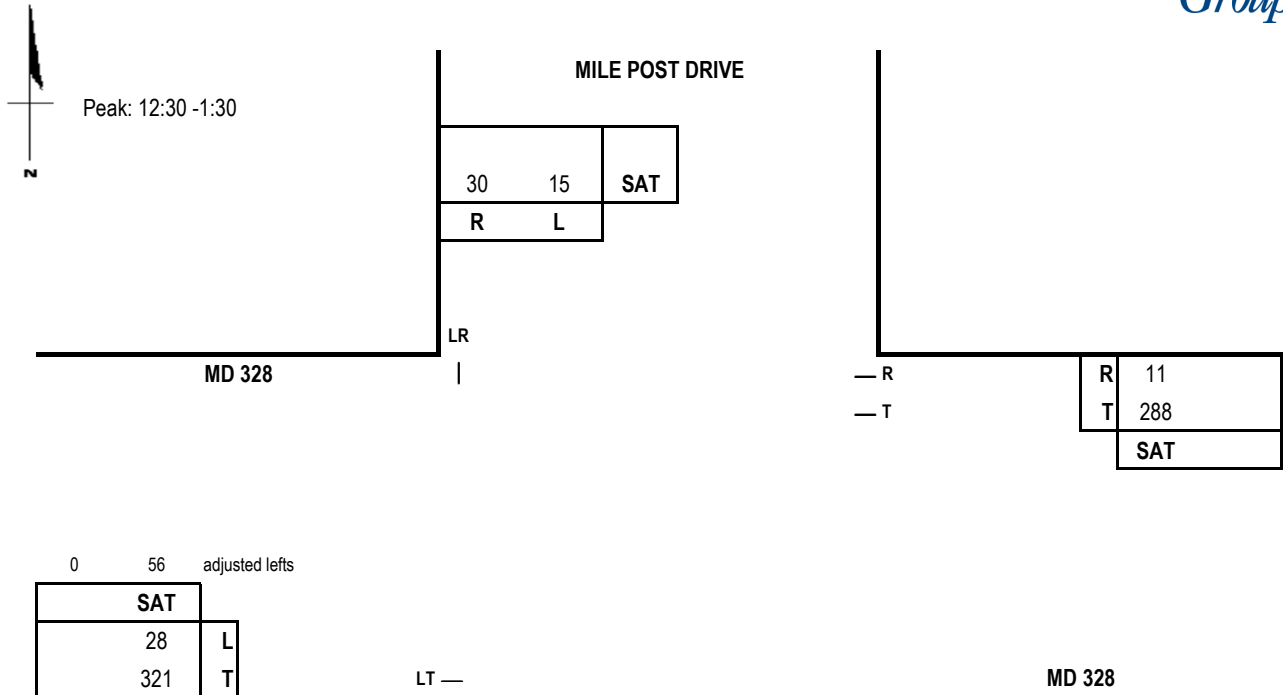
N/S Road: Mile Post Drive

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

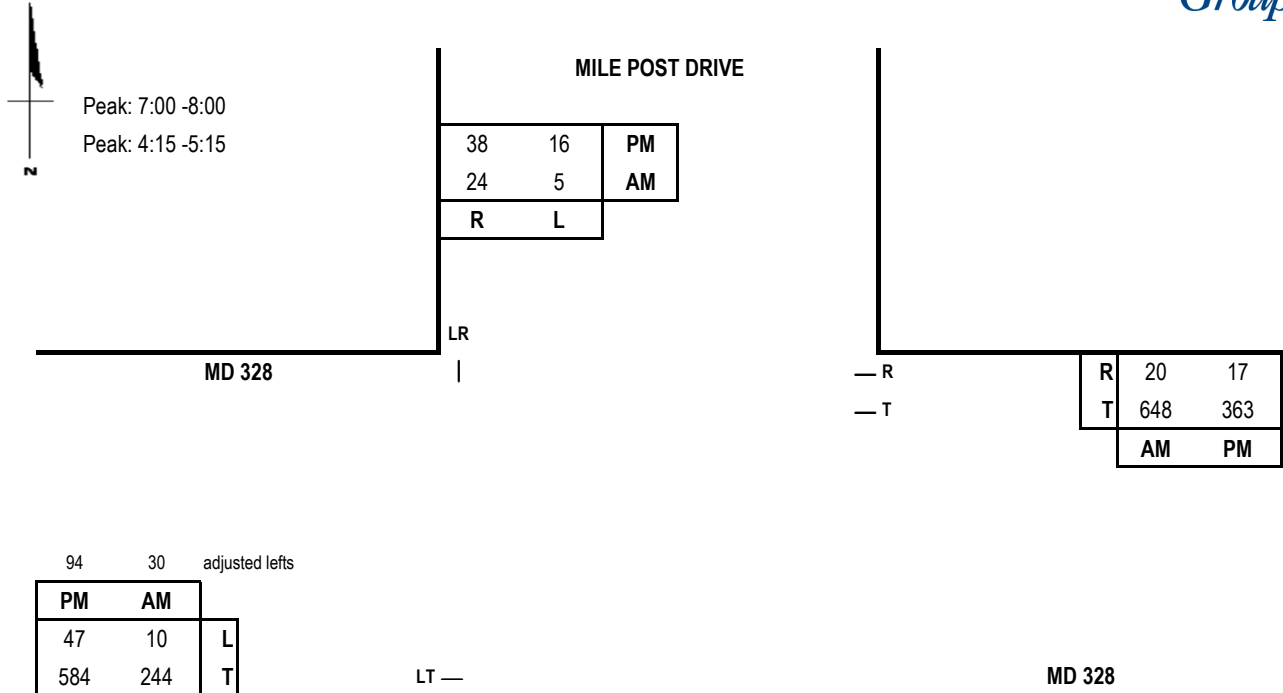
N/S Road: Mile Post Drive

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

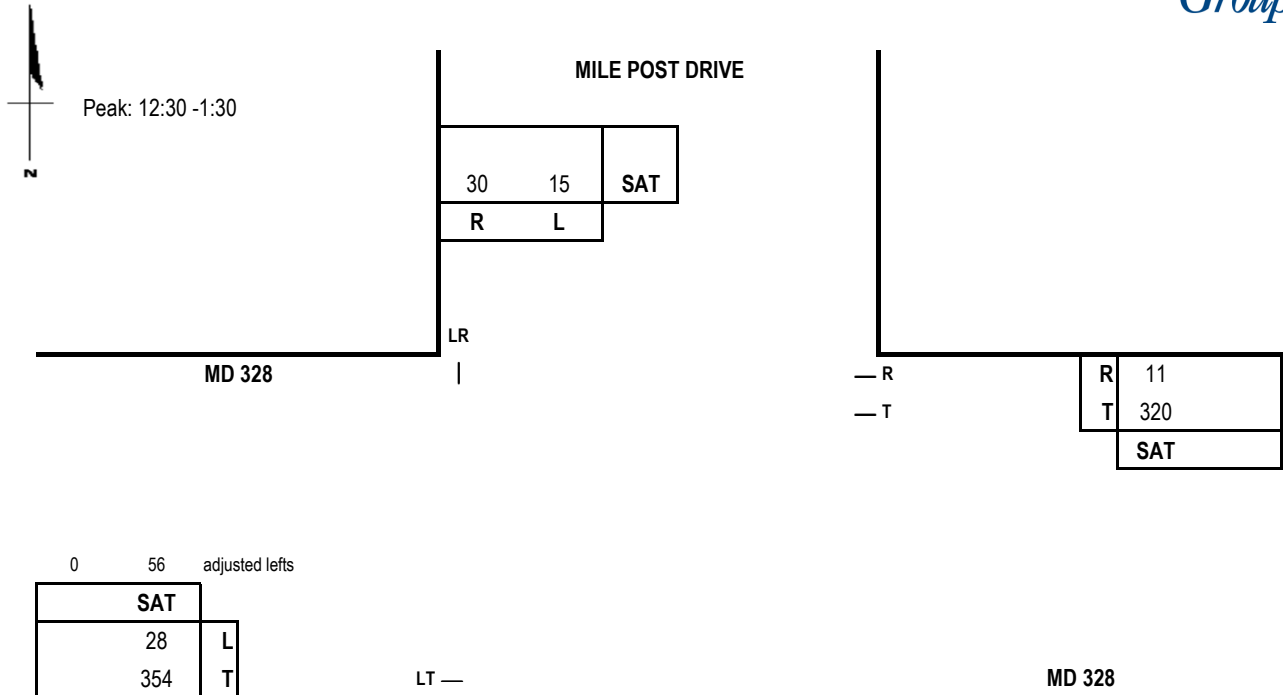
N/S Road: Mile Post Drive

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

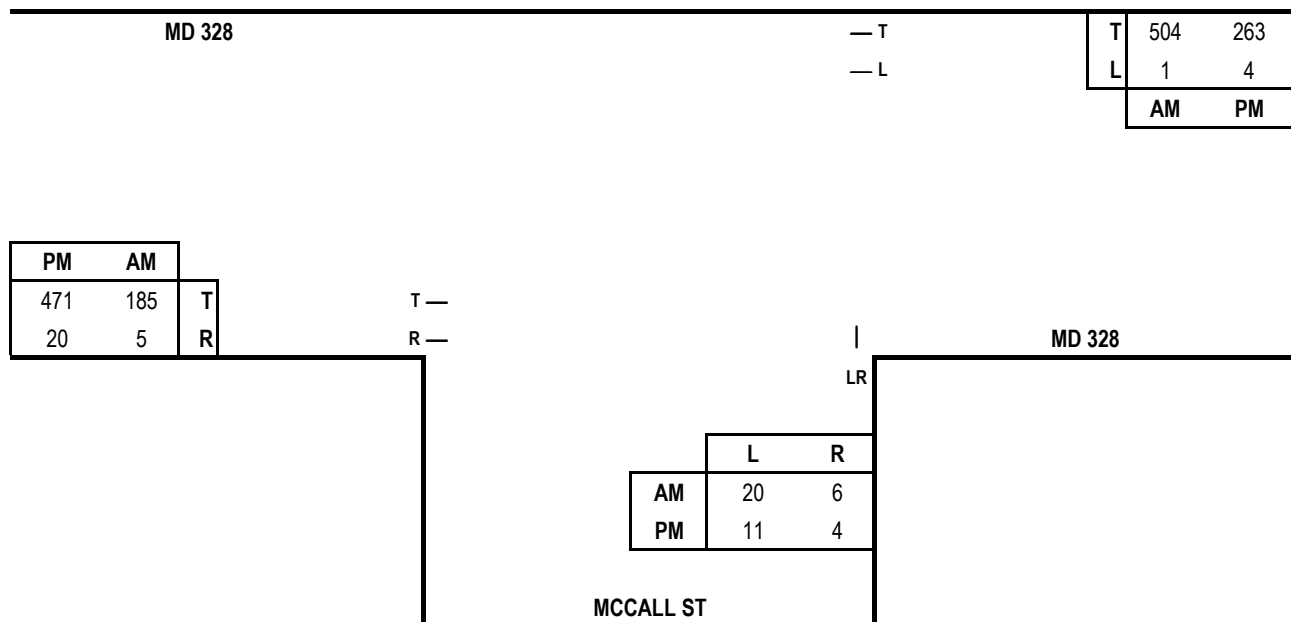
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2022 Existing Traffic

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

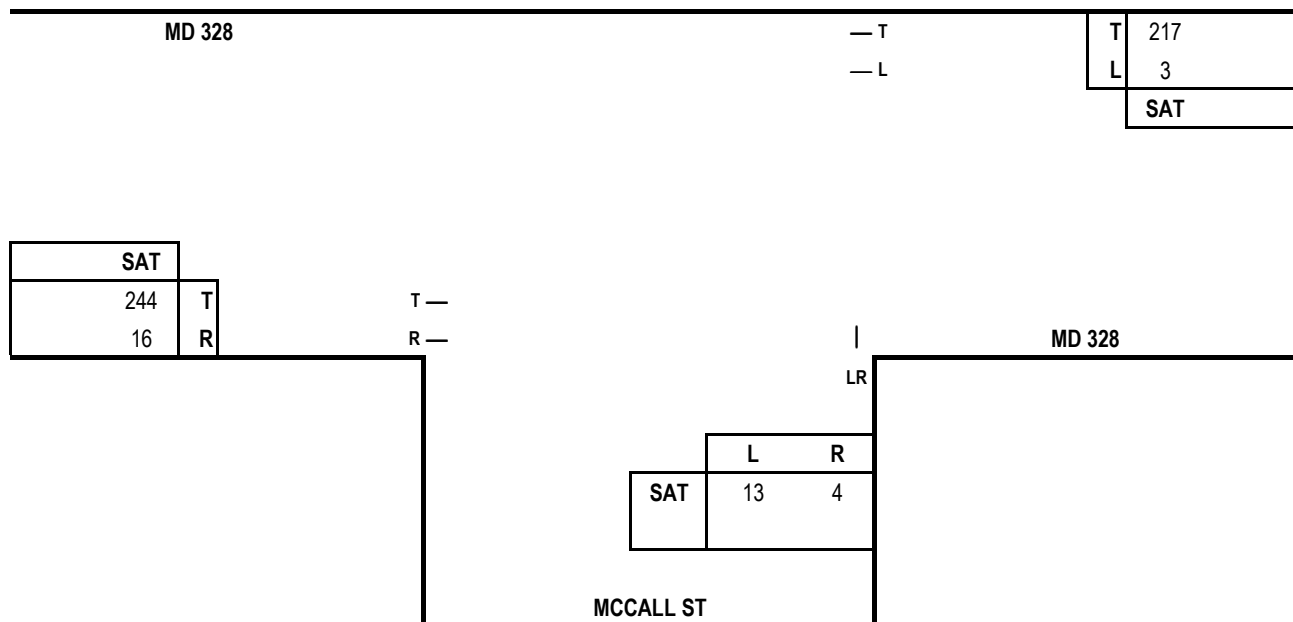
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

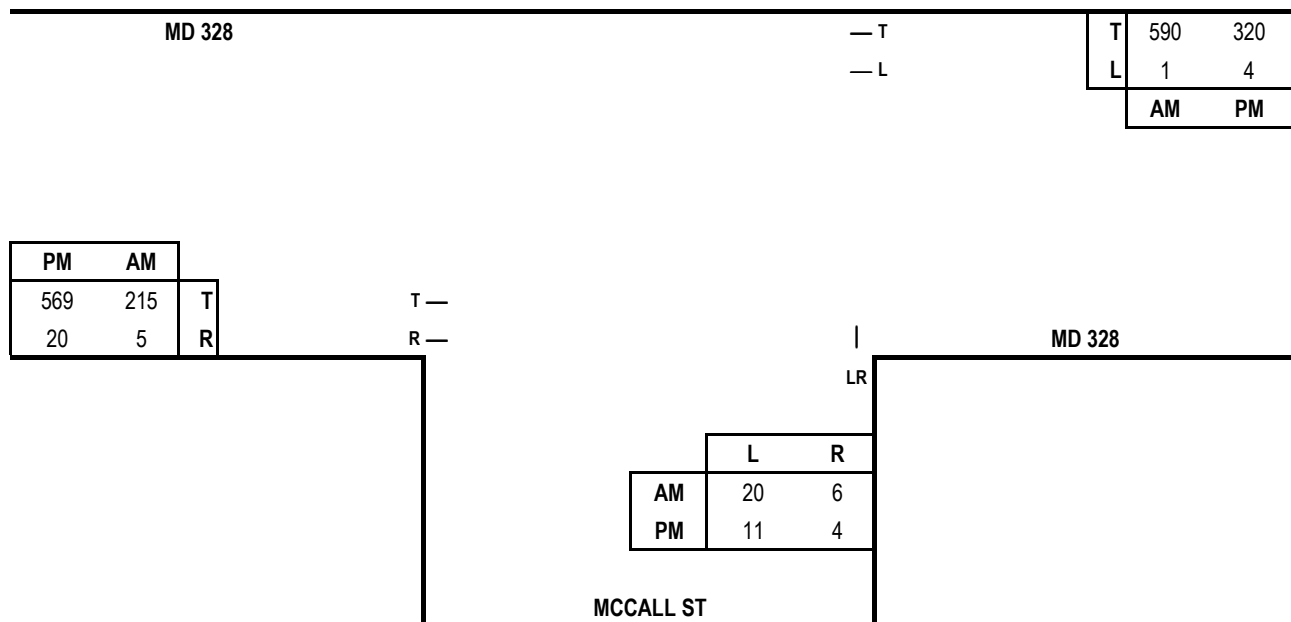
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2025 Background Traffic

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

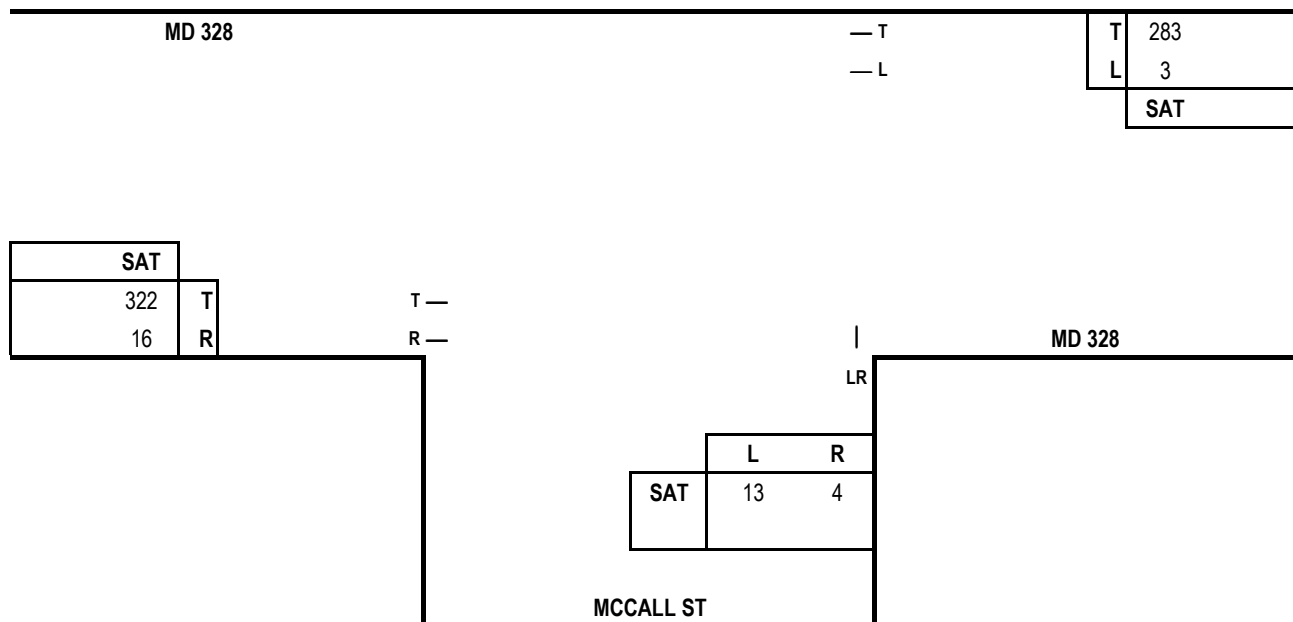
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

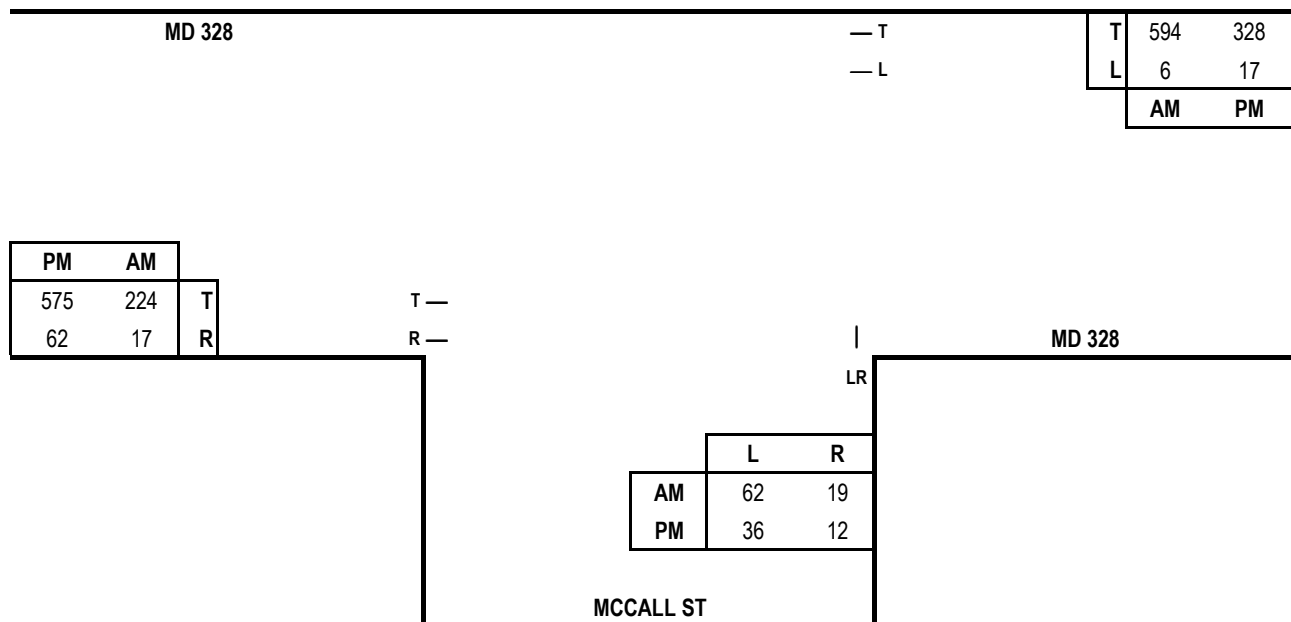
E/W Road: MD 328
N/S Road: McCall St
Conditions: 2025 Total Traffic

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

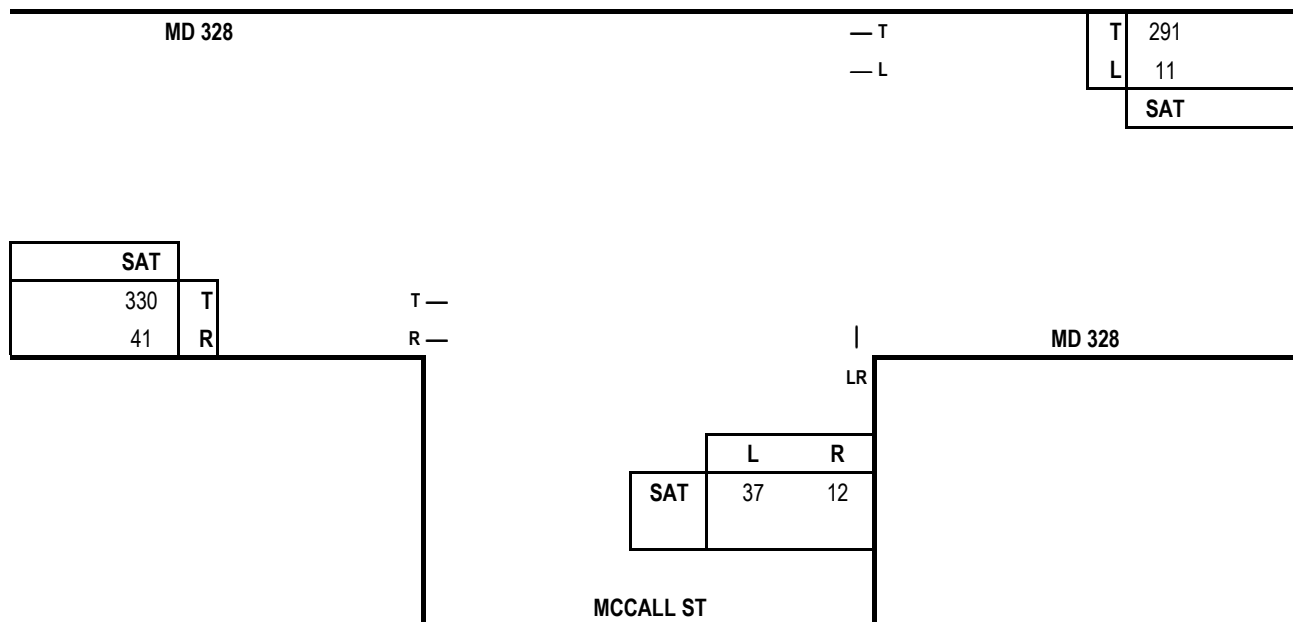
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

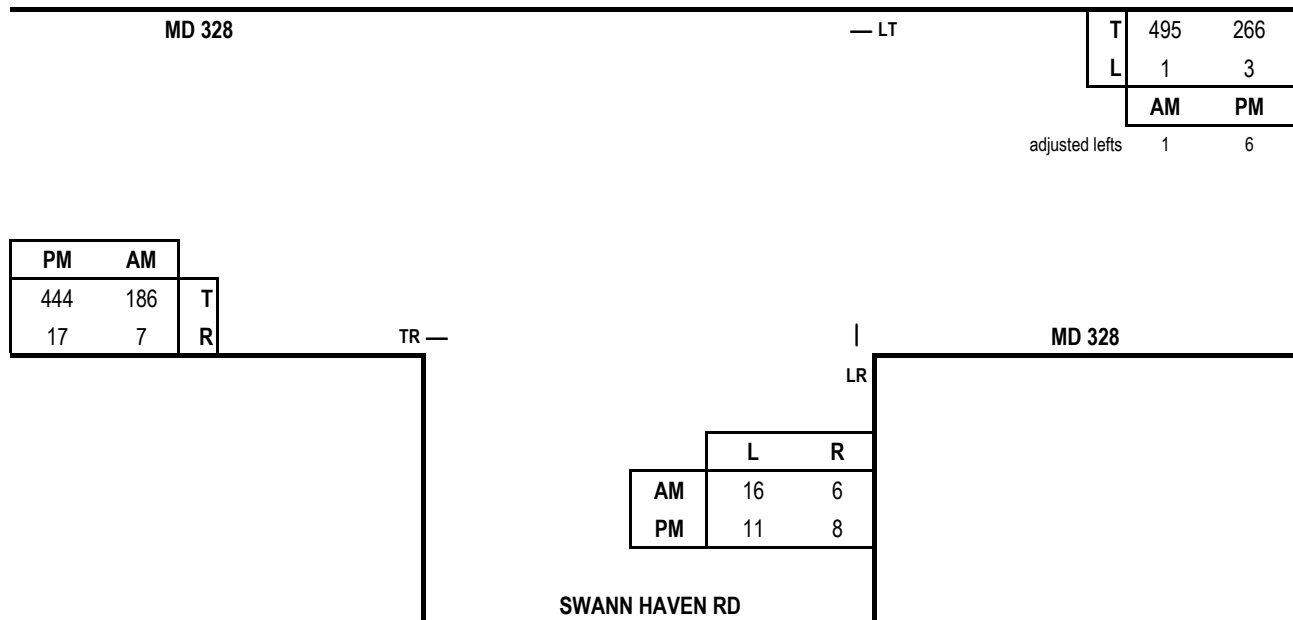
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2022 Existing Traffic

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

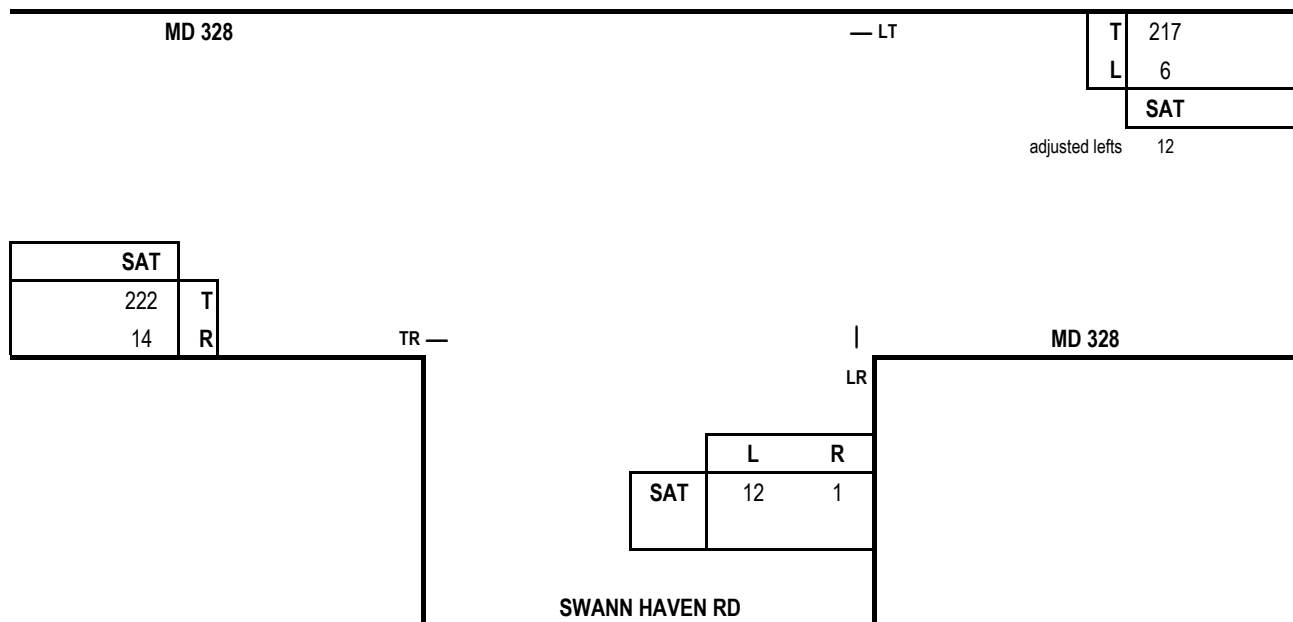
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

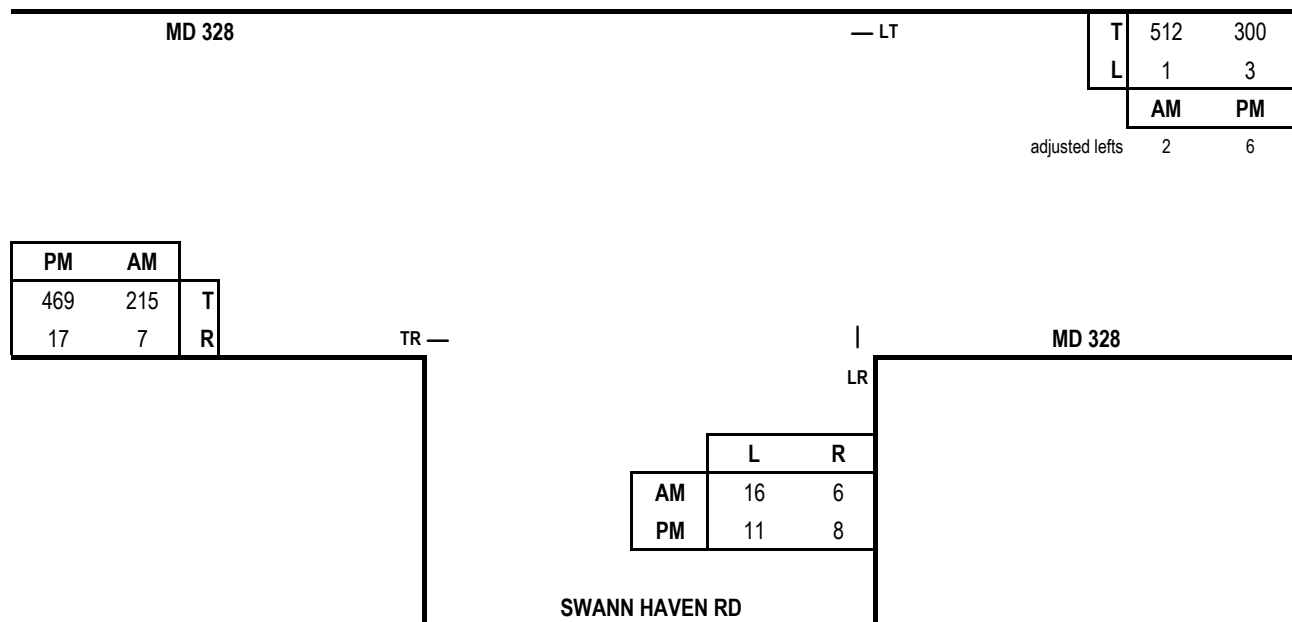
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Background Traffic

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

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

Scenario ID - BACK7

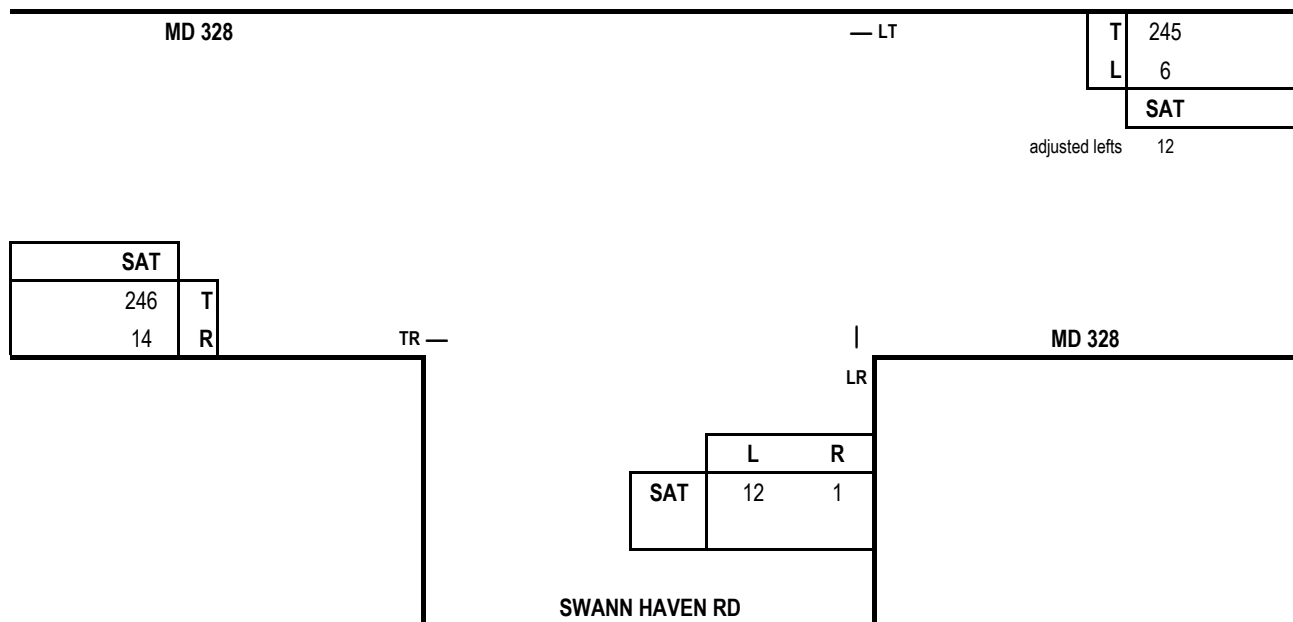
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

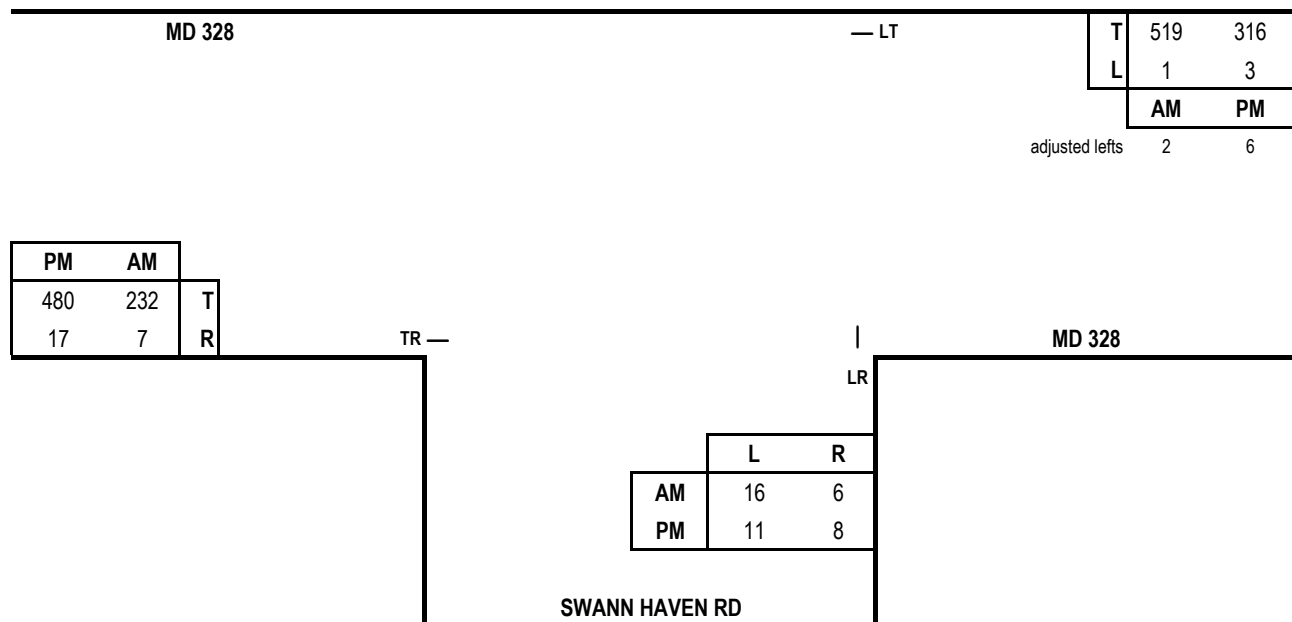
E/W Road: MD 328
N/S Road: Swann Haven Rd
Conditions: 2025 Total Traffic

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

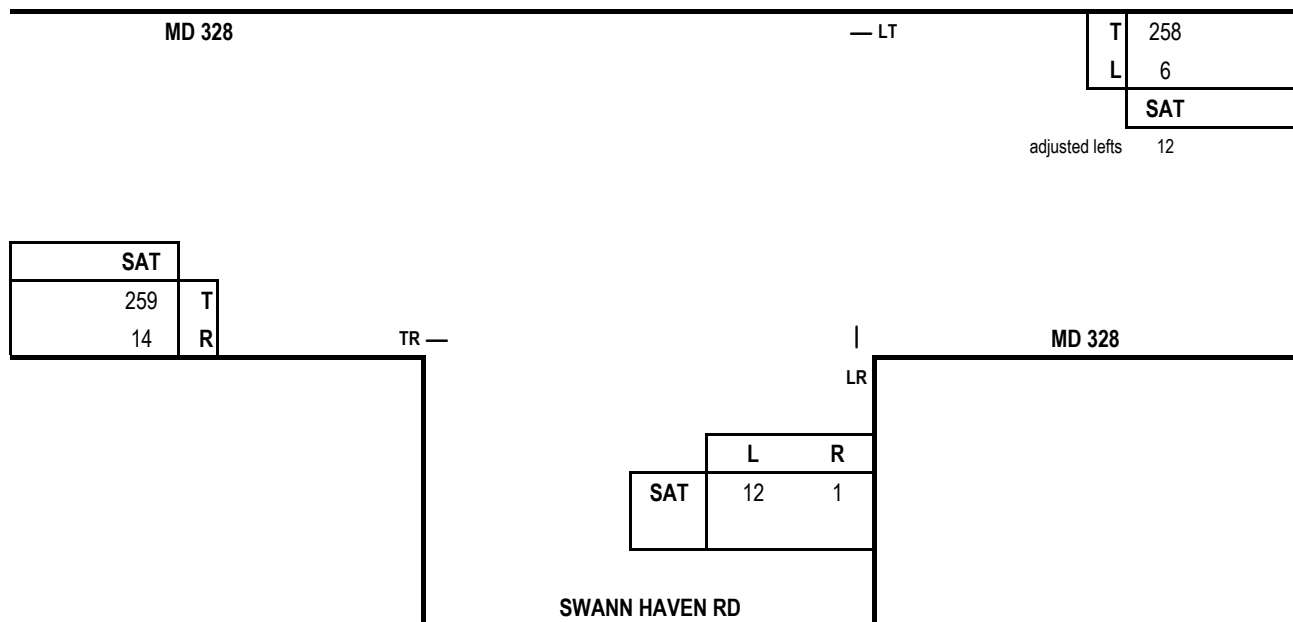
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

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

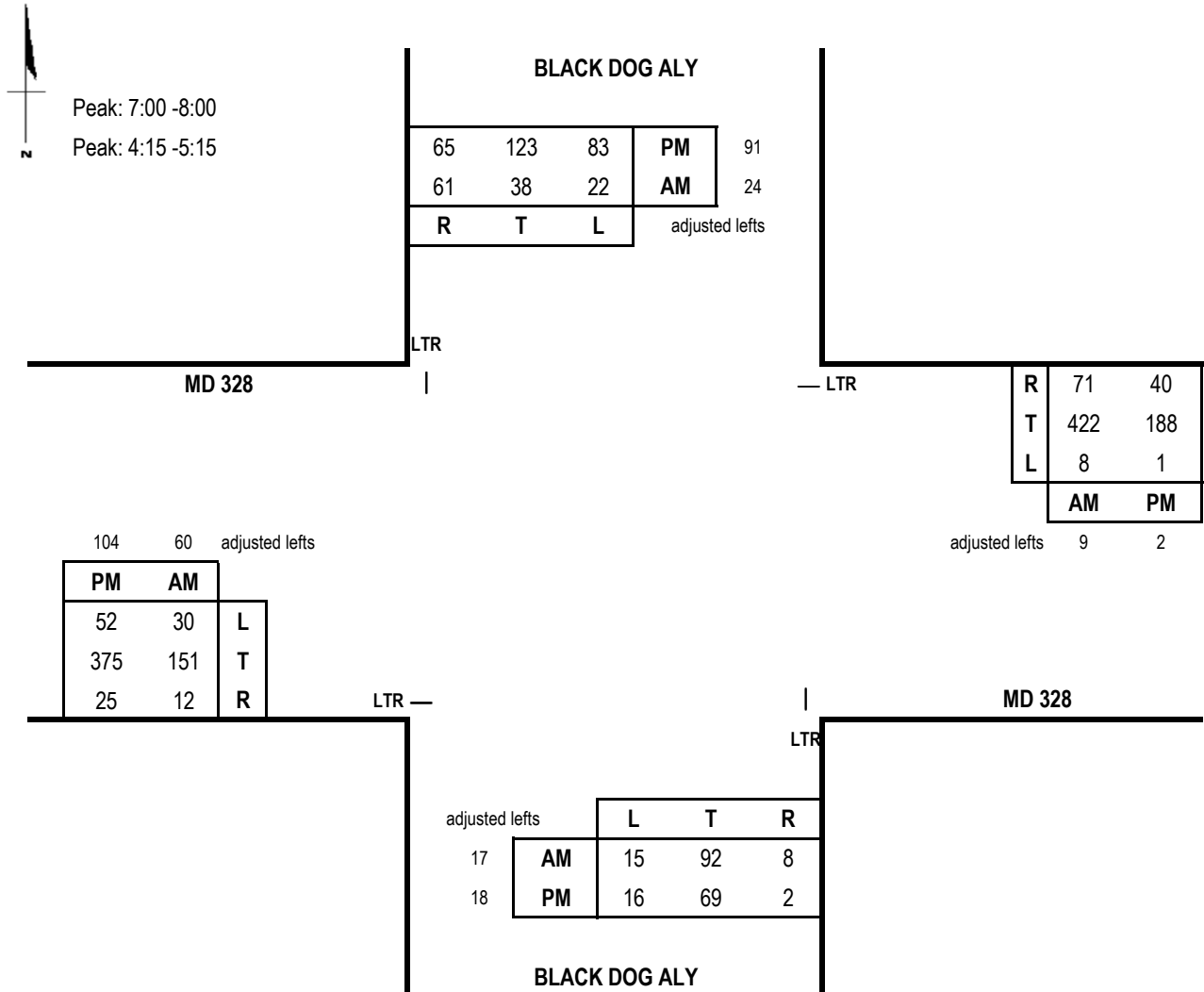
Date of Count: 6/9/2022

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

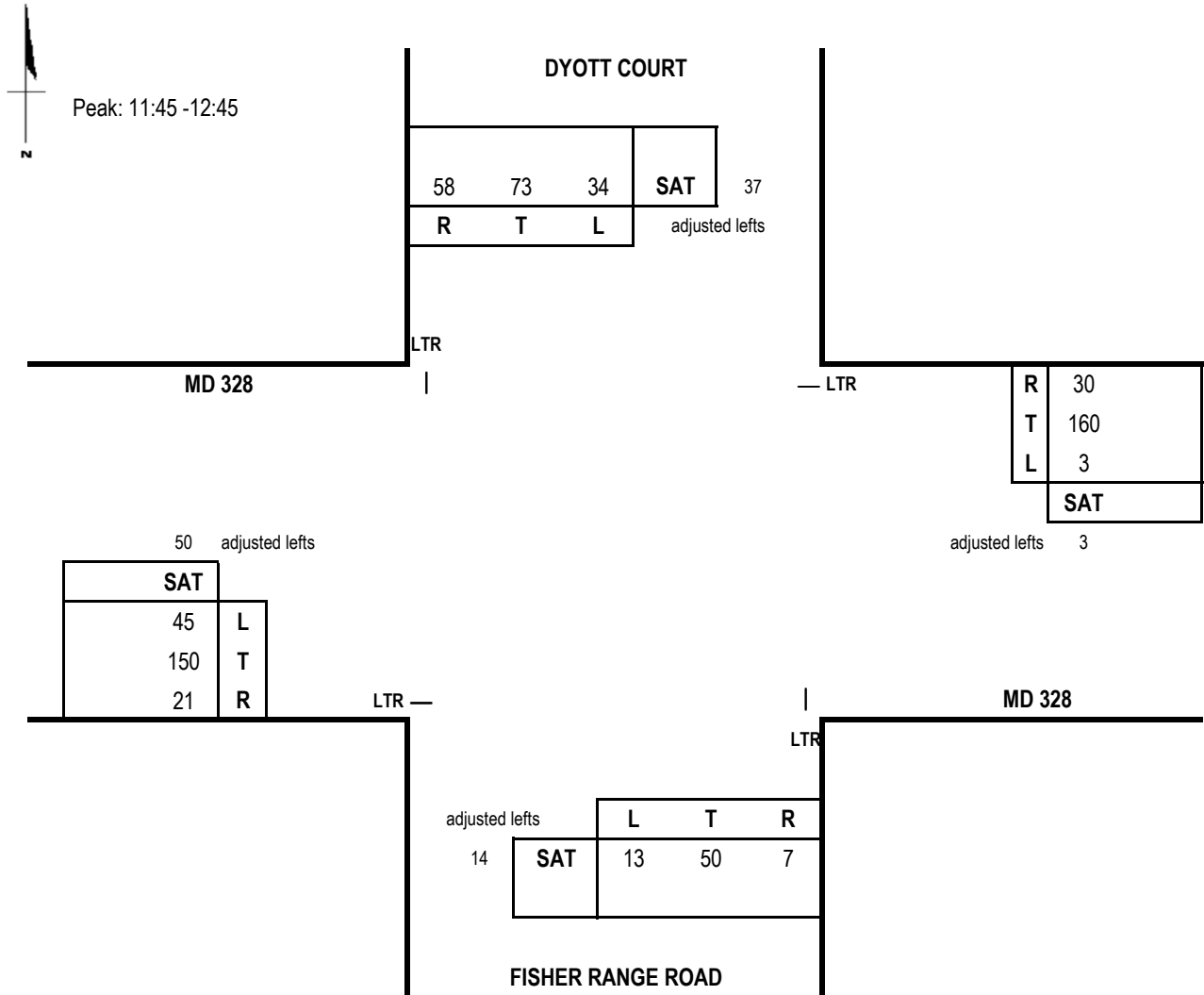
Date of Count: 6/11/2022

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

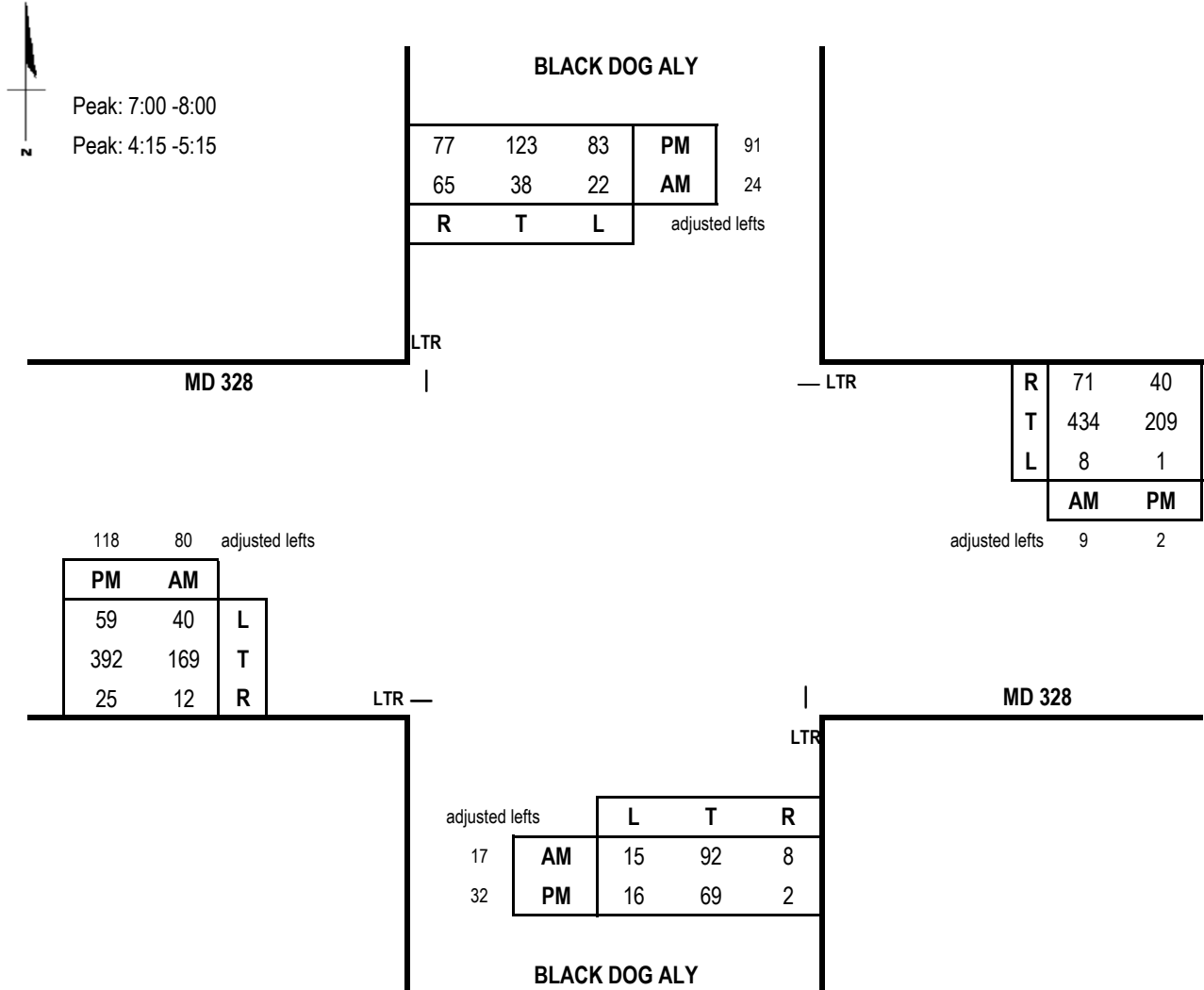
Date of Count: 6/9/2022

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

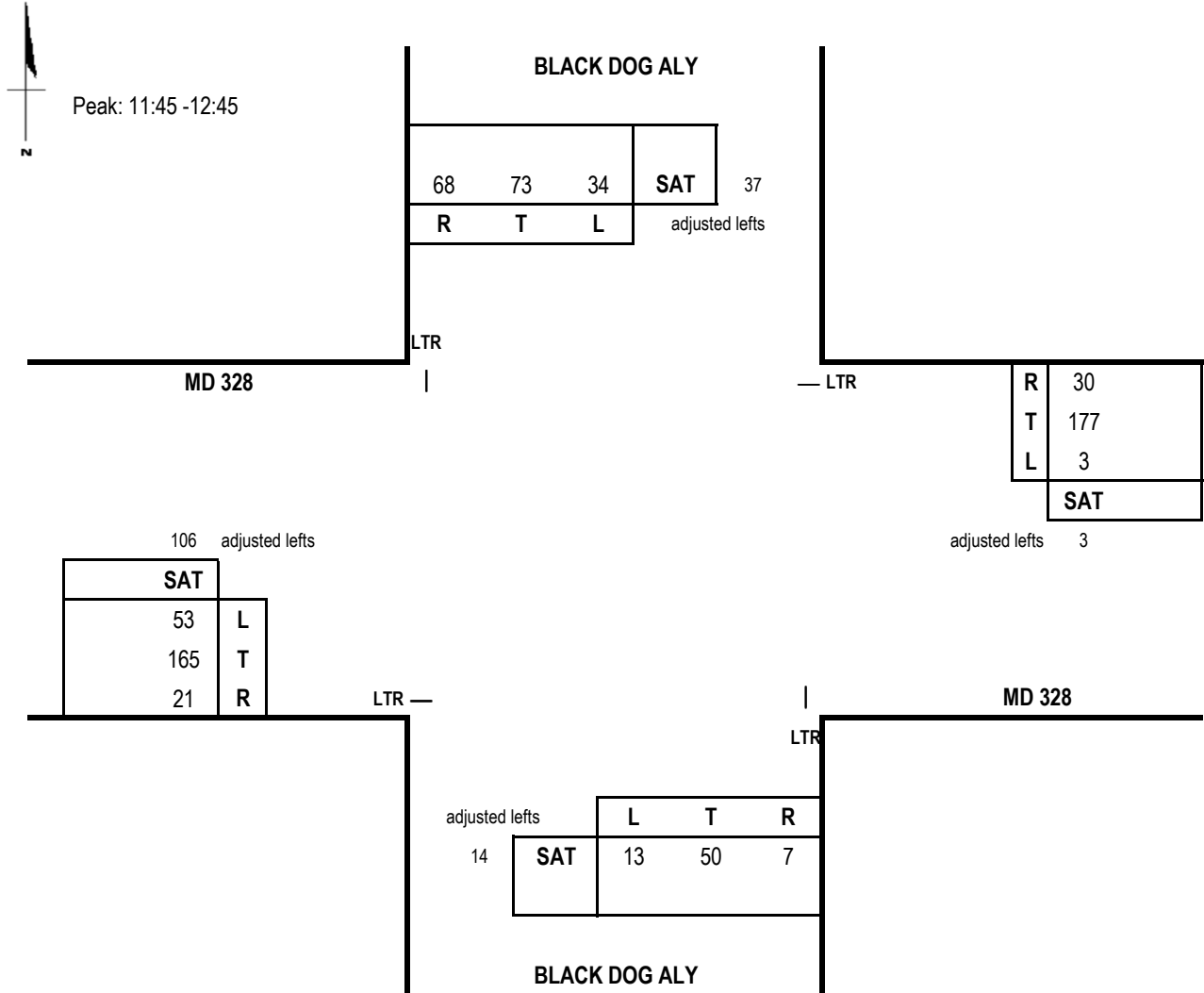
Date of Count: 6/11/2022

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

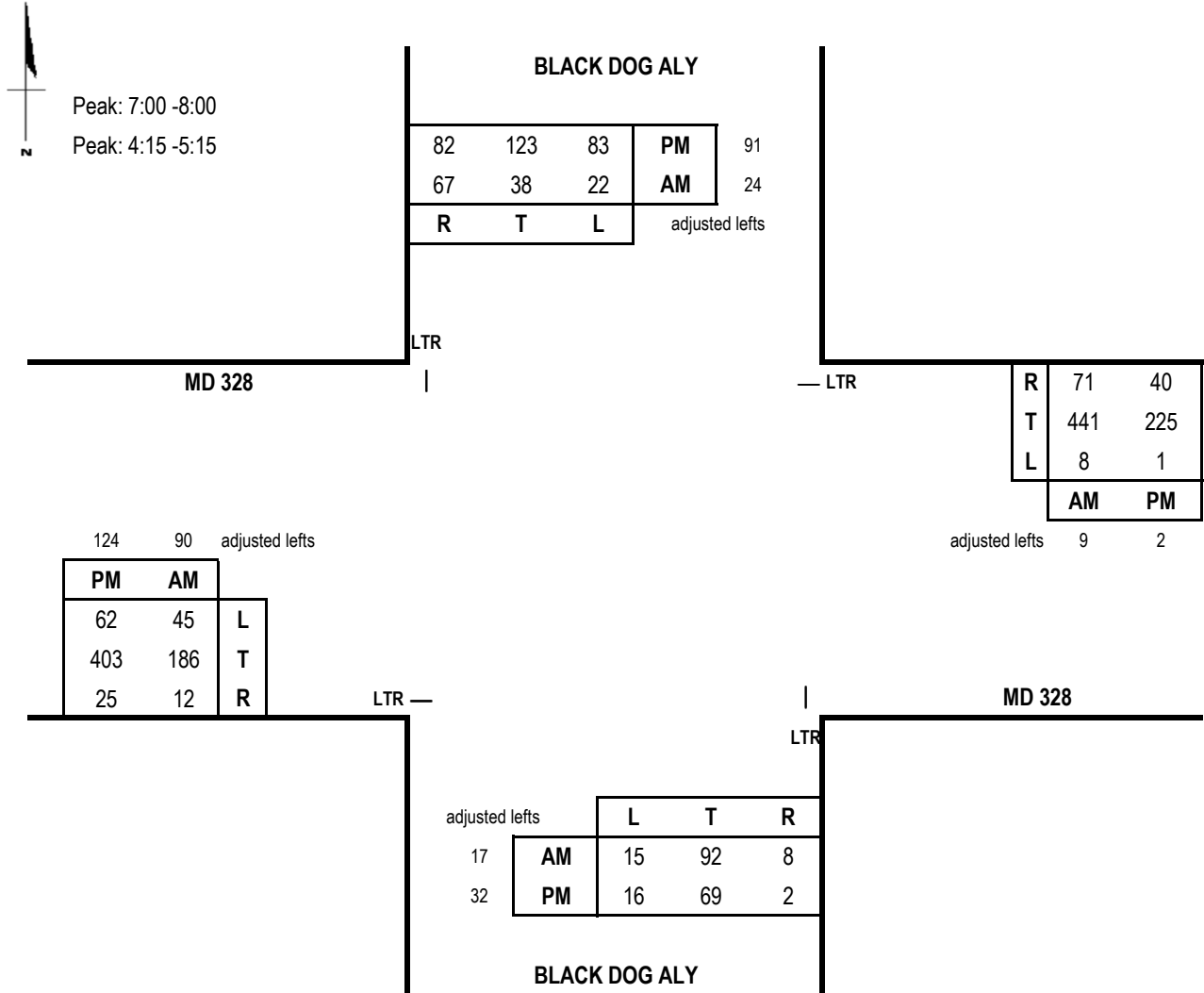
Date of Count: 6/9/2022

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

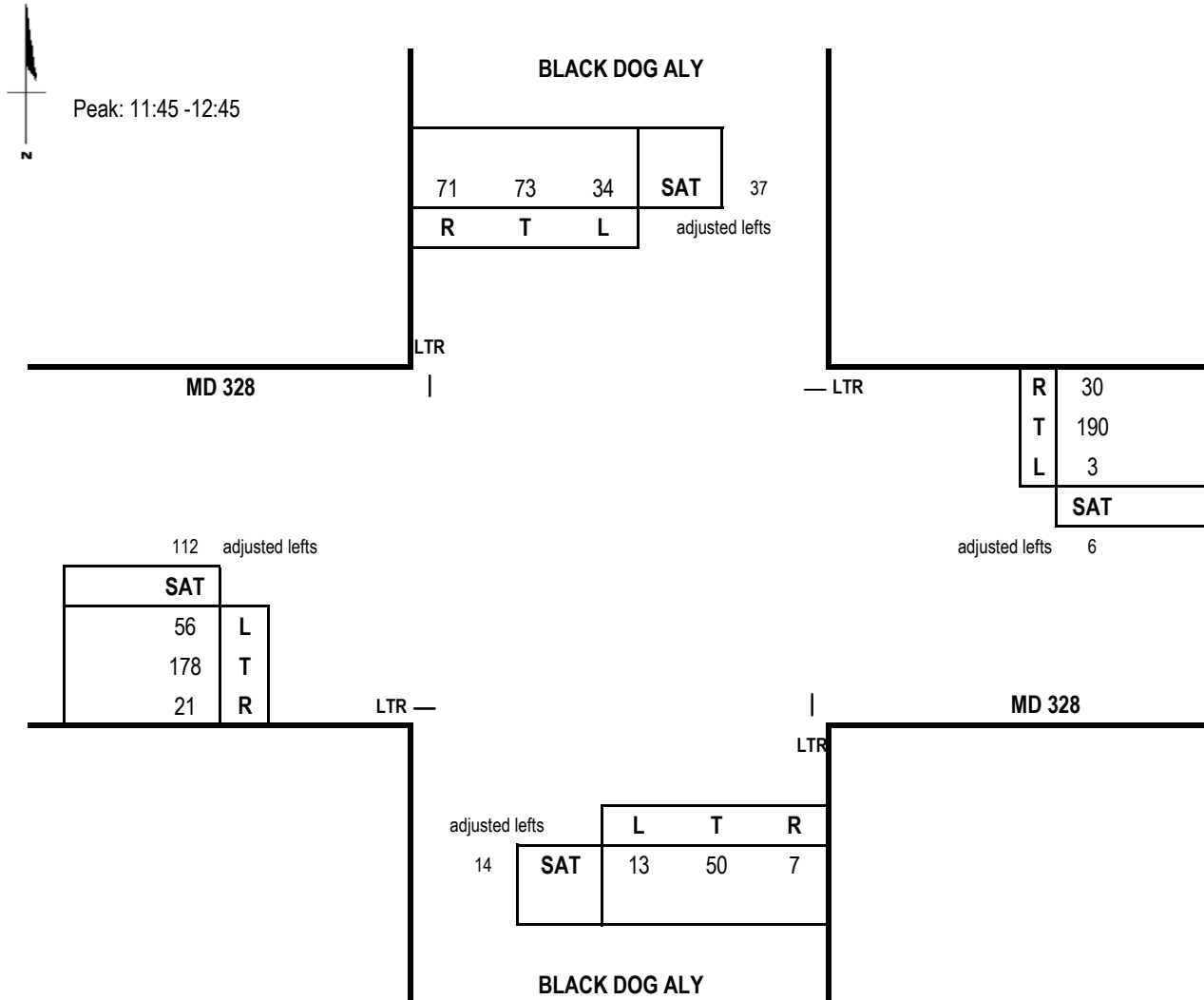
Date of Count: 6/11/2022

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	233
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	839	-
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	-	-	1202	-	244	614
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1202	-	243	614
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
Conflicting Flow All	0	0	212
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	-	-	1370
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1370
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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+l1), 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+l1), 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	0	763	355
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	408	-
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	-	-	1193	-	375	693
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	676	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1193	-	374	693
Mov Cap-2 Maneuver	-	-	-	-	374	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	674	-
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
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.27
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.353
Pot Cap-1 Maneuver	-	-	1234
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1234
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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		82			
Approach Delay, s/veh	5.2		8.4				18.8		18.2			
Approach LOS	A		A				B		B			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	34.5		13.7		34.5		13.7					
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	14.8		4.1		5.0		5.7					
Green Ext Time (p_c), s	12.7		0.4		3.4		0.8					
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
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	-	-	1333
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1333
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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(I)	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	0	636
Stage 1	-	-	-	-	335
Stage 2	-	-	-	-	301
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	-	-	1054	-	433
Stage 1	-	-	-	-	711
Stage 2	-	-	-	-	737
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1054	-	432
Mov Cap-2 Maneuver	-	-	-	-	432
Stage 1	-	-	-	-	711
Stage 2	-	-	-	-	735

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	3.4	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+I1), 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+l1), 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+l1), 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
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.27
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.353
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	0.2	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			
Approach Delay, s/veh	6.4				6.2				14.1			
Approach LOS	A				A				B			
Timer - Assigned Phs	2				4				6			
Phs Duration (G+Y+Rc), s	26.9				13.5				26.9			
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+l1), s	4.9				5.9				5.4			
Green Ext Time (p_c), s	2.6				1.0				3.2			
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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

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
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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

(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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	6	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

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
---------	------	-----------	--------	-----	------------

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

(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	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
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	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
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	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	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
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	6	.	X	.	.	.		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
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	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



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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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	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	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

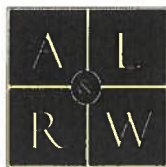


MOVING TRAFFIC FORWARD

MD.328 & Dyott - Modem - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Schedule (MM) 5-4



ARMISTEAD, LEE, RUST & WRIGHT, P.A.
ATTORNEYS AT LAW

114 Bay STREET, BUILDING C
EASTON, MARYLAND 21601

TELEPHONE: (410) 819-8989
FACSIMILE: (410) 822-4787

EMAIL ADDRESS
ZACHSMITH@ALRWLAW.COM

October 18, 2023

Via Electronic Delivery to: svanemburgh@ewingdietz.com

Sharon M. VanEmburch
Ewing, Dietz, Fountain & Kaludis, P.A.
16 S. Washington Street
Easton, Maryland 21601

**Re: Aspire Outdoors LLC
Vehicular Access**

Dear Sharon:

This letter is sent on behalf of D.R. Horton, Inc., the contract purchaser of the property shown as Parcel 45 on Talbot County Tax Map 26, which property is to be developed into the Gannon Range community ("Gannon Range"). As you know, Gannon Range will be adjacent to the parcel of land owned by Aspire Outdoors LLC that is proposed to be developed with apartments ("Aspire Project"). D.R. Horton understands that the Easton Planning Commission recently discussed the possibility of building an additional vehicular access to serve the Aspire Project across portions of Gannon Range, specifically on land that is shown on the approved site plan for Gannon Range as a community park and/or as a stormwater management feature. Please be advised that D.R. Horton fully intends to utilize these areas for their designated and approved purposes, as required by the Town. D.R. Horton does not support and will not allow a vehicular access to be constructed in this area.

D.R. Horton acknowledges that one (1) vehicular access between Gannon Range and the Aspire Project is permitted, specifically in the area that is shown and designated for such on the

Sharon M. VanEmburch
October 18, 2023
Page 2

approved site plan for Gannon Range. D.R. Horton will plat and dedicate the right-of-way for this connection as part of its buildout, and Aspire may then, at its expense, construct a connection within the right-of-way pursuant to any and all applicable Town standards and requirements, provided, however, if the connection is constructed prior to the streets within Gannon Range being accepted by the Town, then D.R. Horton may require an agreement and surety from Aspire to guarantee the repair of any damage that may be caused to the streets within Gannon Range by traffic from the Aspire Project.

Please share this correspondence with Town officials, including the Board of Appeals as it contemplates the pending applications for the Aspire Project. D.R. Horton does not oppose the Aspire Project, but it wants to be clear on the record that no additional vehicular access across any portion of Gannon Range will be allowed.

Sincerely,



Zach A. Smith

cc: D.R. Horton, Inc.



Easton
MARYLAND

RECEIPT

TOWN OF EASTON

Planning & Zoning Department

P.O. BOX 520

Easton, Maryland 21601

APPLICATION #	DATE
2024 - 1117	3/28/2024
PROJECT ID	
A 24-01	0013410100

TO:

Derick Daly

Aspire Outdoors, LLC

29760 Standish Street

Easton, Maryland 21601

RE: Application: 2024 - 1117

Camac Street - Aspire Apartments

Tax Map 026, Grid 0020, Parcel 0186

Easton, Maryland 21601

Date	Description	Transaction	Amount
01/23/2024	BOZA - APPEAL	Check # 1174	550.00
			-
			-
			-
			-
			-
			-
			-
Thank you!		TOTAL	\$550.00

Paid in full. Thank you!

If you have any questions about this invoice, please contact
Samantha N. Smith, Administrative Specialist (410) 822-1943, ssmith@eastonmd.gov

Project Fees Maintenance

Project Number

24 00001117

Project Description

ASPIRE APARTMENTS - BOZA APPEAL

Deposit Balance

.00

001 341 01 00

+ -		Export				
Select ⇅	Amount To Apply ⇅	⇅	Description ⇅	Previously Applied ⇅	Paid ⇅	⇅
☐	0.00		BOA APPEAL	550.00	.00	
⏪ 1 ⏩						

Town of Easton

01/23/24 15:34 MISCELLANEOUS

PZ 24-1117

BOA APPEAL

PZ 24-1117

Chk#: 1174

Batch Id: SHOC

Ref Num: 182 Seq: 16 to 16

Cash Amount: 0.00

Check Amount: 550.00

Credit Amount: 0.00

Total: 550.00

*Applicant copy provided 01/25/2024



Sign posted on April 1, 2024

NOTICE

Notice is hereby given that Application A-117 / A 24-01 has been filed on behalf of Aspire Outdoors, LLC (Applicant), pursuant to Section 28-1303.3.A of the Town of Easton Code, concerning interpretation or administration of Chapter 28 of the Town Code. The Applicant has filed an appeal to the Board of Zoning Appeals alleging an error in the decision or determination by the Planning and Zoning Director, in a written decision dated January 3, 2024, that a revised set of plans submitted by the Applicant on November 8, 2023 did not represent a substantial change to the original proposal dated September 26, 2023. Following the denial of a special exception application on October 24, 2023, a revised set of plans was submitted by the Applicant on November 8, 2023. Section 28-1303.5.F of the Zoning Ordinance states that if any application or request is disapproved on the merits by the Board, the Board shall not accept the application for substantially the same proposal, on the same premises, until after one (1) year from the date of such disapproval.

The property is located on Camac Street, Easton, Maryland, also known as Tax Map 0026, Grid 0020, Parcel 0186, and is situated in the R-10A – Residential District. The property 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, April 16, 2024 at 9:00 A.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

03/27/24

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

Cust. AcctID:	Creation Date: 03/27/24
	Ad Date: 03/31/24
	Class: 10
Name: Joanne Drummer	Ad ID:
Company: TOWN OF EASTON (L)	Ad Taker: AHALL
Address: PO Box 520	Sales Person: 503
EASTON, MD 21601	Words: 292
	Lines: 31
Telephone: (410) 822-2525	Agate Lines: 96
Email:	Depth: 4.0
Description: PH - Application A-117 / A	Inserts: 2
	Blind Box:

Other Charges: Total:
Discount:
Surcharge: Paid Amount:
Credits:
Bill Depth: Amount Due: _____

CREDIT CARD DETAILS

PT	CT	CN	Number	Exp.	Amnt.

Publication	Start	Stop	Inserts	Cost
The Star Democrat	03/31/24	03/31/24	1	

Ad Note:

Customer Note:

NOTICE

Notice is hereby given that Application A-117 / A 24-01 has been filed on behalf of Aspire Outdoors, LLC (Applicant), pursuant to Section 28-1303.3.A of the Town of Easton Code, concerning interpretation or administration of Chapter 28 of the Town Code. The Applicant has filed an appeal to the Board of Zoning Appeals alleging an error in the decision or determination by the Planning and Zoning Director, in a written decision dated January 3, 2024, that a revised set of plans submitted by the Applicant on November 8, 2023 did not represent a substantial change to the original proposal dated September 26, 2023. Following the denial of a special exception application on October 24, 2023, a revised set of plans was submitted by the Applicant on November 8, 2023. Section 28-1303.5.F of the Zoning Ordinance states that if any application or request is disapproved on the merits by the Board, the Board shall not accept the application for substantially the same proposal, on the same premises, until after one (1) year from the date of such disapproval.

The property is located on Camac Street, Easton, Maryland, also known as Tax Map 0026, Grid 0020, Parcel 0186, and is situated in the R-10A – Residential District. The property 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, April 16, 2024 at 9:00 A.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

3050265 SD 3/31/2024

We Appreciate Your Business!
Thank You Joanne Drummer!



TOWN OF EASTON
Planning & Zoning Department
14 South Harrison Street
P.O. Box 520
Easton, Maryland 21601

NOTICE OF APPLICATION SUMMARY
2024-04-16
A-1117 / A 24-01

Applicant notified of hearing date: Email: 2024-03-22 – 25 days

Exhibit A: Application – 2024-01-23 – 84 days

Exhibit B: Paid Receipt – 2024-01-25 – 82 days

Exhibit C: Picture of Property Sign Posting – 2024-04-01 – 15 days

Exhibit D: Staff Report – N/A

Exhibit E: Public Advertisement

Advertisement sent to the Star Democrat: 2024-03-27 – 20 days

Advertisement run in Star Democrat: 2024-03-31 – 16 days

Exhibit F: Notices

Applicant Hearing Letter: 2024-03-22 – 25 days

400' Notices Distributed: N/A