

Corridor Square

Howard County, Maryland

April 24, 2025

Traffic Impact Analysis

Prepared for:

H&H Rock Companies

Mr. Mark L. Levy, President
6800 Deerpath Road, Suite 100
Elkridge, Maryland 21075
(410) 579-2442
Amnimal@aol.com



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Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 17243, Expiration Date: 02/07/2027.



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

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Traffic Engineers & Transportation Planners

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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

This Traffic Impact Analysis was conducted to address Howard County Adequate Road Facilities Test Evaluation and Multimodal Transportation Studies criteria in conjunction with the proposed development of the buildout of Corridor Square. The subject site is located along the east side of US 1 and north side of Dorsey Road. The site is currently developed with 20 townhomes and The Refinery apartment community. Current access is provided via a full-movement intersection with MD 103 at Barnett Lane. The remaining portion of the site is proposed to be developed with a Patient First medical facility, a convenience store with gasoline pumps, and an automatic car wash along the US 1 frontage. Another 20 townhomes are proposed along the MD 103 frontage of the site. Primary access is proposed by an extension of Barnett Lane to US 1 at a future full signalized intersection. Additional right-in access points are proposed along US 1 to the south and north of the main access. Barnett Lane will continue to provide access to and from MD 103 as well.

Study Criteria/Methodology

This Traffic Impact Analysis was prepared to comply with the Howard County Adequate Road Facilities Test Evaluation requirements outlined in the Howard County Design Manual – Volume III (Complete Streets and Bridges). Chapter 4 details the requirements for a Traffic Impact Analysis addressing the Howard County Adequate Road Facilities Test Evaluation requirements, while Chapter 5 provides guidance for Multimodal Traffic Studies. The study also addresses Maryland Department of Transportation State Highway Administration (MDOT SHA) requirements.

The scope of the study was developed based upon input from both Howard County and MDOT SHA. Appendix A contains copies of the scoping documents.

Intersection capacity analyses are required using the Critical Lane Volume (CLV) methodology. Level of Service “E” or better conditions are considered acceptable at an intersection involving a state road, while Level of Service “D” or better conditions are considered acceptable at the intersection of county roads. MDOT SHA desires Level of Service “D” or better conditions at all locations. The study also includes Synchro/SimTraffic evaluations using Highway Capacity Manual (HCM) Level of Service methods as well as queueing analyses from SimTraffic.

Scope of Services

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

- Conduct a field investigation to collect physical information concerning the nearby road system.
- Conduct intersection turning movement counts at the study intersections.
- Provide an allowance for regional traffic growth on the surrounding roadways.
- Obtain information from Howard County concerning approved developments in the surrounding vicinity.
- Conduct trip generation and trip distribution analyses for the approved development.
- Conduct trip generation and trip distribution analyses for the proposed development of the site.
- Develop total future traffic volume forecasts for a 2028 design year.
- Conduct intersection capacity analyses and level of service evaluations for the study intersections.
- Conduct a traffic signal warrant evaluation for the site access intersection with US 1.
- Provide Synchro/SimTraffic modeling to identify operating conditions.
- Prepare a Multimodal Evaluation.
- Provide an overall evaluation of the impact of the proposed development of the site on the surrounding area road system.

Summary of Findings and Recommendations

Based upon the data and analyses presented in this study, the proposed buildout of Corridor Square can be accommodated by the surrounding area road system. The results of the analyses conducted as part of this study for existing, background, and total projected traffic volumes show that acceptable levels of service can be maintained at the study intersections under 2028 total projected volumes.

This study includes planned improvements to the US 1/MD 103 intersection as proposed by Howard County, in addition to proposed improvements by the developer of the site along US 1. The developer improvements include the addition of a northbound lane on US 1 between MD 103 and the ramp to eastbound MD 100, a southbound left turn lane at the proposed full access along US 1 and signalization of the new intersection. A private road will extend through the site between MD 103 and US 1. A multimodal path is also proposed along the site frontage of US 1 between MD 103 and the development project to the north of the site.

Detailed operational analyses were conducted using Synchro/SimTraffic modeling software. Those results show some operational issues with some of the stop-controlled intersections under existing and background traffic volumes. This includes the southbound approach of MD 103 at Dorsey Run Road, the northbound approach of Mayfield Avenue at MD 103, the northbound approach of Business Parkway at MD 103, and the eastbound left turn from the unsignalized southern Troy Hill Drive access to US 1. With the proposed connector road through the site, the development of Corridor Square results in significant improvements to the delay and queue for southbound MD 103 at Dorsey Road. The modeling results show the proposed development of Corridor Square has a minimal impact on the other unsignalized intersection delays and queues. Consideration should be given to providing future evaluations of these locations to determine whether geometric and/or operational changes could improve delays and queues for those stop-controlled approaches.

The study shows that all signalized intersections are projected to operate with acceptable levels of service under 2028 total projected traffic volumes. The development of the site with the connector road is projected to further improve operating conditions at the US 1/MD 103 intersection. Between the county and developer improvements, that intersection is projected to improve from Level of Service “E” and “F” conditions to Level of Service “C” conditions using HCM procedures.

As part of this study, a Traffic Signal Warrant Analysis was conducted for the proposed full-movement access along US 1. Those results show with the development of Corridor Square traffic signal warrants are expected to be satisfied at that location. Improvements by the developer of Corridor Square include constructing acceleration/deceleration lanes along US 1 and constructing a 500-ft southbound left turn lane on US 1. The modeling results show the 500-ft left turn lane is projected to be sufficient to accommodate peak hour left turn demand.

Based upon the data and analyses presented in this study, the proposed development of Corridor Square satisfies Howard County Adequate Road Facilities Test Evaluation requirements. The data and methodology used to undertake this study is detailed in the sections that follow.

EXISTING TRAFFIC CONDITIONS

Site Information

Corridor Square is located along the east side of US 1, and north side of MD 103 (Dorsey Road) as shown in Figure 1. In addition to the current residential development on the site, the buildout of Corridor Square is proposed to include a 7,200-sq ft Patient First facility, a 6,200-sq ft convenience store with gasoline pumps, a single bay automatic car wash, and 20 townhomes. Primary access is provided via a full-movement intersection with US 1 and additional access is proposed by a right-in only from US 1 to the south and north of the main access. The existing access to MD 103 via Barnett Lane will remain. Barnett Lane will extend through the site between the new full movement US 1 access and MD 103.

Study Area

In accordance with Howard County criteria, the nearby road system was evaluated and key intersections identified based upon the site location, expected trip generation, and proposed access. Comments were provided by both Howard County and MDOT SHA to develop the final study scope. Based upon that information, the Adequate Public Facilities (APF) intersections were identified as follows:

- MD 103 and Mayfield Avenue
- US 1 and Kit Kat Road
- US 1 and MD 103
- US 1 and the MD 100 westbound ramps
- US 1 and Ducketts Lane
- Dorsey Road and Dorsey Run Road

In addition to the APF intersections, MDOT SHA and Howard County also requested the following intersections to be included:

- US 1 and the MD 100 eastbound ramps
- US 1 and Business Parkway
- MD 103 and Business Parkway
- US 1 and Ducketts Lane (both the north and south intersections were studied)

The proposed full-movement site access intersection along US 1 was also included in the study, as was the Barnett Lane access to MD 103.

Figure 1 identifies the study intersections, and Figure 2 provides a schematic drawing of the surrounding area road system showing the existing lane use and traffic control at the study intersections.

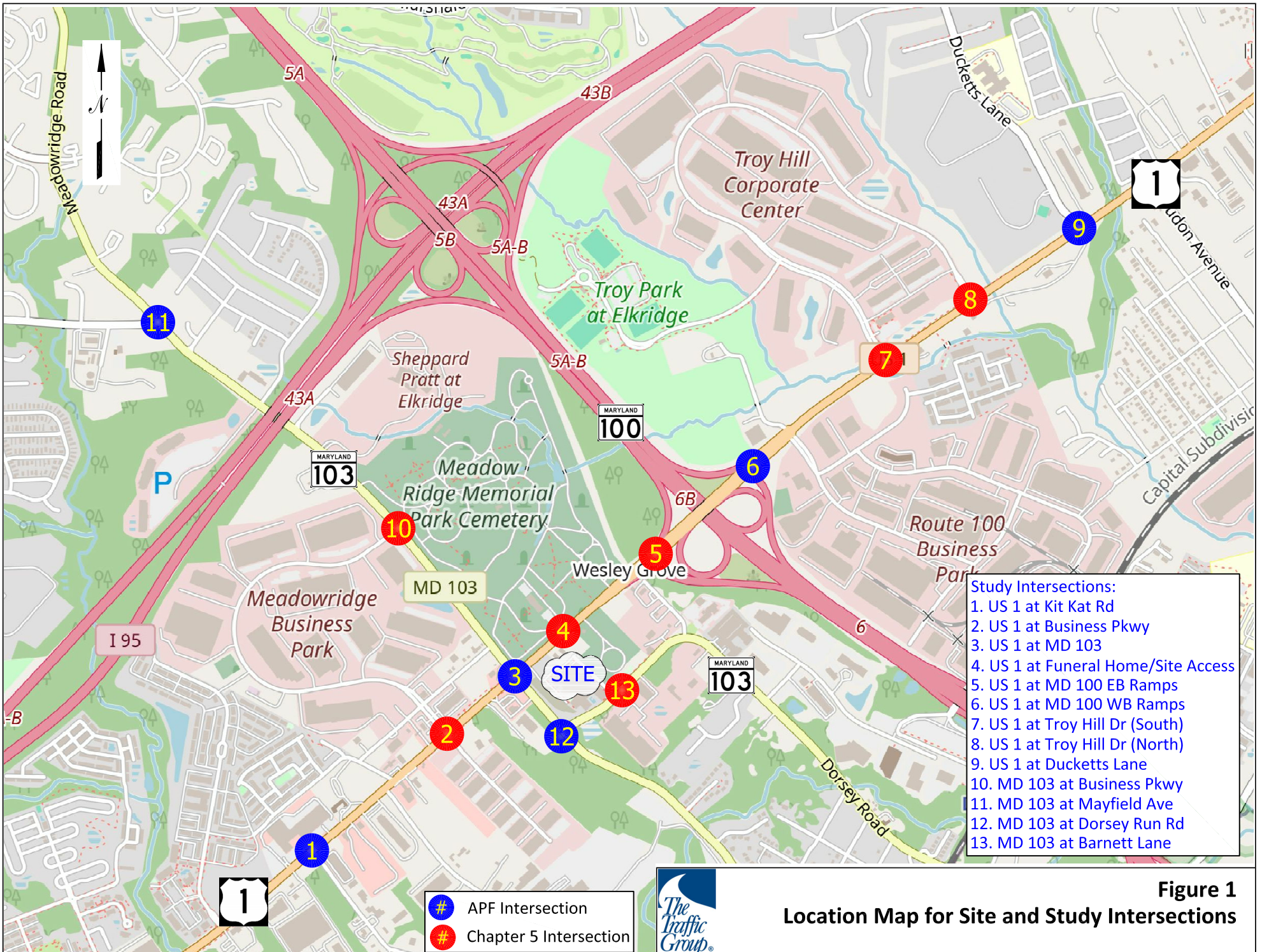


Figure 1
Location Map for Site and Study Intersections

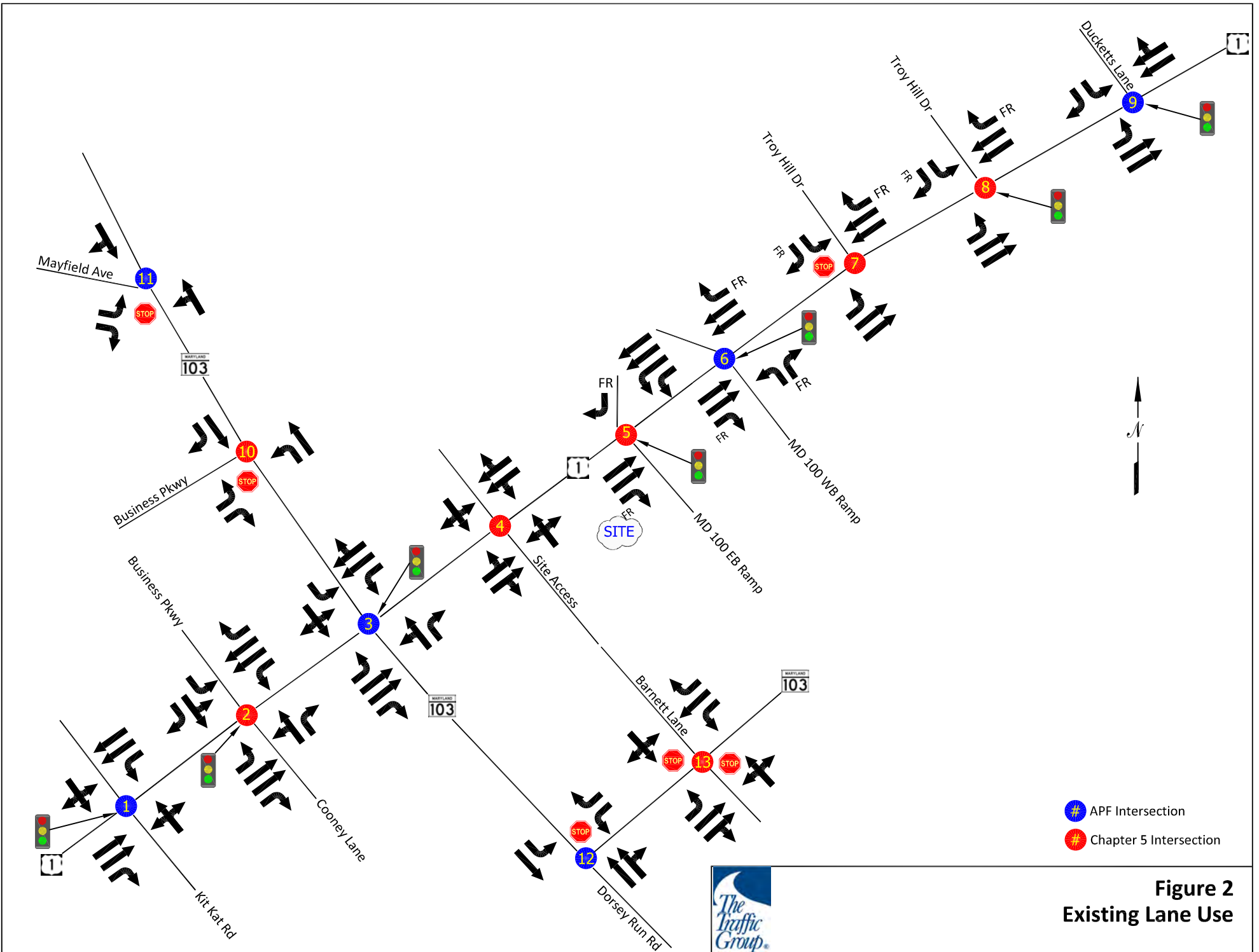


Figure 2
Existing Lane Use

Traffic Volumes

Intersection turning movement counts were conducted at all study intersections during the weekday morning and evening peak time periods while Howard County schools were in session. The resulting existing traffic volumes for the weekday morning and evening peak hours are shown in Figure 3. Copies of the traffic counts are contained in Appendix B along with aerial photographs of these locations.

Analysis of Existing Traffic Conditions

Intersection capacity analyses were conducted for the existing traffic volumes using the CLV methodology, and the results are shown in Table 3. These results show acceptable Level of Service "B" or better conditions throughout the study area during the weekday morning peak hour and acceptable Level of Service "D" or better conditions throughout the study area during the weekday evening peak hour. The majority of the study intersections are operating at Level of Service "A" or "B" conditions.

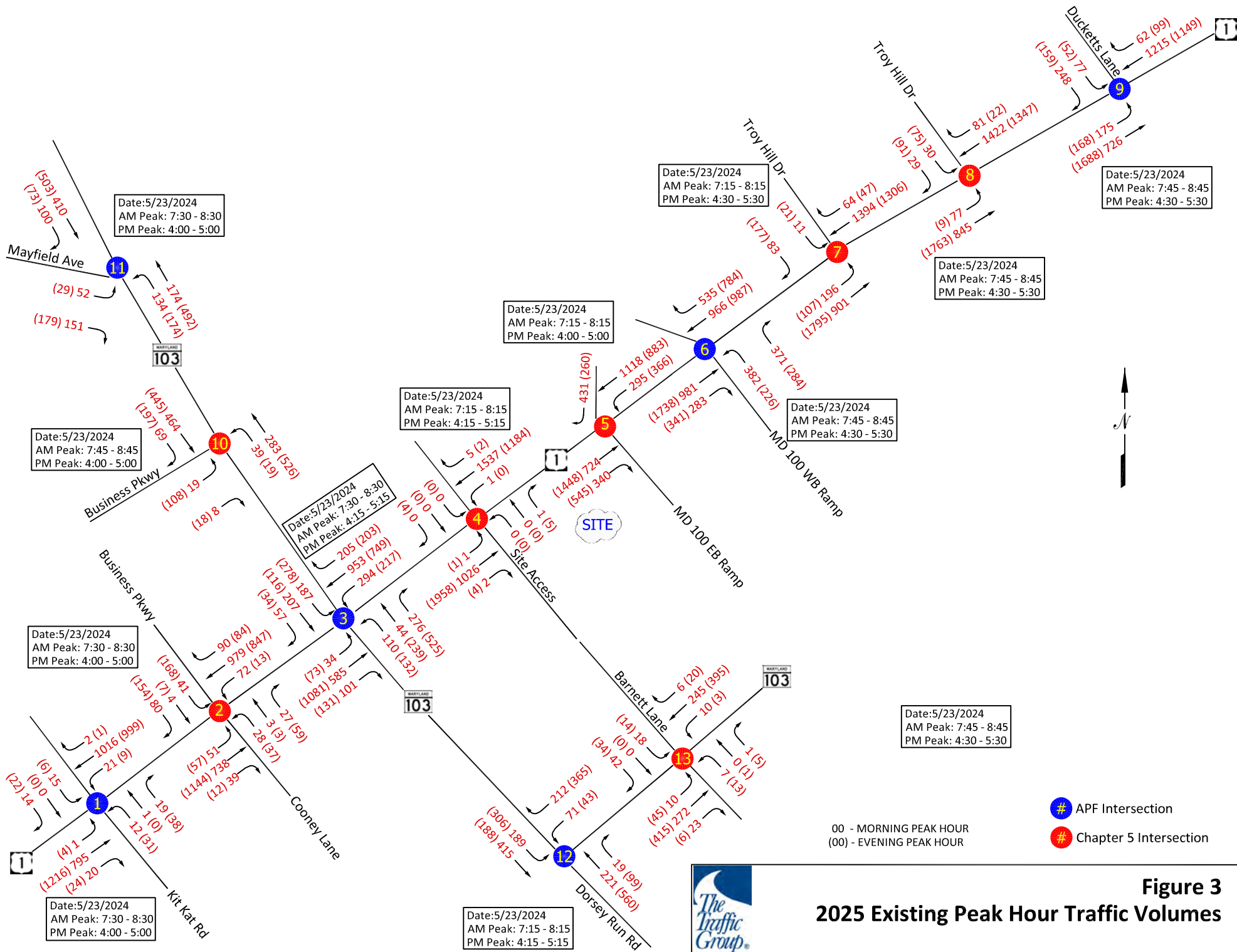


Figure 3
2025 Existing Peak Hour Traffic Volumes



BACKGROUND TRAFFIC CONDITIONS

Design Year

In accordance with Howard County criteria and the proposed site development, this study addresses a 2028 design year for the purposes of APF.

Background Traffic

Regional traffic growth was considered for the study roadways in accordance with Howard County criteria. A 2% annual growth rate was applied to all traffic volumes for 3 years resulting in the 2028 base peak hour traffic volumes shown in Figure 4.

Additional trips were also included on the surrounding area roadways due to approved development in the surrounding vicinity. Figure 5 provides a location map of the approved developments. Table 1 provides a list of these developments along with trip generation rates and projected peak hour trips to be generated by each. Trips generation rates were obtained from the Institute of Transportation Engineers (ITE) [Trip Generation Manual](#) (11th Edition).

The trips projected to be generated by the approved developments were assigned to the surrounding area road system as shown on the assignment sheets contained in Appendix C. The combined peak hour trips generated by the approved developments through the study intersections are shown in Figure 6.

The trips projected to be generated by the approved developments were combined with the 2028 base peak hour traffic volumes resulting in the 2028 background peak hour traffic volumes shown in Figure 7.

Analysis of Background Traffic Conditions

The planned road improvements by Howard County for the US 1/MD 103 intersection under Capital Project J4212 are funded for construction and have been considered under background traffic conditions in this study. Copies of the Capital Budget project sheets are included in Appendix A.

Intersection capacity analyses were conducted for the study intersections using the background traffic volumes, and the results are shown in Table 3. Copies of the capacity worksheets are contained in Appendix B of this report.

A review of Table 3 indicates that all study intersections are projected to maintain acceptable Level of Service "D" or better conditions during both the weekday morning and evening peak hours.

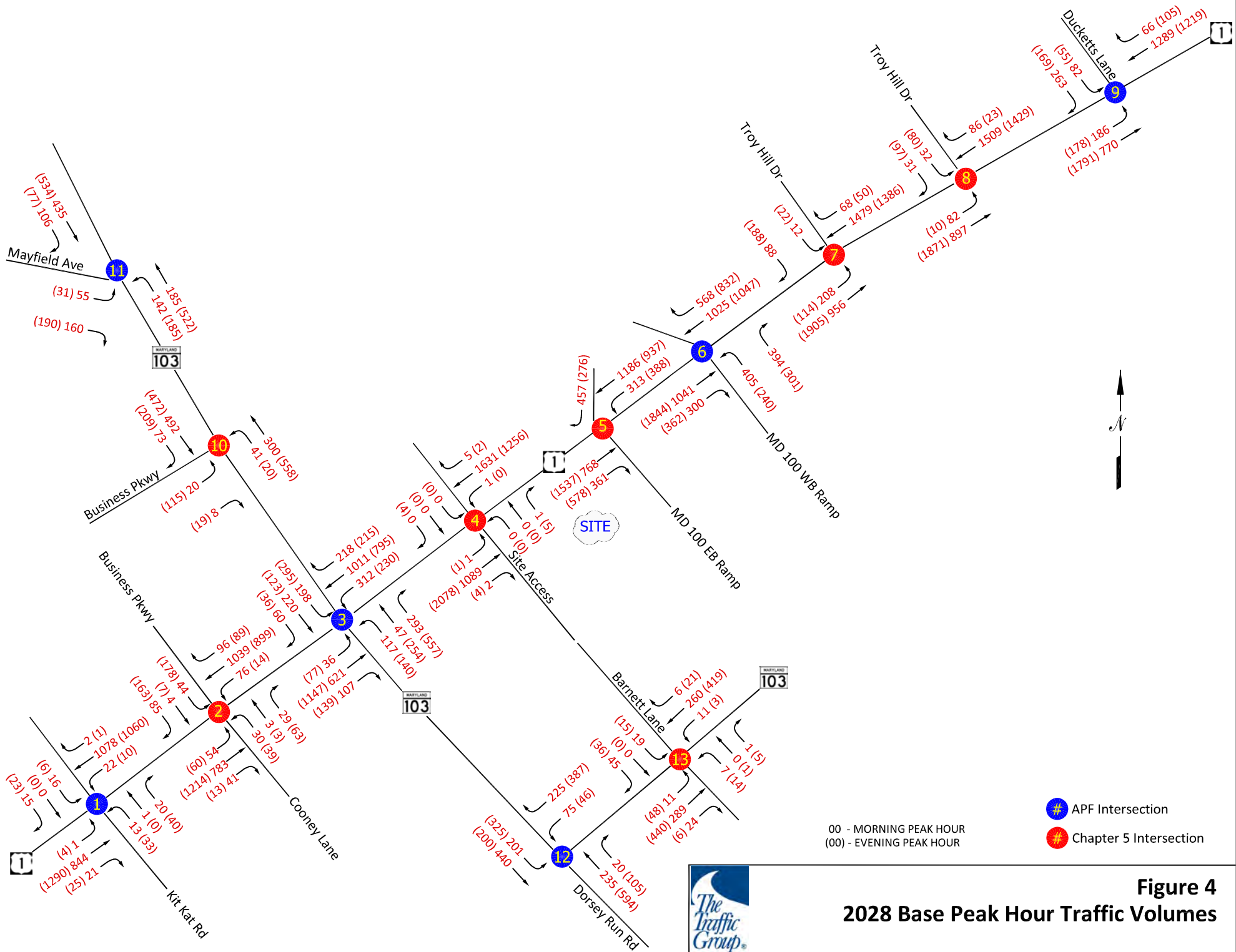
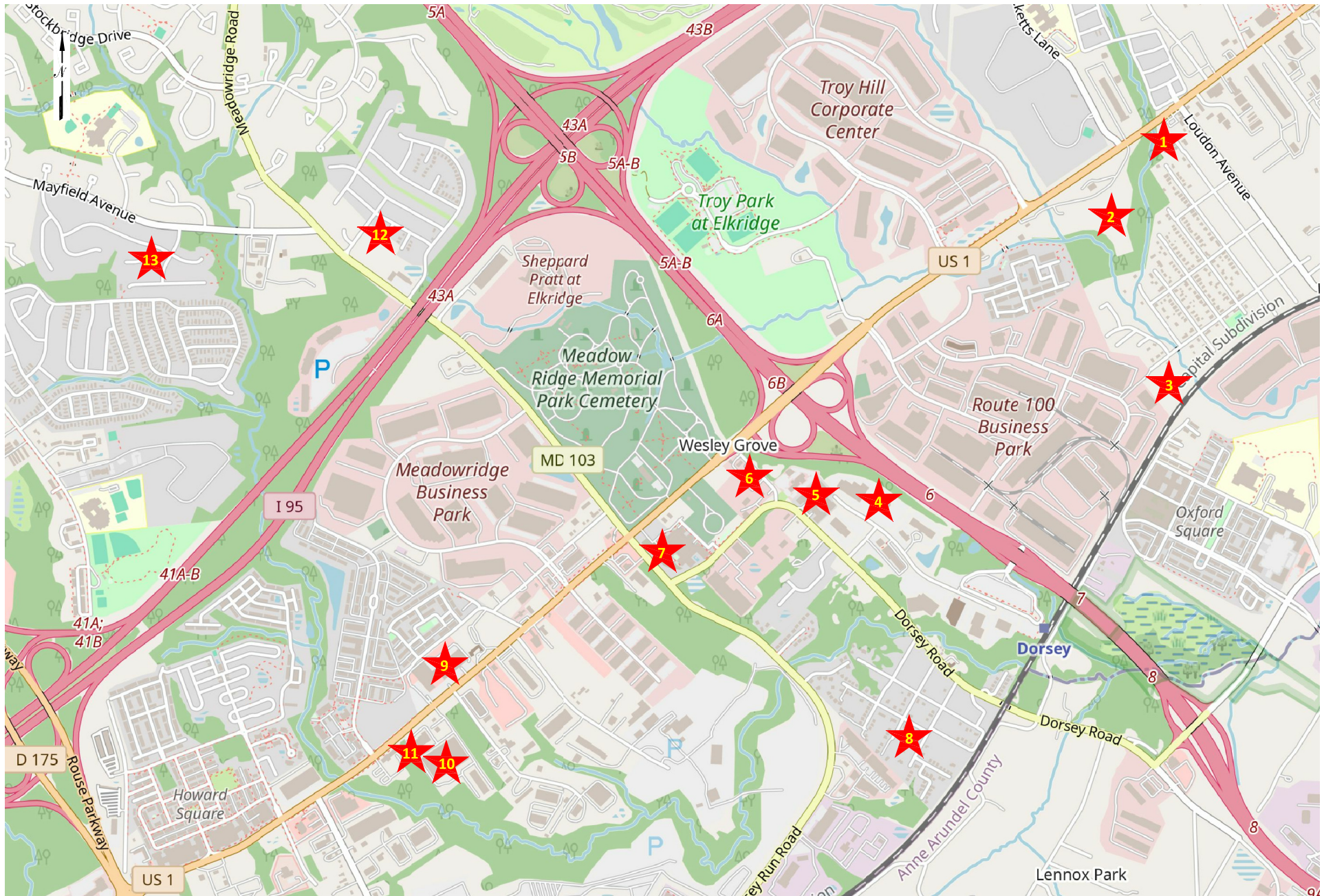


Figure 4
2028 Base Peak Hour Traffic Volumes




 Background Development



Figure 5
Location Map for Background Developments

Trip Generation Rates

Formula/Rate	Directional Distribution			
	AM Peak Hour		PM Peak Hour	
	IN	OUT	IN	OUT
Single-Family Detached (ITE-210, Units)				
Ln(AM Peak Hour Trips) = 0.91 x Ln(Units) + 0.12	25%	75%	63%	37%
Ln(PM Peak Hour Trips) = 0.94 x Ln(Units) + 0.27				
Single-Family Attached (ITE-215, Units)				
AM Peak Hour Trips = 0.52 x Units - 5.70	25%	75%	59%	41%
PM Peak Hour Trips = 0.60 x Units - 3.93				
Multifamily Housing, Mid-Rise (ITE-221, Units)				
AM Peak Hour Trips = 0.44 x Units - 11.61	23%	77%	61%	39%
PM Peak Hour Trips = 0.39 x Units + 0.34				
Strip Retail Plaza, <40 ksf (ITE-822)				
Ln(AM Peak Hour Trips) = 0.66 Ln(X) + 1.84	60%	40%	50%	50%
PM Peak Hour Trips = Ln(T) = 0.71 Ln(ksf) + 2.72				
High Turnover Restaurant (ksf, ITE-932)				
AM Peak Hour Trips = 9.57 x ksf	55%	45%	61%	39%
PM Peak Hour Trips = 9.05 x ksf				
Warehousing (ksf, ITE-150)				
AM Peak Hour Trips = 0.12 x ksf + 23.62	77%	23%	28%	72%
PM Peak Hour Trips = 0.12 x ksf + 26.48				
Mini-Warehouse/Self-Storage (ksf, ITE-151)				
AM Peak Hour Trips = 0.09 x ksf	59%	41%	47%	53%
PM Peak Hour Trips = 0.15 x ksf				
Day Care Center (ksf, ITE-565)				
AM Peak Hour Trips = 11.0 x ksf	53%	47%	47%	53%
PM Peak Hour Trips = 11.12 x ksf				

** Trip rate obtained from ITE Trip Generation Manual 11th Edition, 2021.

Trip Generation

Land Use	Size	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
1. Lightbridge Academy (SDP-22-056)							
Day Care	12,730 sq.ft.	74	66	140	67	75	142
	Pass-by Trips (PM 44%)				<u>-29</u>	<u>-33</u>	<u>-62</u>
	Total Trips	74	66	140	38	42	80
2. Elms at Elkridge/Formerly Roberts Property (SDP-21-001)							
<i>Trip obtained from Approved TIS for The Roberts Property. Dated Jan. 14, 2021 by The Traffic Group.</i>							
Townhouse, Apartments and Senior Adult Housing Attached Housing							
Total Residential Trips	359 Units	31	76	107	86	51	137
High Turn Restaurant, Fast Food Restaurant with Drive Thru							
Total Commercial Trips		<u>54</u>	<u>58</u>	<u>112</u>	<u>42</u>	<u>32</u>	<u>74</u>
Total Trips for Elms at Elkridge (Roberts Property)		85	134	219	128	83	211



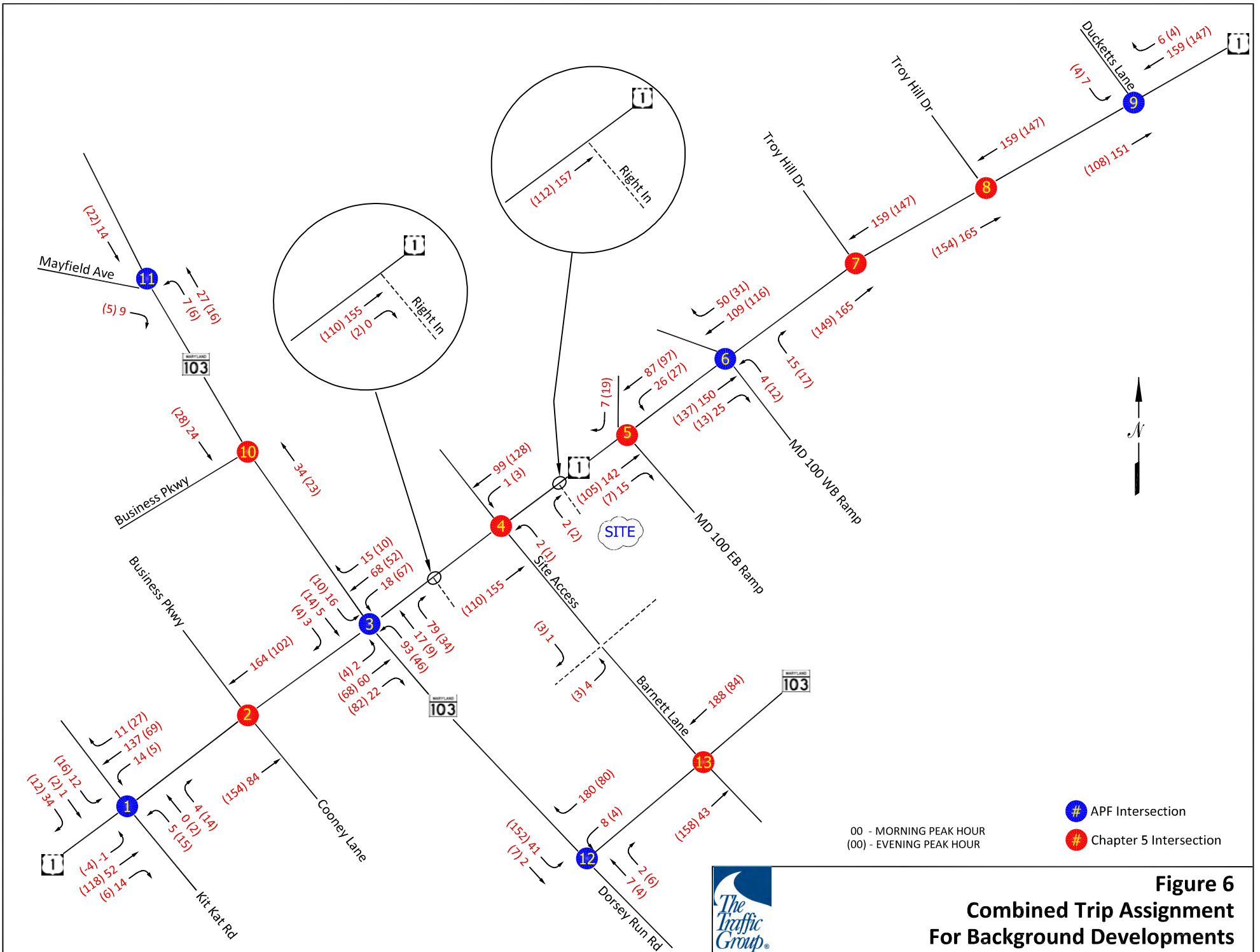
Table 1
Trip Generation Rates and Totals
For Background Developments

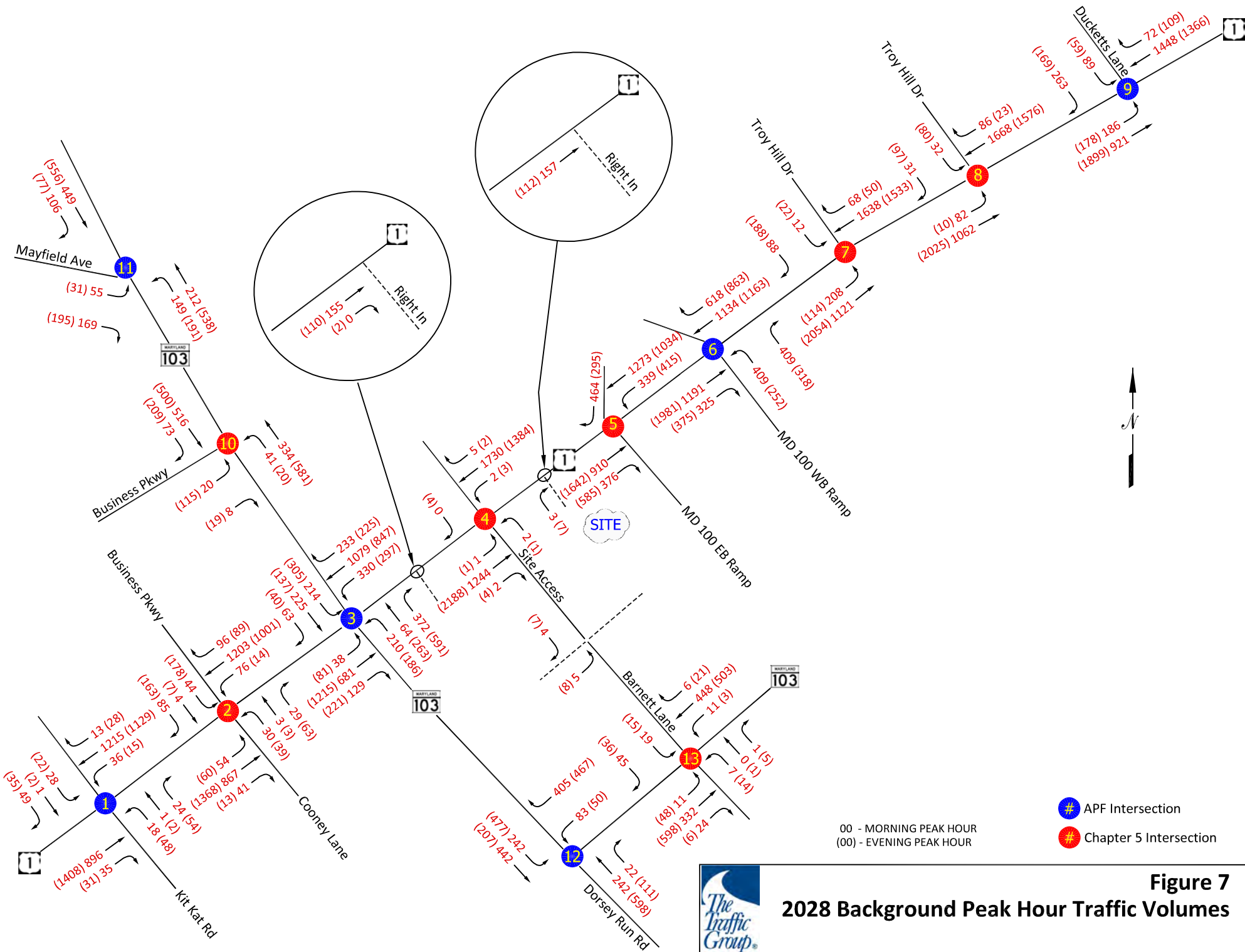
Trip Generation

Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
3. Hoardwood Park (ECP-23-025)								
Single Family Detached House	14	Units	3	9	12	10	6	16
4. Deerpath Apartment (Obtained from TIA for Deerpath Rd Property dated 2/11/2022)								
Incremental Trips	250	Units	0	56	56	58	15	73
5. Dorsey Center Apartments (SDP-20-033, F+20-069)								
Apartment	250	Units	23	75	98	60	38	98
6. Binder Lane								
Apartment	285	Units	26	88	114	68	43	111
7. Corridor Square (ECP-20-011)								
Townhouses	20	Units	1	4	5	5	3	8
8. Linden Avenue (ECP-21-019)								
Single Family Detached House	14	Units	3	9	12	10	6	16
9. Weinman Apartments								
<i>Trip obtained from Approved TIS for Weinman Apartments. Dated July 21, 2023 by The Traffic Group.</i>								
Multi-Family (Mid-Rise)	233	Units	21	70	91	56	35	91
Townhomes	24	Units	4	8	12	<u>8</u>	<u>6</u>	14
Internal Trips			-1	-1	-2	-14	-5	-19
Net New Residential Trips			24	77	101	50	36	86
Retail	15,292	sq.ft.	23	15	38	52	53	105
Internal Trips			-1	-1	-2	-5	-14	-19
Net New Retail Trips			<u>22</u>	<u>14</u>	<u>36</u>	<u>47</u>	<u>39</u>	<u>86</u>
Total Trips			46	91	137	97	75	172
10. Waste Management - Kit Kat Road								
Warehouse	111,562	sq.ft.	28	9	37	11	29	40
11. 7561 Washington Boulevard								
Strip Retail Plaza	4178	sq.ft.	10	6	16	21	21	42
Pass-by Trips (PM 40%)						-8	-8	-16
High Turnover Restaurant	4176	sq.ft.	22	18	40	23	15	38
Pass-by Trips (PM 38%)						<u>-9</u>	<u>-6</u>	<u>-15</u>
Total Pass-by Trips			0	0	0	-17	-14	-31
Total New Trips			32	24	56	27	22	49
12. Sparrow's Landing (ECP-21-010)								
Single Family Detached House	5	Units	1	4	5	4	2	6
13. Somerville Estates (SDP-19-028, F-18-070)								
Single Family Detached House	7	Units	2	5	7	5	3	8



Table 1 (Cont'd)
Trip Generation Rates and Totals
For Background Developments





00 - MORNING PEAK HOUR
 (00) - EVENING PEAK HOUR

- APF Intersection
- Chapter 5 Intersection



Figure 7
2028 Background Peak Hour Traffic Volumes

TOTAL TRAFFIC CONDITIONS

Site Information

Corridor Square is a TOD zoned site located along the east side of US 1 and north side of MD 103 (Dorsey Road). The site is currently developed with 20 townhomes and The Refinery apartment community. The remainder of the property is proposed to be developed with primarily commercial uses along the US 1 frontage. A portion of the US frontage on the north end of the site is proposed to be rezoned through a Documented Site Plan with a proposed 6,200-sq ft convenience store with gas and a single bay automatic car wash. Figure 8A provides a concept plan for the parcels proposed for rezoning. The southern portion of the US 1 frontage is proposed to be developed with a 7,200-sq ft Patient First facility. Figure 8B provides a concept plan for this portion of the site. Another 20 townhomes are proposed along the eastern MD 103 frontage. Access is proposed via a full-movement intersection along US 1, two right-in only movements along US 1 (one to the north and one to the south of the main access), and the existing Barnett Lane access to MD 103.

Trip Generation/Distribution

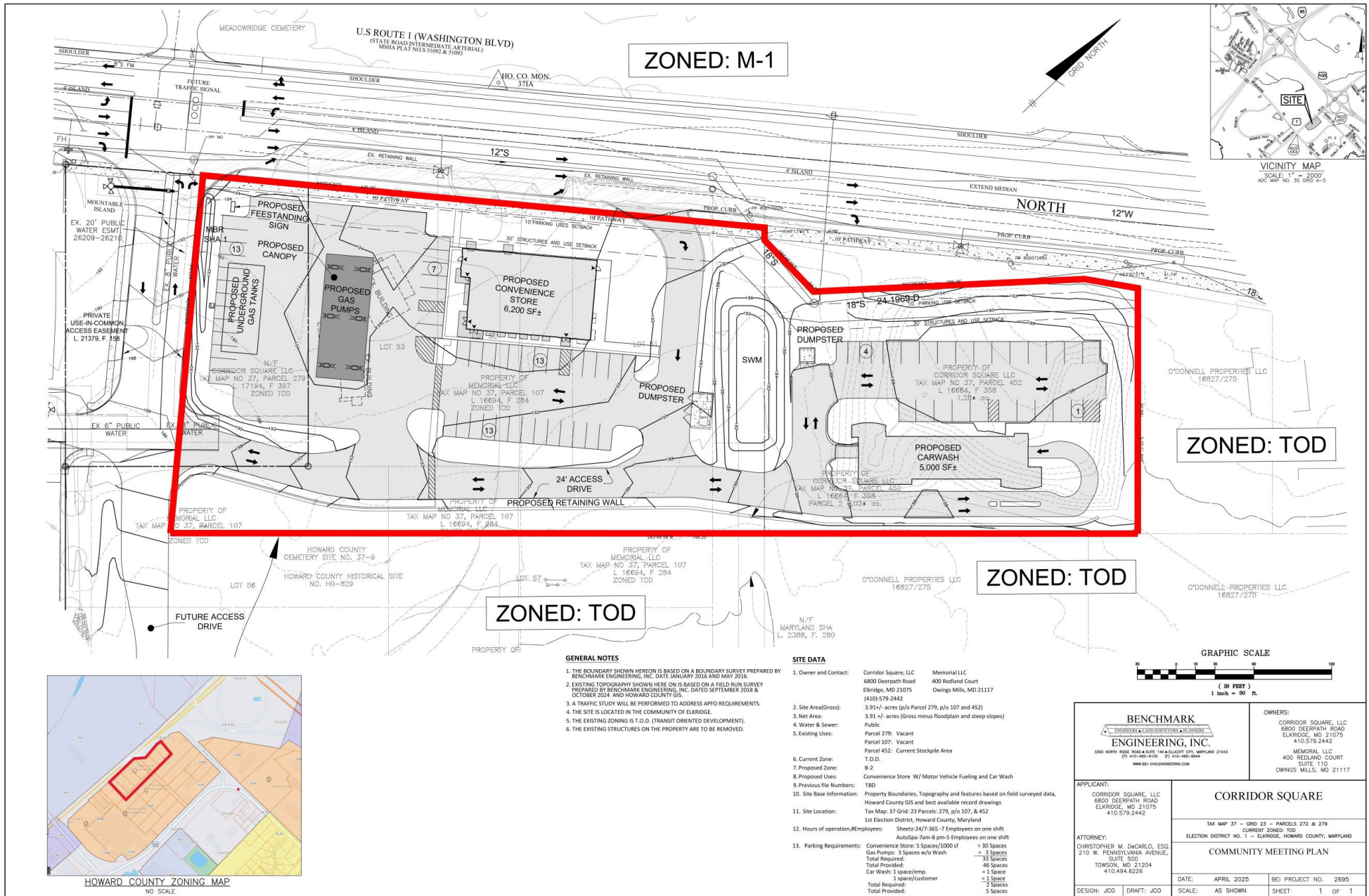
Trip generation rates were obtained from the ITE Trip Generation Manual (11th Edition) for the proposed development of the site. Table 2 provides the resulting trip rates and estimated peak hour trips for the proposed development. Since ITE has limited data for a car wash, trip generation was developed using data from five similar Auto Spa car wash facilities in Maryland and that data is provided in Appendix E. These trip rates have been accepted by MDOT SHA in the past. Please note that pass-by trips for the convenience market with gas were applied consistent with the ITE Trip Generation Manual.

The trips projected to be generated by the residential portion of the site were assigned to the surrounding area road system as shown in Figure 9. Figure 10 shows the new trip assignment for the commercial uses, and Figure 11 shows the effect of pass-by trips generated by the site.

With the new access to US 1, the trips generated by the existing Corridor Square development would likely change travel patterns. Figure 12 shows the projected existing trip adjustments. With the new internal road providing a direct connection between MD 103 and US 1 and given existing traffic conditions and queues along westbound MD 103, it is expected that some trips between US 1 north and MD 103 east would be diverted away from the US 1/MD 103 intersection and use the new road through the site. Based upon a review of traffic movements and volumes, Figure 13 provides an estimate of the potential traffic adjustments due to this cut-thru traffic.

Combining the background traffic volumes with the site-generated traffic and all adjustments from the new access pattern results in the 2028 total traffic volumes shown in Figure 14.

Figure 8A - Rezoning Parcels Site Plan



GENERAL NOTES

1. THE BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PREPARED BY BENCHMARK ENGINEERING, INC. DATE JANUARY 2016 AND MAY 2016.
2. EXISTING TOPOGRAPHY SHOWN HERE ON IS BASED ON A FIELD RUN SURVEY PREPARED BY BENCHMARK ENGINEERING, INC. DATED SEPTEMBER 2018 & OCTOBER 2018 AND HOWARD COUNTY GIS.
3. A TRAFFIC STUDY WILL BE PERFORMED TO ADDRESS APFO REQUIREMENTS.
4. THE SITE IS LOCATED IN THE COMMUNITY OF ELKRIE.
5. THE EXISTING ZONING IS T.O.D. (TRANSIT ORIENTED DEVELOPMENT).
6. THE EXISTING STRUCTURES ON THE PROPERTY ARE TO BE REMOVED.

SITE DATA

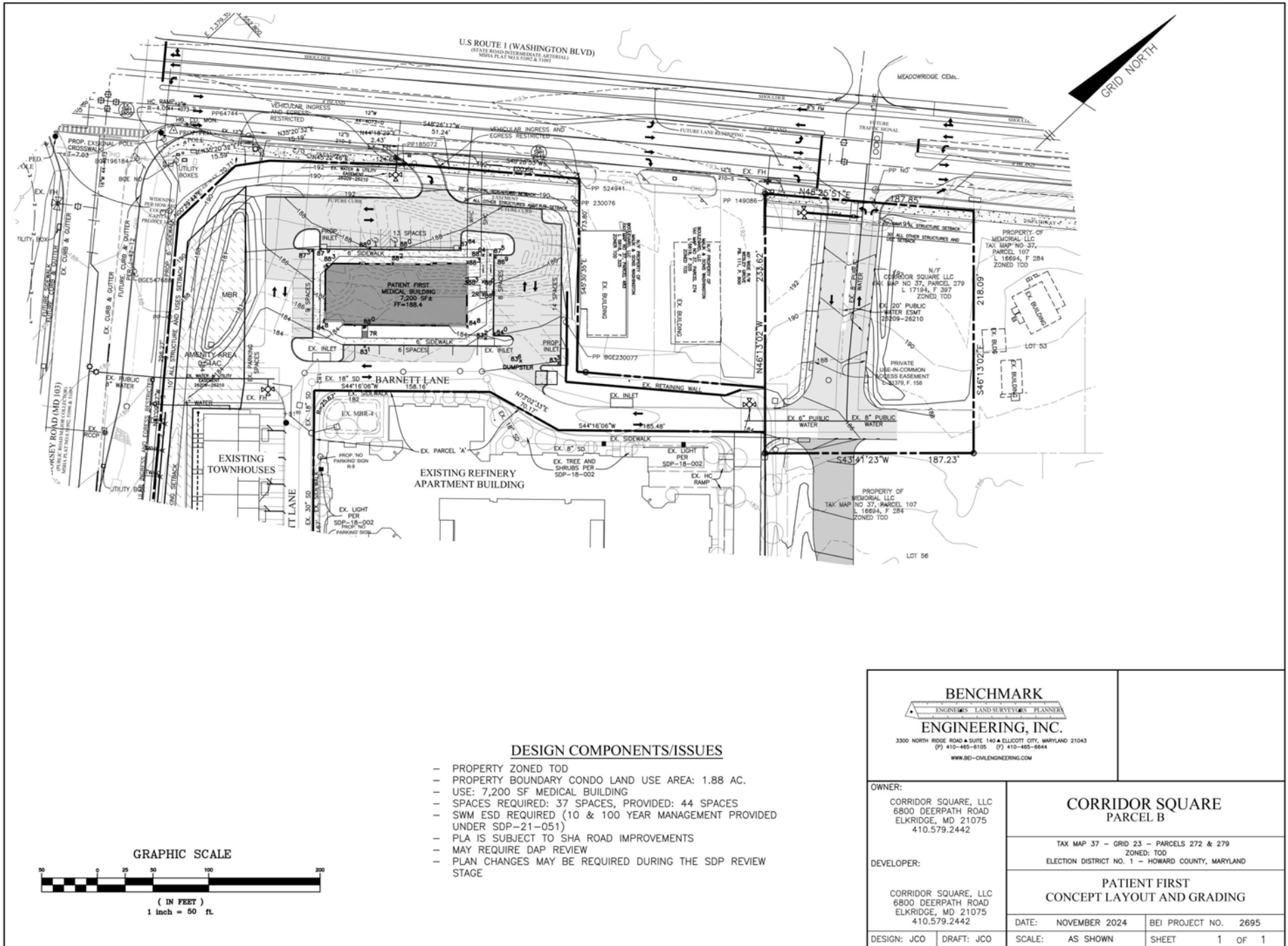
1. Owner and Contact: Corridor Square, LLC
6800 Deerpath Road
Elkridge, MD 21075
(410) 579-2442
2. Site Area(Gross): 3.91 +/- acres (w/o Parcel 279, p/o 107 and 452)
3. Net Area: 3.91 +/- acres (Gross minus floodplain and steep slopes)
4. Water & Sewer: Public
5. Existing Uses: Parcel 279: Vacant
Parcel 107: Vacant
Parcel 452: Current Stockpile Area
T.O.D.
6. Current Zone: B-2
7. Proposed Zone: Convenience Store W/ Motor Vehicle Fueling and Car Wash
8. Proposed Uses: Convenience Store W/ Motor Vehicle Fueling and Car Wash
9. Previous file Numbers: TBD
10. Site Base Information: Property Boundaries, Topography and features based on field surveyed data, Howard County GIS and best available record drawings
11. Site Location: Tax Map: 37 Grid: 23 Parcels: 279, p/o 107, & 452
1st Election District, Howard County, Maryland
12. Hours of operation, #Employees: Sheets-247/365-7 Employees on one shift
AutoSpa-7am-8 pm-5 Employees on one shift
13. Parking Requirements: Convenience Store: 5 Spaces/1000 sf = 30 Spaces
Gas Pumps: 3 Spaces w/o Wash = 3 Spaces
Total Required: 33 Spaces
Total Provided: 46 Spaces
Car Wash: 1 space/emp. = 1 Space
= 1 Space
Total Required: 2 Spaces
Total Provided: 5 Spaces



HOWARD COUNTY ZONING MAP
NO SCALE

<p>BENCHMARK ENGINEERING, INC. 3300 NORTH HIGGS ROAD SUITE 100 ELKRIE CITY, MARYLAND 21043 (410) 465-6100 (F) 410-465-0644 WWW.BE-ONLINEENGINEERING.COM</p>		<p>OWNERS: CORRIDOR SQUARE, LLC 6800 DEERPATH ROAD ELKRIE, MD 21075 410.579.2442 MEMORIAL LLC 400 REDLAND COURT SUITE 110 OWINGS MILLS, MD 21117</p>
<p>APPLICANT: CORRIDOR SQUARE, LLC 6800 DEERPATH ROAD ELKRIE, MD 21075 410.579.2442</p>	<p>CORRIDOR SQUARE</p>	
<p>ATTORNEY: CHRISTOPHER M. DICARLO, ESQ. 210 W. PENNSYLVANIA AVENUE, SUITE 500 TOWSON, MD 21204 410.494.6226</p>	<p>TAX MAP 37 - GRID 23 - PARCELS 272 & 279 CURRENT ZONES TOD ELECTION DISTRICT NO. 1 - ELKRIE, HOWARD COUNTY, MARYLAND</p>	
<p>COMMUNITY MEETING PLAN</p>		
<p>DESIGN: JCO DRAFT: JCO</p>	<p>DATE: APRIL 2025 SCALE: AS SHOWN</p>	<p>BEI PROJECT NO. 2695 SHEET 1 OF 1</p>

Figure 8B - Concept Plan for Patient First



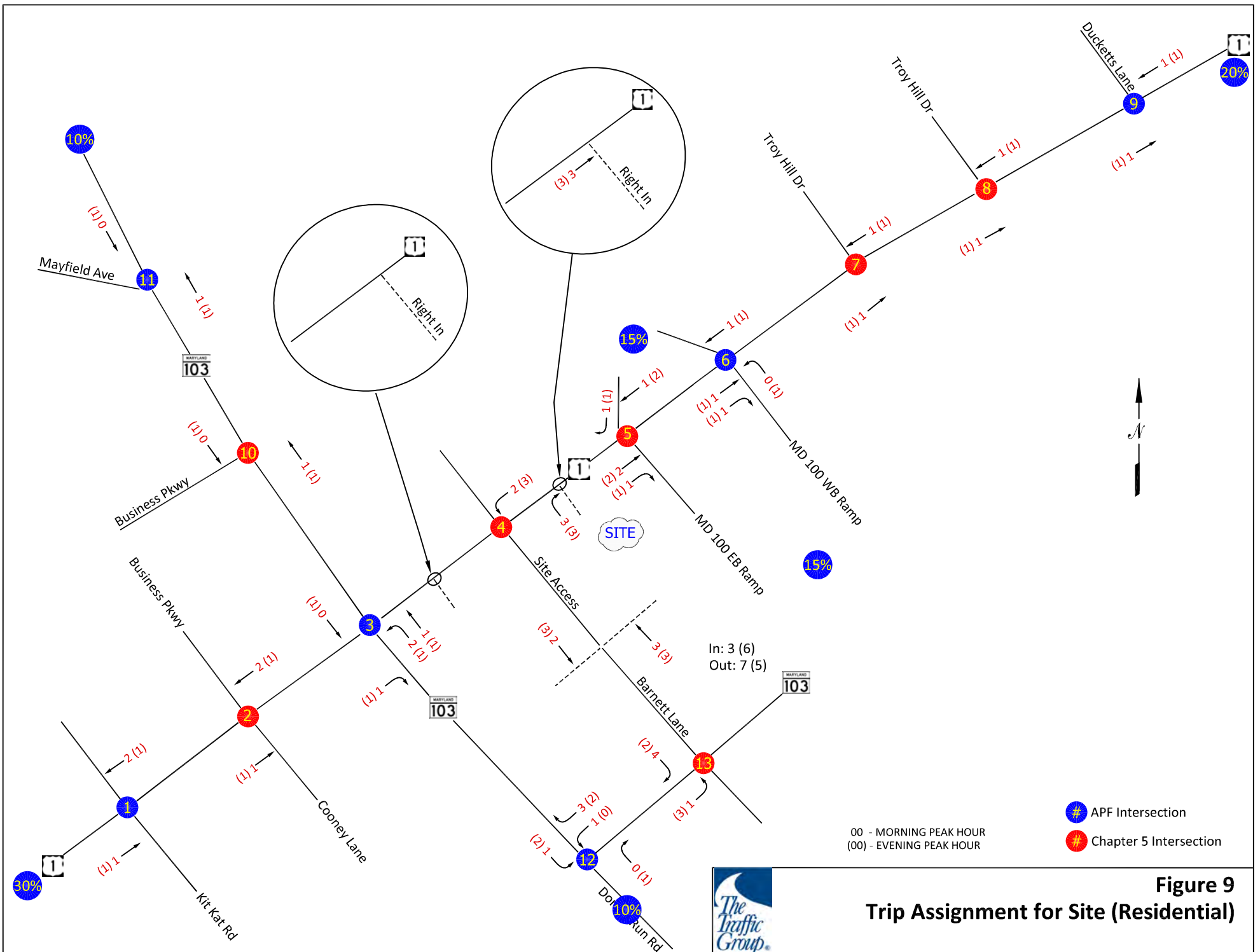
Trip Generation Rates - ITE 11th Edition									
Land Use (Source)	Formula/Rate	Directional Distribution							
		AM Peak Hour		PM Peak Hour					
		In	Out	In	Out				
Single-Family Attached (ITE-215)	AM Peak Hour Trips = 0.48 x Units PM Peak Hour Trips = 0.57 x Units Daily Trips = 7.20 x Units	25%	75%	59%	41%				
Medical-Dental Office Building (ITE-720)	Ln(AM Peak Hour Trips) = 0.90 x Ln(ksf) + 1.34 PM Peak Hour Trips = 4.07 x ksf - 3.17 Daily Trips = 42.97 x ksf - 108.01	79%	21%	30%	70%				
Convenience Store/Gas Station (9-15 VFP, ITE-945)	AM Peak Hour Trips = 56.52 x ksf PM Peak Hour Trips = 54.52 x ksf Daily Trips = 700.43 x ksf	50%	50%	50%	50%				
Auto Spa	AM Peak Hour Trips = 19 PM Peak Hour Trips = 40 Daily Trips = NA	50%	50%	51%	49%				
Trip Generation for Corridor Square - Route 1 Parcels									
Land Use	Size	AM Peak Hour			PM Peak Hour			Daily	
		In	Out	Total	In	Out	Total		
Area #1									
Single-Family Attached	20 Units	3	7	10	6	5	11	144	
Subarea #2a									
Medical Office	7,200 Sq. Ft.	18	5	23	8	18	26	201	
Subarea #3a & #3b									
Convenience Store/Gas	6,200 Sq. Ft.	175	175	350	169	169	338	4343	
	Pass-by Trips (AM-76, PM-75%)	<u>-133</u>	<u>-131</u>	<u>-264</u>	<u>-127</u>	<u>-127</u>	<u>-254</u>		
	New Trips	42	44	86	42	42	84		
Subarea #3c									
Auto Spa		9	10	19	20	20	40		
Total New Trips		72	66	138	76	85	161		

Notes:

1. Pass-by trip rates based on ITE Trip Generation Manual, 11th Edition.
2. Trips for Auto Spa based on Trip Generation Letter for Auto Spa - MD 26 at Monocacy Blvd.



**Table 2
Trip Generation for Site**



**Figure 9
Trip Assignment for Site (Residential)**

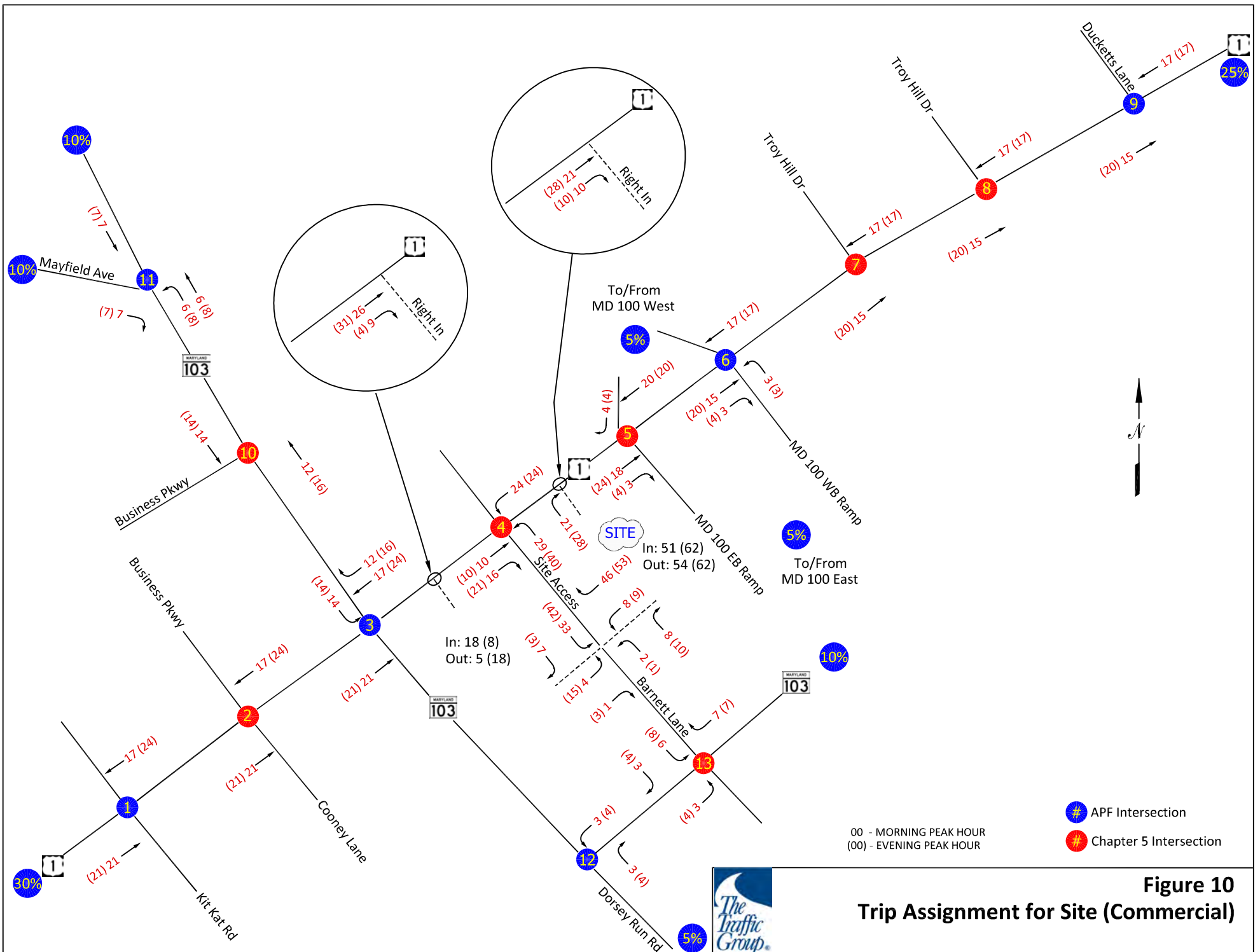
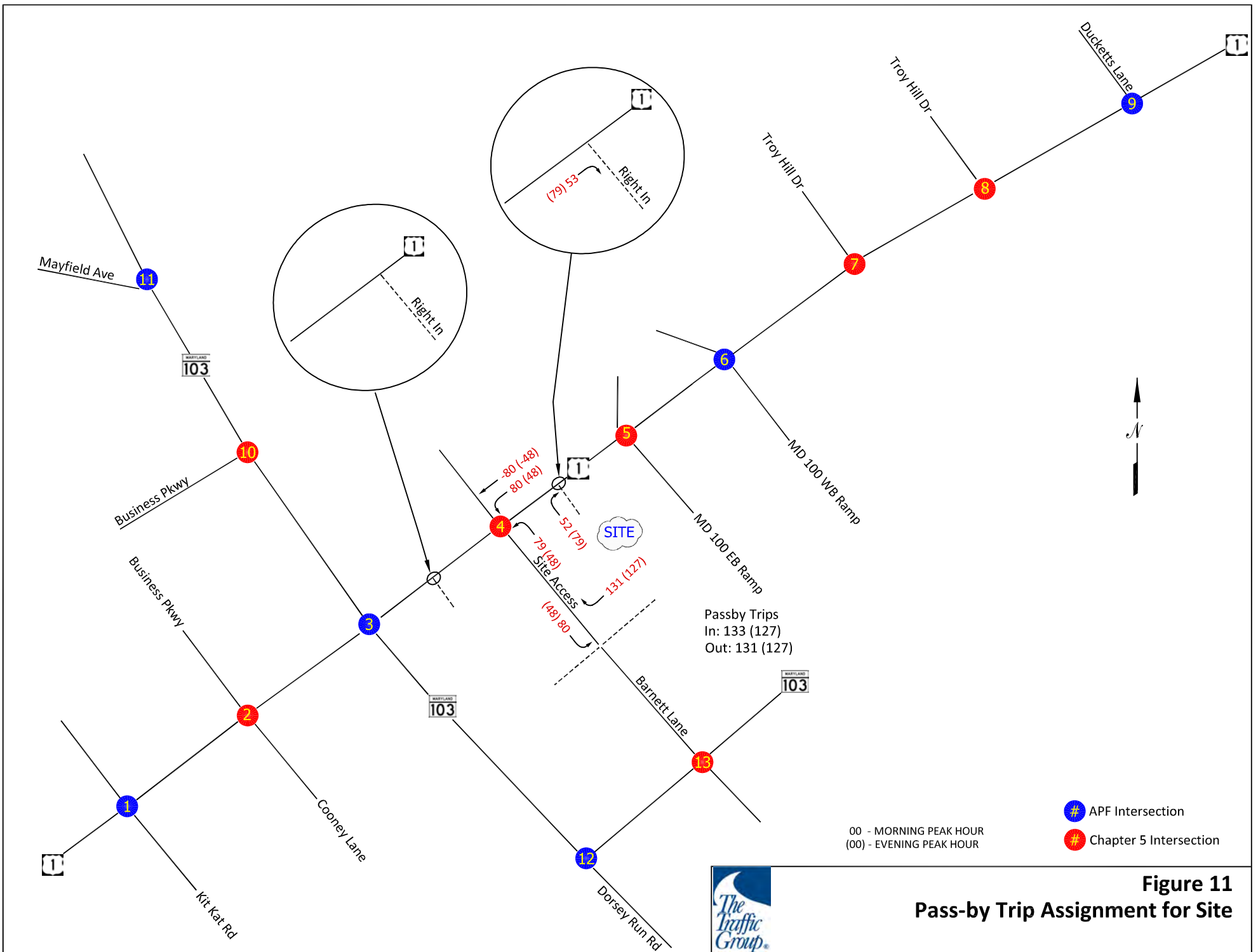
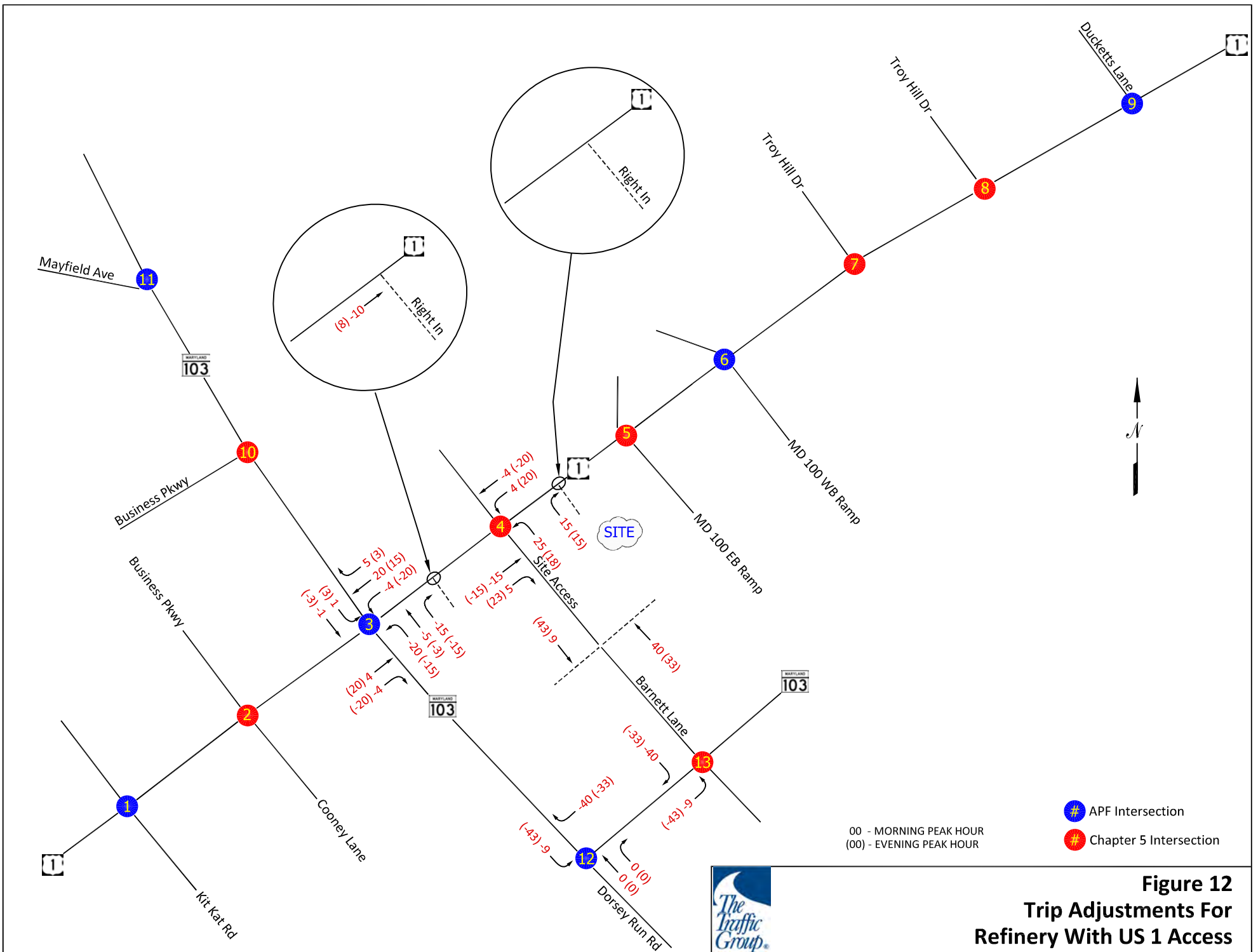
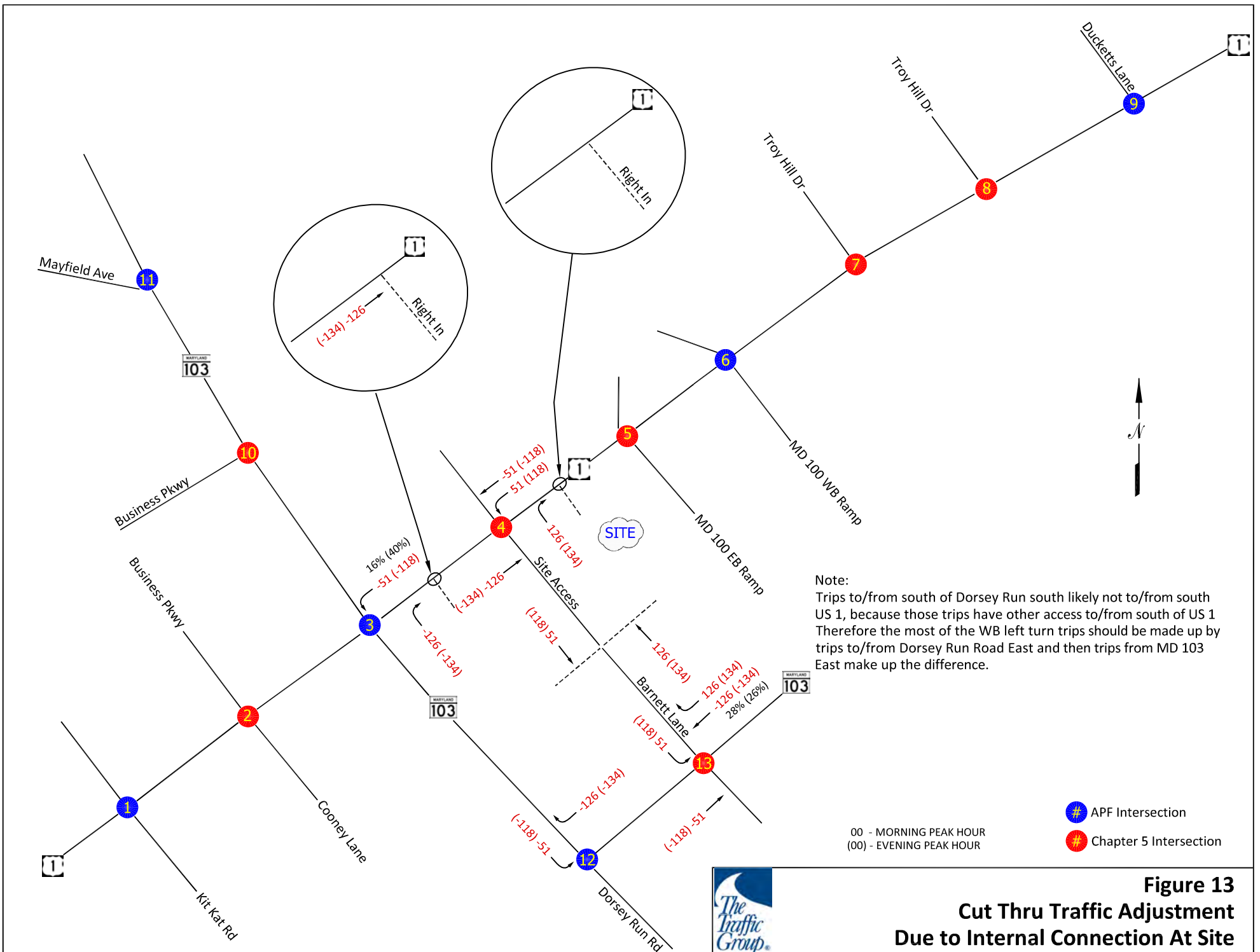


Figure 10
Trip Assignment for Site (Commercial)







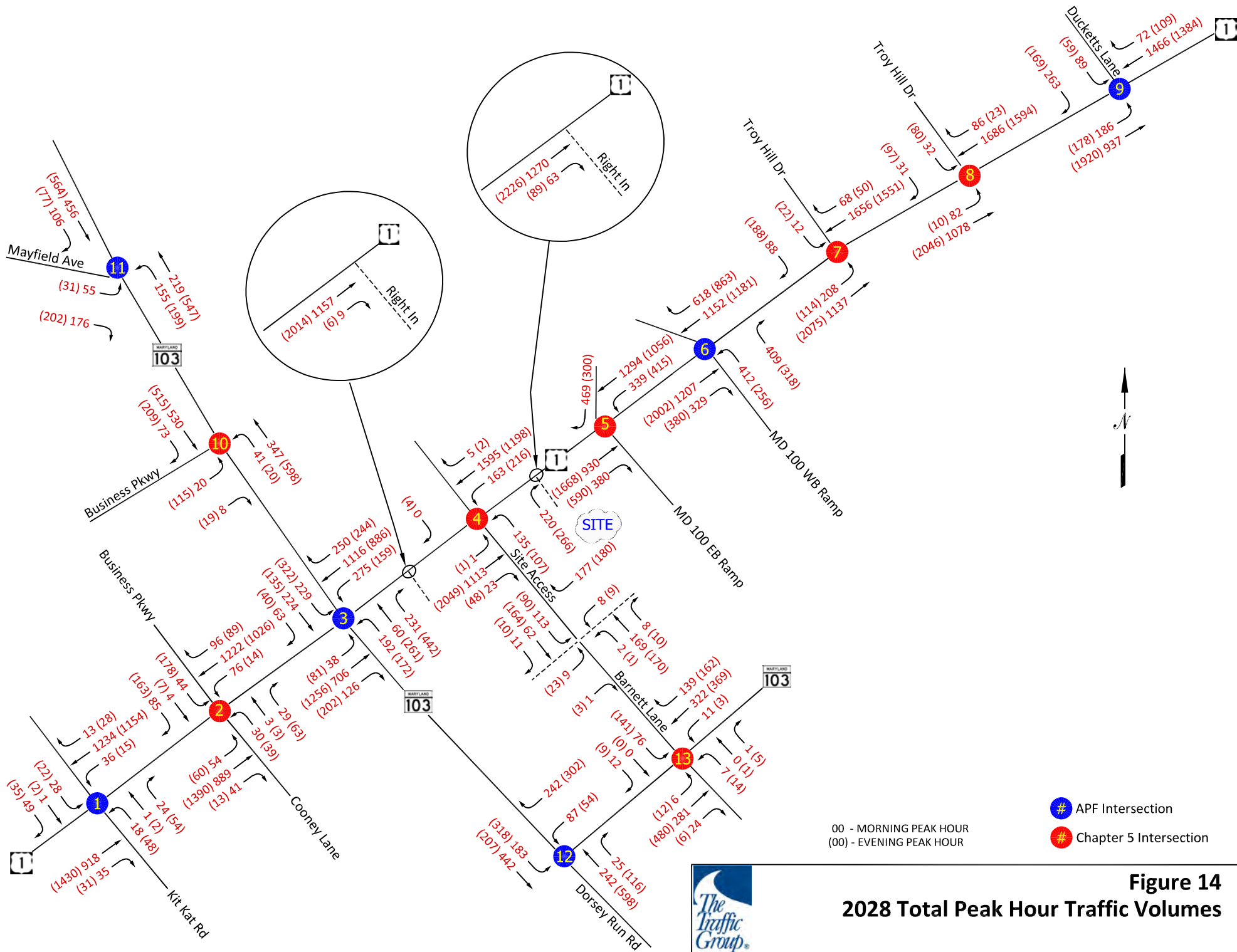


Figure 14
2028 Total Peak Hour Traffic Volumes



Analysis of Total Traffic Conditions

Intersection capacity analyses were conducted for the study intersections using the total traffic volumes, and the results are shown in Table 3. Copies of the capacity worksheets are contained in Appendix D.

A review of the capacity analysis results shows that the study intersections are projected to maintain acceptable Level of Service “E” or better conditions during both the weekday morning and evening peak hours. Therefore, the proposed development satisfies Howard County Adequate Road Facilities Test Evaluation requirements.

Operational Analyses

Operational evaluations were conducted using Synchro/SimTraffic simulation software to evaluate both operating conditions and queuing throughout the study area. Table 4 shows the results of Synchro analyses for the weekday morning and evening peak hours. These results show Level of Service “C” or better conditions for the signalized intersections, but show some operational delays for minor street approaches at the unsignalized intersections. Significant delays currently exist for the stop-controlled westbound approach of MD 103 at Dorsey Run Road. With future traffic growth, delays are projected to increase. The proposed development provides relief from these delays with the expected cut-thru traffic reducing delays to the MD 103 westbound approach to Dorsey Run Road significantly. The signalized intersection of US 1 with MD 103 is also projected to have improved operating conditions as a result of the cut-thru traffic.

The site has minimal impacts to the other unsignalized intersection movements with noted delays.

The results of the SimTraffic evaluations for the intersections (shown in Table 5) show similar results. Based upon the SimTraffic results, Table 6 shows queuing conditions for the study intersections. The primary issues noted for the queuing conditions were for the stop-controlled approaches of the unsignalized intersections. The proposed development significantly improves queues along westbound MD 103 at Dorsey Run Road and US 1. The other intersections should be monitored and evaluated for potential future geometric and/or operational improvements. The proposed development of Corridor Square has a minor impact on the operating conditions and queueing at those locations.

AM Peak Hour	LOS/CLV		
	2025 Existing Traffic	2028 Background Traffic	2028 Total Traffic
1. US 1 & Kit Kat Rd	A/574	A/741	A/752
2. US 1 at Business Pkwy/Cooney Lane	A/647	A/778	A/788
3. US 1 at MD 103	B/1089		
w/County Improvements		C/1258	C/1268
4. US 1 at Site Access/Funeral Home Access	A/853	A/966	
w/Site Proposed Improvements			B/1016
5. US 1 at MD 100 EB Ramps	A/575	A/704	A/715
6. US 1 & MD 100 WB Ramps	A/922	B/1064	B/1076
7. US 1 & Troy Hill Dr (South)	A/974	B/1121	B/1131
8. US 1 & Troy Hill Dr (North)	A/889	B/1031	B/1041
9. US 1 & Ducketts Lane	A/954	B/1111	B/1121
10. MD 103 & Business Pkwy	A/522	A/577	A/591
11. MD 103 & Mayfield Ave	A/696	A/759	A/772
12. MD 103 & Dorsey Run Rd	A/486	A/605	A/529
13. MD 103 at Barnett Lane	A/323	A/531	A/424
Evening Peak Hour			
1. US 1 & Kit Kat Rd	A/700	A/920	A/933
2. US 1 at Business Pkwy/Cooney Lane	A/793	A/926	A/939
3. US 1 at MD 103	D/1418		
w/County Improvements		D/1411	D/1304
4. US 1 at Site Access/Funeral Home Access	B/1091	C/1223	
w/Site Proposed Improvements			E/1461
5. US 1 at MD 100 EB Ramps	B/1016	C/1152	C/1166
6. US 1 & MD 100 WB Ramps	C/1182	D/1342	D/1357
7. US 1 & Troy Hill Dr (South)	B/1057	C/1204	C/1215
8. US 1 & Troy Hill Dr (North)	B/1052	C/1201	C/1212
9. US 1 & Ducketts Lane	A/906	B/1048	B/1058
10. MD 103 & Business Pkwy	A/634	A/696	A/713
11. MD 103 & Mayfield Ave	A/869	B/1142	C/1175
12. MD 103 & Dorsey Run Rd	A/727	A/917	A/765
13. MD 103 at Barnett Lane	A/507	A/622	A/551



Table 3
Results of Intersection Capacity Analysis
(CLV)

Intersections	Control Type	LOS/Delay					
		2025 Existing Traffic		2028 Back'd Traffic		2028 Total Traffic	
		AM	PM	AM	PM	AM	PM
1. US 1 & Kit Kat Rd	Signal	B/10.8	B/14.9	B/13.1	B/19.2	B/13.3	B/19.9
2. US 1 at Business Pkwy/Cooney Lane	Signal	A/6.9	B/13.8	B/10.8	B/13.9	B/10.9	B/17.5
3. US 1 at MD 103	Signal	E/77.9	F/103.4				
<i>w/County Improvements</i>				D/44.5	D/42.7	C/30.3	C/31.3
4. US 1 at Site Access/Funeral Home Access	Stop Sign						
NB/LT		B/14.5	B/11.2	C/16.4	B/12.5		
SB/LT		B/10.8		B/12.1			
EB/LTR			B/13.2		B/14.6		
WB/LTR		B/12.6	C/20.3	F/92.0	C/23.4		
<i>w/Site Proposed Improvements</i>	Signal					C/24.1	B/13.1
5. US 1 at MD 100 EB Ramps	Signal	A/5.4	B/12.1	A/6.2	B/12.7	A/6.3	13.2
6. US 1 & MD 100 WB Ramps	Signal	B/18.2	B/11.9	B/18.5	B/15.1	B/18.7	16.2
7. US 1 & Troy Hill Dr (South)	Stop Sign						
NB/L		C/20.8	B/14.5	D/33.3	C/18.0	D/34.6	C/18.3
EB/L, R		F/770.7	F/535.4	F/2971.8	F/1420.4	F/3253.7	F/1517.8
8. US 1 & Troy Hill Dr (North)	Signal	A/4.6	A/4.9	A/5.3	A/5.6	A/5.3	A/5.6
9. US 1 & Ducketts Lane	Signal	B/19.5	A/10.0	C/22.9	B/11.2	C/23.1	B/11.3
10. MD 103 & Business Pkwy	Stop Sign						
NB/L, R		C/16.7	E/45.4	C/19.0	F/75.6	C/19.6	F/86.4
WB/L		A/8.9	A/9.4	A/9.2	A/9.7	A/9.2	A/9.8
11. MD 103 & Mayfield Ave	Stop Sign						
NB/L, R		C/16.9	D/27.7	C/19.5	E/40.3	C/20.2	E/44.4
WB/LT		A/4.0	A/2.6	A/3.9	A/2.8	A/3.9	A/2.8
12. MD 103 & Dorsey Run Rd	Stop Sign						
SB/L, R		C/16.3	D/25.6	C/20.8	F/86.7	C/18.9	E/37.1
EB/L		A/8.4	B/11.4	A/8.7	C/15.1	A/8.5	B/12.0
13. MD 103 at Barnett Lane	Stop Sign						
NB/L		A/7.8	A/8.5	A/8.4	A/8.9	A/8.4	A/8.8
SB/L		A/7.9	A/8.9	A/8.1	A/9.8	A/7.9	A/9.2
EB/LTR		B/11.0	B/14.4	B/13.9	C/18.2	B/14.9	D/28.8
WB/LTR		C/17.8	C/22.6	D/27.5	E/38.8	C/19.3	C/21.0



Table 4
Results of Intersection Capacity Analysis
(HCM)

Intersections	Control Type	LOS/Delay					
		2025 Existing Traffic		2028 Back'd Traffic		2028 Total Traffic	
		AM	PM	AM	PM	AM	PM
1. US 1 & Kit Kat Rd	Signal	A/4.9	A/4.9	A/7.2	A/8.1	A/7.3	A/8.3
2. US 1 at Business Pkwy/Cooney Lane	Signal	A/9.0	B/12.3	B/11.3	B/17.7	B/11.4	B/16.7
3. US 1 at MD 103 <i>w/County Improvements</i>	Signal	D/36.1	E/75.3	D/43.8	D/53.3	D/38.8	D/45.5
4. US 1 at Site Access/Funeral Home Access <i>w/Site Proposed Improvements</i>	Stop Sign Signal					B/10.6	C/21.2
5. US 1 at MD 100 EB Ramps	Signal	A/5.4	A/7.5	A/6.2	A/9.7	A/6.2	B/10.3
6. US 1 & MD 100 WB Ramps	Signal	A/7.8	A/7.5	A/8.7	B/11.5	A/8.8	B/12.4
7. US 1 & Troy Hill Dr (South) NB/L EB/L	Stop Sign	C/19.3 F/93.8	C/15.5 F/85.1	D/30.5 F/168.9	C/22.0 F/184.1	D/28.5 F/197.7	C/23.7 F/244.5
8. US 1 & Troy Hill Dr (North)	Signal	A/4.9	A/6.6	A/6.5	A/8.3	A/6.8	A/8.7
9. US 1 & Ducketts Lane	Signal	B/11.6	A/9.8	B/15.9	B/12.7	B/16.4	B/13.0
10. MD 103 & Business Pkwy NB/L WB/L	Stop Sign	A/8.6 A/5.3	B/14.4 A/7.3	B/10.4 A/5.9	C/18.5 A/8.4	B/10.9 A/5.8	C/21.3 A/9.0
11. MD 103 & Mayfield Ave NB/L WB/LT	Stop Sign	C/17.8 A/9.7	E/38.7 B/14.5	C/24.4 B/11.1	F/69.1 C/18.8	D/26.2 B/12.1	F/139.2 C/22.6
12. MD 103 & Dorsey Run Rd SB/L EB/L	Stop Sign	C/19.7 A/6.1	F/187.1 C/16.9	D/28.7 A/6.9	F/182.5 C/17.6	C/20.0 A/6.4	F/61.5 B/12.3
13. MD 103 at Barnett Lane NB/L SB/L EB/L WB/L	Stop Sign	A/3.5 A/3.2 A/7.2 A/8.4	A/4.3 F/164.9 F/597.0 F/347.7	A/4.2 A/4.0 B/10.4 B/11.7	A/5.5 A/4.0 B/14.2 C/15.6	A/5.6 A/6.3 A/1.1 A/4.7	A/6.9 A/9.9 A/1.2 A/4.8

Note: Results are from SimTraffic Simulation 10 runs average number. Overall LOS/Delay reported for signalized intersection, worst movement LOS/Delay for unsignalized intersections.



Table 5
Results of Intersection Capacity Analysis
(SIMTRAFFIC)

Intersections	95th Queue (ft)						
	Storage (ft)	2025 Existing Traffic		2028 Back'd Traffic		2028 Total Traffic	
		AM	PM	AM	PM	AM	PM
1. US 1 & Kit Kat Rd SB/L	275' + TWLTL	75	32	105	44	95	51
2. US 1 at Business Pkwy/Cooney Lane NB/L	220' + TWLTL	63	69	65	92	67	106
SB/L	175'	63	39	90	41	124	71
3. US 1 at MD 103 EB/L, LTR	1900'	458	636				
EB/L, L	425'			193	314	195	288
EB/TR	425'			415			
WB/LT	670'	283	803				
WB/L	175'			320	325	298	310
WB/T	670'			657	616	460	539
WB/R	670'	200	856				
WB/R, R	250'			309	381	190	238
NB/L	275'	63	215	113	331	95	298
NB/R	300'	118	350	271	432	252	416
SB/L	330'	350	300	412	413	297	208
4. US 1 at Site Access/Funeral Home Access WB/LT	175'					198	168
SB/L	500'					96	226
5. US 1 at MD 100 EB Ramps SB/L, L	830'	95	162	100	184	107	181
6. US 1 & MD 100 WB Ramps WB/L	300'	294	272	297	288	284	295
7. US 1 & Troy Hill Dr (South) NB/L	290'	140	97	197	116	172	122
8. US 1 & Troy Hill Dr (North) NB/L	575'	75	30	99	31	91	33
9. US 1 & Ducketts Lane NB/L	180'	133	119	176	157	187	165
10. MD 103 & Business Pkwy NB/L	180'	40	88	31	89	33	99
NB/R	180'	30	43	<25	33	27	36
11. MD 103 & Mayfield Ave NB/L	---	38	41	47	55	51	135
NB/R	100'	44	53	53	55	53	76
12. MD 103 & Dorsey Run Rd SB/L	400'	67	564	192	242	70	141
SB/R	680'	66	896	286	384	75	202
13. MD 103 at Barnett Lane NB/L	165'	<25	31	<25	44	<25	<25
SB/L	115'	<25	38	<25	<25	<25	<25
14. Site Access at MOB/Commercial Access EB	175'					<25	<25

Note: Results are from SimTraffic Simulation 10 runs average number.



Table 6
Results of Intersection Queue Analysis
(SIMTRAFFIC)

As part of the Traffic Study, additional operational analyses were conducted. A Traffic Signal Warrant Analysis was conducted for the proposed full-movement access along US 1. Table 7 shows the results of the Traffic Signal Warrant Analysis assuming a two-lane minor street approach and both left and right turn movements included for the side street movement. That evaluation shows traffic signal warrants are expected to be satisfied. A second analysis was conducted including only the left turn exiting volumes since the access will have a two-lane approach. Table 7 shows the results of that analysis and once again, the Manual of Uniform Traffic Control Devices (MUTCD) traffic signal warrant criteria are expected to be satisfied for this access. Appendix F contains the signal warrant analysis worksheets.

With the proposed buildout of Corridor Square, improvements are proposed along US 1 including the construction of acceleration/deceleration lanes and a southbound left turn lane. It is recommended that the southbound left turn lane contain 500 ft of storage, and the queuing results show this is sufficient to accommodate projected peak queues. A two-lane approach is recommended for the site access along US 1, and traffic signalization is projected to be warranted at that intersection. The right-in along US 1 at the south end of the site was previously conceptually approved by MDOT SHA. A right-in only access to the north is shown based upon recommendations by MDOT SHA. These two right-in only access points will assist with operations at the first internal intersection east of US 1 and improve circulation within the site allowing the new internal connector road to divert some traffic from the US 1/MD 103 and MD 103/Dorsey Run Road intersections. Figure 15 shows the recommended future lane use.

Traffic Signal Warrant Analysis - 2027 Total Traffic for US 1 at Site Access

Warrant #1 ~ #3	HOURS MEETING WARRANTS				
	TRAFFIC VOLUME WARRANTS	Whole Approach Volume	Satisfied Yes / No	Left Turn Volume Only	Satisfied Yes / No
Warrant #1-A (8 hours required)		12	Yes	7	No
Warrant #1-B (8 hours required)		12	Yes	12	Yes
Warrant #1-combination A & B (8 hours req.)		12	Yes	11	Yes
Warrant #2 (4 hours required)		12	Yes	12	Yes
Warrant #3 (1 hour required)		12	Yes	12	Yes

Warrant #4	HOURS MEETING WARRANTS		
	PEDESTRIAN VOLUME WARRANTS	Pedestrian Cross Major Street	Satisfied Yes / No
Warrant #4-A (4 Hours required)		0	No
Warrant #4-B (1 Hour required)		0	No

Warrant #5 - School Crossing - N/A

Warrant #6 - Coordinate Signal System - N/A

Warrant #7 - Crash Experience		
Crashes Experience (5 or more)	Crashes (12-month)	Satisfied Yes / No
Year 2023	1	No
Year 2022	0	No
Year 2021	1	No



TABLE 7
SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS FOR
US 1 AT SITE ACCESS

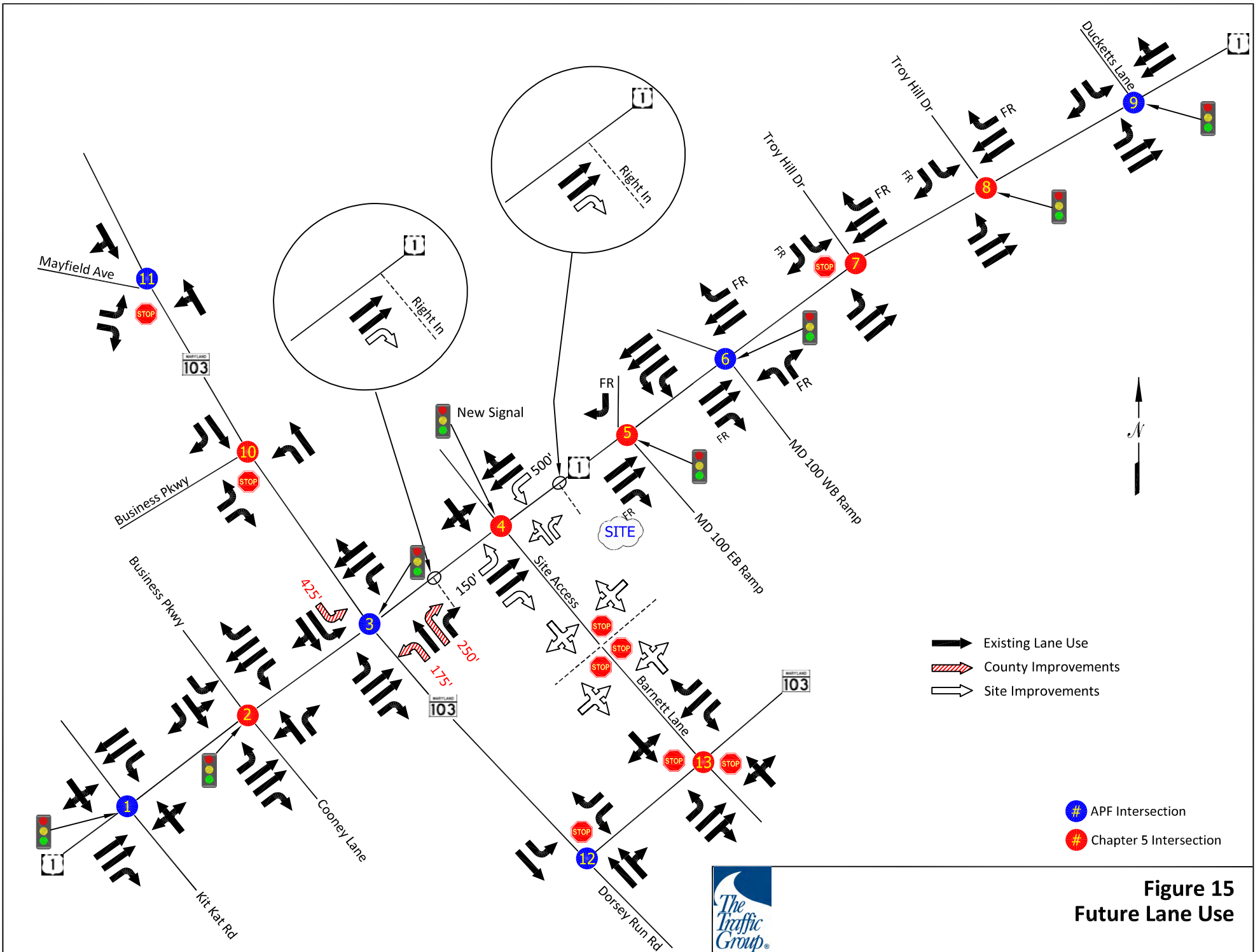


Figure 15
Future Lane Use

MULTIMODAL ANALYSIS

In accordance with Howard County regulations, a multimodal transportation analysis was conducted as part of this study. A Multimodal Transportation Studies Checklist was prepared and is included in Appendix G.

As identified in Appendix G, the only destinations within the designated distances from the site were Troy Park and the TOD area that includes the site. Figure 16 shows the location of Troy Park and a 0.5-mile radius from the subject property. While the 0.5-mile radius touches the corner of Troy Park, there is no way to walk there within that distance due to the presence of MD 100 just north of the site and the interchange ramps between US 1 and MD 100.

Figure 17 identifies the existing and planned sidewalks/crosswalks/paths within the 0.5-mile radius. Of note is the planned 10-ft-wide multi-use path proposed to be provided by the developer of Corridor Square along the south side of the site and the west side (US 1 frontage) of the site. This path will extend between MD 103 and the property to the north of the site.

Bicycle routes were also identified, and Figure 18 identifies existing and planned bicycle network within a 2-mile radius.

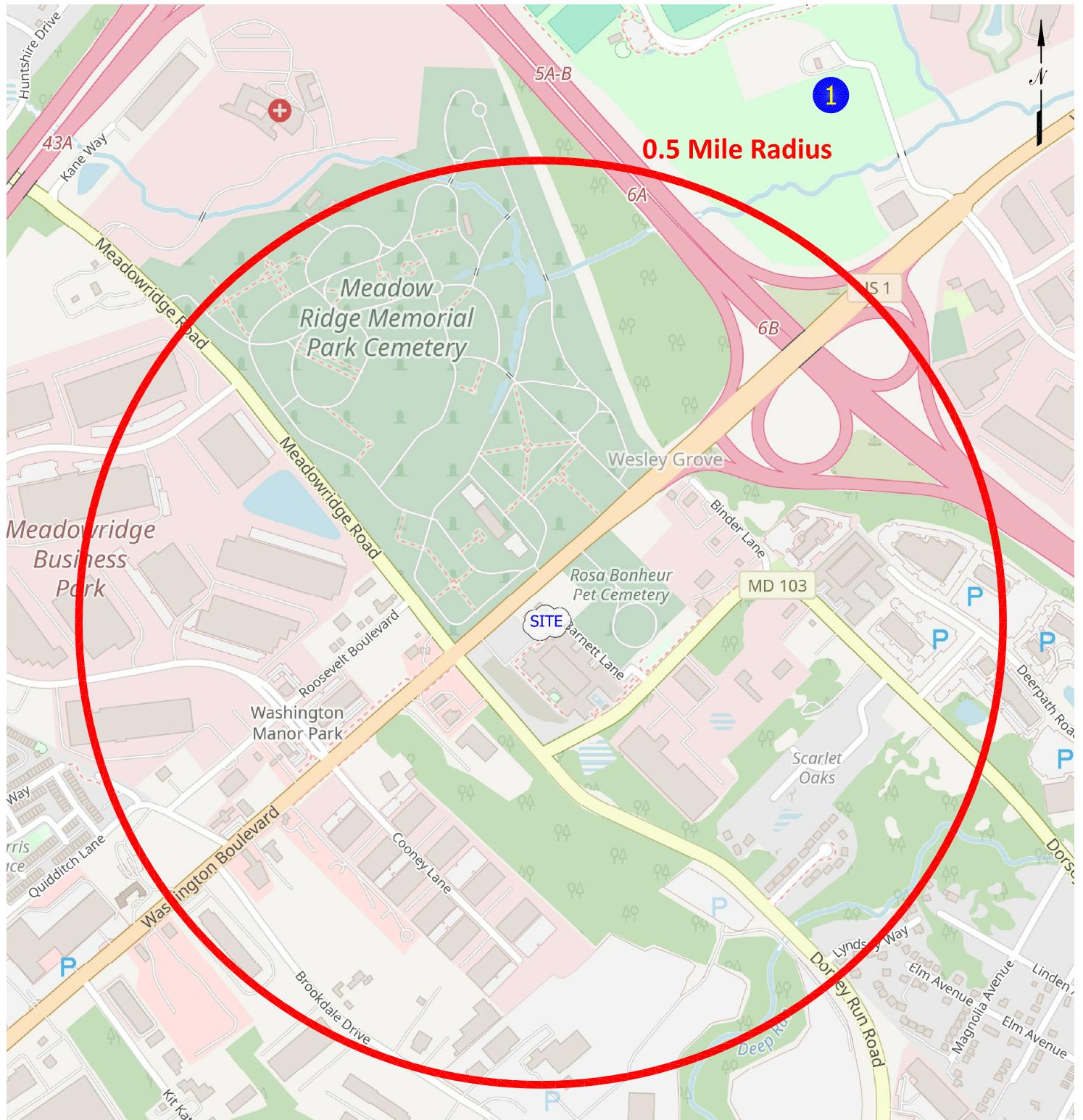
Figure 19 identifies the Bicycle Level of Stress for the 2-mile radius surrounding the site. As noted in that map, the arterial roads have high levels of stress while the neighborhood streets primarily have low levels of stress.

Walk Howard identifies US 1 as an area of special focus. Howard County prepared the US 1 Safety Evaluation on Bicyclist and Pedestrian Safety, dated February 2019. As part of that document, Focus Area 3 extends along US 1 to the south of the site from Brookdale Drive to Assateague Drive. Appendix G contains copies of recommendations from that study for this area. It should be noted that the signalization at the US 1 and Kit Kat Road intersection has been completed. The recommendations for this area include a multi-use path located along the east side of US 1, which the Corridor Square development plans to complete along the site frontage, and a signed low stress bicycle route along the neighborhood streets including Quidditch Lane to the west of US 1.

BikeHoward identifies a structured project to provide a series of bike lanes, improved paths, sharrows, and intersection improvements to develop an east-west connection between residential areas to the west of I-95 and the Dorsey MARC Station. That project sheet is included in Appendix G.

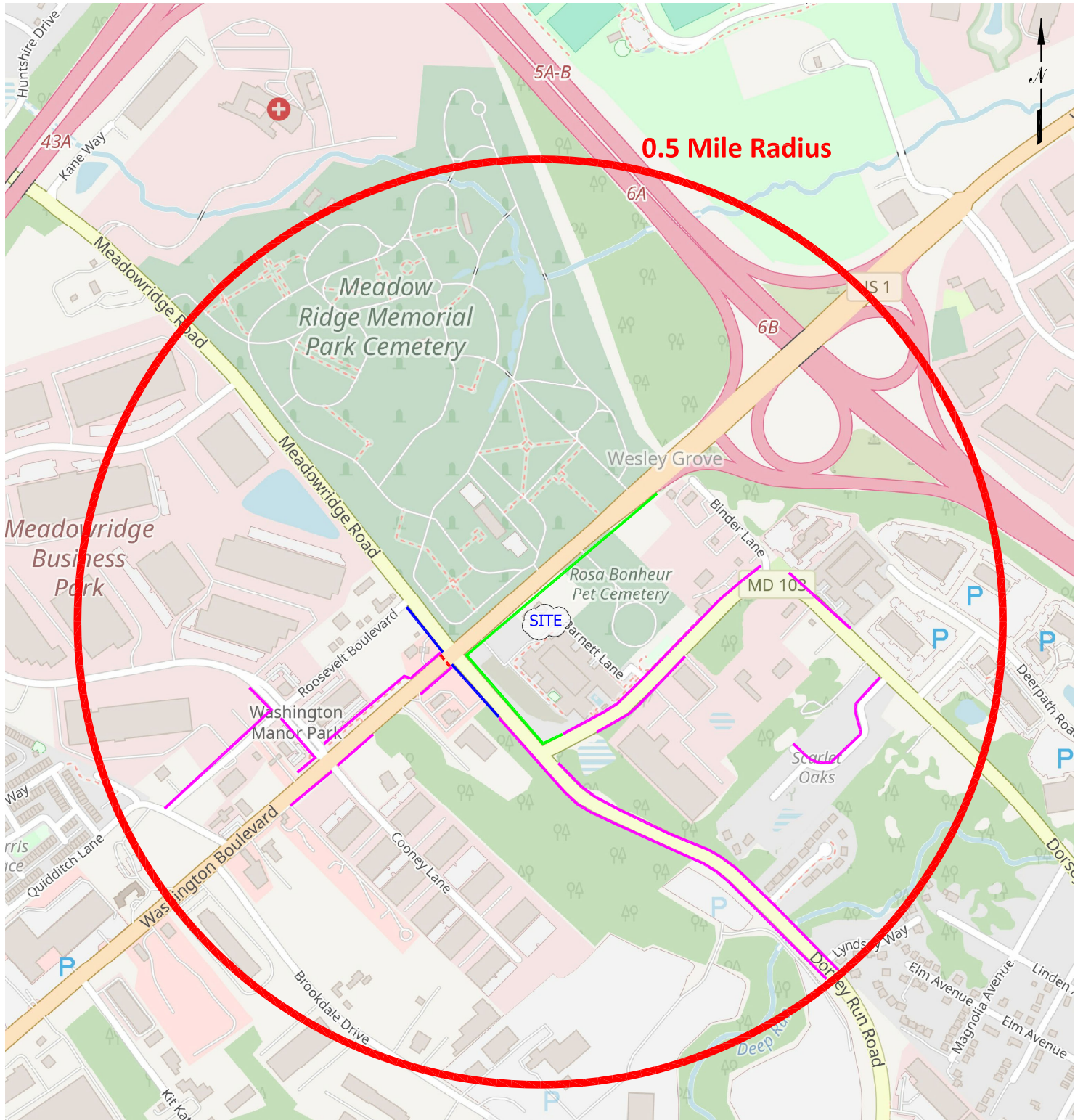
A review of transit availability within a 0.5-mile radius of the site shows that bus routes are provided along US 1 with bus stops adjacent to and near the site. RTA Routes 409 and 501 are served along this corridor as are MTA Routes 201 and 320. The Dorsey MARC Station is located about 0.75 miles to the east of the site.

Figure 16 - Multimodal Destinations



Destination:
1. Troy Park

Figure 17 - Existing/Planned Sidewalks



- Existing Sidewalks
- - - Existing Crosswalks
- Planned Sidewalk
- Proposed Sidewalk/Multi-Use Path by this project

Figure 18. Bicycle Network

Bike Facility Recommendations

Short Term

- Existing
- Improvements

Mid Term

- Existing
- Improvements

Long Term

- Existing
- Improvements

- Further Study
- Existing Pathways & Trails

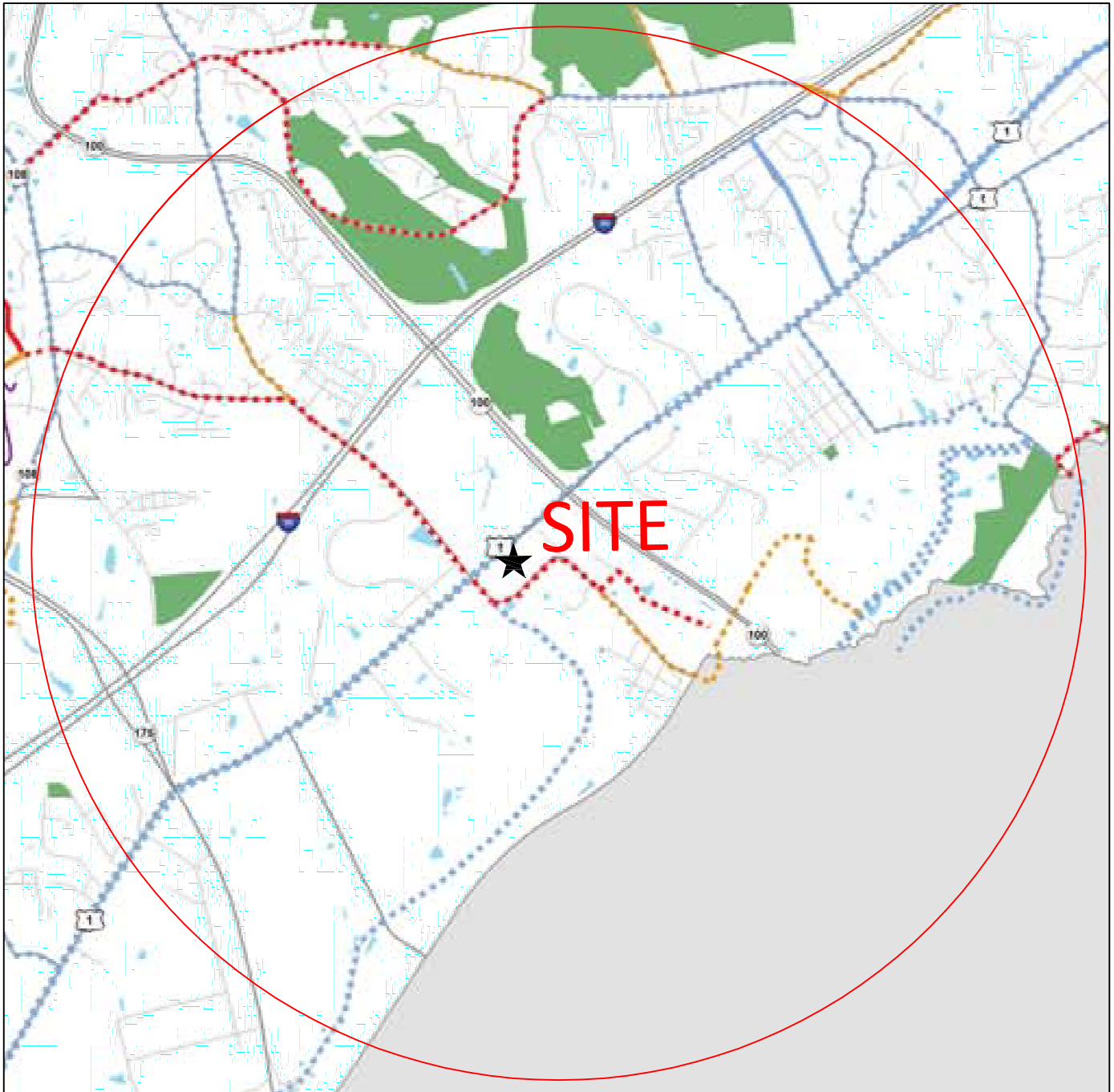
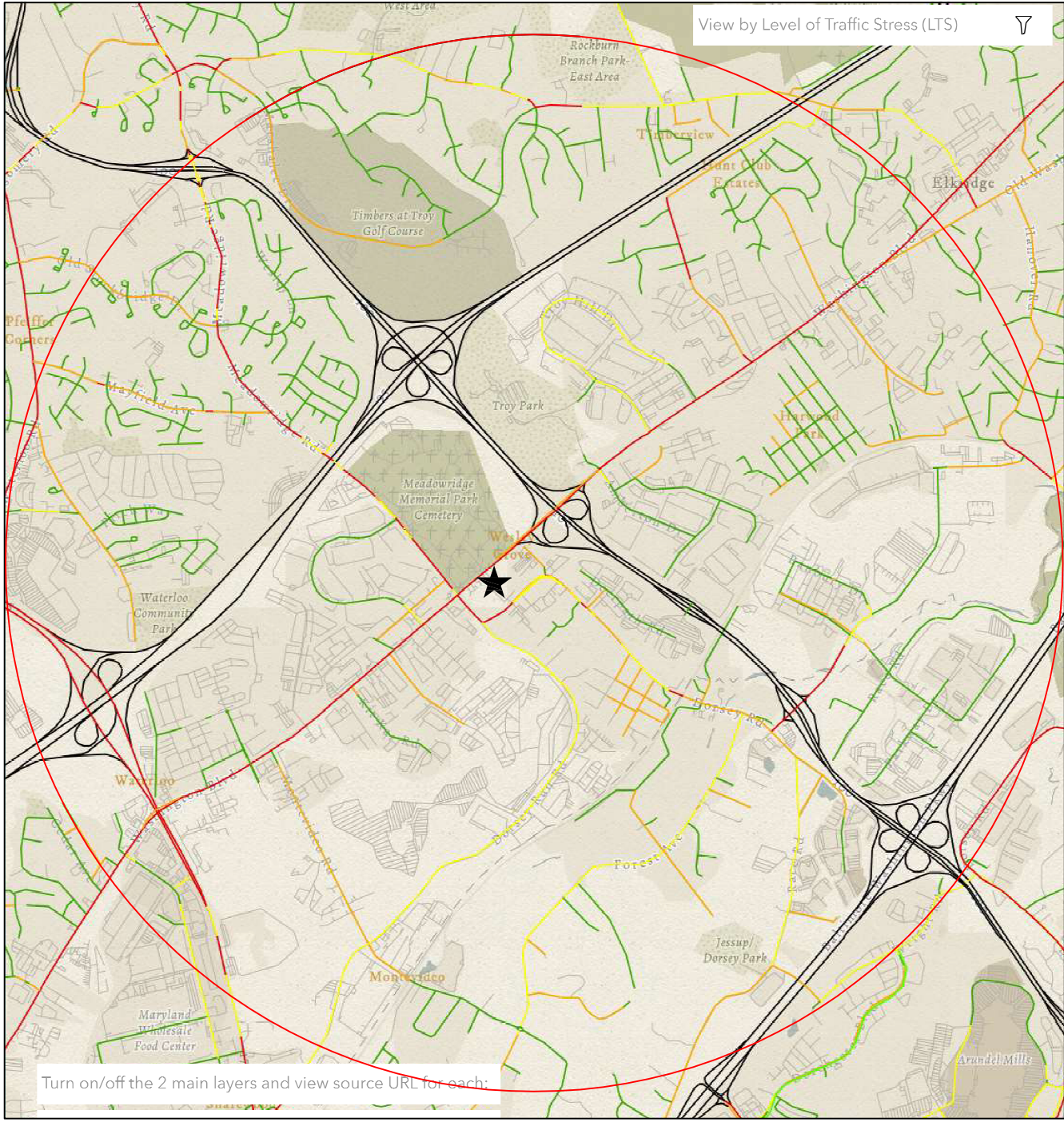


Exhibit 19. Bicycle Level of Stress



Color Key for Bicycle Level of Traffic Stress:

0  All ages and abilities	3  Enthused and confident
1  Almost everyone	4  Strong and fearless
2  Interested but concerned	5  Bicycle Access Prohibited



RESULTS, RECOMMENDATIONS, AND CONCLUSIONS

Study Purpose

This Traffic Impact Analysis was conducted to address Howard County Adequate Road Facilities Test Evaluation and Multimodal requirements in conjunction with the proposed development of Corridor Square. The subject site is located along the east side of US 1 and north side of Dorsey Road. The site is currently developed with 20 townhomes and The Refinery apartment community. Current access is provided via a full-movement intersection with MD 103 at Barnett Lane. The remaining portion of the site is proposed to be developed with a Patient First medical facility, a convenience store with gasoline pumps, and an automatic car wash along the US 1 frontage. Another 20 townhomes are proposed along the MD 103 frontage of the site. Primary access is proposed by an extension of Barnett Lane to US 1 at a future full signalized intersection. Additional right-in access points are proposed along US 1 to the south and north of the main access. Barnett Lane will continue to provide access to and from MD 103 as well.

Summary of Findings and Recommendations

Based upon the data and analyses presented in this study, the proposed development of Corridor Square can be accommodated by the surrounding area road system. The results of the analyses conducted as part of this study for existing, background, and total projected traffic volumes show that acceptable levels of service can be maintained at the study intersections under 2028 total projected volumes.

This study includes planned improvements to the US 1/MD 103 intersection as proposed by Howard County. With the proposed buildout of Corridor Square, improvements are proposed along US 1 including the construction of acceleration/deceleration lanes and a southbound left turn lane. It is recommended that the southbound left turn lane contain 500 ft of storage, and the queuing results show this is sufficient to accommodate projected peak queues. A two-lane approach is recommended for the site access along US 1, and traffic signalization is projected to be warranted at that intersection. The right-in along US 1 at the south end of the site was previously conceptually approved by MDOT SHA. A right-in access to the north is shown based upon recommendations by MDOT SHA. These two right-in access points will assist with operations at the first internal intersection east of US 1 and improve circulation within the site allowing the new internal connector road to divert some traffic from the US 1/MD 103 and MD 103/Dorsey Run Road intersections. Figure 15 shows the recommended future lane use.

Based upon the data and analyses presented in this study, the proposed development of Corridor Square satisfies Howard County Adequate Road Facilities Test Evaluation requirements. With the proposed county and developer improvements, significant benefits are projected for traffic conditions at the US 1/MD 103 and MD 103/Dorsey Run Road intersections.

APPENDIX A

Scoping Document and Capital Budget Project Sheets



Richard Huang

To: Mickey Cornelius
Subject: RE: Corridor Square - Route 1 Parcels

From: Mickey Cornelius
Sent: Tuesday, April 23, 2024 12:07 PM
To: Edmondson, Chad <cedmondson@howardcountymd.gov>
Cc: Anish Thomas <AThomas10@mdot.maryland.gov>
Subject: Corridor Square - Route 1 Parcels

Chad,

We are moving forward with the development of the remaining parcels for Corridor Square. This includes commercial parcels along US 1 as well as a small residential section along Dorsey Road. At this point, the proposed development is as follows:

- Area #1 – 20 TH’s.
- Area #2a – 7,200 SF Medical Office
- Area #3a – 6,200 SF Convenience Store with gas (12 fueling positions)
- Area #3c – Auto Spa Car Wash

See attached concept plan.

The US 1 road improvements previously planned and reviewed by SHA would be constructed with this project. Access is proposed via a right-in along US 1 near the south end of the site, a full signalized access in the center, and a right-in/right-out further north on US 1. Access is also available to Dorsey Road with a spine road running through the site between US 1 and Dorsey Road. These access points and the planned US 1 road improvements are shown on the concept plan.

Based upon the previous traffic study for this site, we are proposing the same study locations. This includes 6 APF intersections and 4 additional intersections for Chapter 5 purposes. Please see attached map of proposed study locations.

Given the proposed development, a trip generation analysis is attached showing total new trips of 138 in the AM peak hour and 161 in the PM peak hour.

Please review the concept plan and proposed study intersections and provide comments/concurrence on the scope.

I have copied Anish for SHA input as well.

Let me know if you have any questions or need anything else.

Thank you,

Mickey

Mickey Cornelius, P.E., PTOE, RSP1

Sr. Vice President



Baltimore, Maryland

P: 410-931-6600

M: 410-446-3992

mcornelius@trafficgroup.com

www.trafficgroup.com

Certifications

SBA Certified Service-Disabled Veteran-Owned Small Business (SDVOSB)

NY Certified Service-Disabled Veteran-Owned Business (SDVOB)

MBE Certified: Charles County, Howard County, and Prince George's County, MD

MFD Certified: Montgomery County, MD

MDOT SBE Certified

Virginia SWaM

Richard Huang

To: Mickey Cornelius
Subject: RE: Scoping request comments for Corridor Square remaining development

From: Edmondson, Chad <cedmondson@howardcountymd.gov>
Sent: Wednesday, May 8, 2024 9:29 AM
To: Mickey Cornelius <mcornelius@trafficgroup.com>
Cc: George, Subin <sgeorge@howardcountymd.gov>
Subject: RE: Scoping request comments for Corridor Square remaining development

Please include this type of information within the traffic study for all agencies to understand. Thanks.

From: Mickey Cornelius <mcornelius@trafficgroup.com>
Sent: Wednesday, May 8, 2024 8:20 AM
To: Edmondson, Chad <cedmondson@howardcountymd.gov>
Cc: George, Subin <sgeorge@howardcountymd.gov>
Subject: RE: Scoping request comments for Corridor Square remaining development

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Chad,

Thank you. To respond to a few of the comments, the US 1 improvements are proposed to be constructed by the developer with this project. These improvements were conceptually approved by SHA a few years ago. The developer had to wait to secure the pet cemetery property frontage before we could move forward. That has now been completed. Along with the US 1 improvements, a 10' shared use off-road path is proposed along the property frontage.

Mickey

Mickey Cornelius, P.E., PTOE, RSP1
Sr. Vice President



Baltimore, Maryland
P: 410-931-6600
M: 410-446-3992
mcornelius@trafficgroup.com
www.trafficgroup.com

Certifications
SBA Certified Service-Disabled Veteran-Owned Small Business (SDVOSB)
NY Certified Service-Disabled Veteran-Owned Business (SDVOB)
MBE Certified: Charles County, Howard County, and Prince George's County, MD
MFD Certified: Montgomery County, MD

From: Edmondson, Chad <cedmondson@howardcountymd.gov>
Sent: Tuesday, May 7, 2024 8:30 PM
To: Mickey Cornelius <mcornelius@trafficgroup.com>
Cc: George, Subin <sgeorge@howardcountymd.gov>
Subject: Scoping request comments for Corridor Square remaining development

The following are comments with respect to your Scoping request for improvements along Washington Avenue and the Corridor Square property based on your request of April 23, 2024, attached:

Development Engineering:

1. Pedestrian facilities were required on Washington Blvd at MD 103 as part of Corridor Square site development plan. Please confirm what improvements have been completed with that project.
2. Based on Complete Streets, cycling and pedestrian facilities are required for this corridor along the proposed frontage.
3. As part of the Multi-Modal study, please coordinate the potential of any offsite connections such as access to and through Binder Lane. This coordination will be evaluated with the Office of Transportation.
4. Development within Subarea 3a appears to develop the frontage along the cemetery access. Verify if features along this frontage are historic and what steps are required with their disturbance.
5. Within the traffic report, provide an assumption within the traffic study for cut through traffic between Dorsey Road and Route 1. Should provisions be made to deter this maneuver through a private road?

DPW; Traffic Division:

1. The trip generation rates all check out, except for the Auto spa, which I assume they are pulling the #s from a similar commercial service elsewhere
2. Include Troy Hill Dr as part of Chapter 5 evaluation as it serves as access point to Troy Hill Park
3. Yuqiong's project is along MD 103 (currently at 90% level) and not so much on US 1 as it is shown on the concept that Traffic Group provided; she didn't know anything about a project along US 1. Perhaps, State has a separate project that County does not know about?
4. The proposed driveway access points for the medical office space and the gas station/convenience store are not preferred as they do not appear to meet minimum driveway spacing requirements. Instead, should use main access point at proposed signal. That being said, I am not privy to previous studies/approvals on this project so it maybe a moot point

Any comments regarding the above, please contact me by email for response.

Chad Edmondson
Chief, Development Engineering Division
Howard County Department of Planning and Zoning

Richard Huang

To: Mickey Cornelius
Subject: RE: Corridor Square - Route 1 Parcels

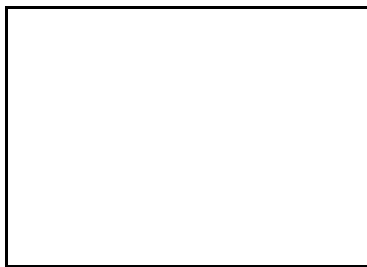
From: Anish Thomas <AThomas10@mdot.maryland.gov>
Sent: Friday, May 10, 2024 12:03 PM
To: Mickey Cornelius <mcornelius@trafficgroup.com>
Cc: 'cedmondson@howardcountymd.gov' <cedmondson@howardcountymd.gov>
Subject: FW: Corridor Square - Route 1 Parcels

Mickey,

We offer the following conceptual level comments. Additional comments will be provided once engineered plans are submitted through the local development process.

1. SHA has concerns with the proposed right in/out entrance for the convenience store/gas station/car wash. It appears that the proposed right-out movement would have conflicts with northbound US 1 traffic accelerating from your proposed signalized intersection. In addition, SHA is most concerned with the weaving motion of northbound US 1 traffic trying to enter the lane for the MD 100 entrance ramp while traffic from the right-out is trying to accelerate and more over before the entrance ramp. SHA recommends this entrance be revised to a right-in only from US 1.
2. SHA has concerns with the proposed Shared Use Path (SUP) crossing the entrance ramp to MD 100 along US 1 Northbound . There are no additional pedestrian facilities north of this area along the interchange with MD 100. Plans for the O'Donnell Properties currently under review show that a SUP will be constructed along the frontage with US 1 and will flow back to the proposed development and onto Binder Lane. However, SHA defers to Howard County's Pedestrian Master plan.
3. Provide documentation once Corridor Square LLC has acquired the lands now owned by Memorial LLC.

Thanks,



roads.maryland.gov

Anish Thomas
Regional Engineer
District 7 Access Management
301.624.8152 **office**
athomas10@mdot.maryland.gov
Maryland State Highway
Administration
5111 Buckeystown Pike,
Frederick, MD 21704

From: Mickey Cornelius <mcornelius@trafficgroup.com>
Sent: Tuesday, April 23, 2024 12:07 PM
To: Edmondson, Chad <cedmondson@howardcountymd.gov>
Cc: Anish Thomas <AThomas10@mdot.maryland.gov>
Subject: Corridor Square - Route 1 Parcels

Chad,

We are moving forward with the development of the remaining parcels for Corridor Square. This includes commercial parcels along US 1 as well as a small residential section along Dorsey Road. At this point, the proposed development is as follows:

- Area #1 – 20 TH's.
- Area #2a – 7,200 SF Medical Office
- Area #3a – 6,200 SF Convenience Store with gas (12 fueling positions)
- Area #3c – Auto Spa Car Wash

See attached concept plan.

The US 1 road improvements previously planned and reviewed by SHA would be constructed with this project. Access is proposed via a right-in along US 1 near the south end of the site, a full signalized access in the center, and a right-in/right-out further north on US 1. Access is also available to Dorsey Road with a spine road running through the site between US 1 and Dorsey Road. These access points and the planned US 1 road improvements are shown on the concept plan.

Based upon the previous traffic study for this site, we are proposing the same study locations. This includes 6 APF intersections and 4 additional intersections for Chapter 5 purposes. Please see attached map of proposed study locations.

Given the proposed development, a trip generation analysis is attached showing total new trips of 138 in the AM peak hour and 161 in the PM peak hour.

Please review the concept plan and proposed study intersections and provide comments/concurrence on the scope.

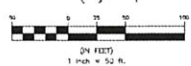
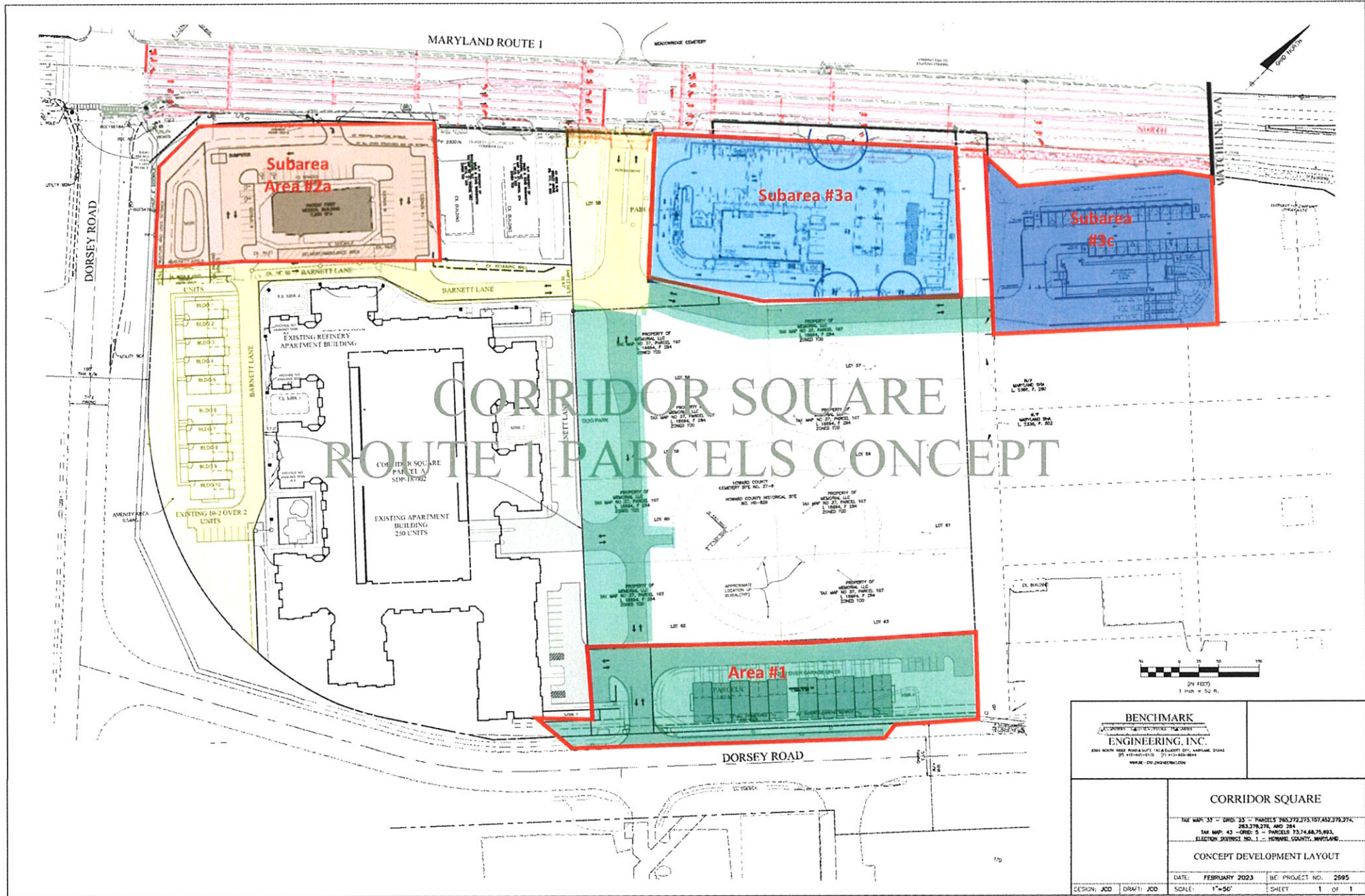
I have copied Anish for SHA input as well.

Let me know if you have any questions or need anything else.

Thank you,

Mickey

Mickey Cornelius, P.E., PTOE, RSP1
Sr. Vice President



BENCHMARK <small>CONCRETE CONSTRUCTION</small> ENGINEERING, INC. <small>200 NORTH ROSS PARKWAY SUITE 410 ELK LAKES CITY, MARYLAND 21034 410-390-0010 FAX 410-390-0044 WWW.BC-ENR.COM/ENR2000</small>	
CORRIDOR SQUARE	
<small>TRAC MAP: 33 -- GRID: 23 -- PARCELS 283,279,275,107,432,379,374, 283,378,376, AND 284 TAX MAP: 43 -- GRID: 9 -- PARCELS 73,74,68,75,80,3, ELECTION DISTRICT NO. 1 -- HOWARD COUNTY, MARYLAND</small>	
CONCEPT DEVELOPMENT LAYOUT	
<small>DATE:</small> FEBRUARY 2023	<small>BE PROJECT NO.:</small> 2695
<small>DESIGN:</small> JCO	<small>DRAWN:</small> JCO
<small>SCALE:</small> 1"=50'	<small>SHEET:</small> 1 OF 1

J:\2023\Draws\Program\AEP\PROJECTS\ELK LAKES\ELK LAKES\CONCEPT.dwg, 2/10/2023 1:21:17 PM

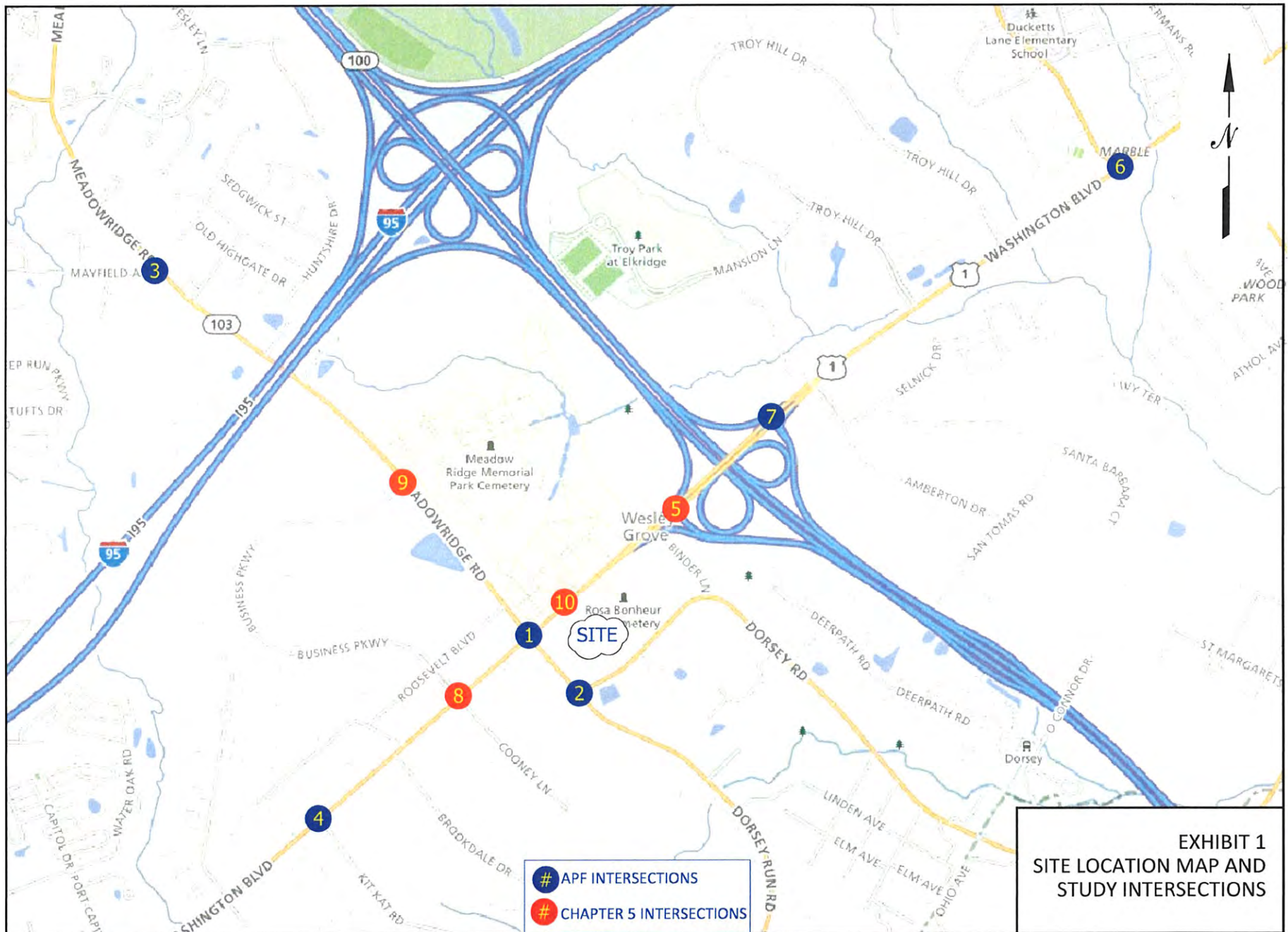


EXHIBIT 1
SITE LOCATION MAP AND
STUDY INTERSECTIONS

Trip Generation Rates - ITE 11th Edition

Land Use (Source)	Formula/Rate	Directional Distribution			
		AM Peak Hour		PM Peak Hour	
		In	Out	In	Out
Single-Family Attached (ITE-215)	AM Peak Hour Trips = 0.48 x Units PM Peak Hour Trips = 0.57 x Units Daily Trips = 7.20 x Units	25%	75%	59%	41%
Medical-Dental Office Building (ITE-720)	Ln(AM Peak Hour Trips) = 0.90 x Ln(ksf) + 1.34 PM Peak Hour Trips = 4.07 x ksf - 3.17 Daily Trips = 42.97 x ksf - 108.01	79%	21%	30%	70%
Convenience Store/Gas Station (9-15 VFP, ITE-945)	AM Peak Hour Trips = 56.52 x ksf PM Peak Hour Trips = 54.52 x ksf Daily Trips = 700.43 x ksf	50%	50%	50%	50%
Auto Spa	AM Peak Hour Trips = 19 PM Peak Hour Trips = 40 Daily Trips = NA	50%	50%	51%	49%

Trip Generation for Corridor Square - Route 1 Parcels

Land Use	Size	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Area #1								
Single-Family Attached	20 Units	3	7	10	6	5	11	144
Subarea #2a								
Medical Office	7,200 Sq. Ft.	18	5	23	8	18	26	201
Subarea #3a & #3b								
Convenience Store/Gas	6,200 Sq. Ft.	175	175	350	169	169	338	4343
	Pass-by Trips (AM-76, PM-75%)	<u>-133</u>	<u>-131</u>	<u>-264</u>	<u>-127</u>	<u>-127</u>	<u>-254</u>	
	New Trips	42	44	86	42	42	84	
Subarea #3c								
Auto Spa		9	10	19	20	20	40	
Total New Trips		72	66	138	76	85	161	

Notes:

1. Pass-by trip rates based on ITE Trip Generation Manual, 11th Edition.
2. Trips for Auto Spa based on Trip Generation Letter for Auto Spa - MD 26 at Monocacy Blvd.





Investing In Our Students & Educators



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HOWARD COUNTY MARYLAND

Approved Capital Budget • Fiscal Year 2025



Calvin Ball
County Executive



Keeping Ellicott City Safe and Sound



Building Our Workforce



Enhancing Spaces For Learning

Fiscal 2025 Capital Budget

ROAD CONSTRUCTION PROJECTS

Project: J4212-FY2007 STATE ROAD CONSTRUCTION

Description

A project for cost sharing of new State roadway construction within Howard County that is consistent with the objectives of the Plan Howard 2030.

Justification

The State Highway Administration (SHA) cannot proceed with these projects in a timely manner without financial assistance. The local funding will accelerate the construction of State roadways in order to address capacity and safety problems in the County network.

Remarks

1. This project replaces J4177
2. Projects will be mutually identified by the State and County and prioritized by need.
3. Projects include: MD32 dualization, MD97 at Burntwoods Road, MD103 at Old Columbia Pike and US1 at MD103.
4. Grant represents State Aid Funds.
5. DEVELOPER CONTRIBUTION represents funds from adjacent development for the US1 and MD103 intersection improvements.

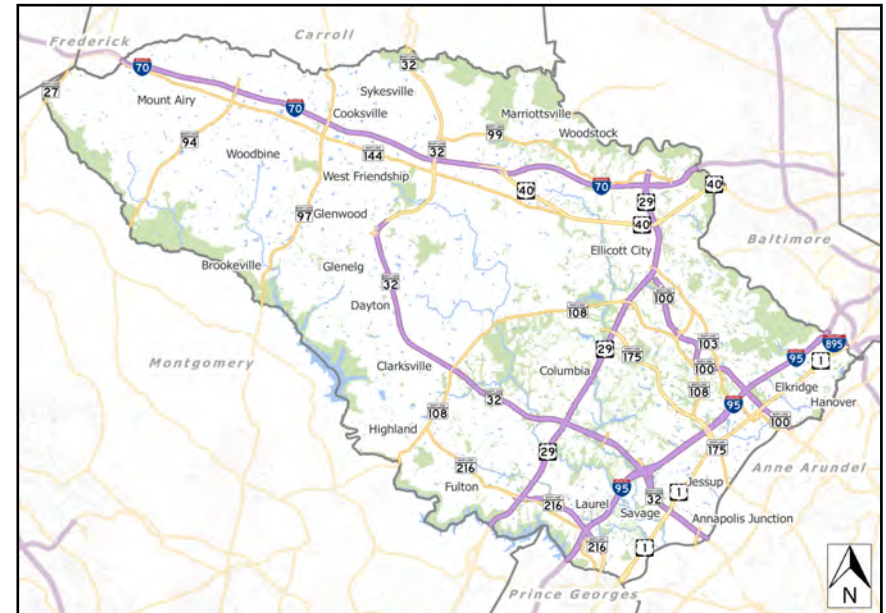
Project Schedule

Program

Operating Budget Impact

Estimated annual maintenance costs upon construction completion: No Change.

FY2025 Bonds - Annual Debt Service Payment	0
FY2025 Bonds - 20-Year Total Debt Service Payment	0
Total Project Bonds - Annual Debt Service Payment	2,715
Total Project Bonds - 20-Year Total Debt Service Payment	54,304



Fiscal 2025 Capital Budget

ROAD CONSTRUCTION PROJECTS

Project: J4212-FY2007 STATE ROAD CONSTRUCTION

(In Thousands)	Five Year Capital Program										Master Plan			
	Prior Appr.	FY2025 Budget	Appr. Total	Fiscal 2026	Fiscal 2027	Fiscal 2028	Fiscal 2029	Fiscal 2030	Sub Total	Fiscal 2031	Fiscal 2032	Fiscal 2033	Fiscal 2034	Total Project
PLANS & ENGINEERING	3,200	0	3,200	0	0	0	0	0	0	0	0	0	0	3,200
LAND ACQUISITION	2,500	0	2,500	0	0	0	0	0	0	0	0	0	0	2,500
CONSTRUCTION	32,010	0	32,010	0	0	0	0	0	0	0	0	0	0	32,010
Total Expenditures	37,710	0	37,710	0	0	0	0	0	0	0	0	0	0	37,710
BONDS	2,310	0	2,310	0	0	0	0	0	0	0	0	0	0	2,310
DEVELOPER CONTRIBUTION	350	0	350	0	0	0	0	0	0	0	0	0	0	350
EXCISE TAX	500	0	500	0	0	0	0	0	0	0	0	0	0	500
GRANTS	1,300	0	1,300	0	0	0	0	0	0	0	0	0	0	1,300
EXCISE TAX BACKED BONDS	33,250	0	33,250	0	0	0	0	0	0	0	0	0	0	33,250
Total Funding	37,710	0	37,710	0	0	0	0	0	0	0	0	0	0	37,710

\$33,945,874 spent and encumbered through February 2024

\$33,714,585 spent and encumbered through February 2023

Project Status FY24 - In design: US1 at MD103 - final design stage; ongoing utility relocation; ongoing land acquisition - 2/3 acquired. US40 sidewalk west of Rogers Avenue - design complete, land acquisition complete; construction is expected to start in Fall 2023.

Projects in Construction: MD103 at Old Columbia Pike.

Completed: MD32 at Linden Church interchange, MD32 dualization Phase I from MD108 to Linden Church Rd., MD97 at Burntwoods, and MD32 dualization Phase I and Phase II from Linden Church Rd to I-70.

FY 2024 Budget	37,710	0	37,710	0	0	0	0	0	0	0	0	0		37,710
Difference 2024 / 2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0

None.

APPENDIX B

Intersection Turning Movement Counts and Aerial Photographs



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Kit Kat Road
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: Kit Kat Road					TRAFFIC FROM WEST on: Shopping Center Access					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	189	7	0	196	2	114	0	0	116	5	1	0	0	6	2	1	0	0	3	321
7:15 - 7:30	2	246	7	0	255	4	145	0	0	149	5	0	6	0	11	0	0	2	0	2	417
7:30 - 7:45	0	265	3	0	268	5	189	0	0	194	3	0	3	0	6	5	0	2	0	7	475
7:45 - 8:00	1	282	9	0	292	6	198	0	0	204	6	0	3	0	9	5	0	6	0	11	516
8:00 - 8:15	1	249	4	0	254	4	220	0	0	224	3	1	3	0	7	2	0	3	0	5	490
8:15 - 8:30	0	220	5	0	225	5	188	1	0	194	7	0	3	0	10	2	0	4	0	6	435
8:30 - 8:45	1	212	5	0	218	2	193	0	0	195	2	0	1	0	3	0	0	1	0	1	417
8:45 - 9:00	0	214	6	0	220	0	181	0	0	181	6	0	2	0	8	4	0	1	0	5	414
2 Hr Totals	5	1877	46	0	1928	28	1428	1	0	1457	37	2	21	0	60	20	1	19	0	40	3485
1 Hr Totals																					
7:00 - 8:00	3	982	26	0	1011	17	646	0	0	663	19	1	12	0	32	12	1	10	0	23	1729
7:15 - 8:15	4	1042	23	0	1069	19	752	0	0	771	17	1	15	0	33	12	0	13	0	25	1898
7:30 - 8:30	2	1016	21	0	1039	20	795	1	0	816	19	1	12	0	32	14	0	15	0	29	1916
7:45 - 8:45	3	963	23	0	989	17	799	1	0	817	18	1	10	0	29	9	0	14	0	23	1858
8:00 - 9:00	2	895	20	0	917	11	782	1	0	794	18	1	9	0	28	8	0	9	0	17	1756
PEAK HOUR																					
7:30 - 8:30	2	1016	21	0	1039	20	795	1	0	816	19	1	12	0	32	14	0	15	0	29	1916
PM																					
4:00 - 4:15	0	271	2	0	273	3	317	1	0	321	3	0	7	0	10	7	0	0	0	7	611
4:15 - 4:30	0	309	2	0	311	4	286	0	0	290	12	0	8	0	20	5	0	0	0	5	626
4:30 - 4:45	0	219	3	0	222	12	300	1	1	314	11	0	10	0	21	4	0	2	0	6	563
4:45 - 5:00	1	200	2	0	203	5	313	1	0	319	12	0	6	0	18	6	0	4	0	10	550
5:00 - 5:15	0	237	6	0	243	6	292	0	1	299	12	0	6	0	18	7	0	3	0	10	570
5:15 - 5:30	0	221	2	0	223	2	279	1	0	282	3	1	5	0	9	5	0	4	0	9	523
5:30 - 5:45	0	190	4	0	194	0	213	0	0	213	6	0	3	0	9	4	0	2	0	6	422
5:45 - 6:00	0	196	2	0	198	2	270	0	0	272	3	0	1	0	4	1	0	4	0	5	479
2 Hr Totals	1	1843	23	0	1867	34	2270	4	2	2310	62	1	46	0	109	39	0	19	0	58	4344
1 Hr Totals																					
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4:15 - 5:15	1	965	13	0	979	27	1191	2	2	1222	47	0	30	0	77	22	0	9	0	31	2309
4:30 - 5:30	1	877	13	0	891	25	1184	3	2	1214	38	1	27	0	66	22	0	13	0	35	2206
4:45 - 5:45	1	848	14	0	863	13	1097	2	1	1113	33	1	20	0	54	22	0	13	0	35	2065
5:00 - 6:00	0	844	14	0	858	10	1054	1	1	1066	24	1	15	0	40	17	0	13	0	30	1994
PEAK HOUR																					
4:00 - 5:00	1	999	9	0	1009	24	1216	3	1	1244	38	0	31	0	69	22	0	6	0	28	2350

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Kit Kat Road
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: Kit Kat Road					TRAFFIC FROM WEST on: Shopping Center Access					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	166	7	0	173	2	104	0	0	106	4	1	0	0	5	1	1	0	0	2	286
7:15 - 7:30	1	207	5	0	213	3	119	0	0	122	5	0	6	0	11	0	0	2	0	2	348
7:30 - 7:45	0	236	3	0	239	1	162	0	0	163	3	0	3	0	6	4	0	1	0	5	413
7:45 - 8:00	1	244	7	0	252	6	181	0	0	187	3	0	1	0	4	2	0	4	0	6	449
8:00 - 8:15	0	226	3	0	229	3	194	0	0	197	1	0	3	0	4	1	0	3	0	4	434
8:15 - 8:30	0	190	3	0	193	2	163	0	0	165	3	0	2	0	5	0	0	2	0	2	365
8:30 - 8:45	1	191	4	0	196	2	171	0	0	173	1	0	0	0	1	0	0	0	0	0	370
8:45 - 9:00	0	184	3	0	187	0	157	0	0	157	3	0	2	0	5	0	0	1	0	1	350
2 Hr Totals	3	1644	35	0	1682	19	1251	0	0	1270	23	1	17	0	41	8	1	13	0	22	3015
1 Hr Totals																					
7:00 - 8:00	2	853	22	0	877	12	566	0	0	578	15	1	10	0	26	7	1	7	0	15	1496
7:15 - 8:15	2	913	18	0	933	13	656	0	0	669	12	0	13	0	25	7	0	10	0	17	1644
7:30 - 8:30	1	896	16	0	913	12	700	0	0	712	10	0	9	0	19	7	0	10	0	17	1661
7:45 - 8:45	2	851	17	0	870	13	709	0	0	722	8	0	6	0	14	3	0	9	0	12	1618
8:00 - 9:00	1	791	13	0	805	7	685	0	0	692	8	0	7	0	15	1	0	6	0	7	1519
PEAK HOUR																					
7:30 - 8:30	1	896	16	0	913	12	700	0	0	712	10	0	9	0	19	7	0	10	0	17	1661
PM																					
4:00 - 4:15	0	256	2	0	258	3	293	1	0	297	3	0	5	0	8	7	0	0	0	7	570
4:15 - 4:30	0	285	2	0	287	3	269	0	0	272	9	0	8	0	17	5	0	0	0	5	581
4:30 - 4:45	0	211	2	0	213	10	280	1	1	292	10	0	9	0	19	4	0	2	0	6	530
4:45 - 5:00	1	193	2	0	196	4	294	1	0	299	12	0	6	0	18	6	0	4	0	10	523
5:00 - 5:15	0	229	5	0	234	6	273	0	1	280	12	0	6	0	18	7	0	3	0	10	542
5:15 - 5:30	0	215	0	0	215	2	257	1	0	260	3	1	5	0	9	5	0	4	0	9	493
5:30 - 5:45	0	177	4	0	181	0	204	0	0	204	5	0	3	0	8	4	0	1	0	5	398
5:45 - 6:00	0	191	1	0	192	1	264	0	0	265	2	0	1	0	3	1	0	4	0	5	465
2 Hr Totals	1	1757	18	0	1776	29	2134	4	2	2169	56	1	43	0	100	39	0	18	0	57	4102
1 Hr Totals																					
4:00 - 5:00	1	945	8	0	954	20	1136	3	1	1160	34	0	28	0	62	22	0	6	0	28	2204
4:15 - 5:15	1	918	11	0	930	23	1116	2	2	1143	43	0	29	0	72	22	0	9	0	31	2176
4:30 - 5:30	1	848	9	0	858	22	1104	3	2	1131	37	1	26	0	64	22	0	13	0	35	2088
4:45 - 5:45	1	814	11	0	826	12	1028	2	1	1043	32	1	20	0	53	22	0	12	0	34	1956
5:00 - 6:00	0	812	10	0	822	9	998	1	1	1009	22	1	15	0	38	17	0	12	0	29	1898
PEAK HOUR																					
4:00 - 5:00	1	945	8	0	954	20	1136	3	1	1160	34	0	28	0	62	22	0	6	0	28	2204

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: Kit Kat Road
Location: Howard County, Maryland

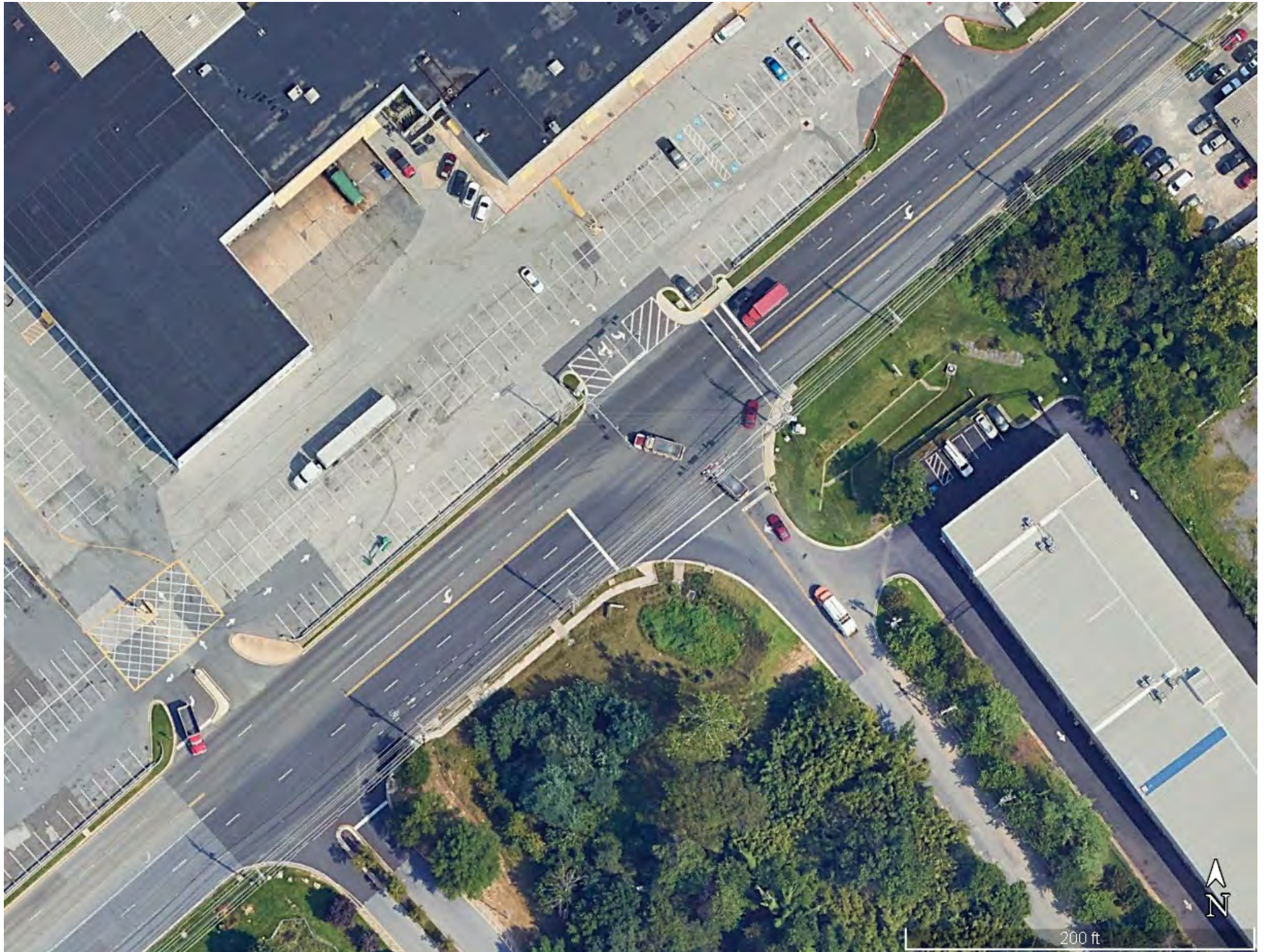
Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0

	EAST LEG Kit Kat Road		WEST LEG Shopping Center Access	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	1	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	1	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Business Parkway
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: Cooney Lane					TRAFFIC FROM WEST on: Business Parkway					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	12	213	17	0	242	6	98	7	0	111	4	0	1	0	5	16	1	12	0	29	387
7:15 - 7:30	8	257	14	0	279	12	146	7	0	165	3	1	2	0	6	13	0	6	0	19	469
7:30 - 7:45	21	250	26	0	297	11	174	11	0	196	7	0	4	0	11	21	0	9	0	30	534
7:45 - 8:00	19	284	22	1	326	14	185	12	0	211	15	1	13	0	29	24	3	11	0	38	604
8:00 - 8:15	24	234	10	0	268	8	202	16	0	226	5	1	6	0	12	18	0	12	0	30	536
8:15 - 8:30	26	211	13	0	250	6	177	12	0	195	0	1	5	0	6	17	1	9	0	27	478
8:30 - 8:45	34	194	9	0	237	5	149	32	0	186	6	1	4	0	11	29	0	20	0	49	483
8:45 - 9:00	15	207	12	0	234	10	164	12	0	186	16	1	4	0	21	24	0	18	0	42	483
2 Hr Totals	159	1850	123	1	2133	72	1295	109	0	1476	56	6	39	0	101	162	5	97	0	264	3974
1 Hr Totals																					
7:00 - 8:00	60	1004	79	1	1144	43	603	37	0	683	29	2	20	0	51	74	4	38	0	116	1994
7:15 - 8:15	72	1025	72	1	1170	45	707	46	0	798	30	3	25	0	58	76	3	38	0	117	2143
7:30 - 8:30	90	979	71	1	1141	39	738	51	0	828	27	3	28	0	58	80	4	41	0	125	2152
7:45 - 8:45	103	923	54	1	1081	33	713	72	0	818	26	4	28	0	58	88	4	52	0	144	2101
8:00 - 9:00	99	846	44	0	989	29	692	72	0	793	27	4	19	0	50	88	1	59	0	148	1980
PEAK HOUR																					
7:30 - 8:30	90	979	71	1	1141	39	738	51	0	828	27	3	28	0	58	80	4	41	0	125	2152
PM																					
4:00 - 4:15	13	197	5	0	215	6	283	24	0	313	19	1	11	0	31	62	2	52	0	116	675
4:15 - 4:30	20	265	1	0	286	3	277	10	0	290	17	2	13	0	32	45	2	48	1	96	704
4:30 - 4:45	30	199	4	1	234	2	296	12	0	310	12	0	4	0	16	22	1	45	0	68	628
4:45 - 5:00	21	186	2	0	209	1	288	11	0	300	11	0	9	0	20	25	2	22	0	49	578
5:00 - 5:15	10	209	0	0	219	3	308	11	0	322	10	0	9	0	19	25	0	24	0	49	609
5:15 - 5:30	18	187	4	0	209	3	305	20	0	328	13	0	3	0	16	27	1	19	0	47	600
5:30 - 5:45	20	180	4	0	204	1	234	8	0	243	10	1	3	0	14	23	0	22	0	45	506
5:45 - 6:00	23	193	4	0	220	4	256	8	0	268	1	0	1	0	2	17	0	18	0	35	525
2 Hr Totals	155	1616	24	1	1796	23	2247	104	0	2374	93	4	53	0	150	246	8	250	1	505	4825
1 Hr Totals																					
4:00 - 5:00	84	847	12	1	944	12	1144	57	0	1213	59	3	37	0	99	154	7	167	1	329	2585
4:15 - 5:15	81	859	7	1	948	9	1169	44	0	1222	50	2	35	0	87	117	5	139	1	262	2519
4:30 - 5:30	79	781	10	1	871	9	1197	54	0	1260	46	0	25	0	71	99	4	110	0	213	2415
4:45 - 5:45	69	762	10	0	841	8	1135	50	0	1193	44	1	24	0	69	100	3	87	0	190	2293
5:00 - 6:00	71	769	12	0	852	11	1103	47	0	1161	34	1	16	0	51	92	1	83	0	176	2240
PEAK HOUR																					
4:00 - 5:00	84	847	12	1	944	12	1144	57	0	1213	59	3	37	0	99	154	7	167	1	329	2585

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Business Parkway
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: Cooney Lane					TRAFFIC FROM WEST on: Business Parkway					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	9	184	15	0	208	6	85	7	0	98	4	0	1	0	5	11	1	5	0	17	328
7:15 - 7:30	7	215	12	0	234	12	117	5	0	134	3	1	2	0	6	12	0	3	0	15	389
7:30 - 7:45	20	225	24	0	269	10	147	10	0	167	6	0	2	0	8	17	0	7	0	24	468
7:45 - 8:00	18	256	21	1	296	10	161	9	0	180	11	1	10	0	22	19	3	7	0	29	527
8:00 - 8:15	22	207	10	0	239	6	174	16	0	196	4	1	4	0	9	16	0	7	0	23	467
8:15 - 8:30	23	185	13	0	221	5	152	11	0	168	0	0	4	0	4	11	0	8	0	19	412
8:30 - 8:45	32	172	8	0	212	5	126	32	0	163	4	1	3	0	8	27	0	16	0	43	426
8:45 - 9:00	15	185	11	0	211	9	139	11	0	159	16	1	2	0	19	20	0	15	0	35	424
2 Hr Totals	146	1629	114	1	1890	63	1101	101	0	1265	48	5	28	0	81	133	4	68	0	205	3441
1 Hr Totals																					
7:00 - 8:00	54	880	72	1	1007	38	510	31	0	579	24	2	15	0	41	59	4	22	0	85	1712
7:15 - 8:15	67	903	67	1	1038	38	599	40	0	677	24	3	18	0	45	64	3	24	0	91	1851
7:30 - 8:30	83	873	68	1	1025	31	634	46	0	711	21	2	20	0	43	63	3	29	0	95	1874
7:45 - 8:45	95	820	52	1	968	26	613	68	0	707	19	3	21	0	43	73	3	38	0	114	1832
8:00 - 9:00	92	749	42	0	883	25	591	70	0	686	24	3	13	0	40	74	0	46	0	120	1729
PEAK HOUR																					
7:30 - 8:30	83	873	68	1	1025	31	634	46	0	711	21	2	20	0	43	63	3	29	0	95	1874
PM																					
4:00 - 4:15	10	180	5	0	195	6	255	24	0	285	19	1	11	0	31	59	1	51	0	111	622
4:15 - 4:30	16	248	1	0	265	3	258	10	0	271	16	2	12	0	30	39	0	42	1	82	648
4:30 - 4:45	21	190	3	1	215	2	278	11	0	291	11	0	4	0	15	19	1	42	0	62	583
4:45 - 5:00	19	173	1	0	193	0	274	10	0	284	11	0	9	0	20	23	1	20	0	44	541
5:00 - 5:15	10	196	0	0	206	3	296	10	0	309	10	0	9	0	19	24	0	22	0	46	580
5:15 - 5:30	16	174	4	0	194	3	286	20	0	309	13	0	3	0	16	23	0	18	0	41	560
5:30 - 5:45	17	166	4	0	187	0	225	8	0	233	10	1	3	0	14	22	0	21	0	43	477
5:45 - 6:00	18	184	4	0	206	3	252	8	0	263	1	0	1	0	2	16	0	14	0	30	501
2 Hr Totals	127	1511	22	1	1661	20	2124	101	0	2245	91	4	52	0	147	225	3	230	1	459	4512
1 Hr Totals																					
4:00 - 5:00	66	791	10	1	868	11	1065	55	0	1131	57	3	36	0	96	140	3	155	1	299	2394
4:15 - 5:15	66	807	5	1	879	8	1106	41	0	1155	48	2	34	0	84	105	2	126	1	234	2352
4:30 - 5:30	66	733	8	1	808	8	1134	51	0	1193	45	0	25	0	70	89	2	102	0	193	2264
4:45 - 5:45	62	709	9	0	780	6	1081	48	0	1135	44	1	24	0	69	92	1	81	0	174	2158
5:00 - 6:00	61	720	12	0	793	9	1059	46	0	1114	34	1	16	0	51	85	0	75	0	160	2118
PEAK HOUR																					
4:00 - 5:00	66	791	10	1	868	11	1065	55	0	1131	57	3	36	0	96	140	3	155	1	299	2394

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: Business Parkway
Location: Howard County, Maryland

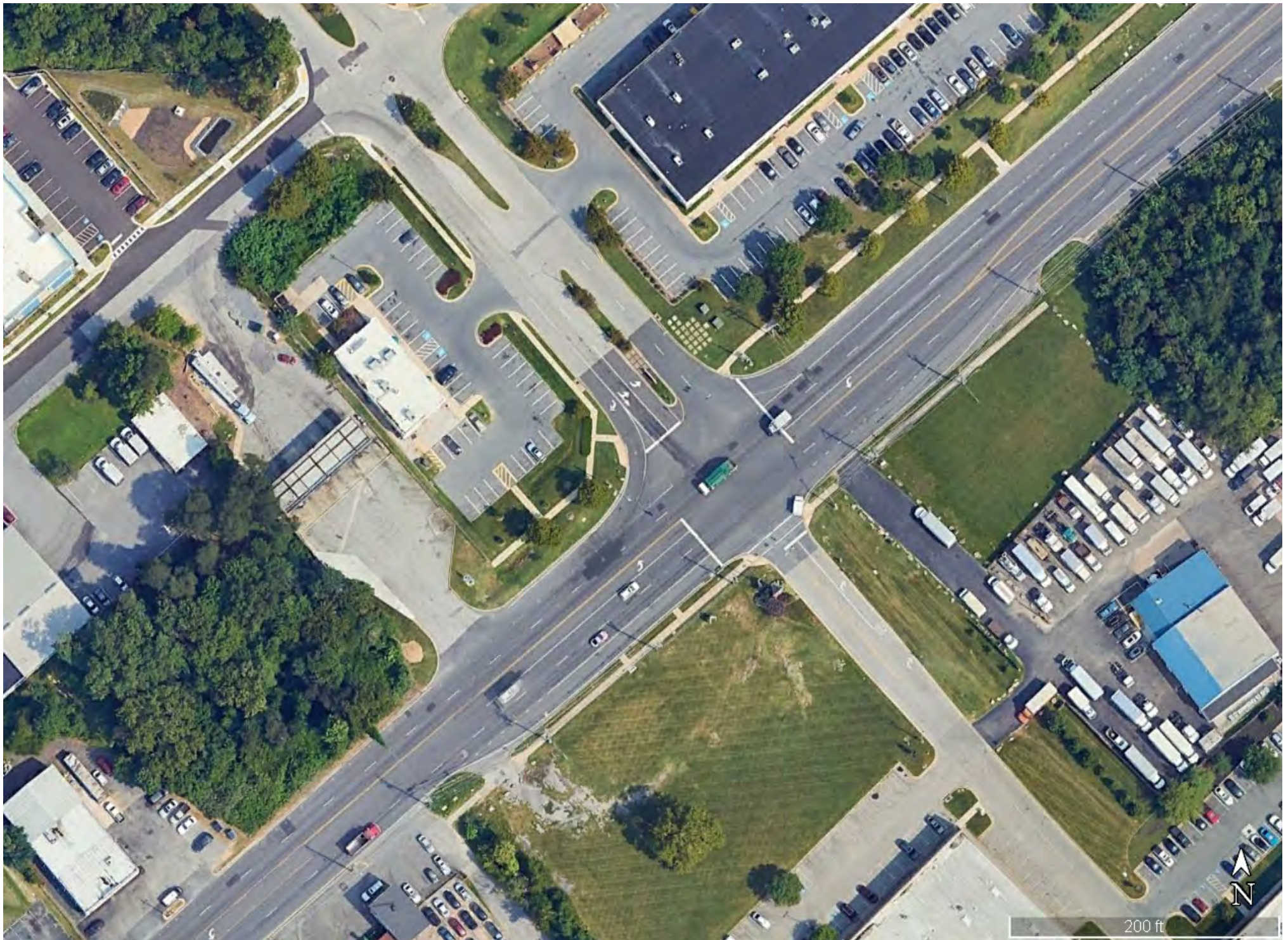
Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	2	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	2	0	0	0
PM				
4:00 - 4:15	1	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	1	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	1	0	1	0

	EAST LEG Cooney Lane		WEST LEG Business Parkway	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	1	0	0	0
7:45 - 8:00	0	1	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	1	0
TOTALS	1	1	1	0
PM				
4:00 - 4:15	0	0	1	0
4:15 - 4:30	0	0	1	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	1	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	3	0



200 ft



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: MD 103

Location: Howard County, Maryland

Counted by: VCU

Date: May 23, 2024

Weather: Sunny/Warm

Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: MD 103					TRAFFIC FROM WEST on: MD 103					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	47	210	87	0	344	8	98	2	0	108	63	8	27	0	98	12	30	37	0	79	629
7:15 - 7:30	31	238	83	0	352	18	115	5	0	138	70	9	27	0	106	10	45	37	0	92	688
7:30 - 7:45	41	250	74	0	365	13	125	8	0	146	68	6	31	0	105	14	54	48	0	116	732
7:45 - 8:00	72	273	70	0	415	24	159	8	0	191	68	16	21	0	105	16	54	53	0	123	834
8:00 - 8:15	50	229	81	0	360	26	164	10	0	200	64	13	28	0	105	9	52	40	0	101	766
8:15 - 8:30	42	201	69	0	312	38	137	8	0	183	76	9	30	0	115	18	47	46	0	111	721
8:30 - 8:45	53	207	83	0	343	23	133	7	0	163	62	10	24	0	96	8	41	37	0	86	688
8:45 - 9:00	36	180	77	0	293	29	132	14	0	175	52	9	34	0	95	12	35	43	0	90	653
2 Hr Totals	372	1788	624	0	2784	179	1063	62	0	1304	523	80	222	0	825	99	358	341	0	798	5711
1 Hr Totals																					
7:00 - 8:00	191	971	314	0	1476	63	497	23	0	583	269	39	106	0	414	52	183	175	0	410	2883
7:15 - 8:15	194	990	308	0	1492	81	563	31	0	675	270	44	107	0	421	49	205	178	0	432	3020
7:30 - 8:30	205	953	294	0	1452	101	585	34	0	720	276	44	110	0	430	57	207	187	0	451	3053
7:45 - 8:45	217	910	303	0	1430	111	593	33	0	737	270	48	103	0	421	51	194	176	0	421	3009
8:00 - 9:00	181	817	310	0	1308	116	566	39	0	721	254	41	116	0	411	47	175	166	0	388	2828
PEAK HOUR																					
7:30 - 8:30	205	953	294	0	1452	101	585	34	0	720	276	44	110	0	430	57	207	187	0	451	3053
PM																					
4:00 - 4:15	34	167	37	0	238	36	281	14	0	331	137	45	36	0	218	5	39	79	0	123	910
4:15 - 4:30	39	223	51	0	313	34	256	17	0	307	125	58	36	0	219	11	27	74	0	112	951
4:30 - 4:45	63	180	53	0	296	42	263	16	0	321	139	58	42	0	239	4	29	75	0	108	964
4:45 - 5:00	47	164	63	0	274	33	255	23	0	311	133	58	28	0	219	7	30	57	0	94	898
5:00 - 5:15	54	182	50	0	286	22	307	17	0	346	128	65	26	0	219	12	30	72	0	114	965
5:15 - 5:30	60	179	58	0	297	35	278	17	0	330	109	55	27	0	191	10	32	74	0	116	934
5:30 - 5:45	38	159	69	0	266	41	212	16	0	269	102	47	33	0	182	12	38	61	0	111	828
5:45 - 6:00	36	175	56	0	267	34	253	13	0	300	111	40	36	0	187	12	33	52	0	97	851
2 Hr Totals	371	1429	437	0	2237	277	2105	133	0	2515	984	426	264	0	1674	73	258	544	0	875	7301
1 Hr Totals																					
4:00 - 5:00	183	734	204	0	1121	145	1055	70	0	1270	534	219	142	0	895	27	125	285	0	437	3723
4:15 - 5:15	203	749	217	0	1169	131	1081	73	0	1285	525	239	132	0	896	34	116	278	0	428	3778
4:30 - 5:30	224	705	224	0	1153	132	1103	73	0	1308	509	236	123	0	868	33	121	278	0	432	3761
4:45 - 5:45	199	684	240	0	1123	131	1052	73	0	1256	472	225	114	0	811	41	130	264	0	435	3625
5:00 - 6:00	188	695	233	0	1116	132	1050	63	0	1245	450	207	122	0	779	46	133	259	0	438	3578
PEAK HOUR																					
4:15 - 5:15	203	749	217	0	1169	131	1081	73	0	1285	525	239	132	0	896	34	116	278	0	428	3778

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: MD 103

Location: Howard County, Maryland

Counted by: VCU

Date: May 23, 2024

Weather: Sunny/Warm

Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: MD 103					TRAFFIC FROM WEST on: MD 103					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	46	182	79	0	307	8	82	2	0	92	53	6	20	0	79	11	28	29	0	68	546
7:15 - 7:30	30	200	74	0	304	15	88	5	0	108	60	9	20	0	89	9	45	32	0	86	587
7:30 - 7:45	39	228	64	0	331	11	103	8	0	122	55	6	27	0	88	11	53	47	0	111	652
7:45 - 8:00	72	249	64	0	385	19	136	8	0	163	57	16	17	0	90	13	54	51	0	118	756
8:00 - 8:15	49	205	74	0	328	24	133	9	0	166	53	12	23	0	88	8	51	40	0	99	681
8:15 - 8:30	41	178	62	0	281	34	118	7	0	159	65	8	28	0	101	16	45	45	0	106	647
8:30 - 8:45	50	183	76	0	309	21	108	6	0	135	54	9	22	0	85	8	41	36	0	85	614
8:45 - 9:00	36	158	69	0	263	28	109	13	0	150	46	8	32	0	86	10	33	37	0	80	579
2 Hr Totals	363	1583	562	0	2508	160	877	58	0	1095	443	74	189	0	706	86	350	317	0	753	5062
1 Hr Totals																					
7:00 - 8:00	187	859	281	0	1327	53	409	23	0	485	225	37	84	0	346	44	180	159	0	383	2541
7:15 - 8:15	190	882	276	0	1348	69	460	30	0	559	225	43	87	0	355	41	203	170	0	414	2676
7:30 - 8:30	201	860	264	0	1325	88	490	32	0	610	230	42	95	0	367	48	203	183	0	434	2736
7:45 - 8:45	212	815	276	0	1303	98	495	30	0	623	229	45	90	0	364	45	191	172	0	408	2698
8:00 - 9:00	176	724	281	0	1181	107	468	35	0	610	218	37	105	0	360	42	170	158	0	370	2521
PEAK HOUR																					
7:30 - 8:30	201	860	264	0	1325	88	490	32	0	610	230	42	95	0	367	48	203	183	0	434	2736
PM																					
4:00 - 4:15	33	148	34	0	215	34	254	14	0	302	130	45	36	0	211	5	37	79	0	121	849
4:15 - 4:30	32	206	47	0	285	31	237	17	0	285	122	56	35	0	213	9	26	70	0	105	888
4:30 - 4:45	59	164	48	0	271	41	243	16	0	300	137	58	42	0	237	4	23	69	0	96	904
4:45 - 5:00	46	150	58	0	254	31	240	23	0	294	128	58	28	0	214	6	24	55	0	85	847
5:00 - 5:15	53	172	48	0	273	20	299	17	0	336	121	65	25	0	211	11	28	72	0	111	931
5:15 - 5:30	59	166	55	0	280	30	261	17	0	308	105	55	26	0	186	10	32	72	0	114	888
5:30 - 5:45	38	147	65	0	250	41	204	16	0	261	98	46	31	0	175	11	37	60	0	108	794
5:45 - 6:00	35	162	56	0	253	34	243	13	0	290	107	40	35	0	182	12	33	52	0	97	822
2 Hr Totals	355	1315	411	0	2081	262	1981	133	0	2376	948	423	258	0	1629	68	240	529	0	837	6923
1 Hr Totals																					
4:00 - 5:00	170	668	187	0	1025	137	974	70	0	1181	517	217	141	0	875	24	110	273	0	407	3488
4:15 - 5:15	190	692	201	0	1083	123	1019	73	0	1215	508	237	130	0	875	30	101	266	0	397	3570
4:30 - 5:30	217	652	209	0	1078	122	1043	73	0	1238	491	236	121	0	848	31	107	268	0	406	3570
4:45 - 5:45	196	635	226	0	1057	122	1004	73	0	1199	452	224	110	0	786	38	121	259	0	418	3460
5:00 - 6:00	185	647	224	0	1056	125	1007	63	0	1195	431	206	117	0	754	44	130	256	0	430	3435
PEAK HOUR																					
4:15 - 5:15	190	692	201	0	1083	123	1019	73	0	1215	508	237	130	0	875	30	101	266	0	397	3570

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: MD 103
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0

	EAST LEG MD 103		WEST LEG MD 103	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	1	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	1	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	2	0
TOTALS	2	0	2	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Funeral Home Access
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Warm/Sunny
Entered by: CP

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: Driveway					TRAFFIC FROM WEST on: Funeral Home Access					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	1	325	2	0	328	0	195	0	1	196	0	0	0	0	0	0	0	0	0	0	524
7:15 - 7:30	1	376	0	0	377	0	220	0	0	220	0	0	0	0	0	0	0	0	0	0	597
7:30 - 7:45	0	366	0	0	366	0	255	0	0	255	0	0	0	0	0	0	0	0	0	0	621
7:45 - 8:00	0	429	0	0	429	0	279	0	0	279	0	0	0	0	0	0	0	0	0	0	708
8:00 - 8:15	4	366	1	0	371	2	272	1	0	275	1	0	0	0	1	0	0	0	0	0	647
8:15 - 8:30	1	309	0	0	310	2	269	2	0	273	1	0	1	0	2	2	0	0	0	2	587
8:30 - 8:45	1	344	1	0	346	1	248	0	0	249	1	0	0	0	1	0	0	0	0	0	596
8:45 - 9:00	0	281	1	0	282	1	247	0	0	248	2	0	0	0	2	0	1	0	0	1	533
2 Hr Totals	8	2796	5	0	2809	6	1985	3	1	1995	5	0	1	0	6	2	1	0	0	3	4813
1 Hr Totals																					
7:00 - 8:00	2	1496	2	0	1500	0	949	0	1	950	0	0	0	0	0	0	0	0	0	0	2450
7:15 - 8:15	5	1537	1	0	1543	2	1026	1	0	1029	1	0	0	0	1	0	0	0	0	0	2573
7:30 - 8:30	5	1470	1	0	1476	4	1075	3	0	1082	2	0	1	0	3	2	0	0	0	2	2563
7:45 - 8:45	6	1448	2	0	1456	5	1068	3	0	1076	3	0	1	0	4	2	0	0	0	2	2538
8:00 - 9:00	6	1300	3	0	1309	6	1036	3	0	1045	5	0	1	0	6	2	1	0	0	3	2363
PEAK HOUR																					
7:15 - 8:15	5	1537	1	0	1543	2	1026	1	0	1029	1	0	0	0	1	0	0	0	0	0	2573
PM																					
4:00 - 4:15	2	269	0	0	271	1	510	0	0	511	0	0	0	0	0	1	0	0	0	1	783
4:15 - 4:30	2	320	0	0	322	0	492	1	0	493	1	0	0	0	1	1	0	0	0	1	817
4:30 - 4:45	0	293	0	0	293	0	492	0	0	492	0	0	0	0	0	2	0	0	0	2	787
4:45 - 5:00	0	274	0	0	274	4	465	0	0	469	1	0	0	0	1	0	0	0	0	0	744
5:00 - 5:15	0	297	0	0	297	0	509	0	0	509	3	0	0	0	3	1	0	0	0	1	810
5:15 - 5:30	1	295	0	0	296	5	463	0	0	468	1	0	0	0	1	1	0	0	0	1	766
5:30 - 5:45	0	254	1	1	256	2	367	0	0	369	1	0	1	0	2	1	0	1	0	2	629
5:45 - 6:00	0	262	0	0	262	2	410	2	0	414	1	0	0	0	1	0	0	0	0	0	677
2 Hr Totals	5	2264	1	1	2271	14	3708	3	0	3725	8	0	1	0	9	7	0	1	0	8	6013
1 Hr Totals																					
4:00 - 5:00	4	1156	0	0	1160	5	1959	1	0	1965	2	0	0	0	2	4	0	0	0	4	3131
4:15 - 5:15	2	1184	0	0	1186	4	1958	1	0	1963	5	0	0	0	5	4	0	0	0	4	3158
4:30 - 5:30	1	1159	0	0	1160	9	1929	0	0	1938	5	0	0	0	5	4	0	0	0	4	3107
4:45 - 5:45	1	1120	1	1	1123	11	1804	0	0	1815	6	0	1	0	7	3	0	1	0	4	2949
5:00 - 6:00	1	1108	1	1	1111	9	1749	2	0	1760	6	0	1	0	7	3	0	1	0	4	2882
PEAK HOUR																					
4:15 - 5:15	2	1184	0	0	1186	4	1958	1	0	1963	5	0	0	0	5	4	0	0	0	4	3158

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Funeral Home Access
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Warm/Sunny
Entered by: CP

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: Driveway					TRAFFIC FROM WEST on: Funeral Home Access					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	1	289	2	0	292	0	162	0	1	163	0	0	0	0	0	0	0	0	0	0	455
7:15 - 7:30	1	322	0	0	323	0	183	0	0	183	0	0	0	0	0	0	0	0	0	0	506
7:30 - 7:45	0	335	0	0	335	0	217	0	0	217	0	0	0	0	0	0	0	0	0	0	552
7:45 - 8:00	0	399	0	0	399	0	243	0	0	243	0	0	0	0	0	0	0	0	0	0	642
8:00 - 8:15	4	328	1	0	333	0	230	1	0	231	1	0	0	0	1	0	0	0	0	0	565
8:15 - 8:30	1	282	0	0	283	2	235	2	0	239	0	0	0	0	0	2	0	0	0	2	524
8:30 - 8:45	1	306	1	0	308	1	208	0	0	209	1	0	0	0	1	0	0	0	0	0	518
8:45 - 9:00	0	257	1	0	258	1	212	0	0	213	2	0	0	0	2	0	0	0	0	0	473
2 Hr Totals	8	2518	5	0	2531	4	1690	3	1	1698	4	0	0	0	4	2	0	0	0	2	4235
1 Hr Totals																					
7:00 - 8:00	2	1345	2	0	1349	0	805	0	1	806	0	0	0	0	0	0	0	0	0	0	2155
7:15 - 8:15	5	1384	1	0	1390	0	873	1	0	874	1	0	0	0	1	0	0	0	0	0	2265
7:30 - 8:30	5	1344	1	0	1350	2	925	3	0	930	1	0	0	0	1	2	0	0	0	2	2283
7:45 - 8:45	6	1315	2	0	1323	3	916	3	0	922	2	0	0	0	2	2	0	0	0	2	2249
8:00 - 9:00	6	1173	3	0	1182	4	885	3	0	892	4	0	0	0	4	2	0	0	0	2	2080
PEAK HOUR																					
7:15 - 8:15	5	1384	1	0	1390	0	873	1	0	874	1	0	0	0	1	0	0	0	0	0	2265
PM																					
4:00 - 4:15	2	236	0	0	238	1	478	0	0	479	0	0	0	0	0	1	0	0	0	1	718
4:15 - 4:30	2	290	0	0	292	0	471	1	0	472	1	0	0	0	1	1	0	0	0	1	766
4:30 - 4:45	0	271	0	0	271	0	460	0	0	460	0	0	0	0	0	2	0	0	0	2	733
4:45 - 5:00	0	251	0	0	251	4	442	0	0	446	1	0	0	0	1	0	0	0	0	0	698
5:00 - 5:15	0	285	0	0	285	0	493	0	0	493	3	0	0	0	3	1	0	0	0	1	782
5:15 - 5:30	1	275	0	0	276	5	439	0	0	444	1	0	0	0	1	1	0	0	0	1	722
5:30 - 5:45	0	240	1	1	242	2	355	0	0	357	1	0	1	0	2	1	0	1	0	2	603
5:45 - 6:00	0	251	0	0	251	2	394	2	0	398	1	0	0	0	1	0	0	0	0	0	650
2 Hr Totals	5	2099	1	1	2106	14	3532	3	0	3549	8	0	1	0	9	7	0	1	0	8	5672
1 Hr Totals																					
4:00 - 5:00	4	1048	0	0	1052	5	1851	1	0	1857	2	0	0	0	2	4	0	0	0	4	2915
4:15 - 5:15	2	1097	0	0	1099	4	1866	1	0	1871	5	0	0	0	5	4	0	0	0	4	2979
4:30 - 5:30	1	1082	0	0	1083	9	1834	0	0	1843	5	0	0	0	5	4	0	0	0	4	2935
4:45 - 5:45	1	1051	1	1	1054	11	1729	0	0	1740	6	0	1	0	7	3	0	1	0	4	2805
5:00 - 6:00	1	1051	1	1	1054	9	1681	2	0	1692	6	0	1	0	7	3	0	1	0	4	2757
PEAK HOUR																					
4:15 - 5:15	2	1097	0	0	1099	4	1866	1	0	1871	5	0	0	0	5	4	0	0	0	4	2979

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: Funeral Home Access
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Warm/Sunny
Entered by: CP

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0
	EAST LEG Driveway		WEST LEG Funeral Home Access	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	2	0	0	0
TOTALS	2	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: MD 100 EB Ramps
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: MD 100 EB Ramps					TRAFFIC FROM WEST on: MD 100 EB Off Ramp					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	205	78	0	283	53	143	0	0	196	96	0	0	0	96	126	0	0	0	126	701
7:15 - 7:30	0	287	54	0	341	70	165	0	0	235	116	0	0	0	116	110	0	0	0	110	802
7:30 - 7:45	0	254	91	0	345	93	172	0	0	265	123	0	0	0	123	99	0	0	0	99	832
7:45 - 8:00	0	314	77	0	391	86	201	0	0	287	133	0	0	0	133	111	0	0	0	111	922
8:00 - 8:15	0	263	72	1	336	91	186	0	0	277	94	0	0	0	94	111	0	0	0	111	818
8:15 - 8:30	0	223	77	3	303	72	199	0	0	271	134	0	0	0	134	89	0	0	0	89	797
8:30 - 8:45	0	254	70	0	324	66	195	0	0	261	125	0	0	0	125	94	0	0	0	94	804
8:45 - 9:00	0	204	69	0	273	62	174	0	1	237	131	0	0	0	131	76	0	0	0	76	717
2 Hr Totals	0	2004	588	4	2596	593	1435	0	1	2029	952	0	0	0	952	816	0	0	0	816	6393
1 Hr Totals																					
7:00 - 8:00	0	1060	300	0	1360	302	681	0	0	983	468	0	0	0	468	446	0	0	0	446	3257
7:15 - 8:15	0	1118	294	1	1413	340	724	0	0	1064	466	0	0	0	466	431	0	0	0	431	3374
7:30 - 8:30	0	1054	317	4	1375	342	758	0	0	1100	484	0	0	0	484	410	0	0	0	410	3369
7:45 - 8:45	0	1054	296	4	1354	315	781	0	0	1096	486	0	0	0	486	405	0	0	0	405	3341
8:00 - 9:00	0	944	288	4	1236	291	754	0	1	1046	484	0	0	0	484	370	0	0	0	370	3136
PEAK HOUR																					
7:15 - 8:15	0	1118	294	1	1413	340	724	0	0	1064	466	0	0	0	466	431	0	0	0	431	3374
PM																					
4:00 - 4:15	0	234	107	0	341	160	370	0	0	530	90	0	0	0	90	48	0	0	0	48	1009
4:15 - 4:30	0	238	76	0	314	153	342	0	0	495	130	0	0	0	130	74	0	0	0	74	1013
4:30 - 4:45	0	221	101	1	323	107	347	0	0	454	165	0	0	0	165	66	0	0	0	66	1008
4:45 - 5:00	0	190	81	0	271	125	389	0	0	514	138	0	0	0	138	72	0	0	0	72	995
5:00 - 5:15	0	220	91	2	313	115	384	0	0	499	117	0	0	0	117	70	0	0	0	70	999
5:15 - 5:30	0	219	73	1	293	121	365	0	0	486	148	0	0	0	148	79	0	0	0	79	1006
5:30 - 5:45	0	178	54	0	232	103	264	0	0	367	126	0	0	0	126	72	0	0	0	72	797
5:45 - 6:00	0	172	64	1	237	119	307	0	0	426	143	0	0	0	143	65	0	0	0	65	871
2 Hr Totals	0	1672	647	5	2324	1003	2768	0	0	3771	1057	0	0	0	1057	546	0	0	0	546	7698
1 Hr Totals																					
4:00 - 5:00	0	883	365	1	1249	545	1448	0	0	1993	523	0	0	0	523	260	0	0	0	260	4025
4:15 - 5:15	0	869	349	3	1221	500	1462	0	0	1962	550	0	0	0	550	282	0	0	0	282	4015
4:30 - 5:30	0	850	346	4	1200	468	1485	0	0	1953	568	0	0	0	568	287	0	0	0	287	4008
4:45 - 5:45	0	807	299	3	1109	464	1402	0	0	1866	529	0	0	0	529	293	0	0	0	293	3797
5:00 - 6:00	0	789	282	4	1075	458	1320	0	0	1778	534	0	0	0	534	286	0	0	0	286	3673
PEAK HOUR																					
4:00 - 5:00	0	883	365	1	1249	545	1448	0	0	1993	523	0	0	0	523	260	0	0	0	260	4025

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: MD 100 EB Ramps
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: MD 100 EB Ramps					TRAFFIC FROM WEST on: MD 100 EB Off Ramp					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	184	74	0	258	47	111	0	0	158	87	0	0	0	87	109	0	0	0	109	612
7:15 - 7:30	0	250	50	0	300	62	137	0	0	199	106	0	0	0	106	97	0	0	0	97	702
7:30 - 7:45	0	232	81	0	313	80	140	0	0	220	120	0	0	0	120	91	0	0	0	91	744
7:45 - 8:00	0	294	72	0	366	74	179	0	0	253	128	0	0	0	128	103	0	0	0	103	850
8:00 - 8:15	0	229	63	1	293	73	161	0	0	234	89	0	0	0	89	103	0	0	0	103	719
8:15 - 8:30	0	202	71	3	276	60	175	0	0	235	128	0	0	0	128	82	0	0	0	82	721
8:30 - 8:45	0	226	65	0	291	54	164	0	0	218	118	0	0	0	118	82	0	0	0	82	709
8:45 - 9:00	0	190	61	0	251	54	150	0	1	205	119	0	0	0	119	65	0	0	0	65	640
2 Hr Totals	0	1807	537	4	2348	504	1217	0	1	1722	895	0	0	0	895	732	0	0	0	732	5697
1 Hr Totals																					
7:00 - 8:00	0	960	277	0	1237	263	567	0	0	830	441	0	0	0	441	400	0	0	0	400	2908
7:15 - 8:15	0	1005	266	1	1272	289	617	0	0	906	443	0	0	0	443	394	0	0	0	394	3015
7:30 - 8:30	0	957	287	4	1248	287	655	0	0	942	465	0	0	0	465	379	0	0	0	379	3034
7:45 - 8:45	0	951	271	4	1226	261	679	0	0	940	463	0	0	0	463	370	0	0	0	370	2999
8:00 - 9:00	0	847	260	4	1111	241	650	0	1	892	454	0	0	0	454	332	0	0	0	332	2789
PEAK HOUR																					
7:15 - 8:15	0	1005	266	1	1272	289	617	0	0	906	443	0	0	0	443	394	0	0	0	394	3015
PM																					
4:00 - 4:15	0	207	100	0	307	153	345	0	0	498	84	0	0	0	84	40	0	0	0	40	929
4:15 - 4:30	0	218	73	0	291	146	325	0	0	471	119	0	0	0	119	65	0	0	0	65	946
4:30 - 4:45	0	206	97	1	304	101	327	0	0	428	154	0	0	0	154	60	0	0	0	60	946
4:45 - 5:00	0	178	78	0	256	119	368	0	0	487	133	0	0	0	133	62	0	0	0	62	938
5:00 - 5:15	0	210	88	2	300	112	372	0	0	484	112	0	0	0	112	67	0	0	0	67	963
5:15 - 5:30	0	211	72	1	284	114	350	0	0	464	143	0	0	0	143	66	0	0	0	66	957
5:30 - 5:45	0	165	54	0	219	101	254	0	0	355	123	0	0	0	123	69	0	0	0	69	766
5:45 - 6:00	0	165	63	1	229	113	298	0	0	411	135	0	0	0	135	61	0	0	0	61	836
2 Hr Totals	0	1560	625	5	2190	959	2639	0	0	3598	1003	0	0	0	1003	490	0	0	0	490	7281
1 Hr Totals																					
4:00 - 5:00	0	809	348	1	1158	519	1365	0	0	1884	490	0	0	0	490	227	0	0	0	227	3759
4:15 - 5:15	0	812	336	3	1151	478	1392	0	0	1870	518	0	0	0	518	254	0	0	0	254	3793
4:30 - 5:30	0	805	335	4	1144	446	1417	0	0	1863	542	0	0	0	542	255	0	0	0	255	3804
4:45 - 5:45	0	764	292	3	1059	446	1344	0	0	1790	511	0	0	0	511	264	0	0	0	264	3624
5:00 - 6:00	0	751	277	4	1032	440	1274	0	0	1714	513	0	0	0	513	263	0	0	0	263	3522
PEAK HOUR																					
4:00 - 5:00	0	809	348	1	1158	519	1365	0	0	1884	490	0	0	0	490	227	0	0	0	227	3759

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: MD 100 EB Ramps
Location: Howard County, Maryland

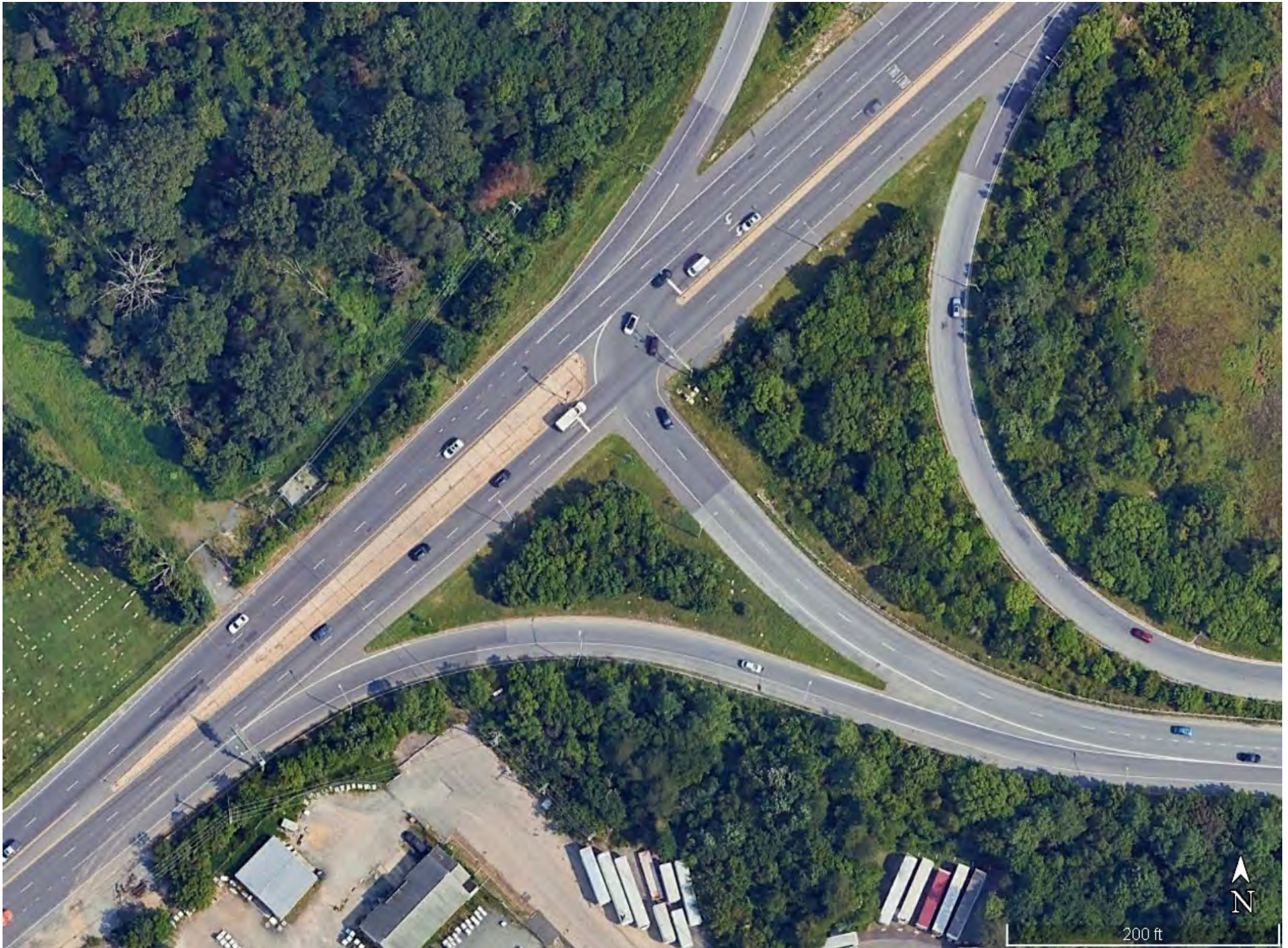
Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0

	EAST LEG MD 100 EB Ramps		WEST LEG MD 100 EB Off Ramp	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: MD 100 WB Ramps
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: MD 100 WB Ramps					TRAFFIC FROM WEST on: MD 100 WB On Ramp					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	107	206	0	0	313	56	182	0	0	238	77	0	71	0	148	0	0	0	0	0	699
7:15 - 7:30	150	274	0	0	424	81	200	0	0	281	80	0	83	0	163	0	0	0	0	0	868
7:30 - 7:45	138	242	0	0	380	76	234	0	0	310	100	0	92	0	192	0	0	0	0	0	882
7:45 - 8:00	110	296	0	0	406	73	254	0	0	327	105	0	102	0	207	0	0	0	0	0	940
8:00 - 8:15	114	230	0	0	344	61	221	0	0	282	100	0	99	0	199	0	0	0	0	0	825
8:15 - 8:30	154	219	0	0	373	72	244	0	0	316	88	0	92	0	180	0	0	0	0	0	869
8:30 - 8:45	157	221	0	0	378	77	262	0	0	339	78	0	89	0	167	0	0	0	0	0	884
8:45 - 9:00	146	188	0	0	334	83	209	0	0	292	89	0	83	0	172	0	0	0	0	0	798
2 Hr Totals	1076	1876	0	0	2952	579	1806	0	0	2385	717	0	711	0	1428	0	0	0	0	0	6765
1 Hr Totals																					
7:00 - 8:00	505	1018	0	0	1523	286	870	0	0	1156	362	0	348	0	710	0	0	0	0	0	3389
7:15 - 8:15	512	1042	0	0	1554	291	909	0	0	1200	385	0	376	0	761	0	0	0	0	0	3515
7:30 - 8:30	516	987	0	0	1503	282	953	0	0	1235	393	0	385	0	778	0	0	0	0	0	3516
7:45 - 8:45	535	966	0	0	1501	283	981	0	0	1264	371	0	382	0	753	0	0	0	0	0	3518
8:00 - 9:00	571	858	0	0	1429	293	936	0	0	1229	355	0	363	0	718	0	0	0	0	0	3376
PEAK HOUR																					
7:45 - 8:45	535	966	0	0	1501	283	981	0	0	1264	371	0	382	0	753	0	0	0	0	0	3518
PM																					
4:00 - 4:15	162	256	0	0	418	81	368	0	0	449	53	0	78	0	131	0	0	0	0	0	998
4:15 - 4:30	142	250	0	0	392	84	390	0	0	474	63	0	70	0	133	0	0	0	0	0	999
4:30 - 4:45	217	268	0	0	485	71	418	0	0	489	68	0	51	0	119	0	0	0	0	0	1093
4:45 - 5:00	175	224	0	0	399	82	464	0	1	547	71	0	45	0	116	0	0	0	0	0	1062
5:00 - 5:15	212	260	0	0	472	111	401	0	0	512	72	0	65	0	137	0	0	0	0	0	1121
5:15 - 5:30	180	235	0	0	415	77	455	0	0	532	73	0	65	0	138	0	0	0	0	0	1085
5:30 - 5:45	163	189	0	0	352	61	345	0	0	406	62	0	48	0	110	0	0	0	0	0	868
5:45 - 6:00	154	195	0	0	349	71	381	0	0	452	78	0	49	0	127	0	0	0	0	0	928
2 Hr Totals	1405	1877	0	0	3282	638	3222	0	1	3861	540	0	471	0	1011	0	0	0	0	0	8154
1 Hr Totals																					
4:00 - 5:00	696	998	0	0	1694	318	1640	0	1	1959	255	0	244	0	499	0	0	0	0	0	4152
4:15 - 5:15	746	1002	0	0	1748	348	1673	0	1	2022	274	0	231	0	505	0	0	0	0	0	4275
4:30 - 5:30	784	987	0	0	1771	341	1738	0	1	2080	284	0	226	0	510	0	0	0	0	0	4361
4:45 - 5:45	730	908	0	0	1638	331	1665	0	1	1997	278	0	223	0	501	0	0	0	0	0	4136
5:00 - 6:00	709	879	0	0	1588	320	1582	0	0	1902	285	0	227	0	512	0	0	0	0	0	4002
PEAK HOUR																					
4:30 - 5:30	784	987	0	0	1771	341	1738	0	1	2080	284	0	226	0	510	0	0	0	0	0	4361

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: MD 100 WB Ramps
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on: MD 100 WB Ramps					TRAFFIC FROM WEST on: MD 100 WB On Ramp					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	98	190	0	0	288	46	152	0	0	198	75	0	65	0	140	0	0	0	0	0	626
7:15 - 7:30	124	247	0	0	371	70	176	0	0	246	76	0	71	0	147	0	0	0	0	0	764
7:30 - 7:45	128	219	0	0	347	61	217	0	0	278	94	0	84	0	178	0	0	0	0	0	803
7:45 - 8:00	102	278	0	0	380	62	240	0	0	302	99	0	96	0	195	0	0	0	0	0	877
8:00 - 8:15	103	207	0	0	310	50	202	0	0	252	96	0	83	0	179	0	0	0	0	0	741
8:15 - 8:30	147	205	0	0	352	64	227	0	0	291	84	0	79	0	163	0	0	0	0	0	806
8:30 - 8:45	137	203	0	0	340	62	235	0	0	297	76	0	77	0	153	0	0	0	0	0	790
8:45 - 9:00	136	173	0	0	309	69	190	0	0	259	86	0	76	0	162	0	0	0	0	0	730
2 Hr Totals	975	1722	0	0	2697	484	1639	0	0	2123	686	0	631	0	1317	0	0	0	0	0	6137
1 Hr Totals																					
7:00 - 8:00	452	934	0	0	1386	239	785	0	0	1024	344	0	316	0	660	0	0	0	0	0	3070
7:15 - 8:15	457	951	0	0	1408	243	835	0	0	1078	365	0	334	0	699	0	0	0	0	0	3185
7:30 - 8:30	480	909	0	0	1389	237	886	0	0	1123	373	0	342	0	715	0	0	0	0	0	3227
7:45 - 8:45	489	893	0	0	1382	238	904	0	0	1142	355	0	335	0	690	0	0	0	0	0	3214
8:00 - 9:00	523	788	0	0	1311	245	854	0	0	1099	342	0	315	0	657	0	0	0	0	0	3067
PEAK HOUR																					
7:45 - 8:45	489	893	0	0	1382	238	904	0	0	1142	355	0	335	0	690	0	0	0	0	0	3214
PM																					
4:00 - 4:15	160	240	0	0	400	76	341	0	0	417	50	0	62	0	112	0	0	0	0	0	929
4:15 - 4:30	134	230	0	0	364	80	367	0	0	447	59	0	65	0	124	0	0	0	0	0	935
4:30 - 4:45	209	257	0	0	466	66	392	0	0	458	63	0	46	0	109	0	0	0	0	0	1033
4:45 - 5:00	169	217	0	0	386	77	444	0	1	522	67	0	41	0	108	0	0	0	0	0	1016
5:00 - 5:15	211	254	0	0	465	109	387	0	0	496	69	0	59	0	128	0	0	0	0	0	1089
5:15 - 5:30	174	232	0	0	406	76	437	0	0	513	72	0	59	0	131	0	0	0	0	0	1050
5:30 - 5:45	160	183	0	0	343	58	334	0	0	392	61	0	42	0	103	0	0	0	0	0	838
5:45 - 6:00	151	192	0	0	343	69	366	0	0	435	77	0	43	0	120	0	0	0	0	0	898
2 Hr Totals	1368	1805	0	0	3173	611	3068	0	1	3680	518	0	417	0	935	0	0	0	0	0	7788
1 Hr Totals																					
4:00 - 5:00	672	944	0	0	1616	299	1544	0	1	1844	239	0	214	0	453	0	0	0	0	0	3913
4:15 - 5:15	723	958	0	0	1681	332	1590	0	1	1923	258	0	211	0	469	0	0	0	0	0	4073
4:30 - 5:30	763	960	0	0	1723	328	1660	0	1	1989	271	0	205	0	476	0	0	0	0	0	4188
4:45 - 5:45	714	886	0	0	1600	320	1602	0	1	1923	269	0	201	0	470	0	0	0	0	0	3993
5:00 - 6:00	696	861	0	0	1557	312	1524	0	0	1836	279	0	203	0	482	0	0	0	0	0	3875
PEAK HOUR																					
4:30 - 5:30	763	960	0	0	1723	328	1660	0	1	1989	271	0	205	0	476	0	0	0	0	0	4188

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: MD 100 WB Ramps
Location: Howard County, Maryland

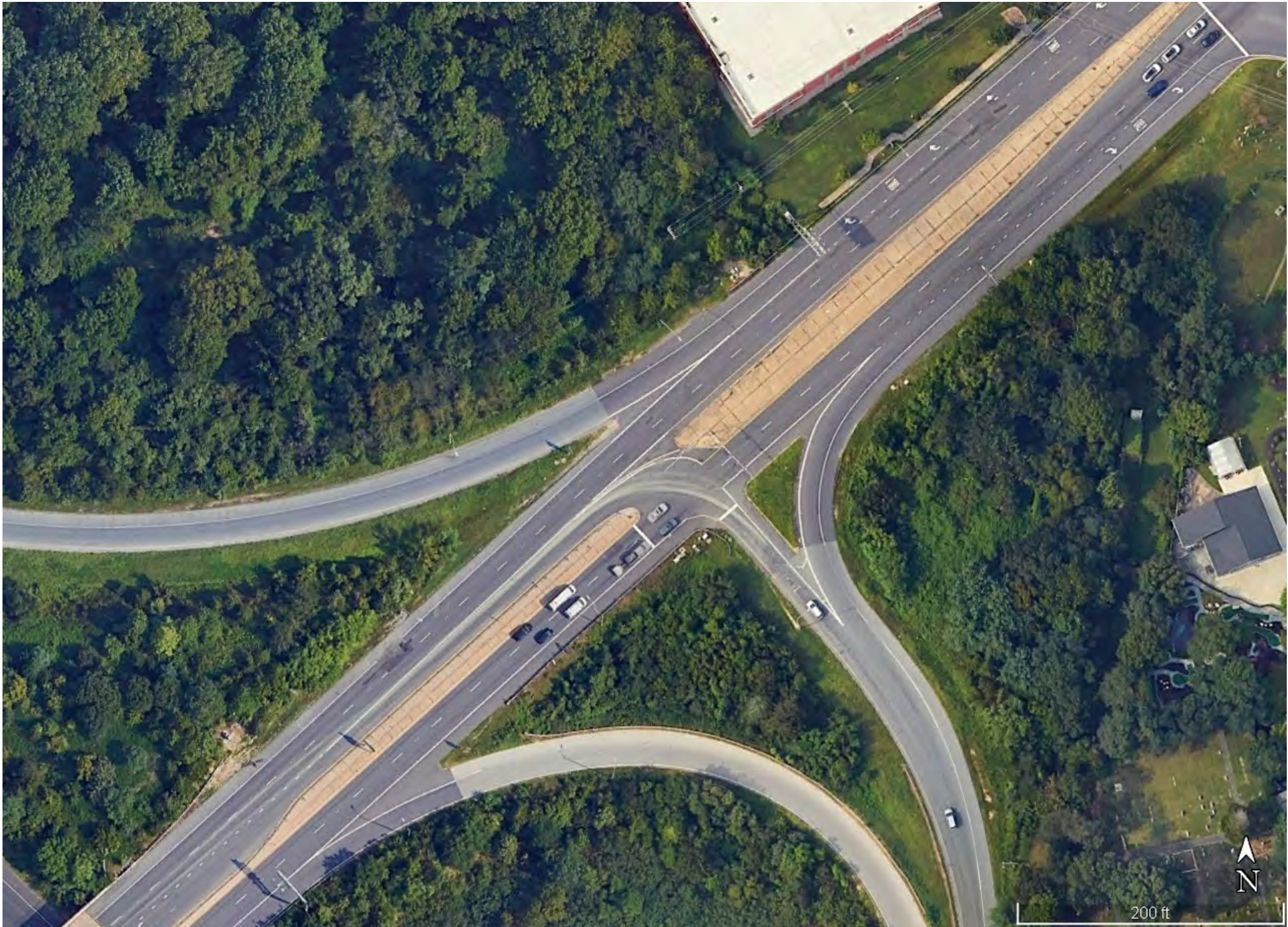
Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0

	EAST LEG MD 100 WB Ramps		WEST LEG MD 100 WB On Ramp	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	2	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	2	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Troy Hill Drive (South)
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Troy Hill Drive (South)					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	15	322	0	0	337	0	160	44	0	204	0	0	0	0	0	23	0	0	0	23	564
7:15 - 7:30	17	352	0	0	369	0	190	50	0	240	0	0	0	0	0	24	0	3	0	27	636
7:30 - 7:45	13	344	0	0	357	0	220	51	0	271	0	0	0	0	0	23	0	2	0	25	653
7:45 - 8:00	17	361	0	0	378	0	267	51	0	318	0	0	0	0	0	18	0	4	0	22	718
8:00 - 8:15	17	337	0	0	354	0	224	44	0	268	0	0	0	0	0	18	0	2	0	20	642
8:15 - 8:30	22	308	0	0	330	0	212	40	0	252	0	0	0	0	0	17	0	2	0	19	601
8:30 - 8:45	12	377	0	0	389	0	205	41	0	246	0	0	0	0	0	16	0	1	0	17	652
8:45 - 9:00	11	282	0	0	293	0	199	53	0	252	0	0	0	0	0	14	0	3	0	17	562
2 Hr Totals	124	2683	0	0	2807	0	1677	374	0	2051	0	0	0	0	0	153	0	17	0	170	5028
1 Hr Totals																					
7:00 - 8:00	62	1379	0	0	1441	0	837	196	0	1033	0	0	0	0	0	88	0	9	0	97	2571
7:15 - 8:15	64	1394	0	0	1458	0	901	196	0	1097	0	0	0	0	0	83	0	11	0	94	2649
7:30 - 8:30	69	1350	0	0	1419	0	923	186	0	1109	0	0	0	0	0	76	0	10	0	86	2614
7:45 - 8:45	68	1383	0	0	1451	0	908	176	0	1084	0	0	0	0	0	69	0	9	0	78	2613
8:00 - 9:00	62	1304	0	0	1366	0	840	178	0	1018	0	0	0	0	0	65	0	8	0	73	2457
PEAK HOUR																					
7:15 - 8:15	64	1394	0	0	1458	0	901	196	0	1097	0	0	0	0	0	83	0	11	0	94	2649
PM																					
4:00 - 4:15	7	304	0	0	311	0	376	20	1	397	0	0	0	0	0	52	0	3	0	55	763
4:15 - 4:30	12	329	0	0	341	0	391	20	0	411	0	0	0	0	0	45	0	3	0	48	800
4:30 - 4:45	8	356	0	0	364	0	440	29	0	469	0	0	0	0	0	57	0	3	0	60	893
4:45 - 5:00	19	305	0	0	324	0	472	32	0	504	0	0	0	0	0	38	0	4	0	42	870
5:00 - 5:15	10	322	0	0	332	0	442	22	0	464	0	0	0	0	0	51	0	6	0	57	853
5:15 - 5:30	10	323	0	0	333	0	441	24	0	465	0	0	0	0	0	31	0	8	0	39	837
5:30 - 5:45	17	263	0	0	280	0	399	35	0	434	0	0	0	0	0	32	0	2	1	35	749
5:45 - 6:00	13	301	0	0	314	0	392	50	0	442	0	0	0	0	0	31	0	7	0	38	794
2 Hr Totals	96	2503	0	0	2599	0	3353	232	1	3586	0	0	0	0	0	337	0	36	1	374	6559
1 Hr Totals																					
4:00 - 5:00	46	1294	0	0	1340	0	1679	101	1	1781	0	0	0	0	0	192	0	13	0	205	3326
4:15 - 5:15	49	1312	0	0	1361	0	1745	103	0	1848	0	0	0	0	0	191	0	16	0	207	3416
4:30 - 5:30	47	1306	0	0	1353	0	1795	107	0	1902	0	0	0	0	0	177	0	21	0	198	3453
4:45 - 5:45	56	1213	0	0	1269	0	1754	113	0	1867	0	0	0	0	0	152	0	20	1	173	3309
5:00 - 6:00	50	1209	0	0	1259	0	1674	131	0	1805	0	0	0	0	0	145	0	23	1	169	3233
PEAK HOUR																					
4:30 - 5:30	47	1306	0	0	1353	0	1795	107	0	1902	0	0	0	0	0	177	0	21	0	198	3453

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Troy Hill Drive (South)
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Troy Hill Drive (South)					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	15	305		0	320	136	42	0	178					0	18	0	0	18		516	
7:15 - 7:30	17	315		0	332	159	50	0	209					0	20	2	0	22		563	
7:30 - 7:45	12	320		0	332	206	50	0	256					0	18	2	0	20		608	
7:45 - 8:00	17	339		0	356	248	50	0	298					0	17	3	0	20		674	
8:00 - 8:15	15	309		0	324	204	43	0	247					0	16	2	0	18		589	
8:15 - 8:30	22	294		0	316	199	39	0	238					0	14	2	0	16		570	
8:30 - 8:45	12	346		0	358	185	39	0	224					0	15	1	0	16		598	
8:45 - 9:00	11	268		0	279	184	52	0	236					0	13	3	0	16		531	
2 Hr Totals	121	2496	0	0	2617	0	1521	365	0	1886	0	0	0	0	131	0	15	0	146	4649	
1 Hr Totals																					
7:00 - 8:00	61	1279	0	0	1340	0	749	192	0	941	0	0	0	0	73	0	7	0	80	2361	
7:15 - 8:15	61	1283	0	0	1344	0	817	193	0	1010	0	0	0	0	71	0	9	0	80	2434	
7:30 - 8:30	66	1262	0	0	1328	0	857	182	0	1039	0	0	0	0	65	0	9	0	74	2441	
7:45 - 8:45	66	1288	0	0	1354	0	836	171	0	1007	0	0	0	0	62	0	8	0	70	2431	
8:00 - 9:00	60	1217	0	0	1277	0	772	173	0	945	0	0	0	0	58	0	8	0	66	2288	
PEAK HOUR																					
7:15 - 8:15	61	1283	0	0	1344	0	817	193	0	1010	0	0	0	0	71	0	9	0	80	2434	
PM																					
4:00 - 4:15	6	292		0	298	357	14	1	372					0	51	3	0	54		724	
4:15 - 4:30	12	314		0	326	374	14	0	388					0	42	3	0	45		759	
4:30 - 4:45	8	341		0	349	419	27	0	446					0	55	3	0	58		853	
4:45 - 5:00	19	294		0	313	458	29	0	487					0	33	4	0	37		837	
5:00 - 5:15	10	316		0	326	429	22	0	451					0	49	6	0	55		832	
5:15 - 5:30	10	315		0	325	423	23	0	446					0	29	8	0	37		808	
5:30 - 5:45	17	252		0	269	390	33	0	423					0	32	2	1	35		727	
5:45 - 6:00	13	296		0	309	382	49	0	431					0	30	7	0	37		777	
2 Hr Totals	95	2420	0	0	2515	0	3232	211	1	3444	0	0	0	0	321	0	36	1	358	6317	
1 Hr Totals																					
4:00 - 5:00	45	1241	0	0	1286	0	1608	84	1	1693	0	0	0	0	181	0	13	0	194	3173	
4:15 - 5:15	49	1265	0	0	1314	0	1680	92	0	1772	0	0	0	0	179	0	16	0	195	3281	
4:30 - 5:30	47	1266	0	0	1313	0	1729	101	0	1830	0	0	0	0	166	0	21	0	187	3330	
4:45 - 5:45	56	1177	0	0	1233	0	1700	107	0	1807	0	0	0	0	143	0	20	1	164	3204	
5:00 - 6:00	50	1179	0	0	1229	0	1624	127	0	1751	0	0	0	0	140	0	23	1	164	3144	
PEAK HOUR																					
4:30 - 5:30	47	1266	0	0	1313	0	1729	101	0	1830	0	0	0	0	166	0	21	0	187	3330	

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: Troy Hill Drive (South)
Location: Howard County, Maryland

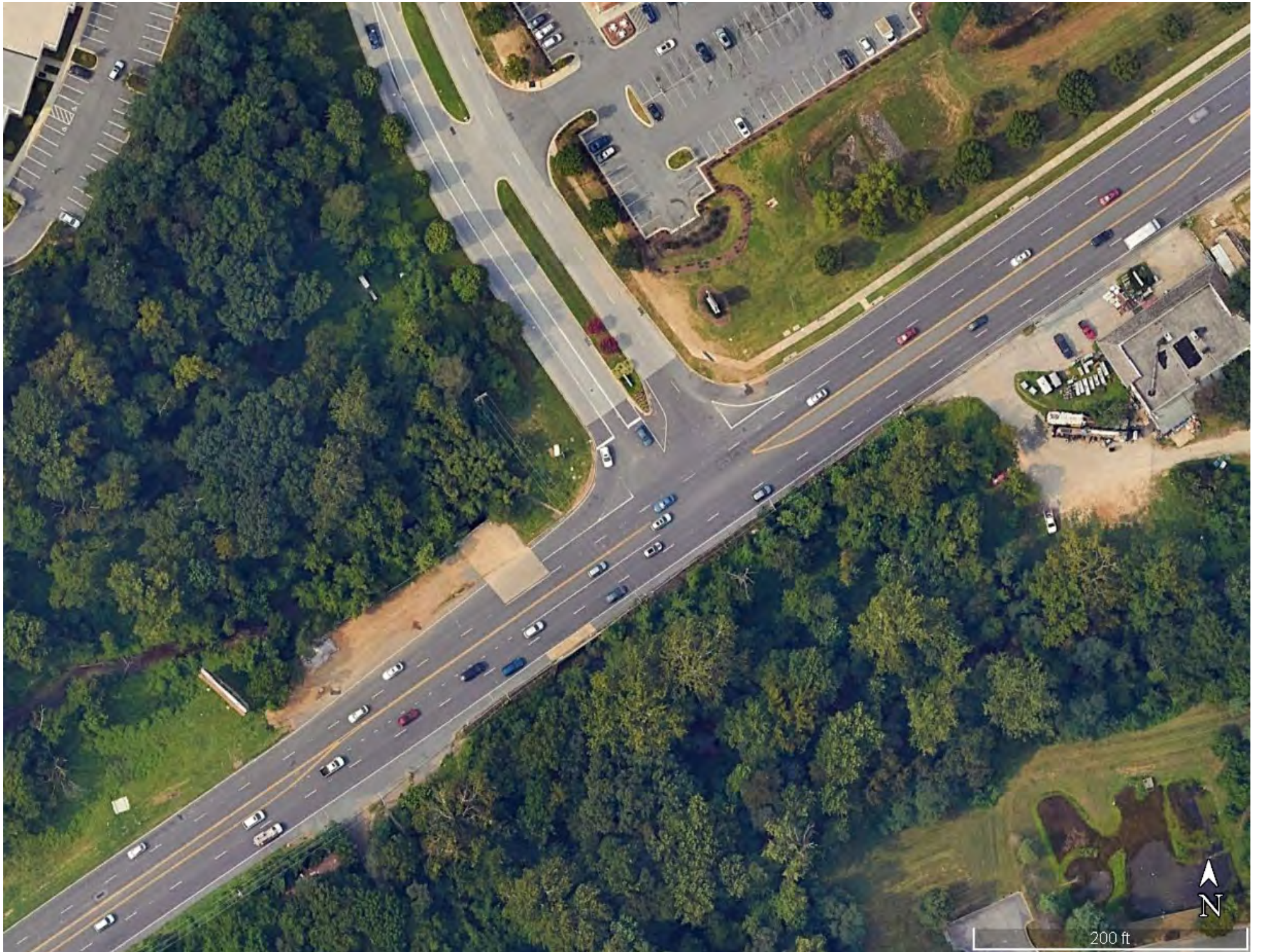
Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	2	0	0	0
TOTALS	2	0	0	0

	EAST LEG		WEST LEG Troy Hill Drive (South)	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15			0	0
7:15 - 7:30			0	0
7:30 - 7:45			0	0
7:45 - 8:00			0	0
8:00 - 8:15			0	0
8:15 - 8:30			0	0
8:30 - 8:45			0	0
8:45 - 9:00			0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15			0	0
4:15 - 4:30			0	0
4:30 - 4:45			1	0
4:45 - 5:00			0	0
5:00 - 5:15			0	0
5:15 - 5:30			0	0
5:30 - 5:45			2	0
5:45 - 6:00			0	0
TOTALS	0	0	3	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Troy Hill Drive (North)
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Troy Hill Drive (North)					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	308	0	0	324	0	155	16	0	171	0	0	0	0	0	5	0	5	0	10	505
7:15 - 7:30	19	388	0	0	407	0	157	17	0	174	0	0	0	0	0	4	0	3	0	7	588
7:30 - 7:45	12	341	0	0	353	0	230	13	0	243	0	0	0	0	0	7	0	7	0	14	610
7:45 - 8:00	22	380	0	0	402	0	230	27	0	257	0	0	0	0	0	11	0	7	0	18	677
8:00 - 8:15	24	333	0	0	357	0	213	20	0	233	0	0	0	0	0	5	0	11	0	16	606
8:15 - 8:30	20	343	0	0	363	0	186	17	0	203	0	0	0	0	0	8	0	9	0	17	583
8:30 - 8:45	15	366	0	0	381	0	216	13	0	229	0	0	0	0	0	5	0	3	0	8	618
8:45 - 9:00	10	284	0	0	294	0	165	13	0	178	0	0	0	0	0	6	0	6	0	12	484
2 Hr Totals	138	2743	0	0	2881	0	1552	136	0	1688	0	0	0	0	0	51	0	51	0	102	4671
1 Hr Totals																					
7:00 - 8:00	69	1417	0	0	1486	0	772	73	0	845	0	0	0	0	0	27	0	22	0	49	2380
7:15 - 8:15	77	1442	0	0	1519	0	830	77	0	907	0	0	0	0	0	27	0	28	0	55	2481
7:30 - 8:30	78	1397	0	0	1475	0	859	77	0	936	0	0	0	0	0	31	0	34	0	65	2476
7:45 - 8:45	81	1422	0	0	1503	0	845	77	0	922	0	0	0	0	0	29	0	30	0	59	2484
8:00 - 9:00 PEAK HOUR	69	1326	0	0	1395	0	780	63	0	843	0	0	0	0	0	24	0	29	0	53	2291
7:45 - 8:45	81	1422	0	0	1503	0	845	77	0	922	0	0	0	0	0	29	0	30	0	59	2484
PM																					
4:00 - 4:15	2	266	0	0	268	0	379	5	0	384	0	0	0	0	0	37	0	23	0	60	712
4:15 - 4:30	8	329	0	0	337	0	380	4	0	384	0	0	0	0	0	25	0	23	0	48	769
4:30 - 4:45	2	352	0	0	354	0	440	3	0	443	0	0	0	0	0	25	0	16	0	41	838
4:45 - 5:00	6	340	0	0	346	0	463	3	0	466	0	0	0	0	0	18	0	9	0	27	839
5:00 - 5:15	8	327	0	0	335	0	425	2	0	427	0	0	0	0	0	33	0	24	0	57	819
5:15 - 5:30	6	328	0	0	334	0	435	1	0	436	0	0	0	0	0	15	0	26	0	41	811
5:30 - 5:45	6	287	0	0	293	0	382	6	0	388	0	0	0	0	0	10	0	10	0	20	701
5:45 - 6:00	11	296	0	0	307	0	349	5	0	354	0	0	0	0	0	7	0	15	0	22	683
2 Hr Totals	49	2525	0	0	2574	0	3253	29	0	3282	0	0	0	0	0	170	0	146	0	316	6172
1 Hr Totals																					
4:00 - 5:00	18	1287	0	0	1305	0	1662	15	0	1677	0	0	0	0	0	105	0	71	0	176	3158
4:15 - 5:15	24	1348	0	0	1372	0	1708	12	0	1720	0	0	0	0	0	101	0	72	0	173	3265
4:30 - 5:30	22	1347	0	0	1369	0	1763	9	0	1772	0	0	0	0	0	91	0	75	0	166	3307
4:45 - 5:45	26	1282	0	0	1308	0	1705	12	0	1717	0	0	0	0	0	76	0	69	0	145	3170
5:00 - 6:00 PEAK HOUR	31	1238	0	0	1269	0	1591	14	0	1605	0	0	0	0	0	65	0	75	0	140	3014
4:30 - 5:30	22	1347	0	0	1369	0	1763	9	0	1772	0	0	0	0	0	91	0	75	0	166	3307

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Troy Hill Drive (North)
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Troy Hill Drive (North)					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	293		0	309	130	13	0	143					0	2	5	0	7		459	
7:15 - 7:30	19	353		0	372	135	13	0	148					0	3	3	0	6		526	
7:30 - 7:45	11	317		0	328	213	12	0	225					0	3	7	0	10		563	
7:45 - 8:00	22	361		0	383	213	26	0	239					0	8	6	0	14		636	
8:00 - 8:15	24	307		0	331	193	20	0	213					0	4	10	0	14		558	
8:15 - 8:30	20	331		0	351	174	17	0	191					0	3	8	0	11		553	
8:30 - 8:45	12	342		0	354	197	12	0	209					0	2	2	0	4		567	
8:45 - 9:00	9	267		0	276	154	8	0	162					0	5	5	0	10		448	
2 Hr Totals	133	2571	0	0	2704	0	1409	121	0	1530	0	0	0	0	0	30	0	46	0	76	4310
1 Hr Totals																					
7:00 - 8:00	68	1324	0	0	1392	0	691	64	0	755	0	0	0	0	0	16	0	21	0	37	2184
7:15 - 8:15	76	1338	0	0	1414	0	754	71	0	825	0	0	0	0	0	18	0	26	0	44	2283
7:30 - 8:30	77	1316	0	0	1393	0	793	75	0	868	0	0	0	0	0	18	0	31	0	49	2310
7:45 - 8:45	78	1341	0	0	1419	0	777	75	0	852	0	0	0	0	0	17	0	26	0	43	2314
8:00 - 9:00	65	1247	0	0	1312	0	718	57	0	775	0	0	0	0	0	14	0	25	0	39	2126
PEAK HOUR																					
7:45 - 8:45	78	1341	0	0	1419	0	777	75	0	852	0	0	0	0	0	17	0	26	0	43	2314
PM																					
4:00 - 4:15	1	254		0	255	361	3	0	364					0	35	23	0	58		677	
4:15 - 4:30	6	312		0	318	366	3	0	369					0	24	22	0	46		733	
4:30 - 4:45	1	342		0	343	419	1	0	420					0	23	15	0	38		801	
4:45 - 5:00	6	329		0	335	447	2	0	449					0	18	9	0	27		811	
5:00 - 5:15	7	323		0	330	410	2	0	412					0	32	24	0	56		798	
5:15 - 5:30	6	319		0	325	419	1	0	420					0	15	25	0	40		785	
5:30 - 5:45	6	278		0	284	374	5	0	379					0	10	10	0	20		683	
5:45 - 6:00	11	291		0	302	340	4	0	344					0	7	14	0	21		667	
2 Hr Totals	44	2448	0	0	2492	0	3136	21	0	3157	0	0	0	0	0	164	0	142	0	306	5955
1 Hr Totals																					
4:00 - 5:00	14	1237	0	0	1251	0	1593	9	0	1602	0	0	0	0	0	100	0	69	0	169	3022
4:15 - 5:15	20	1306	0	0	1326	0	1642	8	0	1650	0	0	0	0	0	97	0	70	0	167	3143
4:30 - 5:30	20	1313	0	0	1333	0	1695	6	0	1701	0	0	0	0	0	88	0	73	0	161	3195
4:45 - 5:45	25	1249	0	0	1274	0	1650	10	0	1660	0	0	0	0	0	75	0	68	0	143	3077
5:00 - 6:00	30	1211	0	0	1241	0	1543	12	0	1555	0	0	0	0	0	64	0	73	0	137	2933
PEAK HOUR																					
4:30 - 5:30	20	1313	0	0	1333	0	1695	6	0	1701	0	0	0	0	0	88	0	73	0	161	3195

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: Troy Hill Drive (North)
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4

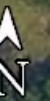


TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	1	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	1	0

	EAST LEG		WEST LEG Troy Hill Drive (North)	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15			0	0
7:15 - 7:30			0	0
7:30 - 7:45			0	0
7:45 - 8:00			0	0
8:00 - 8:15			1	0
8:15 - 8:30			0	0
8:30 - 8:45			0	0
8:45 - 9:00			1	0
TOTALS	0	0	2	0
PM				
4:00 - 4:15			1	0
4:15 - 4:30			0	0
4:30 - 4:45			0	0
4:45 - 5:00			1	0
5:00 - 5:15			0	0
5:15 - 5:30			2	0
5:30 - 5:45			0	0
5:45 - 6:00			2	0
TOTALS	0	0	6	0



200 ft



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Ducketts Lane
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday

Star Rating: 4



TIME	TRAFFIC FROM NORTH US 1					TRAFFIC FROM SOUTH US 1					TRAFFIC FROM EAST					TRAFFIC FROM WEST Ducketts Lane					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	281	0	0	297	0	135	19	0	154	0	0	0	0	0	45	0	20	0	65	516
7:15 - 7:30	5	318	0	0	323	0	168	15	0	183	0	0	0	0	0	59	0	22	0	81	587
7:30 - 7:45	11	319	0	0	330	0	199	27	0	226	0	0	0	0	0	56	0	13	0	69	625
7:45 - 8:00	11	320	0	0	331	0	210	45	0	255	0	0	0	0	0	61	0	13	0	74	660
8:00 - 8:15	12	314	0	0	326	0	179	44	0	223	0	0	0	0	0	51	0	13	0	64	613
8:15 - 8:30	12	287	0	0	299	0	175	38	0	213	0	0	0	0	0	50	0	24	0	74	586
8:30 - 8:45	27	294	0	0	321	0	162	48	0	210	0	0	0	0	0	86	0	27	0	113	644
8:45 - 9:00	14	218	0	0	232	0	174	25	0	199	0	0	0	0	0	59	0	23	0	82	513
2 Hr Totals	108	2351	0	0	2459	0	1402	261	0	1663	0	0	0	0	0	467	0	155	0	622	4744
1 Hr Totals																					
7:00 - 8:00	43	1238	0	0	1281	0	712	106	0	818	0	0	0	0	0	221	0	68	0	289	2388
7:15 - 8:15	39	1271	0	0	1310	0	756	131	0	887	0	0	0	0	0	227	0	61	0	288	2485
7:30 - 8:30	46	1240	0	0	1286	0	763	154	0	917	0	0	0	0	0	218	0	63	0	281	2484
7:45 - 8:45	62	1215	0	0	1277	0	726	175	0	901	0	0	0	0	0	248	0	77	0	325	2503
8:00 - 9:00 PEAK HOUR	65	1113	0	0	1178	0	690	155	0	845	0	0	0	0	0	246	0	87	0	333	2356
7:45 - 8:45	62	1215	0	0	1277	0	726	175	0	901	0	0	0	0	0	248	0	77	0	325	2503
PM																					
4:00 - 4:15	16	245	0	0	261	0	367	37	0	404	0	0	0	0	0	28	0	9	0	37	702
4:15 - 4:30	19	297	0	0	316	0	382	32	0	414	0	0	0	0	0	34	0	17	0	51	781
4:30 - 4:45	21	308	0	0	329	0	410	37	0	447	0	0	0	0	0	37	0	9	0	46	822
4:45 - 5:00	25	278	0	0	303	0	418	43	0	461	0	0	0	0	0	33	0	18	0	51	815
5:00 - 5:15	25	279	0	0	304	0	427	41	0	468	0	0	0	0	0	48	0	13	0	61	833
5:15 - 5:30	28	284	0	0	312	0	433	47	0	480	0	0	0	0	0	41	0	12	0	53	845
5:30 - 5:45	26	251	0	0	277	0	344	55	0	399	0	0	0	0	0	34	0	24	0	58	734
5:45 - 6:00	16	276	0	0	292	0	342	50	0	392	0	0	0	0	0	47	0	15	0	62	746
2 Hr Totals	176	2218	0	0	2394	0	3123	342	0	3465	0	0	0	0	0	302	0	117	0	419	6278
1 Hr Totals																					
4:00 - 5:00	81	1128	0	0	1209	0	1577	149	0	1726	0	0	0	0	0	132	0	53	0	185	3120
4:15 - 5:15	90	1162	0	0	1252	0	1637	153	0	1790	0	0	0	0	0	152	0	57	0	209	3251
4:30 - 5:30	99	1149	0	0	1248	0	1688	168	0	1856	0	0	0	0	0	159	0	52	0	211	3315
4:45 - 5:45	104	1092	0	0	1196	0	1622	186	0	1808	0	0	0	0	0	156	0	67	0	223	3227
5:00 - 6:00 PEAK HOUR	95	1090	0	0	1185	0	1546	193	0	1739	0	0	0	0	0	170	0	64	0	234	3158
4:30 - 5:30	99	1149	0	0	1248	0	1688	168	0	1856	0	0	0	0	0	159	0	52	0	211	3315

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US 1
and: Ducketts Lane
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: US 1					TRAFFIC FROM SOUTH on: US 1					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Ducketts Lane					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	267		0	283	118	15	0	133					0	45		20	0	65	481	
7:15 - 7:30	4	285		0	289	144	13	0	157					0	56		22	0	78	524	
7:30 - 7:45	11	295		0	306	184	27	0	211					0	55		13	0	68	585	
7:45 - 8:00	10	302		0	312	197	44	0	241					0	61		13	0	74	627	
8:00 - 8:15	12	289		0	301	161	43	0	204					0	49		10	0	59	564	
8:15 - 8:30	9	280		0	289	162	36	0	198					0	50		23	0	73	560	
8:30 - 8:45	26	270		0	296	149	42	0	191					0	80		25	0	105	592	
8:45 - 9:00	14	203		0	217	161	25	0	186					0	59		22	0	81	484	
2 Hr Totals	102	2191	0	0	2293	0	1276	245	0	1521	0	0	0	0	455	0	148	0	603	4417	
1 Hr Totals																					
7:00 - 8:00	41	1149	0	0	1190	0	643	99	0	742	0	0	0	0	217	0	68	0	285	2217	
7:15 - 8:15	37	1171	0	0	1208	0	686	127	0	813	0	0	0	0	221	0	58	0	279	2300	
7:30 - 8:30	42	1166	0	0	1208	0	704	150	0	854	0	0	0	0	215	0	59	0	274	2336	
7:45 - 8:45	57	1141	0	0	1198	0	669	165	0	834	0	0	0	0	240	0	71	0	311	2343	
8:00 - 9:00 PEAK HOUR	61	1042	0	0	1103	0	633	146	0	779	0	0	0	0	238	0	80	0	318	2200	
7:45 - 8:45	57	1141	0	0	1198	0	669	165	0	834	0	0	0	0	240	0	71	0	311	2343	
PM																					
4:00 - 4:15	16	232		0	248	349	37	0	386					0	28		9	0	37	671	
4:15 - 4:30	18	279		0	297	366	31	0	397					0	34		16	0	50	744	
4:30 - 4:45	21	297		0	318	388	37	0	425					0	36		9	0	45	788	
4:45 - 5:00	25	269		0	294	403	41	0	444					0	32		18	0	50	788	
5:00 - 5:15	25	273		0	298	417	41	0	458					0	48		13	0	61	817	
5:15 - 5:30	28	275		0	303	415	45	0	460					0	40		12	0	52	815	
5:30 - 5:45	26	239		0	265	334	55	0	389					0	34		24	0	58	712	
5:45 - 6:00	16	272		0	288	336	48	0	384					0	47		14	0	61	733	
2 Hr Totals	175	2136	0	0	2311	0	3008	335	0	3343	0	0	0	0	299	0	115	0	414	6068	
1 Hr Totals																					
4:00 - 5:00	80	1077	0	0	1157	0	1506	146	0	1652	0	0	0	0	130	0	52	0	182	2991	
4:15 - 5:15	89	1118	0	0	1207	0	1574	150	0	1724	0	0	0	0	150	0	56	0	206	3137	
4:30 - 5:30	99	1114	0	0	1213	0	1623	164	0	1787	0	0	0	0	156	0	52	0	208	3208	
4:45 - 5:45	104	1056	0	0	1160	0	1569	182	0	1751	0	0	0	0	154	0	67	0	221	3132	
5:00 - 6:00 PEAK HOUR	95	1059	0	0	1154	0	1502	189	0	1691	0	0	0	0	169	0	63	0	232	3077	
4:30 - 5:30	99	1114	0	0	1213	0	1623	164	0	1787	0	0	0	0	156	0	52	0	208	3208	

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: US 1
and: Ducketts Lane
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: SN

Thursday
Star Rating: 4



TIME	NORTH LEG US 1		SOUTH LEG US 1	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0

	EAST LEG		WEST LEG Ducketts Lane	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15			0	0
7:15 - 7:30			0	0
7:30 - 7:45			0	0
7:45 - 8:00			0	0
8:00 - 8:15			0	0
8:15 - 8:30			0	0
8:30 - 8:45			0	0
8:45 - 9:00			1	0
TOTALS	0	0	1	0
PM				
4:00 - 4:15			0	0
4:15 - 4:30			0	0
4:30 - 4:45			0	0
4:45 - 5:00			0	0
5:00 - 5:15			0	0
5:15 - 5:30			2	0
5:30 - 5:45			0	0
5:45 - 6:00			0	0
TOTALS	0	0	2	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Business Parkway
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday

Star Rating: 5



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: MD 103					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Business Parkway					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	15	73	0	0	88	0	49	12	0	61	0	0	0	0	0	3	0	6	0	9	158
7:15 - 7:30	7	81	0	0	88	0	47	6	0	53	0	0	0	0	0	5	0	4	0	9	150
7:30 - 7:45	5	120	0	0	125	0	61	6	0	67	0	0	0	0	0	2	0	2	0	4	196
7:45 - 8:00	20	126	0	0	146	0	83	12	0	95	0	0	0	0	0	3	0	3	0	6	247
8:00 - 8:15	21	114	0	0	135	0	74	13	0	87	0	0	0	0	0	0	0	4	0	4	226
8:15 - 8:30	15	112	0	0	127	0	57	5	0	62	0	0	0	0	0	3	0	5	0	8	197
8:30 - 8:45	13	112	0	0	125	0	69	9	0	78	0	0	0	0	0	2	0	7	0	9	212
8:45 - 9:00	12	87	0	0	99	0	60	6	0	66	0	0	0	0	0	5	0	10	0	15	180
2 Hr Totals	108	825	0	0	933	0	500	69	0	569	0	0	0	0	0	23	0	41	0	64	1566
1 Hr Totals																					
7:00 - 8:00	47	400	0	0	447	0	240	36	0	276	0	0	0	0	0	13	0	15	0	28	751
7:15 - 8:15	53	441	0	0	494	0	265	37	0	302	0	0	0	0	0	10	0	13	0	23	819
7:30 - 8:30	61	472	0	0	533	0	275	36	0	311	0	0	0	0	0	8	0	14	0	22	866
7:45 - 8:45	69	464	0	0	533	0	283	39	0	322	0	0	0	0	0	8	0	19	0	27	882
8:00 - 9:00	61	425	0	0	486	0	260	33	0	293	0	0	0	0	0	10	0	26	0	36	815
PEAK HOUR																					
7:45 - 8:45	69	464	0	0	533	0	283	39	0	322	0	0	0	0	0	8	0	19	0	27	882
PM																					
4:00 - 4:15	86	154	0	0	240	0	112	4	0	116	0	0	0	0	0	4	0	26	0	30	386
4:15 - 4:30	69	118	0	0	187	0	117	7	0	124	0	0	0	0	0	4	0	22	0	26	337
4:30 - 4:45	30	77	0	0	107	0	158	5	0	163	0	0	0	0	0	7	0	38	0	45	315
4:45 - 5:00	12	96	0	0	108	0	139	3	0	142	0	0	0	0	0	3	0	22	0	25	275
5:00 - 5:15	11	111	0	0	122	0	155	2	0	157	0	0	0	0	0	5	0	31	0	36	315
5:15 - 5:30	5	111	0	0	116	0	148	5	0	153	0	0	0	0	0	9	0	21	0	30	299
5:30 - 5:45	4	132	0	0	136	0	112	1	0	113	0	0	0	0	0	9	0	20	0	29	278
5:45 - 6:00	4	90	0	0	94	0	95	1	0	96	0	0	0	0	0	3	0	15	0	18	208
2 Hr Totals	221	889	0	0	1110	0	1036	28	0	1064	0	0	0	0	0	44	0	195	0	239	2413
1 Hr Totals																					
4:00 - 5:00	197	445	0	0	642	0	526	19	0	545	0	0	0	0	0	18	0	108	0	126	1313
4:15 - 5:15	122	402	0	0	524	0	569	17	0	586	0	0	0	0	0	19	0	113	0	132	1242
4:30 - 5:30	58	395	0	0	453	0	600	15	0	615	0	0	0	0	0	24	0	112	0	136	1204
4:45 - 5:45	32	450	0	0	482	0	554	11	0	565	0	0	0	0	0	26	0	94	0	120	1167
5:00 - 6:00	24	444	0	0	468	0	510	9	0	519	0	0	0	0	0	26	0	87	0	113	1100
PEAK HOUR																					
4:00 - 5:00	197	445	0	0	642	0	526	19	0	545	0	0	0	0	0	18	0	108	0	126	1313

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Business Parkway
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday

Star Rating: 5



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: MD 103					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Business Parkway					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	14	72		0	86	40	12	0	0	52					0	3	0	0	0	3	141
7:15 - 7:30	7	81		0	88	44	5	0	0	49					0	5	3	0	0	8	145
7:30 - 7:45	4	116		0	120	59	5	0	0	64					0	2	2	0	0	4	188
7:45 - 8:00	19	122		0	141	81	12	0	0	93					0	2	2	0	0	4	238
8:00 - 8:15	21	113		0	134	71	13	0	0	84					0	0	4	0	0	4	222
8:15 - 8:30	9	105		0	114	56	4	0	0	60					0	3	5	0	0	8	182
8:30 - 8:45	10	111		0	121	65	8	0	0	73					0	1	6	0	0	7	201
8:45 - 9:00	10	81		0	91	57	6	0	0	63					0	4	9	0	0	13	167
2 Hr Totals	94	801	0	0	895	0	473	65	0	538	0	0	0	0	0	20	0	31	0	51	1484
1 Hr Totals																					
7:00 - 8:00	44	391	0	0	435	0	224	34	0	258	0	0	0	0	0	12	0	7	0	19	712
7:15 - 8:15	51	432	0	0	483	0	255	35	0	290	0	0	0	0	0	9	0	11	0	20	793
7:30 - 8:30	53	456	0	0	509	0	267	34	0	301	0	0	0	0	0	7	0	13	0	20	830
7:45 - 8:45	59	451	0	0	510	0	273	37	0	310	0	0	0	0	0	6	0	17	0	23	843
8:00 - 9:00	50	410	0	0	460	0	249	31	0	280	0	0	0	0	0	8	0	24	0	32	772
PEAK HOUR																					
7:45 - 8:45	59	451	0	0	510	0	273	37	0	310	0	0	0	0	0	6	0	17	0	23	843
PM																					
4:00 - 4:15	77	149		0	226	111	4	0	0	115					0	4	26	0	0	30	371
4:15 - 4:30	49	107		0	156	115	6	0	0	121					0	4	22	0	0	26	303
4:30 - 4:45	25	68		0	93	157	5	0	0	162					0	6	38	0	0	44	299
4:45 - 5:00	10	90		0	100	137	3	0	0	140					0	3	22	0	0	25	265
5:00 - 5:15	7	106		0	113	155	1	0	0	156					0	5	31	0	0	36	305
5:15 - 5:30	3	107		0	110	147	4	0	0	151					0	8	21	0	0	29	290
5:30 - 5:45	4	131		0	135	111	1	0	0	112					0	9	20	0	0	29	276
5:45 - 6:00	4	90		0	94	94	1	0	0	95					0	3	14	0	0	17	206
2 Hr Totals	179	848	0	0	1027	0	1027	25	0	1052	0	0	0	0	0	42	0	194	0	236	2315
1 Hr Totals																					
4:00 - 5:00	161	414	0	0	575	0	520	18	0	538	0	0	0	0	0	17	0	108	0	125	1238
4:15 - 5:15	91	371	0	0	462	0	564	15	0	579	0	0	0	0	0	18	0	113	0	131	1172
4:30 - 5:30	45	371	0	0	416	0	596	13	0	609	0	0	0	0	0	22	0	112	0	134	1159
4:45 - 5:45	24	434	0	0	458	0	550	9	0	559	0	0	0	0	0	25	0	94	0	119	1136
5:00 - 6:00	18	434	0	0	452	0	507	7	0	514	0	0	0	0	0	25	0	86	0	111	1077
PEAK HOUR																					
4:00 - 5:00	161	414	0	0	575	0	520	18	0	538	0	0	0	0	0	17	0	108	0	125	1238

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: MD 103
and: Business Parkway
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday
Star Rating: 5



TIME	NORTH LEG MD 103		SOUTH LEG MD 103	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0
	EAST LEG		WEST LEG Business Parkway	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15			0	0
7:15 - 7:30			0	0
7:30 - 7:45			0	0
7:45 - 8:00			0	0
8:00 - 8:15			0	0
8:15 - 8:30			0	0
8:30 - 8:45			0	0
8:45 - 9:00			0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15			1	0
4:15 - 4:30			0	0
4:30 - 4:45			0	0
4:45 - 5:00			1	0
5:00 - 5:15			0	0
5:15 - 5:30			0	0
5:30 - 5:45			0	0
5:45 - 6:00			0	0
TOTALS	0	0	2	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Mayfield Avenue
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: MD 103					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Mayfield Avenue					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	68	0	0	74	0	41	17	0	58	0	0	0	0	0	16	0	8	0	24	156
7:15 - 7:30	7	78	0	0	85	0	47	17	0	64	0	0	0	0	0	21	0	11	0	32	181
7:30 - 7:45	12	90	0	0	102	0	45	32	0	77	0	0	0	0	0	35	0	10	0	45	224
7:45 - 8:00	27	117	0	0	144	0	36	35	0	71	0	0	0	0	0	46	0	15	0	61	276
8:00 - 8:15	28	116	0	0	144	0	43	34	0	77	0	0	0	0	0	32	0	8	0	40	261
8:15 - 8:30	33	87	0	0	120	0	50	33	0	83	0	0	0	0	0	38	0	19	0	57	260
8:30 - 8:45	10	95	0	0	105	0	42	26	0	68	0	0	0	0	0	23	0	18	0	41	214
8:45 - 9:00	11	67	0	0	78	0	56	24	0	80	0	0	0	0	0	33	0	5	0	38	196
2 Hr Totals	134	718	0	0	852	0	360	218	0	578	0	0	0	0	0	244	0	94	0	338	1768
1 Hr Totals																					
7:00 - 8:00	52	353	0	0	405	0	169	101	0	270	0	0	0	0	0	118	0	44	0	162	837
7:15 - 8:15	74	401	0	0	475	0	171	118	0	289	0	0	0	0	0	134	0	44	0	178	942
7:30 - 8:30	100	410	0	0	510	0	174	134	0	308	0	0	0	0	0	151	0	52	0	203	1021
7:45 - 8:45	98	415	0	0	513	0	171	128	0	299	0	0	0	0	0	139	0	60	0	199	1011
8:00 - 9:00	82	365	0	0	447	0	191	117	0	308	0	0	0	0	0	126	0	50	0	176	931
PEAK HOUR																					
7:30 - 8:30	100	410	0	0	510	0	174	134	0	308	0	0	0	0	0	151	0	52	0	203	1021
PM																					
4:00 - 4:15	16	209	0	0	225	0	106	41	0	147	0	0	0	0	0	41	0	7	0	48	420
4:15 - 4:30	23	143	0	0	166	0	121	41	0	162	0	0	0	0	0	44	0	9	0	53	381
4:30 - 4:45	14	77	0	0	91	0	146	50	0	196	0	0	0	0	0	45	0	9	0	54	341
4:45 - 5:00	20	74	0	0	94	0	119	42	0	161	0	0	0	0	0	49	0	4	0	53	308
5:00 - 5:15	14	64	0	0	78	0	138	51	0	189	0	0	0	0	0	50	0	3	0	53	320
5:15 - 5:30	17	77	0	0	94	0	139	50	0	189	0	0	0	0	0	46	0	8	0	54	337
5:30 - 5:45	15	92	0	0	107	0	104	36	0	140	0	0	0	0	0	50	0	9	0	59	306
5:45 - 6:00	13	67	0	0	80	0	83	43	0	126	0	0	0	0	0	48	0	16	0	64	270
2 Hr Totals	132	803	0	0	935	0	956	354	0	1310	0	0	0	0	0	373	0	65	0	438	2683
1 Hr Totals																					
4:00 - 5:00	73	503	0	0	576	0	492	174	0	666	0	0	0	0	0	179	0	29	0	208	1450
4:15 - 5:15	71	358	0	0	429	0	524	184	0	708	0	0	0	0	0	188	0	25	0	213	1350
4:30 - 5:30	65	292	0	0	357	0	542	193	0	735	0	0	0	0	0	190	0	24	0	214	1306
4:45 - 5:45	66	307	0	0	373	0	500	179	0	679	0	0	0	0	0	195	0	24	0	219	1271
5:00 - 6:00	59	300	0	0	359	0	464	180	0	644	0	0	0	0	0	194	0	36	0	230	1233
PEAK HOUR																					
4:00 - 5:00	73	503	0	0	576	0	492	174	0	666	0	0	0	0	0	179	0	29	0	208	1450

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Mayfield Avenue
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: MD 103					TRAFFIC FROM EAST on:					TRAFFIC FROM WEST on: Mayfield Avenue					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	66		0	72		26	16	0	42					0	15		8	0	23	137
7:15 - 7:30	6	78		0	84		42	17	0	59					0	20		10	0	30	173
7:30 - 7:45	12	87		0	99		43	32	0	75					0	32		10	0	42	216
7:45 - 8:00	25	117		0	142		33	35	0	68					0	43		14	0	57	267
8:00 - 8:15	26	114		0	140		42	31	0	73					0	31		7	0	38	251
8:15 - 8:30	32	80		0	112		50	33	0	83					0	31		18	0	49	244
8:30 - 8:45	10	92		0	102		41	24	0	65					0	23		18	0	41	208
8:45 - 9:00	11	62		0	73		51	22	0	73					0	30		5	0	35	181
2 Hr Totals	128	696	0	0	824	0	328	210	0	538	0	0	0	0	0	225	0	90	0	315	1677
1 Hr Totals																					
7:00 - 8:00	49	348	0	0	397	0	144	100	0	244	0	0	0	0	0	110	0	42	0	152	793
7:15 - 8:15	69	396	0	0	465	0	160	115	0	275	0	0	0	0	0	126	0	41	0	167	907
7:30 - 8:30	95	398	0	0	493	0	168	131	0	299	0	0	0	0	0	137	0	49	0	186	978
7:45 - 8:45	93	403	0	0	496	0	166	123	0	289	0	0	0	0	0	128	0	57	0	185	970
8:00 - 9:00	79	348	0	0	427	0	184	110	0	294	0	0	0	0	0	115	0	48	0	163	884
PEAK HOUR																					
7:30 - 8:30	95	398	0	0	493	0	168	131	0	299	0	0	0	0	0	137	0	49	0	186	978
PM																					
4:00 - 4:15	16	191		0	207		105	41	0	146					0	41		7	0	48	401
4:15 - 4:30	23	117		0	140		119	39	0	158					0	41		9	0	50	348
4:30 - 4:45	14	64		0	78		145	50	0	195					0	42		8	0	50	323
4:45 - 5:00	20	66		0	86		117	42	0	159					0	49		4	0	53	298
5:00 - 5:15	14	59		0	73		138	51	0	189					0	47		3	0	50	312
5:15 - 5:30	17	72		0	89		139	50	0	189					0	46		8	0	54	332
5:30 - 5:45	15	91		0	106		103	36	0	139					0	50		9	0	59	304
5:45 - 6:00	13	67		0	80		83	42	0	125					0	48		16	0	64	269
2 Hr Totals	132	727	0	0	859	0	949	351	0	1300	0	0	0	0	0	364	0	64	0	428	2587
1 Hr Totals																					
4:00 - 5:00	73	438	0	0	511	0	486	172	0	658	0	0	0	0	0	173	0	28	0	201	1370
4:15 - 5:15	71	306	0	0	377	0	519	182	0	701	0	0	0	0	0	179	0	24	0	203	1281
4:30 - 5:30	65	261	0	0	326	0	539	193	0	732	0	0	0	0	0	184	0	23	0	207	1265
4:45 - 5:45	66	288	0	0	354	0	497	179	0	676	0	0	0	0	0	192	0	24	0	216	1246
5:00 - 6:00	59	289	0	0	348	0	463	179	0	642	0	0	0	0	0	191	0	36	0	227	1217
PEAK HOUR																					
4:00 - 5:00	73	438	0	0	511	0	486	172	0	658	0	0	0	0	0	173	0	28	0	201	1370

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: MD 103
and: Mayfield Avenue
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday
Star Rating: 4



TIME	NORTH LEG MD 103		SOUTH LEG MD 103	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0
	EAST LEG		WEST LEG Mayfield Avenue	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15			0	0
7:15 - 7:30			0	0
7:30 - 7:45			0	0
7:45 - 8:00			0	0
8:00 - 8:15			0	0
8:15 - 8:30			0	0
8:30 - 8:45			0	0
8:45 - 9:00			0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15			0	0
4:15 - 4:30			0	0
4:30 - 4:45			0	0
4:45 - 5:00			0	0
5:00 - 5:15			0	0
5:15 - 5:30			0	0
5:30 - 5:45			0	0
5:45 - 6:00			0	0
TOTALS	0	0	0	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Dorsey Run Road
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: Dorsey Run Road					TRAFFIC FROM EAST on: MD 103					TRAFFIC FROM WEST on:					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	96	37	0	133	7	63	0	0	70	42	0	10	0	52	0	0	0	0	0	255
7:15 - 7:30	0	101	48	0	149	5	59	0	0	64	48	0	14	0	62	0	0	0	0	0	275
7:30 - 7:45	0	121	34	0	155	7	61	0	0	68	49	0	19	0	68	0	0	0	0	0	291
7:45 - 8:00	0	95	58	0	153	1	53	0	0	54	50	0	22	0	72	0	0	0	0	0	279
8:00 - 8:15	0	98	49	0	147	6	48	0	0	54	65	0	16	0	81	0	0	0	0	0	282
8:15 - 8:30	0	69	77	0	146	6	47	0	0	53	53	0	14	0	67	0	0	0	0	0	266
8:30 - 8:45	0	74	67	0	141	7	44	0	0	51	51	0	10	0	61	0	0	0	0	0	253
8:45 - 9:00	0	68	72	0	140	3	36	0	0	39	60	0	12	0	72	0	0	0	0	0	251
2 Hr Totals	0	722	442	0	1164	42	411	0	0	453	418	0	117	0	535	0	0	0	0	0	2152
1 Hr Totals																					
7:00 - 8:00	0	413	177	0	590	20	236	0	0	256	189	0	65	0	254	0	0	0	0	0	1100
7:15 - 8:15	0	415	189	0	604	19	221	0	0	240	212	0	71	0	283	0	0	0	0	0	1127
7:30 - 8:30	0	383	218	0	601	20	209	0	0	229	217	0	71	0	288	0	0	0	0	0	1118
7:45 - 8:45	0	336	251	0	587	20	192	0	0	212	219	0	62	0	281	0	0	0	0	0	1080
8:00 - 9:00	0	309	265	0	574	22	175	0	0	197	229	0	52	0	281	0	0	0	0	0	1052
PEAK HOUR																					
7:15 - 8:15	0	415	189	0	604	19	221	0	0	240	212	0	71	0	283	0	0	0	0	0	1127
PM																					
4:00 - 4:15	0	50	63	0	113	34	134	0	0	168	91	0	7	0	98	0	0	0	0	0	379
4:15 - 4:30	0	45	82	0	127	18	132	0	0	150	95	0	14	0	109	0	0	0	0	0	386
4:30 - 4:45	0	53	68	0	121	16	133	0	0	149	104	0	8	0	112	0	0	0	0	0	382
4:45 - 5:00	0	45	84	0	129	33	141	0	0	174	85	0	8	0	93	0	0	0	0	0	396
5:00 - 5:15	0	45	71	1	117	32	154	0	0	186	81	0	13	0	94	0	0	0	0	0	397
5:15 - 5:30	0	52	82	0	134	28	112	0	0	140	79	0	16	0	95	0	0	0	0	0	369
5:30 - 5:45	0	50	84	0	134	12	118	0	0	130	65	0	6	0	71	0	0	0	0	0	335
5:45 - 6:00	0	56	67	1	124	12	103	0	1	116	65	0	7	0	72	0	0	0	0	0	312
2 Hr Totals	0	396	601	2	999	185	1027	0	1	1213	665	0	79	0	744	0	0	0	0	0	2956
1 Hr Totals																					
4:00 - 5:00	0	193	297	0	490	101	540	0	0	641	375	0	37	0	412	0	0	0	0	0	1543
4:15 - 5:15	0	188	305	1	494	99	560	0	0	659	365	0	43	0	408	0	0	0	0	0	1561
4:30 - 5:30	0	195	305	1	501	109	540	0	0	649	349	0	45	0	394	0	0	0	0	0	1544
4:45 - 5:45	0	192	321	1	514	105	525	0	0	630	310	0	43	0	353	0	0	0	0	0	1497
5:00 - 6:00	0	203	304	2	509	84	487	0	1	572	290	0	42	0	332	0	0	0	0	0	1413
PEAK HOUR																					
4:15 - 5:15	0	188	305	1	494	99	560	0	0	659	365	0	43	0	408	0	0	0	0	0	1561

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Dorsey Run Road
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: Dorsey Run Road					TRAFFIC FROM EAST on: MD 103					TRAFFIC FROM WEST on:					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		87	36	0	123	6	47		0	53	36		10	0	46					0	222
7:15 - 7:30		93	45	0	138	4	49		0	53	45		10	0	55					0	246
7:30 - 7:45		113	32	0	145	3	50		0	53	46		17	0	63					0	261
7:45 - 8:00		86	56	0	142	1	42		0	43	45		22	0	67					0	252
8:00 - 8:15		91	49	0	140	2	36		0	38	52		13	0	65					0	243
8:15 - 8:30		61	72	0	133	3	39		0	42	51		12	0	63					0	238
8:30 - 8:45		67	64	0	131	6	36		0	42	48		6	0	54					0	227
8:45 - 9:00		61	69	0	130	2	31		0	33	54		10	0	64					0	227
2 Hr Totals	0	659	423	0	1082	27	330	0	0	357	377	0	100	0	477	0	0	0	0	0	1916
1 Hr Totals																					
7:00 - 8:00	0	379	169	0	548	14	188	0	0	202	172	0	59	0	231	0	0	0	0	0	981
7:15 - 8:15	0	383	182	0	565	10	177	0	0	187	188	0	62	0	250	0	0	0	0	0	1002
7:30 - 8:30	0	351	209	0	560	9	167	0	0	176	194	0	64	0	258	0	0	0	0	0	994
7:45 - 8:45	0	305	241	0	546	12	153	0	0	165	196	0	53	0	249	0	0	0	0	0	960
8:00 - 9:00	0	280	254	0	534	13	142	0	0	155	205	0	41	0	246	0	0	0	0	0	935
PEAK HOUR																					
7:15 - 8:15	0	383	182	0	565	10	177	0	0	187	188	0	62	0	250	0	0	0	0	0	1002
PM																					
4:00 - 4:15		43	59	0	102	31	129		0	160	89		6	0	95					0	357
4:15 - 4:30		40	80	0	120	16	130		0	146	91		12	0	103					0	369
4:30 - 4:45		41	67	0	108	16	132		0	148	104		8	0	112					0	368
4:45 - 5:00		42	75	0	117	32	138		0	170	84		8	0	92					0	379
5:00 - 5:15		40	69	1	110	32	148		0	180	80		11	0	91					0	381
5:15 - 5:30		49	76	0	125	28	108		0	136	78		16	0	94					0	355
5:30 - 5:45		44	84	0	128	12	114		0	126	64		5	0	69					0	323
5:45 - 6:00		56	67	1	124	12	98		1	111	65		7	0	72					0	307
2 Hr Totals	0	355	577	2	934	179	997	0	1	1177	655	0	73	0	728	0	0	0	0	0	2839
1 Hr Totals																					
4:00 - 5:00	0	166	281	0	447	95	529	0	0	624	368	0	34	0	402	0	0	0	0	0	1473
4:15 - 5:15	0	163	291	1	455	96	548	0	0	644	359	0	39	0	398	0	0	0	0	0	1497
4:30 - 5:30	0	172	287	1	460	108	526	0	0	634	346	0	43	0	389	0	0	0	0	0	1483
4:45 - 5:45	0	175	304	1	480	104	508	0	0	612	306	0	40	0	346	0	0	0	0	0	1438
5:00 - 6:00	0	189	296	2	487	84	468	0	1	553	287	0	39	0	326	0	0	0	0	0	1366
PEAK HOUR																					
4:15 - 5:15	0	163	291	1	455	96	548	0	0	644	359	0	39	0	398	0	0	0	0	0	1497

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

Intersection of: MD 103
and: Dorsey Run Road
Location: Howard County, Maryland

Counted by: VCU
Date: May 23, 2024
Weather: Sunny/Warm
Entered by: CP

Thursday
Star Rating: 4



TIME	NORTH LEG MD 103		SOUTH LEG Dorsey Run Road	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	0	0
	EAST LEG MD 103		WEST LEG	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0		
7:15 - 7:30	0	0		
7:30 - 7:45	0	0		
7:45 - 8:00	0	0		
8:00 - 8:15	0	0		
8:15 - 8:30	0	0		
8:30 - 8:45	0	0		
8:45 - 9:00	0	0		
TOTALS	0	0	0	0
PM				
4:00 - 4:15	0	0		
4:15 - 4:30	0	0		
4:30 - 4:45	0	0		
4:45 - 5:00	0	0		
5:00 - 5:15	0	0		
5:15 - 5:30	0	0		
5:30 - 5:45	0	0		
5:45 - 6:00	0	0		
TOTALS	0	0	0	0



TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Barnett Lane
Location: Howard County, Maryland

Counted by: VCU
Date: June 06, 2024
Weather: Warm/Sunny
Entered by: CP

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: MD 103					TRAFFIC FROM EAST on: Warehouse Access					TRAFFIC FROM WEST on: Barnett Lane					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	1	25	5	0	31	6	37	3	0	46	0	0	2	0	2	18	0	4	0	22	101
7:15 - 7:30	0	61	3	0	64	3	55	1	0	59	1	0	2	0	3	13	0	2	0	15	141
7:30 - 7:45	0	52	1	0	53	3	40	2	0	45	1	0	2	0	3	25	0	2	0	27	128
7:45 - 8:00	2	69	3	0	74	3	59	5	0	67	0	0	1	0	1	2	0	4	0	6	148
8:00 - 8:15	2	53	3	0	58	7	81	1	0	89	0	0	3	0	3	15	0	7	0	22	172
8:15 - 8:30	1	66	2	1	70	6	69	3	0	78	1	0	1	0	2	17	0	4	0	21	171
8:30 - 8:45	1	57	1	0	59	7	63	1	0	71	0	0	2	0	2	8	0	3	0	11	143
8:45 - 9:00	2	45	1	0	48	5	57	4	0	66	0	0	4	0	4	6	0	4	0	10	128
2 Hr Totals	9	428	19	1	457	40	461	20	0	521	3	0	17	0	20	104	0	30	0	134	1132
1 Hr Totals																					
7:00 - 8:00	3	207	12	0	222	15	191	11	0	217	2	0	7	0	9	58	0	12	0	70	518
7:15 - 8:15	4	235	10	0	249	16	235	9	0	260	2	0	8	0	10	55	0	15	0	70	589
7:30 - 8:30	5	240	9	1	255	19	249	11	0	279	2	0	7	0	9	59	0	17	0	76	619
7:45 - 8:45	6	245	9	1	261	23	272	10	0	305	1	0	7	0	8	42	0	18	0	60	634
8:00 - 9:00	6	221	7	1	235	25	270	9	0	304	1	0	10	0	11	46	0	18	0	64	614
PEAK HOUR																					
7:45 - 8:45	6	245	9	1	261	23	272	10	0	305	1	0	7	0	8	42	0	18	0	60	634
PM																					
4:00 - 4:15	3	105	1	0	109	4	99	10	0	113	5	0	5	0	10	1	0	1	0	2	234
4:15 - 4:30	5	75	1	0	81	0	71	11	0	82	3	0	1	0	4	4	0	2	0	6	173
4:30 - 4:45	4	83	0	0	87	1	73	13	0	87	2	0	6	0	8	8	0	3	0	11	193
4:45 - 5:00	8	98	0	0	106	1	96	12	0	109	0	0	2	0	2	8	0	2	0	10	227
5:00 - 5:15	4	104	1	0	109	0	118	10	0	128	3	1	5	0	9	11	0	5	0	16	262
5:15 - 5:30	4	110	0	2	116	4	128	10	0	142	0	0	0	0	0	7	0	4	0	11	269
5:30 - 5:45	6	73	0	0	79	0	82	17	0	99	0	0	3	0	3	3	0	2	0	5	186
5:45 - 6:00	5	77	0	0	82	1	93	19	0	113	0	0	2	0	2	11	0	4	0	15	212
2 Hr Totals	39	725	3	2	769	11	760	102	0	873	13	1	24	0	38	53	0	23	0	76	1756
1 Hr Totals																					
4:00 - 5:00	20	361	2	0	383	6	339	46	0	391	10	0	14	0	24	21	0	8	0	29	827
4:15 - 5:15	21	360	2	0	383	2	358	46	0	406	8	1	14	0	23	31	0	12	0	43	855
4:30 - 5:30	20	395	1	2	418	6	415	45	0	466	5	1	13	0	19	34	0	14	0	48	951
4:45 - 5:45	22	385	1	2	410	5	424	49	0	478	3	1	10	0	14	29	0	13	0	42	944
5:00 - 6:00	19	364	1	2	386	5	421	56	0	482	3	1	10	0	14	32	0	15	0	47	929
PEAK HOUR																					
4:30 - 5:30	20	395	1	2	418	6	415	45	0	466	5	1	13	0	19	34	0	14	0	48	951

CARS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: MD 103
and: Barnett Lane
Location: Howard County, Maryland

Counted by: VCU
Date: June 06, 2024
Weather: Warm/Sunny
Entered by: CP

Thursday
Star Rating: 4



TIME	TRAFFIC FROM NORTH on: MD 103					TRAFFIC FROM SOUTH on: MD 103					TRAFFIC FROM EAST on: Warehouse Access					TRAFFIC FROM WEST on: Barnett Lane					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	1	24	5	0	30	3	34	3	0	40	0	0	2	0	2	18	0	4	0	22	94
7:15 - 7:30	0	54	2	0	56	3	50	1	0	54	1	0	1	0	2	13	0	2	0	15	127
7:30 - 7:45	0	51	1	0	52	2	39	2	0	43	1	0	1	0	2	25	0	2	0	27	124
7:45 - 8:00	2	62	3	0	67	3	56	5	0	64	0	0	1	0	1	2	0	4	0	6	138
8:00 - 8:15	2	49	3	0	54	5	74	1	0	80	0	0	1	0	1	15	0	7	0	22	157
8:15 - 8:30	1	60	2	1	64	5	67	3	0	75	1	0	0	0	1	17	0	4	0	21	161
8:30 - 8:45	1	51	1	0	53	4	57	1	0	62	0	0	0	0	0	8	0	3	0	11	126
8:45 - 9:00	2	41	0	0	43	3	57	4	0	64	0	0	1	0	1	6	0	4	0	10	118
2 Hr Totals	9	392	17	1	419	28	434	20	0	482	3	0	7	0	10	104	0	30	0	134	1045
1 Hr Totals																					
7:00 - 8:00	3	191	11	0	205	11	179	11	0	201	2	0	5	0	7	58	0	12	0	70	483
7:15 - 8:15	4	216	9	0	229	13	219	9	0	241	2	0	4	0	6	55	0	15	0	70	546
7:30 - 8:30	5	222	9	1	237	15	236	11	0	262	2	0	3	0	5	59	0	17	0	76	580
7:45 - 8:45	6	222	9	1	238	17	254	10	0	281	1	0	2	0	3	42	0	18	0	60	582
8:00 - 9:00	6	201	6	1	214	17	255	9	0	281	1	0	2	0	3	46	0	18	0	64	562
PEAK HOUR																					
7:45 - 8:45	6	222	9	1	238	17	254	10	0	281	1	0	2	0	3	42	0	18	0	60	582
PM																					
4:00 - 4:15	3	101	0	0	104	1	94	10	0	105	5	0	4	0	9	1	0	1	0	2	220
4:15 - 4:30	4	72	1	0	77	0	69	11	0	80	3	0	1	0	4	4	0	2	0	6	167
4:30 - 4:45	4	79	0	0	83	1	72	13	0	86	2	0	6	0	8	7	0	3	0	10	187
4:45 - 5:00	8	98	0	0	106	1	94	11	0	106	0	0	2	0	2	8	0	1	0	9	223
5:00 - 5:15	3	103	0	0	106	0	114	10	0	124	3	1	5	0	9	11	0	5	0	16	255
5:15 - 5:30	4	110	0	2	116	3	122	10	0	135	0	0	0	0	0	6	0	4	0	10	261
5:30 - 5:45	6	72	0	0	78	0	81	17	0	98	0	0	2	0	2	3	0	2	0	5	183
5:45 - 6:00	5	76	0	0	81	1	91	19	0	111	0	0	2	0	2	11	0	4	0	15	209
2 Hr Totals	37	711	1	2	751	7	737	101	0	845	13	1	22	0	36	51	0	22	0	73	1705
1 Hr Totals																					
4:00 - 5:00	19	350	1	0	370	3	329	45	0	377	10	0	13	0	23	20	0	7	0	27	797
4:15 - 5:15	19	352	1	0	372	2	349	45	0	396	8	1	14	0	23	30	0	11	0	41	832
4:30 - 5:30	19	390	0	2	411	5	402	44	0	451	5	1	13	0	19	32	0	13	0	45	926
4:45 - 5:45	21	383	0	2	406	4	411	48	0	463	3	1	9	0	13	28	0	12	0	40	922
5:00 - 6:00	18	361	0	2	381	4	408	56	0	468	3	1	9	0	13	31	0	15	0	46	908
PEAK HOUR																					
4:30 - 5:30	19	390	0	2	411	5	402	44	0	451	5	1	13	0	19	32	0	13	0	45	926

PEDESTRIAN AND BICYCLE OBSERVATIONS - SUMMARY

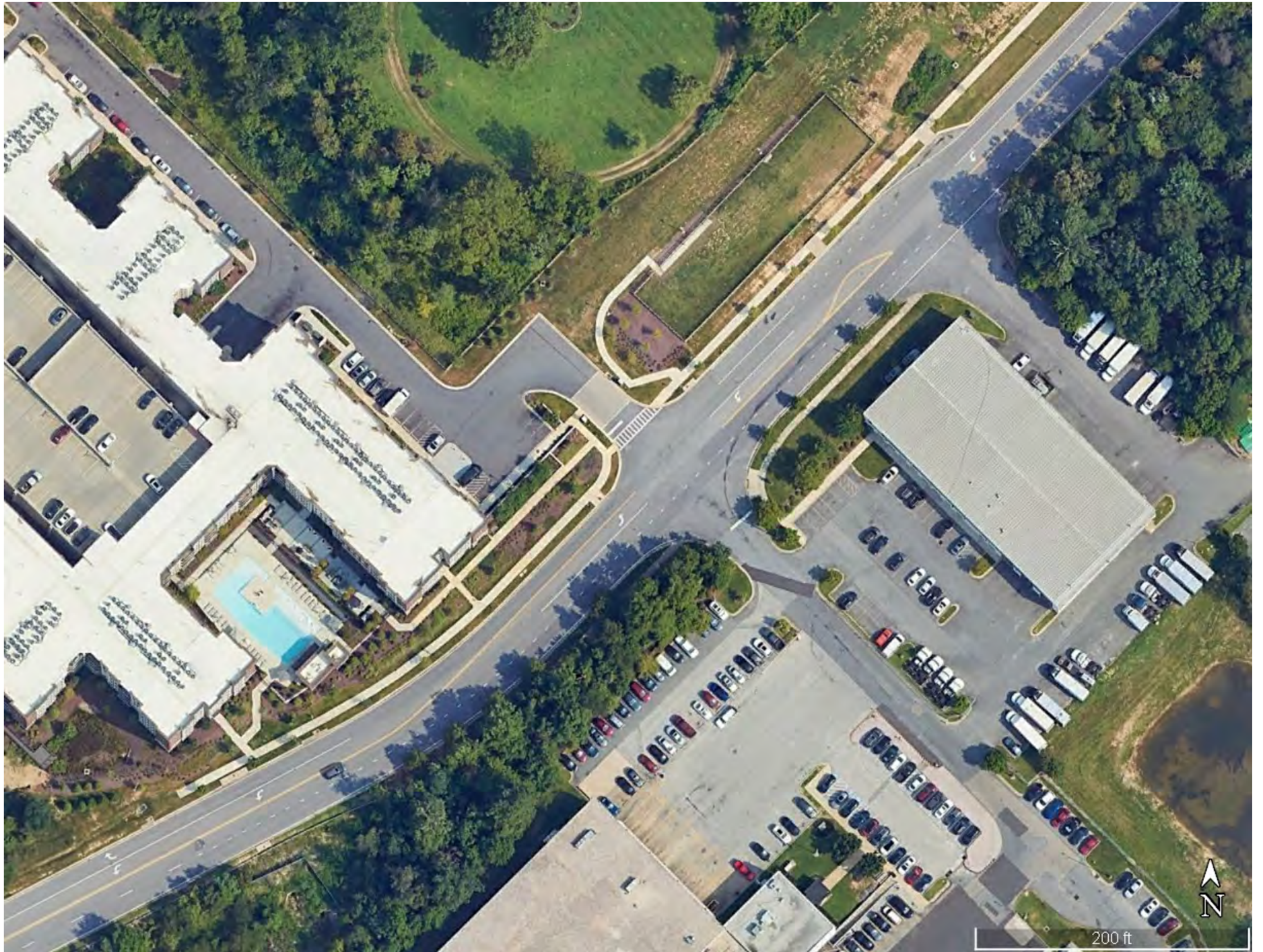
Intersection of: MD 103
and: Barnett Lane
Location: Howard County, Maryland

Counted by: VCU
Date: June 06, 2024
Weather: Warm/Sunny
Entered by: CP

Thursday
Star Rating: 4



TIME	NORTH LEG MD 103		SOUTH LEG MD 103	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	1	0
7:15 - 7:30	0	0	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
TOTALS	0	0	1	0
PM				
4:00 - 4:15	0	0	0	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	1	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	1	0
	EAST LEG Warehouse Access		WEST LEG Barnett Lane	
	Pedestrians	Bicycles	Pedestrians	Bicycles
AM				
7:00 - 7:15	0	0	0	0
7:15 - 7:30	2	0	0	1
7:30 - 7:45	0	0	0	0
7:45 - 8:00	0	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	0	0	0
8:30 - 8:45	0	0	1	0
8:45 - 9:00	0	0	1	0
TOTALS	2	0	2	1
PM				
4:00 - 4:15	0	0	3	0
4:15 - 4:30	0	0	0	0
4:30 - 4:45	0	0	0	0
4:45 - 5:00	0	0	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	0	0	0	0
5:30 - 5:45	0	0	0	0
5:45 - 6:00	0	0	0	0
TOTALS	0	0	3	0



APPENDIX C

Trip Assignment for Background Developments



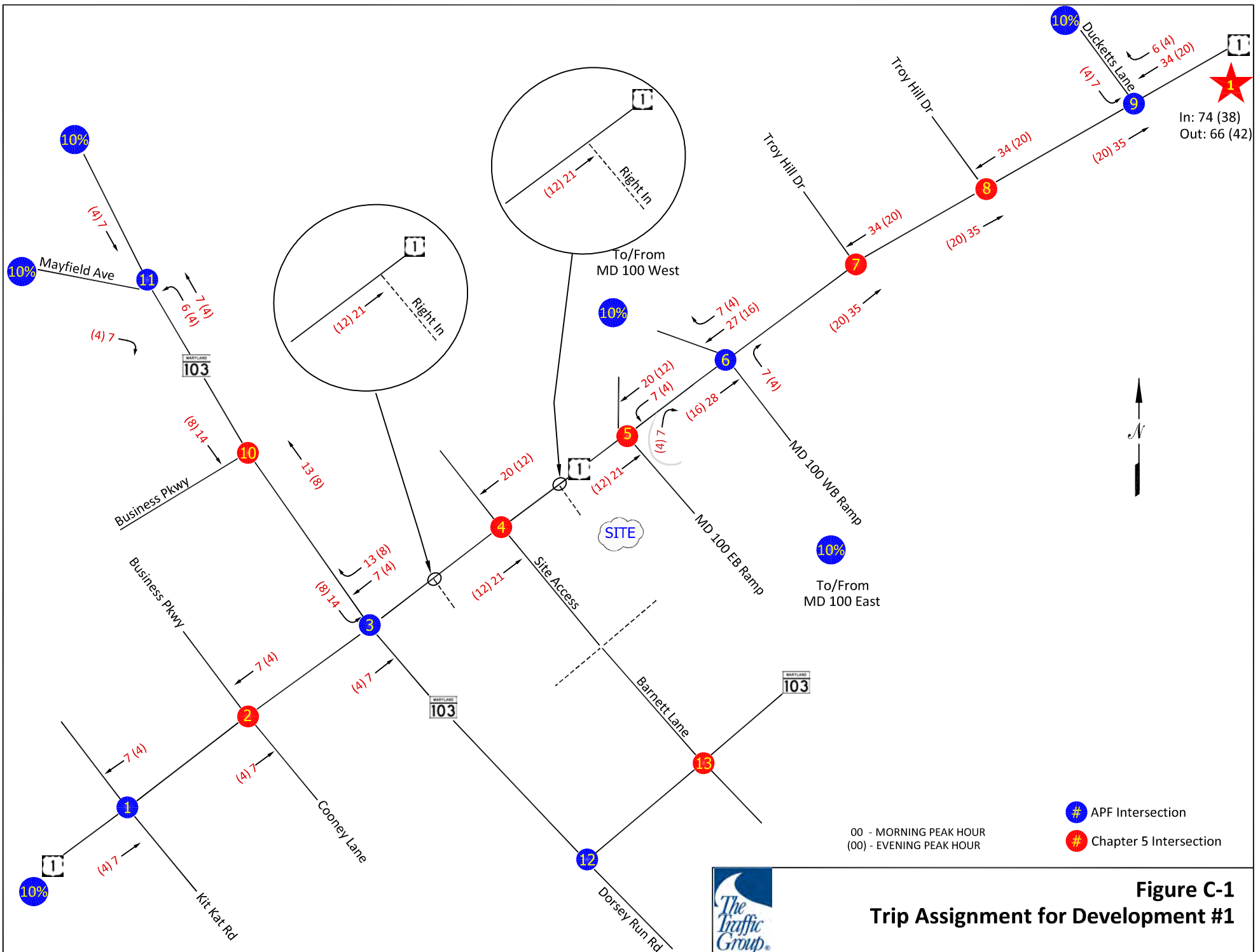
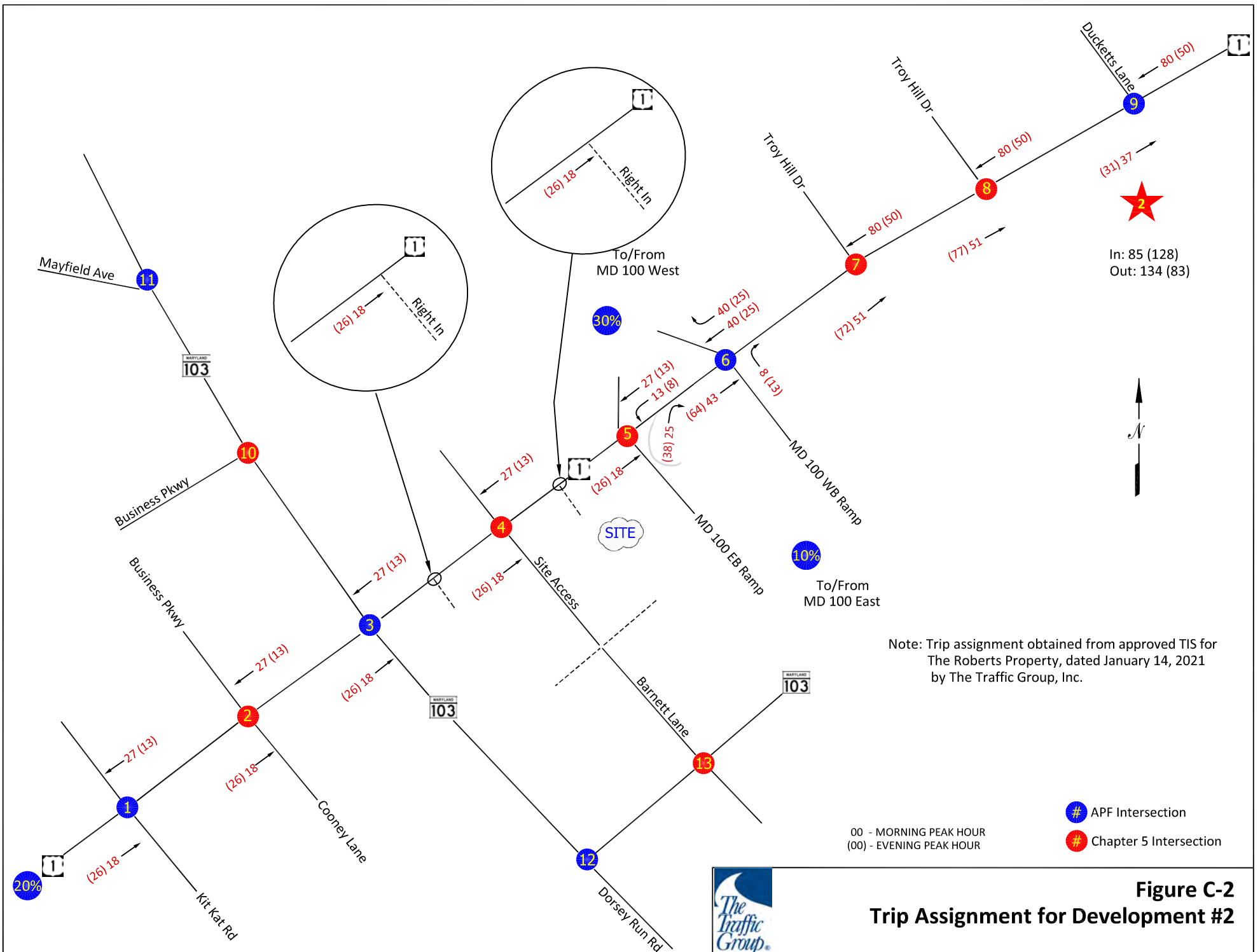
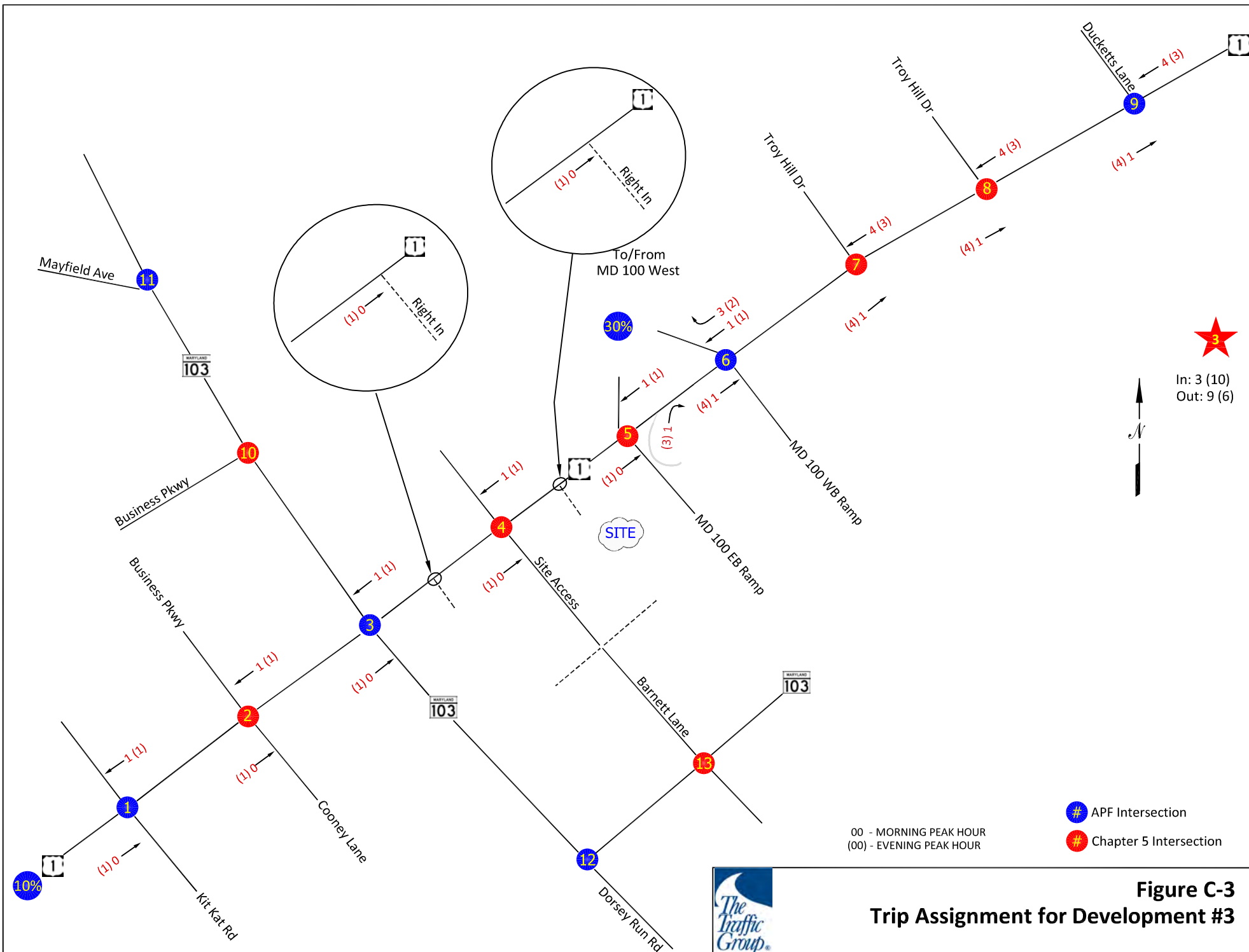


Figure C-1
Trip Assignment for Development #1

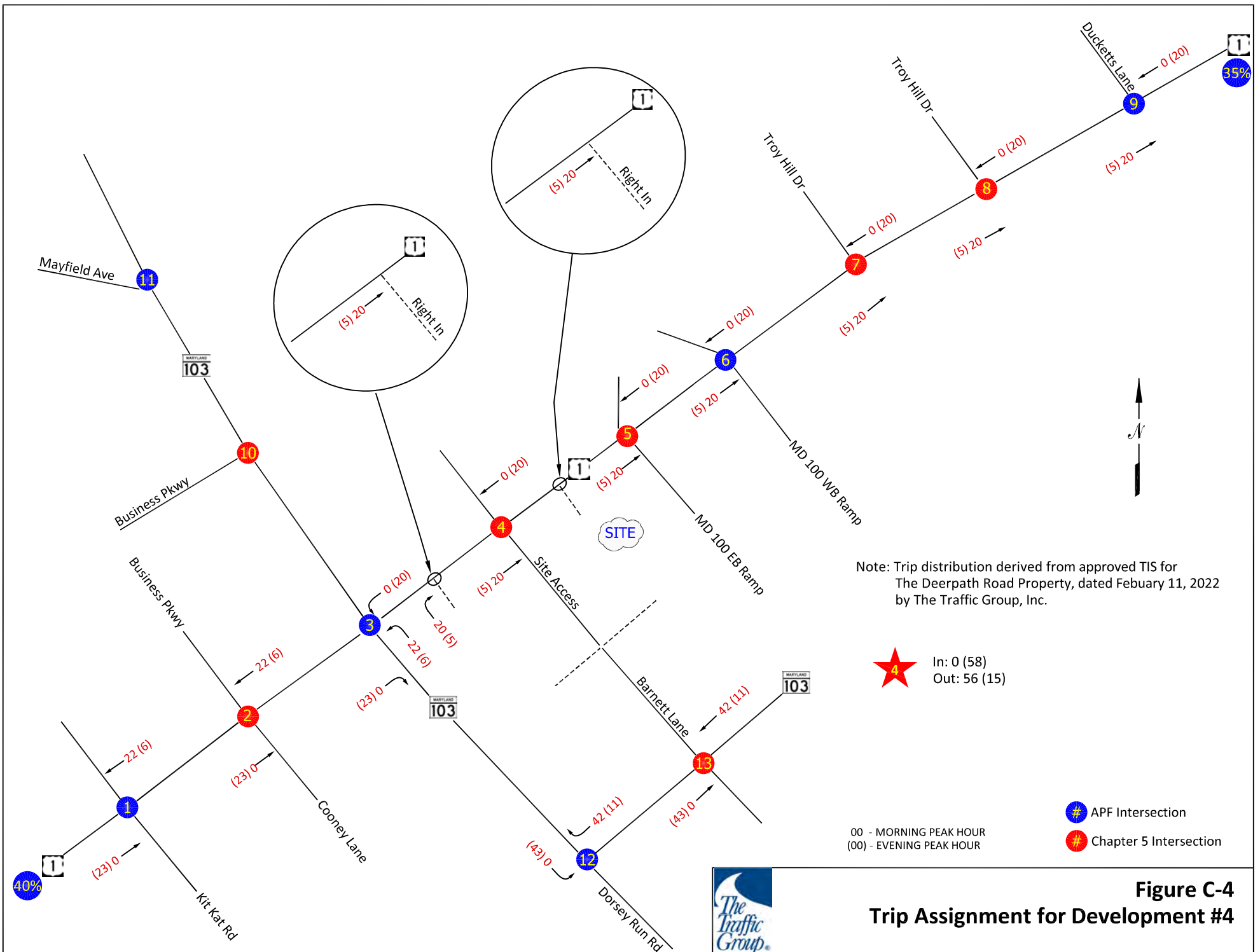


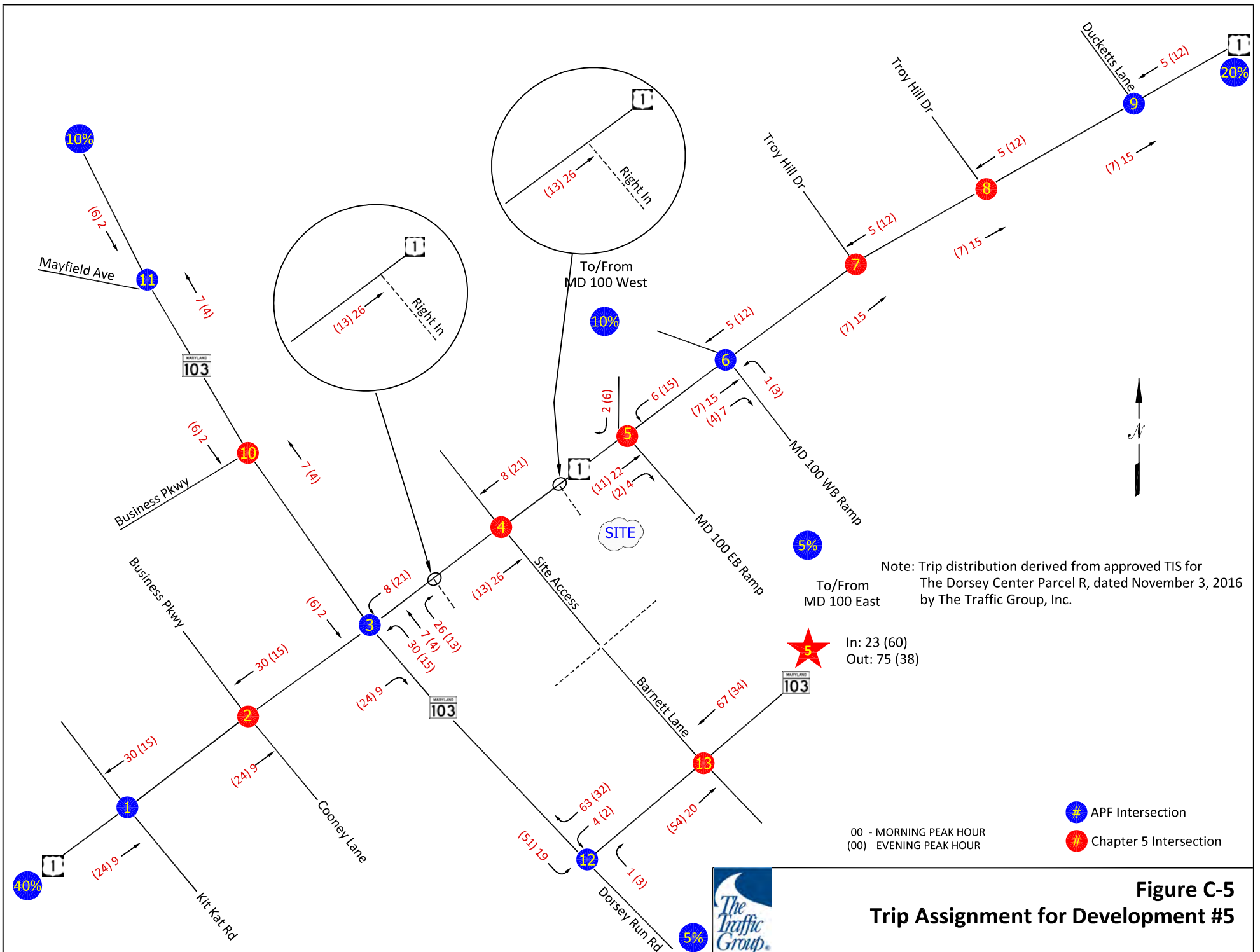


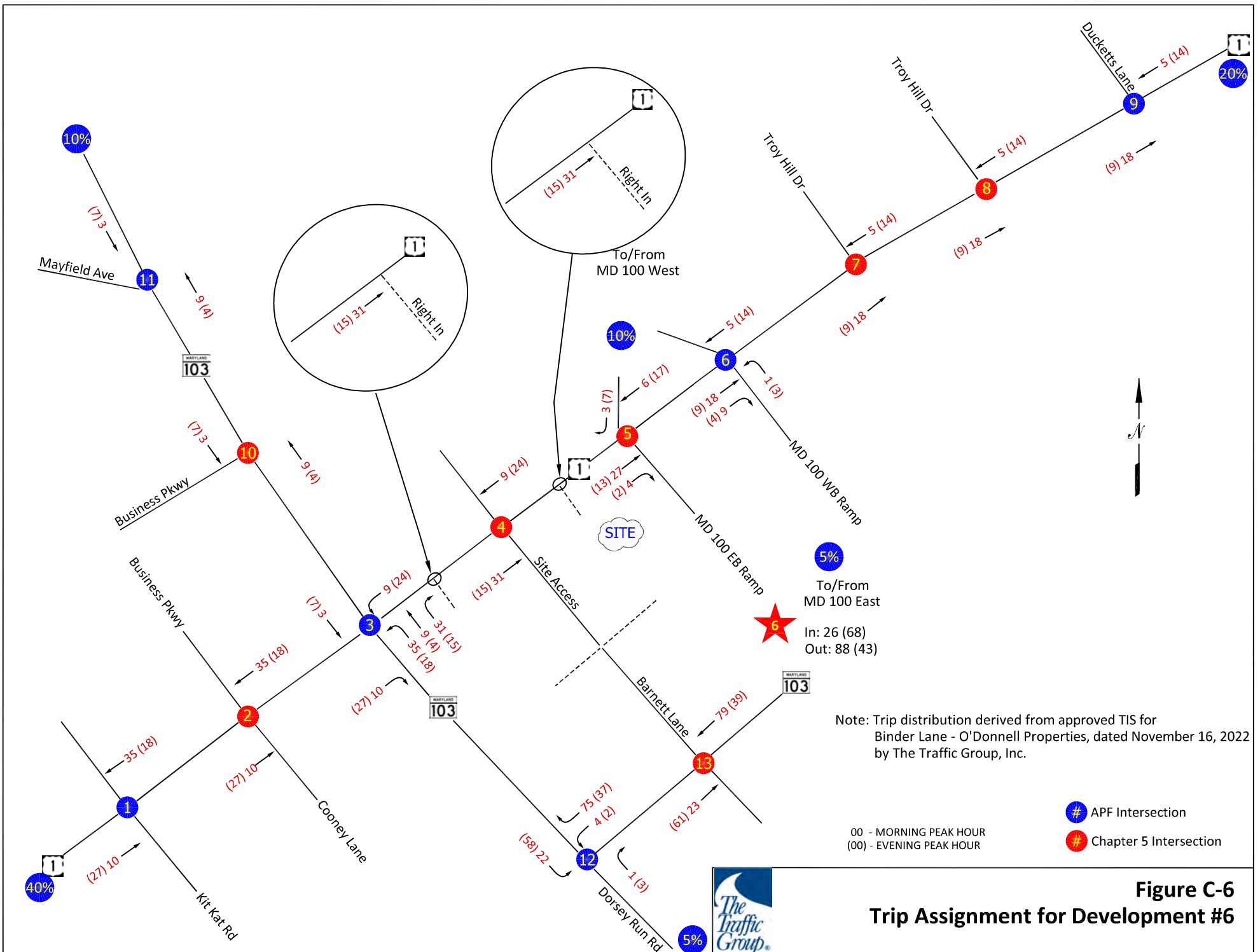
APF Intersection
 * Chapter 5 Intersection
 00 - MORNING PEAK HOUR
 (00) - EVENING PEAK HOUR

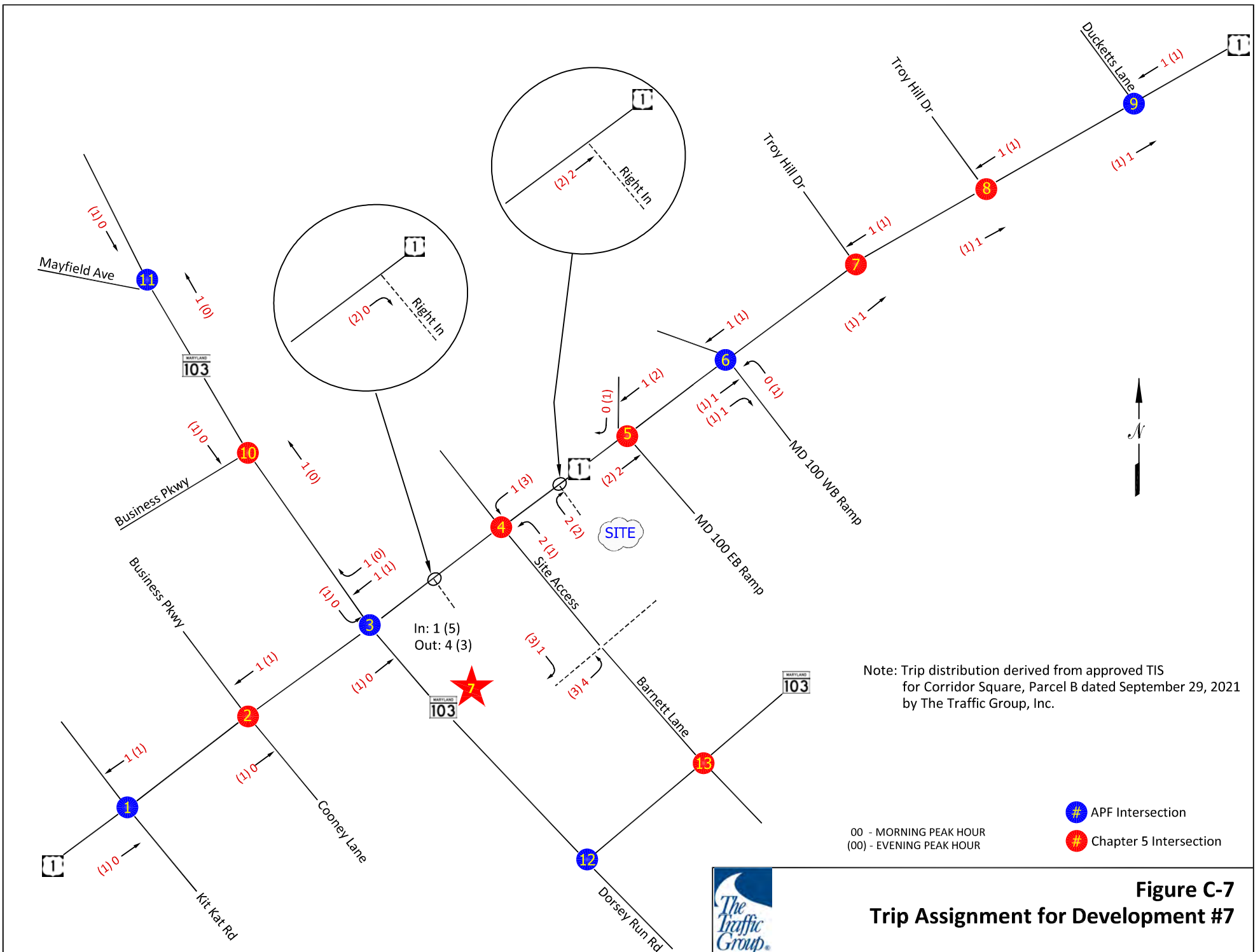
Figure C-3
Trip Assignment for Development #3











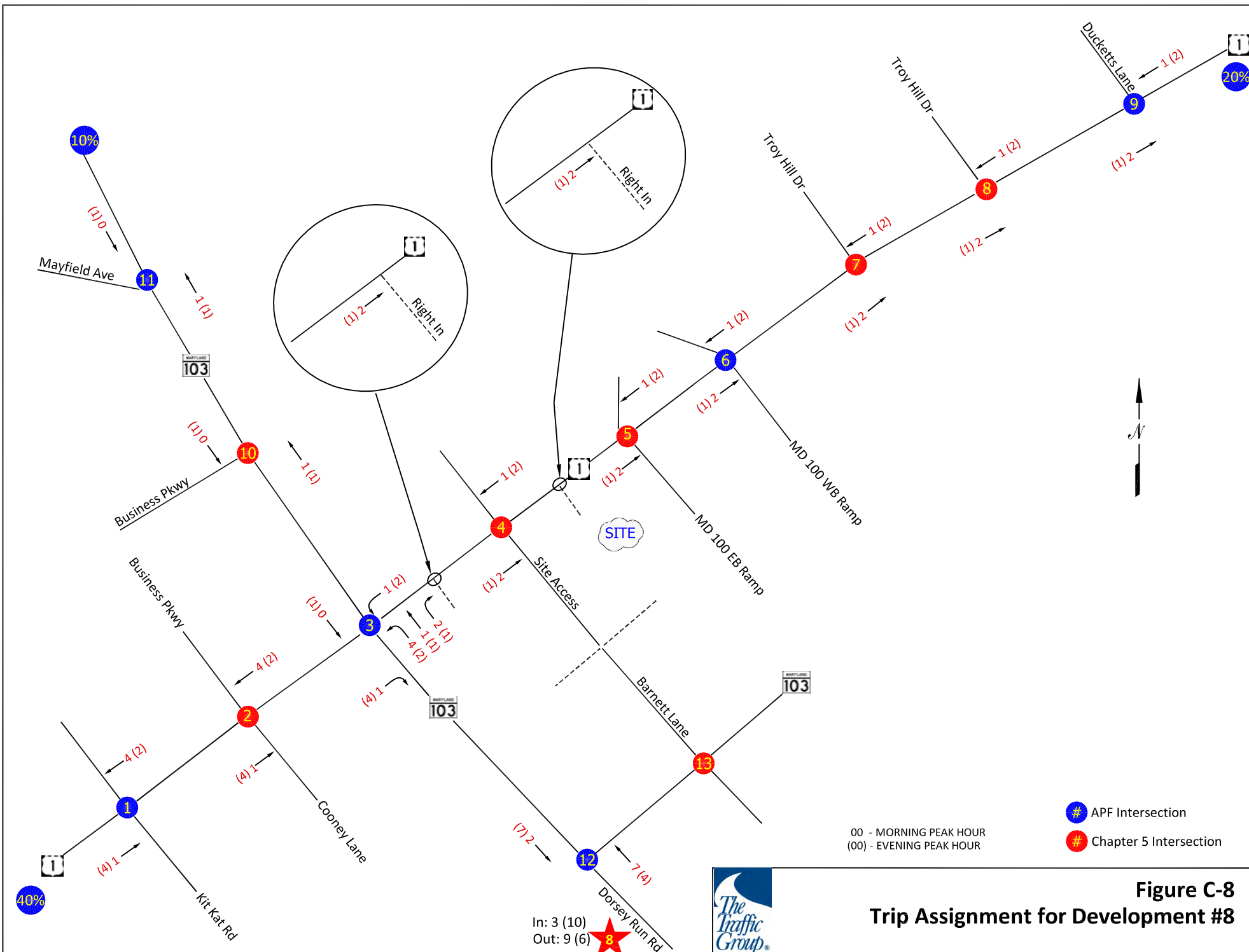
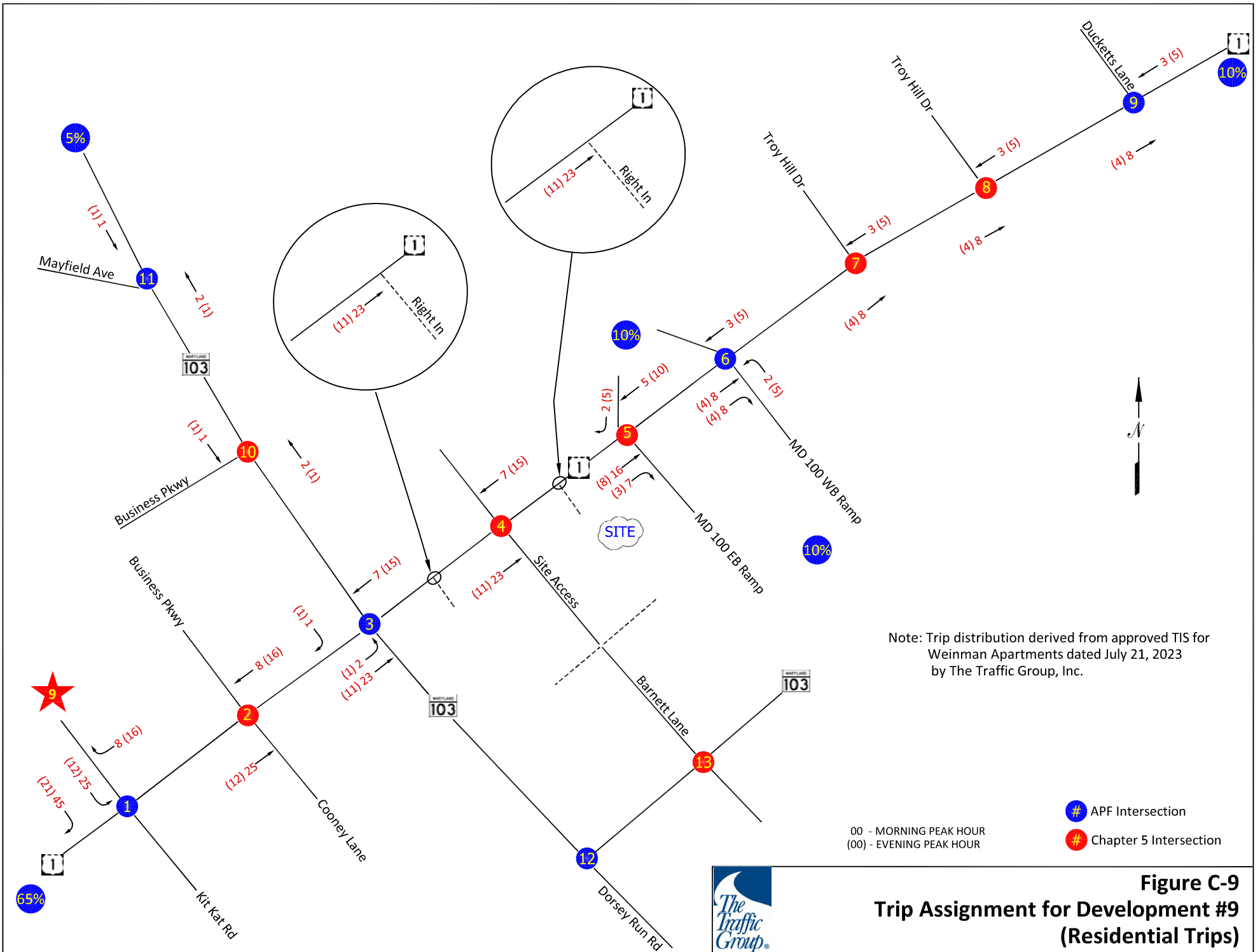
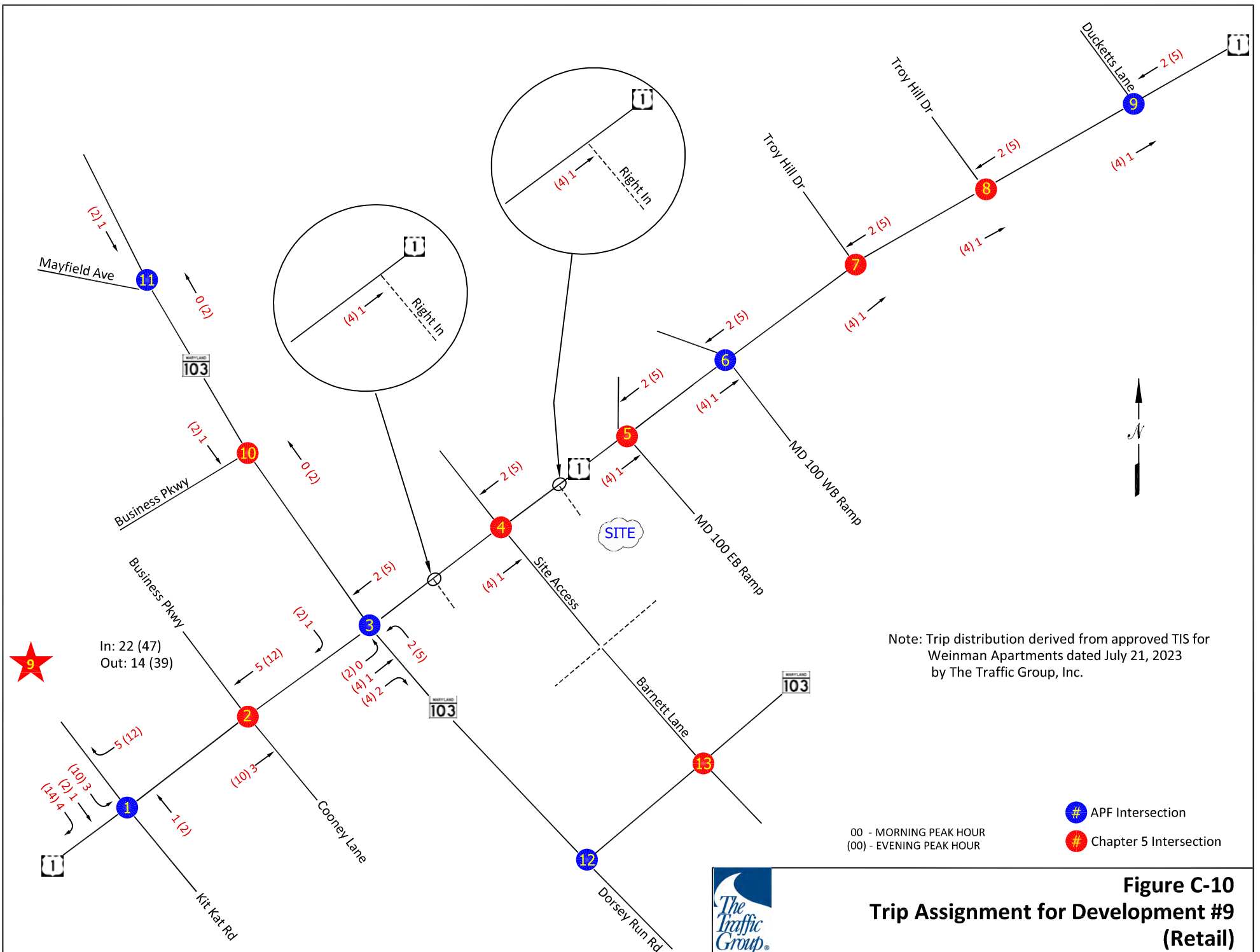


Figure C-8
Trip Assignment for Development #8



In: 3 (10)
 Out: 9 (6)





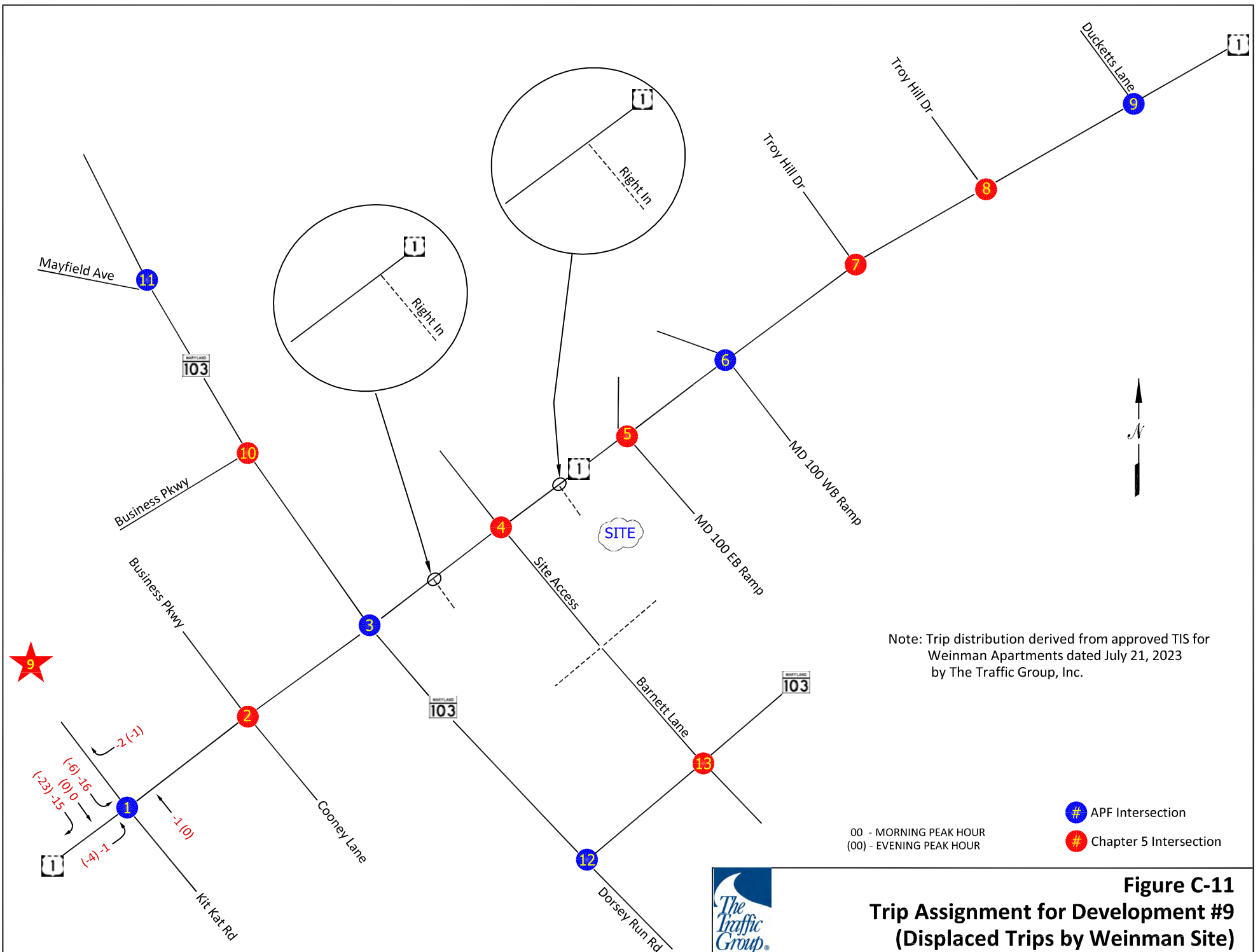


Figure C-11
Trip Assignment for Development #9
(Displaced Trips by Weinman Site)

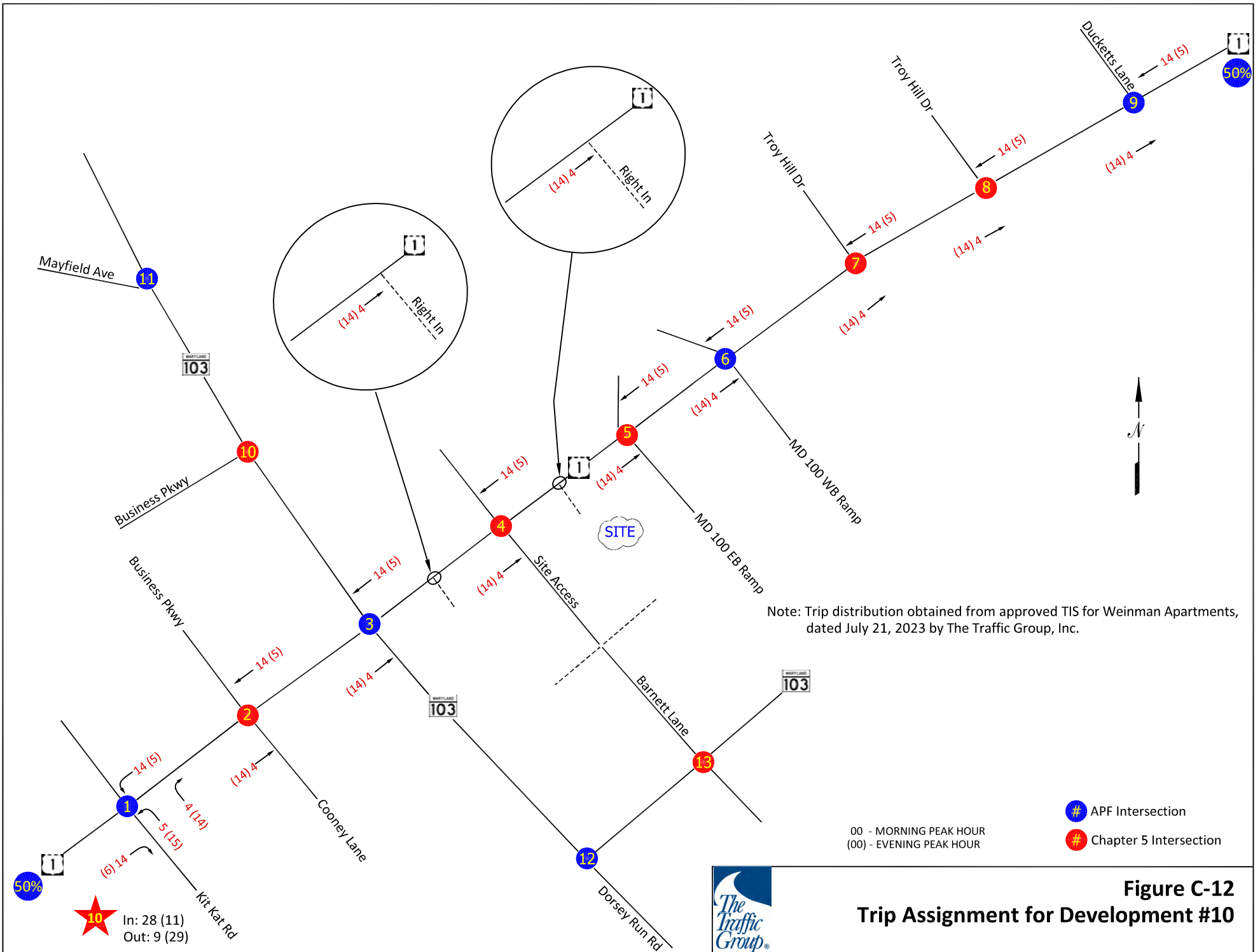
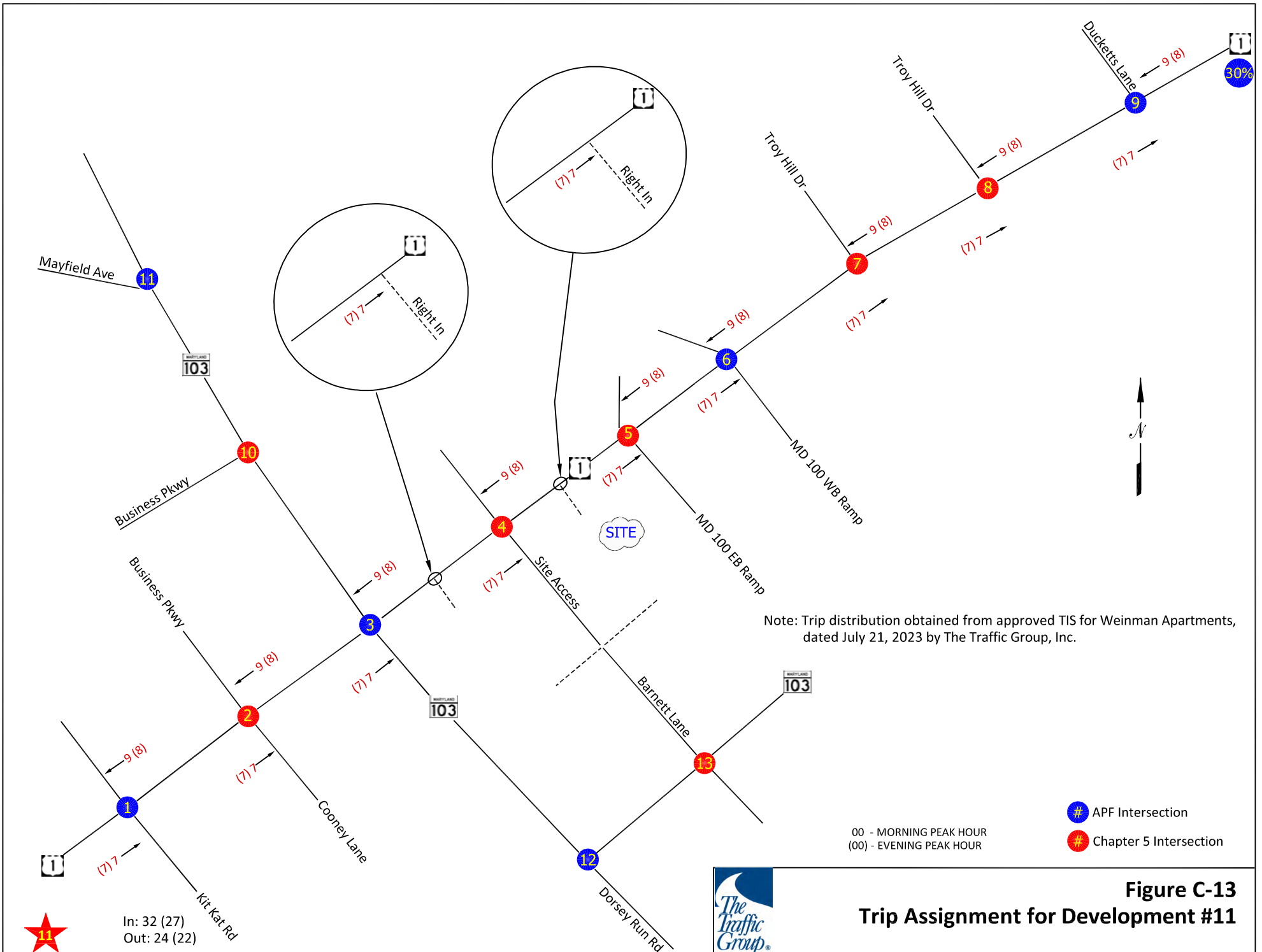
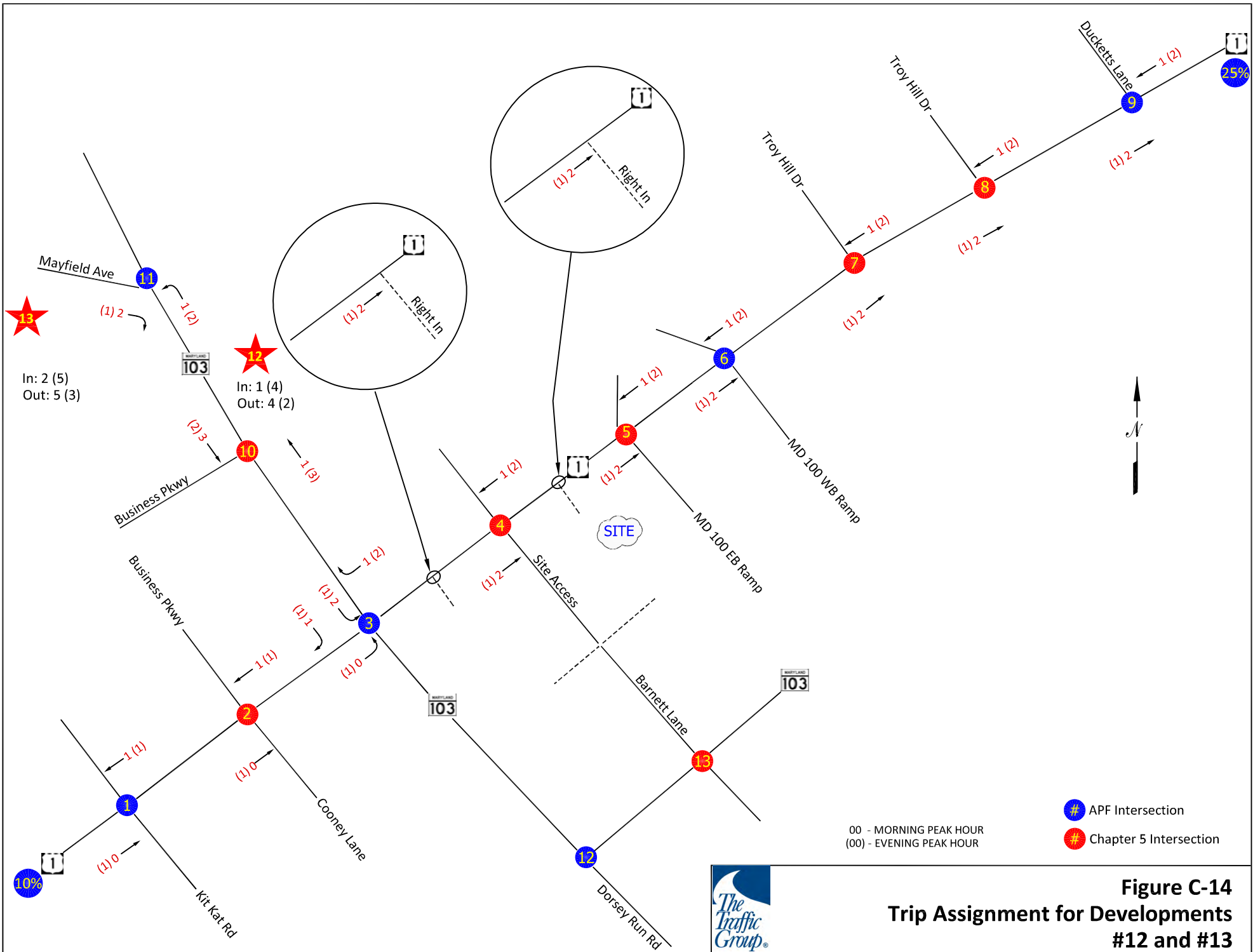


Figure C-12
Trip Assignment for Development #10



In: 32 (27)
 Out: 24 (22)





APPENDIX D

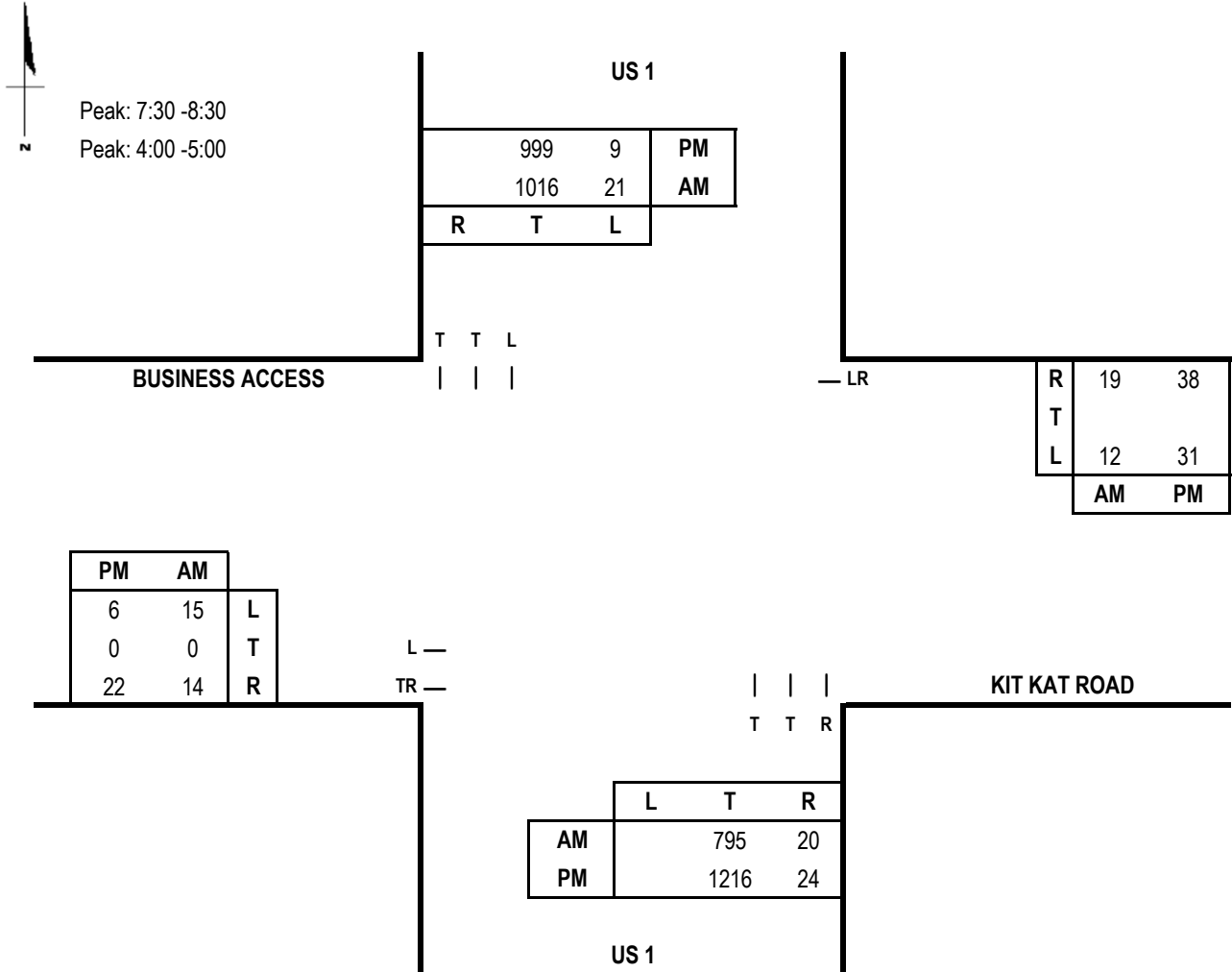
Intersection Capacity Analysis Worksheets



CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Kit Kat Road/Business Access **Date of Count:** 5/23/2024
N/S Road: US 1 **Day of Count:** Thursday
Conditions: Existing Traffic **Analyst:** Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	795	0.55	437	21	1.00	21	559
SB	1016	0.55	559	1	0.00	0	
EB	14	1.00	14	12	0.00	0	15
WB	1	0.00	0	15	1.00	15	
CLV TOTAL=							574
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	1216	0.55	669	9	1.00	9	678
SB	999	0.55	549	4	0.00	0	
EB	22	1.00	22	31	0.00	0	22
WB	0	0.00	0	6	1.00	6	
CLV TOTAL=							700
Level of Service (LOS)=							A

Scenario ID - EXIST1

AM V/C = 0.36

PM V/C = 0.44

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Kit Kat Road/Business Access

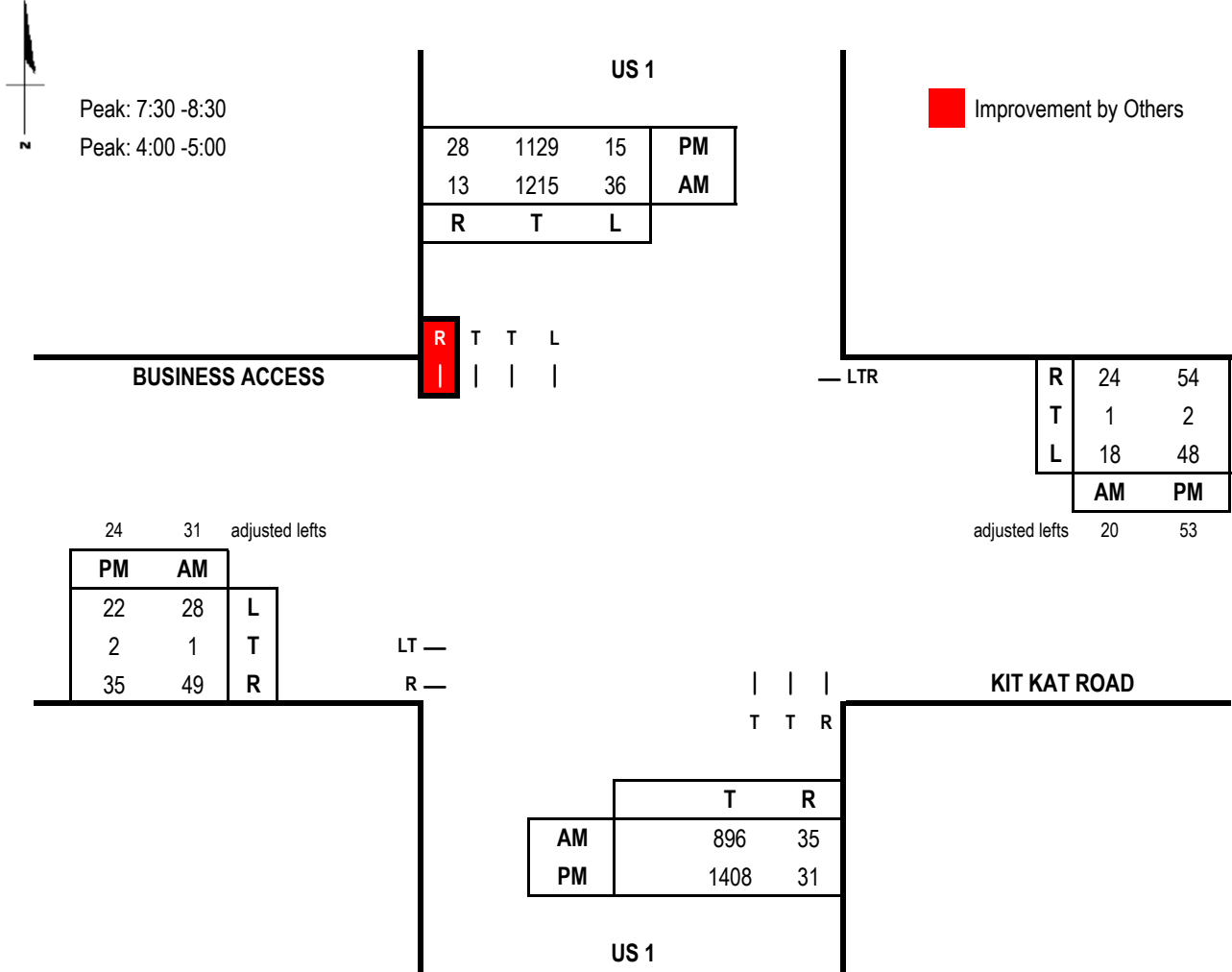
Date of Count: 5/23/2024

N/S Road: US 1

Day of Count: Thursday

Conditions: Background Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	896	0.55	493	36	1.00	36	668
SB	1215	0.55	668	0	0.00	0	
EB	49	1.00	49	18	1.00	18	73
WB	45	1.00	45	28	1.00	28	

CLV TOTAL= **741**
Level of Service (LOS)= **A**

AM V/C = 0.46

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	1408	0.55	774	15	1.00	15	789
SB	1129	0.55	621	0	0.00	0	
EB	35	1.00	35	48	1.00	48	131
WB	109	1.00	109	22	1.00	22	

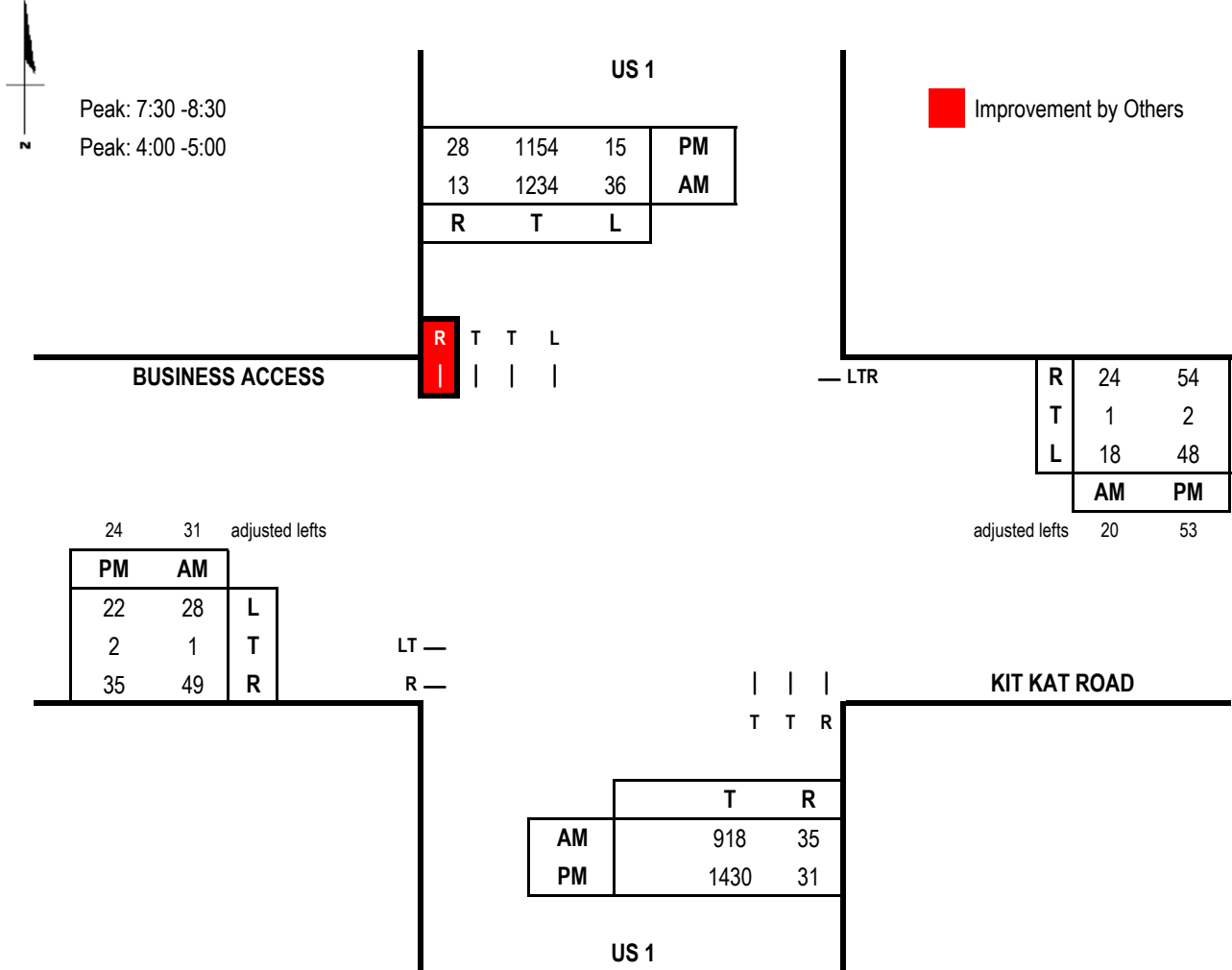
CLV TOTAL= **920**
Level of Service (LOS)= **A**

PM V/C = 0.58

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Kit Kat Road/Business Access **Date of Count:** 5/23/2024
N/S Road: US 1 **Day of Count:** Thursday
Conditions: Total Traffic **Analyst:** Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	918	0.55	505	36	1.00	36	679
SB	1234	0.55	679	0	0.00	0	
EB	49	1.00	49	18	1.00	18	73
WB	45	1.00	45	28	1.00	28	
CLV TOTAL=							752
Level of Service (LOS)=							A

AM V/C = 0.47

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	1430	0.55	787	15	1.00	15	802
SB	1154	0.55	635	0	0.00	0	
EB	35	1.00	35	48	1.00	48	131
WB	109	1.00	109	22	1.00	22	
CLV TOTAL=							933
Level of Service (LOS)=							A

PM V/C = 0.58

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Cooney Lane/Business Parkway

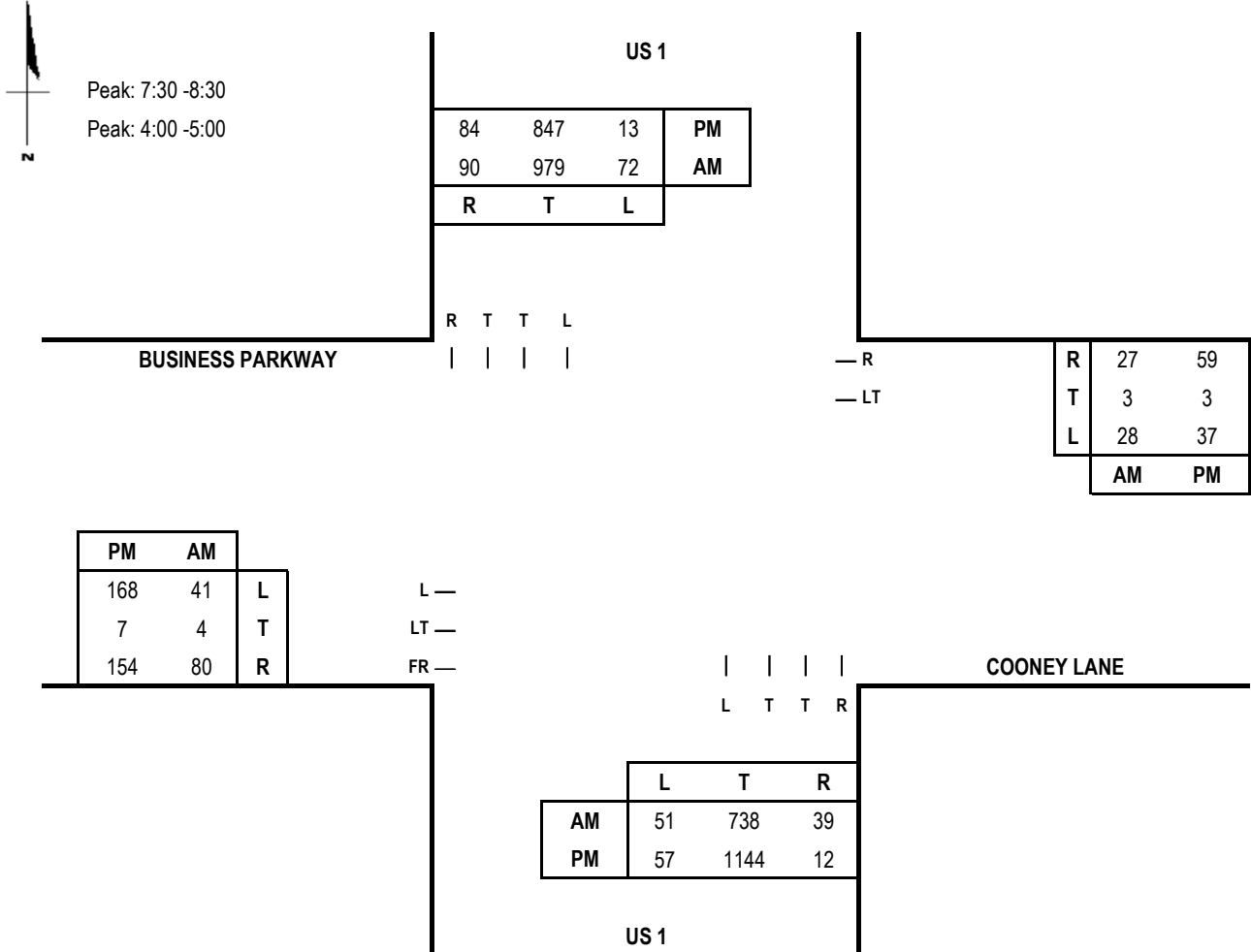
Date of Count: 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Existing Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	45	0.60	27				27
WB	31	1.00	31				31
NB	738	0.55	406	72	1.00	72	589
SB	979	0.55	538	51	1.00	51	
CLV TOTAL=							647
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	175	0.60	105				105
WB	46	1.00	46				46
NB	1144	0.55	629	13	1.00	13	642
SB	847	0.55	466	57	1.00	57	
CLV TOTAL=							793
Level of Service (LOS)=							A

Scenario ID - EXIST2

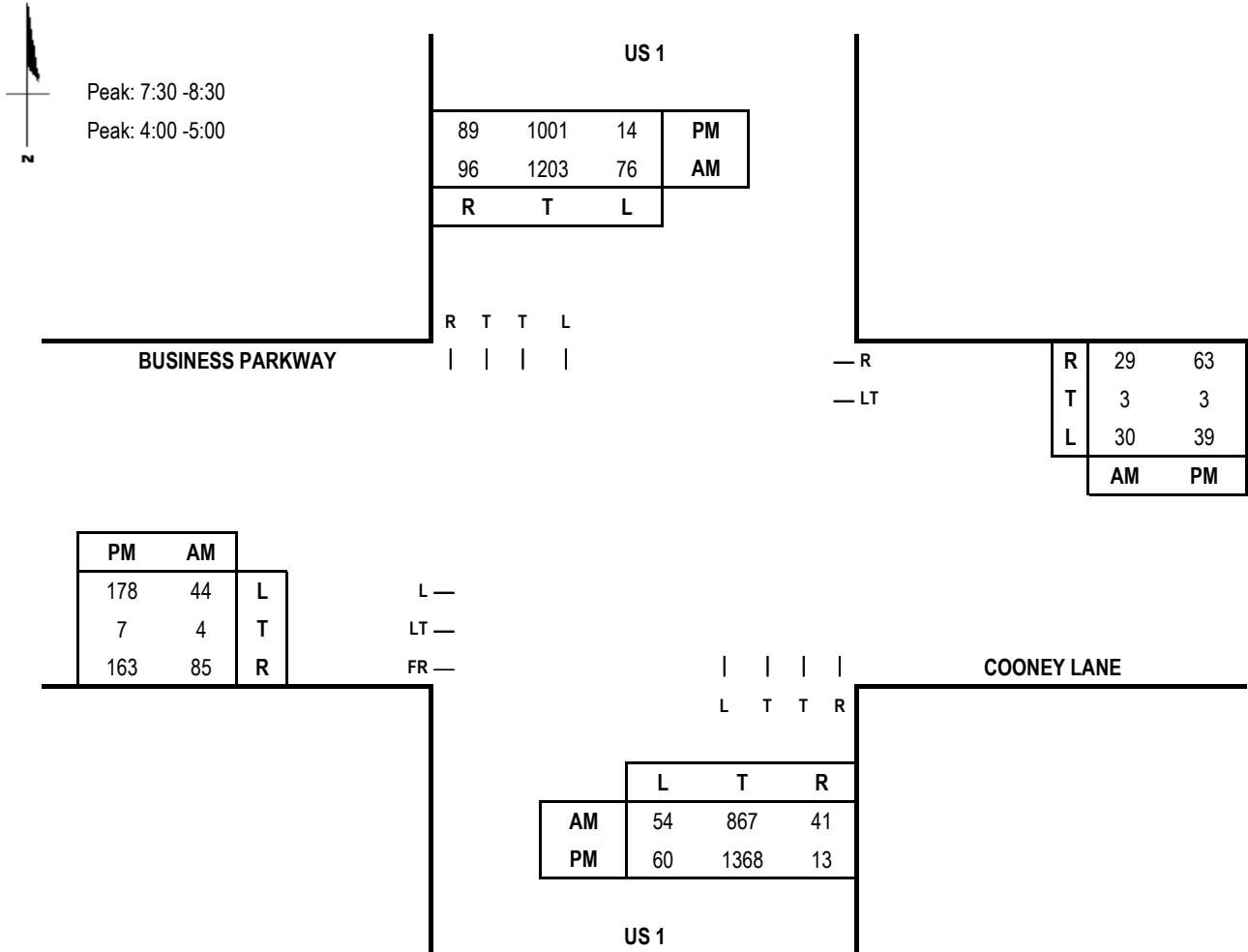
V/C =0.4

V/C =0.5

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Cooney Lane/Business Parkway **Date of Count:** 5/23/2024
N/S Road: US 1 **Day of Week:** Thursday
Conditions: Background Traffic **Analyst:** Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	48	0.60	29				29
WB	33	1.00	33				33
NB	867	0.55	477	76	1.00	76	716
SB	1203	0.55	662	54	1.00	54	
CLV TOTAL=							778
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	185	0.60	111				111
WB	49	1.00	49				49
NB	1368	0.55	752	14	1.00	14	766
SB	1001	0.55	551	60	1.00	60	
CLV TOTAL=							926
Level of Service (LOS)=							A

Scenario ID - BACK2

V/C = 0.49

V/C = 0.58

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Cooney Lane/Business Parkway

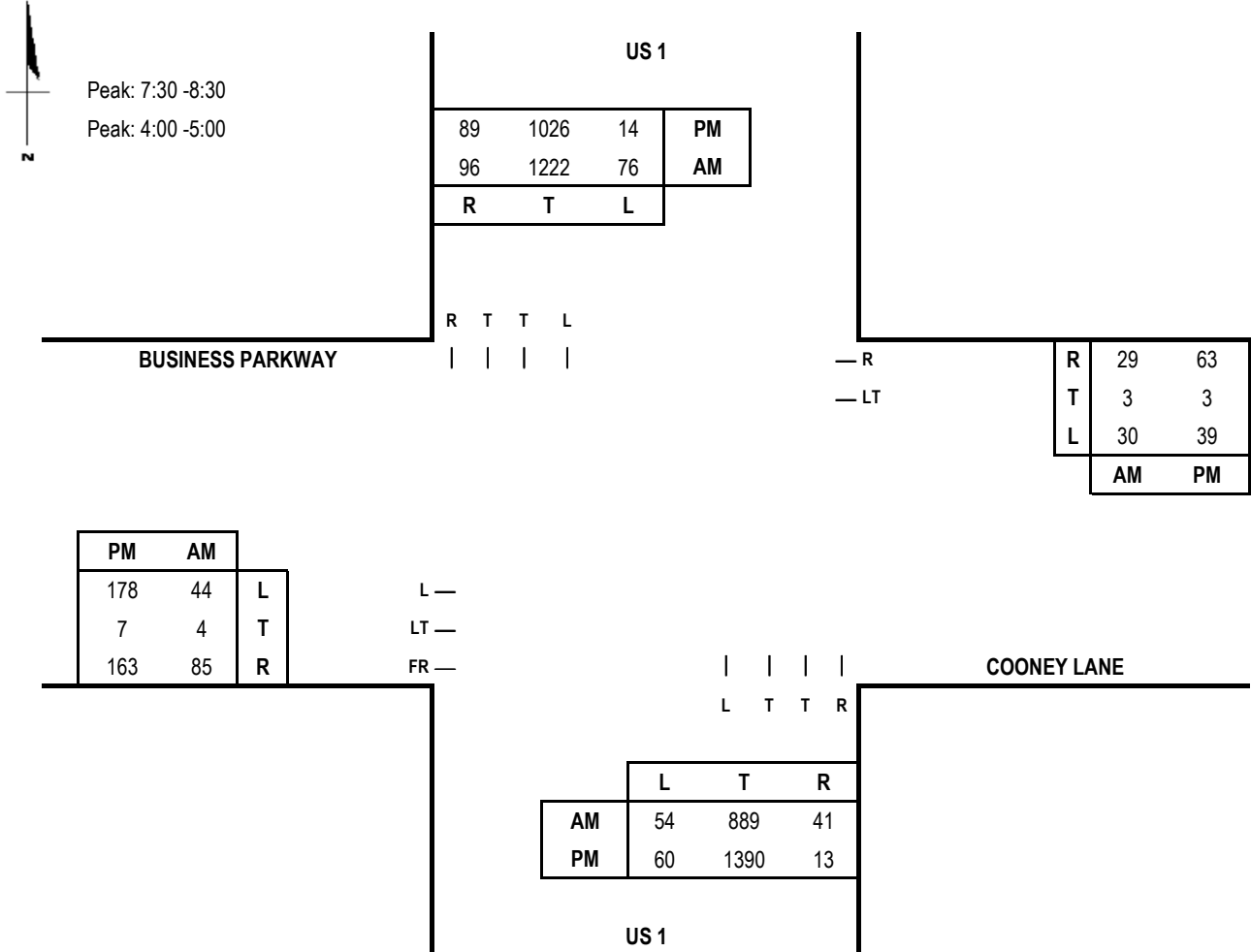
Date of Count: 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Total Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	48	0.60	29				29
WB	33	1.00	33				33
NB	889	0.55	489	76	1.00	76	726
SB	1222	0.55	672	54	1.00	54	
CLV TOTAL=							788
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	185	0.60	111				111
WB	49	1.00	49				49
NB	1390	0.55	765	14	1.00	14	779
SB	1026	0.55	564	60	1.00	60	
CLV TOTAL=							939
Level of Service (LOS)=							A

Scenario ID - TOT2

V/C = 0.49

V/C = 0.59

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: MD 103

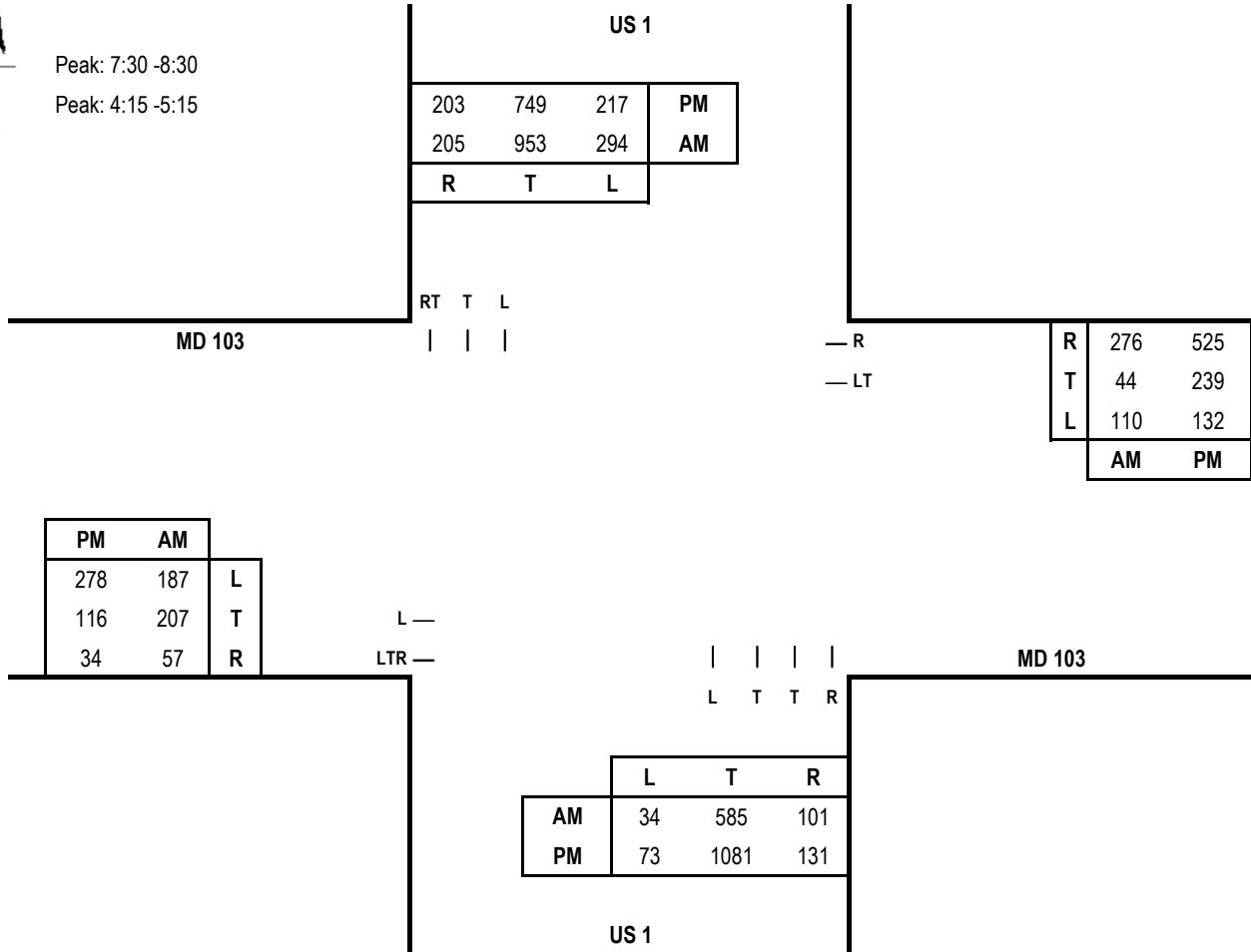
Date of Count: 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Existing Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	264	1.00	264				264
WB	154	1.00	154				154
NB	585	0.55	322	294	1.00	294	671
SB	1158	0.55	637	34	1.00	34	
CLV TOTAL=							1,089
Level of Service (LOS)=							B

V/C = 0.68

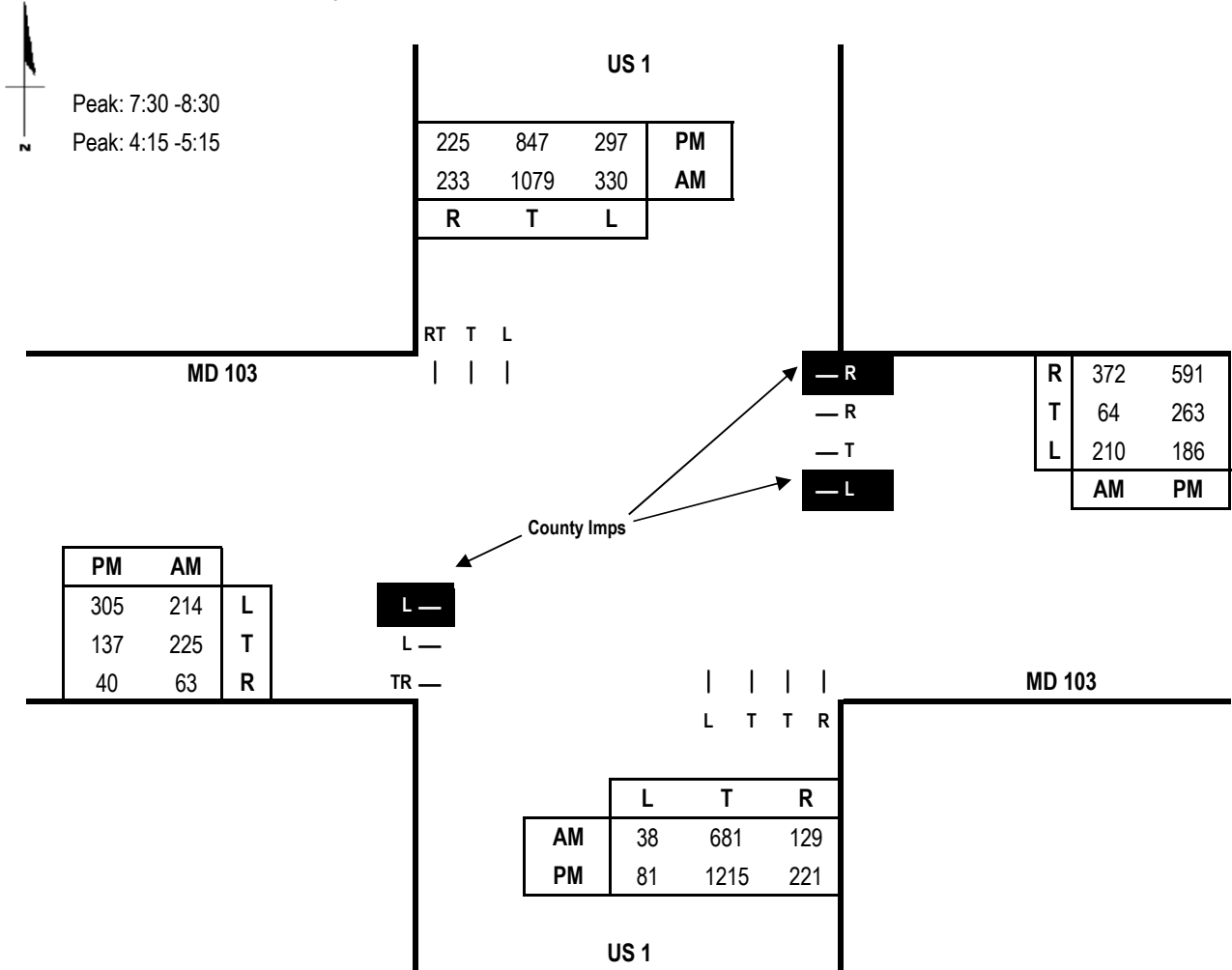
Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	428	0.55	235				235
WB	371	1.00	371				371
NB	1081	0.55	595	217	1.00	217	812
SB	952	0.55	524	73	1.00	73	
CLV TOTAL=							1,418
Level of Service (LOS)=							D

V/C = 0.89

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 103
N/S Road: US 1
Conditions: Background Traffic
w/ improvement

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	681	0.55	375	330	1.00	330	760
SB	1312	0.55	722	38	1.00	38	
EB	288	1.00	288	210	1.00	210	498
WB	64	1.00	64	214	0.60	128	
CLV TOTAL=							1,258
Level of Service (LOS)=							C

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	1215	0.55	668	297	1.00	297	965
SB	1072	0.55	590	81	1.00	81	
EB	177	1.00	177	186	1.00	186	446
WB	263	1.00	263	305	0.60	183	
CLV TOTAL=							1,411
Level of Service (LOS)=							D

Scenario ID - BACK3

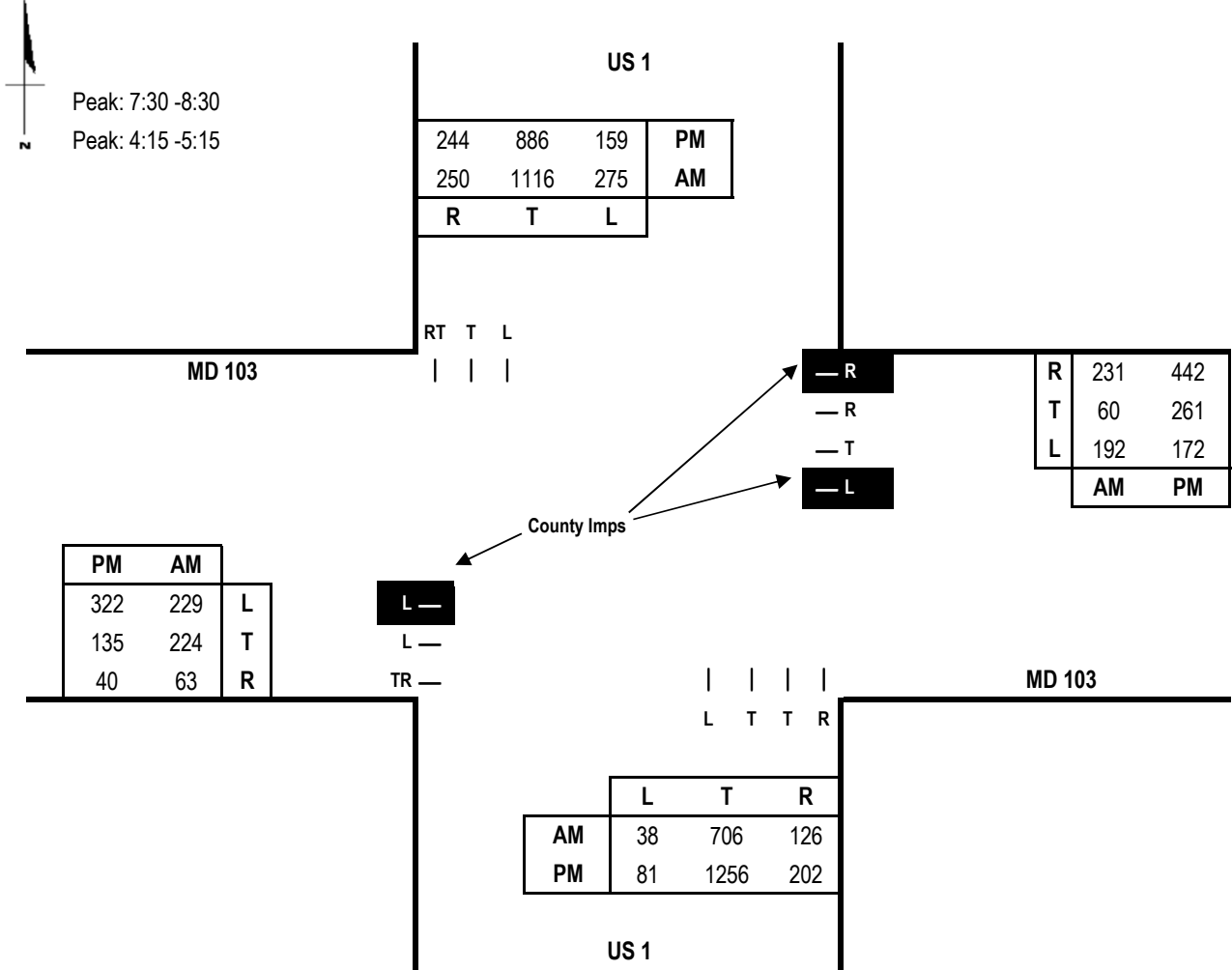
AM V/C = 0.79

PM V/C = 0.88

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 103
N/S Road: US 1
Conditions: Total Traffic
w/ improvement

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	706	0.55	388	275	1.00	275	789
SB	1366	0.55	751	38	1.00	38	
EB	287	1.00	287	192	1.00	192	479
WB	60	1.00	60	229	0.60	137	
CLV TOTAL=							1,268
Level of Service (LOS)=							C

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	1256	0.55	691	159	1.00	159	850
SB	1130	0.55	622	81	1.00	81	
EB	175	1.00	175	172	1.00	172	454
WB	261	1.00	261	322	0.60	193	
CLV TOTAL=							1,304
Level of Service (LOS)=							D

Scenario ID - TOT3

AM V/C = 0.79

PM V/C = 0.82

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: Funeral Home Access/Site Access

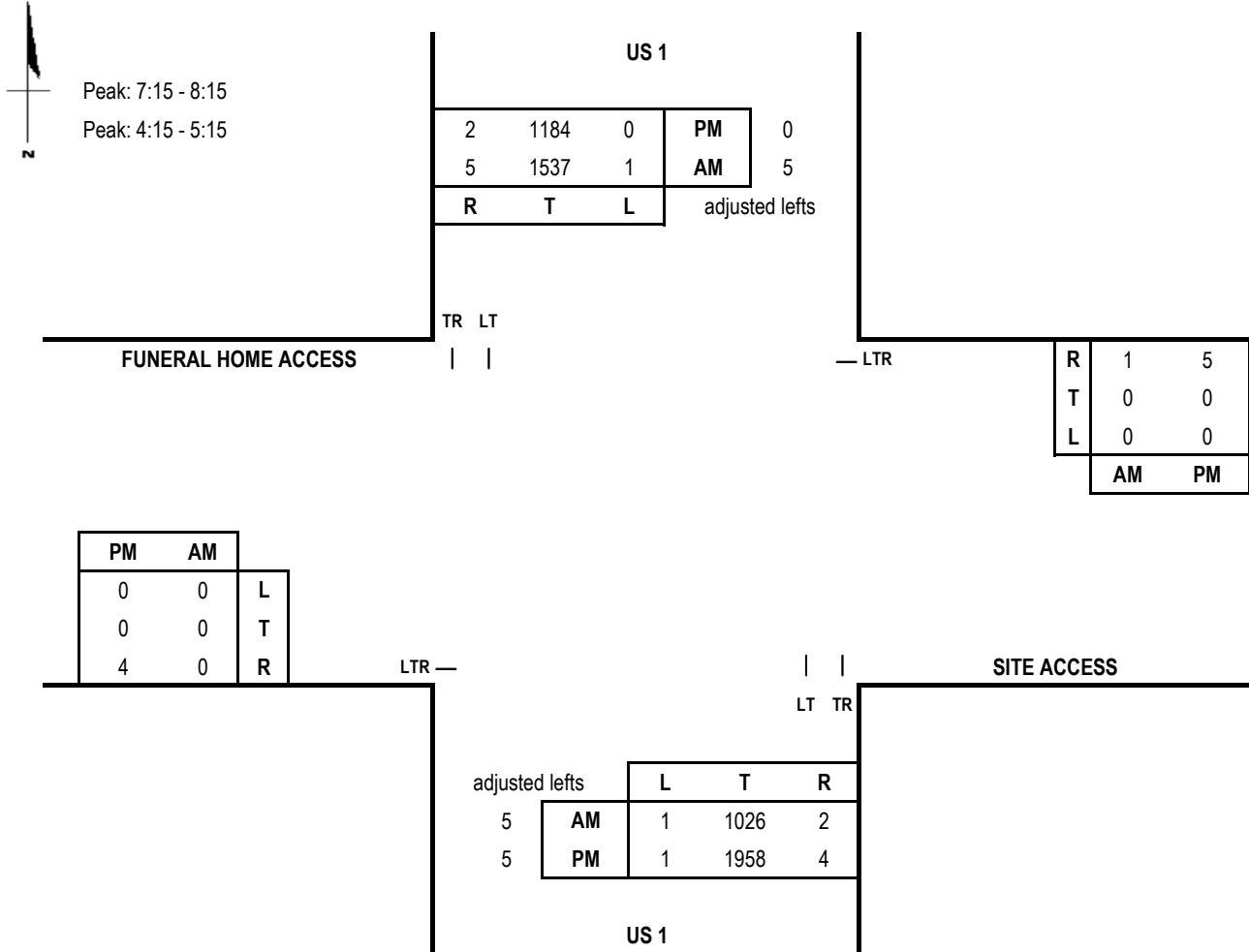
Date of Count: 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Existing Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	0	1.00	0				0
WB	1	1.00	1				1
NB	1033	0.55	568	1	1.00	1	852
SB	1547	0.55	851	1	1.00	1	
CLV TOTAL=							853
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	4	1.00	4				4
WB	5	1.00	5				5
NB	1967	0.55	1082	0	1.00	0	1082
SB	1186	0.55	652	1	1.00	1	
CLV TOTAL=							1,091
Level of Service (LOS)=							B

Scenario ID - EXIST18

AM V/C = 0.53

PM V/C = 0.68

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: Funeral Home Access/Site Access

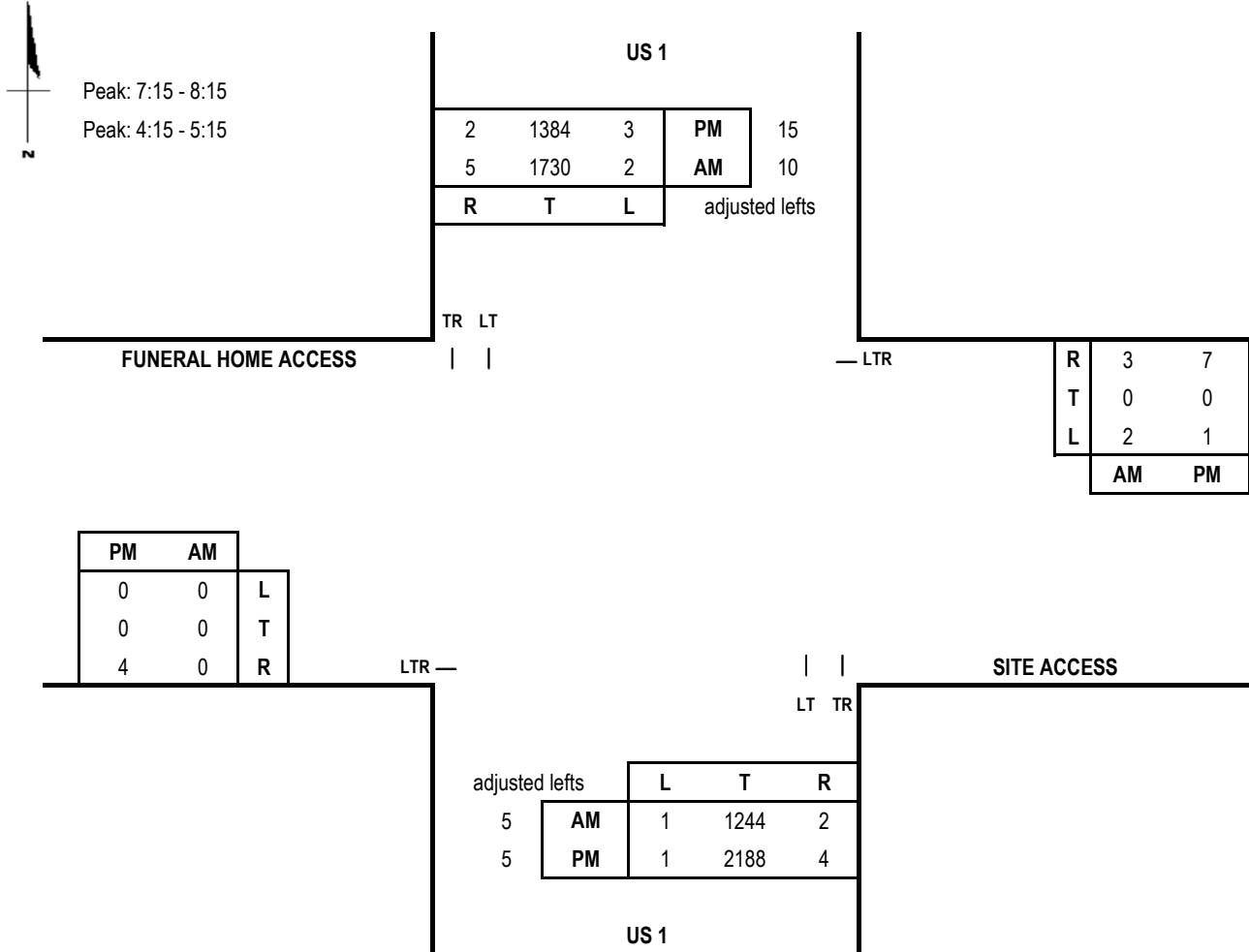
Date of Count: 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Background Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	0	1.00	0				0
WB	5	1.00	5				5
NB	1251	0.55	688	2	1.00	2	961
SB	1745	0.55	960	1	1.00	1	
CLV TOTAL=							966
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	4	1.00	4				4
WB	8	1.00	8				8
NB	2197	0.55	1208	3	1.00	3	1211
SB	1401	0.55	771	1	1.00	1	
CLV TOTAL=							1,223
Level of Service (LOS)=							C

Scenario ID - EXIST18

AM V/C = 0.6

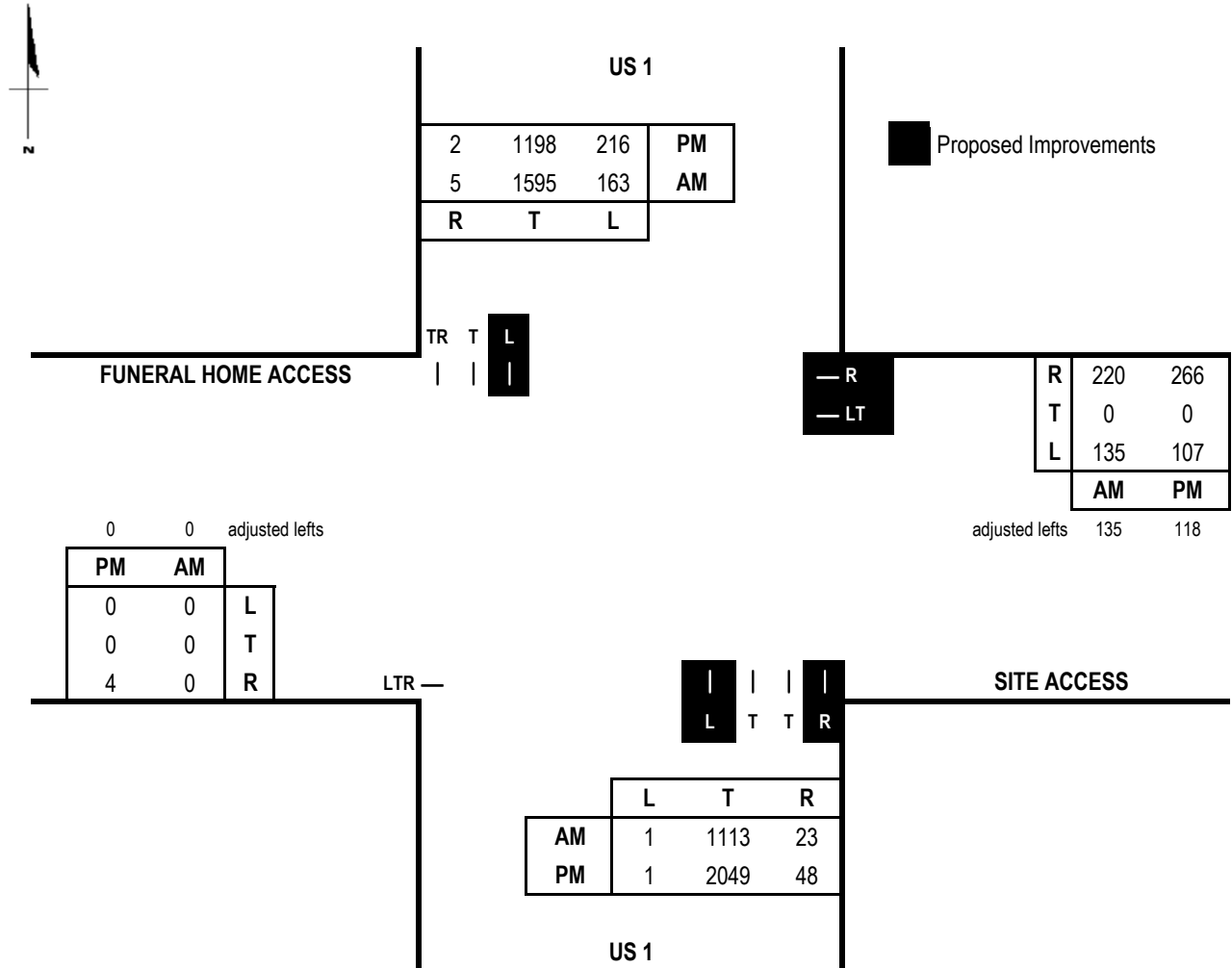
PM V/C = 0.76

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Site Access/Funeral Home
N/S Road: US 1
Conditions: Total Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	1113	0.55	612	163	1.00	163	881
SB	1600	0.55	880	1	1.00	1	
EB	0	1.00	0	135	1.00	135	135
WB	135	1.00	135	0	1.00	0	
CLV TOTAL=							1,016
Level of Service (LOS)=							B

AM V/C = 0.64

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
NB	2049	0.55	1127	216	1.00	216	1343
SB	1200	0.55	660	1	1.00	1	
EB	4	1.00	4	107	1.00	107	118
WB	118	1.00	118	0	1.00	0	
CLV TOTAL=							1,461
Level of Service (LOS)=							E

PM V/C = 0.91

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



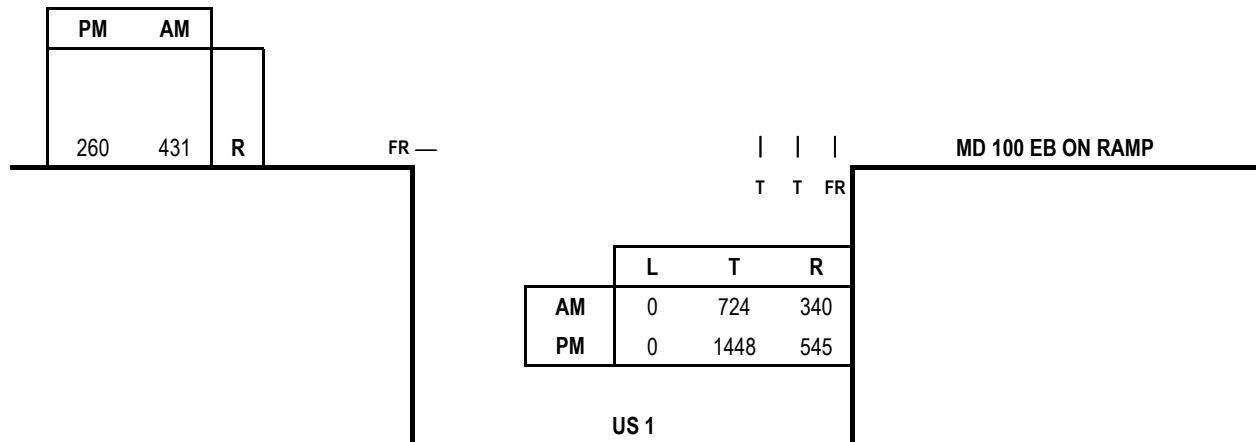
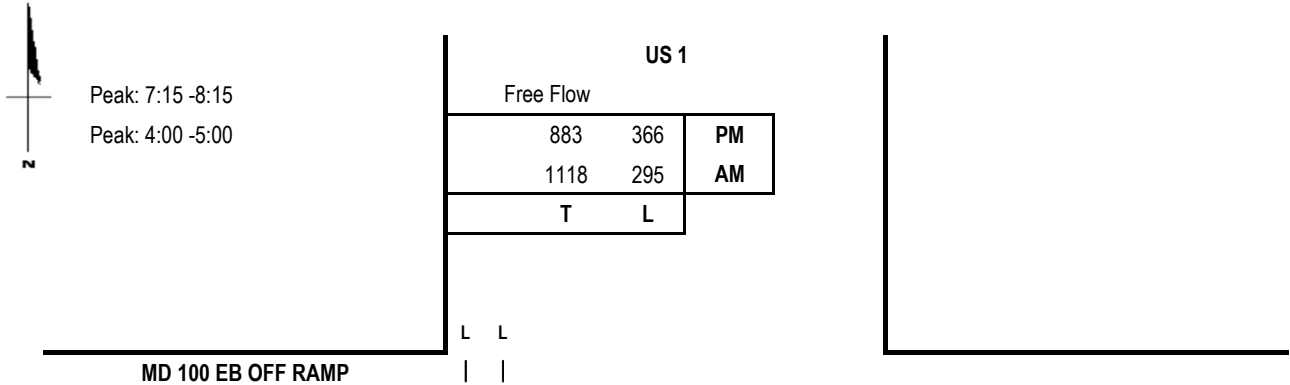
E/W Road: MD 100 EB On Ramp/Md 100 Eb Off Ramp **Date of Count:** 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Existing Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	431	0.00	0				0
WB	0	0.00	0				0
NB	724	0.55	398	295	0.60	177	575
SB	1118	0.00	0	0	0.00	0	
CLV TOTAL=							575
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	260	0.00	0				0
WB	0	0.00	0				0
NB	1448	0.55	796	366	0.60	220	1016
SB	883	0.00	0	0	0.00	0	
CLV TOTAL=							1,016
Level of Service (LOS)=							B

Scenario ID - EXIST5

V/C = 0.36

V/C = 0.64

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



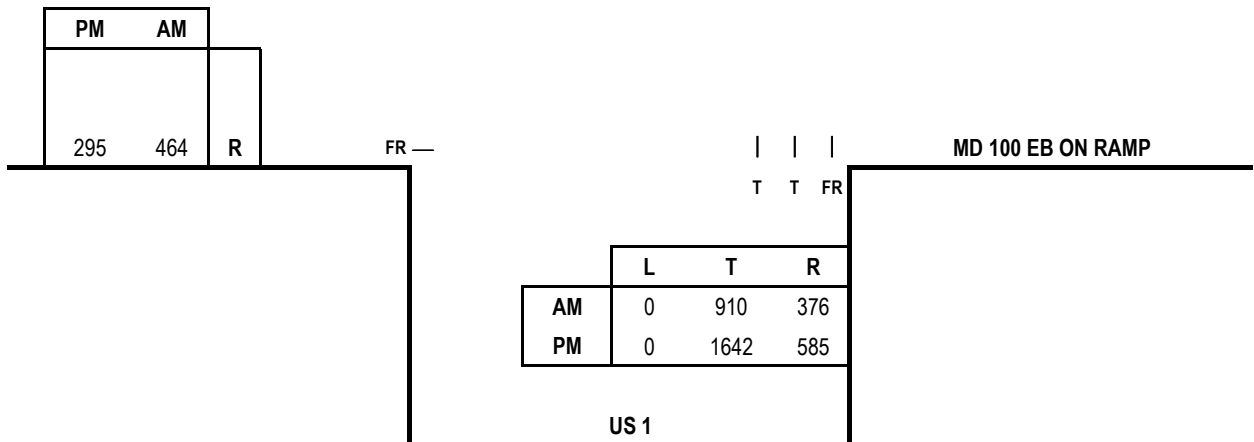
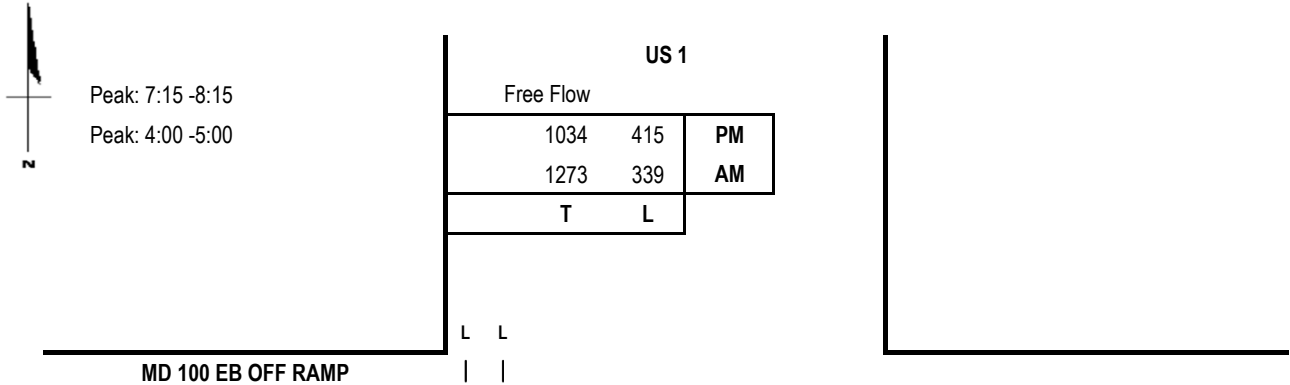
E/W Road: MD 100 EB On Ramp/Md 100 Eb Off Ramp **Date of Count:** 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Background Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	464	0.00	0				0
WB	0	0.00	0				0
NB	910	0.55	501	339	0.60	203	704
SB	1273	0.00	0	0	0.00	0	
CLV TOTAL=							704
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	295	0.00	0				0
WB	0	0.00	0				0
NB	1642	0.55	903	415	0.60	249	1152
SB	1034	0.00	0	0	0.00	0	
CLV TOTAL=							1,152
Level of Service (LOS)=							C

Scenario ID - BACK5

V/C = 0.44

V/C = 0.72

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



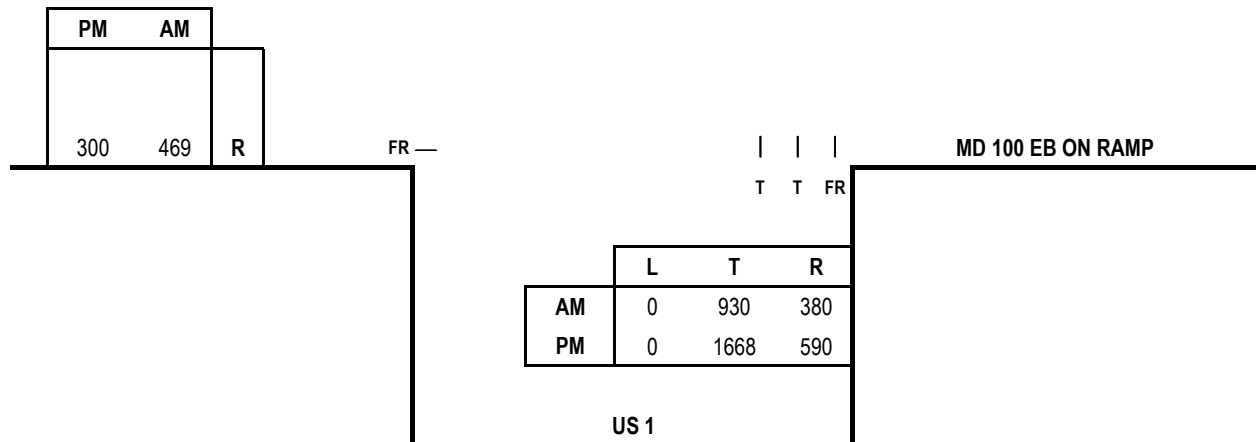
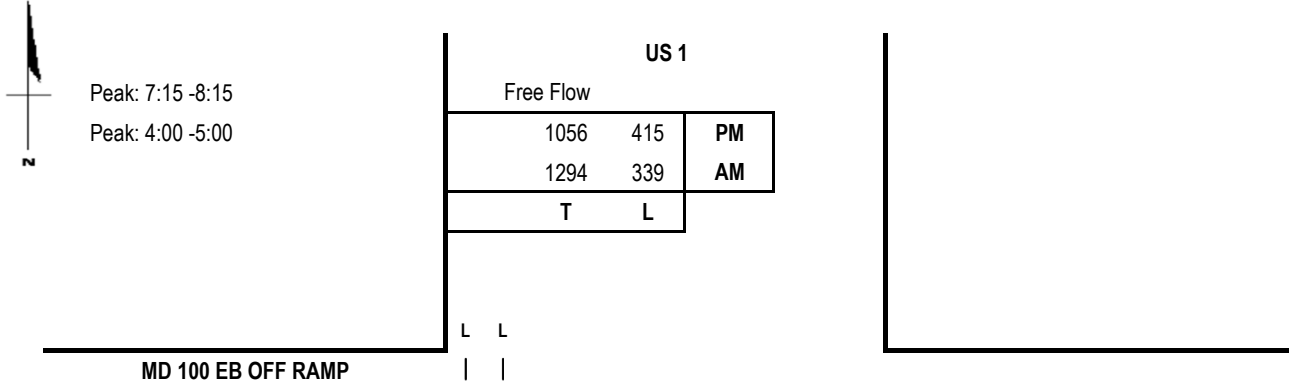
E/W Road: MD 100 EB On Ramp/Md 100 Eb Off Ramp **Date of Count:** 5/23/2024

N/S Road: US 1

Day of Week: Thursday

Conditions: Total Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	469	0.00	0				0
WB	0	0.00	0				0
NB	930	0.55	512	339	0.60	203	715
SB	1294	0.00	0	0	0.00	0	
CLV TOTAL=							715
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	300	0.00	0				0
WB	0	0.00	0				0
NB	1668	0.55	917	415	0.60	249	1166
SB	1056	0.00	0	0	0.00	0	
CLV TOTAL=							1,166
Level of Service (LOS)=							C

Scenario ID - TOT5

V/C = 0.45

V/C = 0.73

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 100 WB Ramps
N/S Road: US 1
Conditions: Existing Traffic

Date of Count: 5/23/2024
Day of Week: Thursday
Analyst: Richard Huang



Peak: 7:45 -8:45
 Peak: 4:30 -5:30

		US 1		
		SB Free Flow		
784	987			PM
535	966			AM

Ramp to MD 100 WB

— FR	R	371	284
— L	T	0	0
	L	382	226
		AM	PM

| | |
T T FR

MD 100 WB RAMPS

	T	R
AM	981	283
PM	1738	341

US 1

Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	0	0.00	0				0
WB	382	1.00	382				382
NB	981	0.55	540	0	0.00	0	540
SB							
CLV TOTAL=							922
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	0	0.00	0				0
WB	226	1.00	226				226
NB	1738	0.55	956	0	0.00	0	956
SB							
CLV TOTAL=							1,182
Level of Service (LOS)=							C

Scenario ID - EXIST6

V/C = 0.58

V/C = 0.74

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: MD 100 WB Ramps
N/S Road: US 1
Conditions: Background Traffic

Date of Count: 5/23/2024
Day of Week: Thursday
Analyst: Richard Huang



Peak: 7:45 -8:45
 Peak: 4:30 -5:30

Ramp to MD 100 WB

US 1		
SB Free Flow		
863	1163	PM
618	1134	AM

— FR	R	409	318
— L	T	0	0
	L	409	252
		AM	PM

MD 100 WB RAMPS		
	T	R
AM	1191	325
PM	1981	375
US 1		

Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	0	0.00	0				0
WB	409	1.00	409				409
NB	1191	0.55	655	0	0.00	0	655
SB							
CLV TOTAL=							1,064
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	0	0.00	0				0
WB	252	1.00	252				252
NB	1981	0.55	1090	0	0.00	0	1090
SB							
CLV TOTAL=							1,342
Level of Service (LOS)=							D

Scenario ID - BACK6

V/C = 0.67

V/C = 0.84

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: MD 100 WB Ramps
N/S Road: US 1
Conditions: Total Traffic

Date of Count: 5/23/2024
Day of Week: Thursday
Analyst: Richard Huang



Peak: 7:45 -8:45
 Peak: 4:30 -5:30

Ramp to MD 100 WB

US 1		
SB Free Flow		
863	1181	PM
618	1152	AM

— FR	R	409	318
— L	T	0	0
	L	412	256
		AM	PM

T T FR		
	T	R
AM	1207	329
PM	2002	380
US 1		

MD 100 WB RAMPS

Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	0	0.00	0				0
WB	412	1.00	412				412
NB	1207	0.55	664	0	0.00	0	664
SB							
CLV TOTAL=							1,076
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	0	0.00	0				0
WB	256	1.00	256				256
NB	2002	0.55	1101	0	0.00	0	1101
SB							
CLV TOTAL=							1,357
Level of Service (LOS)=							D

Scenario ID - TOT6

V/C = 0.67

V/C = 0.85

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Troy Hill Drive (South)

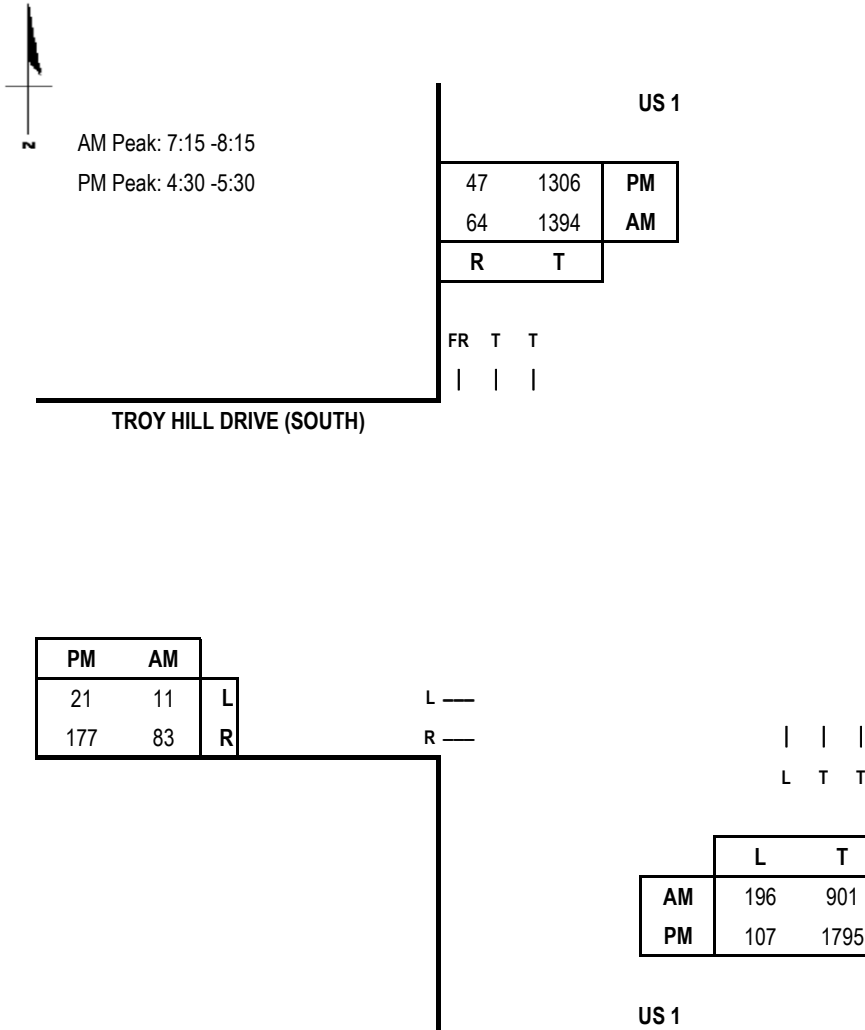
Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

Conditions: Existing Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	11	1.00	11				11
NB	901	0.55	496				963
SB	1394	0.55	767	196	1.00	196	
CLV TOTAL=							974
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	70	1.00	70				70
NB	1795	0.55	987				987
SB	1306	0.55	718	107	1.00	107	
CLV TOTAL=							1,057
Level of Service (LOS)=							B

Scenario ID - EXIST7

CLV V/C = 0.61

CLV V/C = 0.66

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Troy Hill Drive (South)

Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

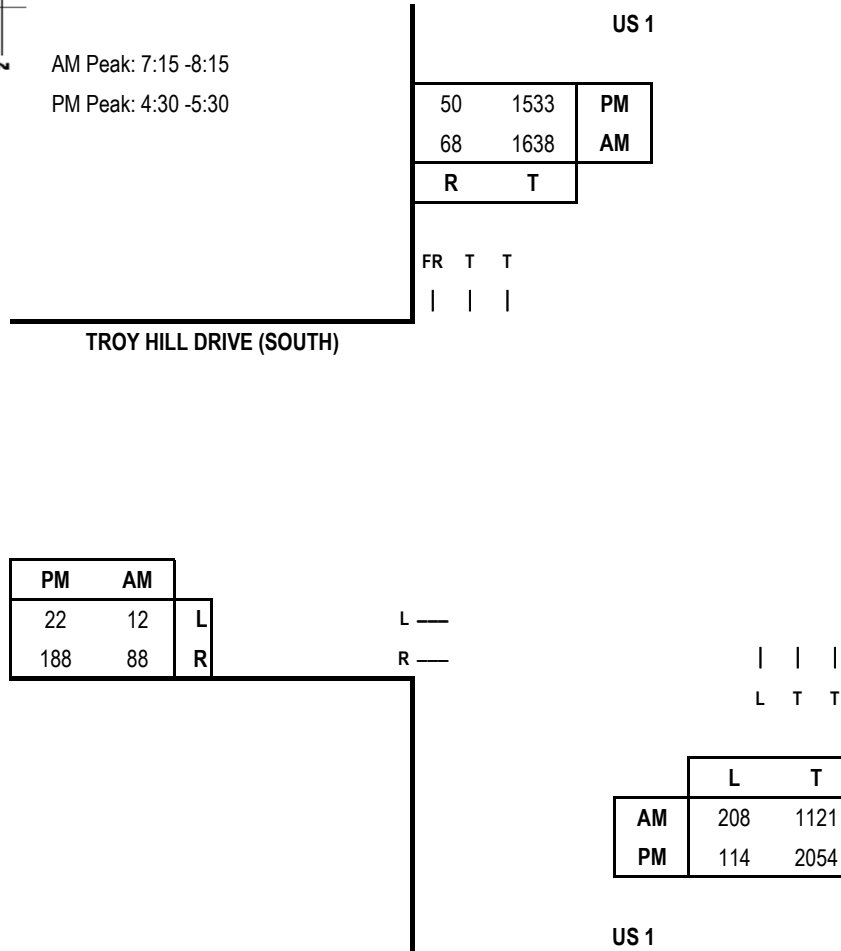
Conditions: Background Traffic

Analyst: Richard Huang



AM Peak: 7:15 -8:15

PM Peak: 4:30 -5:30



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	12	1.00	12				12
NB	1121	0.55	617				1109
SB	1638	0.55	901	208	1.00	208	
CLV TOTAL=							1,121
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	74	1.00	74				74
NB	2054	0.55	1130				1130
SB	1533	0.55	843	114	1.00	114	
CLV TOTAL=							1,204
Level of Service (LOS)=							C

Scenario ID - BACK7

CLV V/C =0.7

CLV V/C =0.75

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Troy Hill Drive (South)

Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

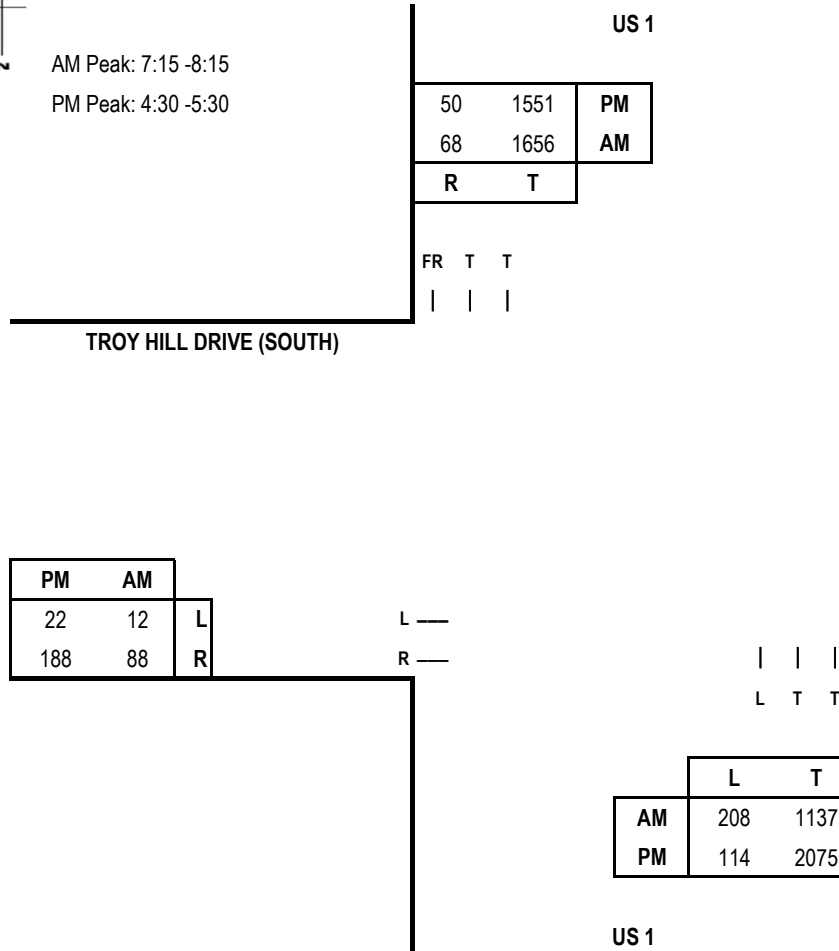
Conditions: Total Traffic

Analyst: Richard Huang



AM Peak: 7:15 -8:15

PM Peak: 4:30 -5:30



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	12	1.00	12				12
NB	1137	0.55	625				1119
SB	1656	0.55	911	208	1.00	208	
CLV TOTAL=							1,131
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	74	1.00	74				74
NB	2075	0.55	1141				1141
SB	1551	0.55	853	114	1.00	114	
CLV TOTAL=							1,215
Level of Service (LOS)=							C

Scenario ID - TOT7

CLV V/C = 0.71

CLV V/C = 0.76

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Troy Hill Drive (North)

Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

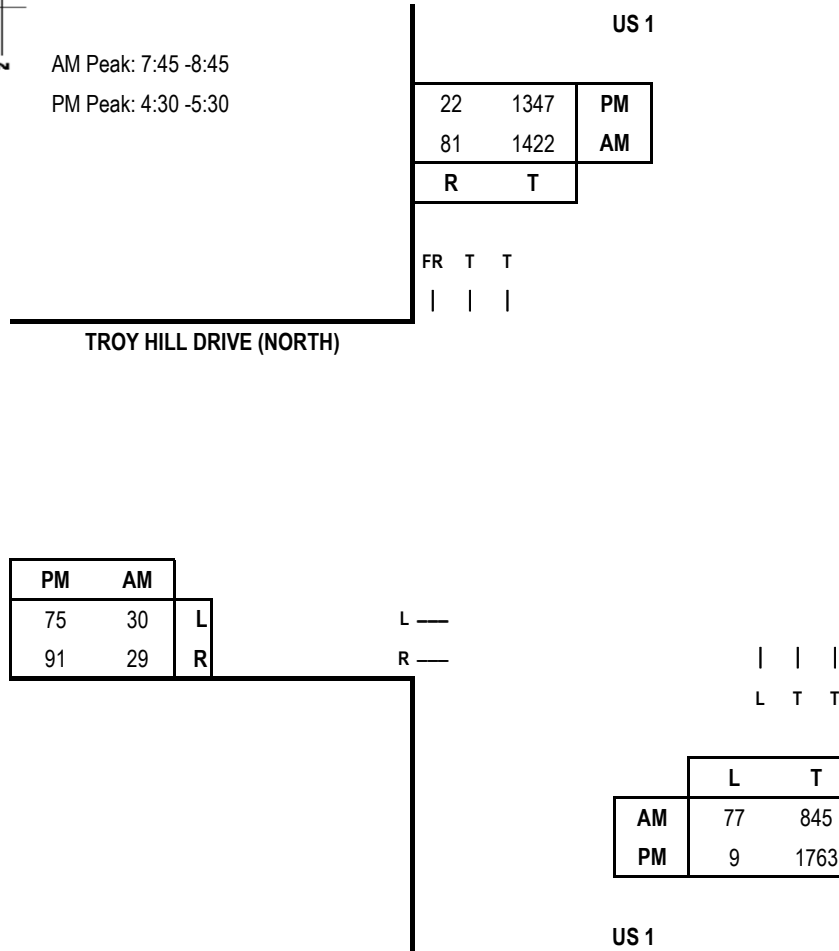
Conditions: Existing Traffic

Analyst: Richard Huang



AM Peak: 7:45 - 8:45

PM Peak: 4:30 - 5:30



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	30	1.00	30				30
NB	845	0.55	465				859
SB	1422	0.55	782	77	1.00	77	
CLV TOTAL=							889
Level of Service (LOS) =							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	82	1.00	82				82
NB	1763	0.55	970				970
SB	1347	0.55	741	9	1.00	9	
CLV TOTAL=							1,052
Level of Service (LOS) =							B

Scenario ID - EXIST8

CLV V/C = 0.56

CLV V/C = 0.66

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Troy Hill Drive (North)

Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

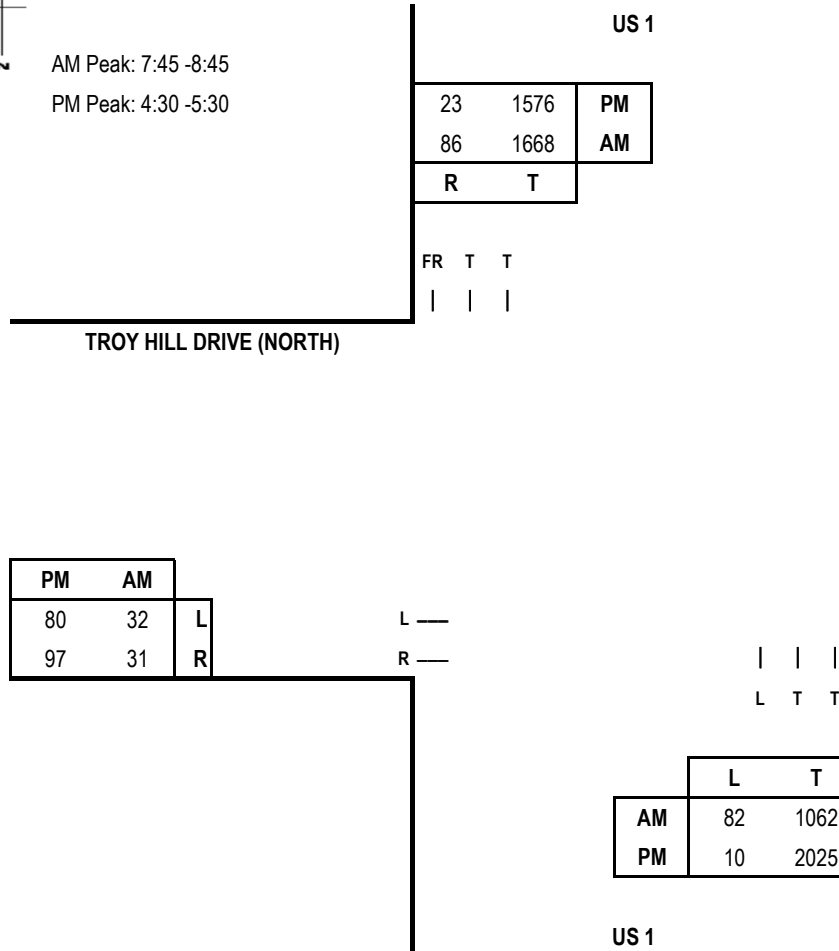
Conditions: Background Traffic

Analyst: Richard Huang



AM Peak: 7:45 - 8:45

PM Peak: 4:30 - 5:30



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	32	1.00	32				32
NB	1062	0.55	584				999
SB	1668	0.55	917	82	1.00	82	
CLV TOTAL=							1,031
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	87	1.00	87				87
NB	2025	0.55	1114				1114
SB	1576	0.55	867	10	1.00	10	
CLV TOTAL=							1,201
Level of Service (LOS)=							C

Scenario ID - BACK8

CLV V/C = 0.64

CLV V/C = 0.75

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Troy Hill Drive (North)

Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

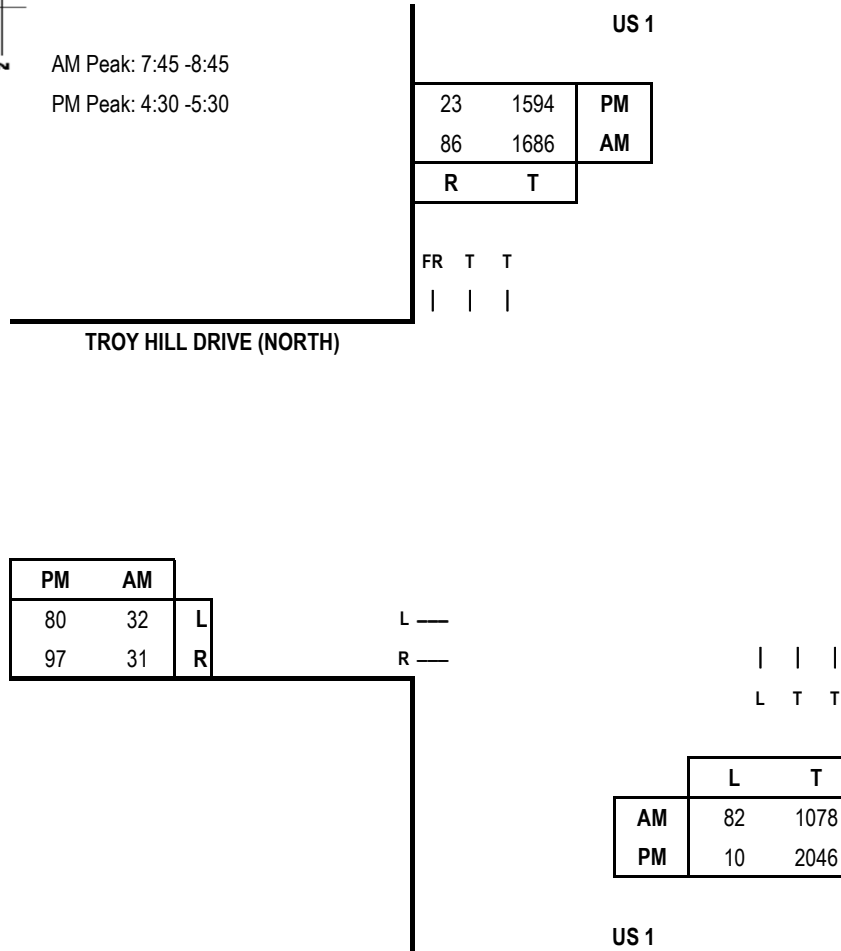
Conditions: Total Traffic

Analyst: Richard Huang



AM Peak: 7:45 - 8:45

PM Peak: 4:30 - 5:30



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	32	1.00	32				32
NB	1078	0.55	593				1009
SB	1686	0.55	927	82	1.00	82	
CLV TOTAL=							1,041
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	87	1.00	87				87
NB	2046	0.55	1125				1125
SB	1594	0.55	877	10	1.00	10	
CLV TOTAL=							1,212
Level of Service (LOS)=							C

Scenario ID - TOT8

CLV V/C = 0.65

CLV V/C = 0.76

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Ducketts Lane

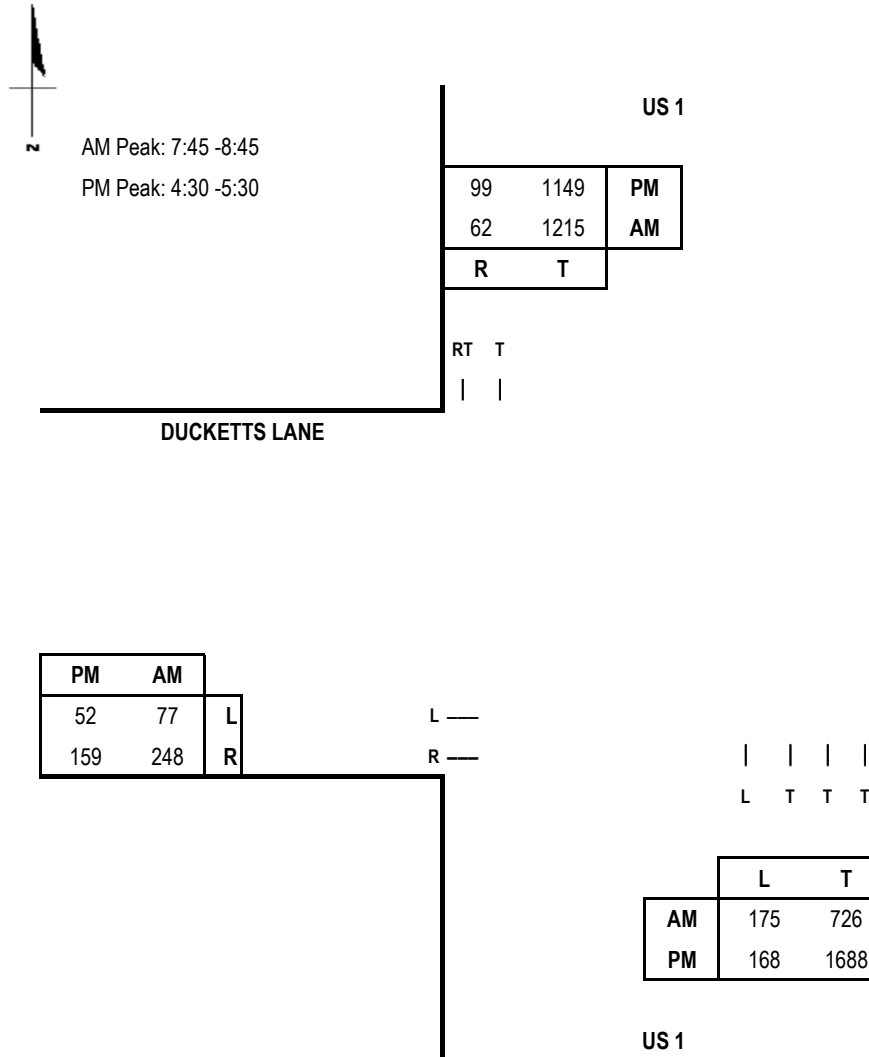
Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

Conditions: Existing Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	77	1.00	77				77
NB	726	0.40	290				877
SB	1277	0.55	702	175	1.00	175	
CLV TOTAL=							954
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	52	1.00	52				52
NB	1688	0.40	675				854
SB	1248	0.55	686	168	1.00	168	
CLV TOTAL=							906
Level of Service (LOS)=							A

Scenario ID - EXIST9

AM V/C = 0.6

PM V/C = 0.57

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road Name: Ducketts Lane

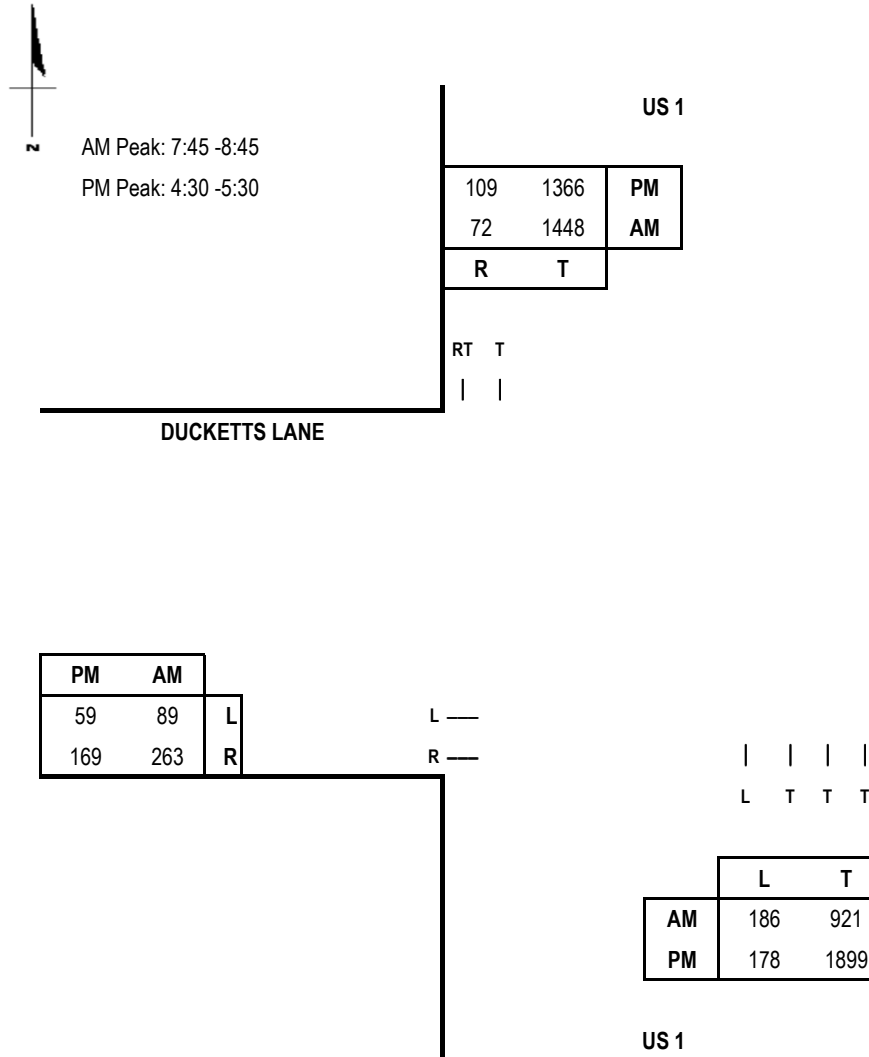
Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

Conditions: Background Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	89	1.00	89				89
NB	921	0.40	368				1022
SB	1520	0.55	836	186	1.00	186	
CLV TOTAL=							1,111
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	59	1.00	59				59
NB	1899	0.40	760				989
SB	1475	0.55	811	178	1.00	178	
CLV TOTAL=							1,048
Level of Service (LOS)=							B

Scenario ID - BACK9

AM V/C = 0.69

PM V/C = 0.66

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Ducketts Lane

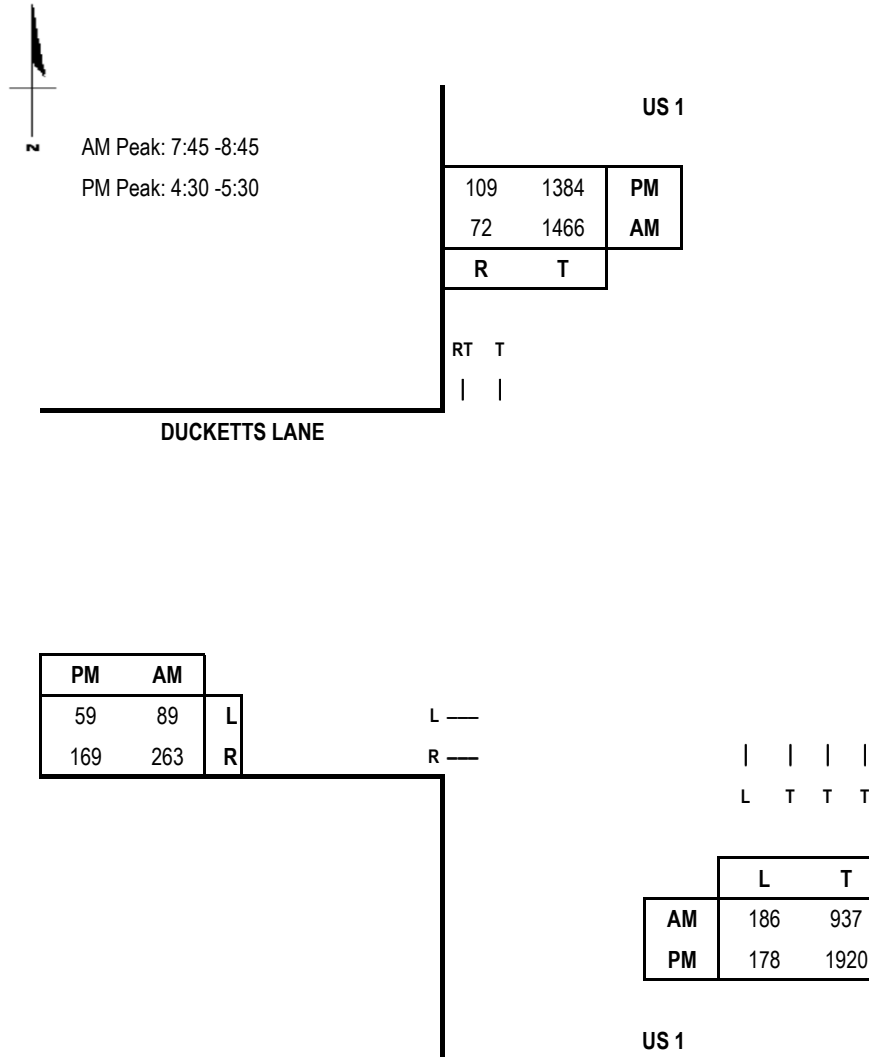
Date of Count: 5/23/2024

N/S Road Name: US 1

Day of Count: Thursday

Conditions: Total Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	89	1.00	89				89
NB	937	0.40	375				1032
SB	1538	0.55	846	186	1.00	186	
CLV TOTAL=							1,121
Level of Service (LOS)=							B

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	59	1.00	59				59
NB	1920	0.40	768				999
SB	1493	0.55	821	178	1.00	178	
CLV TOTAL=							1,058
Level of Service (LOS)=							B

Scenario ID - TOT9

AM V/C = 0.7

PM V/C = 0.66

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

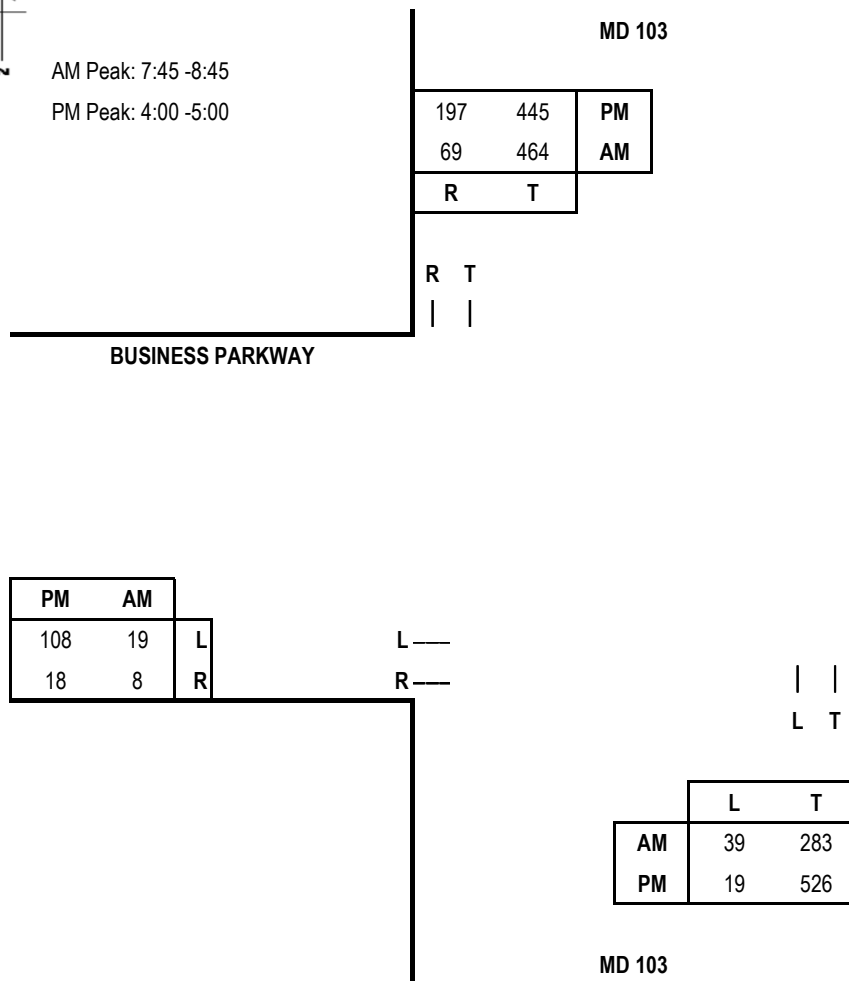


E/W Road Name: Business Parkway
N/S Road Name: MD 103
Conditions: Existing Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



AM Peak: 7:45 -8:45
 PM Peak: 4:00 -5:00



	PM	AM	
	108	19	L
	18	8	R

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		L	T
AM	39	283	
PM	19	526	

Capacity Analysis

Morning Peak Hour					
Dir	Thru Volumes			+ Opposing Lefts	AM CLV
	VOL	x LUF	= Total	VOL x LUF = Total	
EB	19	1.00	19		19
NB	283	1.00	283		503
SB	464	1.00	464	39 1.00 39	
CLV TOTAL=					522
Level of Service (LOS)=					A

Evening Peak Hour					
Dir	Thru Volumes			+ Opposing Lefts	PM CLV
	VOL	x LUF	= Total	VOL x LUF = Total	
EB	108	1.00	108		108
NB	526	1.00	526		526
SB	445	1.00	445	19 1.00 19	
CLV TOTAL=					634
Level of Service (LOS)=					A

Scenario ID - EXIST10

AM V/C =0.33

PM V/C =0.4

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Business Parkway

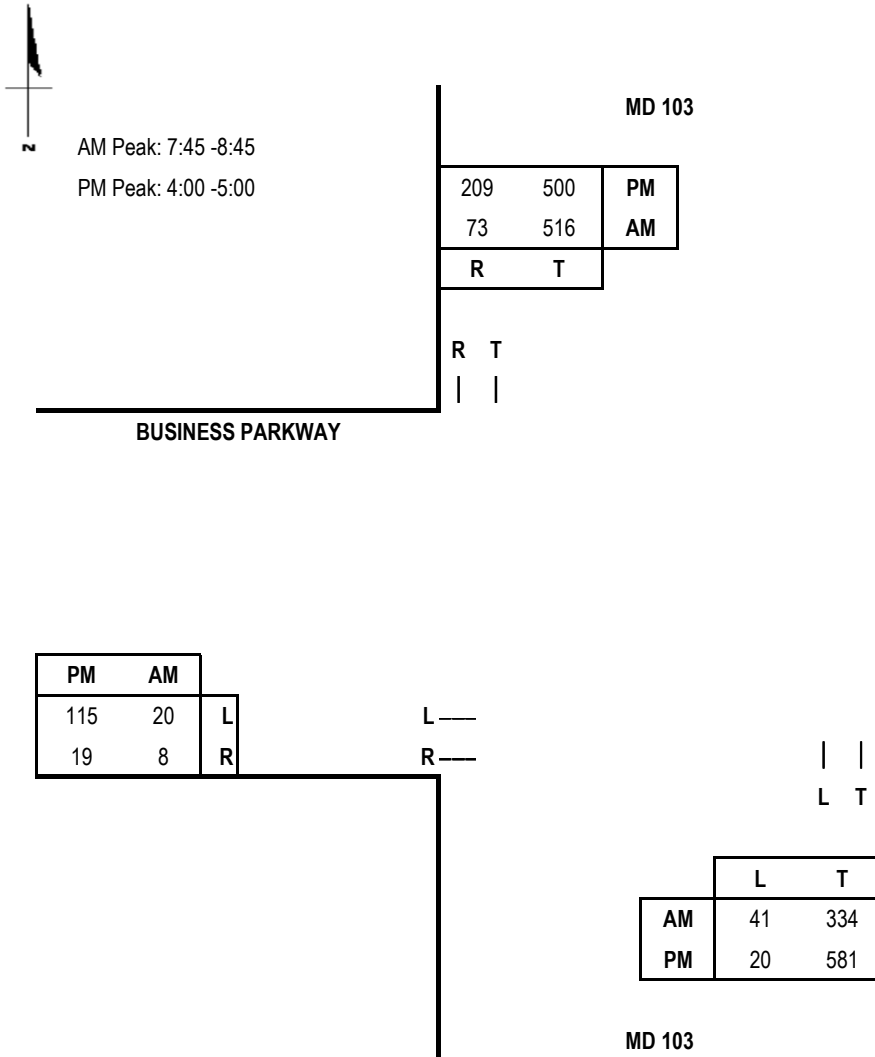
Date of Count: 5/23/2024

N/S Road Name: MD 103

Day of Count: Thursday

Conditions: Background Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	20	1.00	20				20
NB	334	1.00	334				557
SB	516	1.00	516	41	1.00	41	
CLV TOTAL=							577
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	115	1.00	115				115
NB	581	1.00	581				581
SB	500	1.00	500	20	1.00	20	
CLV TOTAL=							696
Level of Service (LOS)=							A

Scenario ID - BACK10

AM V/C =0.36

PM V/C =0.44

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road Name: Business Parkway

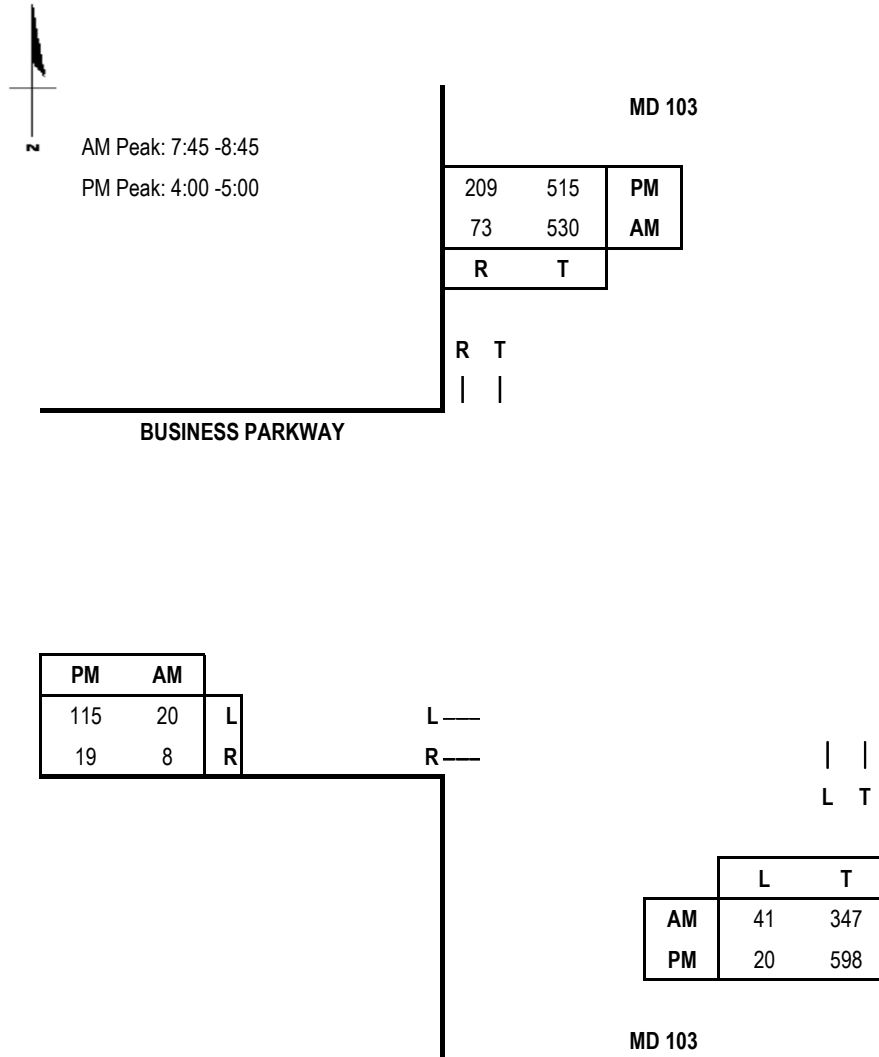
Date of Count: 5/23/2024

N/S Road Name: MD 103

Day of Count: Thursday

Conditions: Total Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		AM
	VOL	x LUF	= Total	VOL	x LUF = Total	CLV
EB	20	1.00	20			20
NB	347	1.00	347			571
SB	530	1.00	530	41	1.00 41	
CLV TOTAL=						591
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		PM
	VOL	x LUF	= Total	VOL	x LUF = Total	CLV
EB	115	1.00	115			115
NB	598	1.00	598			598
SB	515	1.00	515	20	1.00 20	
CLV TOTAL=						713
Level of Service (LOS)=						A

Scenario ID - TOT10

AM V/C =0.37

PM V/C =0.45

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

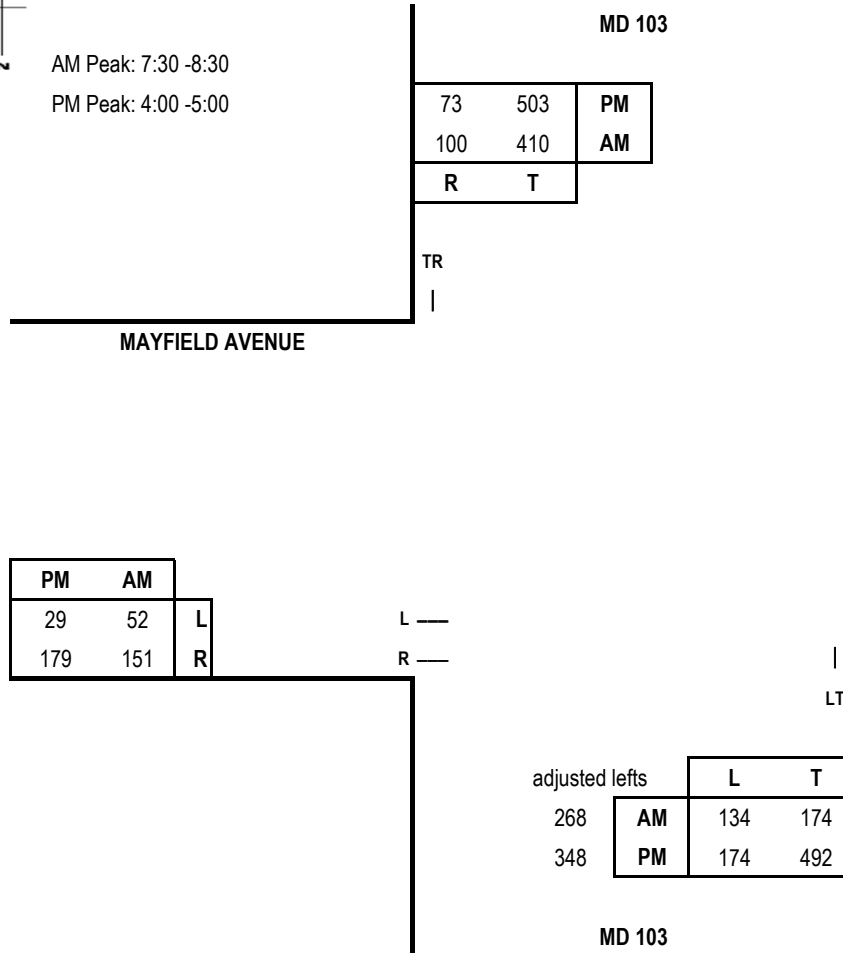


E/W Road Name: Mayfield Avenue
N/S Road Name: MD 103
Conditions: Existing Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



AM Peak: 7:30 -8:30
 PM Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	52	1.00	52				52
NB	442	1.00	442				644
SB	510	1.00	510	134	1.00	134	
CLV TOTAL=							696
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	29	1.00	29				29
NB	840	1.00	840				840
SB	576	1.00	576	174	1.00	174	
CLV TOTAL=							869
Level of Service (LOS)=							A

Scenario ID - EXIST11

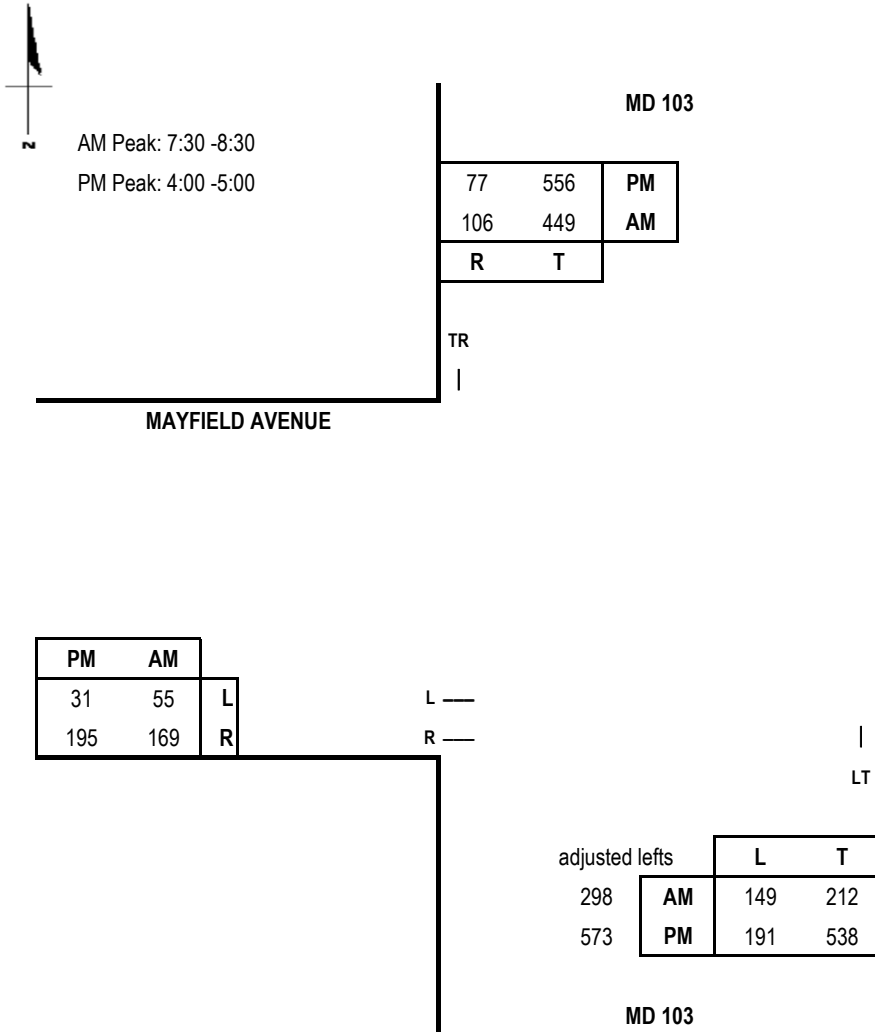
AM V/C = 0.44

PM V/C = 0.54

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road Name: Mayfield Avenue
N/S Road Name: MD 103
Conditions: Background Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	55	1.00	55				55
NB	510	1.00	510				704
SB	555	1.00	555	149	1.00	149	
CLV TOTAL=							759
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	31	1.00	31				31
NB	1111	1.00	1111				1111
SB	633	1.00	633	191	1.00	191	
CLV TOTAL=							1,142
Level of Service (LOS)=							B

Scenario ID - BACK11

AM V/C = 0.47

PM V/C = 0.71

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

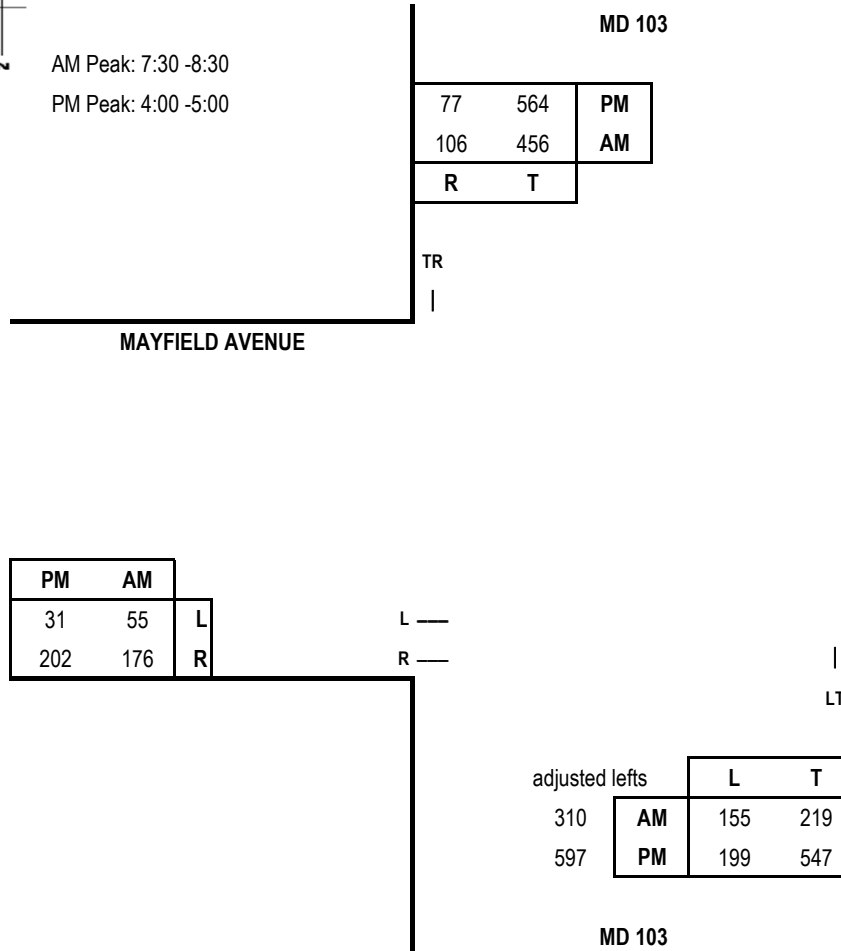


E/W Road Name: Mayfield Avenue
N/S Road Name: MD 103
Conditions: Total Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



AM Peak: 7:30 -8:30
 PM Peak: 4:00 -5:00



Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	55	1.00	55				55
NB	529	1.00	529				717
SB	562	1.00	562	155	1.00	155	
CLV TOTAL=							772
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	31	1.00	31				31
NB	1144	1.00	1144				1144
SB	641	1.00	641	199	1.00	199	
CLV TOTAL=							1,175
Level of Service (LOS)=							C

Scenario ID - TOT11

AM V/C = 0.48

PM V/C = 0.73

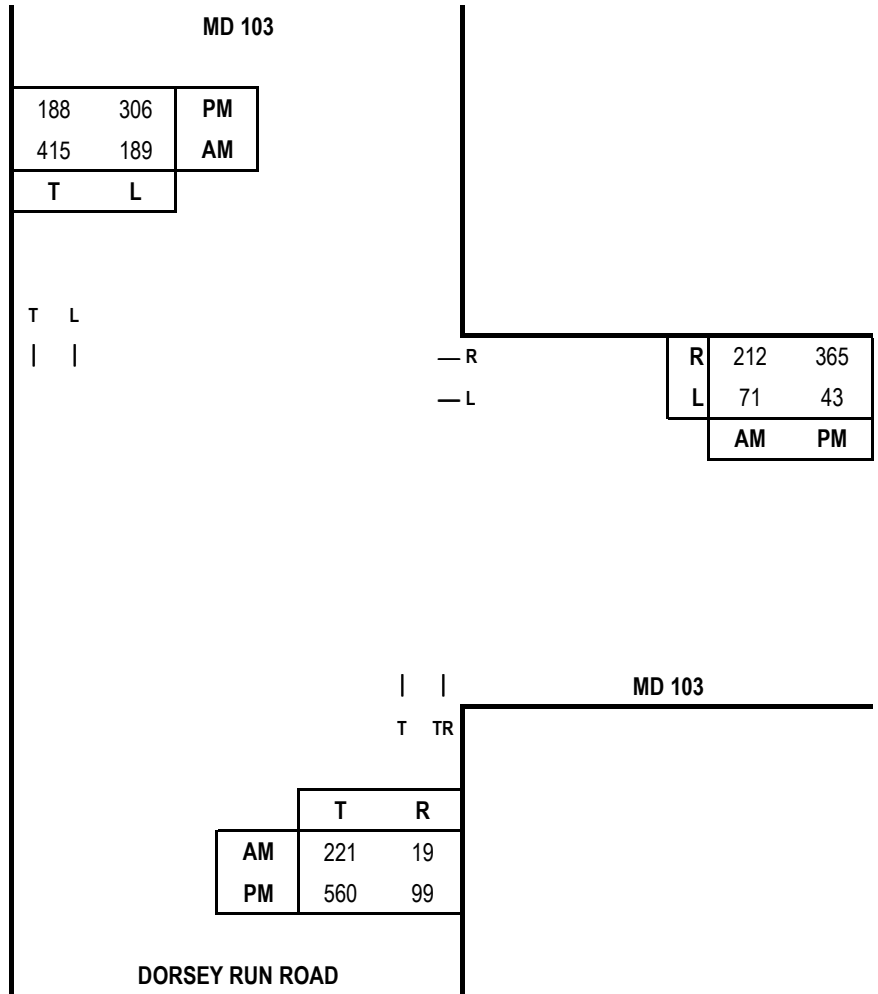
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 103
N/S Road: MD 103/Dorsey Run Road
Conditions: Existing Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



Peak: 7:15 -8:15
 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
WB	71	1.00	71				71
NB	240	0.55	132	189	1.00	189	415
SB	415	1.00	415				
CLV TOTAL=							486
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
WB	59	1.00	59				59
NB	659	0.55	362	306	1.00	306	668
SB	188	1.00	188				
CLV TOTAL=							727
Level of Service (LOS)=							A

Scenario ID - EXIST12

AM V/C =0.3

PM V/C =0.45

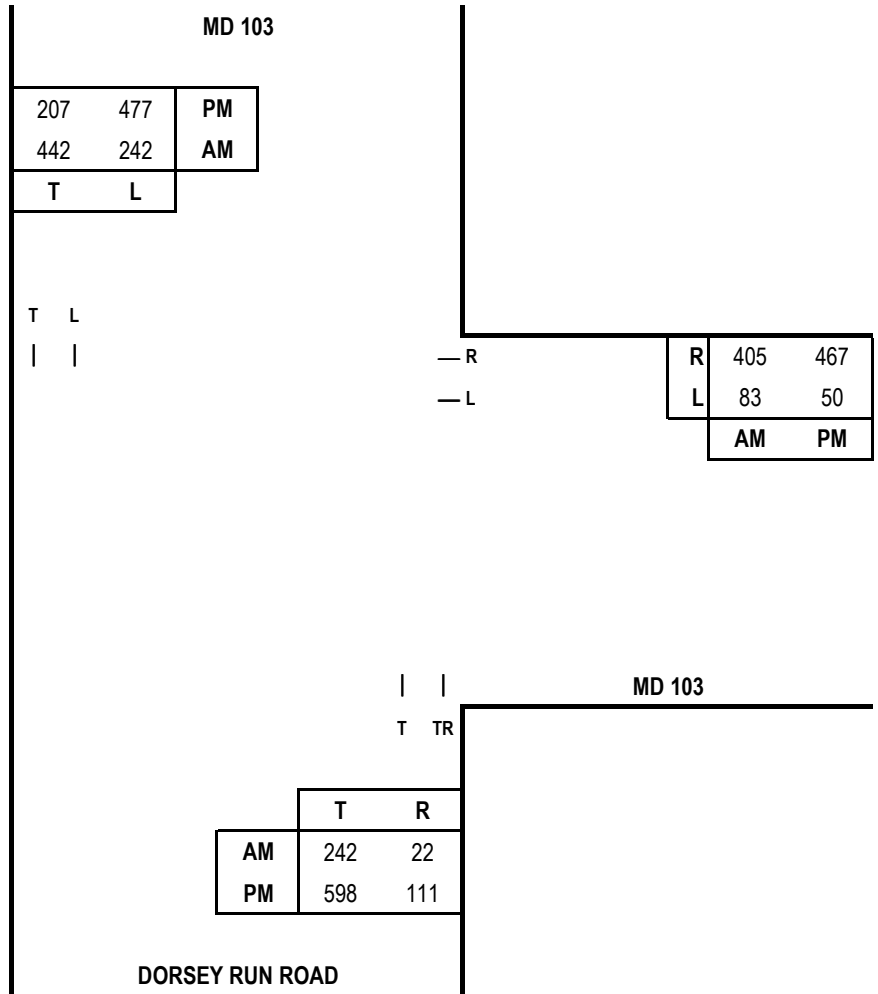
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 103
N/S Road: MD 103/Dorsey Run Road
Conditions: Background Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



Peak: 7:15 -8:15
 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
WB	163	1.00	163				163
NB	264	0.55	145	242	1.00	242	442
SB	442	1.00	442				
CLV TOTAL=							605
Level of Service (LOS)=							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
WB	50	1.00	50				50
NB	709	0.55	390	477	1.00	477	867
SB	207	1.00	207				
CLV TOTAL=							917
Level of Service (LOS)=							A

Scenario ID - BACK12

AM V/C =0.38

PM V/C =0.57

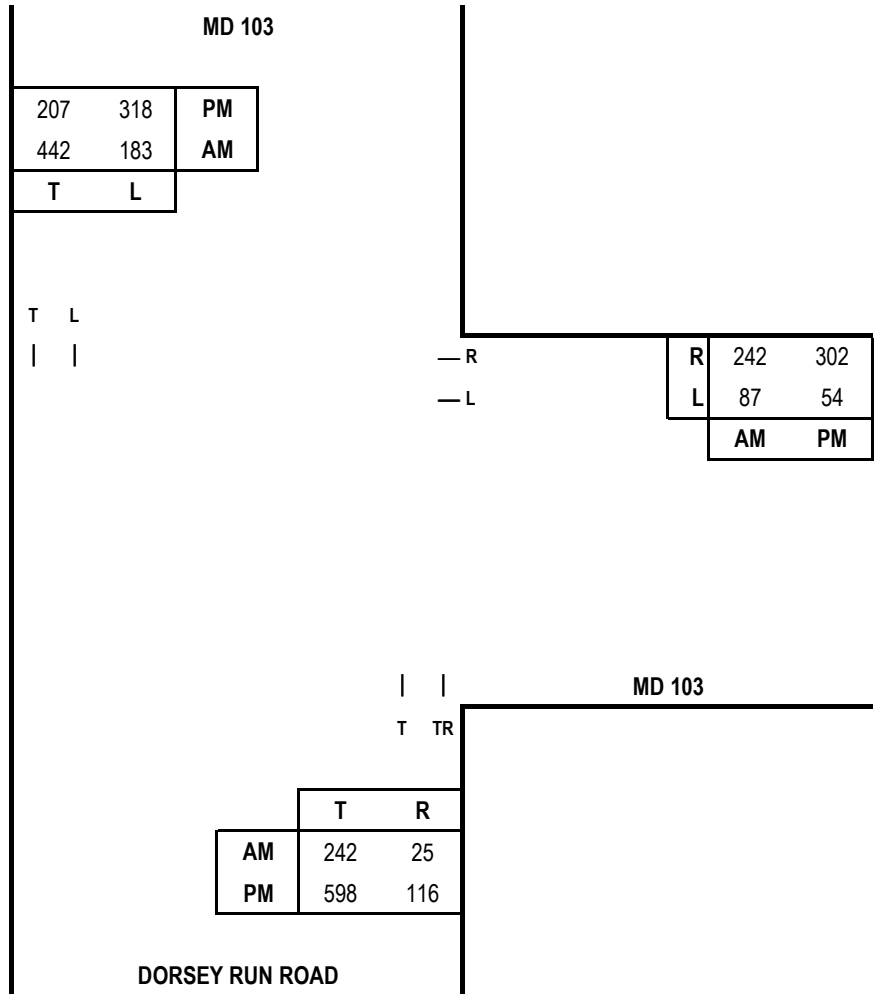
CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: MD 103
N/S Road: MD 103/Dorsey Run Road
Conditions: Total Traffic

Date of Count: 5/23/2024
Day of Count: Thursday
Analyst: Richard Huang



Peak: 7:15 -8:15
 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
WB	87	1.00	87			87
NB	267	0.55	147	183	1.00 183	442
SB	442	1.00	442			
CLV TOTAL=						529
Level of Service (LOS)=						A

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		PM
	VOL	x LUF	= Total	VOL	x LUF = Total	CLV
WB	54	1.00	54			54
NB	714	0.55	393	318	1.00 318	711
SB	207	1.00	207			
CLV TOTAL=						765
Level of Service (LOS)=						A

Scenario ID - TOT12

AM V/C =0.33

PM V/C =0.48

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Warehouse Access/Barnett Lane

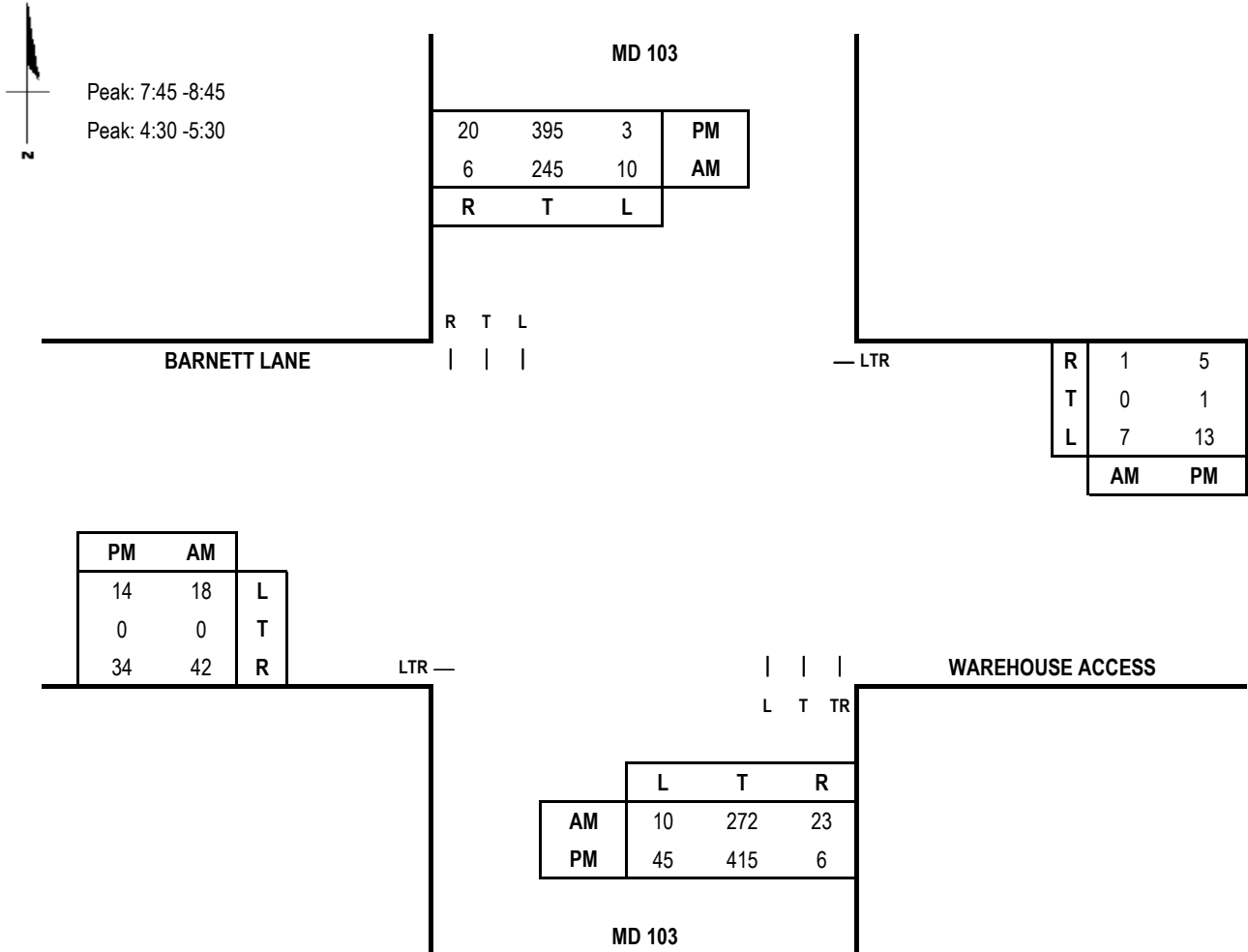
Date of Count: 6/6/2024

N/S Road: MD 103

Day of Week: Thursday

Conditions: Existing Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	60	1.00	60				60
WB	8	1.00	8				8
NB	295	0.55	162	10	1.00	10	255
SB	245	1.00	245	10	1.00	10	
CLV TOTAL=							323
Level of Service (LOS) =							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	48	1.00	48				48
WB	19	1.00	19				19
NB	421	0.55	232	3	1.00	3	440
SB	395	1.00	395	45	1.00	45	
CLV TOTAL=							507
Level of Service (LOS) =							A

Scenario ID - EXIST13

AM V/C =0.2

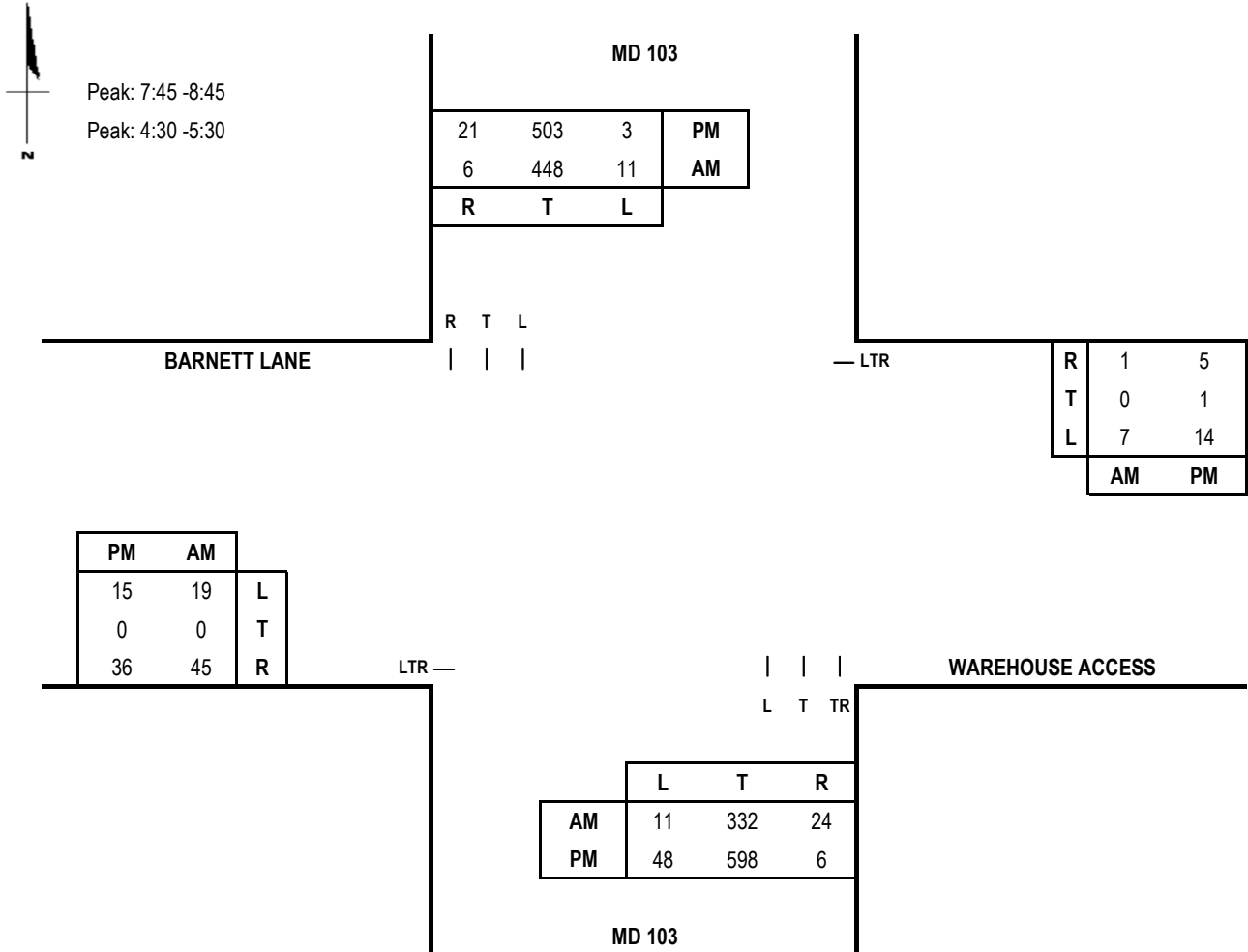
PM V/C =0.32

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Warehouse Access/Barnett Lane
N/S Road: MD 103
Conditions: Background Traffic

Date of Count: 6/6/2024
Day of Week: Thursday
Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	64	1.00	64				64
WB	8	1.00	8				8
NB	356	0.55	196	11	1.00	11	459
SB	448	1.00	448	11	1.00	11	
CLV TOTAL=							531
Level of Service (LOS) =							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	51	1.00	51				51
WB	20	1.00	20				20
NB	604	0.55	332	3	1.00	3	551
SB	503	1.00	503	48	1.00	48	
CLV TOTAL=							622
Level of Service (LOS) =							A

Scenario ID - BACK13

AM V/C = 0.33

PM V/C = 0.39

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA



E/W Road: Warehouse Access/Barnett Lane

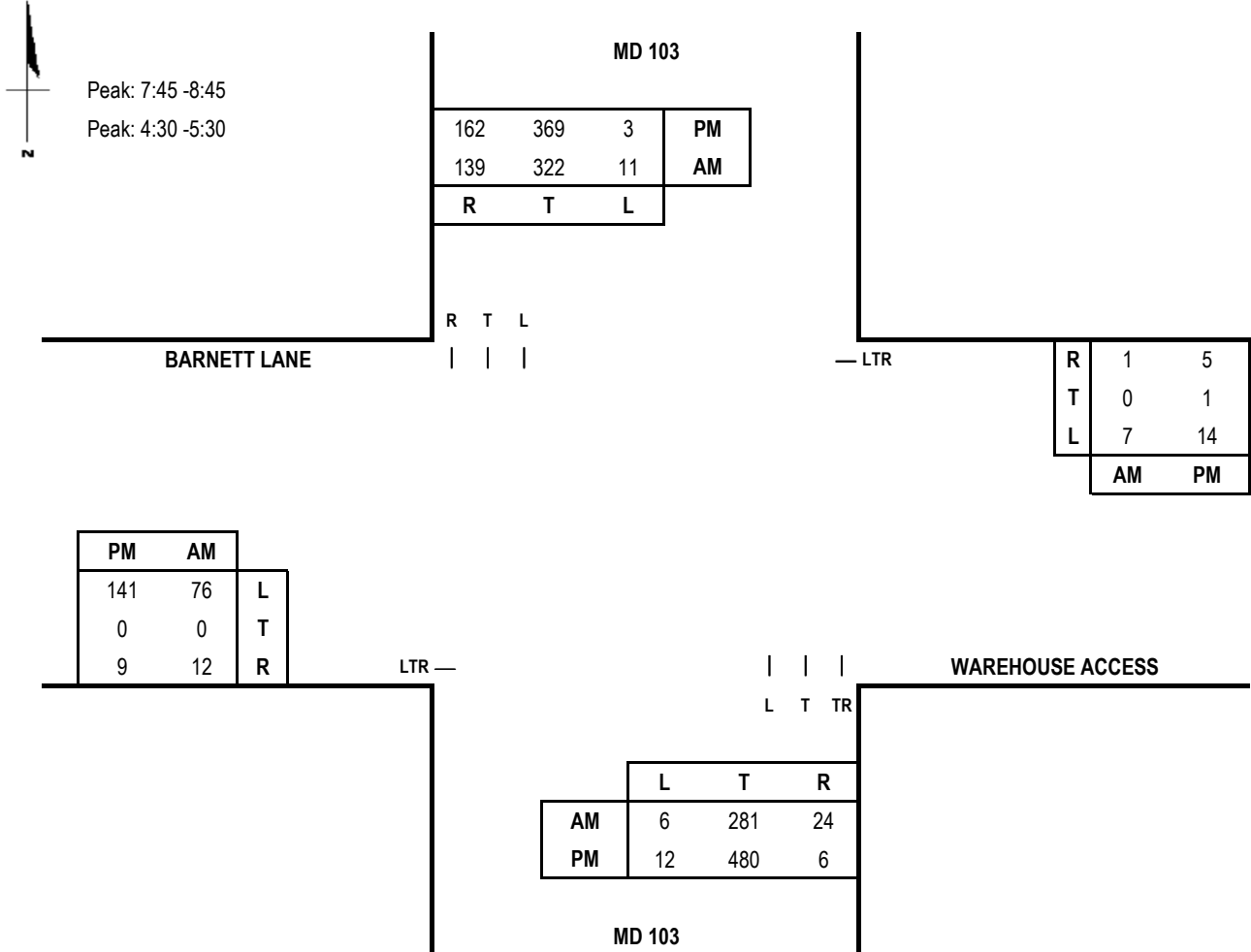
Date of Count: 6/6/2024

N/S Road: MD 103

Day of Week: Thursday

Conditions: Total Traffic

Analyst: Richard Huang



Capacity Analysis - East/West Split

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	88	1.00	88				88
WB	8	1.00	8				8
NB	305	0.55	168	11	1.00	11	328
SB	322	1.00	322	6	1.00	6	
CLV TOTAL=							424
Level of Service (LOS) =							A

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM CLV
	VOL	x LUF	= Total	VOL	x LUF	= Total	
EB	150	1.00	150				150
WB	20	1.00	20				20
NB	486	0.55	267	3	1.00	3	381
SB	369	1.00	369	12	1.00	12	
CLV TOTAL=							551
Level of Service (LOS) =							A

Scenario ID - TOT13

AM V/C = 0.27

PM V/C = 0.34

HCM 7th Signalized Intersection Summary
 1: US 1 & Driveway/Kit Kat Rd

Synchro Report
 Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔			↑↑	↖	↗	↑↑	
Traffic Volume (veh/h)	15	0	14	12	1	19	0	795	20	21	1016	0
Future Volume (veh/h)	15	0	14	12	1	19	0	795	20	21	1016	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1411	1900	1159	1530	418	1203	0	1722	1307	1544	1722	0
Adj Flow Rate, veh/h	16	0	15	13	1	20	0	855	22	23	1092	0
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, %	33	0	50	25	100	47	0	12	40	24	12	0
Cap, veh/h	155	0	151	63	5	19	0	1600	542	336	2566	0
Arrive On Green	0.09	0.00	0.09	0.09	0.09	0.09	0.00	0.49	0.49	0.23	0.78	0.00
Sat Flow, veh/h	1049	0	1610	86	58	207	0	3358	1108	1471	3358	0
Grp Volume(v), veh/h	16	0	15	34	0	0	0	855	22	23	1092	0
Grp Sat Flow(s),veh/h/ln	1049	0	1610	352	0	0	0	1636	1108	1471	1636	0
Q Serve(g_s), s	0.0	0.0	0.8	5.6	0.0	0.0	0.0	16.3	0.9	1.1	9.7	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.8	8.4	0.0	0.0	0.0	16.3	0.9	1.1	9.7	0.0
Prop In Lane	1.00		1.00	0.38		0.59	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	155	0	151	88	0	0	0	1600	542	336	2566	0
V/C Ratio(X)	0.10	0.00	0.10	0.39	0.00	0.00	0.00	0.53	0.04	0.07	0.43	0.00
Avail Cap(c_a), veh/h	290	0	358	132	0	0	0	1600	542	336	2566	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	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.7	0.0	37.3	40.8	0.0	0.0	0.0	15.9	12.0	27.2	3.1	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.3	2.7	0.0	0.0	0.0	1.3	0.1	0.1	0.5	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	0.6	0.0	0.6	1.5	0.0	0.0	0.0	9.3	0.4	0.7	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.0	0.0	37.6	43.6	0.0	0.0	0.0	17.2	12.1	27.3	3.7	0.0
LnGrp LOS	D		D	D				B	B	C	A	
Approach Vol, veh/h		31			34			877			1115	
Approach Delay, s/veh		37.8			43.6			17.1			4.2	
Approach LOS		D			D			B			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	26.6	50.0		13.4		76.6		13.4				
Change Period (Y+Rc), s	6.0	* 6		5.0		6.0		5.0				
Max Green Setting (Gmax), s	10.0	* 44		20.0		59.0		20.0				
Max Q Clear Time (g_c+I1), s	3.1	18.3		3.7		11.7		10.4				
Green Ext Time (p_c), s	0.0	5.8		0.1		8.9		0.1				

Intersection Summary

HCM 7th Control Delay, s/veh	10.8
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Signalized Intersection Summary
 2: US 1 & Business Pkwy./Cooney Lane

Synchro Report
 Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	4	80	28	3	27	51	738	39	72	979	90
Future Volume (veh/h)	41	4	80	28	3	27	51	738	39	72	979	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1470	1530	1589	1470	1411	1574	1752	1693	1589	1841	1737	1781
Adj Flow Rate, veh/h	49	0	0	31	3	30	57	829	44	81	1100	101
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, %	29	25	21	29	33	22	10	14	21	4	11	8
Cap, veh/h	160	0		73	7	79	454	2486	1041	557	2556	1169
Arrive On Green	0.06	0.00	0.00	0.06	0.06	0.06	0.05	0.77	0.77	0.07	1.00	1.00
Sat Flow, veh/h	2800	0	1346	1230	119	1334	1668	3216	1346	1753	3300	1510
Grp Volume(v), veh/h	49	0	0	34	0	30	57	829	44	81	1100	101
Grp Sat Flow(s),veh/h/ln1400	0	1346	1349	0	1334	1668	1608	1346	1753	1650	1510	
Q Serve(g_s), s	3.0	0.0	0.0	4.4	0.0	3.9	1.2	14.2	1.4	1.6	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	4.4	0.0	3.9	1.2	14.2	1.4	1.6	0.0	0.0
Prop In Lane	1.00		1.00	0.91		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	160	0		80	0	79	454	2486	1041	557	2556	1169
V/C Ratio(X)	0.31	0.00		0.42	0.00	0.38	0.13	0.33	0.04	0.15	0.43	0.09
Avail Cap(c_a), veh/h	428	0		206	0	204	579	2486	1041	684	2556	1169
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	81.4	0.0	0.0	81.7	0.0	81.5	3.2	6.2	4.8	3.7	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	2.6	0.0	2.2	0.1	0.4	0.1	0.1	0.3	0.1
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	2.0	0.0	0.0	2.9	0.0	2.5	0.6	7.8	0.7	0.8	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.2	0.0	0.0	84.3	0.0	83.7	3.3	6.6	4.9	3.8	0.3	0.1
LnGrp LOS	F			F		F	A	A	A	A	A	A
Approach Vol, veh/h	49			64			930			1282		
Approach Delay, s/veh	82.2			84.0			6.3			0.5		
Approach LOS	F			F			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	1.9	142.1		12.8	11.6	142.4		13.2				
Change Period (Y+Rc), s	5.0	6.0		5.5	5.0	6.0		5.5				
Max Green Setting (Gmax), s	20.0	89.0		24.5	20.0	89.0		24.5				
Max Q Clear Time (g_c+I), s	13.6	16.2		5.0	3.2	2.0		6.4				
Green Ext Time (p_c), s	0.1	34.9		0.1	0.1	56.6		0.1				

Intersection Summary

HCM 7th Control Delay, s/veh	6.9
HCM 7th LOS	A

Notes

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

HCM 7th Signalized Intersection Summary
3: US 1 & MD 103



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	207	57	110	44	276	34	585	101	294	953	205
Future Volume (veh/h)	187	207	57	110	44	276	34	585	101	294	953	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1663	1693	1826	1648	1811	1663	1707	1752	1752	1870
Adj Flow Rate, veh/h	203	225	62	120	48	300	37	636	110	320	1036	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	16	14	5	17	6	16	13	10	10	2
Cap, veh/h	338	268	74	136	55	151	248	1662	761	571	1638	351
Arrive On Green	0.19	0.19	0.18	0.11	0.11	0.11	0.07	1.00	1.00	0.11	0.60	0.59
Sat Flow, veh/h	1781	1411	389	1259	504	1397	1725	3159	1447	1668	2726	585
Grp Volume(v), veh/h	203	0	287	168	0	300	37	636	110	320	631	628
Grp Sat Flow(s),veh/h/ln	1781	0	1800	1763	0	1397	1725	1580	1447	1668	1664	1647
Q Serve(g_s), s	18.8	0.0	27.7	16.9	0.0	19.5	1.7	0.0	0.0	15.3	43.9	44.5
Cycle Q Clear(g_c), s	18.8	0.0	27.7	16.9	0.0	19.5	1.7	0.0	0.0	15.3	43.9	44.5
Prop In Lane	1.00		0.22	0.71		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	338	0	341	191	0	151	248	1662	761	571	1000	989
V/C Ratio(X)	0.60	0.00	0.84	0.88	0.00	1.98	0.15	0.38	0.14	0.56	0.63	0.63
Avail Cap(c_a), veh/h	490	0	495	191	0	151	313	1662	761	602	1000	989
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.7	0.0	70.5	79.1	0.0	80.2	20.4	0.0	0.0	14.4	23.1	23.5
Incr Delay (d2), s/veh	1.7	0.0	8.5	35.4	0.0	465.1	0.3	0.6	0.4	1.1	3.0	3.1
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	18.5	0.0	19.5	14.7	0.0	42.5	1.2	0.3	0.1	9.7	24.1	24.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.4	0.0	79.0	114.5	0.0	545.3	20.6	0.6	0.4	15.4	26.1	26.5
LnGrp LOS	E		E	F		F	C	A	A	B	C	C
Approach Vol, veh/h		490			468			783			1579	
Approach Delay, s/veh		74.6			390.6			1.5			24.1	
Approach LOS		E			F			A			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.7	98.7		36.6	9.2	112.2		22.0				
Change Period (Y+Rc), s	5.0	7.0		5.5	5.0	7.0		5.5				
Max Green Setting (Gmax), s	21.0	73.0		46.5	11.0	83.0		16.5				
Max Q Clear Time (g_c+11), s	11.0	2.0		29.7	3.7	46.5		21.5				
Green Ext Time (p_c), s	0.4	25.2		1.4	0.0	31.5		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	77.9
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	1	1	1026	2	1	1537	5
Future Vol, veh/h	0	0	0	0	0	1	1	1026	2	1	1537	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	15	100	0	10	0
Mvmt Flow	0	0	0	0	0	1	1	1127	2	1	1689	5



















Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2260	2826	847	1977	2827	565	1695	0	0	1130	0	0
Stage 1	1694	1694	-	1131	1131	-	-	-	-	-	-	-
Stage 2	566	1132	-	847	1697	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	23	18	309	38	18	473	381	-	-	626	-	-
Stage 1	99	150	-	220	281	-	-	-	-	-	-	-
Stage 2	481	281	-	327	150	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	23	18	309	37	18	473	381	-	-	626	-	-
Mov Cap-2 Maneuver	23	18	-	37	18	-	-	-	-	-	-	-
Stage 1	98	150	-	219	280	-	-	-	-	-	-	-
Stage 2	478	279	-	326	149	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	12.62	0.07	0.04
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	3	-	-	-	473	2	-	-
HCM Lane V/C Ratio	0.003	-	-	-	0.002	0.002	-	-
HCM Control Delay (s/veh)	14.5	0.1	-	0	12.6	10.8	0	-
HCM Lane LOS	B	A	-	A	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

HCM Signalized Intersection Capacity Analysis
5: US 1 & MD 100 EB Ramp

Synchro Report
Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	431	0	0	0	0	724	340	295	1118	0
Future Volume (vph)	0	0	431	0	0	0	0	724	340	295	1118	0
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0					4.0	3.0	3.0	3.0	
Lane Util. Factor			1.00					0.95	1.00	0.97	0.95	
Frt			0.87					1.00	0.85	1.00	1.00	
Flt Protected			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)			1508					3139	1404	3183	3282	
Flt Permitted			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)			1508					3139	1404	3183	3282	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	0	0	474	0	0	0	0	796	374	324	1229	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	474	0	0	0	0	796	374	324	1229	0
Heavy Vehicles (%)	0%	0%	9%	0%	0%	5%	0%	15%	15%	10%	10%	0%
Turn Type			Free					NA	Free	Prot	NA	
Protected Phases								2 6		1 5	Free	
Permitted Phases			Free						Free			
Actuated Green, G (s)			120.0					73.4	120.0	21.6	120.0	
Effective Green, g (s)			120.0					79.4	120.0	27.6	120.0	
Actuated g/C Ratio			1.00					0.66	1.00	0.23	1.00	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)			1508					2076	1404	732	3282	
v/s Ratio Prot								0.25		c0.10	0.37	
v/s Ratio Perm			0.31						0.27			
v/c Ratio			0.31					0.38	0.27	0.44	0.37	
Uniform Delay, d1			0.0					9.2	0.0	39.6	0.0	
Progression Factor			1.00					1.00	1.00	0.68	1.00	
Incremental Delay, d2			0.5					0.5	0.5	0.4	0.3	
Delay (s)			0.5					9.7	0.5	27.2	0.3	
Level of Service			A					A	A	C	A	
Approach Delay (s/veh)		0.5			0.0			6.8			5.9	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			5.4									A
HCM 2000 Volume to Capacity ratio			0.42									
Actuated Cycle Length (s)			120.0								13.0	
Intersection Capacity Utilization			35.9%									A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
6: US 1 & MD 100 WB ramp

Synchro Report
Existing AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖		↗		↕	↗		↕	↖
Traffic Volume (vph)	0	0	0	382	0	371	0	981	283	0	966	535
Future Volume (vph)	0	0	0	382	0	371	0	981	283	0	966	535
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0		4.0		6.0	6.0		4.0	4.0
Lane Util. Factor				1.00		1.00		0.95	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				1612		1553		3343	1392		3343	1482
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				1612		1553		3343	1392		3343	1482
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	406	0	395	0	1044	301	0	1028	569
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	161	0	0	0
Lane Group Flow (vph)	0	0	0	406	0	395	0	1044	140	0	1028	569
Heavy Vehicles (%)	0%	0%	0%	12%	0%	4%	0%	8%	16%	0%	8%	9%
Turn Type				Prot		Free		NA	Perm		NA	Perm
Protected Phases				4 8!				2 6			Free!	
Permitted Phases						Free			2 6			Free
Actuated Green, G (s)				40.2		120.0		55.8	55.8		120.0	120.0
Effective Green, g (s)				40.2		120.0		55.8	55.8		120.0	120.0
Actuated g/C Ratio				0.34		1.00		0.47	0.47		1.00	1.00
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				540		1553		1554	647		3343	1482
v/s Ratio Prot				c0.25				c0.31			0.31	
v/s Ratio Perm						0.25			0.10			0.38
v/c Ratio				0.75		0.25		0.67	0.22		0.31	0.38
Uniform Delay, d1				35.5		0.0		25.0	19.1		0.0	0.0
Progression Factor				1.00		1.00		1.10	3.45		1.00	1.00
Incremental Delay, d2				6.9		0.4		1.5	0.3		0.2	0.6
Delay (s)				42.4		0.4		28.9	66.3		0.2	0.6
Level of Service				D		A		C	E		A	A
Approach Delay (s/veh)		0.0			21.7			37.3			0.4	
Approach LOS		A			C			D			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↗
Traffic Vol, veh/h	11	83	196	901	1394	64
Future Vol, veh/h	11	83	196	901	1394	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	Free
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	18	15	2	9	8	5
Mvmt Flow	12	90	213	979	1515	70

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	2431	-	1515	0	-
Stage 1	1515	-	-	-	-
Stage 2	916	-	-	-	-
Critical Hdwy	7.16	-	4.14	-	-
Critical Hdwy Stg 1	6.16	-	-	-	-
Critical Hdwy Stg 2	6.16	-	-	-	-
Follow-up Hdwy	3.68	-	2.22	-	-
Pot Cap-1 Maneuver	21	0	437	-	-
Stage 1	144	0	-	-	-
Stage 2	314	0	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 11	-	437	-	-
Mov Cap-2 Maneuver	~ 11	-	-	-	-
Stage 1	74	-	-	-	-
Stage 2	314	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, \$/770.74		3.72	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	437	-	11	-	-
HCM Lane V/C Ratio	0.488	-	1.107	-	-
HCM Control Delay (s/veh)	20.8	-	\$ 770.7	0	-
HCM Lane LOS	C	-	F	A	-
HCM 95th %tile Q(veh)	2.6	-	2.2	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th Signalized Intersection Summary
 8: US 1 & Troy Hill Dr. - North



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	29	77	845	1422	81
Future Volume (veh/h)	30	29	77	845	1422	81
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1707	1292	1856	1781	1811	1841
Adj Flow Rate, veh/h	33	0	84	918	1546	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	13	41	3	8	6	4
Cap, veh/h	113		362	2952	2723	
Arrive On Green	0.07	0.00	0.06	0.87	0.79	0.00
Sat Flow, veh/h	1626	1095	1767	3474	3532	1560
Grp Volume(v), veh/h	33	0	84	918	1546	0
Grp Sat Flow(s),veh/h/ln	1626	1095	1767	1692	1721	1560
Q Serve(g_s), s	2.3	0.0	0.9	5.7	20.4	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.9	5.7	20.4	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	113		362	2952	2723	
V/C Ratio(X)	0.29		0.23	0.31	0.57	
Avail Cap(c_a), veh/h	230		484	2952	2723	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.74	0.00
Uniform Delay (d), s/veh	53.0	0.0	4.1	1.3	4.7	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.3	0.3	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.6	0.7	8.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	54.4	0.0	4.4	1.6	5.4	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	33			1002	1546	
Approach Delay, s/veh	54.4			1.9	5.4	
Approach LOS	D			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.7	99.0		11.3		108.7
Change Period (Y+Rc), s	5.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	13.0	75.0		14.0		93.0
Max Q Clear Time (g_c+I1), s	2.9	22.4		4.3		7.7
Green Ext Time (p_c), s	0.1	49.6		0.0		45.7

Intersection Summary						
HCM 7th Control Delay, s/veh			4.6			
HCM 7th LOS			A			

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

HCM 7th Signalized Intersection Summary
 9: US 1 & Ducketts

Synchro Report
 Existing AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	248	175	726	1215	62
Future Volume (veh/h)	77	248	175	726	1215	62
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1781	1856	1811	1781	1811	1781
Adj Flow Rate, veh/h	81	261	184	764	1279	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	3	6	8	6	8
Cap, veh/h	309	286	301	2402	1998	101
Arrive On Green	0.18	0.18	0.12	1.00	0.60	0.60
Sat Flow, veh/h	1697	1572	1725	3474	3423	169
Grp Volume(v), veh/h	81	261	184	764	660	684
Grp Sat Flow(s),veh/h/ln	1697	1572	1725	1692	1721	1781
Q Serve(g_s), s	4.9	19.5	4.9	0.0	29.9	30.0
Cycle Q Clear(g_c), s	4.9	19.5	4.9	0.0	29.9	30.0
Prop In Lane	1.00	1.00	1.00			0.09
Lane Grp Cap(c), veh/h	309	286	301	2402	1032	1068
V/C Ratio(X)	0.26	0.91	0.61	0.32	0.64	0.64
Avail Cap(c_a), veh/h	339	314	399	2402	1032	1068
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	42.1	48.1	13.7	0.0	15.6	15.6
Incr Delay (d2), s/veh	0.4	27.9	1.9	0.3	3.0	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	15.0	3.1	0.2	16.6	17.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	42.6	76.0	15.7	0.3	18.6	18.6
LnGrp LOS	D	E	B	A	B	B
Approach Vol, veh/h	342			948	1344	
Approach Delay, s/veh	68.1			3.3	18.6	
Approach LOS	E			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.2	78.9		27.9		92.1
Change Period (Y+Rc), s	6.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	41.0	63.0		24.0		83.0
Max Q Clear Time (g_c+I), s	10.9	32.0		21.5		2.0
Green Ext Time (p_c), s	0.3	28.5		0.3		34.6
Intersection Summary						
HCM 7th Control Delay, s/veh			19.5			
HCM 7th LOS			B			

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	464	69	39	283	19	8
Future Vol, veh/h	464	69	39	283	19	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	-	300	300	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	25	5	4	3	15
Mvmt Flow	521	78	44	318	21	9

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	599	0	927
Stage 1	-	-	-	-	521
Stage 2	-	-	-	-	406
Critical Hdwy	-	-	4.15	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.245	-	3.527
Pot Cap-1 Maneuver	-	-	963	-	297
Stage 1	-	-	-	-	594
Stage 2	-	-	-	-	671
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	963	-	283
Mov Cap-2 Maneuver	-	-	-	-	283
Stage 1	-	-	-	-	594
Stage 2	-	-	-	-	640

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.08	16.72
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	283	530	-	-	963	-
HCM Lane V/C Ratio	0.075	0.017	-	-	0.045	-
HCM Control Delay (s/veh)	18.7	11.9	-	-	8.9	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	410	100	134	174	52	151
Future Vol, veh/h	410	100	134	174	52	151
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	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	9	2	3	3	5
Mvmt Flow	446	109	146	189	57	164

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	554	0	980 500
Stage 1	-	-	-	-	500 -
Stage 2	-	-	-	-	480 -
Critical Hdwy	-	-	4.12	-	6.43 6.25
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.218	-	3.527 3.345
Pot Cap-1 Maneuver	-	-	1016	-	276 565
Stage 1	-	-	-	-	607 -
Stage 2	-	-	-	-	620 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1016	-	232 565
Mov Cap-2 Maneuver	-	-	-	-	232 -
Stage 1	-	-	-	-	607 -
Stage 2	-	-	-	-	521 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	3.97	16.92
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	232	565	-	-	783	-
HCM Lane V/C Ratio	0.244	0.291	-	-	0.143	-
HCM Control Delay (s/veh)	25.5	14	-	-	9.1	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	1.2	-	-	0.5	-

Intersection						
Int Delay, s/veh	5.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↑↑		↙	↙
Traffic Vol, veh/h	189	415	221	19	71	212
Future Vol, veh/h	189	415	221	19	71	212
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	400	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	13	11	20	48	4	8
Mvmt Flow	195	428	228	20	73	219

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	247	0	-	0	1055 124
Stage 1	-	-	-	-	238 -
Stage 2	-	-	-	-	818 -
Critical Hdwy	4.295	-	-	-	6.66 7.02
Critical Hdwy Stg 1	-	-	-	-	5.86 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.3235	-	-	-	3.538 3.376
Pot Cap-1 Maneuver	1248	-	-	-	232 887
Stage 1	-	-	-	-	775 -
Stage 2	-	-	-	-	428 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1248	-	-	-	196 887
Mov Cap-2 Maneuver	-	-	-	-	196 -
Stage 1	-	-	-	-	654 -
Stage 2	-	-	-	-	428 -

Approach	EB	WB	SB
HCM Control Delay, s/v	2.63	0	16.29
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1248	-	-	-	196	887
HCM Lane V/C Ratio	0.156	-	-	-	0.374	0.246
HCM Control Delay (s/veh)	8.4	-	-	-	34	10.4
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.6	-	-	-	1.6	1

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	18	0	42	7	0	1	10	272	23	10	245	6
Future Vol, veh/h	18	0	42	7	0	1	10	272	23	10	245	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	140	-	-	100	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	71	0	0	0	7	26	0	9	0
Mvmt Flow	20	0	46	8	0	1	11	296	25	11	266	7

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	458	630	266	618	624	160	273	0	0	321	0	0
Stage 1	288	288	-	330	330	-	-	-	-	-	-	-
Stage 2	170	342	-	288	295	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	8.365	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.565	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	7.165	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.34	1.745	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	504	401	777	287	404	863	1302	-	-	1251	-	-
Stage 1	724	677	-	519	649	-	-	-	-	-	-	-
Stage 2	821	641	-	572	673	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	495	394	777	266	397	863	1302	-	-	1251	-	-
Mov Cap-2 Maneuver	495	394	-	266	397	-	-	-	-	-	-	-
Stage 1	718	671	-	515	644	-	-	-	-	-	-	-
Stage 2	814	636	-	534	667	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v11.02		17.75	0.26	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1302	-	-	664	291	1251	-	-
HCM Lane V/C Ratio	0.008	-	-	0.098	0.03	0.009	-	-
HCM Control Delay (s/veh)	7.8	-	-	11	17.7	7.9	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	-

HCM 7th Signalized Intersection Summary
 1: US 1 & Driveway/Kit Kat Rd

Synchro Report
 Existing PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔			↕	↖	↗	↕	
Traffic Volume (veh/h)	6	0	22	31	0	38	0	1216	24	9	999	1
Future Volume (veh/h)	6	0	22	31	0	38	0	1216	24	9	999	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1752	1900	1737	0	1796	1648	1737	1826	1900
Adj Flow Rate, veh/h	6	0	23	33	0	40	0	1294	26	10	1063	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	10	0	11	0	7	17	11	5	0
Cap, veh/h	187	0	110	96	8	55	0	1669	683	420	2878	3
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.00	0.49	0.49	0.25	0.81	0.81
Sat Flow, veh/h	1389	0	1610	550	112	801	0	3503	1397	1654	3557	3
Grp Volume(v), veh/h	6	0	23	73	0	0	0	1294	26	10	518	546
Grp Sat Flow(s),veh/h/ln	1389	0	1610	1463	0	0	0	1706	1397	1654	1735	1825
Q Serve(g_s), s	0.0	0.0	1.2	3.3	0.0	0.0	0.0	28.1	0.9	0.4	7.3	7.3
Cycle Q Clear(g_c), s	0.3	0.0	1.2	4.5	0.0	0.0	0.0	28.1	0.9	0.4	7.3	7.3
Prop In Lane	1.00		1.00	0.45		0.55	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	187	0	110	158	0	0	0	1669	683	420	1404	1477
V/C Ratio(X)	0.03	0.00	0.21	0.46	0.00	0.00	0.00	0.78	0.04	0.02	0.37	0.37
Avail Cap(c_a), veh/h	401	0	358	391	0	0	0	1669	683	420	1404	1477
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	0.0	39.6	41.2	0.0	0.0	0.0	18.9	12.0	25.2	2.3	2.3
Incr Delay (d2), s/veh	0.1	0.0	0.9	2.1	0.0	0.0	0.0	3.6	0.1	0.0	0.7	0.7
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	0.2	0.0	0.9	3.0	0.0	0.0	0.0	15.4	0.5	0.3	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.2	0.0	40.5	43.2	0.0	0.0	0.0	22.5	12.1	25.2	3.1	3.0
LnGrp LOS	D		D	D				C	B	C	A	A
Approach Vol, veh/h		29			73			1320			1074	
Approach Delay, s/veh		40.3			43.2			22.3			3.3	
Approach LOS		D			D			C			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	28.8	50.0		11.2		78.8		11.2				
Change Period (Y+Rc), s	6.0	* 6		5.0		6.0		5.0				
Max Green Setting (Gmax), s	10.0	* 44		20.0		59.0		20.0				
Max Q Clear Time (g_c+I1), s	2.4	30.1		3.2		9.3		6.5				
Green Ext Time (p_c), s	0.0	7.2		0.1		7.3		0.2				

Intersection Summary

HCM 7th Control Delay, s/veh	14.9
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Signalized Intersection Summary
 2: US 1 & Business Pkwy./Cooney Lane

Synchro Report
 Existing PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖		↖	↖	↖	↕	↖	↖	↕	↖
Traffic Volume (veh/h)	168	7	154	37	3	59	57	1144	12	13	847	84
Future Volume (veh/h)	168	7	154	37	3	59	57	1144	12	13	847	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		No	
Adj Sat Flow, veh/h/ln	1796	1055	1767	1856	1900	1856	1841	1796	1781	1648	1796	1589
Adj Flow Rate, veh/h	189	0	0	40	3	64	62	1243	13	14	921	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	7	57	9	3	0	3	4	7	8	17	7	21
Cap, veh/h	286	0		115	9	107	527	2582	1142	326	2522	995
Arrive On Green	0.08	0.00	0.00	0.07	0.07	0.07	0.05	0.76	0.76	0.06	1.00	1.00
Sat Flow, veh/h	3421	0	1497	1689	127	1572	1753	3413	1510	1570	3413	1346
Grp Volume(v), veh/h	189	0	0	43	0	64	62	1243	13	14	921	91
Grp Sat Flow(s),veh/h/ln	1711	0	1497	1816	0	1572	1753	1706	1510	1570	1706	1346
Q Serve(g_s), s	9.6	0.0	0.0	4.1	0.0	7.1	1.4	25.1	0.4	0.4	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	0.0	4.1	0.0	7.1	1.4	25.1	0.4	0.4	0.0	0.0
Prop In Lane	1.00		1.00	0.93		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	286	0		124	0	107	527	2582	1142	326	2522	995
V/C Ratio(X)	0.66	0.00		0.35	0.00	0.60	0.12	0.48	0.01	0.04	0.37	0.09
Avail Cap(c_a), veh/h	523	0		277	0	240	656	2582	1142	470	2522	995
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	80.0	0.0	0.0	80.1	0.0	81.5	4.0	8.4	5.4	6.2	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.0	1.2	0.0	3.9	0.1	0.6	0.0	0.0	0.3	0.1
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	7.8	0.0	0.0	3.5	0.0	5.5	0.8	13.2	0.2	0.2	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.9	0.0	0.0	81.3	0.0	85.4	4.1	9.0	5.4	6.3	0.3	0.1
LnGrp LOS	F			F		F	A	A	A	A	A	A
Approach Vol, veh/h		189			107			1318			1026	
Approach Delay, s/veh		81.9			83.7			8.8			0.4	
Approach LOS		F			F			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	139.2		17.6	11.7	136.0		14.8				
Change Period (Y+Rc), s	5.0	6.0		5.5	5.0	6.0		5.5				
Max Green Setting (Gmax), s	20.0	89.0		24.5	20.0	89.0		24.5				
Max Q Clear Time (g_c+1), s	12.4	27.1		11.6	3.4	2.0		9.1				
Green Ext Time (p_c), s	0.0	48.8		0.4	0.1	44.6		0.2				

Intersection Summary

HCM 7th Control Delay, s/veh	13.8
HCM 7th LOS	B

Notes

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

HCM 7th Signalized Intersection Summary
3: US 1 & MD 103



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	116	34	132	239	525	74	1081	131	217	749	203
Future Volume (veh/h)	278	116	34	132	239	525	74	1081	131	217	749	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1707	1722	1870	1885	1856	1900	1811	1811	1796	1781	1811
Adj Flow Rate, veh/h	219	210	35	135	244	536	76	1103	134	221	764	207
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, %	4	13	12	2	1	3	0	6	6	7	8	6
Cap, veh/h	287	234	39	119	215	284	325	1739	776	399	1439	390
Arrive On Green	0.16	0.16	0.15	0.18	0.18	0.18	0.08	1.00	1.00	0.08	0.55	0.54
Sat Flow, veh/h	1753	1427	238	660	1192	1572	1810	3441	1535	1711	2632	713
Grp Volume(v), veh/h	219	0	245	379	0	536	76	1103	134	221	491	480
Grp Sat Flow(s),veh/h/ln	1753	0	1665	1852	0	1572	1810	1721	1535	1711	1692	1653
Q Serve(g_s), s	21.5	0.0	26.0	32.5	0.0	32.5	3.6	0.0	0.0	10.8	33.4	33.6
Cycle Q Clear(g_c), s	21.5	0.0	26.0	32.5	0.0	32.5	3.6	0.0	0.0	10.8	33.4	33.6
Prop In Lane	1.00		0.14	0.36		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	287	0	273	334	0	284	325	1739	776	399	925	904
V/C Ratio(X)	0.76	0.00	0.90	1.13	0.00	1.89	0.23	0.63	0.17	0.55	0.53	0.53
Avail Cap(c_a), veh/h	287	0	273	334	0	284	429	1739	776	427	925	904
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.9	0.0	73.9	73.8	0.0	73.8	20.9	0.0	0.0	17.0	26.1	26.4
Incr Delay (d2), s/veh	11.4	0.0	29.7	90.4	0.0	412.6	0.3	1.5	0.4	1.4	2.2	2.2
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	15.9	0.0	19.3	34.0	0.0	71.3	2.7	0.7	0.2	7.7	19.7	19.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.3	0.0	103.6	164.1	0.0	486.3	21.2	1.5	0.4	18.4	28.2	28.6
LnGrp LOS	F		F	F		F	C	A	A	B	C	C
Approach Vol, veh/h		464			915			1313			1192	
Approach Delay, s/veh		94.0			352.9			2.6			26.6	
Approach LOS		F			F			A			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	95.0		32.0	10.6	102.4		35.0				
Change Period (Y+Rc), s	5.0	7.0		5.5	5.0	7.0		5.5				
Max Green Setting (Gmax), s	10.0	85.0		26.5	16.0	85.0		29.5				
Max Q Clear Time (g_c+I), s	11.0	2.0		28.0	5.6	35.6		34.5				
Green Ext Time (p_c), s	0.2	55.6		0.0	0.1	32.6		0.0				

Intersection Summary

HCM 7th Control Delay, s/veh	103.4
HCM 7th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	0	0	5	1	1958	4	0	1184	2
Future Vol, veh/h	0	0	4	0	0	5	1	1958	4	0	1184	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	7	0
Mvmt Flow	0	0	4	0	0	5	1	2019	4	0	1221	2























Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	2233	3246	611	2633	3245	1011	1223	0	0	2023	0	0
Stage 1	1222	1222	-	2023	2023	-	-	-	-	-	-	-
Stage 2	1011	2025	-	610	1223	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	24	9	441	12	10	241	577	-	-	285	-	-
Stage 1	194	254	-	61	103	-	-	-	-	-	-	-
Stage 2	260	103	-	453	254	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	23	9	441	12	9	241	577	-	-	285	-	-
Mov Cap-2 Maneuver	23	9	-	12	9	-	-	-	-	-	-	-
Stage 1	194	254	-	61	102	-	-	-	-	-	-	-
Stage 2	254	102	-	449	254	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s/v13.23			20.27			0.05		0		
HCM LOS	B		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	2	-	-	441	241	285	-	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.021	-	-	-
HCM Control Delay (s/veh)	11.2	0	-	13.2	20.3	0	-	-
HCM Lane LOS	B	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-



















HCM Signalized Intersection Capacity Analysis
5: US 1 & MD 100 EB Ramp

Synchro Report
Existing PM

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations								 		 	 	 	
Traffic Volume (vph)	0	0	260	0	0	0	0	1448	545	366	883	0	
Future Volume (vph)	0	0	260	0	0	0	0	1448	545	366	883	0	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)			3.0					4.0	3.0	3.0	3.0		
Lane Util. Factor			1.00					0.95	1.00	0.97	0.95		
Frt			0.87					1.00	0.85	1.00	1.00		
Flt Protected			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)			1454					3406	1538	3335	3343		
Flt Permitted			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)			1454					3406	1538	3335	3343		
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
Adj. Flow (vph)	0	0	263	0	0	0	0	1463	551	370	892	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	263	0	0	0	0	1463	551	370	892	0	
Heavy Vehicles (%)	0%	0%	13%	0%	0%	6%	0%	6%	5%	5%	8%	0%	
Turn Type			Free					NA	Free	Prot	NA		
Protected Phases								2 6		1 5	Free		
Permitted Phases			Free						Free				
Actuated Green, G (s)			180.0					125.7	180.0	29.3	180.0		
Effective Green, g (s)			180.0					131.7	180.0	35.3	180.0		
Actuated g/C Ratio			1.00					0.73	1.00	0.20	1.00		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)			1454					2492	1538	654	3343		
v/s Ratio Prot								c0.43		c0.11	0.27		
v/s Ratio Perm			0.18						0.36				
v/c Ratio			0.18					0.59	0.36	0.57	0.27		
Uniform Delay, d1			0.0					11.4	0.0	65.4	0.0		
Progression Factor			1.00					1.09	1.00	0.96	1.00		
Incremental Delay, d2			0.3					0.6	0.4	1.1	0.2		
Delay (s)			0.3					13.0	0.4	63.6	0.2		
Level of Service			A					B	A	E	A		
Approach Delay (s/veh)		0.3			0.0			9.5			18.8		
Approach LOS		A			A			A			B		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			12.1									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.58										
Actuated Cycle Length (s)			180.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			57.1%									ICU Level of Service	B
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
6: US 1 & MD 100 WB ramp

Synchro Report
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	226	0	284	0	1738	341	0	987	784
Future Volume (vph)	0	0	0	226	0	284	0	1738	341	0	987	784
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0		4.0		6.0	6.0		4.0	4.0
Lane Util. Factor				1.00		1.00		0.95	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				1656		1538		3438	1553		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				1656		1538		3438	1553		3505	1568
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	233	0	293	0	1792	352	0	1018	808
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	66	0	0	0
Lane Group Flow (vph)	0	0	0	233	0	293	0	1792	286	0	1018	808
Heavy Vehicles (%)	0%	0%	0%	9%	0%	5%	0%	5%	4%	0%	3%	3%
Turn Type				Prot		Free		NA	Perm		NA	Perm
Protected Phases				4 8!				2 6			Free!	
Permitted Phases						Free			2 6			Free
Actuated Green, G (s)				38.2		180.0		117.8	117.8		180.0	180.0
Effective Green, g (s)				38.2		180.0		117.8	117.8		180.0	180.0
Actuated g/C Ratio				0.21		1.00		0.65	0.65		1.00	1.00
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				351		1538		2249	1016		3505	1568
v/s Ratio Prot				c0.14				c0.52			0.29	
v/s Ratio Perm						0.19			0.18			c0.52
v/c Ratio				0.66		0.19		0.80	0.28		0.29	0.52
Uniform Delay, d1				65.0		0.0		22.5	13.2		0.0	0.0
Progression Factor				1.00		1.00		0.76	0.25		1.00	1.00
Incremental Delay, d2				6.1		0.3		2.2	0.3		0.2	1.2
Delay (s)				71.2		0.3		19.2	3.6		0.2	1.2
Level of Service				E		A		B	A		A	A
Approach Delay (s/veh)		0.0			31.7			16.6			0.7	
Approach LOS		A			C			B			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			11.9									B
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			180.0						24.0			
Intersection Capacity Utilization			68.9%									C
Analysis Period (min)			15									
! Phase conflict between lane groups.												
c Critical Lane Group												

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↗
Traffic Vol, veh/h	21	177	107	1795	1306	47
Future Vol, veh/h	21	177	107	1795	1306	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	Free
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	6	6	4	3	0
Mvmt Flow	22	182	110	1851	1346	48

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	2492	-	1346	0	0
Stage 1	1346	-	-	-	-
Stage 2	1146	-	-	-	-
Critical Hdwy	6.8	-	4.22	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	-	2.26	-	-
Pot Cap-1 Maneuver	25	0	487	-	0
Stage 1	211	0	-	-	0
Stage 2	269	0	-	-	0
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 19	-	487	-	-
Mov Cap-2 Maneuver	~ 19	-	-	-	-
Stage 1	163	-	-	-	-
Stage 2	269	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, \$/535.35		0.82	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	487	-	19	-	-
HCM Lane V/C Ratio	0.227	-	1.134	-	-
HCM Control Delay (s/veh)	14.5	-	\$ 535.4	0	-
HCM Lane LOS	B	-	F	A	-
HCM 95th %tile Q(veh)	0.9	-	3	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th Signalized Intersection Summary
 8: US 1 & Troy Hill Dr. - North



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑↑	↑↑	↗
Traffic Volume (veh/h)	75	91	9	1763	1347	22
Future Volume (veh/h)	75	91	9	1763	1347	22
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1411	1841	1856	1767
Adj Flow Rate, veh/h	76	0	9	1781	1361	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	33	4	3	9
Cap, veh/h	130		299	3076	2947	
Arrive On Green	0.07	0.00	0.02	0.88	0.84	0.00
Sat Flow, veh/h	1767	1572	1344	3589	3618	1497
Grp Volume(v), veh/h	76	0	9	1781	1361	0
Grp Sat Flow(s),veh/h/ln	1767	1572	1344	1749	1763	1497
Q Serve(g_s), s	6.2	0.0	0.1	18.7	15.5	0.0
Cycle Q Clear(g_c), s	6.2	0.0	0.1	18.7	15.5	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	130		299	3076	2947	
V/C Ratio(X)	0.58		0.03	0.58	0.46	
Avail Cap(c_a), veh/h	389		509	3076	2947	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.85	0.00
Uniform Delay (d), s/veh	67.2	0.0	2.4	2.2	3.3	0.0
Incr Delay (d2), s/veh	4.1	0.0	0.0	0.8	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.3	0.0	0.0	4.6	6.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	71.3	0.0	2.4	3.0	3.7	0.0
LnGrp LOS	E		A	A	A	
Approach Vol, veh/h	76			1790	1361	
Approach Delay, s/veh	71.3			3.0	3.7	
Approach LOS	E			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.6	129.4		14.1		135.9
Change Period (Y+Rc), s	5.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	25.0	77.0		30.0		107.0
Max Q Clear Time (g_c+I1), s	2.1	17.5		8.2		20.7
Green Ext Time (p_c), s	0.0	52.7		0.2		82.3

Intersection Summary						
HCM 7th Control Delay, s/veh			4.9			
HCM 7th LOS			A			

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

HCM 7th Signalized Intersection Summary
 9: US 1 & Ducketts

Synchro Report
 Existing PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	52	159	168	1688	1149	99
Future Volume (veh/h)	52	159	168	1688	1149	99
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1870	1870	1841	1856	1900
Adj Flow Rate, veh/h	53	162	171	1722	1172	101
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	4	3	0
Cap, veh/h	211	185	365	2787	2348	202
Arrive On Green	0.12	0.12	0.08	1.00	0.71	0.71
Sat Flow, veh/h	1810	1585	1781	3589	3378	283
Grp Volume(v), veh/h	53	162	171	1722	628	645
Grp Sat Flow(s),veh/h/ln	1810	1585	1781	1749	1763	1805
Q Serve(g_s), s	4.0	15.1	3.9	0.0	23.7	23.8
Cycle Q Clear(g_c), s	4.0	15.1	3.9	0.0	23.7	23.8
Prop In Lane	1.00	1.00	1.00			0.16
Lane Grp Cap(c), veh/h	211	185	365	2787	1260	1290
V/C Ratio(X)	0.25	0.88	0.47	0.62	0.50	0.50
Avail Cap(c_a), veh/h	290	254	539	2787	1260	1290
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.77	0.77	1.00	1.00
Uniform Delay (d), s/veh	60.3	65.2	7.6	0.0	9.5	9.5
Incr Delay (d2), s/veh	0.6	21.7	0.7	0.8	1.4	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.4	11.6	2.0	0.6	13.2	13.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	60.9	86.9	8.3	0.8	10.9	10.9
LnGrp LOS	E	F	A	A	B	B
Approach Vol, veh/h	215			1893	1273	
Approach Delay, s/veh	80.5			1.5	10.9	
Approach LOS	F			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.3	114.2		23.5		126.5
Change Period (Y+Rc), s	6.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	21.0	86.0		24.0		113.0
Max Q Clear Time (g_c+I), s	15.0	25.8		17.1		2.0
Green Ext Time (p_c), s	0.4	50.3		0.4		103.1
Intersection Summary						
HCM 7th Control Delay, s/veh			10.0			
HCM 7th LOS			B			

Intersection						
Int Delay, s/veh	4.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	445	197	19	526	108	18
Future Vol, veh/h	445	197	19	526	108	18
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	300	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	6	5	1	7	18
Mvmt Flow	524	232	22	619	127	21

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	755	0	1187 524
Stage 1	-	-	-	-	524 -
Stage 2	-	-	-	-	664 -
Critical Hdwy	-	-	4.15	-	6.47 6.38
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	-	-	2.245	-	3.563 3.462
Pot Cap-1 Maneuver	-	-	842	-	203 523
Stage 1	-	-	-	-	584 -
Stage 2	-	-	-	-	503 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	842	-	198 523
Mov Cap-2 Maneuver	-	-	-	-	198 -
Stage 1	-	-	-	-	584 -
Stage 2	-	-	-	-	490 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.33	45.41
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	198	523	-	-	842	-
HCM Lane V/C Ratio	0.642	0.04	-	-	0.027	-
HCM Control Delay (s/veh)	51	12.2	-	-	9.4	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	3.8	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	5.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	503	73	174	492	29	179
Future Vol, veh/h	503	73	174	492	29	179
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	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	3	3	1	1	13	0
Mvmt Flow	585	85	202	572	34	208

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	670	0	1604 627
Stage 1	-	-	-	-	627 -
Stage 2	-	-	-	-	977 -
Critical Hdwy	-	-	4.11	-	6.53 6.2
Critical Hdwy Stg 1	-	-	-	-	5.53 -
Critical Hdwy Stg 2	-	-	-	-	5.53 -
Follow-up Hdwy	-	-	2.209	-	3.617 3.3
Pot Cap-1 Maneuver	-	-	925	-	109 487
Stage 1	-	-	-	-	512 -
Stage 2	-	-	-	-	348 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	925	-	74 487
Mov Cap-2 Maneuver	-	-	-	-	74 -
Stage 1	-	-	-	-	512 -
Stage 2	-	-	-	-	237 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.61	27.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	74	487	-	-	470	-
HCM Lane V/C Ratio	0.454	0.427	-	-	0.219	-
HCM Control Delay (s/veh)	88.8	17.8	-	-	10	0
HCM Lane LOS	F	C	-	-	A	A
HCM 95th %tile Q(veh)	1.8	2.1	-	-	0.8	-

Intersection						
Int Delay, s/veh	8.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↑↑		↙	↙
Traffic Vol, veh/h	306	188	560	99	43	365
Future Vol, veh/h	306	188	560	99	43	365
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	400	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	2	2	3	5	13
Mvmt Flow	312	192	571	101	44	372

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	672	0	-	0	1438 336
Stage 1	-	-	-	-	622 -
Stage 2	-	-	-	-	816 -
Critical Hdwy	4.235	-	-	-	6.675 7.095
Critical Hdwy Stg 1	-	-	-	-	5.875 -
Critical Hdwy Stg 2	-	-	-	-	5.475 -
Follow-up Hdwy	2.2855	-	-	-	3.5475 3.4235
Pot Cap-1 Maneuver	877	-	-	-	132 633
Stage 1	-	-	-	-	492 -
Stage 2	-	-	-	-	427 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	877	-	-	-	85 633
Mov Cap-2 Maneuver	-	-	-	-	85 -
Stage 1	-	-	-	-	317 -
Stage 2	-	-	-	-	427 -

Approach	EB	WB	SB
HCM Control Delay, s/v	7.03	0	25.57
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	877	-	-	-	85	633
HCM Lane V/C Ratio	0.356	-	-	-	0.517	0.588
HCM Control Delay (s/veh)	11.4	-	-	-	85.8	18.5
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	1.6	-	-	-	2.2	3.8

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	14	0	34	13	1	5	45	415	6	3	395	20
Future Vol, veh/h	14	0	34	13	1	5	45	415	6	3	395	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	140	-	-	100	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	7	0	6	0	0	0	2	3	17	33	1	5
Mvmt Flow	16	0	39	15	1	6	51	472	7	3	449	23

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	794	1036	449	1033	1056	239	472	0	0	478	0	0
Stage 1	456	456	-	577	577	-	-	-	-	-	-	-
Stage 2	339	581	-	456	478	-	-	-	-	-	-	-
Critical Hdwy	7.405	6.5	6.29	7.3	6.5	6.9	4.13	-	-	4.595	-	-
Critical Hdwy Stg 1	6.205	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.605	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5665	4	3.357	3.5	4	3.3	2.219	-	-	2.5135	-	-
Pot Cap-1 Maneuver	285	233	599	201	227	768	1088	-	-	915	-	-
Stage 1	572	572	-	474	505	-	-	-	-	-	-	-
Stage 2	638	503	-	588	559	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	267	222	599	178	216	768	1088	-	-	915	-	-
Mov Cap-2 Maneuver	267	222	-	178	216	-	-	-	-	-	-	-
Stage 1	570	570	-	452	481	-	-	-	-	-	-	-
Stage 2	602	479	-	548	557	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	14.35		22.6		0.82		0.06	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1088	-	-	439	226	915	-	-
HCM Lane V/C Ratio	0.047	-	-	0.124	0.096	0.004	-	-
HCM Control Delay (s/veh)	8.5	-	-	14.3	22.6	8.9	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.3	0	-	-

HCM 7th Signalized Intersection Summary
 1: US 1 & Driveway/Kit Kat Rd

Synchro Report
 Back'd AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕	↗	↘	↕	↗
Traffic Volume (veh/h)	28	1	49	18	1	24	0	896	35	36	1215	13
Future Volume (veh/h)	28	1	49	18	1	24	0	896	35	36	1215	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1411	1900	1159	1530	418	1203	0	1722	1307	1544	1722	1159
Adj Flow Rate, veh/h	30	1	53	19	1	26	0	963	38	39	1306	14
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, %	33	0	50	25	100	47	0	12	40	24	12	50
Cap, veh/h	225	6	146	73	6	29	0	1600	542	255	2385	716
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.49	0.49	0.17	0.73	0.73
Sat Flow, veh/h	980	42	982	109	40	193	0	3358	1108	1471	3272	982
Grp Volume(v), veh/h	31	0	53	46	0	0	0	963	38	39	1306	14
Grp Sat Flow(s),veh/h/ln	1022	0	982	341	0	0	0	1636	1108	1471	1636	982
Q Serve(g_s), s	0.0	0.0	4.4	9.1	0.0	0.0	0.0	19.2	1.6	2.0	16.2	0.4
Cycle Q Clear(g_c), s	2.5	0.0	4.4	11.9	0.0	0.0	0.0	19.2	1.6	2.0	16.2	0.4
Prop In Lane	0.97		1.00	0.41		0.57	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	0	146	107	0	0	0	1600	542	255	2385	716
V/C Ratio(X)	0.13	0.00	0.36	0.43	0.00	0.00	0.00	0.60	0.07	0.15	0.55	0.02
Avail Cap(c_a), veh/h	335	0	218	132	0	0	0	1600	542	255	2385	716
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	34.5	37.5	0.0	0.0	0.0	16.7	12.2	31.6	5.5	3.4
Incr Delay (d2), s/veh	0.3	0.0	1.5	2.7	0.0	0.0	0.0	1.7	0.3	0.3	0.9	0.1
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	1.1	0.0	2.0	1.9	0.0	0.0	0.0	10.7	0.7	1.3	6.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.9	0.0	36.0	40.2	0.0	0.0	0.0	18.3	12.4	31.9	6.4	3.4
LnGrp LOS	C		D	D				B	B	C	A	A
Approach Vol, veh/h		84			46			1001			1359	
Approach Delay, s/veh		35.2			40.2			18.1			7.1	
Approach LOS		D			D			B			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	21.6	50.0		18.4		71.6		18.4				
Change Period (Y+Rc), s	6.0	* 6		5.0		6.0		5.0				
Max Green Setting (Gmax), s	10.0	* 44		20.0		59.0		20.0				
Max Q Clear Time (g_c+I1), s	4.0	21.2		6.4		18.2		13.9				
Green Ext Time (p_c), s	0.0	6.5		0.2		11.5		0.1				

Intersection Summary		
HCM 7th Control Delay, s/veh		13.1
HCM 7th LOS		B

Notes
 * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Signalized Intersection Summary
2: US 1 & Business Pkwy./Cooney Lane



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↖	↗		↖	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	44	4	85	30	3	29	54	867	41	76	1203	96
Future Volume (veh/h)	44	4	85	30	3	29	54	867	41	76	1203	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1470	1530	1589	1470	1411	1574	1752	1693	1589	1841	1737	1781
Adj Flow Rate, veh/h	52	0	0	34	3	33	61	974	46	85	1352	108
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, %	29	25	21	29	33	22	10	14	21	4	11	8
Cap, veh/h	162	0		74	7	80	328	2482	1039	490	2552	1167
Arrive On Green	0.06	0.00	0.00	0.06	0.06	0.06	0.05	0.77	0.77	0.05	0.77	0.77
Sat Flow, veh/h	2800	0	1346	1240	109	1334	1668	3216	1346	1753	3300	1510
Grp Volume(v), veh/h	52	0	0	37	0	33	61	974	46	85	1352	108
Grp Sat Flow(s),veh/h/ln1400	0	1346	1349	0	1334	1668	1608	1346	1753	1650	1510	
Q Serve(g_s), s	3.2	0.0	0.0	4.8	0.0	4.3	1.3	17.8	1.5	1.7	28.3	3.1
Cycle Q Clear(g_c), s	3.2	0.0	0.0	4.8	0.0	4.3	1.3	17.8	1.5	1.7	28.3	3.1
Prop In Lane	1.00		1.00	0.92		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	0		81	0	80	328	2482	1039	490	2552	1167
V/C Ratio(X)	0.32	0.00		0.46	0.00	0.41	0.19	0.39	0.04	0.17	0.53	0.09
Avail Cap(c_a), veh/h	428	0		206	0	204	452	2482	1039	617	2552	1167
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	1.00	1.00	1.00	1.00	0.42	0.42	0.42
Uniform Delay (d), s/veh	81.4	0.0	0.0	81.8	0.0	81.6	5.9	6.7	4.8	4.3	7.8	5.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	3.0	0.0	2.5	0.2	0.5	0.1	0.1	0.3	0.1
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	2.1	0.0	0.0	3.1	0.0	2.8	0.7	9.3	0.7	0.9	11.9	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.2	0.0	0.0	84.8	0.0	84.1	6.1	7.2	4.9	4.3	8.2	5.1
LnGrp LOS	F			F		F	A	A	A	A	A	A
Approach Vol, veh/h		52			70			1081			1545	
Approach Delay, s/veh		82.2			84.5			7.0			7.7	
Approach LOS		F			F			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	141.9		12.9	11.7	142.2		13.3				
Change Period (Y+Rc), s	5.0	6.0		5.5	5.0	6.0		5.5				
Max Green Setting (Gmax), s	20.0	89.0		24.5	20.0	89.0		24.5				
Max Q Clear Time (g_c+1/3), s	13.5	19.8		5.2	3.3	30.3		6.8				
Green Ext Time (p_c), s	0.1	41.7		0.1	0.1	50.4		0.1				

Intersection Summary

HCM 7th Control Delay, s/veh	10.8
HCM 7th LOS	B

Notes

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

HCM 7th Signalized Intersection Summary
3: US 1 & MD 103



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔		↔	↑	↔↔	↔	↑↑	↔	↔	↔↔	
Traffic Volume (veh/h)	214	225	63	210	64	372	38	681	129	330	1079	233
Future Volume (veh/h)	214	225	63	210	64	372	38	681	129	330	1079	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1663	1693	1826	1648	1811	1663	1707	1752	1752	1870
Adj Flow Rate, veh/h	233	245	68	228	70	404	41	740	140	359	1173	253
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	16	14	5	17	6	16	13	10	10	2
Cap, veh/h	354	286	79	242	457	999	175	1320	605	435	1436	307
Arrive On Green	0.10	0.20	0.19	0.15	0.25	0.25	0.04	0.42	0.42	0.15	0.53	0.51
Sat Flow, veh/h	3456	1409	391	1612	1826	2458	1725	3159	1447	1668	2727	584
Grp Volume(v), veh/h	233	0	313	228	70	404	41	740	140	359	712	714
Grp Sat Flow(s),veh/h/ln	1728	0	1800	1612	1826	1229	1725	1580	1447	1668	1664	1647
Q Serve(g_s), s	9.7	0.0	25.2	21.0	4.5	17.5	2.0	26.7	9.4	17.5	53.1	54.5
Cycle Q Clear(g_c), s	9.7	0.0	25.2	21.0	4.5	17.5	2.0	26.7	9.4	17.5	53.1	54.5
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	354	0	365	242	457	999	175	1320	605	435	876	867
V/C Ratio(X)	0.66	0.00	0.86	0.94	0.15	0.40	0.23	0.56	0.23	0.83	0.81	0.82
Avail Cap(c_a), veh/h	634	0	390	242	457	999	185	1320	605	542	876	867
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	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.8	0.0	57.9	63.1	43.8	31.6	28.6	33.2	28.1	24.2	29.4	30.0
Incr Delay (d2), s/veh	2.1	0.0	16.3	42.8	0.3	0.5	0.6	1.6	0.8	8.4	8.1	8.7
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	7.8	0.0	18.9	17.0	3.7	9.1	1.5	15.2	6.1	11.9	29.5	30.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.9	0.0	74.2	105.9	44.1	32.1	29.2	34.8	29.0	32.5	37.5	38.7
LnGrp LOS	E		E	F	D	C	C	C	C	C	D	D
Approach Vol, veh/h		546			702			921			1785	
Approach Delay, s/veh		71.1			57.3			33.6			37.0	
Approach LOS		E			E			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.4	66.7	25.0	32.9	9.1	83.0	17.9	40.1				
Change Period (Y+Rc), s	5.0	7.0	5.5	5.5	5.0	7.0	5.5	5.5				
Max Green Setting (Gmax), s	30.0	48.0	19.5	29.5	5.0	73.0	24.5	24.5				
Max Q Clear Time (g_c+19.5), s	19.5	28.7	23.0	27.2	4.0	56.5	11.7	19.5				
Green Ext Time (p_c), s	0.9	13.7	0.0	0.2	0.0	15.7	0.6	1.5				
Intersection Summary												
HCM 7th Control Delay, s/veh			44.5									
HCM 7th LOS			D									

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	2	0	3	1	1244	2	2	1730	5
Future Vol, veh/h	0	0	0	2	0	3	1	1244	2	2	1730	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	15	100	0	10	0
Mvmt Flow	0	0	0	2	0	3	1	1367	2	2	1901	5



















Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2594	3280	953	2325	3281	685	1907	0	0	1369	0	0
Stage 1	1908	1908	-	1370	1370	-	-	-	-	-	-	-
Stage 2	686	1371	-	955	1911	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	13	9	263	20	9	395	316	-	-	508	-	-
Stage 1	72	117	-	157	216	-	-	-	-	-	-	-
Stage 2	409	216	-	282	117	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	12	9	263	20	9	395	316	-	-	508	-	-
Mov Cap-2 Maneuver	12	9	-	20	9	-	-	-	-	-	-	-
Stage 1	71	116	-	156	215	-	-	-	-	-	-	-
Stage 2	403	215	-	279	116	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	91.97	0.11	0.12
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	3	-	-	-	47	4	-	-
HCM Lane V/C Ratio	0.003	-	-	-	0.117	0.004	-	-
HCM Control Delay (s/veh)	16.4	0.1	-	0	92	12.1	0.1	-
HCM Lane LOS	C	A	-	A	F	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0	-	-



















HCM Signalized Intersection Capacity Analysis
5: US 1 & MD 100 EB Ramp

Synchro Report
Back'd AM

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	464	0	0	0	0	910	376	339	1273	0	
Future Volume (vph)	0	0	464	0	0	0	0	910	376	339	1273	0	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)			3.0					4.0	3.0	3.0	3.0		
Lane Util. Factor			1.00					0.95	1.00	0.97	0.95		
Frt			0.87					1.00	0.85	1.00	1.00		
Flt Protected			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)			1508					3139	1404	3183	3282		
Flt Permitted			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)			1508					3139	1404	3183	3282		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	
Adj. Flow (vph)	0	0	510	0	0	0	0	1000	413	373	1399	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	510	0	0	0	0	1000	413	373	1399	0	
Heavy Vehicles (%)	0%	0%	9%	0%	0%	5%	0%	15%	15%	10%	10%	0%	
Turn Type			Free					NA	Free	Prot	NA		
Protected Phases								2 6		1 5	Free		
Permitted Phases			Free						Free				
Actuated Green, G (s)			120.0					71.9	120.0	23.1	120.0		
Effective Green, g (s)			120.0					77.9	120.0	29.1	120.0		
Actuated g/C Ratio			1.00					0.65	1.00	0.24	1.00		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)			1508					2037	1404	771	3282		
v/s Ratio Prot								c0.32		0.12	0.43		
v/s Ratio Perm			0.34						0.29				
v/c Ratio			0.34					0.49	0.29	0.48	0.43		
Uniform Delay, d1			0.0					10.8	0.0	39.0	0.0		
Progression Factor			1.00					1.00	1.00	0.69	1.00		
Incremental Delay, d2			0.6					0.8	0.5	0.4	0.4		
Delay (s)			0.6					11.7	0.5	27.4	0.4		
Level of Service			A					B	A	C	A		
Approach Delay (s/veh)		0.6			0.0			8.4			6.1		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			6.2									HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.49										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			41.5%									ICU Level of Service	A
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
6: US 1 & MD 100 WB ramp

Synchro Report
Back'd AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	409	0	409	0	1191	325	0	1134	618
Future Volume (vph)	0	0	0	409	0	409	0	1191	325	0	1134	618
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0		4.0		6.0	6.0		4.0	4.0
Lane Util. Factor				1.00		1.00		0.95	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				1612		1553		3343	1392		3343	1482
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				1612		1553		3343	1392		3343	1482
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	435	0	435	0	1267	346	0	1206	657
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	159	0	0	0
Lane Group Flow (vph)	0	0	0	435	0	435	0	1267	187	0	1206	657
Heavy Vehicles (%)	0%	0%	0%	12%	0%	4%	0%	8%	16%	0%	8%	9%
Turn Type				Prot		Free		NA	Perm		NA	Perm
Protected Phases				4 8!				2 6			Free!	
Permitted Phases						Free			2 6			Free
Actuated Green, G (s)				41.2		120.0		54.8	54.8		120.0	120.0
Effective Green, g (s)				41.2		120.0		54.8	54.8		120.0	120.0
Actuated g/C Ratio				0.34		1.00		0.46	0.46		1.00	1.00
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				553		1553		1526	635		3343	1482
v/s Ratio Prot				c0.27				c0.38			0.36	
v/s Ratio Perm						0.28			0.13			0.44
v/c Ratio				0.79		0.28		0.83	0.29		0.36	0.44
Uniform Delay, d1				35.4		0.0		28.5	20.5		0.0	0.0
Progression Factor				1.00		1.00		1.06	2.31		1.00	1.00
Incremental Delay, d2				8.4		0.5		4.3	0.5		0.2	0.7
Delay (s)				43.8		0.5		34.6	47.7		0.2	0.7
Level of Service				D		A		C	D		A	A
Approach Delay (s/veh)		0.0			22.1			37.4			0.4	
Approach LOS		A			C			D			A	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			18.5									B
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			120.0								24.0	
Intersection Capacity Utilization			63.9%									B
Analysis Period (min)			15									
! Phase conflict between lane groups.												
c Critical Lane Group												

Intersection						
Int Delay, s/veh	14.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↗
Traffic Vol, veh/h	12	88	208	1121	1638	68
Future Vol, veh/h	12	88	208	1121	1638	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	Free
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	18	15	2	9	8	5
Mvmt Flow	13	96	226	1218	1780	74

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	2842	-	1780	0	-
Stage 1	1780	-	-	-	-
Stage 2	1061	-	-	-	-
Critical Hdwy	7.16	-	4.14	-	-
Critical Hdwy Stg 1	6.16	-	-	-	-
Critical Hdwy Stg 2	6.16	-	-	-	-
Follow-up Hdwy	3.68	-	2.22	-	-
Pot Cap-1 Maneuver	~ 11	0	345	-	-
Stage 1	101	0	-	-	-
Stage 2	261	0	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 4	-	345	-	-
Mov Cap-2 Maneuver	~ 4	-	-	-	-
Stage 1	35	-	-	-	-
Stage 2	261	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay \$	2971.82	5.21	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	345	-	4	-	-
HCM Lane V/C Ratio	0.656	-	3.59	-	-
HCM Control Delay (s/veh)	33.3	\$	2971.8	0	-
HCM Lane LOS	D	-	F	A	-
HCM 95th %tile Q(veh)	4.4	-	2.9	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th Signalized Intersection Summary
8: US 1 & Troy Hill Dr. - North



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷	↶	↷	↷	↶
Traffic Volume (veh/h)	32	31	82	1062	1668	86
Future Volume (veh/h)	32	31	82	1062	1668	86
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1707	1292	1856	1781	1811	1841
Adj Flow Rate, veh/h	35	0	89	1154	1813	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	13	41	3	8	6	4
Cap, veh/h	115		300	2947	2717	
Arrive On Green	0.07	0.00	0.06	0.87	0.79	0.00
Sat Flow, veh/h	1626	1095	1767	3474	3532	1560
Grp Volume(v), veh/h	35	0	89	1154	1813	0
Grp Sat Flow(s),veh/h/ln	1626	1095	1767	1692	1721	1560
Q Serve(g_s), s	2.5	0.0	0.9	8.0	28.1	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.9	8.0	28.1	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	115		300	2947	2717	
V/C Ratio(X)	0.30		0.30	0.39	0.67	
Avail Cap(c_a), veh/h	230		421	2947	2717	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.55	0.00
Uniform Delay (d), s/veh	52.9	0.0	7.1	1.5	5.6	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.5	0.4	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	0.0	1.2	1.1	10.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	54.4	0.0	7.7	1.9	6.3	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	35			1243	1813	
Approach Delay, s/veh	54.4			2.3	6.3	
Approach LOS	D			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.7	98.7		11.5		108.5
Change Period (Y+Rc), s	5.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	13.0	75.0		14.0		93.0
Max Q Clear Time (g_c+I1), s	2.9	30.1		4.5		10.0
Green Ext Time (p_c), s	0.1	44.0		0.0		59.4

Intersection Summary

HCM 7th Control Delay, s/veh	5.3
HCM 7th LOS	A

Notes

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

HCM 7th Signalized Intersection Summary
 9: US 1 & Ducketts



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	89	263	186	921	1448	72
Future Volume (veh/h)	89	263	186	921	1448	72
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1781	1856	1811	1781	1811	1781
Adj Flow Rate, veh/h	94	277	196	969	1524	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	3	6	8	6	8
Cap, veh/h	324	301	244	2371	1955	97
Arrive On Green	0.19	0.19	0.13	1.00	0.59	0.59
Sat Flow, veh/h	1697	1572	1725	3474	3427	166
Grp Volume(v), veh/h	94	277	196	969	783	817
Grp Sat Flow(s),veh/h/ln	1697	1572	1725	1692	1721	1781
Q Serve(g_s), s	5.7	20.8	5.5	0.0	41.5	42.1
Cycle Q Clear(g_c), s	5.7	20.8	5.5	0.0	41.5	42.1
Prop In Lane	1.00	1.00	1.00			0.09
Lane Grp Cap(c), veh/h	324	301	244	2371	1008	1044
V/C Ratio(X)	0.29	0.92	0.80	0.41	0.78	0.78
Avail Cap(c_a), veh/h	339	314	334	2371	1008	1044
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	41.5	47.6	22.1	0.0	18.9	19.0
Incr Delay (d2), s/veh	0.5	30.5	9.0	0.5	5.9	5.9
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	16.0	6.5	0.3	22.6	23.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	42.0	78.2	31.1	0.5	24.8	24.9
LnGrp LOS	D	E	C	A	C	C
Approach Vol, veh/h	371			1165	1600	
Approach Delay, s/veh	69.0			5.6	24.8	
Approach LOS	E			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.7	77.3		28.9		91.1
Change Period (Y+Rc), s	6.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	41.0	63.0		24.0		83.0
Max Q Clear Time (g_c+I1), s	4.5	44.1		22.8		2.0
Green Ext Time (p_c), s	0.3	18.5		0.2		47.7
Intersection Summary						
HCM 7th Control Delay, s/veh			22.9			
HCM 7th LOS			C			

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	516	73	41	334	20	8
Future Vol, veh/h	516	73	41	334	20	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	-	300	300	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	25	5	4	3	15
Mvmt Flow	580	82	46	375	22	9

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	662	0	1047 580
Stage 1	-	-	-	-	580 -
Stage 2	-	-	-	-	467 -
Critical Hdwy	-	-	4.15	-	6.43 6.35
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.245	-	3.527 3.435
Pot Cap-1 Maneuver	-	-	913	-	251 491
Stage 1	-	-	-	-	558 -
Stage 2	-	-	-	-	629 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	913	-	239 491
Mov Cap-2 Maneuver	-	-	-	-	239 -
Stage 1	-	-	-	-	558 -
Stage 2	-	-	-	-	597 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1	19.02
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	239	491	-	-	913	-
HCM Lane V/C Ratio	0.094	0.018	-	-	0.05	-
HCM Control Delay (s/veh)	21.6	12.5	-	-	9.2	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.2	-

Intersection						
Int Delay, s/veh	5.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	449	106	149	212	55	169
Future Vol, veh/h	449	106	149	212	55	169
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	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	9	2	3	3	5
Mvmt Flow	488	115	162	230	60	184

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	603	0	1100
Stage 1	-	-	-	-	546
Stage 2	-	-	-	-	554
Critical Hdwy	-	-	4.12	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.218	-	3.527
Pot Cap-1 Maneuver	-	-	974	-	234
Stage 1	-	-	-	-	579
Stage 2	-	-	-	-	573
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	974	-	189
Mov Cap-2 Maneuver	-	-	-	-	189
Stage 1	-	-	-	-	579
Stage 2	-	-	-	-	464

Approach	EB	WB	NB
HCM Control Delay, s/v	0	3.89	19.54
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	189	532	-	-	743	-
HCM Lane V/C Ratio	0.316	0.345	-	-	0.166	-
HCM Control Delay (s/veh)	32.6	15.3	-	-	9.4	0
HCM Lane LOS	D	C	-	-	A	A
HCM 95th %tile Q(veh)	1.3	1.5	-	-	0.6	-

Intersection						
Int Delay, s/veh	8.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↑↑		↘	↘
Traffic Vol, veh/h	242	442	242	22	83	405
Future Vol, veh/h	242	442	242	22	83	405
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	400	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	13	11	20	48	4	8
Mvmt Flow	249	456	249	23	86	418

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	272	0	-	0	1215 136
Stage 1	-	-	-	-	261 -
Stage 2	-	-	-	-	955 -
Critical Hdwy	4.295	-	-	-	6.66 7.02
Critical Hdwy Stg 1	-	-	-	-	5.86 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.3235	-	-	-	3.538 3.376
Pot Cap-1 Maneuver	1221	-	-	-	184 871
Stage 1	-	-	-	-	754 -
Stage 2	-	-	-	-	369 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1221	-	-	-	146 871
Mov Cap-2 Maneuver	-	-	-	-	146 -
Stage 1	-	-	-	-	600 -
Stage 2	-	-	-	-	369 -

Approach	EB	WB	SB
HCM Control Delay, s/v	3.08	0	20.79
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1221	-	-	-	146	871
HCM Lane V/C Ratio	0.204	-	-	-	0.584	0.479
HCM Control Delay (s/veh)	8.7	-	-	-	59.4	12.9
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.8	-	-	-	3	2.6

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	19	0	45	7	0	1	11	332	24	11	448	11
Future Vol, veh/h	19	0	45	7	0	1	11	332	24	11	448	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	140	-	-	100	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	71	0	0	0	7	26	0	9	0
Mvmt Flow	21	0	49	8	0	1	12	361	26	12	487	12

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	715	922	487	909	921	193	499	0	0	387	0	0
Stage 1	511	511	-	398	398	-	-	-	-	-	-	-
Stage 2	204	411	-	511	523	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	8.365	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.565	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	7.165	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.34	1.745	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	335	272	585	169	273	822	1076	-	-	1183	-	-
Stage 1	549	540	-	467	606	-	-	-	-	-	-	-
Stage 2	784	598	-	413	534	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	327	267	585	151	267	822	1076	-	-	1183	-	-
Mov Cap-2 Maneuver	327	267	-	151	267	-	-	-	-	-	-	-
Stage 1	544	535	-	461	600	-	-	-	-	-	-	-
Stage 2	774	592	-	375	528	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	13.9	27.5	0.25	0.19
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1076	-	-	474	169	1183	-	-
HCM Lane V/C Ratio	0.011	-	-	0.147	0.052	0.01	-	-
HCM Control Delay (s/veh)	8.4	-	-	13.9	27.5	8.1	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-	-

HCM 7th Signalized Intersection Summary
1: US 1 & Driveway/Kit Kat Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔			↑↑	↗	↖	↑↑	
Traffic Volume (veh/h)	22	2	35	48	2	54	0	1408	31	15	1129	28
Future Volume (veh/h)	22	2	35	48	2	54	0	1408	31	15	1129	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1752	1900	1737	0	1796	1648	1737	1826	1900
Adj Flow Rate, veh/h	23	2	37	51	2	57	0	1498	33	16	1201	30
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	10	0	11	0	7	17	11	5	0
Cap, veh/h	211	8	156	114	15	75	0	1669	683	366	2686	67
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.49	0.49	0.22	0.78	0.78
Sat Flow, veh/h	1365	83	1540	545	145	741	0	3503	1397	1654	3459	86
Grp Volume(v), veh/h	23	0	39	110	0	0	0	1498	33	16	602	629
Grp Sat Flow(s),veh/h/ln	1365	0	1623	1431	0	0	0	1706	1397	1654	1735	1810
Q Serve(g_s), s	0.0	0.0	2.0	4.9	0.0	0.0	0.0	36.0	1.1	0.7	10.7	10.7
Cycle Q Clear(g_c), s	1.5	0.0	2.0	6.9	0.0	0.0	0.0	36.0	1.1	0.7	10.7	10.7
Prop In Lane	1.00		0.95	0.46		0.52	0.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	211	0	164	203	0	0	0	1669	683	366	1347	1406
V/C Ratio(X)	0.11	0.00	0.24	0.54	0.00	0.00	0.00	0.90	0.05	0.04	0.45	0.45
Avail Cap(c_a), veh/h	376	0	361	385	0	0	0	1669	683	366	1347	1406
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	0.0	37.3	39.5	0.0	0.0	0.0	21.0	12.0	27.6	3.4	3.4
Incr Delay (d2), s/veh	0.2	0.0	0.7	2.2	0.0	0.0	0.0	8.1	0.1	0.0	1.1	1.0
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	0.9	0.0	1.5	4.4	0.0	0.0	0.0	20.0	0.6	0.5	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	0.0	38.0	41.8	0.0	0.0	0.0	29.0	12.2	27.6	4.5	4.5
LnGrp LOS	D		D	D				C	B	C	A	A
Approach Vol, veh/h		62			110			1531			1247	
Approach Delay, s/veh		37.7			41.8			28.7			4.8	
Approach LOS		D			D			C			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	25.9	50.0		14.1		75.9		14.1				
Change Period (Y+Rc), s	6.0	* 6		5.0		6.0		5.0				
Max Green Setting (Gmax), s	10.0	* 44		20.0		59.0		20.0				
Max Q Clear Time (g_c+I1), s	2.7	38.0		4.0		12.7		8.9				
Green Ext Time (p_c), s	0.0	4.3		0.2		9.2		0.4				

Intersection Summary

HCM 7th Control Delay, s/veh	19.2
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Signalized Intersection Summary
 2: US 1 & Business Pkwy./Cooney Lane



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↖	↗		↖	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	178	7	163	39	3	63	60	1368	13	14	1001	89
Future Volume (veh/h)	178	7	163	39	3	63	60	1368	13	14	1001	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1055	1767	1856	1900	1856	1841	1796	1781	1648	1796	1589
Adj Flow Rate, veh/h	199	0	0	42	3	68	65	1487	14	15	1088	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	7	57	9	3	0	3	4	7	8	17	7	21
Cap, veh/h	296	0		120	9	111	464	2560	1132	260	2502	987
Arrive On Green	0.09	0.00	0.00	0.07	0.07	0.07	0.05	0.75	0.75	0.06	1.00	1.00
Sat Flow, veh/h	3421	0	1497	1694	121	1572	1753	3413	1510	1570	3413	1346
Grp Volume(v), veh/h	199	0	0	45	0	68	65	1487	14	15	1088	97
Grp Sat Flow(s),veh/h/ln	1711	0	1497	1815	0	1572	1753	1706	1510	1570	1706	1346
Q Serve(g_s), s	10.2	0.0	0.0	4.3	0.0	7.6	1.5	34.7	0.4	0.4	0.0	0.0
Cycle Q Clear(g_c), s	10.2	0.0	0.0	4.3	0.0	7.6	1.5	34.7	0.4	0.4	0.0	0.0
Prop In Lane	1.00		1.00	0.93		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	296	0		128	0	111	464	2560	1132	260	2502	987
V/C Ratio(X)	0.67	0.00		0.35	0.00	0.61	0.14	0.58	0.01	0.06	0.43	0.10
Avail Cap(c_a), veh/h	523	0		277	0	240	593	2560	1132	402	2502	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	79.7	0.0	0.0	79.7	0.0	81.2	4.2	10.0	5.7	7.9	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	1.2	0.0	4.0	0.1	1.0	0.0	0.1	0.4	0.1
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	8.1	0.0	0.0	3.7	0.0	5.8	0.9	17.5	0.2	0.2	0.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.7	0.0	0.0	80.9	0.0	85.2	4.3	10.9	5.7	8.0	0.4	0.1
LnGrp LOS	F			F		F	A	B	A	A	A	A
Approach Vol, veh/h		199			113			1566			1200	
Approach Delay, s/veh		81.7			83.5			10.6			0.5	
Approach LOS		F			F			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	138.0			18.1	11.7	135.0		15.2				
Change Period (Y+Rc), s	5.0	6.0		5.5	5.0	6.0		5.5				
Max Green Setting (Gmax)	20.0	89.0		24.5	20.0	89.0		24.5				
Max Q Clear Time (g_c+1)	12.4	36.7		12.2	3.5	2.0		9.6				
Green Ext Time (p_c), s	0.0	47.3		0.4	0.1	55.7		0.2				

Intersection Summary

HCM 7th Control Delay, s/veh	13.9
HCM 7th LOS	B

Notes

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

HCM 7th Signalized Intersection Summary
3: US 1 & MD 103

Synchro Report
Back'd PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↗		↖	↖	↖↗	↖	↖↗	↖	↖	↖↗	↖↗
Traffic Volume (veh/h)	305	137	40	186	263	591	81	1215	221	297	847	225
Future Volume (veh/h)	305	137	40	186	263	591	81	1215	221	297	847	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1707	1722	1870	1885	1856	1900	1811	1811	1796	1781	1811
Adj Flow Rate, veh/h	311	140	41	190	268	603	83	1240	226	303	864	230
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, %	4	13	12	2	1	3	0	6	6	7	8	6
Cap, veh/h	420	239	70	247	383	981	299	1544	689	341	1445	384
Arrive On Green	0.12	0.19	0.17	0.14	0.20	0.20	0.05	0.45	0.45	0.14	0.55	0.53
Sat Flow, veh/h	3401	1269	372	1781	1885	2768	1810	3441	1535	1711	2644	703
Grp Volume(v), veh/h	311	0	181	190	268	603	83	1240	226	303	553	541
Grp Sat Flow(s),veh/h/ln	1700	0	1640	1781	1885	1384	1810	1721	1535	1711	1692	1655
Q Serve(g_s), s	13.2	0.0	15.1	15.4	19.8	27.0	3.7	46.6	14.3	17.6	33.0	33.3
Cycle Q Clear(g_c), s	13.2	0.0	15.1	15.4	19.8	27.0	3.7	46.6	14.3	17.6	33.0	33.3
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	420	0	309	247	383	981	299	1544	689	341	925	905
V/C Ratio(X)	0.74	0.00	0.59	0.77	0.70	0.61	0.28	0.80	0.33	0.89	0.60	0.60
Avail Cap(c_a), veh/h	465	0	309	291	383	981	299	1544	689	345	925	905
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	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	0.0	55.8	62.3	55.5	40.0	21.9	35.6	26.7	39.7	22.9	23.2
Incr Delay (d2), s/veh	5.6	0.0	2.9	12.3	6.5	1.5	0.4	3.6	1.0	23.3	2.8	2.9
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	10.0	0.0	10.6	12.4	15.3	14.4	2.8	25.7	8.8	19.0	19.1	19.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.1	0.0	58.6	74.6	62.0	41.4	22.3	39.2	27.7	63.0	25.7	26.2
LnGrp LOS	E		E	E	E	D	C	D	C	E	C	C
Approach Vol, veh/h	492		1061				1549		1397			
Approach Delay, s/veh	65.2		52.6				36.6		34.0			
Approach LOS	E		D				D		C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.7	71.3	23.3	30.7	10.0	86.0	21.0	33.0				
Change Period (Y+Rc), s	5.0	7.0	5.5	5.5	5.0	7.0	5.5	5.5				
Max Green Setting (Gmax), s	20.0	62.0	21.5	23.5	5.0	77.0	17.5	27.5				
Max Q Clear Time (g_c+I1), s	19.6	48.6	17.4	17.1	5.7	35.3	15.2	29.0				
Green Ext Time (p_c), s	0.0	12.6	0.4	0.3	0.0	32.0	0.3	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			42.7									
HCM 7th LOS			D									

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	0	0	5	1	2188	4	3	1384	2
Future Vol, veh/h	0	0	4	0	0	5	1	2188	4	3	1384	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	7	0
Mvmt Flow	0	0	4	0	0	5	1	2256	4	3	1427	2


















Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2564	3696	714	2979	3695	1130	1429	0	0	2260	0	0
Stage 1	1434	1434	-	2260	2260	-	-	-	-	-	-	-
Stage 2	1130	2262	-	720	1435	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	13	5	378	6	5	201	482	-	-	230	-	-
Stage 1	143	201	-	43	78	-	-	-	-	-	-	-
Stage 2	220	78	-	390	201	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	13	5	378	6	5	201	482	-	-	230	-	-
Mov Cap-2 Maneuver	13	5	-	6	5	-	-	-	-	-	-	-
Stage 1	140	197	-	43	77	-	-	-	-	-	-	-
Stage 2	213	77	-	377	197	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	14.63	23.39	0.08	0.51
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	2	-	-	378	201	8	-	-
HCM Lane V/C Ratio	0.002	-	-	0.011	0.026	0.013	-	-
HCM Control Delay (s/veh)	12.5	0.1	-	14.6	23.4	20.9	0.5	-
HCM Lane LOS	B	A	-	B	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

HCM Signalized Intersection Capacity Analysis
5: US 1 & MD 100 EB Ramp

Synchro Report
Back'd PM

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	295	0	0	0	0	1642	585	415	1034	0	
Future Volume (vph)	0	0	295	0	0	0	0	1642	585	415	1034	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)			3.0					4.0	3.0	3.0	3.0		
Lane Util. Factor			1.00					0.95	1.00	0.97	0.95		
Frt			0.87					1.00	0.85	1.00	1.00		
Flt Protected			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)			1454					3406	1538	3335	3343		
Flt Permitted			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)			1454					3406	1538	3335	3343		
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
Adj. Flow (vph)	0	0	298	0	0	0	0	1659	591	419	1044	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	298	0	0	0	0	1659	591	419	1044	0	
Heavy Vehicles (%)	0%	0%	13%	0%	0%	6%	0%	6%	5%	5%	8%	0%	
Turn Type			Free					NA	Free	Prot	NA		
Protected Phases								2 6		1 5	Free		
Permitted Phases			Free						Free				
Actuated Green, G (s)			180.0					123.3	180.0	31.7	180.0		
Effective Green, g (s)			180.0					129.3	180.0	37.7	180.0		
Actuated g/C Ratio			1.00					0.72	1.00	0.21	1.00		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)			1454					2446	1538	698	3343		
v/s Ratio Prot								c0.49		c0.13	0.31		
v/s Ratio Perm			0.20						0.38				
v/c Ratio			0.20					0.68	0.38	0.60	0.31		
Uniform Delay, d1			0.0					13.9	0.0	64.3	0.0		
Progression Factor			1.00					0.96	1.00	0.95	1.00		
Incremental Delay, d2			0.3					1.1	0.5	1.4	0.2		
Delay (s)			0.3					14.5	0.5	62.6	0.2		
Level of Service			A					B	A	E	A		
Approach Delay (s/veh)		0.3			0.0			10.8			18.1		
Approach LOS		A			A			B			B		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			12.7									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.66										
Actuated Cycle Length (s)			180.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			63.9%									ICU Level of Service	B
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
6: US 1 & MD 100 WB ramp

Synchro Report
Back'd PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖		↗		↑↑	↗		↑↑	↗
Traffic Volume (vph)	0	0	0	252	0	318	0	1981	375	0	1163	863
Future Volume (vph)	0	0	0	252	0	318	0	1981	375	0	1163	863
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0		4.0		6.0	6.0		4.0	4.0
Lane Util. Factor				1.00		1.00		0.95	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				1656		1538		3438	1553		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				1656		1538		3438	1553		3505	1568
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	260	0	328	0	2042	387	0	1199	890
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	67	0	0	0
Lane Group Flow (vph)	0	0	0	260	0	328	0	2042	320	0	1199	890
Heavy Vehicles (%)	0%	0%	0%	9%	0%	5%	0%	5%	4%	0%	3%	3%
Turn Type				Prot		Free		NA	Perm		NA	Perm
Protected Phases				4 8!				2 6			Free!	
Permitted Phases						Free			2 6			Free
Actuated Green, G (s)				40.9		180.0		115.1	115.1		180.0	180.0
Effective Green, g (s)				40.9		180.0		115.1	115.1		180.0	180.0
Actuated g/C Ratio				0.23		1.00		0.64	0.64		1.00	1.00
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				376		1538		2198	993		3505	1568
v/s Ratio Prot				0.16				c0.59			0.34	
v/s Ratio Perm						0.21			0.21			c0.57
v/c Ratio				0.69		0.21		0.93	0.32		0.34	0.57
Uniform Delay, d1				63.8		0.0		28.8	14.7		0.0	0.0
Progression Factor				1.00		1.00		0.69	0.17		1.00	1.00
Incremental Delay, d2				6.8		0.3		7.2	0.4		0.3	1.5
Delay (s)				70.6		0.3		27.3	2.9		0.3	1.5
Level of Service				E		A		C	A		A	A
Approach Delay (s/veh)		0.0			31.4			23.4			0.8	
Approach LOS		A			C			C			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Intersection						
Int Delay, s/veh	8.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↑↑	↑↑	↗
Traffic Vol, veh/h	22	188	114	2054	1533	50
Future Vol, veh/h	22	188	114	2054	1533	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	Free
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	6	6	4	3	0
Mvmt Flow	23	194	118	2118	1580	52

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	2874	-	1580	0	-
Stage 1	1580	-	-	-	-
Stage 2	1294	-	-	-	-
Critical Hdwy	6.8	-	4.22	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	-	2.26	-	-
Pot Cap-1 Maneuver	~ 13	0	394	-	-
Stage 1	158	0	-	-	0
Stage 2	225	0	-	-	0
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 9	-	394	-	-
Mov Cap-2 Maneuver	~ 9	-	-	-	-
Stage 1	111	-	-	-	-
Stage 2	225	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay \$/h	420.44	0.95	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	394	-	9	-	-
HCM Lane V/C Ratio	0.298	-	2.407	-	-
HCM Control Delay (s/veh)	18	\$	1420.4	0	-
HCM Lane LOS	C	-	F	A	-
HCM 95th %tile Q(veh)	1.2	-	3.9	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th Signalized Intersection Summary
 8: US 1 & Troy Hill Dr. - North



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	97	10	2025	1576	23
Future Volume (veh/h)	80	97	10	2025	1576	23
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1411	1841	1856	1767
Adj Flow Rate, veh/h	81	0	10	2045	1592	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	33	4	3	9
Cap, veh/h	136		247	3065	2932	
Arrive On Green	0.08	0.00	0.02	0.88	0.83	0.00
Sat Flow, veh/h	1767	1572	1344	3589	3618	1497
Grp Volume(v), veh/h	81	0	10	2045	1592	0
Grp Sat Flow(s),veh/h/ln	1767	1572	1344	1749	1763	1497
Q Serve(g_s), s	6.7	0.0	0.2	26.1	20.8	0.0
Cycle Q Clear(g_c), s	6.7	0.0	0.2	26.1	20.8	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	136		247	3065	2932	
V/C Ratio(X)	0.60		0.04	0.67	0.54	
Avail Cap(c_a), veh/h	389		456	3065	2932	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.76	0.00
Uniform Delay (d), s/veh	67.0	0.0	3.2	2.8	3.9	0.0
Incr Delay (d2), s/veh	4.1	0.0	0.1	1.2	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.0	0.1	7.0	8.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	71.1	0.0	3.3	3.9	4.4	0.0
LnGrp LOS	E		A	A	A	
Approach Vol, veh/h	81			2055	1592	
Approach Delay, s/veh	71.1			3.9	4.4	
Approach LOS	E			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.7	128.8		14.5		135.5
Change Period (Y+Rc), s	5.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	25.0	77.0		30.0		107.0
Max Q Clear Time (g_c+I1), s	2.2	22.8		8.7		28.1
Green Ext Time (p_c), s	0.0	51.5		0.2		77.7

Intersection Summary

HCM 7th Control Delay, s/veh			5.6			
HCM 7th LOS			A			

Notes

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

HCM 7th Signalized Intersection Summary
 9: US 1 & Ducketts



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	169	178	1899	1366	109
Future Volume (veh/h)	59	169	178	1899	1366	109
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1870	1870	1841	1856	1900
Adj Flow Rate, veh/h	60	172	182	1938	1394	111
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	4	3	0
Cap, veh/h	222	195	299	2765	2335	185
Arrive On Green	0.12	0.12	0.09	1.00	0.71	0.71
Sat Flow, veh/h	1810	1585	1781	3589	3401	262
Grp Volume(v), veh/h	60	172	182	1938	740	765
Grp Sat Flow(s),veh/h/ln	1810	1585	1781	1749	1763	1808
Q Serve(g_s), s	4.5	16.0	4.3	0.0	31.9	32.4
Cycle Q Clear(g_c), s	4.5	16.0	4.3	0.0	31.9	32.4
Prop In Lane	1.00	1.00	1.00			0.15
Lane Grp Cap(c), veh/h	222	195	299	2765	1244	1276
V/C Ratio(X)	0.27	0.88	0.61	0.70	0.59	0.60
Avail Cap(c_a), veh/h	290	254	468	2765	1244	1276
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.67	0.67	1.00	1.00
Uniform Delay (d), s/veh	59.7	64.7	11.9	0.0	11.2	11.3
Incr Delay (d2), s/veh	0.6	24.0	1.4	1.0	2.1	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	12.4	3.8	0.7	17.1	17.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	60.3	88.7	13.3	1.0	13.3	13.3
LnGrp LOS	E	F	B	A	B	B
Approach Vol, veh/h	232			2120	1505	
Approach Delay, s/veh	81.4			2.1	13.3	
Approach LOS	F			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	2.7	112.8		24.4		125.6
Change Period (Y+Rc), s	6.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	21.0	86.0		24.0		113.0
Max Q Clear Time (g_c+I), s	10.3	34.4		18.0		2.0
Green Ext Time (p_c), s	0.4	48.1		0.4		107.4
Intersection Summary						
HCM 7th Control Delay, s/veh			11.2			
HCM 7th LOS			B			

Intersection						
Int Delay, s/veh	7.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	500	209	20	581	115	19
Future Vol, veh/h	500	209	20	581	115	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	300	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	6	5	1	7	18
Mvmt Flow	588	246	24	684	135	22

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	834	0	1319 588
Stage 1	-	-	-	-	588 -
Stage 2	-	-	-	-	731 -
Critical Hdwy	-	-	4.15	-	6.47 6.38
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	-	-	2.245	-	3.563 3.462
Pot Cap-1 Maneuver	-	-	786	-	169 480
Stage 1	-	-	-	-	545 -
Stage 2	-	-	-	-	468 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	786	-	164 480
Mov Cap-2 Maneuver	-	-	-	-	164 -
Stage 1	-	-	-	-	545 -
Stage 2	-	-	-	-	454 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.32	75.63
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	164	480	-	-	786	-
HCM Lane V/C Ratio	0.825	0.047	-	-	0.03	-
HCM Control Delay (s/veh)	86	12.9	-	-	9.7	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	5.5	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	556	77	191	538	31	195
Future Vol, veh/h	556	77	191	538	31	195
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	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	3	3	1	1	13	0
Mvmt Flow	647	90	222	626	36	227

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	736	0	1761 691
Stage 1	-	-	-	-	691 -
Stage 2	-	-	-	-	1070 -
Critical Hdwy	-	-	4.11	-	6.53 6.2
Critical Hdwy Stg 1	-	-	-	-	5.53 -
Critical Hdwy Stg 2	-	-	-	-	5.53 -
Follow-up Hdwy	-	-	2.209	-	3.617 3.3
Pot Cap-1 Maneuver	-	-	874	-	87 448
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	314 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	874	-	53 448
Mov Cap-2 Maneuver	-	-	-	-	53 -
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	192 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.76	40.26
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	53	448	-	-	472	-
HCM Lane V/C Ratio	0.678	0.506	-	-	0.254	-
HCM Control Delay (s/veh)	161.4	21	-	-	10.5	0
HCM Lane LOS	F	C	-	-	B	A
HCM 95th %tile Q(veh)	2.8	2.8	-	-	1	-

Intersection						
Int Delay, s/veh	27.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↑↑		↙	↙
Traffic Vol, veh/h	477	207	598	111	50	467
Future Vol, veh/h	477	207	598	111	50	467
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	400	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	2	2	3	5	13
Mvmt Flow	487	211	610	113	51	477

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	723	0	-	0	1852 362
Stage 1	-	-	-	-	667 -
Stage 2	-	-	-	-	1185 -
Critical Hdwy	4.235	-	-	-	6.675 7.095
Critical Hdwy Stg 1	-	-	-	-	5.875 -
Critical Hdwy Stg 2	-	-	-	-	5.475 -
Follow-up Hdwy	2.2855	-	-	-	3.5475 3.4235
Pot Cap-1 Maneuver	839	-	-	-	71 609
Stage 1	-	-	-	-	466 -
Stage 2	-	-	-	-	284 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	839	-	-	-	~ 30 609
Mov Cap-2 Maneuver	-	-	-	-	~ 30 -
Stage 1	-	-	-	-	196 -
Stage 2	-	-	-	-	284 -

Approach	EB	WB	SB
HCM Control Delay, s/v	10.5	0	86.69
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	839	-	-	-	30	609
HCM Lane V/C Ratio	0.58	-	-	-	1.706	0.782
HCM Control Delay (s/veh)	15.1	-	-	-	\$ 626.9	28.8
HCM Lane LOS	C	-	-	-	F	D
HCM 95th %tile Q(veh)	3.8	-	-	-	5.9	7.4

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	15	0	36	14	1	5	48	598	6	3	503	21
Future Vol, veh/h	15	0	36	14	1	5	48	598	6	3	503	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	140	-	-	100	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	7	0	6	0	0	0	2	3	17	33	1	5
Mvmt Flow	17	0	41	16	1	6	55	680	7	3	572	24





















Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1028	1374	572	1370	1394	343	595	0	0	686	0	0
Stage 1	578	578	-	792	792	-	-	-	-	-	-	-
Stage 2	449	795	-	578	602	-	-	-	-	-	-	-
Critical Hdwy	7.405	6.5	6.29	7.3	6.5	6.9	4.13	-	-	4.595	-	-
Critical Hdwy Stg 1	6.205	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.605	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5665	4	3.357	3.5	4	3.3	2.219	-	-	2.5135	-	-
Pot Cap-1 Maneuver	194	147	510	116	143	659	979	-	-	751	-	-
Stage 1	489	504	-	353	404	-	-	-	-	-	-	-
Stage 2	548	402	-	505	492	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	180	138	510	100	134	659	979	-	-	751	-	-
Mov Cap-2 Maneuver	180	138	-	100	134	-	-	-	-	-	-	-
Stage 1	487	502	-	333	381	-	-	-	-	-	-	-
Stage 2	512	380	-	462	490	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v18.18			38.8		0.65		0.06	
HCM LOS	C		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	979	-	-	331	129	751	-	-
HCM Lane V/C Ratio	0.056	-	-	0.175	0.176	0.005	-	-
HCM Control Delay (s/veh)	8.9	-	-	18.2	38.8	9.8	-	-
HCM Lane LOS	A	-	-	C	E	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.6	0	-	-

HCM 7th Signalized Intersection Summary
 1: US 1 & Driveway/Kit Kat Rd

Synchro Report
 Total AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1	49	18	1	24	0	918	35	36	1234	13
Future Volume (veh/h)	28	1	49	18	1	24	0	918	35	36	1234	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1411	1900	1159	1530	418	1203	0	1722	1307	1544	1722	1159
Adj Flow Rate, veh/h	30	1	53	19	1	26	0	987	38	39	1327	14
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, %	33	0	50	25	100	47	0	12	40	24	12	50
Cap, veh/h	225	6	146	73	6	29	0	1600	542	255	2385	716
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.49	0.49	0.17	0.73	0.73
Sat Flow, veh/h	980	42	982	109	40	193	0	3358	1108	1471	3272	982
Grp Volume(v), veh/h	31	0	53	46	0	0	0	987	38	39	1327	14
Grp Sat Flow(s),veh/h/ln	1022	0	982	341	0	0	0	1636	1108	1471	1636	982
Q Serve(g_s), s	0.0	0.0	4.4	9.1	0.0	0.0	0.0	19.9	1.6	2.0	16.7	0.4
Cycle Q Clear(g_c), s	2.5	0.0	4.4	11.9	0.0	0.0	0.0	19.9	1.6	2.0	16.7	0.4
Prop In Lane	0.97		1.00	0.41		0.57	0.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	0	146	107	0	0	0	1600	542	255	2385	716
V/C Ratio(X)	0.13	0.00	0.36	0.43	0.00	0.00	0.00	0.62	0.07	0.15	0.56	0.02
Avail Cap(c_a), veh/h	335	0	218	132	0	0	0	1600	542	255	2385	716
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	0.0	34.5	37.5	0.0	0.0	0.0	16.8	12.2	31.6	5.6	3.4
Incr Delay (d2), s/veh	0.3	0.0	1.5	2.7	0.0	0.0	0.0	1.8	0.3	0.3	0.9	0.1
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	1.1	0.0	2.0	1.9	0.0	0.0	0.0	11.0	0.7	1.3	6.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.9	0.0	36.0	40.2	0.0	0.0	0.0	18.6	12.4	31.9	6.5	3.4
LnGrp LOS	C		D	D				B	B	C	A	A
Approach Vol, veh/h		84			46			1025			1380	
Approach Delay, s/veh		35.2			40.2			18.4			7.2	
Approach LOS		D			D			B			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	21.6	50.0		18.4		71.6		18.4				
Change Period (Y+Rc), s	6.0	* 6		5.0		6.0		5.0				
Max Green Setting (Gmax), s	10.0	* 44		20.0		59.0		20.0				
Max Q Clear Time (g_c+I1), s	4.0	21.9		6.4		18.7		13.9				
Green Ext Time (p_c), s	0.0	6.7		0.2		11.8		0.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			13.3									
HCM 7th LOS			B									

Notes
 * HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Signalized Intersection Summary
 2: US 1 & Business Pkwy./Cooney Lane

Synchro Report
 Total AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	4	85	30	3	29	54	889	41	76	1222	96
Future Volume (veh/h)	44	4	85	30	3	29	54	889	41	76	1222	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1470	1530	1589	1470	1411	1574	1752	1693	1589	1841	1737	1781
Adj Flow Rate, veh/h	52	0	0	34	3	33	61	999	46	85	1373	108
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, %	29	25	21	29	33	22	10	14	21	4	11	8
Cap, veh/h	162	0		74	7	80	323	2482	1039	479	2552	1167
Arrive On Green	0.06	0.00	0.00	0.06	0.06	0.06	0.05	0.77	0.77	0.05	0.77	0.77
Sat Flow, veh/h	2800	0	1346	1240	109	1334	1668	3216	1346	1753	3300	1510
Grp Volume(v), veh/h	52	0	0	37	0	33	61	999	46	85	1373	108
Grp Sat Flow(s),veh/h/ln1400	0	1346	1349	0	1334	1668	1608	1346	1753	1650	1510	
Q Serve(g_s), s	3.2	0.0	0.0	4.8	0.0	4.3	1.3	18.5	1.5	1.7	29.1	3.1
Cycle Q Clear(g_c), s	3.2	0.0	0.0	4.8	0.0	4.3	1.3	18.5	1.5	1.7	29.1	3.1
Prop In Lane	1.00		1.00	0.92		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	0		81	0	80	323	2482	1039	479	2552	1167
V/C Ratio(X)	0.32	0.00		0.46	0.00	0.41	0.19	0.40	0.04	0.18	0.54	0.09
Avail Cap(c_a), veh/h	428	0		206	0	204	446	2482	1039	607	2552	1167
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	1.00	1.00	1.00	1.00	0.39	0.39	0.39
Uniform Delay (d), s/veh	81.4	0.0	0.0	81.8	0.0	81.6	6.0	6.8	4.8	4.3	7.9	5.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	3.0	0.0	2.5	0.2	0.5	0.1	0.1	0.3	0.1
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	2.1	0.0	0.0	3.1	0.0	2.8	0.7	9.6	0.7	0.9	12.1	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.2	0.0	0.0	84.8	0.0	84.1	6.3	7.3	4.9	4.4	8.3	5.0
LnGrp LOS	F			F		F	A	A	A	A	A	A
Approach Vol, veh/h	52			70			1106			1566		
Approach Delay, s/veh	82.2			84.5			7.1			7.8		
Approach LOS	F			F			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	1.9	141.9		12.9	11.7	142.2		13.3				
Change Period (Y+Rc), s	5.0	6.0		5.5	5.0	6.0		5.5				
Max Green Setting (Gmax), s	20.0	89.0		24.5	20.0	89.0		24.5				
Max Q Clear Time (g_c+I), s	13.5	20.5		5.2	3.3	31.1		6.8				
Green Ext Time (p_c), s	0.1	42.7		0.1	0.1	50.3		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh				10.9								
HCM 7th LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 7th Signalized Intersection Summary
3: US 1 & MD 103






















Synchro Report
Total AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↔		↔	↑	↔↔	↔	↑↑	↔	↔	↔↔	
Traffic Volume (veh/h)	229	224	63	192	60	231	38	706	126	275	1116	250
Future Volume (veh/h)	229	224	63	192	60	231	38	706	126	275	1116	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		No		No
Adj Sat Flow, veh/h/ln	1870	1870	1663	1693	1826	1648	1811	1693	1737	1752	1752	1870
Adj Flow Rate, veh/h	249	243	68	209	65	251	41	767	137	299	1213	272
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	16	14	5	17	6	14	11	10	10	2
Cap, veh/h	370	284	79	242	447	943	266	1401	641	415	1428	317
Arrive On Green	0.11	0.20	0.19	0.15	0.24	0.24	0.04	0.44	0.44	0.26	1.00	1.00
Sat Flow, veh/h	3456	1406	393	1612	1826	2458	1725	3216	1472	1668	2707	601
Grp Volume(v), veh/h	249	0	311	209	65	251	41	767	137	299	741	744
Grp Sat Flow(s),veh/h/ln	1728	0	1800	1612	1826	1229	1725	1608	1472	1668	1664	1644
Q Serve(g_s), s	10.4	0.0	25.0	19.0	4.2	10.5	1.9	26.5	8.7	15.1	0.0	0.0
Cycle Q Clear(g_c), s	10.4	0.0	25.0	19.0	4.2	10.5	1.9	26.5	8.7	15.1	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	370	0	363	242	447	943	266	1401	641	415	878	867
V/C Ratio(X)	0.67	0.00	0.86	0.86	0.15	0.27	0.15	0.55	0.21	0.72	0.84	0.86
Avail Cap(c_a), veh/h	634	0	390	242	447	943	276	1401	641	550	878	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	0.65	0.65	0.65
Uniform Delay (d), s/veh	64.4	0.0	58.0	62.3	44.4	31.7	21.6	31.4	26.3	18.3	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	16.1	27.2	0.3	0.3	0.2	1.4	0.7	2.0	6.6	7.3
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	8.2	0.0	18.8	14.7	3.5	5.7	1.4	15.2	5.8	7.2	2.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.5	0.0	74.1	89.5	44.6	32.0	21.8	32.8	27.0	20.4	6.6	7.3
LnGrp LOS	E		E	F	D	C	C	C	C	C	A	A
Approach Vol, veh/h		560			525			945			1784	
Approach Delay, s/veh		70.7			56.4			31.5			9.2	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.8	69.4	25.0	32.8	9.1	83.1	18.6	39.2				
Change Period (Y+Rc), s	5.0	7.0	5.5	5.5	5.0	7.0	5.5	5.5				
Max Green Setting (Gmax), s	30.0	48.0	19.5	29.5	5.0	73.0	24.5	24.5				
Max Q Clear Time (g_c+11), s	11.5	28.5	21.0	27.0	3.9	2.0	12.4	12.5				
Green Ext Time (p_c), s	0.7	14.1	0.0	0.3	0.0	62.7	0.7	1.7				
Intersection Summary												
HCM 7th Control Delay, s/veh			30.3									
HCM 7th LOS			C									



















HCM 7th Signalized Intersection Summary
4: US 1 & Driveway/Site Access

Synchro Report
Total AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	135	0	220	1	1113	23	163	1595	5
Future Volume (veh/h)	0	0	0	135	0	220	1	1113	23	163	1595	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1900	1678	418	1900	1752	1900
Adj Flow Rate, veh/h	0	0	0	148	0	242	1	1223	25	179	1753	5
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, %	0	0	0	0	0	0	0	15	100	0	10	0
Cap, veh/h	0	305	0	279	0	329	168	2164	240	308	2457	7
Arrive On Green	0.00	0.00	0.00	0.16	0.00	0.16	0.00	0.45	0.45	0.04	0.72	0.72
Sat Flow, veh/h	0	1900	0	1440	0	1610	1810	3188	354	1810	3405	10
Grp Volume(v), veh/h	0	0	0	148	0	242	1	1223	25	179	857	901
Grp Sat Flow(s),veh/h/ln	0	1900	0	1440	0	1610	1810	1594	354	1810	1664	1750
Q Serve(g_s), s	0.0	0.0	0.0	14.4	0.0	21.1	0.0	42.2	6.1	4.3	44.3	44.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	14.4	0.0	21.1	0.0	42.2	6.1	4.3	44.3	44.3
Prop In Lane	0.00		0.00	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	0	305	0	279	0	329	168	2164	240	308	1201	1263
V/C Ratio(X)	0.00	0.00	0.00	0.53	0.00	0.74	0.01	0.57	0.10	0.58	0.71	0.71
Avail Cap(c_a), veh/h	0	374	0	331	0	388	226	2164	240	409	1201	1263
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	58.9	0.0	55.9	12.5	24.6	14.8	16.6	12.0	12.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6	0.0	5.9	0.0	0.9	0.7	1.7	3.6	3.5
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	0.0	0.0	0.0	9.3	0.0	14.2	0.0	23.1	0.9	4.8	21.4	22.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0	60.5	0.0	61.8	12.5	25.6	15.5	18.3	15.6	15.4
LnGrp LOS				E		E	B	C	B	B	B	B
Approach Vol, veh/h	0			390			1249			1937		
Approach Delay, s/veh	0.0			61.3			25.3			15.8		
Approach LOS				E			C			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	11.6	108.8	29.5		5.2	115.2	29.5					
Change Period (Y+Rc), s	5.0	7.0	5.5		5.0	7.0	5.5					
Max Green Setting (Gmax), s	15.0	88.0	29.5		5.0	98.0	29.5					
Max Q Clear Time (g_c+I1), s	6.3	44.2	0.0		2.0	46.3	23.1					
Green Ext Time (p_c), s	0.3	10.7	0.0		0.0	18.7	0.9					
Intersection Summary												
HCM 7th Control Delay, s/veh				24.1								
HCM 7th LOS				C								



















HCM Signalized Intersection Capacity Analysis
5: US 1 & MD 100 EB Ramp

Synchro Report
Total AM

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	469	0	0	0	0	930	380	339	1294	0	
Future Volume (vph)	0	0	469	0	0	0	0	930	380	339	1294	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)			3.0					4.0	3.0	3.0	3.0		
Lane Util. Factor			1.00					0.95	1.00	0.97	0.95		
Frt			0.87					1.00	0.85	1.00	1.00		
Flt Protected			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)			1508					3139	1404	3183	3282		
Flt Permitted			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)			1508					3139	1404	3183	3282		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	
Adj. Flow (vph)	0	0	515	0	0	0	0	1022	418	373	1422	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	515	0	0	0	0	1022	418	373	1422	0	
Heavy Vehicles (%)	0%	0%	9%	0%	0%	5%	0%	15%	15%	10%	10%	0%	
Turn Type			Free					NA	Free	Prot	NA		
Protected Phases								2 6		1 5	Free		
Permitted Phases			Free						Free				
Actuated Green, G (s)			120.0					71.9	120.0	23.1	120.0		
Effective Green, g (s)			120.0					77.9	120.0	29.1	120.0		
Actuated g/C Ratio			1.00					0.65	1.00	0.24	1.00		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)			1508					2037	1404	771	3282		
v/s Ratio Prot								c0.33		0.12	0.43		
v/s Ratio Perm			0.34						0.30				
v/c Ratio			0.34					0.50	0.30	0.48	0.43		
Uniform Delay, d1			0.0					11.0	0.0	39.0	0.0		
Progression Factor			1.00					1.00	1.00	0.70	1.00		
Incremental Delay, d2			0.6					0.9	0.5	0.4	0.4		
Delay (s)			0.6					11.8	0.5	27.6	0.4		
Level of Service			A					B	A	C	A		
Approach Delay (s/veh)		0.6			0.0			8.6			6.0		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			6.3									HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.50										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			42.0%									ICU Level of Service	A
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
6: US 1 & MD 100 WB ramp

Synchro Report
Total AM

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	0	412	0	409	0	1207	329	0	1152	618	
Future Volume (vph)	0	0	0	412	0	409	0	1207	329	0	1152	618	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)				6.0		4.0		6.0	6.0		4.0	4.0	
Lane Util. Factor				1.00		1.00		0.95	1.00		0.95	1.00	
Frt				1.00		0.85		1.00	0.85		1.00	0.85	
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00	
Satd. Flow (prot)				1612		1553		3343	1392		3343	1482	
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00	
Satd. Flow (perm)				1612		1553		3343	1392		3343	1482	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	0	0	0	438	0	435	0	1284	350	0	1226	657	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	159	0	0	0	
Lane Group Flow (vph)	0	0	0	438	0	435	0	1284	191	0	1226	657	
Heavy Vehicles (%)	0%	0%	0%	12%	0%	4%	0%	8%	16%	0%	8%	9%	
Turn Type				Prot		Free		NA	Perm		NA	Perm	
Protected Phases				4 8!				2 6			Free!		
Permitted Phases						Free			2 6			Free	
Actuated Green, G (s)				41.3		120.0		54.7	54.7		120.0	120.0	
Effective Green, g (s)				41.3		120.0		54.7	54.7		120.0	120.0	
Actuated g/C Ratio				0.34		1.00		0.46	0.46		1.00	1.00	
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)				554		1553		1523	634		3343	1482	
v/s Ratio Prot				c0.27				c0.38			0.37		
v/s Ratio Perm						0.28			0.14			0.44	
v/c Ratio				0.79		0.28		0.84	0.30		0.37	0.44	
Uniform Delay, d1				35.5		0.0		28.9	20.6		0.0	0.0	
Progression Factor				1.00		1.00		1.06	2.26		1.00	1.00	
Incremental Delay, d2				8.7		0.5		4.8	0.5		0.2	0.7	
Delay (s)				44.1		0.5		35.2	47.0		0.2	0.7	
Level of Service				D		A		D	D		A	A	
Approach Delay (s/veh)		0.0			22.4			37.8			0.4		
Approach LOS		A			C			D			A		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			18.7		HCM 2000 Level of Service					B			
HCM 2000 Volume to Capacity ratio			0.82										
Actuated Cycle Length (s)			120.0		Sum of lost time (s)				24.0				
Intersection Capacity Utilization			64.5%		ICU Level of Service				C				
Analysis Period (min)			15										
! Phase conflict between lane groups.													
c Critical Lane Group													

Intersection						
Int Delay, s/veh	15.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↕↕	↕↕	↗
Traffic Vol, veh/h	12	88	208	1137	1656	68
Future Vol, veh/h	12	88	208	1137	1656	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	Free
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	18	15	2	9	8	5
Mvmt Flow	13	96	226	1236	1800	74

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	2870	-	1800	0	-
Stage 1	1800	-	-	-	-
Stage 2	1070	-	-	-	-
Critical Hdwy	7.16	-	4.14	-	-
Critical Hdwy Stg 1	6.16	-	-	-	-
Critical Hdwy Stg 2	6.16	-	-	-	-
Follow-up Hdwy	3.68	-	2.22	-	-
Pot Cap-1 Maneuver	~ 10	0	339	-	-
Stage 1	98	0	-	-	0
Stage 2	258	0	-	-	0
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 3	-	339	-	-
Mov Cap-2 Maneuver	~ 3	-	-	-	-
Stage 1	33	-	-	-	-
Stage 2	258	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay \$	3253.71	5.34	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	339	-	3	-	-
HCM Lane V/C Ratio	0.667	-	3.898	-	-
HCM Control Delay (s/veh)	34.6	\$	3253.7	0	-
HCM Lane LOS	D	-	F	A	-
HCM 95th %tile Q(veh)	4.5	-	2.9	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th Signalized Intersection Summary
 8: US 1 & Troy Hill Dr. - North

Synchro Report
 Total AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	32	31	82	1078	1686	86
Future Volume (veh/h)	32	31	82	1078	1686	86
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1707	1292	1856	1781	1811	1841
Adj Flow Rate, veh/h	35	0	89	1172	1833	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	13	41	3	8	6	4
Cap, veh/h	115		295	2947	2717	
Arrive On Green	0.07	0.00	0.06	0.87	0.79	0.00
Sat Flow, veh/h	1626	1095	1767	3474	3532	1560
Grp Volume(v), veh/h	35	0	89	1172	1833	0
Grp Sat Flow(s),veh/h/ln	1626	1095	1767	1692	1721	1560
Q Serve(g_s), s	2.5	0.0	0.9	8.2	28.8	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.9	8.2	28.8	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	115		295	2947	2717	
V/C Ratio(X)	0.30		0.30	0.40	0.67	
Avail Cap(c_a), veh/h	230		417	2947	2717	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.53	0.00
Uniform Delay (d), s/veh	52.9	0.0	7.5	1.5	5.7	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.6	0.4	0.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	0.0	1.3	1.1	10.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	54.4	0.0	8.0	1.9	6.4	0.0
LnGrp LOS	D		A	A	A	
Approach Vol, veh/h	35			1261	1833	
Approach Delay, s/veh	54.4			2.4	6.4	
Approach LOS	D			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.7	98.7		11.5		108.5
Change Period (Y+Rc), s	5.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	13.0	75.0		14.0		93.0
Max Q Clear Time (g_c+I1), s	2.9	30.8		4.5		10.2
Green Ext Time (p_c), s	0.1	43.4		0.0		60.3

Intersection Summary

HCM 7th Control Delay, s/veh	5.3
HCM 7th LOS	A

Notes

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

HCM 7th Signalized Intersection Summary
 9: US 1 & Duckets

Synchro Report
 Total AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	89	263	186	937	1466	72
Future Volume (veh/h)	89	263	186	937	1466	72
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1781	1856	1811	1781	1811	1781
Adj Flow Rate, veh/h	94	277	196	986	1543	76
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	8	3	6	8	6	8
Cap, veh/h	324	301	240	2371	1956	96
Arrive On Green	0.19	0.19	0.13	1.00	0.59	0.59
Sat Flow, veh/h	1697	1572	1725	3474	3429	164
Grp Volume(v), veh/h	94	277	196	986	792	827
Grp Sat Flow(s),veh/h/ln	1697	1572	1725	1692	1721	1782
Q Serve(g_s), s	5.7	20.8	5.5	0.0	42.4	43.0
Cycle Q Clear(g_c), s	5.7	20.8	5.5	0.0	42.4	43.0
Prop In Lane	1.00	1.00	1.00			0.09
Lane Grp Cap(c), veh/h	324	301	240	2371	1008	1044
V/C Ratio(X)	0.29	0.92	0.82	0.42	0.79	0.79
Avail Cap(c_a), veh/h	339	314	330	2371	1008	1044
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	1.00	1.00
Uniform Delay (d), s/veh	41.5	47.6	22.5	0.0	19.1	19.2
Incr Delay (d2), s/veh	0.5	30.5	10.0	0.5	6.2	6.2
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	16.0	6.6	0.3	23.1	24.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	42.0	78.2	32.5	0.5	25.2	25.3
LnGrp LOS	D	E	C	A	C	C
Approach Vol, veh/h	371			1182	1619	
Approach Delay, s/veh	69.0			5.8	25.3	
Approach LOS	E			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.7	77.3		28.9		91.1
Change Period (Y+Rc), s	6.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	41.0	63.0		24.0		83.0
Max Q Clear Time (g_c+I1), s	17.5	45.0		22.8		2.0
Green Ext Time (p_c), s	0.3	17.6		0.2		48.8
Intersection Summary						
HCM 7th Control Delay, s/veh			23.1			
HCM 7th LOS			C			

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	530	73	41	347	20	8
Future Vol, veh/h	530	73	41	347	20	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	-	300	300	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	11	25	5	4	3	15
Mvmt Flow	596	82	46	390	22	9

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	678	0	1078 596
Stage 1	-	-	-	-	596 -
Stage 2	-	-	-	-	482 -
Critical Hdwy	-	-	4.15	-	6.43 6.35
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.245	-	3.527 3.435
Pot Cap-1 Maneuver	-	-	900	-	241 481
Stage 1	-	-	-	-	549 -
Stage 2	-	-	-	-	619 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	900	-	229 481
Mov Cap-2 Maneuver	-	-	-	-	229 -
Stage 1	-	-	-	-	549 -
Stage 2	-	-	-	-	587 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.97	19.64
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	229	481	-	-	900	-
HCM Lane V/C Ratio	0.098	0.019	-	-	0.051	-
HCM Control Delay (s/veh)	22.4	12.6	-	-	9.2	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.2	-

Intersection						
Int Delay, s/veh	5.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	456	106	155	219	55	176
Future Vol, veh/h	456	106	155	219	55	176
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	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	9	2	3	3	5
Mvmt Flow	496	115	168	238	60	191

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	611	0	1128 553
Stage 1	-	-	-	-	553 -
Stage 2	-	-	-	-	575 -
Critical Hdwy	-	-	4.12	-	6.43 6.25
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	-	-	2.218	-	3.527 3.345
Pot Cap-1 Maneuver	-	-	968	-	225 527
Stage 1	-	-	-	-	574 -
Stage 2	-	-	-	-	561 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	968	-	180 527
Mov Cap-2 Maneuver	-	-	-	-	180 -
Stage 1	-	-	-	-	574 -
Stage 2	-	-	-	-	448 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	3.94	20.21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	180	527	-	-	746	-
HCM Lane V/C Ratio	0.333	0.363	-	-	0.174	-
HCM Control Delay (s/veh)	34.7	15.7	-	-	9.5	0
HCM Lane LOS	D	C	-	-	A	A
HCM 95th %tile Q(veh)	1.4	1.6	-	-	0.6	-

Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↑↑		↘	↘
Traffic Vol, veh/h	183	442	242	25	87	242
Future Vol, veh/h	183	442	242	25	87	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	400	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	13	11	20	48	4	8
Mvmt Flow	189	456	249	26	90	249

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	275	0	-	0	1095 138
Stage 1	-	-	-	-	262 -
Stage 2	-	-	-	-	833 -
Critical Hdwy	4.295	-	-	-	6.66 7.02
Critical Hdwy Stg 1	-	-	-	-	5.86 -
Critical Hdwy Stg 2	-	-	-	-	5.46 -
Follow-up Hdwy	2.3235	-	-	-	3.538 3.376
Pot Cap-1 Maneuver	1218	-	-	-	219 869
Stage 1	-	-	-	-	753 -
Stage 2	-	-	-	-	421 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1218	-	-	-	185 869
Mov Cap-2 Maneuver	-	-	-	-	185 -
Stage 1	-	-	-	-	636 -
Stage 2	-	-	-	-	421 -

Approach	EB	WB	SB
HCM Control Delay, s/v	2.49	0	18.92
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1218	-	-	-	185	869
HCM Lane V/C Ratio	0.155	-	-	-	0.485	0.287
HCM Control Delay (s/veh)	8.5	-	-	-	41.5	10.8
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	2.4	1.2

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	76	0	12	7	0	1	6	281	24	11	322	139
Future Vol, veh/h	76	0	12	7	0	1	6	281	24	11	322	139
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	140	-	-	100	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	71	0	0	0	7	26	0	9	0
Mvmt Flow	83	0	13	8	0	1	7	305	26	12	350	151

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	540	718	350	705	857	166	501	0	0	332	0	0
Stage 1	374	374	-	332	332	-	-	-	-	-	-	-
Stage 2	166	345	-	374	525	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	8.365	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.565	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	7.165	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	4.1745	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	443	357	698	245	297	856	1074	-	-	1239	-	-
Stage 1	651	621	-	518	648	-	-	-	-	-	-	-
Stage 2	826	640	-	505	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	435	351	698	237	293	856	1074	-	-	1239	-	-
Mov Cap-2 Maneuver	435	351	-	237	293	-	-	-	-	-	-	-
Stage 1	645	615	-	514	644	-	-	-	-	-	-	-
Stage 2	820	636	-	491	527	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	14.91		19.31		0.16		0.18	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1074	-	-	459	260	1239	-	-
HCM Lane V/C Ratio	0.006	-	-	0.209	0.033	0.01	-	-
HCM Control Delay (s/veh)	8.4	-	-	14.9	19.3	7.9	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.1	0	-	-

HCM 7th Signalized Intersection Summary
 1: US 1 & Driveway/Kit Kat Rd

Synchro Report
 Total PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↔			↑↑	↗	↖	↑↑	
Traffic Volume (veh/h)	22	2	35	48	2	54	0	1430	31	15	1154	28
Future Volume (veh/h)	22	2	35	48	2	54	0	1430	31	15	1154	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1752	1900	1737	0	1796	1648	1737	1826	1900
Adj Flow Rate, veh/h	23	2	37	51	2	57	0	1521	33	16	1228	30
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.93	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	10	0	11	0	7	17	11	5	0
Cap, veh/h	211	8	156	114	15	75	0	1669	683	366	2688	66
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.00	0.49	0.49	0.22	0.78	0.78
Sat Flow, veh/h	1365	83	1540	545	145	741	0	3503	1397	1654	3461	85
Grp Volume(v), veh/h	23	0	39	110	0	0	0	1521	33	16	615	643
Grp Sat Flow(s),veh/h/ln	1365	0	1623	1431	0	0	0	1706	1397	1654	1735	1811
Q Serve(g_s), s	0.0	0.0	2.0	4.9	0.0	0.0	0.0	37.0	1.1	0.7	11.0	11.1
Cycle Q Clear(g_c), s	1.5	0.0	2.0	6.9	0.0	0.0	0.0	37.0	1.1	0.7	11.0	11.1
Prop In Lane	1.00		0.95	0.46		0.52	0.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	211	0	164	203	0	0	0	1669	683	366	1347	1406
V/C Ratio(X)	0.11	0.00	0.24	0.54	0.00	0.00	0.00	0.91	0.05	0.04	0.46	0.46
Avail Cap(c_a), veh/h	376	0	361	385	0	0	0	1669	683	366	1347	1406
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	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	0.0	37.3	39.5	0.0	0.0	0.0	21.2	12.0	27.6	3.5	3.5
Incr Delay (d2), s/veh	0.2	0.0	0.7	2.2	0.0	0.0	0.0	9.1	0.1	0.0	1.1	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	0.9	0.0	1.5	4.4	0.0	0.0	0.0	20.7	0.6	0.5	3.8	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	0.0	38.0	41.8	0.0	0.0	0.0	30.3	12.2	27.6	4.6	4.6
LnGrp LOS	D		D	D				C	B	C	A	A
Approach Vol, veh/h		62			110			1554			1274	
Approach Delay, s/veh		37.7			41.8			29.9			4.9	
Approach LOS		D			D			C			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	25.9	50.0		14.1		75.9		14.1				
Change Period (Y+Rc), s	6.0	* 6		5.0		6.0		5.0				
Max Green Setting (Gmax), s	10.0	* 44		20.0		59.0		20.0				
Max Q Clear Time (g_c+I1), s	2.7	39.0		4.0		13.1		8.9				
Green Ext Time (p_c), s	0.0	3.7		0.2		9.6		0.4				

Intersection Summary

HCM 7th Control Delay, s/veh	19.9
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Signalized Intersection Summary
 2: US 1 & Business Pkwy./Cooney Lane

Synchro Report
 Total PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	7	163	39	3	63	60	1390	13	14	1026	89
Future Volume (veh/h)	178	7	163	39	3	63	60	1390	13	14	1026	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1055	1767	1856	1900	1856	1841	1796	1781	1648	1796	1589
Adj Flow Rate, veh/h	199	0	0	42	3	68	65	1511	14	15	1115	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	7	57	9	3	0	3	4	7	8	17	7	21
Cap, veh/h	296	0		120	9	111	396	2560	1132	254	2502	987
Arrive On Green	0.09	0.00	0.00	0.07	0.07	0.07	0.05	0.75	0.75	0.03	0.73	0.73
Sat Flow, veh/h	3421	0	1497	1694	121	1572	1753	3413	1510	1570	3413	1346
Grp Volume(v), veh/h	199	0	0	45	0	68	65	1511	14	15	1115	97
Grp Sat Flow(s),veh/h/ln	1711	0	1497	1815	0	1572	1753	1706	1510	1570	1706	1346
Q Serve(g_s), s	10.2	0.0	0.0	4.3	0.0	7.6	1.5	35.8	0.4	0.4	23.3	3.7
Cycle Q Clear(g_c), s	10.2	0.0	0.0	4.3	0.0	7.6	1.5	35.8	0.4	0.4	23.3	3.7
Prop In Lane	1.00		1.00	0.93		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	296	0		128	0	111	396	2560	1132	254	2502	987
V/C Ratio(X)	0.67	0.00		0.35	0.00	0.61	0.16	0.59	0.01	0.06	0.45	0.10
Avail Cap(c_a), veh/h	523	0		277	0	240	526	2560	1132	396	2502	987
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	1.00	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	79.7	0.0	0.0	79.7	0.0	81.2	6.3	10.1	5.7	8.4	9.5	6.9
Incr Delay (d2), s/veh	2.0	0.0	0.0	1.2	0.0	4.0	0.1	1.0	0.0	0.1	0.4	0.1
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	8.1	0.0	0.0	3.7	0.0	5.8	0.9	17.9	0.2	0.2	12.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.7	0.0	0.0	80.9	0.0	85.2	6.5	11.1	5.7	8.4	9.9	7.0
LnGrp LOS	F			F		F	A	B	A	A	A	A
Approach Vol, veh/h	199			113			1590			1227		
Approach Delay, s/veh	81.7			83.5			10.9			9.7		
Approach LOS	F			F			B			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	138.0			18.1	11.7	135.0		15.2				
Change Period (Y+Rc), s	5.0	6.0		5.5	5.0	6.0		5.5				
Max Green Setting (Gmax)	20.0	89.0		24.5	20.0	89.0		24.5				
Max Q Clear Time (g_c+1)	12.4	37.8		12.2	3.5	25.3		9.6				
Green Ext Time (p_c), s	0.0	46.8		0.4	0.1	46.2		0.2				

Intersection Summary

HCM 7th Control Delay, s/veh	17.5
HCM 7th LOS	B

Notes

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

HCM 7th Signalized Intersection Summary
3: US 1 & MD 103






















Synchro Report
Total PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↗		↖	↖	↖↗	↖	↖↗	↖	↖	↖↗	
Traffic Volume (veh/h)	322	135	40	172	261	442	81	1256	202	159	886	244
Future Volume (veh/h)	322	135	40	172	261	442	81	1256	202	159	886	244
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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		No		No
Adj Sat Flow, veh/h/ln	1841	1707	1722	1870	1885	1856	1900	1826	1841	1796	1781	1811
Adj Flow Rate, veh/h	329	138	41	176	266	451	83	1282	206	162	904	249
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, %	4	13	12	2	1	3	0	5	4	7	8	6
Cap, veh/h	436	234	70	234	355	736	392	1848	831	255	1462	402
Arrive On Green	0.13	0.19	0.17	0.13	0.19	0.19	0.05	0.53	0.53	0.14	1.00	1.00
Sat Flow, veh/h	3401	1264	376	1781	1885	2768	1810	3469	1560	1711	2623	721
Grp Volume(v), veh/h	329	0	179	176	266	451	83	1282	206	162	583	570
Grp Sat Flow(s),veh/h/ln1700	0	1640	1781	1885	1384	1810	1735	1560	1711	1692	1652	
Q Serve(g_s), s	14.0	0.0	15.0	14.3	20.0	21.4	3.1	41.1	10.7	6.3	0.0	0.0
Cycle Q Clear(g_c), s	14.0	0.0	15.0	14.3	20.0	21.4	3.1	41.1	10.7	6.3	0.0	0.0
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	436	0	304	234	355	736	392	1848	831	255	943	921
V/C Ratio(X)	0.76	0.00	0.59	0.75	0.75	0.61	0.21	0.69	0.25	0.64	0.62	0.62
Avail Cap(c_a), veh/h	465	0	304	291	383	777	393	1848	831	385	943	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	0.88	0.88	0.88
Uniform Delay (d), s/veh	63.1	0.0	56.1	62.8	57.5	48.3	14.4	26.0	18.9	21.9	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	3.0	10.8	8.6	1.8	0.2	1.7	0.5	2.3	2.7	2.8
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	10.6	0.0	10.6	11.6	15.6	12.1	2.2	22.2	6.9	4.2	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.7	0.0	59.1	73.6	66.2	50.1	14.6	27.6	19.4	24.2	2.7	2.8
LnGrp LOS	E		E	E	E	D	B	C	B	C	A	A
Approach Vol, veh/h		508			893			1571			1315	
Approach Delay, s/veh		65.9			59.5			25.9			5.4	
Approach LOS		E			E			C			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.6	83.9	22.2	30.3	9.9	87.6	21.7	30.8				
Change Period (Y+Rc), s	5.0	7.0	5.5	5.5	5.0	7.0	5.5	5.5				
Max Green Setting (Gmax), s	20.0	62.0	21.5	23.5	5.0	77.0	17.5	27.5				
Max Q Clear Time (g_c+I), s	13.3	43.1	16.3	17.0	5.1	2.0	16.0	23.4				
Green Ext Time (p_c), s	0.3	17.7	0.4	0.3	0.0	52.3	0.2	1.8				
Intersection Summary												
HCM 7th Control Delay, s/veh			31.3									
HCM 7th LOS			C									

HCM 7th Signalized Intersection Summary
4: US 1 & Driveway/Site Access



















Synchro Report
Total PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	4	107	0	266	1	2049	48	216	1198	2
Future Volume (veh/h)	0	0	4	107	0	266	1	2049	48	216	1198	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1900	1826	1900	1900	1796	1900
Adj Flow Rate, veh/h	0	0	4	110	0	274	1	2112	49	223	1235	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	5	0	0	7	0
Cap, veh/h	0	0	263	279	0	350	309	2311	1073	270	2512	4
Arrive On Green	0.00	0.00	0.16	0.16	0.00	0.16	0.00	1.00	1.00	0.05	0.72	0.72
Sat Flow, veh/h	0	0	1610	1417	0	1610	1810	3469	1610	1810	3496	6
Grp Volume(v), veh/h	0	0	4	110	0	274	1	2112	49	223	603	634
Grp Sat Flow(s),veh/h/ln	0	0	1610	1417	0	1610	1810	1735	1610	1810	1706	1795
Q Serve(g_s), s	0.0	0.0	0.3	10.4	0.0	24.1	0.0	0.0	0.0	5.6	23.1	23.1
Cycle Q Clear(g_c), s	0.0	0.0	0.3	10.8	0.0	24.1	0.0	0.0	0.0	5.6	23.1	23.1
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	263	279	0	350	309	2311	1073	270	1226	1290
V/C Ratio(X)	0.00	0.00	0.02	0.39	0.00	0.78	0.00	0.91	0.05	0.83	0.49	0.49
Avail Cap(c_a), veh/h	0	0	263	279	0	350	367	2311	1073	414	1226	1290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	52.6	57.1	0.0	55.4	9.1	0.0	0.0	12.9	9.2	9.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.9	0.0	11.1	0.0	4.8	0.1	8.0	1.4	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	0.0	0.0	0.2	7.1	0.0	16.4	0.0	2.8	0.0	4.4	12.5	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	52.7	58.0	0.0	66.4	9.1	4.8	0.1	20.9	10.6	10.5
LnGrp LOS			D	E		E	A	A	A	C	B	B
Approach Vol, veh/h		4			384			2162			1460	
Approach Delay, s/veh		52.7			64.0			4.7			12.1	
Approach LOS		D			E			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.1	106.9		30.0	5.2	114.8		30.0				
Change Period (Y+Rc), s	5.0	7.0		5.5	5.0	7.0		5.5				
Max Green Setting (Gmax), s	20.0	88.0		24.5	5.0	103.0		24.5				
Max Q Clear Time (g_c+I1), s	7.6	2.0		2.3	2.0	25.1		26.1				
Green Ext Time (p_c), s	0.5	35.6		0.0	0.0	9.6		0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			13.1									
HCM 7th LOS			B									

HCM Signalized Intersection Capacity Analysis

5: US 1 & MD 100 EB Ramp

Synchro Report
Total PM

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	0	0	300	0	0	0	0	1668	590	415	1056	0	
Future Volume (vph)	0	0	300	0	0	0	0	1668	590	415	1056	0	
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)			3.0					4.0	3.0	3.0	3.0		
Lane Util. Factor			1.00					0.95	1.00	0.97	0.95		
Frt			0.87					1.00	0.85	1.00	1.00		
Flt Protected			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (prot)			1454					3406	1538	3335	3343		
Flt Permitted			1.00					1.00	1.00	0.95	1.00		
Satd. Flow (perm)			1454					3406	1538	3335	3343		
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
Adj. Flow (vph)	0	0	303	0	0	0	0	1685	596	419	1067	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	0	303	0	0	0	0	1685	596	419	1067	0	
Heavy Vehicles (%)	0%	0%	13%	0%	0%	6%	0%	6%	5%	5%	8%	0%	
Turn Type			Free					NA	Free	Prot	NA		
Protected Phases								2 6		1 5	Free		
Permitted Phases			Free						Free				
Actuated Green, G (s)			180.0					123.3	180.0	31.7	180.0		
Effective Green, g (s)			180.0					129.3	180.0	37.7	180.0		
Actuated g/C Ratio			1.00					0.72	1.00	0.21	1.00		
Clearance Time (s)													
Vehicle Extension (s)													
Lane Grp Cap (vph)			1454					2446	1538	698	3343		
v/s Ratio Prot								c0.49		c0.13	0.32		
v/s Ratio Perm			0.21						0.39				
v/c Ratio			0.21					0.69	0.39	0.60	0.32		
Uniform Delay, d1			0.0					14.1	0.0	64.3	0.0		
Progression Factor			1.00					1.00	1.00	0.95	1.00		
Incremental Delay, d2			0.3					1.6	0.7	1.4	0.2		
Delay (s)			0.3					15.7	0.7	62.5	0.2		
Level of Service			A					B	A	E	A		
Approach Delay (s/veh)		0.3			0.0			11.8				17.8	
Approach LOS		A			A			B				B	
Intersection Summary													
HCM 2000 Control Delay (s/veh)			13.2									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.67										
Actuated Cycle Length (s)			180.0									Sum of lost time (s)	13.0
Intersection Capacity Utilization			64.6%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis
6: US 1 & MD 100 WB ramp

Synchro Report
Total PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙		↗		↑↑	↗		↑↑	↗
Traffic Volume (vph)	0	0	0	256	0	318	0	2002	380	0	1181	863
Future Volume (vph)	0	0	0	256	0	318	0	2002	380	0	1181	863
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				6.0		4.0		6.0	6.0		4.0	4.0
Lane Util. Factor				1.00		1.00		0.95	1.00		0.95	1.00
Frt				1.00		0.85		1.00	0.85		1.00	0.85
Flt Protected				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)				1656		1538		3438	1553		3505	1568
Flt Permitted				0.95		1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)				1656		1538		3438	1553		3505	1568
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	264	0	328	0	2064	392	0	1218	890
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	67	0	0	0
Lane Group Flow (vph)	0	0	0	264	0	328	0	2064	325	0	1218	890
Heavy Vehicles (%)	0%	0%	0%	9%	0%	5%	0%	5%	4%	0%	3%	3%
Turn Type				Prot		Free		NA	Perm		NA	Perm
Protected Phases				4 8!				2 6			Free!	
Permitted Phases						Free			2 6			Free
Actuated Green, G (s)				41.2		180.0		114.8	114.8		180.0	180.0
Effective Green, g (s)				41.2		180.0		114.8	114.8		180.0	180.0
Actuated g/C Ratio				0.23		1.00		0.64	0.64		1.00	1.00
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)				379		1538		2192	990		3505	1568
v/s Ratio Prot				c0.16				c0.60			0.35	
v/s Ratio Perm						0.21			0.21			c0.57
v/c Ratio				0.70		0.21		0.94	0.33		0.35	0.57
Uniform Delay, d1				63.7		0.0		29.6	14.9		0.0	0.0
Progression Factor				1.00		1.00		0.73	0.19		1.00	1.00
Incremental Delay, d2				6.9		0.3		8.4	0.4		0.3	1.5
Delay (s)				70.6		0.3		29.9	3.3		0.3	1.5
Level of Service				E		A		C	A		A	A
Approach Delay (s/veh)		0.0			31.7			25.7			0.8	
Approach LOS		A			C			C			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	16.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

Intersection						
Int Delay, s/veh	9.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↕↕	↕↕	↗
Traffic Vol, veh/h	22	188	114	2075	1551	50
Future Vol, veh/h	22	188	114	2075	1551	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Free	-	None	-	Free
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	6	6	4	3	0
Mvmt Flow	23	194	118	2139	1599	52

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	2904	-	1599	0	-
Stage 1	1599	-	-	-	-
Stage 2	1305	-	-	-	-
Critical Hdwy	6.8	-	4.22	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	-	2.26	-	-
Pot Cap-1 Maneuver	~ 13	0	387	-	-
Stage 1	154	0	-	-	0
Stage 2	222	0	-	-	0
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 9	-	387	-	-
Mov Cap-2 Maneuver	~ 9	-	-	-	-
Stage 1	107	-	-	-	-
Stage 2	222	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay \$/h	17.83	0.95	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	387	-	9	-	-
HCM Lane V/C Ratio	0.303	-	2.541	-	-
HCM Control Delay (s/veh)	18.3	\$	1517.8	0	-
HCM Lane LOS	C	-	F	A	-
HCM 95th %tile Q(veh)	1.3	-	3.9	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 7th Signalized Intersection Summary
 8: US 1 & Troy Hill Dr. - North



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	97	10	2046	1594	23
Future Volume (veh/h)	80	97	10	2046	1594	23
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1411	1841	1856	1767
Adj Flow Rate, veh/h	81	0	10	2067	1610	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	33	4	3	9
Cap, veh/h	136		243	3065	2932	
Arrive On Green	0.08	0.00	0.02	0.88	0.83	0.00
Sat Flow, veh/h	1767	1572	1344	3589	3618	1497
Grp Volume(v), veh/h	81	0	10	2067	1610	0
Grp Sat Flow(s),veh/h/ln	1767	1572	1344	1749	1763	1497
Q Serve(g_s), s	6.7	0.0	0.2	26.8	21.2	0.0
Cycle Q Clear(g_c), s	6.7	0.0	0.2	26.8	21.2	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	136		243	3065	2932	
V/C Ratio(X)	0.60		0.04	0.67	0.55	
Avail Cap(c_a), veh/h	389		452	3065	2932	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.75	0.00
Uniform Delay (d), s/veh	67.0	0.0	3.3	2.8	3.9	0.0
Incr Delay (d2), s/veh	4.1	0.0	0.1	1.2	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.0	0.1	7.2	8.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	71.1	0.0	3.4	4.0	4.5	0.0
LnGrp LOS	E		A	A	A	
Approach Vol, veh/h	81			2077	1610	
Approach Delay, s/veh	71.1			4.0	4.5	
Approach LOS	E			A	A	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.7	128.8		14.5		135.5
Change Period (Y+Rc), s	5.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	25.0	77.0		30.0		107.0
Max Q Clear Time (g_c+I1), s	2.2	23.2		8.7		28.8
Green Ext Time (p_c), s	0.0	51.3		0.2		77.1

Intersection Summary						
HCM 7th Control Delay, s/veh			5.6			
HCM 7th LOS			A			

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

HCM 7th Signalized Intersection Summary
 9: US 1 & Ducketts

Synchro Report
 Total PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	169	178	1920	1384	109
Future Volume (veh/h)	59	169	178	1920	1384	109
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1870	1870	1841	1856	1900
Adj Flow Rate, veh/h	60	172	182	1959	1412	111
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	4	3	0
Cap, veh/h	222	195	294	2765	2337	183
Arrive On Green	0.12	0.12	0.09	1.00	0.71	0.71
Sat Flow, veh/h	1810	1585	1781	3589	3405	259
Grp Volume(v), veh/h	60	172	182	1959	749	774
Grp Sat Flow(s),veh/h/ln	1810	1585	1781	1749	1763	1809
Q Serve(g_s), s	4.5	16.0	4.3	0.0	32.6	33.1
Cycle Q Clear(g_c), s	4.5	16.0	4.3	0.0	32.6	33.1
Prop In Lane	1.00	1.00	1.00			0.14
Lane Grp Cap(c), veh/h	222	195	294	2765	1244	1276
V/C Ratio(X)	0.27	0.88	0.62	0.71	0.60	0.61
Avail Cap(c_a), veh/h	290	254	463	2765	1244	1276
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.66	0.66	1.00	1.00
Uniform Delay (d), s/veh	59.7	64.7	12.4	0.0	11.3	11.4
Incr Delay (d2), s/veh	0.6	24.0	1.4	1.0	2.2	2.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	12.4	4.0	0.7	17.4	18.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	60.3	88.7	13.8	1.0	13.5	13.5
LnGrp LOS	E	F	B	A	B	B
Approach Vol, veh/h	232			2141	1523	
Approach Delay, s/veh	81.4			2.1	13.5	
Approach LOS	F			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	2.7	112.8		24.4		125.6
Change Period (Y+Rc), s	6.0	7.0		6.0		7.0
Max Green Setting (Gmax), s	21.0	86.0		24.0		113.0
Max Q Clear Time (g_c+I), s	10.3	35.1		18.0		2.0
Green Ext Time (p_c), s	0.4	47.7		0.4		107.6
Intersection Summary						
HCM 7th Control Delay, s/veh			11.3			
HCM 7th LOS			B			

Intersection						
Int Delay, s/veh	8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	515	209	20	598	115	19
Future Vol, veh/h	515	209	20	598	115	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	300	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	6	5	1	7	18
Mvmt Flow	606	246	24	704	135	22

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	852	0	1356 606
Stage 1	-	-	-	-	606 -
Stage 2	-	-	-	-	751 -
Critical Hdwy	-	-	4.15	-	6.47 6.38
Critical Hdwy Stg 1	-	-	-	-	5.47 -
Critical Hdwy Stg 2	-	-	-	-	5.47 -
Follow-up Hdwy	-	-	2.245	-	3.563 3.462
Pot Cap-1 Maneuver	-	-	774	-	160 469
Stage 1	-	-	-	-	535 -
Stage 2	-	-	-	-	458 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	774	-	155 469
Mov Cap-2 Maneuver	-	-	-	-	155 -
Stage 1	-	-	-	-	535 -
Stage 2	-	-	-	-	444 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.32	86.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	155	469	-	-	774	-
HCM Lane V/C Ratio	0.87	0.048	-	-	0.03	-
HCM Control Delay (s/veh)	98.5	13.1	-	-	9.8	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	6	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	7.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	564	77	199	547	31	202
Future Vol, veh/h	564	77	199	547	31	202
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	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	3	3	1	1	13	0
Mvmt Flow	656	90	231	636	36	235

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	745	0	1799 701
Stage 1	-	-	-	-	701 -
Stage 2	-	-	-	-	1099 -
Critical Hdwy	-	-	4.11	-	6.53 6.2
Critical Hdwy Stg 1	-	-	-	-	5.53 -
Critical Hdwy Stg 2	-	-	-	-	5.53 -
Follow-up Hdwy	-	-	2.209	-	3.617 3.3
Pot Cap-1 Maneuver	-	-	867	-	82 442
Stage 1	-	-	-	-	473 -
Stage 2	-	-	-	-	304 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	867	-	48 442
Mov Cap-2 Maneuver	-	-	-	-	48 -
Stage 1	-	-	-	-	473 -
Stage 2	-	-	-	-	179 -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	2.84	44.38
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	48	442	-	-	480	-
HCM Lane V/C Ratio	0.746	0.531	-	-	0.267	-
HCM Control Delay (s/veh)	190.4	22	-	-	10.7	0
HCM Lane LOS	F	C	-	-	B	A
HCM 95th %tile Q(veh)	3	3	-	-	1.1	-

Intersection						
Int Delay, s/veh	10.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↙	↑	↑↑		↙	↙
Traffic Vol, veh/h	318	207	598	116	54	302
Future Vol, veh/h	318	207	598	116	54	302
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	290	-	-	-	400	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	9	2	2	3	5	13
Mvmt Flow	324	211	610	118	55	308

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	729	0	-	0	1530 364
Stage 1	-	-	-	-	669 -
Stage 2	-	-	-	-	860 -
Critical Hdwy	4.235	-	-	-	6.675 7.095
Critical Hdwy Stg 1	-	-	-	-	5.875 -
Critical Hdwy Stg 2	-	-	-	-	5.475 -
Follow-up Hdwy	2.2855	-	-	-	3.5475 3.4235
Pot Cap-1 Maneuver	835	-	-	-	115 607
Stage 1	-	-	-	-	465 -
Stage 2	-	-	-	-	407 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	835	-	-	-	70 607
Mov Cap-2 Maneuver	-	-	-	-	70 -
Stage 1	-	-	-	-	284 -
Stage 2	-	-	-	-	407 -

Approach	EB	WB	SB
HCM Control Delay, s/v	7.28	0	37.06
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	835	-	-	-	70	607
HCM Lane V/C Ratio	0.389	-	-	-	0.782	0.508
HCM Control Delay (s/veh)	12	-	-	-	149.8	16.9
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	1.9	-	-	-	3.7	2.9

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	↕
Traffic Vol, veh/h	141	0	9	14	1	5	12	480	6	3	369	162
Future Vol, veh/h	141	0	9	14	1	5	12	480	6	3	369	162
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	140	-	-	100	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	7	0	6	0	0	0	2	3	17	33	1	5
Mvmt Flow	160	0	10	16	1	6	14	545	7	3	419	184

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	727	1006	419	1002	1186	276	603	0	0	552	0	0
Stage 1	426	426	-	576	576	-	-	-	-	-	-	-
Stage 2	301	580	-	426	610	-	-	-	-	-	-	-
Critical Hdwy	7.405	6.5	6.29	7.3	6.5	6.9	4.13	-	-	4.595	-	-
Critical Hdwy Stg 1	6.205	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.605	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5665	4	3.357	3.5	4	3.3	2.219	-	-	2.5135	-	-
Pot Cap-1 Maneuver	318	243	623	211	190	727	972	-	-	853	-	-
Stage 1	594	589	-	475	505	-	-	-	-	-	-	-
Stage 2	672	504	-	610	488	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	308	239	623	204	187	727	972	-	-	853	-	-
Mov Cap-2 Maneuver	308	239	-	204	187	-	-	-	-	-	-	-
Stage 1	591	587	-	468	498	-	-	-	-	-	-	-
Stage 2	656	497	-	598	486	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v28.78			21.04		0.21		0.05	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	972	-	-	317	247	853	-	-
HCM Lane V/C Ratio	0.014	-	-	0.537	0.092	0.004	-	-
HCM Control Delay (s/veh)	8.8	-	-	28.8	21	9.2	-	-
HCM Lane LOS	A	-	-	D	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	3	0.3	0	-	-

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
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	6263	6229	6272	6396	6198	6467	6488
Vehs Exited	6291	6237	6241	6358	6240	6478	6517
Starting Vehs	274	258	241	228	279	267	264
Ending Vehs	246	250	272	266	237	256	235
Travel Distance (mi)	7072	7041	7022	7220	6981	7272	7327
Travel Time (hr)	253.3	254.1	254.4	262.3	251.3	264.6	271.7
Total Delay (hr)	79.5	80.7	81.0	84.4	79.1	85.7	91.0
Total Stops	5470	5473	5560	5800	5438	5812	6057
Fuel Used (gal)	259.1	258.6	258.2	266.8	256.0	269.1	271.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	6387	6371	6313	6337
Vehs Exited	6404	6370	6329	6348
Starting Vehs	270	245	275	257
Ending Vehs	253	246	259	250
Travel Distance (mi)	7255	7213	7093	7149
Travel Time (hr)	265.0	260.9	258.2	259.6
Total Delay (hr)	86.9	83.4	83.8	83.6
Total Stops	5911	5787	5613	5690
Fuel Used (gal)	266.9	266.4	260.1	263.2

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
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	6263	6229	6272	6396	6198	6467	6488
Vehs Exited	6291	6237	6241	6358	6240	6478	6517
Starting Vehs	274	258	241	228	279	267	264
Ending Vehs	246	250	272	266	237	256	235
Travel Distance (mi)	7072	7041	7022	7220	6981	7272	7327
Travel Time (hr)	253.3	254.1	254.4	262.3	251.3	264.6	271.7
Total Delay (hr)	79.5	80.7	81.0	84.4	79.1	85.7	91.0
Total Stops	5470	5473	5560	5800	5438	5812	6057
Fuel Used (gal)	259.1	258.6	258.2	266.8	256.0	269.1	271.1

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	6387	6371	6313	6337
Vehs Exited	6404	6370	6329	6348
Starting Vehs	270	245	275	257
Ending Vehs	253	246	259	250
Travel Distance (mi)	7255	7213	7093	7149
Travel Time (hr)	265.0	260.9	258.2	259.6
Total Delay (hr)	86.9	83.4	83.8	83.6
Total Stops	5911	5787	5613	5690
Fuel Used (gal)	266.9	266.4	260.1	263.2

1: US 1 & Driveway/Kit Kat Rd Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.2	3.0	0.0	0.0	0.1
Total Del/Veh (s)	52.6	12.2	58.6	48.1	12.3	2.8	1.2	76.8	3.8	4.9

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.4	0.1	0.1	0.2	0.3	4.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	83.6	77.7	1.0	85.7	97.2	10.2	13.1	4.5	1.2	11.7	7.9	4.4

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	9.0

3: US 1 & MD 103 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (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
Total Del/Veh (s)	64.7	62.8	63.3	90.6	75.4	19.6	31.9	31.8	10.4	38.5	27.3	24.7

3: US 1 & MD 103 Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	36.1

4: US 1 & Driveway/Site Access Performance by movement

Movement	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	6.6	13.6	3.8	5.5	2.0	1.6	0.2	2.5

5: US 1 & MD 100 EB Ramp Performance by movement

Movement	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.4	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.0	5.2	1.9	25.1	2.9	5.4

6: US 1 & MD 100 WB ramp Performance by movement

Movement	WBL	WBR	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	3.2	1.3	0.1	0.1	0.0	0.0	0.5
Total Del/Veh (s)	25.0	2.6	14.0	4.3	0.9	1.8	7.8

7: US 1 & Troy Hill Dr. - South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	93.8	0.8	19.3	0.4	3.1	3.1	3.3

8: US 1 & Troy Hill Dr. - North Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	60.2	0.9	15.9	1.7	5.2	5.5	4.9

9: US 1 & Ducketts Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.9	3.7	0.2	0.0	0.3	0.4	0.6
Total Del/Veh (s)	50.5	18.9	21.8	3.8	11.0	9.0	11.6

10: Business Pkwy & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.4	0.5	0.0	0.1	0.1	0.1
Total Del/Veh (s)	3.0	3.0	5.3	1.5	8.6	4.2	2.7

11: Mayfield Ave & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.4	0.4	0.0	0.0	0.4	3.4	0.7
Total Del/Veh (s)	1.9	1.0	9.7	6.3	17.8	7.0	5.1

12: MD 103 & Dorsey Run Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.0	0.2	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.1	2.2	0.6	0.4	19.7	0.7	5.5	4.1

13: MD 103 & Barnett Ln Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	1.8	0.0	0.1	3.9	0.3	3.8	0.3
Total Del/Veh (s)	7.2	4.8	8.4	3.0	3.5	0.4	0.5	3.2	0.2	0.1	1.0

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	44.8

Intersection: 1: US 1 & Driveway/Kit Kat Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	B41	B41	
Directions Served	L	TR	LTR	T	T	R	L	T	T	T	T	
Maximum Queue (ft)	79	80	118	143	147	46	101	93	121	10	26	
Average Queue (ft)	18	14	29	36	28	2	25	14	22	0	1	
95th Queue (ft)	56	53	82	107	93	18	75	58	78	10	15	
Link Distance (ft)	232	232	475	657	657			1475	1475	283	283	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						250	150					
Storage Blk Time (%)						0	0	0				
Queuing Penalty (veh)						0	2	0				

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB	
Directions Served	L	LT	LT	R	L	T	T	R	L	T	T	R	
Maximum Queue (ft)	89	154	121	65	88	185	226	74	78	231	244	42	
Average Queue (ft)	6	47	36	18	24	53	71	7	28	41	56	6	
95th Queue (ft)	42	116	92	50	63	134	176	42	63	127	149	28	
Link Distance (ft)		441	441			283	283			874	874		
Upstream Blk Time (%)								0	0				
Queuing Penalty (veh)								0	0				
Storage Bay Dist (ft)	250				150	330			200	275			600
Storage Blk Time (%)				0					1			0	
Queuing Penalty (veh)				0					0			0	

Intersection: 3: US 1 & MD 103

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	
Directions Served	L	LTR	LT	R	L	T	T	R	L	T	TR	
Maximum Queue (ft)	359	509	311	251	85	308	333	158	392	512	520	
Average Queue (ft)	124	292	170	106	26	159	196	41	185	291	314	
95th Queue (ft)	263	458	283	200	63	270	304	118	350	476	496	
Link Distance (ft)	1908	1908	689	689		874	874			599	599	
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)						270			300	350		
Storage Blk Time (%)							1	1	0	0	4	
Queuing Penalty (veh)							0	1	0	1	12	

Intersection: 4: US 1 & Driveway/Site Access

Movement	WB	NB	NB	SB	B19	B19
Directions Served	LTR	LT	TR	LT	T	T
Maximum Queue (ft)	15	32	19	11	64	142
Average Queue (ft)	1	2	1	0	3	10
95th Queue (ft)	11	24	14	7	36	69
Link Distance (ft)	274	599	599	469	305	305
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: US 1 & MD 100 EB Ramp

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	T	L	L	T	T
Maximum Queue (ft)	143	162	89	120	39	18
Average Queue (ft)	49	65	22	55	2	1
95th Queue (ft)	109	128	62	95	31	15
Link Distance (ft)	305	305		1128	1128	1128
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			825			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: US 1 & MD 100 WB ramp

Movement	WB	WB	NB	NB	B22	B22
Directions Served	L	R	T	T	T	T
Maximum Queue (ft)	353	311	230	225	12	11
Average Queue (ft)	168	19	116	96	0	1
95th Queue (ft)	294	166	209	199	12	13
Link Distance (ft)		692	1128	1128	309	309
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	300					
Storage Blk Time (%)	2	0				
Queuing Penalty (veh)	7	1				

Intersection: 7: US 1 & Troy Hill Dr. - South

Movement	EB	NB	B32	B32	SB
Directions Served	L	L	T	T	T
Maximum Queue (ft)	63	167	86	245	2
Average Queue (ft)	13	75	3	13	0
95th Queue (ft)	46	140	56	121	2
Link Distance (ft)	623	309	518	518	1072
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 8: US 1 & Troy Hill Dr. - North

Movement	EB	NB	NB	NB	SB	SB
Directions Served	L	L	T	T	T	T
Maximum Queue (ft)	86	96	73	94	112	129
Average Queue (ft)	31	36	12	19	19	32
95th Queue (ft)	72	75	48	65	71	94
Link Distance (ft)	555		1072	1072	1316	1316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		600				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: US 1 & Ducketts

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	196	190	156	89	110	329	311
Average Queue (ft)	75	95	76	22	31	130	132
95th Queue (ft)	155	164	133	66	81	255	257
Link Distance (ft)	450			1316	1316	865	865
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	210				
Storage Blk Time (%)	30	32	0				
Queuing Penalty (veh)	75	24	0				

Intersection: 10: Business Pkwy & MD 103

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	52	41	45
Average Queue (ft)	12	15	7
95th Queue (ft)	38	40	30
Link Distance (ft)		629	629
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Mayfield Ave & MD 103

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	32	150	54	64
Average Queue (ft)	2	53	14	15
95th Queue (ft)	15	116	38	44
Link Distance (ft)	784	3263	893	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				110
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 12: MD 103 & Dorsey Run Rd

Movement	EB	WB	WB	SB	SB
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	105	2	2	92	76
Average Queue (ft)	31	0	0	31	35
95th Queue (ft)	74	2	2	67	66
Link Distance (ft)		801	801		658
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	290			400	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 13: MD 103 & Barnett Ln

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	54	66	30	27
Average Queue (ft)	22	11	2	2
95th Queue (ft)	43	45	15	16
Link Distance (ft)	276	305		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			140	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 125

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
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	7731	7856	7542	7841	7638	7615	7649
Vehs Exited	7628	7758	7492	7735	7579	7576	7566
Starting Vehs	351	337	373	332	391	375	333
Ending Vehs	454	435	423	438	450	414	416
Travel Distance (mi)	8986	9050	8804	9090	8985	8793	8856
Travel Time (hr)	429.0	412.9	527.8	432.8	557.5	428.6	528.4
Total Delay (hr)	210.4	192.6	313.1	211.5	340.2	214.5	312.9
Total Stops	7788	7921	7606	7985	7787	7628	7598
Fuel Used (gal)	350.8	348.1	365.6	351.6	378.7	341.0	365.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	7829	7777	7748	7720
Vehs Exited	7730	7738	7666	7646
Starting Vehs	370	376	362	355
Ending Vehs	469	415	444	428
Travel Distance (mi)	9018	9063	9020	8966
Travel Time (hr)	501.8	494.8	496.3	481.0
Total Delay (hr)	282.1	274.5	276.8	262.9
Total Stops	8024	7599	7994	7792
Fuel Used (gal)	366.7	365.7	363.0	359.6

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
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	7731	7856	7542	7841	7638	7615	7649
Vehs Exited	7628	7758	7492	7735	7579	7576	7566
Starting Vehs	351	337	373	332	391	375	333
Ending Vehs	454	435	423	438	450	414	416
Travel Distance (mi)	8986	9050	8804	9090	8985	8793	8856
Travel Time (hr)	429.0	412.9	527.8	432.8	557.5	428.6	528.4
Total Delay (hr)	210.4	192.6	313.1	211.5	340.2	214.5	312.9
Total Stops	7788	7921	7606	7985	7787	7628	7598
Fuel Used (gal)	350.8	348.1	365.6	351.6	378.7	341.0	365.2

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	7829	7777	7748	7720
Vehs Exited	7730	7738	7666	7646
Starting Vehs	370	376	362	355
Ending Vehs	469	415	444	428
Travel Distance (mi)	9018	9063	9020	8966
Travel Time (hr)	501.8	494.8	496.3	481.0
Total Delay (hr)	282.1	274.5	276.8	262.9
Total Stops	8024	7599	7994	7792
Fuel Used (gal)	366.7	365.7	363.0	359.6

1: US 1 & Driveway/Kit Kat Rd Performance by movement

Movement	EBL	EBR	WBL	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.2	0.1	0.3	2.3	0.0	0.0	0.0	0.2
Total Del/Veh (s)	48.7	9.8	51.9	19.1	3.4	1.4	71.7	3.7	1.0	4.9

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.5	0.3	0.2	0.3	0.3	4.1	0.0	0.0	0.0	0.3	0.0	0.0
Total Del/Veh (s)	80.4	89.7	1.2	82.0	81.0	16.4	13.9	6.4	1.2	14.6	5.7	3.7

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	12.3

3: US 1 & MD 103 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	1.9	3.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	113.2	107.4	154.2	253.7	242.0	153.3	31.8	37.1	15.0	62.6	25.3	22.7

3: US 1 & MD 103 Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	75.3

4: US 1 & Driveway/Site Access Performance by movement

Movement	EBR	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1		0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	11.1	25.2		5.6	4.5	1.0	0.0	3.8

5: US 1 & MD 100 EB Ramp Performance by movement

Movement	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.3	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.6	6.0	2.0	40.4	1.8	7.5

6: US 1 & MD 100 WB ramp Performance by movement

Movement	WBL	WBR	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	3.4	0.8	0.2	0.1	0.1	0.2	0.4
Total Del/Veh (s)	43.4	2.0	10.5	4.2	0.9	2.5	7.5

7: US 1 & Troy Hill Dr. - South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	85.1	1.0	15.5	0.6	3.7	3.6	2.8

8: US 1 & Troy Hill Dr. - North Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.2	0.0
Total Del/Veh (s)	64.4	1.0	12.0	5.0	5.9	4.3	6.6

9: US 1 & Ducketts Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.5	3.9	0.1	0.0	0.3	0.4	0.3
Total Del/Veh (s)	64.5	14.6	22.3	8.8	6.9	5.8	9.8

10: Business Pkwy & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0	0.2	0.1	0.0
Total Del/Veh (s)	3.4	3.9	7.3	2.8	14.4	4.5	4.3

11: Mayfield Ave & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.5	0.4	0.0	0.0	0.5	3.5	0.7
Total Del/Veh (s)	1.9	0.9	14.5	11.0	38.7	8.9	8.0

12: MD 103 & Dorsey Run Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.1	0.3	0.3	56.4	0.0	171.4	29.8
Total Del/Veh (s)	16.9	2.0	30.1	32.2	187.1	142.3	329.6	75.6

13: MD 103 & Barnett Ln Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	203.5	248.5	0.1	0.1	0.1	0.7	0.0	0.0	563.0	409.1	453.8	191.7
Total Del/Veh (s)	597.0	585.2	347.7	419.7	186.7	4.3	0.7	0.8	164.9	140.2	39.3	81.1

Total Network Performance

Denied Del/Veh (s)	29.6
Total Del/Veh (s)	88.3

Intersection: 1: US 1 & Driveway/Kit Kat Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	B41	
Directions Served	L	TR	LTR	T	T	R	L	T	TR	T	
Maximum Queue (ft)	38	45	125	178	178	32	46	131	133	33	
Average Queue (ft)	5	16	46	48	39	2	9	22	34	1	
95th Queue (ft)	24	42	99	127	116	16	32	79	97	17	
Link Distance (ft)	232	232	475	657	657			1475	1475	283	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)						250	150				
Storage Blk Time (%)						0		0			
Queuing Penalty (veh)						0		0			

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	EB	EB	WB	WB	NB	NB	NB	NB	B41	SB	SB	SB
Directions Served	L	LT	LT	R	L	T	T	R	T	L	T	T
Maximum Queue (ft)	222	270	107	75	102	246	261	54	2	57	102	114
Average Queue (ft)	77	143	39	27	26	85	100	3	0	11	22	34
95th Queue (ft)	192	228	86	57	69	203	226	32	2	39	71	92
Link Distance (ft)		441	441			283	283		1475		874	874
Upstream Blk Time (%)							0	0	0			
Queuing Penalty (veh)							0	1	0			
Storage Bay Dist (ft)	250				150	330			200	275		
Storage Blk Time (%)	0	1	0				0	1				
Queuing Penalty (veh)	0	0	0				0	0				

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	SB
Directions Served	R
Maximum Queue (ft)	52
Average Queue (ft)	6
95th Queue (ft)	28
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	600
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: US 1 & MD 103

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	LT	R	L	T	T	R	L	T	TR
Maximum Queue (ft)	536	654	717	718	341	553	615	325	327	399	423
Average Queue (ft)	253	381	641	651	68	313	356	126	164	210	242
95th Queue (ft)	490	636	803	850	215	470	529	350	300	365	393
Link Distance (ft)	1908	1908	689	689		874	874			599	599
Upstream Blk Time (%)			27	31							
Queuing Penalty (veh)			124	145							
Storage Bay Dist (ft)					270			300	350		
Storage Blk Time (%)						10	11	0	2	0	
Queuing Penalty (veh)						8	15	0	6	1	

Intersection: 4: US 1 & Driveway/Site Access

Movement	EB	WB	NB	NB	B19
Directions Served	LTR	LTR	LT	TR	T
Maximum Queue (ft)	30	33	40	43	6
Average Queue (ft)	4	4	1	1	0
95th Queue (ft)	21	21	34	35	6
Link Distance (ft)	141	274	599	599	305
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: US 1 & MD 100 EB Ramp

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	T	L	L	T	T
Maximum Queue (ft)	208	219	172	184	89	83
Average Queue (ft)	85	104	70	95	5	4
95th Queue (ft)	171	191	147	162	105	87
Link Distance (ft)	305	305		1128	1128	1128
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			825			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: US 1 & MD 100 WB ramp

Movement	WB	WB	NB	NB	NB	B22
Directions Served	L	R	T	T	R	T
Maximum Queue (ft)	317	98	250	276	58	52
Average Queue (ft)	153	5	81	60	2	2
95th Queue (ft)	272	65	193	183	57	24
Link Distance (ft)		692	1128	1128	1128	309
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	300					
Storage Blk Time (%)	1	0				
Queuing Penalty (veh)	2	0				

Intersection: 7: US 1 & Troy Hill Dr. - South

Movement	EB	NB	B32	B32	B32	SB	SB
Directions Served	L	L	T	T		T	T
Maximum Queue (ft)	73	120	315	342	46	2	24
Average Queue (ft)	24	47	16	28	2	0	1
95th Queue (ft)	59	97	145	189	45	2	13
Link Distance (ft)	623	309	518	518	518	1072	1072
Upstream Blk Time (%)				0			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: US 1 & Troy Hill Dr. - North

Movement	EB	NB	NB	NB	SB	SB
Directions Served	L	L	T	T	T	T
Maximum Queue (ft)	139	50	181	186	168	195
Average Queue (ft)	68	6	62	71	58	73
95th Queue (ft)	124	30	155	171	137	169
Link Distance (ft)	555		1072	1072	1316	1316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		600				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: US 1 & Ducketts

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	107	116	163	189	208	246	266
Average Queue (ft)	45	58	65	71	82	85	89
95th Queue (ft)	94	95	119	153	168	187	204
Link Distance (ft)	450			1316	1316	865	865
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	210				
Storage Blk Time (%)	22	15	0	0			
Queuing Penalty (veh)	35	8	0	0			

Intersection: 10: Business Pkwy & MD 103

Movement	EB	EB	WB	NB	NB
Directions Served	T	R	L	L	R
Maximum Queue (ft)	5	2	38	115	51
Average Queue (ft)	0	0	8	49	15
95th Queue (ft)	5	2	30	88	43
Link Distance (ft)	3263			629	629
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Mayfield Ave & MD 103

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	32	276	60	79
Average Queue (ft)	2	99	13	17
95th Queue (ft)	15	210	41	53
Link Distance (ft)	784	3263	893	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				110
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 12: MD 103 & Dorsey Run Rd

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	TR	L	R
Maximum Queue (ft)	266	181	426	498	500	672
Average Queue (ft)	96	9	129	173	196	544
95th Queue (ft)	211	113	360	435	564	896
Link Distance (ft)		689	801	801		658
Upstream Blk Time (%)						52
Queuing Penalty (veh)						231
Storage Bay Dist (ft)	290				400	
Storage Blk Time (%)	1	0			9	74
Queuing Penalty (veh)	2	0			34	32

Intersection: 13: MD 103 & Barnett Ln

Movement	EB	WB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	L	T	R
Maximum Queue (ft)	296	161	37	65	433	275
Average Queue (ft)	147	45	8	3	268	31
95th Queue (ft)	335	139	31	38	574	175
Link Distance (ft)	276	305			393	
Upstream Blk Time (%)	31				58	
Queuing Penalty (veh)	0				0	
Storage Bay Dist (ft)			140	100		200
Storage Blk Time (%)					63	
Queuing Penalty (veh)					15	

Network Summary

Network wide Queuing Penalty: 659

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
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	7376	7442	7244	7373	7396	7388	7463
Vehs Exited	7393	7413	7252	7361	7382	7434	7451
Starting Vehs	318	307	326	300	327	334	312
Ending Vehs	301	336	318	312	341	288	324
Travel Distance (mi)	8521	8669	8307	8467	8552	8574	8530
Travel Time (hr)	334.6	341.1	319.9	329.9	352.4	329.8	333.3
Total Delay (hr)	125.2	127.8	115.3	122.2	142.0	119.1	122.9
Total Stops	7930	8213	7586	7860	8366	7867	7924
Fuel Used (gal)	322.1	328.1	312.2	320.1	327.4	322.5	323.5

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	7448	7371	7339	7384
Vehs Exited	7468	7353	7343	7384
Starting Vehs	285	308	353	315
Ending Vehs	265	326	349	312
Travel Distance (mi)	8494	8433	8412	8496
Travel Time (hr)	325.8	331.6	339.4	333.8
Total Delay (hr)	117.5	125.1	132.9	125.0
Total Stops	7868	7731	7904	7921
Fuel Used (gal)	322.1	320.9	321.7	322.1

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
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	7376	7442	7244	7373	7396	7388	7463
Vehs Exited	7393	7413	7252	7361	7382	7434	7451
Starting Vehs	318	307	326	300	327	334	312
Ending Vehs	301	336	318	312	341	288	324
Travel Distance (mi)	8521	8669	8307	8467	8552	8574	8530
Travel Time (hr)	334.6	341.1	319.9	329.9	352.4	329.8	333.3
Total Delay (hr)	125.2	127.8	115.3	122.2	142.0	119.1	122.9
Total Stops	7930	8213	7586	7860	8366	7867	7924
Fuel Used (gal)	322.1	328.1	312.2	320.1	327.4	322.5	323.5

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	7448	7371	7339	7384
Vehs Exited	7468	7353	7343	7384
Starting Vehs	285	308	353	315
Ending Vehs	265	326	349	312
Travel Distance (mi)	8494	8433	8412	8496
Travel Time (hr)	325.8	331.6	339.4	333.8
Total Delay (hr)	117.5	125.1	132.9	125.0
Total Stops	7868	7731	7904	7921
Fuel Used (gal)	322.1	320.9	321.7	322.1

1: US 1 & Driveway/Kit Kat Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.2	0.1	0.1	0.3	2.8	0.0	0.0	0.0	0.1
Total Del/Veh (s)	50.0	67.1	14.0	45.8	44.9	15.2	5.1	2.0	56.9	5.4	5.0	7.2

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.4	0.1	0.2	0.3	0.3	4.1	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	86.1	71.0	1.1	84.1	81.3	11.9	18.5	6.4	1.4	16.1	11.0	5.2

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	11.3

3: US 1 & MD 103 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.0	0.0	3.2	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	64.0	63.5	61.9	149.6	67.1	29.7	38.1	39.2	18.5	47.3	27.3	25.4

3: US 1 & MD 103 Performance by movement

Movement	All
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	43.8

4: US 1 & Driveway/Site Access Performance by movement

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1		0.0	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	104.6	26.7		4.4	3.1	13.0	2.4	0.6	3.3

5: US 1 & MD 100 EB Ramp Performance by movement

Movement	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.4	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.2	7.2	2.0	24.8	3.7	6.2

6: US 1 & MD 100 WB ramp Performance by movement

Movement	WBL	WBR	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	3.3	1.4	0.2	0.1	0.0	0.0	0.5
Total Del/Veh (s)	24.0	2.6	17.0	4.8	1.0	2.1	8.7

7: US 1 & Troy Hill Dr. - South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	168.9	0.8	30.5	0.5	3.9	3.5	4.6

8: US 1 & Troy Hill Dr. - North Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.2	0.0
Total Del/Veh (s)	65.7	0.9	26.4	1.9	7.4	7.1	6.5

9: US 1 & Ducketts Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.8	3.7	0.1	0.0	0.4	0.5	0.5
Total Del/Veh (s)	46.1	27.5	32.7	4.7	17.0	14.4	15.9

10: Business Pkwy & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.6	0.5	0.1	0.1	0.1	0.1
Total Del/Veh (s)	3.3	3.3	5.9	1.7	10.4	5.4	3.0

11: Mayfield Ave & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.4	0.5	0.0	0.0	0.5	3.4	0.8
Total Del/Veh (s)	2.1	1.1	11.1	7.5	24.4	8.2	6.1

12: MD 103 & Dorsey Run Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.9	2.4	1.5	0.4	28.7	1.3	16.9	8.5

13: MD 103 & Barnett Ln Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	1.0	0.0	0.1	3.5	0.4	3.2	0.3
Total Del/Veh (s)	10.4	6.3	11.7	2.8	4.2	0.4	0.6	4.0	0.5	0.1	1.1

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	57.5

Intersection: 1: US 1 & Driveway/Kit Kat Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB	B41	B41	
Directions Served	LT	R	LTR	T	T	R	L	T	T	R	T	T	
Maximum Queue (ft)	109	109	112	179	168	56	135	128	150	54	8	35	
Average Queue (ft)	31	38	32	59	53	6	46	30	40	2	0	2	
95th Queue (ft)	82	84	81	142	131	31	105	96	114	25	8	22	
Link Distance (ft)	218	218	475	652	652			1479	1479		283	283	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)						250	150				150		
Storage Blk Time (%)							0	0	0				
Queuing Penalty (veh)							2	0	0				

Intersection: 1: US 1 & Driveway/Kit Kat Rd

Movement	B41
Directions Served	
Maximum Queue (ft)	10
Average Queue (ft)	0
95th Queue (ft)	10
Link Distance (ft)	283
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	EB	EB	WB	WB	NB	NB	NB	NB	B41	SB	SB	SB
Directions Served	L	LT	LT	R	L	T	T	R	T	L	T	T
Maximum Queue (ft)	117	158	136	64	82	262	279	120	6	134	352	366
Average Queue (ft)	11	56	39	20	28	83	106	9	0	38	99	124
95th Queue (ft)	58	123	102	51	65	197	229	61	5	90	258	286
Link Distance (ft)		441	441			283	283		1479		871	871
Upstream Blk Time (%)						0	0	0				
Queuing Penalty (veh)						0	1	0				
Storage Bay Dist (ft)	250			150	330			200		275		
Storage Blk Time (%)			1			0	2				1	
Queuing Penalty (veh)			0			0	1				1	

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	SB
Directions Served	R
Maximum Queue (ft)	59
Average Queue (ft)	12
95th Queue (ft)	41
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	600
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: US 1 & MD 103

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	TR	L	T	R	R	L	T	T	R	L
Maximum Queue (ft)	162	258	455	273	523	396	242	206	478	547	325	400
Average Queue (ft)	84	114	259	224	270	132	122	35	239	285	98	231
95th Queue (ft)	143	193	415	320	657	309	206	113	404	461	271	412
Link Distance (ft)			1908		689	689			871	871		
Upstream Blk Time (%)					3	0						
Queuing Penalty (veh)					11	1						
Storage Bay Dist (ft)	425	425		175			250	270			300	350
Storage Blk Time (%)			1	50	2	0	0		6	8	0	3
Queuing Penalty (veh)			3	32	4	1	0		2	10	0	14

Intersection: 3: US 1 & MD 103

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	562	543
Average Queue (ft)	316	328
95th Queue (ft)	502	493
Link Distance (ft)	587	587
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	1	1
Storage Bay Dist (ft)		
Storage Blk Time (%)	4	
Queuing Penalty (veh)	13	

Intersection: 4: US 1 & Driveway/Site Access

Movement	WB	NB	NB	SB	SB	B19	B19	B19
Directions Served	LTR	LT	TR	LT	TR	T	T	
Maximum Queue (ft)	39	13	18	128	27	166	234	75
Average Queue (ft)	7	0	1	8	1	8	22	4
95th Queue (ft)	29	11	15	64	18	71	119	62
Link Distance (ft)	274	587	587	469	469	305	305	305
Upstream Blk Time (%)						0	0	
Queuing Penalty (veh)						0	0	
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 5: US 1 & MD 100 EB Ramp

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	T	L	L	T	T
Maximum Queue (ft)	203	228	107	116	90	84
Average Queue (ft)	86	106	29	59	5	4
95th Queue (ft)	168	194	79	100	83	76
Link Distance (ft)	305	305		1128	1128	1128
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	825					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: US 1 & MD 100 WB ramp

Movement	WB	WB	NB	NB	B22	B22	B22
Directions Served	L	R	T	T	T	T	
Maximum Queue (ft)	348	129	318	300	7	25	9
Average Queue (ft)	181	6	151	134	0	1	0
95th Queue (ft)	297	81	265	260	7	15	9
Link Distance (ft)		692	1128	1128	309	309	309
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	300						
Storage Blk Time (%)	1	0					
Queuing Penalty (veh)	5	0					

Intersection: 7: US 1 & Troy Hill Dr. - South

Movement	EB	NB	B22	B22	B32	B32	B32	SB	SB
Directions Served	L	L	T	T	T	T		T	T
Maximum Queue (ft)	73	234	24	25	218	399	24	4	28
Average Queue (ft)	18	96	1	1	13	32	1	0	1
95th Queue (ft)	58	197	24	24	121	198	14	4	18
Link Distance (ft)	623	309	856	856	518	518	518	1072	1072
Upstream Blk Time (%)	1								
Queuing Penalty (veh)	4								
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 8: US 1 & Troy Hill Dr. - North

Movement	EB	NB	NB	NB	SB	SB
Directions Served	L	L	T	T	T	T
Maximum Queue (ft)	107	123	86	117	140	163
Average Queue (ft)	34	48	17	25	32	51
95th Queue (ft)	82	99	58	82	98	128
Link Distance (ft)	555		1072	1072	1316	1316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	600					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: US 1 & Ducketts

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	273	198	224	135	147	425	426
Average Queue (ft)	100	121	100	34	45	203	205
95th Queue (ft)	207	197	176	92	107	359	360
Link Distance (ft)	450			1316	1316	865	865
Upstream Blk Time (%)	0						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		50	210				
Storage Blk Time (%)	29	44	1	0			
Queuing Penalty (veh)	76	39	3	0			

Intersection: 10: Business Pkwy & MD 103

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	16	50	35	39
Average Queue (ft)	1	14	11	6
95th Queue (ft)	9	41	31	24
Link Distance (ft)			622	622
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300	300		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Mayfield Ave & MD 103

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	37	164	70	83
Average Queue (ft)	4	64	17	18
95th Queue (ft)	21	133	47	53
Link Distance (ft)	784	3263	893	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				110
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 12: MD 103 & Dorsey Run Rd

Movement	EB	WB	WB	SB	SB
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	113	38	43	224	293
Average Queue (ft)	45	5	2	55	96
95th Queue (ft)	88	38	20	192	286
Link Distance (ft)		801	801		658
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)	290			400	
Storage Blk Time (%)					3
Queuing Penalty (veh)					2

Intersection: 13: MD 103 & Barnett Ln

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	T	L	T
Maximum Queue (ft)	51	67	30	2	30	29
Average Queue (ft)	24	9	4	0	3	2
95th Queue (ft)	44	41	21	2	18	29
Link Distance (ft)	276	305		658		393
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			140		100	
Storage Blk Time (%)						0
Queuing Penalty (veh)						0

Network Summary

Network wide Queuing Penalty: 230

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
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	8975	8855	8739	9016	8734	9040	9041
Vehs Exited	8947	8847	8788	8972	8729	9036	9024
Starting Vehs	459	404	423	421	430	434	415
Ending Vehs	487	412	374	465	435	438	432
Travel Distance (mi)	10482	10458	10168	10414	10237	10519	10661
Travel Time (hr)	470.5	444.9	406.5	449.3	438.1	438.2	458.4
Total Delay (hr)	214.5	189.3	158.8	194.9	187.6	181.3	198.4
Total Stops	11373	10514	9225	10733	10305	10220	10916
Fuel Used (gal)	408.5	400.2	384.2	400.6	390.1	403.0	409.7

Summary of All Intervals

Run Number	8	9	Avg
Start Time	3:50	3:50	3:50
End Time	5:00	5:00	5:00
Total Time (min)	70	70	70
Time Recorded (min)	60	60	60
# of Intervals	2	2	2
# of Recorded Intervals	1	1	1
Vehs Entered	9041	8924	8929
Vehs Exited	9036	8903	8918
Starting Vehs	412	399	418
Ending Vehs	417	420	429
Travel Distance (mi)	10615	10362	10435
Travel Time (hr)	449.5	433.0	443.1
Total Delay (hr)	190.5	179.6	188.3
Total Stops	10794	10286	10482
Fuel Used (gal)	406.8	397.5	400.1

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
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	8975	8855	8739	9016	8734	9040	9041
Vehs Exited	8947	8847	8788	8972	8729	9036	9024
Starting Vehs	459	404	423	421	430	434	415
Ending Vehs	487	412	374	465	435	438	432
Travel Distance (mi)	10482	10458	10168	10414	10237	10519	10661
Travel Time (hr)	470.5	444.9	406.5	449.3	438.1	438.2	458.4
Total Delay (hr)	214.5	189.3	158.8	194.9	187.6	181.3	198.4
Total Stops	11373	10514	9225	10733	10305	10220	10916
Fuel Used (gal)	408.5	400.2	384.2	400.6	390.1	403.0	409.7

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	Avg
Vehs Entered	9041	8924	8929
Vehs Exited	9036	8903	8918
Starting Vehs	412	399	418
Ending Vehs	417	420	429
Travel Distance (mi)	10615	10362	10435
Travel Time (hr)	449.5	433.0	443.1
Total Delay (hr)	190.5	179.6	188.3
Total Stops	10794	10286	10482
Fuel Used (gal)	406.8	397.5	400.1

1: US 1 & Driveway/Kit Kat Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.2	0.1	0.2	0.4	2.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	43.0	32.9	11.3	39.6	45.7	22.0	6.0	2.5	58.3	7.3	7.1	8.1

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.5	0.3	0.2	0.4	0.4	3.9	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	82.9	79.1	1.2	85.8	59.0	31.7	16.0	11.3	2.3	26.2	15.0	5.4

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	17.7

3: US 1 & MD 103 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	87.1	46.7	53.6	107.0	83.6	38.3	47.3	57.1	34.0	91.8	25.6	21.7

3: US 1 & MD 103 Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	53.3

4: US 1 & Driveway/Site Access Performance by movement

Movement	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1		0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	22.2	31.5		6.2	4.6	34.8	2.0	0.2	4.6

5: US 1 & MD 100 EB Ramp Performance by movement

Movement	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.3	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.7	10.4	2.1	42.3	2.4	9.7

6: US 1 & MD 100 WB ramp Performance by movement

Movement	WBL	WBR	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	3.4	1.0	0.3	0.3	0.1	0.2	0.4
Total Del/Veh (s)	41.9	2.2	20.3	4.9	1.0	2.8	11.5

7: US 1 & Troy Hill Dr. - South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	184.1	1.0	22.0	0.7	4.9	4.6	4.0

8: US 1 & Troy Hill Dr. - North Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.3	0.0
Total Del/Veh (s)	69.9	1.0	16.5	6.2	8.4	6.0	8.3

9: US 1 & Ducketts Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.6	3.8	0.0	0.0	0.4	0.5	0.3
Total Del/Veh (s)	64.9	20.4	35.7	10.7	9.7	8.0	12.7

10: Business Pkwy & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0	0.2	0.1	0.0
Total Del/Veh (s)	4.0	4.3	8.4	3.8	18.5	5.6	5.1

11: Mayfield Ave & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.5	0.6	0.0	0.1	0.5	3.5	0.7
Total Del/Veh (s)	2.0	1.1	18.8	15.2	69.1	10.1	10.7

12: MD 103 & Dorsey Run Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.1	0.3	0.3	0.0	0.0	1.5	0.5
Total Del/Veh (s)	17.6	2.5	2.0	1.3	182.5	4.1	27.2	16.1

13: MD 103 & Barnett Ln Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.5	0.0	0.0	2.7	0.5	3.2	0.3
Total Del/Veh (s)	14.2	10.4	15.6	23.3	6.3	5.5	0.9	0.9	4.0	1.2	0.3	1.8

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	71.7

Intersection: 1: US 1 & Driveway/Kit Kat Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	B41	B41	B41
Directions Served	L	TR	LTR	T	T	R	L	T	TR	T	T	
Maximum Queue (ft)	66	59	159	260	231	44	62	209	198	30	89	22
Average Queue (ft)	18	22	59	84	77	5	14	61	77	1	3	1
95th Queue (ft)	51	49	122	189	180	26	44	155	171	18	43	21
Link Distance (ft)	232	232	475	657	657			1475	1475	283	283	283
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)						250	150					
Storage Blk Time (%)					0			0				
Queuing Penalty (veh)					0			0				

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	EB	EB	WB	WB	NB	NB	NB	NB	B41	B41	SB	SB
Directions Served	L	LT	LT	R	L	T	T	R	T	T	L	T
Maximum Queue (ft)	247	280	109	93	146	307	353	116	57	76	58	384
Average Queue (ft)	97	160	40	35	32	134	157	7	4	9	12	126
95th Queue (ft)	220	253	89	85	92	295	330	64	54	78	41	321
Link Distance (ft)		441	441			283	283		1475	1475		871
Upstream Blk Time (%)					0	2	3	0				
Queuing Penalty (veh)					0	15	24	0				
Storage Bay Dist (ft)	250			150	330			200			275	
Storage Blk Time (%)	0	1	0	0	0	2	8					2
Queuing Penalty (veh)	0	1	0	0	0	1	1					0

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	394	73
Average Queue (ft)	136	19
95th Queue (ft)	335	57
Link Distance (ft)	871	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		600
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: US 1 & MD 103

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	TR	L	T	R	R	L	T	T	R	L
Maximum Queue (ft)	320	404	552	275	615	441	300	369	819	852	325	397
Average Queue (ft)	150	185	191	205	331	204	187	115	482	538	214	264
95th Queue (ft)	260	314	402	325	616	381	278	331	819	869	432	413
Link Distance (ft)			1908		689	689			871	871		
Upstream Blk Time (%)					1	0			1	2		
Queuing Penalty (veh)					5	2			7	13		
Storage Bay Dist (ft)	425	425		175			250	270			300	350
Storage Blk Time (%)	0	0	1	22	40	2	1		28	29	0	9
Queuing Penalty (veh)	0	1	2	59	74	5	3		23	63	1	39

Intersection: 3: US 1 & MD 103

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	488	449
Average Queue (ft)	239	262
95th Queue (ft)	434	408
Link Distance (ft)	587	587
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	9	0
Storage Bay Dist (ft)		
Storage Blk Time (%)	0	
Queuing Penalty (veh)	1	

Intersection: 4: US 1 & Driveway/Site Access

Movement	EB	WB	NB	NB	SB	SB	B19	B19	B19
Directions Served	LTR	LTR	LT	TR	LT	TR	T	T	
Maximum Queue (ft)	30	30	35	32	119	51	37	92	13
Average Queue (ft)	4	6	2	1	12	3	3	7	0
95th Queue (ft)	19	25	20	18	79	39	31	52	9
Link Distance (ft)	141	274	587	587	469	469	305	305	305
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 5: US 1 & MD 100 EB Ramp

Movement	NB	NB	B19	B19	SB	SB	SB	SB
Directions Served	T	T	T	T	L	L	T	T
Maximum Queue (ft)	322	343	7	27	203	214	313	145
Average Queue (ft)	158	184	0	1	91	112	14	8
95th Queue (ft)	285	322	6	16	174	184	178	116
Link Distance (ft)	305	305	383	383		1128	1128	1128
Upstream Blk Time (%)	1	1						
Queuing Penalty (veh)	4	8						
Storage Bay Dist (ft)					825			
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: US 1 & MD 100 WB ramp

Movement	WB	WB	NB	NB	NB	SB	B22	B22
Directions Served	L	R	T	T	R	T	T	T
Maximum Queue (ft)	328	190	532	497	176	0	3	103
Average Queue (ft)	166	12	178	155	7	0	0	6
95th Queue (ft)	288	111	398	384	106	0	3	52
Link Distance (ft)		692	1128	1128	1128	518	309	309
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	300							
Storage Blk Time (%)	1	0						
Queuing Penalty (veh)	3	0						

Intersection: 7: US 1 & Troy Hill Dr. - South

Movement	EB	NB	B32	B32	B32	SB	SB
Directions Served	L	L	T	T		T	T
Maximum Queue (ft)	107	146	440	447	54	2	66
Average Queue (ft)	36	60	45	65	3	0	4
95th Queue (ft)	92	116	251	301	56	2	45
Link Distance (ft)	623	309	518	518	518	1072	1072
Upstream Blk Time (%)			0	0			
Queuing Penalty (veh)			0	0			
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: US 1 & Troy Hill Dr. - North

Movement	EB	NB	NB	NB	SB	SB
Directions Served	L	L	T	T	T	T
Maximum Queue (ft)	172	50	226	256	250	273
Average Queue (ft)	74	7	83	92	88	107
95th Queue (ft)	139	31	190	206	198	232
Link Distance (ft)	555		1072	1072	1316	1316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		600				
Storage Blk Time (%)						0
Queuing Penalty (veh)						0

Intersection: 9: US 1 & Ducketts

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	154	151	191	201	211	296	310
Average Queue (ft)	59	66	86	83	99	134	141
95th Queue (ft)	120	120	157	161	182	260	277
Link Distance (ft)	450			1316	1316	865	865
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	210				
Storage Blk Time (%)	30	22	0	0			
Queuing Penalty (veh)	50	13	3	0			

Intersection: 10: Business Pkwy & MD 103

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	7	46	114	50
Average Queue (ft)	0	8	46	10
95th Queue (ft)	5	32	89	33
Link Distance (ft)			622	622
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300	300		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Mayfield Ave & MD 103

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	30	355	73	79
Average Queue (ft)	3	142	17	21
95th Queue (ft)	16	300	55	55
Link Distance (ft)	784	3263	893	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				110
Storage Blk Time (%)			1	0
Queuing Penalty (veh)			1	0

Intersection: 12: MD 103 & Dorsey Run Rd

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	TR	L	R
Maximum Queue (ft)	308	171	65	77	253	376
Average Queue (ft)	142	9	6	7	87	172
95th Queue (ft)	260	118	47	43	242	384
Link Distance (ft)		689	801	801		658
Upstream Blk Time (%)						1
Queuing Penalty (veh)						3
Storage Bay Dist (ft)	290				400	
Storage Blk Time (%)	1				0	4
Queuing Penalty (veh)	3				1	2

Intersection: 13: MD 103 & Barnett Ln

Movement	EB	WB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	L	T	R
Maximum Queue (ft)	74	46	51	29	50	30
Average Queue (ft)	27	15	16	1	6	1
95th Queue (ft)	61	42	44	13	76	29
Link Distance (ft)	276	305			393	
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)			140	100		200
Storage Blk Time (%)					1	
Queuing Penalty (veh)					0	

Network Summary

Network wide Queuing Penalty: 440

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
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	7956	7857	7919	8032	7817	8043	8020
Vehs Exited	7986	7855	7975	8031	7844	8004	8000
Starting Vehs	369	328	353	346	341	316	307
Ending Vehs	339	330	297	347	314	355	327
Travel Distance (mi)	8535	8464	8565	8724	8510	8696	8606
Travel Time (hr)	334.3	328.6	336.4	350.0	331.2	346.4	340.2
Total Delay (hr)	124.8	120.7	124.6	134.6	122.1	132.6	127.4
Total Stops	8614	8433	8596	9045	8541	9146	9096
Fuel Used (gal)	326.4	323.0	327.8	336.3	323.4	334.8	328.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	8039	8082	8012	7977
Vehs Exited	7991	8086	8027	7982
Starting Vehs	306	315	336	323
Ending Vehs	354	311	321	328
Travel Distance (mi)	8614	8777	8679	8617
Travel Time (hr)	342.1	348.4	340.8	339.9
Total Delay (hr)	129.4	132.7	126.4	127.5
Total Stops	8927	8997	8764	8814
Fuel Used (gal)	328.5	336.0	329.6	329.5

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
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	7956	7857	7919	8032	7817	8043	8020
Vehs Exited	7986	7855	7975	8031	7844	8004	8000
Starting Vehs	369	328	353	346	341	316	307
Ending Vehs	339	330	297	347	314	355	327
Travel Distance (mi)	8535	8464	8565	8724	8510	8696	8606
Travel Time (hr)	334.3	328.6	336.4	350.0	331.2	346.4	340.2
Total Delay (hr)	124.8	120.7	124.6	134.6	122.1	132.6	127.4
Total Stops	8614	8433	8596	9045	8541	9146	9096
Fuel Used (gal)	326.4	323.0	327.8	336.3	323.4	334.8	328.8

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	8039	8082	8012	7977
Vehs Exited	7991	8086	8027	7982
Starting Vehs	306	315	336	323
Ending Vehs	354	311	321	328
Travel Distance (mi)	8614	8777	8679	8617
Travel Time (hr)	342.1	348.4	340.8	339.9
Total Delay (hr)	129.4	132.7	126.4	127.5
Total Stops	8927	8997	8764	8814
Fuel Used (gal)	328.5	336.0	329.6	329.5

1: US 1 & Driveway/Kit Kat Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.3	2.6	0.1	0.0	0.0	0.1
Total Del/Veh (s)	52.9	33.0	13.6	53.9	67.1	14.8	4.9	2.1	59.2	5.6	5.0	7.3

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.3	0.2	0.1	0.2	0.2	4.2	0.0	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	83.5	76.4	1.0	81.4	92.0	11.7	16.7	6.7	1.6	14.7	11.2	5.0

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	11.4

3: US 1 & MD 103 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	65.0	61.7	58.7	106.9	68.1	32.8	41.9	34.9	16.6	40.4	24.3	22.8

3: US 1 & MD 103 Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	38.8

4: US 1 & Driveway/Site Access Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	65.8	3.1	6.8		9.5	4.0	15.9	7.1	4.5	10.6

5: US 1 & MD 100 EB Ramp Performance by movement

Movement	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.4	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.2	7.1	1.9	25.7	3.6	6.2

6: US 1 & MD 100 WB ramp Performance by movement

Movement	WBL	WBR	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	3.3	1.5	0.1	0.1	0.0	0.0	0.5
Total Del/Veh (s)	25.2	2.7	17.1	4.7	1.1	2.2	8.8

7: US 1 & Troy Hill Dr. - South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	197.7	0.8	28.5	0.4	4.1	3.7	4.6

8: US 1 & Troy Hill Dr. - North Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	60.5	0.9	26.5	2.2	8.0	7.2	6.8

9: US 1 & Ducketts Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.9	3.7	0.1	0.0	0.4	0.5	0.5
Total Del/Veh (s)	46.7	26.6	34.7	5.2	17.9	15.1	16.4

10: Business Pkwy & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.5	0.6	0.0	0.1	0.1	0.1
Total Del/Veh (s)	3.4	3.0	5.8	1.8	10.9	5.9	3.1

11: Mayfield Ave & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.4	0.4	0.0	0.0	0.5	3.5	0.8
Total Del/Veh (s)	2.0	1.1	12.1	8.7	26.2	8.1	6.5

12: MD 103 & Dorsey Run Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.4	2.4	0.5	0.3	20.0	1.0	5.9	4.3

13: MD 103 & Barnett Ln Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.1	0.1	1.1	0.0	0.1	3.6	0.7	3.4	0.9
Total Del/Veh (s)	8.1	6.0	8.7	3.8	4.7	0.4	0.4	3.9	0.3	0.2	1.2

14: MOB Access/Com. Access & Site Access/Barnett Ln Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.3	0.2	0.1
Total Del/Veh (s)	1.1	1.1	0.9	4.7	6.2	5.6	5.6	3.7	6.3	5.1	4.2

16: US 1 & Site Right In North Performance by movement

Movement	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.8	1.9	1.0	2.1

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	54.4

Intersection: 1: US 1 & Driveway/Kit Kat Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB	B41	
Directions Served	LT	R	LTR	T	T	R	L	T	T	R	T	
Maximum Queue (ft)	128	104	116	181	168	47	131	167	178	34	42	
Average Queue (ft)	32	35	38	59	52	6	40	34	44	1	2	
95th Queue (ft)	87	79	89	143	138	29	95	112	128	13	22	
Link Distance (ft)	218	218	475	652	652			1479	1479		283	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)						250	150				150	
Storage Blk Time (%)						0	1	0	0			
Queuing Penalty (veh)						0	4	0	0			

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	EB	EB	WB	WB	NB	NB	NB	NB	B41	SB	SB	SB
Directions Served	L	LT	LT	R	L	T	T	R	T	L	T	T
Maximum Queue (ft)	90	150	125	70	88	254	306	139	8	226	427	428
Average Queue (ft)	7	55	41	18	28	85	108	10	0	39	108	130
95th Queue (ft)	48	125	100	51	67	199	241	66	5	124	293	310
Link Distance (ft)		441	441			283	283		1479		871	871
Upstream Blk Time (%)							0	0	0			
Queuing Penalty (veh)							0	2	0			
Storage Bay Dist (ft)	250				150	330			200			275
Storage Blk Time (%)				1				0	2			
Queuing Penalty (veh)				0				0	1			

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	SB
Directions Served	R
Maximum Queue (ft)	53
Average Queue (ft)	12
95th Queue (ft)	39
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	600
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: US 1 & MD 103

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	TR	L	T	R	R	L	T	T	R	L
Maximum Queue (ft)	212	278	472	271	435	276	228	147	426	498	325	357
Average Queue (ft)	89	127	249	191	172	92	89	35	205	259	84	161
95th Queue (ft)	164	225	408	298	460	212	167	95	365	428	252	297
Link Distance (ft)			1908		690	690			871	871		
Upstream Blk Time (%)					1							
Queuing Penalty (veh)					3							
Storage Bay Dist (ft)	425	425		175			250	270			300	350
Storage Blk Time (%)			1	29	2	0	0		4	6	0	0
Queuing Penalty (veh)			3	18	4	0	0		2	7	0	3

Intersection: 3: US 1 & MD 103

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	465	480
Average Queue (ft)	240	265
95th Queue (ft)	385	406
Link Distance (ft)	588	588
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)	1	
Queuing Penalty (veh)	3	

Intersection: 4: US 1 & Driveway/Site Access

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	R	L	T	TR
Maximum Queue (ft)	218	82	8	230	296	66	115	258	281
Average Queue (ft)	118	48	0	84	120	10	51	103	112
95th Queue (ft)	198	74	5	180	236	45	96	215	227
Link Distance (ft)	246	246		588	588	588	632	632	632
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)			150						
Storage Blk Time (%)				2					
Queuing Penalty (veh)				0					

Intersection: 5: US 1 & MD 100 EB Ramp

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	T	L	L	T	T
Maximum Queue (ft)	205	241	114	137	175	27
Average Queue (ft)	90	117	31	58	6	1
95th Queue (ft)	174	210	83	107	121	18
Link Distance (ft)	304	304		1128	1128	1128
Upstream Blk Time (%)		0			0	
Queuing Penalty (veh)		0			0	
Storage Bay Dist (ft)			825			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: US 1 & MD 100 WB ramp

Movement	WB	WB	NB	NB	B22	B22	B22
Directions Served	L	R	T	T	T	T	
Maximum Queue (ft)	335	58	340	324	26	60	9
Average Queue (ft)	175	5	154	136	1	2	0
95th Queue (ft)	284	93	280	265	23	32	9
Link Distance (ft)		692	1128	1128	309	309	309
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	300						
Storage Blk Time (%)	1						
Queuing Penalty (veh)	4						

Intersection: 7: US 1 & Troy Hill Dr. - South

Movement	EB	NB	B32	B32	B32	SB
Directions Served	L	L	T	T		T
Maximum Queue (ft)	90	211	377	445	96	21
Average Queue (ft)	24	96	23	36	3	1
95th Queue (ft)	77	172	183	223	63	11
Link Distance (ft)	623	309	518	518	518	1072
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			0	0		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 8: US 1 & Troy Hill Dr. - North

Movement	EB	NB	NB	NB	SB	SB
Directions Served	L	L	T	T	T	T
Maximum Queue (ft)	105	119	103	125	146	168
Average Queue (ft)	35	46	20	28	37	54
95th Queue (ft)	83	91	70	88	107	135
Link Distance (ft)	555		1072	1072	1316	1316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		600				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: US 1 & Ducketts

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	269	200	225	169	164	424	435
Average Queue (ft)	102	118	106	36	52	216	218
95th Queue (ft)	208	192	187	107	121	379	380
Link Distance (ft)	450			1316	1316	865	865
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	210				
Storage Blk Time (%)	29	42	1	0			
Queuing Penalty (veh)	77	38	6	0			

Intersection: 10: Business Pkwy & MD 103

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	14	48	38	50
Average Queue (ft)	0	13	12	6
95th Queue (ft)	7	41	33	27
Link Distance (ft)			622	622
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300	300		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Mayfield Ave & MD 103

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	34	213	76	76
Average Queue (ft)	3	69	17	19
95th Queue (ft)	17	148	51	53
Link Distance (ft)	784	3263	893	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				110
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			0	0

Intersection: 12: MD 103 & Dorsey Run Rd

Movement	EB	WB	WB	SB	SB
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	100	8	12	90	100
Average Queue (ft)	35	0	0	34	40
95th Queue (ft)	77	5	7	70	75
Link Distance (ft)		801	801		659
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	290			400	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 13: MD 103 & Barnett Ln

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	T	L	T
Maximum Queue (ft)	69	71	32	4	30	2
Average Queue (ft)	28	12	3	0	4	0
95th Queue (ft)	52	49	18	3	19	2
Link Distance (ft)	194	305		659		392
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			140		100	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 14: MOB Access/Com. Access & Site Access/Barnett Ln

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	113	46	97
Average Queue (ft)	53	10	53
95th Queue (ft)	90	35	84
Link Distance (ft)	176	243	207
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: US 1 & Site Right In North

Movement	NB	NB	SB	B19	B19	B19
Directions Served	T	R	T	T	T	
Maximum Queue (ft)	84	42	8	187	259	117
Average Queue (ft)	3	2	0	10	20	4
95th Queue (ft)	41	21	5	84	116	64
Link Distance (ft)	632	632	214	304	304	304
Upstream Blk Time (%)				0	0	0
Queuing Penalty (veh)				0	0	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 170

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
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	9934	9770	9890	9797	9751	9971	10023
Vehs Exited	9832	9767	9867	9699	9765	9925	10011
Starting Vehs	446	430	472	396	490	447	425
Ending Vehs	548	433	495	494	476	493	437
Travel Distance (mi)	10761	10560	10685	10483	10583	10866	10840
Travel Time (hr)	478.6	448.0	456.2	445.7	457.3	505.8	485.8
Total Delay (hr)	215.3	189.8	194.4	188.4	197.9	239.6	220.6
Total Stops	12554	11561	11564	11257	11838	13627	12940
Fuel Used (gal)	419.0	408.3	413.0	404.1	408.6	426.8	425.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	9827	9911	9904	9878
Vehs Exited	9841	9820	9931	9847
Starting Vehs	453	427	489	439
Ending Vehs	439	518	462	475
Travel Distance (mi)	10629	10768	10796	10697
Travel Time (hr)	461.0	465.3	468.0	467.2
Total Delay (hr)	200.5	201.8	204.5	205.3
Total Stops	11896	12108	12014	12136
Fuel Used (gal)	411.2	417.9	420.1	415.4

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
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	9934	9770	9890	9797	9751	9971	10023
Vehs Exited	9832	9767	9867	9699	9765	9925	10011
Starting Vehs	446	430	472	396	490	447	425
Ending Vehs	548	433	495	494	476	493	437
Travel Distance (mi)	10761	10560	10685	10483	10583	10866	10840
Travel Time (hr)	478.6	448.0	456.2	445.7	457.3	505.8	485.8
Total Delay (hr)	215.3	189.8	194.4	188.4	197.9	239.6	220.6
Total Stops	12554	11561	11564	11257	11838	13627	12940
Fuel Used (gal)	419.0	408.3	413.0	404.1	408.6	426.8	425.2

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	9827	9911	9904	9878
Vehs Exited	9841	9820	9931	9847
Starting Vehs	453	427	489	439
Ending Vehs	439	518	462	475
Travel Distance (mi)	10629	10768	10796	10697
Travel Time (hr)	461.0	465.3	468.0	467.2
Total Delay (hr)	200.5	201.8	204.5	205.3
Total Stops	11896	12108	12014	12136
Fuel Used (gal)	411.2	417.9	420.1	415.4

1: US 1 & Driveway/Kit Kat Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.2	0.2	0.2	0.4	2.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	42.2	25.3	10.3	41.5	47.1	22.3	6.4	2.6	58.9	7.4	7.1	8.3

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.5	0.2	0.2	0.4	0.3	4.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Del/Veh (s)	79.2	86.3	1.2	82.4	83.9	27.6	16.8	10.1	2.3	27.8	14.9	5.2

2: US 1 & Business Pkwy./Cooney Lane Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	16.7

3: US 1 & MD 103 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	92.2	46.0	57.2	94.4	80.4	26.0	41.1	48.3	24.9	53.8	23.2	19.6

3: US 1 & MD 103 Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	45.5

4: US 1 & Driveway/Site Access Performance by movement

Movement	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.5	0.0	0.1	0.0	0.9	0.6	0.0	0.0	0.0	0.5
Total Del/Veh (s)	14.9	65.5	2.9	7.0	14.9	28.9	5.9	51.3	4.3	2.0	21.2

5: US 1 & MD 100 EB Ramp Performance by movement

Movement	EBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.3	0.2	0.1	0.0	0.0	0.1
Total Del/Veh (s)	0.7	12.1	2.0	42.3	2.5	10.3

6: US 1 & MD 100 WB ramp Performance by movement

Movement	WBL	WBR	NBT	NBR	SBT	SBR	All
Denied Del/Veh (s)	3.3	1.0	0.4	0.3	0.1	0.2	0.5
Total Del/Veh (s)	42.0	2.3	22.4	5.2	1.1	2.9	12.4

7: US 1 & Troy Hill Dr. - South Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	244.5	1.0	23.7	0.7	5.2	4.7	4.5

8: US 1 & Troy Hill Dr. - North Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.2	0.0
Total Del/Veh (s)	68.2	1.0	20.1	6.4	9.2	5.7	8.7

9: US 1 & Ducketts Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.6	3.8	0.0	0.0	0.4	0.5	0.3
Total Del/Veh (s)	64.3	21.6	38.8	10.6	10.5	8.6	13.0

10: Business Pkwy & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.3	0.0	0.2	0.1	0.0
Total Del/Veh (s)	3.9	4.2	9.0	3.8	21.3	5.4	5.3

11: Mayfield Ave & MD 103 Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.5	0.6	0.0	0.1	0.7	3.4	0.7
Total Del/Veh (s)	2.2	1.2	22.6	18.9	139.2	12.8	14.3

12: MD 103 & Dorsey Run Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.0	0.3	0.3	0.2	0.0	0.7	0.3
Total Del/Veh (s)	12.3	2.0	2.1	1.2	61.5	1.1	14.1	8.1

13: MD 103 & Barnett Ln Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.1	0.1	0.6	0.0	0.1	2.7	0.7	3.4	0.7
Total Del/Veh (s)	10.4	7.5	9.5	9.2	6.1	5.5	0.8	1.1	3.0	0.5	0.3	2.0

14: MOB Access/Com. Access & Site Access/Barnett Ln Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Total Del/Veh (s)	1.2	1.4	1.0	4.8	7.2	6.0	6.9	4.5	9.9	5.7	4.3

16: US 1 & Site Right In North Performance by movement

Movement	NBT	NBR	SBT	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.1
Total Del/Veh (s)	2.4	0.1	0.6	1.7

Total Network Performance

Denied Del/Veh (s)	1.1
Total Del/Veh (s)	70.6

Intersection: 1: US 1 & Driveway/Kit Kat Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	B41	B41	B41
Directions Served	L	TR	LTR	T	T	R	L	T	TR	T	T	
Maximum Queue (ft)	62	62	159	253	241	43	82	184	208	50	120	7
Average Queue (ft)	21	23	59	90	84	5	15	59	77	2	6	0
95th Queue (ft)	51	50	121	206	193	23	51	149	177	39	61	7
Link Distance (ft)	232	232	475	657	657			1475	1475	283	283	283
Upstream Blk Time (%)										0	0	
Queuing Penalty (veh)										0	0	
Storage Bay Dist (ft)						250	150					
Storage Blk Time (%)					0			0				
Queuing Penalty (veh)					0			0				

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	EB	EB	WB	WB	NB	NB	NB	NB	B41	B41	SB	SB
Directions Served	L	LT	LT	R	L	T	T	R	T	T	L	T
Maximum Queue (ft)	207	275	132	92	183	339	347	76	79	87	122	413
Average Queue (ft)	73	145	42	35	34	131	150	5	6	7	14	124
95th Queue (ft)	189	240	98	78	106	293	315	44	61	65	71	330
Link Distance (ft)		441	441			283	283		1475	1475		871
Upstream Blk Time (%)					0	2	3					
Queuing Penalty (veh)					0	13	21					
Storage Bay Dist (ft)	250			150	330			200			275	
Storage Blk Time (%)	0	1	0	0	0	2	7					2
Queuing Penalty (veh)	0	0	0	0	0	1	1					0

Intersection: 2: US 1 & Business Pkwy./Cooney Lane

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	418	66
Average Queue (ft)	134	16
95th Queue (ft)	341	48
Link Distance (ft)	871	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		600
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: US 1 & MD 103

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	TR	L	T	R	R	L	T	T	R	L
Maximum Queue (ft)	312	362	390	275	579	426	240	369	738	768	325	282
Average Queue (ft)	159	199	182	190	305	117	111	100	412	466	188	108
95th Queue (ft)	265	311	337	310	539	277	198	298	695	740	416	208
Link Distance (ft)			1908		690	690			871	871		
Upstream Blk Time (%)					1	0			1	1		
Queuing Penalty (veh)					6	1			6	7		
Storage Bay Dist (ft)	425	425		175			250	270			300	350
Storage Blk Time (%)	0	0	1	15	38	0	0	0	22	24	0	
Queuing Penalty (veh)	0	0	2	40	66	1	0	0	18	48	1	

Intersection: 3: US 1 & MD 103

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	367	410
Average Queue (ft)	191	234
95th Queue (ft)	314	362
Link Distance (ft)	588	588
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 4: US 1 & Driveway/Site Access

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	T	R	L	T	TR
Maximum Queue (ft)	29	190	112	15	573	583	158	265	178	204
Average Queue (ft)	4	95	55	1	321	366	15	138	53	69
95th Queue (ft)	21	168	88	7	518	563	86	226	131	161
Link Distance (ft)	140	246	246		588	588	588	452	452	452
Upstream Blk Time (%)		0			0	1	0			
Queuing Penalty (veh)		0			1	4	0			
Storage Bay Dist (ft)				150						
Storage Blk Time (%)					26					
Queuing Penalty (veh)					0					

Intersection: 5: US 1 & MD 100 EB Ramp

Movement	NB	NB	B19	B19	SB	SB	SB	SB
Directions Served	T	T	T	T	L	L	T	T
Maximum Queue (ft)	397	388	144	106	195	215	141	30
Average Queue (ft)	211	223	11	10	88	109	6	1
95th Queue (ft)	391	394	74	63	165	181	110	22
Link Distance (ft)	304	304	215	215		1128	1128	1128
Upstream Blk Time (%)	3	4	0	0				
Queuing Penalty (veh)	23	27	0	0				
Storage Bay Dist (ft)					825			
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: US 1 & MD 100 WB ramp

Movement	WB	WB	NB	NB	NB	B22	B22	B22
Directions Served	L	R	T	T	R	T	T	
Maximum Queue (ft)	334	211	539	572	55	18	103	8
Average Queue (ft)	169	14	198	184	2	1	5	0
95th Queue (ft)	295	138	446	454	40	13	53	8
Link Distance (ft)		692	1128	1128	1128	309	309	309
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	300							
Storage Blk Time (%)	1	0						
Queuing Penalty (veh)	4	0						

Intersection: 7: US 1 & Troy Hill Dr. - South

Movement	EB	NB	B32	B32	B32	SB	SB
Directions Served	L	L	T	T		T	T
Maximum Queue (ft)	132	153	491	477	213	4	3
Average Queue (ft)	45	62	58	71	9	0	0
95th Queue (ft)	123	122	297	317	105	3	3
Link Distance (ft)	623	309	518	518	518	1072	1072
Upstream Blk Time (%)			0	0	0		
Queuing Penalty (veh)			0	0	0		
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 8: US 1 & Troy Hill Dr. - North

Movement	EB	NB	NB	NB	SB	SB
Directions Served	L	L	T	T	T	T
Maximum Queue (ft)	158	46	225	259	277	305
Average Queue (ft)	73	7	84	97	97	120
95th Queue (ft)	133	33	193	214	226	255
Link Distance (ft)	555		1072	1072	1316	1316
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		600				
Storage Blk Time (%)						0
Queuing Penalty (veh)						0

Intersection: 9: US 1 & Ducketts

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	126	165	193	171	188	352	336
Average Queue (ft)	52	72	92	77	93	141	152
95th Queue (ft)	103	127	165	150	164	290	296
Link Distance (ft)	450			1316	1316	865	865
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50	210				
Storage Blk Time (%)	26	25	0	0			
Queuing Penalty (veh)	44	15	2	0			

Intersection: 10: Business Pkwy & MD 103

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	13	41	144	51
Average Queue (ft)	1	9	48	11
95th Queue (ft)	7	33	99	36
Link Distance (ft)			622	622
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300	300		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Mayfield Ave & MD 103

Movement	EB	WB	NB	NB
Directions Served	TR	LT	L	R
Maximum Queue (ft)	27	485	172	108
Average Queue (ft)	3	172	36	27
95th Queue (ft)	17	393	135	76
Link Distance (ft)	784	3263	893	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				110
Storage Blk Time (%)			5	0
Queuing Penalty (veh)			9	0

Intersection: 12: MD 103 & Dorsey Run Rd

Movement	EB	WB	WB	SB	SB
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	224	95	85	171	229
Average Queue (ft)	86	7	6	48	79
95th Queue (ft)	165	69	66	141	202
Link Distance (ft)		801	801		659
Upstream Blk Time (%)					0
Queuing Penalty (veh)					1
Storage Bay Dist (ft)	290			400	
Storage Blk Time (%)	0			0	1
Queuing Penalty (veh)	0			0	0

Intersection: 13: MD 103 & Barnett Ln

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	R
Maximum Queue (ft)	115	40	32	2	6	17	28	4
Average Queue (ft)	48	15	5	0	0	1	2	0
95th Queue (ft)	89	40	24	2	4	8	29	3
Link Distance (ft)	194	305		659	659		392	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			140			100		200
Storage Blk Time (%)							0	
Queuing Penalty (veh)							0	

Intersection: 14: MOB Access/Com. Access & Site Access/Barnett Ln

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	128	56	115
Average Queue (ft)	54	19	56
95th Queue (ft)	93	47	93
Link Distance (ft)	176	243	207
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: US 1 & Site Right In North

Movement	NB	NB	B44	B44	B44	SB	SB	B19	B19
Directions Served	T	T	T	T	T	T	T	T	T
Maximum Queue (ft)	72	104	206	297	11	4	3	23	58
Average Queue (ft)	8	10	11	25	0	0	0	1	3
95th Queue (ft)	41	56	93	146	6	4	3	20	37
Link Distance (ft)	124	124	452	452	452	215	215	304	304
Upstream Blk Time (%)	0	0	0	0					
Queuing Penalty (veh)	0	0	0	0					
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Network Summary

Network wide Queuing Penalty: 366

APPENDIX E

Trip Generation Data for Auto Spa



Auto Spa												
EXISTING TRAFFIC												
Weekdays in March, 2018							Saturdays in March, 2018					
Time	Frederick	Germantown	Hagerstown	Bel Air	Gambrills	Average	Frederick	Germantown	Hagerstown	Bel Air	Gambrills	Average
7:00 AM	2	2	0	3	2	2	2	2	0	2	4	2
8:00 AM	24	15	8	24	25	19	74	49	26	34	87	54
9:00 AM	33	31	12	40	36	30	102	76	42	85	118	84
10:00 AM	42	34	13	43	42	35	130	82	43	122	102	96
11:00 AM	41	38	17	57	43	39	111	63	55	176	101	101
12:00 PM	41	32	17	66	46	40	108	69	52	186	102	103
1:00 PM	47	32	15	66	43	41	114	75	49	186	110	107
2:00 PM	42	37	15	64	43	40	114	61	42	173	110	100
3:00 PM	43	34	14	66	41	40	95	66	39	181	98	96
4:00 PM	43	33	15	70	39	40	86	62	36	164	92	88
5:00 PM	31	34	11	76	36	38	68	55	16	141	74	71
6:00 PM	1	1	0	67	25	19	0	6	0	124	3	27

- Notes:
1. Numbers shown in this table is double of hourly car counts at each facility to account of inbound and outbound trips.
 2. Numbers in red are weekday AM, PM, and Saturday midday peak hour trips.



EXHIBIT 1
EXISTING HOURLY TRAFFIC VOLUMES
AT FIVE EXISTING AUTO SPA LOCATIONS

TRIP GENERATION RATES

LAND USE **FORMULA** **IN/OUT**

Auto Spa

Morning Trips = 19 50/50

Evening Trips = 40 51/49

Midday Sat. Trips = 107 50/50

(In/Out distribution obtained from ITE-947)

TRIP GENERATION TOTALS

MORNING PEAK HOUR			EVENING PEAK HOUR			SATURDAY MIDDAY PEAK HOUR		
IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL

MD 26 Auto Spa

9	10	19	20	20	40	53	54	107
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Trips based on five existing Auto Spa facilities located in Frederick, Germantown, Hagerstown, Bel Air, and Gambrills.



EXHIBIT 2
TRIP GENERATION
FOR SUBJECT SITE

Fredericktowne Auto Spa

March 5th - March 9th						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	0	1	1	1	0.6
8:00 AM	23	9	2	24	35	18.6
9:00 AM	31	8	2	45	39	25
10:00 AM	35	12	0	43	48	27.6
11:00 AM	31	8	0	47	33	23.8
12:00 PM	41	9	1	49	45	29
1:00 PM	35	9	0	49	50	28.6
2:00 PM	30	4	0	43	44	24.2
3:00 PM	29	8	0	46	30	22.6
4:00 PM	28	1	0	30	40	19.8
5:00 PM	27	0	0	9	15	10.2
6:00 PM	0	0	0	0	0	0
Total	310	68	6	386	380	230

March 12th - March 16th						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	1	3	4	1	1.8
8:00 AM	11	12	8	13	10	10.8
9:00 AM	7	14	15	25	21	16.4
10:00 AM	14	29	17	28	11	19.8
11:00 AM	4	29	15	32	21	20.2
12:00 PM	16	24	14	26	22	20.4
1:00 PM	23	22	24	28	42	27.8
2:00 PM	15	21	25	15	27	20.6
3:00 PM	10	38	14	36	36	26.8
4:00 PM	7	34	18	23	36	23.6
5:00 PM	12	23	16	15	35	20.2
6:00 PM	2	0	1	0	0	0.6
Total	121	247	170	245	262	209

March 19th - March 23rd						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	1	0	0	3	1	1
8:00 AM	11	0	0	7	22	8
9:00 AM	12	1	0	7	25	9
10:00 AM	20	0	0	7	48	15
11:00 AM	17	0	0	9	36	12.4
12:00 PM	23	0	0	9	45	15.4
1:00 PM	20	0	0	10	40	14
2:00 PM	17	0	0	11	45	14.6
3:00 PM	21	0	0	14	43	15.6
4:00 PM	21	0	0	17	52	18

5:00 PM	14	0	0	17	31	12.4
6:00 PM	0	0	0	1	0	0.2
Total	177	1	0	112	388	135.6

March 26th - March 30th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	1	1	0	2	0	0.8
8:00 AM	26	11	8	6	5	11.2
9:00 AM	32	16	4	8	17	15.4
10:00 AM	34	21	9	15	33	22.4
11:00 AM	46	20	4	19	39	25.6
12:00 PM	44	2	0	27	11	16.8
1:00 PM	49	0	0	36	32	23.4
2:00 PM	54	0	0	40	30	24.8
3:00 PM	50	0	0	42	13	21
4:00 PM	46	0	0	46	30	24.4
5:00 PM	44	0	0	36	19	19.8
6:00 PM	0	0	0	1	0	0.2
Total	426	71	25	278	229	205.8

	Saturday 3/3	Saturday 3/10	Saturday 3/17	Saturday 3/24	Saturday 3/31	Average
7:00 AM	0	2	0	0	3	1
8:00 AM	37	45	17	26	59	36.8
9:00 AM	42	62	35	42	73	50.8
10:00 AM	69	65	47	71	73	65
11:00 AM	39	66	49	43	80	55.4
12:00 PM	31	71	31	56	81	54
1:00 PM	50	64	29	56	85	56.8
2:00 PM	41	68	24	65	88	57.2
3:00 PM	44	55	13	44	81	47.4
4:00 PM	38	55	2	56	64	43
5:00 PM	31	40	0	49	51	34.2
6:00 PM	0	0	0	1	0	0.2
Total	422	593	247	509	738	501.8

Germantown Auto Spa

March 5th - March 9th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	0	0	0	1	0.2
8:00 AM	9	7	0	0	23	7.8
9:00 AM	20	8	2	0	20	10
10:00 AM	10	5	0	0	16	6.2
11:00 AM	22	8	0	0	31	12.2
12:00 PM	19	12	0	0	27	11.6
1:00 PM	20	10	0	0	27	11.4
2:00 PM	26	10	0	0	23	11.8
3:00 PM	25	3	0	0	29	11.4
4:00 PM	20	0	0	0	24	8.8
5:00 PM	24	0	0	0	27	10.2
6:00 PM	0	0	0	0	0	0
Total	195	63	2	0	248	101.6

March 12th - March 16th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	1	1	1	0	0	0.6
8:00 AM	5	8	6	7	8	6.8
9:00 AM	13	16	27	14	17	17.4
10:00 AM	8	29	26	22	27	22.4
11:00 AM	19	15	20	26	25	21
12:00 PM	12	28	9	17	34	20
1:00 PM	14	20	19	12	23	17.6
2:00 PM	21	29	18	16	29	22.6
3:00 PM	16	19	16	24	22	19.4
4:00 PM	15	16	22	18	41	22.4
5:00 PM	14	22	16	22	28	20.4
6:00 PM	0	0	0	0	1	0.2
Total	138	203	180	178	255	190.8

March 19th - March 23rd

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	0	0	1	2	0.6
8:00 AM	5	0	0	7	20	6.4
9:00 AM	18	0	0	8	43	13.8
10:00 AM	19	0	0	13	45	15.4
11:00 AM	19	0	0	18	39	15.2
12:00 PM	18	0	0	18	45	16.2
1:00 PM	22	0	0	20	52	18.8
2:00 PM	32	0	0	19	50	20.2
3:00 PM	26	0	0	24	47	19.4
4:00 PM	8	0	0	28	50	17.2

5:00 PM	22	0	0	21	52	19
6:00 PM	0	0	0	1	2	0.6
Total	189	0	0	178	447	162.8

March 26th - March 30th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	1	0	1	1	5	1.6
8:00 AM	16	7	6	9	11	9.8
9:00 AM	26	23	7	21	22	19.8
10:00 AM	29	21	19	22	31	24.4
11:00 AM	39	26	15	28	31	27.8
12:00 PM	38	8	5	27	7	17
1:00 PM	35	8	0	24	16	16.6
2:00 PM	33	0	0	37	24	18.8
3:00 PM	29	0	0	40	20	17.8
4:00 PM	41	0	0	34	11	17.2
5:00 PM	38	0	0	23	29	18
6:00 PM	0	0	0	0	1	0.2
Total	325	93	53	266	208	189

	Saturday 3/3	Saturday 3/10	Saturday 3/17	Saturday 3/24	Saturday 3/31	Average
7:00 AM	1	2	1	1	1	1.2
8:00 AM	26	19	16	30	31	24.4
9:00 AM	38	38	30	40	44	38
10:00 AM	34	40	31	51	48	40.8
11:00 AM	38	29	21	32	37	31.4
12:00 PM	35	39	13	42	43	34.4
1:00 PM	36	37	29	53	33	37.6
2:00 PM	35	37	12	39	29	30.4
3:00 PM	36	35	8	47	40	33.2
4:00 PM	33	46	2	42	33	31.2
5:00 PM	28	30	0	40	40	27.6
6:00 PM	2	0	0	4	8	2.8
Total	342	352	163	421	387	333

Hagerstown Auto Spa

March 5th - March 9th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	0	0	0	0	0
8:00 AM	3	3	0	17	8	6.2
9:00 AM	8	3	1	22	7	8.2
10:00 AM	9	5	0	21	7	8.4
11:00 AM	15	4	0	22	17	11.6
12:00 PM	18	5	0	19	16	11.6
1:00 PM	11	0	0	16	13	8
2:00 PM	9	1	0	12	9	6.2
3:00 PM	7	0	0	11	9	5.4
4:00 PM	4	0	0	13	15	6.4
5:00 PM	8	0	0	7	10	5
6:00 PM	0	0	0	0	0	0
Total	92	21	1	160	111	77

March 12th - March 16th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	0	0	0	0	0
8:00 AM	5	0	4	8	3	4
9:00 AM	8	0	4	17	10	7.8
10:00 AM	4	0	8	7	12	6.2
11:00 AM	7	0	10	10	16	8.6
12:00 PM	9	0	11	7	26	10.6
1:00 PM	5	0	9	9	14	7.4
2:00 PM	3	0	9	9	14	7
3:00 PM	3	0	4	7	17	6.2
4:00 PM	2	0	11	6	20	7.8
5:00 PM	0	0	6	2	19	5.4
6:00 PM	0	0	0	0	0	0
Total	46	0	76	82	151	71

March 19th - March 23rd

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	0	0	0	1	0.2
8:00 AM	3	0	0	0	10	2.6
9:00 AM	6	0	0	2	10	3.6
10:00 AM	5	0	0	2	16	4.6
11:00 AM	12	0	0	5	13	6
12:00 PM	8	0	0	2	21	6.2
1:00 PM	11	0	0	3	14	5.6
2:00 PM	9	0	0	4	12	5
3:00 PM	9	0	0	7	19	7
4:00 PM	10	0	0	5	12	5.4

5:00 PM	6	0	0	3	17	5.2
6:00 PM	0	0	0	0	0	0
Total	79	0	0	33	145	51.4

March 26th - March 30th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	0	0	0	0	0	0
8:00 AM	6	6	1	1	1	3
9:00 AM	8	8	0	4	6	5.2
10:00 AM	15	6	2	1	7	6.2
11:00 AM	21	5	0	5	5	7.2
12:00 PM	12	0	0	9	11	6.4
1:00 PM	20	0	0	12	10	8.4
2:00 PM	24	0	0	19	12	11
3:00 PM	23	0	0	14	14	10.2
4:00 PM	18	0	0	23	15	11.2
5:00 PM	10	0	0	7	16	6.6
6:00 PM	0	0	0	0	0	0
Total	157	25	3	95	97	75.4

	Saturday 3/3	Saturday 3/10	Saturday 3/17	Saturday 3/24	Saturday 3/31	Average
7:00 AM	0	0	0	0	1	0.2
8:00 AM	6	19	5	11	23	12.8
9:00 AM	17	22	12	20	34	21
10:00 AM	21	26	5	23	32	21.4
11:00 AM	27	28	7	27	49	27.6
12:00 PM	28	27	13	31	30	25.8
1:00 PM	22	31	7	24	38	24.4
2:00 PM	26	22	7	18	33	21.2
3:00 PM	21	24	5	21	26	19.4
4:00 PM	15	16	5	26	27	17.8
5:00 PM	5	10	0	8	17	8
6:00 PM	0	0	0	0	1	0.2
Total	188	225	66	209	311	199.8

Bel Air Auto Spa

March 5th - March 9th						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
6:00 AM	2	3	0	3	3	2.2
7:00 AM	26	11	0	22	34	18.6
8:00 AM	29	15	0	32	32	21.6
9:00 AM	25	20	0	41	49	27
10:00 AM	38	20	0	33	46	27.4
11:00 AM	41	24	0	54	40	31.8
12:00 PM	37	17	0	48	30	26.4
1:00 PM	52	21	0	52	53	35.6
2:00 PM	33	16	0	49	57	31
3:00 PM	44	17	0	42	61	32.8
4:00 PM	38	9	0	54	50	30.2
5:00 PM	30	10	0	54	39	26.6
6:00 PM	16	7	0	28	24	15
7:00 PM	0	0	0	0	1	0.2
Total	411	190	0	512	519	326.4

March 12th - March 16th						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
6:00 AM	2	1	2	2	2	1.8
7:00 AM	12	5	19	18	14	13.6
8:00 AM	16	10	35	27	35	24.6
9:00 AM	17	16	26	35	33	25.4
10:00 AM	19	19	39	44	37	31.6
11:00 AM	26	35	24	37	45	33.4
12:00 PM	21	37	29	32	50	33.8
1:00 PM	26	42	28	23	53	34.4
2:00 PM	24	37	39	39	53	38.4
3:00 PM	25	55	50	44	50	44.8
4:00 PM	22	55	54	57	66	50.8
5:00 PM	26	53	40	44	74	47.4
6:00 PM	17	55	28	32	40	34.4
7:00 PM	0	0	0	0	0	0
Total	253	420	413	434	552	414.4

March 19th - March 23rd						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
6:00 AM	0	1	0	1	2	0.8
7:00 AM	16	5	0	0	23	8.8
8:00 AM	26	3	0	9	47	17
9:00 AM	21	2	0	7	38	13.6
10:00 AM	29	0	0	16	48	18.6
11:00 AM	26	0	0	19	62	21.4
12:00 PM	36	0	0	18	65	23.8

1:00 PM	33	0	0	25	55	22.6
2:00 PM	33	0	0	33	95	32.2
3:00 PM	26	0	0	41	107	34.8
4:00 PM	34	0	0	68	93	39
5:00 PM	23	0	0	63	79	33
6:00 PM	17	0	0	55	53	25
7:00 PM	0	0	0	0	0	0
Total	320	11	0	355	767	290.6

March 26th - March 30th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
6:00 AM	1	1	2	1	0	1
7:00 AM	18	12	3	3	0	7.2
8:00 AM	37	26	10	10	0	16.6
9:00 AM	55	23	4	17	0	19.8
10:00 AM	76	36	15	50	1	35.6
11:00 AM	82	34	10	48	54	45.6
12:00 PM	73	42	3	74	48	48
1:00 PM	76	24	7	62	3	34.4
2:00 PM	87	29	5	19	10	30
3:00 PM	88	14	2	0	29	26.6
4:00 PM	92	21	1	1	43	31.6
5:00 PM	90	14	0	0	26	26
6:00 PM	72	19	0	0	47	27.6
7:00 PM	0	0	0	0	0	0
Total	847	295	62	285	261	350

	Saturday 3/3	Saturday 3/10	Saturday 3/17	Saturday 3/24	Saturday 3/31	Average
6:00 AM	0	1	1	2	1	1
7:00 AM	0	20	10	27	27	16.8
8:00 AM	0	51	32	55	75	42.6
9:00 AM	21	71	57	75	81	61
10:00 AM	38	93	85	117	106	87.8
11:00 AM	56	96	83	116	115	93.2
12:00 PM	52	109	77	120	106	92.8
1:00 PM	58	100	61	110	104	86.6
2:00 PM	60	90	51	122	129	90.4
3:00 PM	53	90	47	110	110	82
4:00 PM	50	67	44	101	90	70.4
5:00 PM	42	58	28	104	79	62.2
6:00 PM	23	21	30	60	49	36.6
7:00 PM	1	1	0	2	0	0.8
Total	454	868	606	1121	1072	824.2

Gambrills Auto Spa

March 5th - March 9th						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	3	1	0	2	1	1.4
8:00 AM	18	4	1	33	34	18
9:00 AM	17	8	0	39	38	20.4
10:00 AM	27	7	0	26	38	19.6
11:00 AM	31	11	0	30	36	21.6
12:00 PM	26	12	1	31	36	21.2
1:00 PM	25	11	0	36	35	21.4
2:00 PM	21	4	0	28	35	17.6
3:00 PM	31	2	0	38	22	18.6
4:00 PM	26	0	0	38	31	19
5:00 PM	23	0	0	29	30	16.4
6:00 PM	13	0	0	14	9	7.2
Total	261	60	2	344	345	202.4

March 12th - March 16th						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	1	1	1	1	3	1.4
8:00 AM	8	6	11	12	25	12.4
9:00 AM	15	14	20	18	25	18.4
10:00 AM	8	26	23	20	30	21.4
11:00 AM	19	21	13	21	31	21
12:00 PM	17	22	19	22	42	24.4
1:00 PM	11	22	24	17	41	23
2:00 PM	12	27	24	22	49	26.8
3:00 PM	9	26	25	25	34	23.8
4:00 PM	8	26	27	20	38	23.8
5:00 PM	10	26	12	21	34	20.6
6:00 PM	4	26	8	15	31	16.8
Total	122	243	207	214	383	233.8

March 19th - March 23rd						
	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	1	0	0	0	2	0.6
8:00 AM	9	0	0	0	25	6.8
9:00 AM	22	0	0	1	38	12.2
10:00 AM	22	0	0	9	35	13.2
11:00 AM	16	0	0	12	38	13.2
12:00 PM	20	1	0	14	45	16
1:00 PM	17	0	0	16	44	15.4
2:00 PM	20	0	0	20	61	20.2
3:00 PM	20	0	0	21	54	19
4:00 PM	27	0	0	17	51	19
5:00 PM	17	0	0	24	38	15.8

6:00 PM	16	0	0	12	33	12.2
Total	207	1	0	146	464	163.6

March 26th - March 30th

	Monday	Tuesday	Wednesday	Thursday	Friday	Average
7:00 AM	1	1	0	1	1	0.8
8:00 AM	15	9	2	7	31	12.8
9:00 AM	30	20	11	16	30	21.4
10:00 AM	43	24	11	32	36	29.2
11:00 AM	39	16	23	26	42	29.2
12:00 PM	39	30	12	31	35	29.4
1:00 PM	42	16	13	35	26	26.4
2:00 PM	47	11	0	38	8	20.8
3:00 PM	40	0	0	47	12	19.8
4:00 PM	34	0	0	34	10	15.6
5:00 PM	31	0	0	58	3	18.4
6:00 PM	34	0	0	37	0	14.2
Total	395	127	72	362	234	238

	Saturday 3/3	Saturday 3/10	Saturday 3/17	Saturday 3/24	Saturday 3/31	Average
7:00 AM	4	2	2	0	1	1.8
8:00 AM	42	43	15	60	57	43.4
9:00 AM	57	50	49	63	75	58.8
10:00 AM	51	51	38	62	52	50.8
11:00 AM	45	49	41	63	54	50.4
12:00 PM	51	62	33	66	43	51
1:00 PM	54	59	30	72	59	54.8
2:00 PM	63	63	23	64	61	54.8
3:00 PM	55	57	0	63	71	49.2
4:00 PM	62	38	0	62	69	46.2
5:00 PM	41	35	0	47	62	37
6:00 PM	1	0	0	0	6	1.4
Total	526	509	231	622	610	499.6

APPENDIX F

Signal Warrant Analysis



2025 Existing Traffic - US 1 at Site Access							
	MAJOR	Minor - WB ^{2/}			Minor - EB ^{2/}		
Time	Total ^{1/}	L	T	R	L	T	R
6:00~7:00	1845	0	0	0	0	0	0
7:00~8:00	2266	0	0	0	0	0	0
8:00~9:00	2191	1	0	5	0	1	2
9:00~10:00	1602	0	0	0	0	0	0
10:00~11:00	1452	0	0	0	0	0	0
11:00~12:00	1541	0	0	0	0	0	0
12:00~13:00	1761	0	0	0	0	0	0
13:00~14:00	1609	0	0	0	0	0	0
14:00~15:00	1886	0	0	0	0	0	0
15:00~16:00	2179	0	0	0	0	0	0
16:00~17:00	2507	0	0	2	0	0	4
17:00~18:00	2579	0	1	6	1	0	3
18:00~19:00	1817	0	0	0	0	0	0

Note:

1. Traffic volume for US 1 obtained from SHA count conducted on 4/9/2024.
2. Traffic volumes for site access and Funeral Home Access obtained from TTG count conducted on 5/23/2024.



2028 Base Traffic - US 1 at Site Access							
	MAJOR	Minor - WB			Minor - EB		
Time	Total	L	T	R	L	T	R
6:00~7:00	1958	0	0	0	0	0	0
7:00~8:00	2405	0	0	0	0	0	0
8:00~9:00	2325	1	0	5	0	1	2
9:00~10:00	1700	0	0	0	0	0	0
10:00~11:00	1541	0	0	0	0	0	0
11:00~12:00	1635	0	0	0	0	0	0
12:00~13:00	1869	0	0	0	0	0	0
13:00~14:00	1707	0	0	0	0	0	0
14:00~15:00	2001	0	0	0	0	0	0
15:00~16:00	2312	0	0	0	0	0	0
16:00~17:00	2660	0	0	2	0	0	4
17:00~18:00	2737	0	1	6	1	0	3
18:00~19:00	1928	0	0	0	0	0	0

Note:

1. 2% annual traffic growth has been applied to all traffic volumes for 3 years.



Background Development - Corridor Square (20 Townhouses)							
	MAJOR	Minor - WB			Minor - EB		
Time	Total	L	T	R	L	T	R
6:00~7:00	1	2		2			
7:00~8:00	1	5		4			
8:00~9:00	2	4		3			
9:00~10:00	2	3		2			
10:00~11:00	2	2		1			
11:00~12:00	2	2		2			
12:00~13:00	2	2		2			
13:00~14:00	2	2		1			
14:00~15:00	2	2		2			
15:00~16:00	3	2		1			
16:00~17:00	4	2		2			
17:00~18:00	5	3		2			
18:00~19:00	4	3		2			

Note:

- There are totaling 13 background developments in the traffic study, 12 of them only adding traffic to US 1. US 1 (major roadway) traffic volumes already satisfy the criteria under existing volumes, therefore the background developments that only pass thru US 1 will not be included in this signal warrant analysis.



Refinery Apartment - 250 Mid-Rise Apartment							
	MAJOR	Minor - WB			Minor - EB		
Time	Total	L	T	R	L	T	R
6:00~7:00	4	18		13			
7:00~8:00	10	34		25			
8:00~9:00	12	29		22			
9:00~10:00	9	16		12			
10:00~11:00	11	10		8			
11:00~12:00	13	9		7			
12:00~13:00	18	11		8			
13:00~14:00	18	10		8			
14:00~15:00	16	8		6			
15:00~16:00	24	9		7			
16:00~17:00	37	12		9			
17:00~18:00	53	13		10			
18:00~19:00	48	14		10			

Note:

1. Refinery apartment already built on site and will use site access to US 1.



2028 Background Traffic - US 1 at Site Access							
	MAJOR	Minor - WB			Minor - EB		
Time	Total	L	T	R	L	T	R
6:00~7:00	1963	20	0	15	0	0	0
7:00~8:00	2416	39	0	29	0	0	0
8:00~9:00	2339	34	0	30	0	1	2
9:00~10:00	1711	19	0	14	0	0	0
10:00~11:00	1554	12	0	9	0	0	0
11:00~12:00	1650	11	0	9	0	0	0
12:00~13:00	1889	13	0	10	0	0	0
13:00~14:00	1727	12	0	9	0	0	0
14:00~15:00	2019	10	0	8	0	0	0
15:00~16:00	2339	11	0	8	0	0	0
16:00~17:00	2701	14	0	13	0	0	4
17:00~18:00	2795	16	1	18	1	0	3
18:00~19:00	1980	17	0	12	0	0	0



Diurnal Trip Percentage for Site								
	20 Townhomes ^{1/}		7.2 ksf Medical Office ^{1/}		6.2 ksf Convenience Store/Gas Station ^{1/}		Auto Spa ^{2/}	
Time	In %	Out %	In %	Out %	In %	Out %	In (trips)	Out (trips)
6:00~7:00	1.1%	5.8%	1.9%	0.5%	4.7%	4.5%	0	0
7:00~8:00	2.7%	13.2%	6.8%	1.0%	6.0%	5.9%	1	1
8:00~9:00	3.8%	9.3%	12.2%	5.9%	6.5%	6.4%	10	10
9:00~10:00	3.7%	6.9%	11.4%	9.1%	5.6%	5.7%	15	15
10:00~11:00	4.0%	4.3%	10.6%	10.0%	5.3%	5.3%	17	17
11:00~12:00	4.8%	5.7%	7.7%	10.4%	5.8%	5.7%	19	19
12:00~13:00	5.4%	5.1%	6.8%	8.2%	6.6%	6.6%	20	20
13:00~14:00	4.5%	4.8%	10.4%	7.6%	6.2%	5.9%	20	20
14:00~15:00	5.5%	6.0%	9.6%	9.9%	6.0%	6.2%	20	20
15:00~16:00	8.2%	4.8%	9.0%	10.1%	6.8%	6.8%	20	20
16:00~17:00	9.8%	5.1%	5.8%	10.1%	6.3%	6.5%	19	19
17:00~18:00	12.1%	6.8%	2.8%	8.3%	6.7%	6.9%	9	9
18:00~19:00	9.8%	6.6%	1.2%	3.6%	5.3%	5.4%	0	0

Note:

1. In/Out percentage obtained from ITE Trip Generation Manual 11th Edition, 2021.
2. Data obtained from average number for 5 Auto Spa facilities.



Time	Site Trips							
	Townhome ADT=144		Medical Office ADT=201		C Store/Gas Station ADT = 4343		Auto Spa	
	In	Out	In	Out	In	Out	In	Out
6:00~7:00	1	4	2	1	102	97	0	0
7:00~8:00	2	9	7	1	130	127	9	10
8:00~9:00	3	7	12	6	142	140	10	10
9:00~10:00	3	5	11	9	122	124	15	15
10:00~11:00	3	3	11	10	115	115	17	17
11:00~12:00	3	4	8	10	127	124	19	19
12:00~13:00	4	4	7	8	144	143	20	20
13:00~14:00	3	3	10	8	134	129	20	20
14:00~15:00	4	4	10	10	131	135	20	20
15:00~16:00	6	3	9	10	147	147	20	20
16:00~17:00	7	4	6	10	137	141	19	19
17:00~18:00	9	5	3	8	146	150	9	9
18:00~19:00	7	5	1	4	115	118	0	0



Trip Assignment for Site							
	MAJOR	Minor - WB			Minor - EB		
Time	Total	L	T	R	L	T	R
6:00~7:00	103	56		40			
7:00~8:00	142	88		58			
8:00~9:00	158	99		63			
9:00~10:00	142	93		59			
10:00~11:00	137	80		56			
11:00~12:00	150	86		60			
12:00~13:00	168	96		92			
13:00~14:00	159	88		84			
14:00~15:00	157	93		88			
15:00~16:00	173	100		94			
16:00~17:00	162	96		91			
17:00~18:00	161	95		92			
18:00~19:00	119	70		70			



MD 103 Cut-Thru Traffic Adjustment							
	MAJOR	Minor - WB			Minor - EB		
Time	Total	L	T	R	L	T	R
6:00~7:00	-109			109			
7:00~8:00	-129			129			
8:00~9:00	-134			134			
9:00~10:00	-54			54			
10:00~11:00	-63			63			
11:00~12:00	-73			73			
12:00~13:00	-77			77			
13:00~14:00	-69			69			
14:00~15:00	-93			93			
15:00~16:00	-125			125			
16:00~17:00	-146			146			
17:00~18:00	-111			111			
18:00~19:00	-91			91			

Note: Traffic adjustment based on SHA 2024 April count.



2028 Total Traffic - US 1 at Site Access							
	MAJOR	Minor - WB			Minor - EB		
Time	Total	L	T	R	L	T	R
6:00~7:00	1957	76	0	164	0	0	0
7:00~8:00	2429	127	0	216	0	0	0
8:00~9:00	2363	133	0	227	0	1	2
9:00~10:00	1799	112	0	127	0	0	0
10:00~11:00	1628	92	0	128	0	0	0
11:00~12:00	1727	97	0	142	0	0	0
12:00~13:00	1980	109	0	179	0	0	0
13:00~14:00	1817	100	0	162	0	0	0
14:00~15:00	2083	103	0	189	0	0	0
15:00~16:00	2387	111	0	227	0	0	0
16:00~17:00	2717	110	0	250	0	0	4
17:00~18:00	2845	111	1	221	1	0	3
18:00~19:00	2008	87	0	173	0	0	0



TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEET

INTERSECTION: US 1 at Site Access

MAJOR - 2 lane(s)

MINOR - 2 lane(s)

85% Speed is > 40 mph

=> speed factor = 0.7

TRAFFIC VOLUMES			WARRANT #1				WARRANT #2	WARRANT #3
			Condition A Vehicular		Condition B Interruption of Cont. Traf.		Combination of and B	
Time	MAJOR	MINOR	MAJOR	MINOR	80% x Condition A	80% x Condition B	see Figure 4C-2 of MUTCD	see Figure 4C-4 of MUTCD
	(420 VPH)	(140 VPH)	(630 VPH)	(70 VPH)	(336vph)&(112 vph)	(504vph)&(56 vph)		
7:00~8:00	1957	240	x	x	x	x	x	x
8:00~9:00	2429	343	x	x	x	x	x	x
9:00~10:00	2363	360	x	x	x	x	x	x
10:00~11:00	1799	239	x	x	x	x	x	x
11:00~12:00	1628	220	x	x	x	x	x	x
12:00~13:00	1727	239	x	x	x	x	x	x
13:00~14:00	1980	288	x	x	x	x	x	x
14:00~15:00	1817	262	x	x	x	x	x	x
15:00~16:00	2083	292	x	x	x	x	x	x
16:00~17:00	2387	338	x	x	x	x	x	x
17:00~18:00	2717	360	x	x	x	x	x	x
18:00~19:00	2845	333	x	x	x	x	x	x
<i>hours satisfied</i>			12		12		12	12

- > WARRANT #1-A (8 hours required) IS SATISFIED
- > WARRANT #1-B (8 hours required) IS SATISFIED
- > WARRANT #1-combination A + B (8 hours required) IS SATISFIED

- > WARRANT #2 (4 hours required) IS SATISFIED
- > WARRANT #3 (1 hour required) IS SATISFIED



RH, TSWA.xlsxWT, 4/17/2025

EXHIBIT 11
SIGNAL WARRANT ANALYSIS
US 1 AT SITE ACCESS FOR
2028 TOTAL TRAFFIC VOLUMES

TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEET

INTERSECTION: US 1 at Site Access

MAJOR - 2 lane(s)

MINOR - 1 lane(s)

85% Speed is > 40 mph

=> speed factor = 0.7

*** (LEFT LANE ONLY) ***

TRAFFIC VOLUMES			WARRANT #1				WARRANT #2	WARRANT #3		
			Condition A Minimum Vehicular		Condition B Interruption of Cont. Traf.		Combination of Conditions A and B		Four Hour Volumes	Peak Hour Volume
Time	MAJOR	MINOR	MAJOR (420 VPH)	MINOR (105 VPH)	MAJOR (630 VPH)	MINOR (53 VPH)	80% x Condition A (336vph)&(84 vph)	80% x Condition B (504vph)&(42 vph)	see Figure 4C-2 of MUTCD	see Figure 4C-4 of MUTCD
7:00~8:00	1957	76	x		x	x		x	x	x
8:00~9:00	2429	127	x	x	x	x	x	x	x	x
9:00~10:00	2363	133	x	x	x	x	x	x	x	x
10:00~11:00	1799	112	x	x	x	x	x	x	x	x
11:00~12:00	1628	92	x		x	x	x	x	x	x
12:00~13:00	1727	97	x		x	x	x	x	x	x
13:00~14:00	1980	109	x	x	x	x	x	x	x	x
14:00~15:00	1817	100	x		x	x	x	x	x	x
15:00~16:00	2083	103	x		x	x	x	x	x	x
16:00~17:00	2387	111	x	x	x	x	x	x	x	x
17:00~18:00	2717	110	x	x	x	x	x	x	x	x
18:00~19:00	2845	111	x	x	x	x	x	x	x	x
<i>hours satisfied</i>			7		12		11		12	12

- > WARRANT #1-A (8 hours required) IS NOT SATISFIED
- > WARRANT #1-B (8 hours required) IS SATISFIED
- > WARRANT #1-combination A + B (8 hours required) IS SATISFIED

- > WARRANT #2 (4 hours required) IS SATISFIED
- > WARRANT #3 (1 hour required) IS SATISFIED



RH,TSWA.xlsxWTL4/17/2025

EXHIBIT 12
SIGNAL WARRANT ANALYSIS
US 1 AT SITE ACCESS FOR
2028 TOTAL TRAFFIC VOLUMES (LEFT TURN VOLUME ONLY)



Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1998130161

County: Howard

Comments:

Date: 4/9/2024 12:00:00 AM

Town: none

Location: US 1 at MD 103

Weather: Warm, Dry

Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89

US 1

US 1

MD 103

MD 103

From North

From South

From East

From West

Begin Hour	U.Turn	Left	Through	Right	TOTAL	U.Turn	Left	Through	Right	TOTAL	U.Turn	Left	Through	Right	TOTAL	U.Turn	Left	Through	Right	TOTAL	GrandTotal
00:00:00	0	4	37	11	52	0	4	80	3	87	0	5	1	7	13	0	3	0	2	5	157
00:15:00	0	6	23	2	31	0	2	19	2	23	0	3	2	7	12	0	2	1	1	4	70
00:30:00	0	5	17	3	25	0	1	19	1	21	0	4	0	6	10	0	1	1	0	2	58
00:45:00	0	10	18	2	30	0	0	19	3	22	0	0	1	8	9	0	3	0	1	4	65
01:00:00	0	5	13	2	20	1	3	12	2	18	0	1	1	6	8	0	1	2	0	3	49
01:15:00	0	7	21	4	32	0	2	15	2	19	0	1	1	2	4	0	1	2	1	4	59
01:30:00	0	9	15	1	25	1	3	16	2	22	0	0	2	8	10	0	3	2	1	6	63
01:45:00	0	11	14	3	28	0	2	15	2	19	0	0	0	15	15	0	3	0	3	6	68
02:00:00	0	4	11	2	17	0	0	17	0	17	0	1	0	4	5	0	5	0	2	7	46
02:15:00	0	9	18	1	28	0	1	7	1	9	0	4	0	6	10	0	0	0	0	0	47
02:30:00	0	13	16	3	32	0	0	13	0	13	0	2	1	6	9	0	2	3	0	5	59
02:45:00	0	18	18	2	38	0	2	6	1	9	0	2	2	10	14	0	0	0	2	2	63
03:00:00	0	27	16	4	47	0	1	6	0	7	0	3	1	5	9	1	0	2	6	9	72
03:15:00	0	32	6	3	41	0	0	14	2	16	0	0	1	15	16	0	4	1	1	6	79
03:30:00	0	47	15	8	70	0	0	21	0	21	0	5	5	33	43	0	2	0	1	3	137
03:45:00	0	37	23	4	64	0	1	16	3	20	0	2	8	34	44	0	4	6	0	10	138
04:00:00	0	39	19	4	62	0	2	19	2	23	0	2	3	41	46	0	5	4	2	11	142
04:15:00	0	43	34	4	81	0	0	24	2	26	0	5	4	30	39	0	1	4	2	7	153
04:30:00	0	52	46	10	108	1	1	27	0	29	0	5	8	31	44	0	4	5	2	11	192
04:45:00	0	52	47	17	116	0	0	30	5	35	0	4	3	37	44	0	10	7	0	17	212
05:00:00	0	56	58	9	123	3	1	46	5	55	0	8	6	30	44	0	9	8	3	20	242
05:15:00	0	76	94	15	185	0	1	35	5	41	0	10	5	40	55	0	6	16	3	25	306
05:30:00	0	110	100	18	228	0	2	46	7	55	0	8	5	53	66	0	17	17	4	38	387
05:45:00	0	126	146	35	307	0	2	44	3	49	0	9	4	57	70	0	15	9	6	30	456
06:00:00	0	95	132	22	249	0	5	74	6	85	0	13	4	43	60	0	26	14	7	47	441
06:15:00	0	105	159	37	301	0	4	91	6	101	0	17	3	54	74	0	19	19	3	41	517
06:30:00	0	100	228	28	356	0	3	104	14	121	0	13	15	67	95	0	25	26	7	58	630
06:45:00	0	115	313	42	470	0	7	111	13	131	0	20	10	57	87	0	25	29	9	63	751
07:00:00	0	118	248	40	406	0	2	114	25	141	0	35	8	67	110	0	31	46	8	85	742
07:15:00	0	113	248	34	395	0	10	124	19	153	0	31	6	69	106	0	45	46	6	97	751
07:30:00	0	98	255	36	389	0	9	143	30	182	0	25	12	54	91	0	42	53	12	107	769
07:45:00	0	72	225	62	359	0	14	182	29	225	0	26	9	60	95	0	52	74	11	137	816
08:00:00	0	81	203	59	343	0	17	154	29	200	0	23	13	75	111	0	71	56	14	141	795
08:15:00	0	72	218	55	345	0	18	173	41	232	0	21	16	53	90	0	45	63	20	128	795
08:30:00	0	81	202	53	336	0	6	208	23	237	0	30	7	53	90	0	53	41	10	104	767
08:45:00	0	77	212	42	331	0	6	135	28	169	0	28	13	45	86	0	31	45	20	96	682
09:00:00	0	55	166	30	251	0	21	152	35	208	0	32	11	43	86	0	53	31	15	99	644
09:15:00	0	67	157	45	269	0	11	104	34	149	0	22	7	48	77	0	26	42	16	84	579



Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report

Station ID: S1998130161 County: Howard Comments:
Date: 4/9/2024 12:00:00 AM Town: none
Location: US 1 at MD 103 Weather: Warm, Dry
Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89

	US 1					US 1					MD 103					MD 103					
	From North					From South					From East					From West					
Time	0	68	145	32	245	0	2	103	18	123	0	35	13	55	103	0	40	27	17	84	555
09:30:00	0	68	145	32	245	0	2	103	18	123	0	35	13	55	103	0	40	27	17	84	555
09:45:00	0	76	130	26	232	0	5	79	9	93	0	19	6	58	83	0	21	20	11	52	460
10:00:00	0	70	135	28	233	0	9	112	28	149	0	34	10	52	96	0	34	17	11	62	540
10:15:00	0	67	109	17	193	0	8	121	19	148	0	16	12	77	105	0	37	11	7	55	501
10:30:00	0	57	129	27	213	0	11	126	21	158	0	37	12	53	102	0	17	16	10	43	516
10:45:00	0	60	112	26	198	0	6	107	25	138	0	20	13	82	115	0	34	18	14	66	517
11:00:00	0	63	152	26	241	0	11	124	19	154	0	36	14	69	119	0	25	12	14	51	565
11:15:00	0	61	125	30	216	0	11	111	19	141	0	28	12	90	130	0	36	16	8	60	547
11:30:00	0	50	122	30	202	0	6	154	26	186	0	32	18	77	127	0	23	18	6	47	562
11:45:00	0	43	135	29	207	0	7	127	19	153	0	25	12	96	133	0	34	18	10	62	555
12:00:00	0	55	152	30	237	0	7	149	26	182	0	45	23	86	154	0	21	14	11	46	619
12:15:00	0	57	132	36	225	0	15	145	27	187	0	33	28	67	128	0	44	30	10	84	624
12:30:00	0	52	155	28	235	0	11	167	23	201	0	39	21	84	144	0	31	31	9	71	651
12:45:00	0	54	131	28	213	0	12	187	26	225	0	39	11	72	122	0	32	28	17	77	637
13:00:00	0	58	137	26	221	0	10	154	22	186	0	19	19	88	126	0	30	15	13	58	591
13:15:00	0	49	143	26	218	0	14	141	20	175	0	24	16	81	121	0	31	31	27	89	603
13:30:00	0	50	129	27	206	0	21	155	23	199	0	32	24	68	124	0	22	20	18	60	589
13:45:00	0	72	130	21	223	0	13	121	25	159	0	27	23	66	116	0	36	17	10	63	561
14:00:00	0	46	158	33	237	0	8	204	25	237	0	25	22	102	149	0	43	22	11	76	699
14:15:00	0	38	131	41	210	0	12	151	29	192	0	27	25	111	163	0	53	28	14	95	660
14:30:00	0	51	177	41	269	0	8	218	23	249	0	33	18	95	146	0	56	27	8	91	755
14:45:00	0	44	157	45	246	0	20	199	29	248	0	25	26	91	142	0	52	17	9	78	714
15:00:00	0	34	160	35	229	0	16	221	31	268	0	26	27	128	181	0	59	21	7	87	765
15:15:00	0	42	166	24	232	0	20	267	39	326	0	31	30	110	171	0	41	13	15	69	798
15:30:00	0	48	214	42	304	0	27	285	28	340	0	25	26	126	177	0	54	21	9	84	905
15:45:00	0	50	149	33	232	0	19	257	31	307	0	25	29	88	142	0	45	18	14	77	758
16:00:00	0	43	208	37	288	0	20	267	25	312	0	36	42	136	214	0	55	22	17	94	908
16:15:00	0	60	199	50	309	0	8	279	35	322	0	39	48	141	228	0	66	20	12	98	957
16:30:00	0	47	166	41	254	0	21	298	25	344	0	42	41	126	209	0	83	23	11	117	924
16:45:00	0	59	201	56	316	1	16	287	33	337	0	35	45	104	184	0	67	23	17	107	944
17:00:00	0	61	224	34	319	0	30	265	22	317	0	47	45	146	238	0	59	26	10	95	969
17:15:00	0	49	236	43	328	0	22	264	41	327	0	49	47	106	202	0	57	20	13	90	947
17:30:00	0	67	222	66	355	0	17	231	31	279	0	32	47	101	180	0	57	30	9	96	910
17:45:00	0	74	242	51	367	0	19	234	29	282	0	40	34	99	173	0	46	28	16	90	912
18:00:00	0	54	211	44	309	0	21	134	23	178	0	27	30	67	124	0	54	22	7	83	694
18:15:00	0	44	166	41	251	0	13	173	25	211	0	31	29	79	139	0	47	33	9	89	690
18:30:00	0	55	151	28	234	0	16	168	25	209	0	28	23	73	124	0	47	23	7	77	644
18:45:00	0	60	159	51	270	0	10	130	28	168	0	23	14	74	111	0	41	17	16	74	623
19:00:00	0	52	145	39	236	0	13	131	12	156	0	26	19	58	103	0	35	17	11	63	558
19:15:00	0	28	131	42	201	0	11	119	19	149	0	30	13	55	98	0	44	19	16	79	527



Maryland Department of Transportation
 State Highway Administration
 Data Services Division
 Turning Movement Summary Report

Station ID: S1998130161

County: Howard

Comments:

Date: 4/9/2024 12:00:00 AM

Town: none

Location: US 1 at MD 103

Weather: Warm, Dry

Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89

US 1

US 1

MD 103

MD 103

From North

From South

From East

From West

19:30:00	1	43	140	29	213	0	15	112	13	140	0	18	9	32	59	0	36	14	15	65	477
19:45:00	0	36	118	26	180	0	6	90	17	113	0	14	8	30	52	0	33	10	5	48	393
20:00:00	0	40	89	24	153	0	5	80	7	92	0	20	13	36	69	0	34	8	17	59	373
20:15:00	0	24	95	19	138	0	4	80	14	98	0	17	11	40	68	0	16	12	8	36	340
20:30:00	0	43	97	19	159	0	6	88	12	106	0	16	5	37	58	0	28	6	8	42	365
20:45:00	0	49	62	21	132	0	11	99	10	120	0	8	5	33	46	0	9	9	7	25	323
21:00:00	0	39	85	17	141	0	4	74	13	91	0	8	5	34	47	0	18	5	2	25	304
21:15:00	0	32	84	13	129	0	4	65	7	76	0	12	4	13	29	0	8	7	9	24	258
21:30:00	0	32	74	27	133	0	9	69	10	88	0	12	5	18	35	0	17	5	4	26	282
21:45:00	0	19	65	11	95	0	3	72	6	81	0	14	5	31	50	0	15	5	9	29	255
22:00:00	0	25	61	11	97	0	4	69	12	85	0	12	7	33	52	0	16	4	5	25	259
22:15:00	0	19	51	17	87	0	6	55	5	66	0	9	8	17	34	0	8	1	1	10	197
22:30:00	0	27	49	10	86	0	3	59	4	66	0	4	8	25	37	0	4	8	5	17	206
22:45:00	0	20	48	11	79	0	2	39	4	45	0	6	3	15	24	0	5	0	3	8	156
23:00:00	0	8	42	14	64	0	4	54	5	63	0	5	5	24	34	0	5	3	5	13	174
23:15:00	0	6	34	10	50	0	2	39	2	43	0	3	3	11	17	0	9	4	1	14	124
23:30:00	0	15	30	3	48	0	2	32	2	36	0	4	3	11	18	0	10	4	1	15	117
23:45:00	0	7	27	6	40	0	1	17	6	24	0	6	5	10	21	0	12	3	5	20	105
TOTAL	1	4699	11418	2450	18568	7	801	10793	1537	13138	0	1850	1277	5266	8393	1	2637	1632	792	5062	45161
AMPEAK	0	323	901	212	1436	0	58	652	129	839	0	95	50	242	387	0	210	246	57	513	3175
PMPEAK	0	227	790	181	1198	1	75	1129	115	1320	0	163	179	517	859	0	275	92	50	417	3794
DAYPEAK	0	227	790	181	1198	1	75	1129	115	1320	0	163	179	517	859	0	275	92	50	417	3794



Maryland Department of Transportation
 State Highway Administration
 Data Services Division
 Turning Movement Summary Report

Station ID: S1998130161

County: Howard

Comments:

Date: 4/9/2024 12:00:00 AM

Town: none

Location: US 1 at MD 103

Weather: Warm, Dry

Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89

US 1

US 1

MD 103

MD 103

From North

From South

From East

From West

Begin Hour	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
00:00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15:00	0	0	0	0	0	0	0	0	0	0	0	0
00:30:00	0	0	0	0	0	0	0	0	0	0	0	0
00:45:00	0	0	0	0	0	0	0	0	0	0	0	0
01:00:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15:00	0	0	0	0	0	0	0	0	0	0	0	0
01:30:00	0	0	0	0	0	0	0	0	0	0	0	0
01:45:00	0	0	0	0	0	0	0	0	0	0	0	0
02:00:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15:00	0	0	0	0	0	0	0	0	0	0	0	0
02:30:00	0	0	0	0	0	0	0	0	0	0	0	0
02:45:00	0	0	0	0	0	0	0	0	0	0	0	0
03:00:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15:00	0	0	0	0	0	0	0	0	0	0	0	0
03:30:00	0	0	0	0	0	0	0	0	0	0	0	0
03:45:00	0	0	0	0	0	0	0	0	0	0	0	0
04:00:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15:00	0	0	0	0	0	0	0	0	0	0	0	0
04:30:00	0	0	0	0	0	0	0	0	0	0	1	0
04:45:00	0	0	0	0	0	0	0	0	0	0	0	0
05:00:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15:00	0	0	0	0	0	0	0	0	0	0	0	0
05:30:00	0	0	0	0	0	0	0	0	0	0	0	0
05:45:00	0	0	0	0	0	1	0	0	0	0	0	0
06:00:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15:00	0	0	0	0	0	0	0	0	0	0	0	0
06:30:00	0	0	0	0	2	0	0	0	0	0	0	0
06:45:00	0	0	0	0	1	0	0	0	0	0	0	0
07:00:00	0	0	0	0	0	0	0	0	0	0	0	0
07:15:00	0	0	0	0	0	0	0	0	0	0	0	0
07:30:00	0	0	0	0	1	0	0	0	0	0	0	0
07:45:00	0	0	0	0	0	0	0	1	0	0	0	0
08:00:00	0	0	0	0	0	0	0	0	0	0	0	0
08:15:00	0	0	0	0	0	1	0	0	0	0	0	0
08:30:00	0	0	0	0	0	0	0	0	0	0	0	0
08:45:00	0	0	0	0	1	0	0	0	0	0	0	0
09:00:00	0	0	0	0	0	0	0	0	0	0	0	0
09:15:00	0	0	0	0	0	0	0	0	0	0	1	0



Maryland Department of Transportation
 State Highway Administration
 Data Services Division
 Turning Movement Summary Report

Station ID: S1998130161

County: Howard

Comments:

Date: 4/9/2024 12:00:00 AM

Town: none

Location: US 1 at MD 103

Weather: Warm, Dry

Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89

US 1

US 1

MD 103

MD 103

From North

From South

From East

From West

Begin Hour	From North			From South			From East			From West		
	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
09:30:00	0	0	0	0	1	0	0	0	0	0	0	0
09:45:00	0	0	0	0	1	0	0	0	0	0	0	0
10:00:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	0	0	0	0	0	0	0	0	0	0	0	0
10:30:00	0	0	0	0	0	0	0	0	0	0	0	0
10:45:00	0	0	0	0	0	0	0	0	0	0	0	0
11:00:00	0	0	0	0	0	0	0	0	0	0	0	0
11:15:00	0	0	0	0	0	0	0	0	0	0	0	0
11:30:00	0	0	0	0	0	0	0	1	0	0	0	0
11:45:00	0	0	0	0	0	0	0	0	0	0	0	0
12:00:00	0	0	0	0	1	0	0	0	0	0	0	0
12:15:00	0	0	0	0	0	0	0	0	0	0	0	0
12:30:00	0	0	0	0	0	0	0	0	0	0	0	0
12:45:00	0	0	0	0	0	0	0	0	0	0	0	0
13:00:00	0	0	0	0	2	0	0	0	0	0	0	0
13:15:00	0	0	0	0	0	0	0	0	0	0	0	0
13:30:00	0	0	0	0	1	0	0	0	0	0	0	0
13:45:00	0	0	0	0	2	0	0	0	0	0	0	0
14:00:00	0	0	0	0	0	0	0	0	0	0	0	0
14:15:00	0	0	0	0	0	0	0	0	0	0	0	0
14:30:00	0	0	0	0	1	0	0	0	0	0	0	0
14:45:00	0	0	0	0	0	1	0	0	0	0	0	0
15:00:00	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	0	0	1	1	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	1	0
15:45:00	0	0	0	0	0	0	0	0	1	0	0	0
16:00:00	0	0	0	0	0	1	0	0	0	0	0	0
16:15:00	0	0	0	0	1	0	0	0	0	0	1	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	1	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	1	0
17:30:00	0	0	0	0	2	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	5	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0
18:30:00	0	0	0	0	0	0	0	0	0	0	0	0
18:45:00	0	0	0	0	0	0	0	0	0	0	0	0



Maryland Department of Transportation
 State Highway Administration
 Data Services Division
 Turning Movement Summary Report

Station ID: S1998130161 County: Howard Comments:
 Date: 4/9/2024 12:00:00 AM Town: none
 Location: US 1 at MD 103 Weather: Warm, Dry
 Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89

US 1

US 1

MD 103

MD 103

From North

From South

From East

From West

Begin Hour	From North			From South			From East			From West		
	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
19:00:00	0	0	2	0	0	0	0	0	0	0	0	0
19:15:00	0	0	0	0	0	0	0	0	0	0	2	0
19:30:00	0	0	0	0	1	0	0	2	0	0	0	0
19:45:00	0	0	1	0	0	0	0	0	0	0	0	0
20:00:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15:00	0	0	0	0	0	0	0	0	0	0	0	0
20:30:00	0	0	0	0	1	0	0	0	0	0	1	0
20:45:00	0	0	0	0	0	0	0	0	0	0	0	0
21:00:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15:00	0	0	0	0	0	0	0	0	0	0	0	0
21:30:00	0	0	0	0	0	0	0	0	0	0	0	0
21:45:00	0	0	0	0	0	0	0	0	0	0	0	0
22:00:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15:00	0	0	0	0	0	0	0	0	0	0	0	0
22:30:00	0	0	0	0	0	0	0	0	0	0	0	0
22:45:00	0	0	0	0	0	0	0	0	0	0	0	0
23:00:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15:00	0	0	0	0	0	0	0	0	0	0	0	0
23:30:00	0	0	0	0	0	0	0	0	0	0	0	0
23:45:00	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	3	0	20	10	0	3	3	0	8	0
AMPEAK	0	0	0	0	1	1	0	0	1	0	0	0
PMPEAK	0	0	0	0	1	0	0	0	1	0	1	0
DAYPEAK	0	0	0	0	1	0	0	0	1	0	1	0



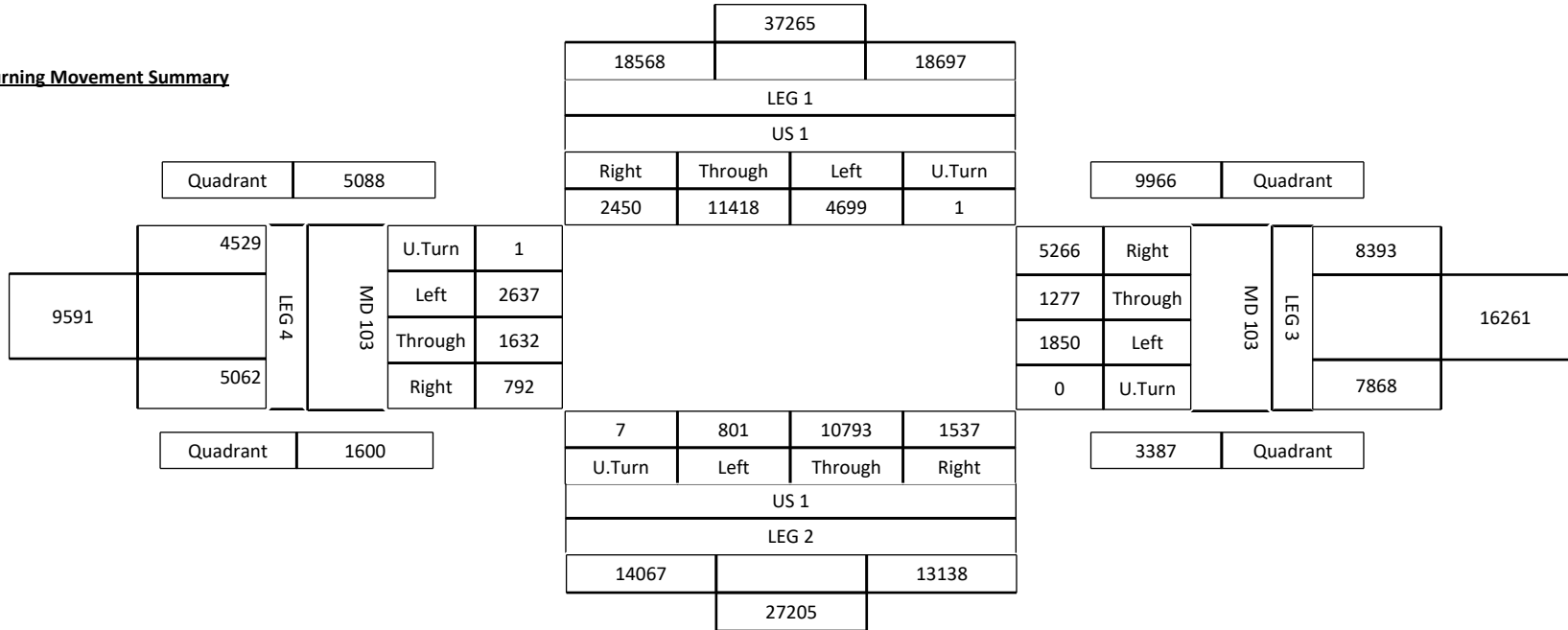
Maryland Department of Transportation
 State Highway Administration
 Data Services Division
 Turning Movement Summary Report

Station ID: S1998130161 County: Howard Comments:
 Date: 4/9/2024 12:00:00 AM Town: none
 Location: US 1 at MD 103 Weather: Warm, Dry
 Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89



Turning Movement Summary





Maryland Department of Transportation
 State Highway Administration
 Data Services Division
 Turning Movement Summary Report

Station ID: S1998130161

County: Howard

Comments:

Date: 4/9/2024 12:00:00 AM

Town: none

Location: US 1 at MD 103

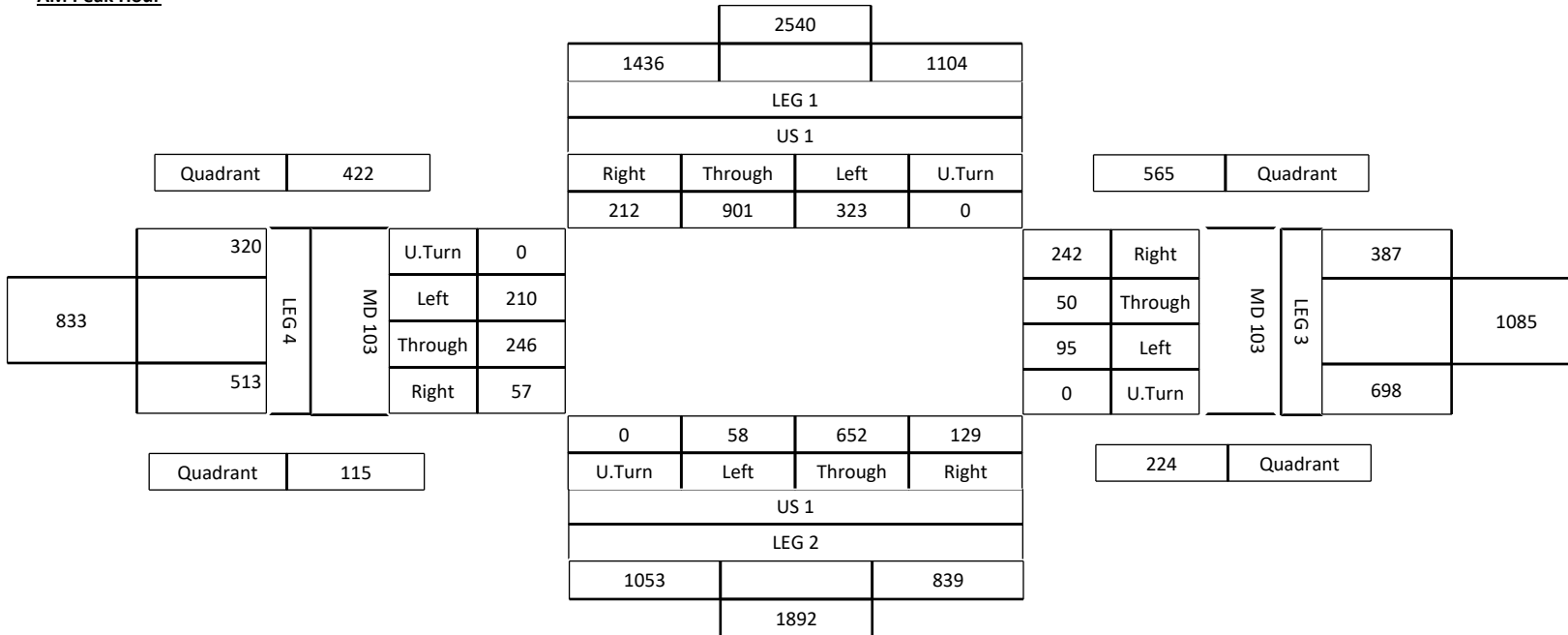
Weather: Warm, Dry

Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89



AM Peak Hour





Maryland Department of Transportation
 State Highway Administration
 Data Services Division
 Turning Movement Summary Report

Station ID: S1998130161

County: Howard

Comments:

Date: 4/9/2024 12:00:00 AM

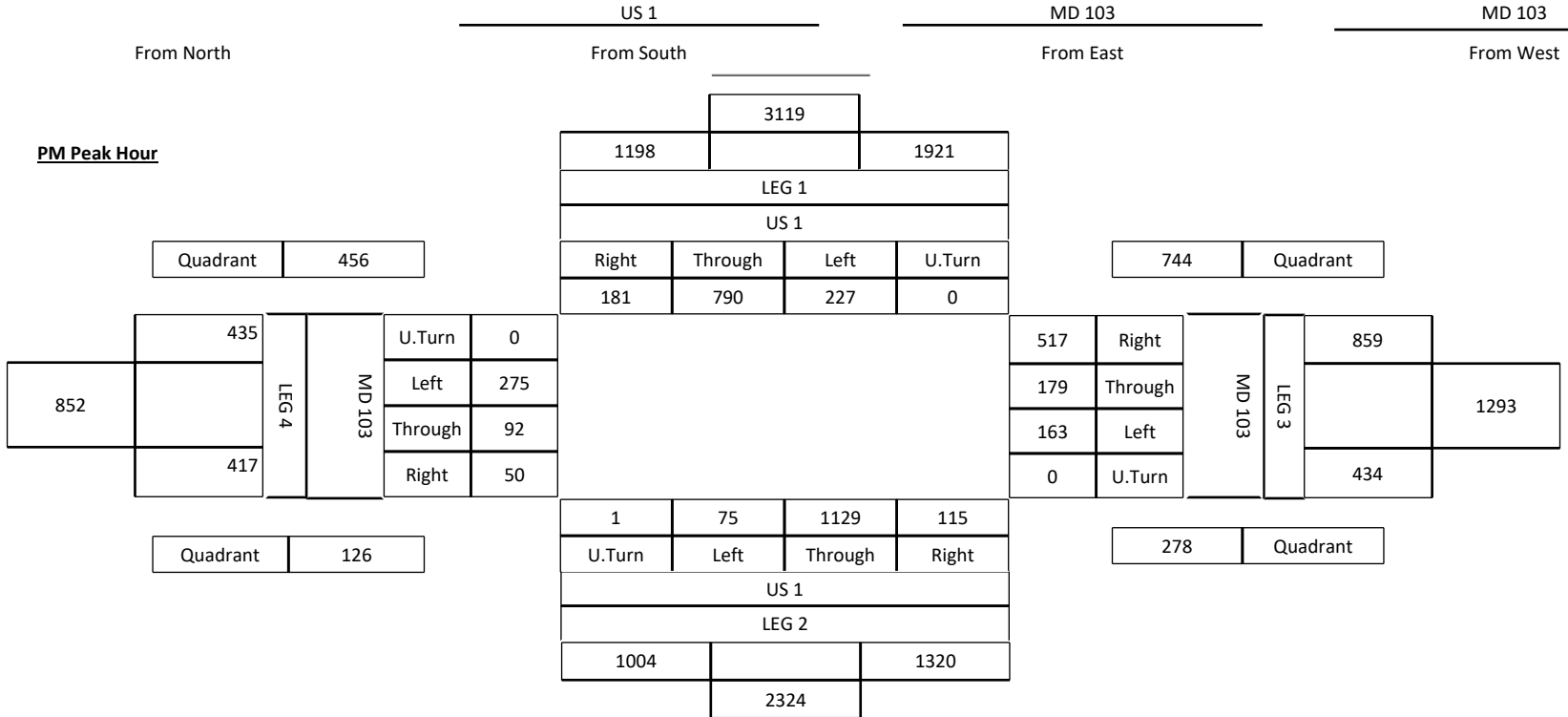
Town: none

Location: US 1 at MD 103

Weather: Warm, Dry

Interval: 60 Min

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:30	08:15	3175	B	0.71	12:00PM-19:00PM	16:15	17:00	3794	D	0.89





Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report

Location ID: B2578
Location: MD103-.10 MI S OF US1
County: Howard
Date Range: 04/30/2024 to 05/01/2024

Week Of: 04/28/2024 Direction:NorthBound

Begin Hour	04/28 Sun	04/29 Mon	04/30 Tue	05/01 Wed	05/02 Thu	05/03 Fri	05/04 Sat	DAILY AVG	WEEKDAY AVG	WEEKEND AVG
0:00	0	0	26	25	0	0	0	26	26	0
1:00	0	0	27	38	0	0	0	33	33	0
2:00	0	0	35	35	0	0	0	35	35	0
3:00	0	0	115	98	0	0	0	107	107	0
4:00	0	0	154	148	0	0	0	151	151	0
5:00	0	0	219	215	0	0	0	217	217	0
6:00	0	0	315	328	0	0	0	322	322	0
7:00	0	0	391	366	0	0	0	379	379	0
8:00	0	0	349	438	0	0	0	394	394	0
9:00	0	0	338	300	0	0	0	319	319	0
10:00	0	0	333	411	0	0	0	372	372	0
11:00	0	0	380	482	0	0	0	431	431	0
12:00	0	0	450	453	0	0	0	452	452	0
13:00	0	0	410	405	0	0	0	408	408	0
14:00	0	0	515	519	0	0	0	517	517	0
15:00	0	0	635	610	0	0	0	623	623	0
16:00	0	0	740	717	0	0	0	729	729	0
17:00	0	0	553	557	0	0	0	555	555	0
18:00	0	0	418	493	0	0	0	456	456	0
19:00	0	0	282	348	0	0	0	315	315	0
20:00	0	0	193	245	0	0	0	219	219	0
21:00	0	0	173	125	0	0	0	149	149	0
22:00	0	0	95	118	0	0	0	107	107	0
23:00	0	0	59	96	0	0	0	78	78	0
TOTAL	0	0	7,205	7,570	0	0	0	7,388	7,388	0
AM Peak Hour	0:00	0:00	12:00	11:00	0:00	0:00	0:00			
6PM-12PM Volume	0	0	450	482	0	0	0			
PM Peak Hour	0:00	0:00	16:00	16:00	0:00	0:00	0:00			
PM Peak Volume	0	0	740	717	0	0	0			



Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report

Location ID: B2578
Location: MD103-.10 MI S OF US1
County: Howard
Date Range: 04/30/2024 to 05/01/2024

Week Of: 04/28/2024 Direction:SouthBound

Begin Hour	04/28 Sun	04/29 Mon	04/30 Tue	05/01 Wed	05/02 Thu	05/03 Fri	05/04 Sat	DAILY AVG	WEEKDAY AVG	WEEKEND AVG
0:00	0	0	32	42	0	0	0	37	37	0
1:00	0	0	51	47	0	0	0	49	49	0
2:00	0	0	63	50	0	0	0	57	57	0
3:00	0	0	141	147	0	0	0	144	144	0
4:00	0	0	193	200	0	0	0	197	197	0
5:00	0	0	392	401	0	0	0	397	397	0
6:00	0	0	518	480	0	0	0	499	499	0
7:00	0	0	542	678	0	0	0	610	610	0
8:00	0	0	536	526	0	0	0	531	531	0
9:00	0	0	358	444	0	0	0	401	401	0
10:00	0	0	369	252	0	0	0	311	311	0
11:00	0	0	416	358	0	0	0	387	387	0
12:00	0	0	405	430	0	0	0	418	418	0
13:00	0	0	407	404	0	0	0	406	406	0
14:00	0	0	336	390	0	0	0	363	363	0
15:00	0	0	428	426	0	0	0	427	427	0
16:00	0	0	467	468	0	0	0	468	468	0
17:00	0	0	513	507	0	0	0	510	510	0
18:00	0	0	361	220	0	0	0	291	291	0
19:00	0	0	237	209	0	0	0	223	223	0
20:00	0	0	234	180	0	0	0	207	207	0
21:00	0	0	162	164	0	0	0	163	163	0
22:00	0	0	95	147	0	0	0	121	121	0
23:00	0	0	66	63	0	0	0	65	65	0
TOTAL	0	0	7,322	7,233	0	0	0	7,278	7,278	0
AM Peak Hour	0:00	0:00	7:00	7:00	0:00	0:00	0:00			
6PM-12PM Volume	0	0	542	678	0	0	0			
PM Peak Hour	0:00	0:00	17:00	17:00	0:00	0:00	0:00			
PM Peak Volume	0	0	513	507	0	0	0			



Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report

Location ID: B2578

Location: MD103-.10 MI S OF US1

County: Howard

Date Range: 04/30/2024 to 05/01/2024

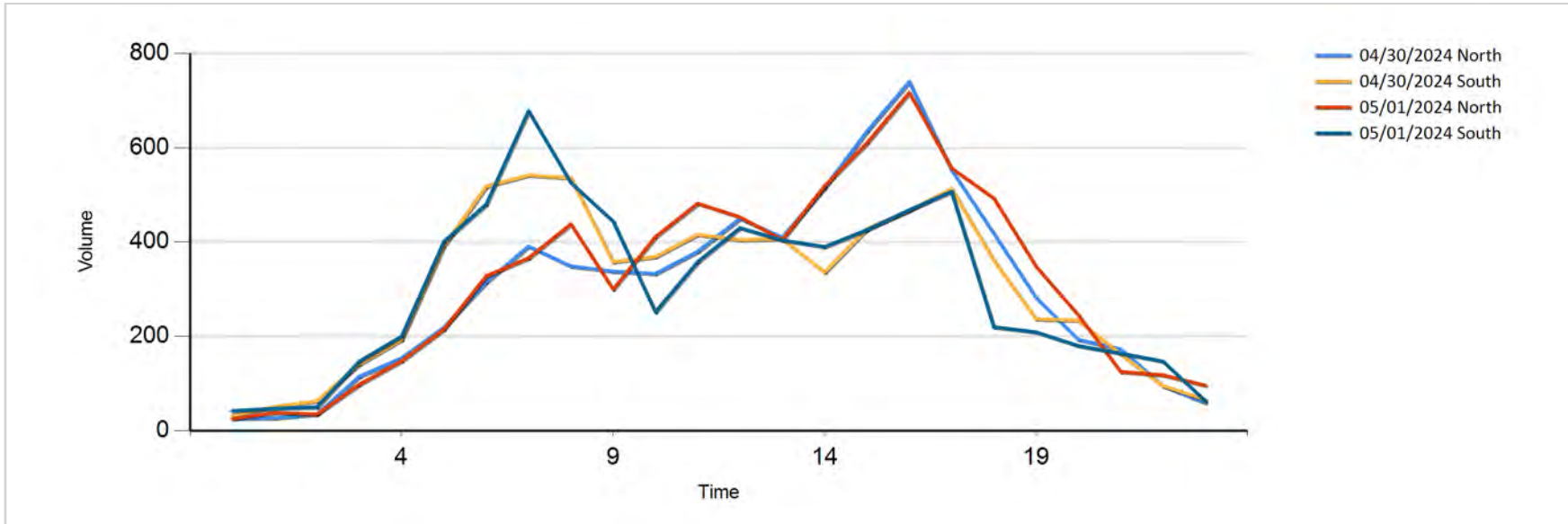
*** Summary Of Total Report ***

Begin Hour	SUN	MON	TUE	WED	THU	FRI	SAT	DAILY AVG	WEEKDAY AVG	WEEKEND AVG
0:00	0	0	58	67	0	0	0	63	63	0
1:00	0	0	78	85	0	0	0	82	82	0
2:00	0	0	98	85	0	0	0	92	92	0
3:00	0	0	256	245	0	0	0	251	251	0
4:00	0	0	347	348	0	0	0	348	348	0
5:00	0	0	611	616	0	0	0	614	614	0
6:00	0	0	833	808	0	0	0	821	821	0
7:00	0	0	933	1,044	0	0	0	989	989	0
8:00	0	0	885	964	0	0	0	925	925	0
9:00	0	0	696	744	0	0	0	720	720	0
10:00	0	0	702	663	0	0	0	683	683	0
11:00	0	0	796	840	0	0	0	818	818	0
12:00	0	0	855	883	0	0	0	869	869	0
13:00	0	0	817	809	0	0	0	813	813	0
14:00	0	0	851	909	0	0	0	880	880	0
15:00	0	0	1,063	1,036	0	0	0	1,050	1,050	0
16:00	0	0	1,207	1,185	0	0	0	1,196	1,196	0
17:00	0	0	1,066	1,064	0	0	0	1,065	1,065	0
18:00	0	0	779	713	0	0	0	746	746	0
19:00	0	0	519	557	0	0	0	538	538	0
20:00	0	0	427	425	0	0	0	426	426	0
21:00	0	0	335	289	0	0	0	312	312	0
22:00	0	0	190	265	0	0	0	228	228	0
23:00	0	0	125	159	0	0	0	142	142	0
TOTAL	0	0	14,527	14,803	0	0	0	14,665	14,665	0
AM Peak Hour	0:00	0:00	7:00	7:00	0:00	0:00	0:00			
6PM-12PM Volume	0	0	933	1,044	0	0	0			
PM Peak Hour	0:00	0:00	16:00	16:00	0:00	0:00	0:00			
PM Peak Volume	0	0	1,207	1,185	0	0	0			



Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report

Location ID: B2578
Location: MD103-.10 MI S OF US1
County: Howard
Date Range: 04/30/2024 to 05/01/2024



Maryland Crash Data Download

2019-2023 data



Learn to use the tool

Crash Date Begin
1/1/2021

County of Crash
Howard

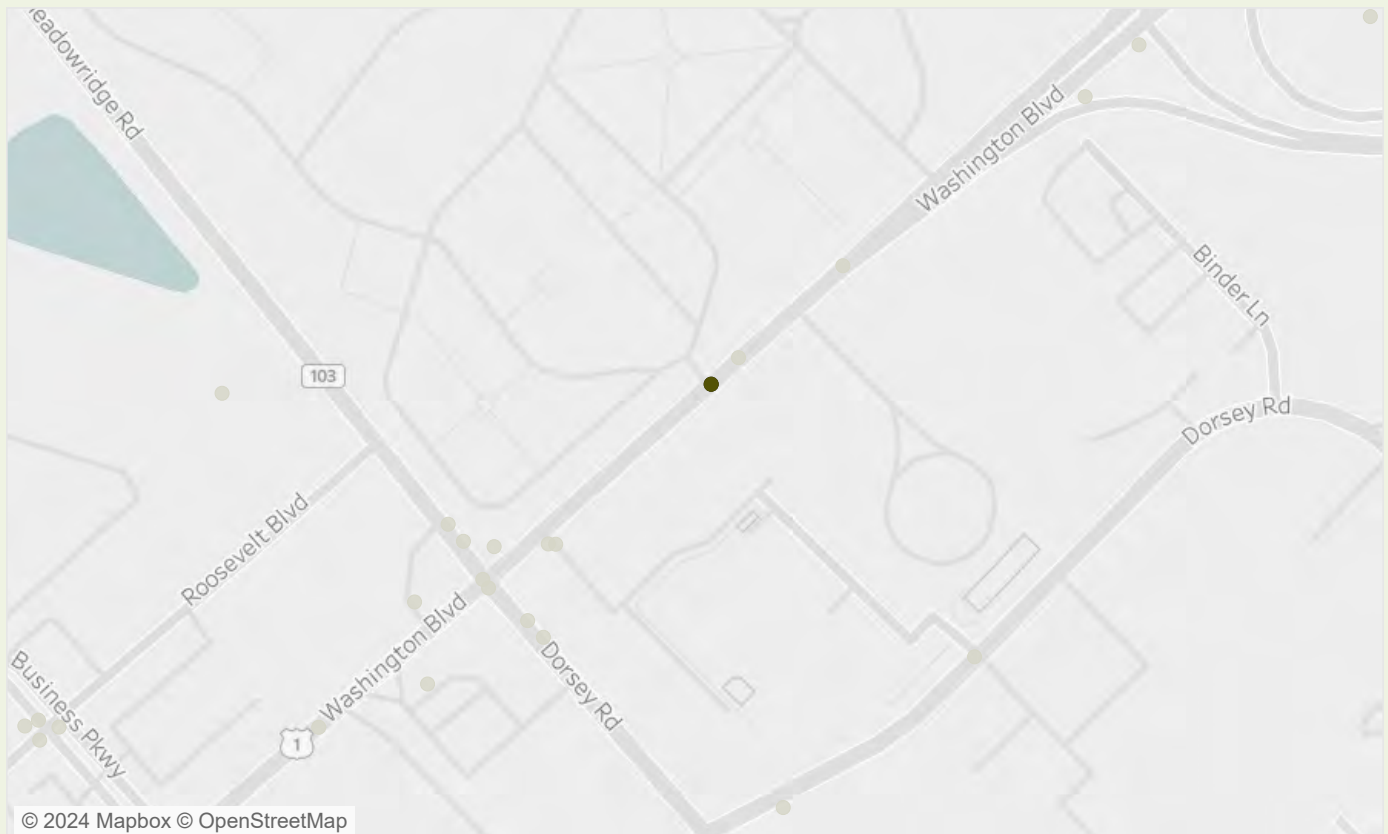
Crash Date End
12/31/2021

Type of Report
All

Number of Crash Reports
Data Updated: 8/10/2024 11:03:15 PM

Agency who Submitted Report
All

1



Available data to download is compiled from police crash reports **approved** and submitted to the Maryland Department of State Police (MDSP) through the Automated Crash Reporting System (ACRS) and is subject to change.

Crash locations reflect the approximate locations of the incident based on longitudinal and latitudinal information provided by the officer through ACRS. Certain crashes may not appear on maps if there is insufficient detail to establish a specific, mappable location. Coordinates may not represent the location of the crash due to officer entry. Roadway data is provided within the report data.

MDSP make no representations or warranties expressed or implied, with respect to the reuse of the data provided herewith regardless of its format or the means of its transmission. There is no guarantee or representation to the user as to the accuracy, currency, suitability, or reliability of this data for any purpose. The user accepts the data "as is." Data is updated daily.

Maryland Crash Data Download

2019-2023 data



Learn to use the tool

Crash Date Begin
1/1/2023

County of Crash
Howard

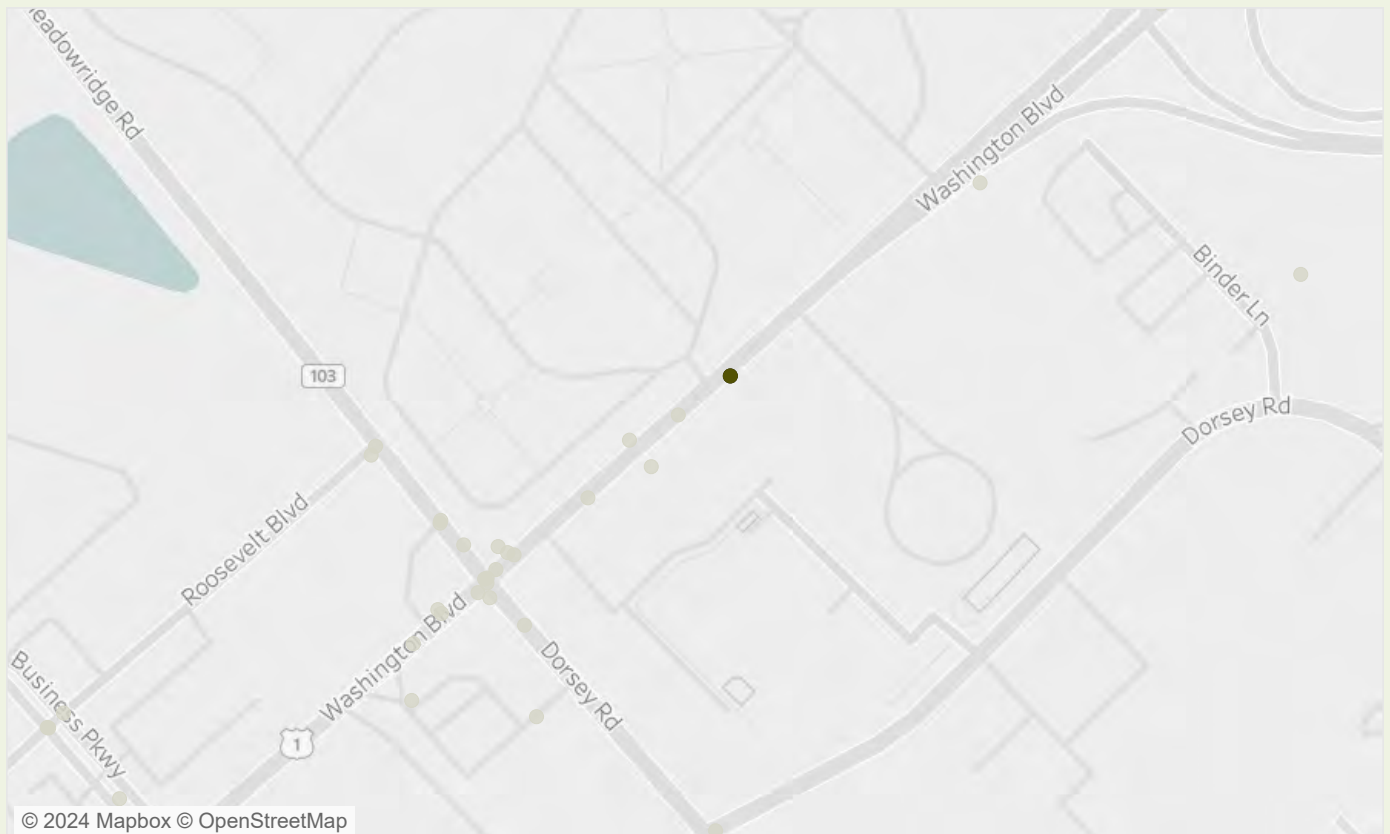
Crash Date End
12/31/2023

Type of Report
All

Number of Crash Reports
Data Updated: 8/10/2024 11:03:15 PM

Agency who Submitted Report
All

1



Available data to download is compiled from police crash reports **approved** and submitted to the Maryland Department of State Police (MDSP) through the Automated Crash Reporting System (ACRS) and is subject to change.

Crash locations reflect the approximate locations of the incident based on longitudinal and latitudinal information provided by the officer through ACRS. Certain crashes may not appear on maps if there is insufficient detail to establish a specific, mappable location. Coordinates may not represent the location of the crash due to officer entry. Roadway data is provided within the report data.

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APPENDIX G

Multimodal Transportation Study Checklist and Supporting Maps Safety Information



MULTIMODAL TRANSPORTATION STUDIES

This form and the resources embedded herein are intended to aid applicants in completing the Multimodal Transportation Study.

I. BACKGROUND

The Howard County Design Manual was updated in February 2022 to incorporate the Howard County Complete Streets Policy. A Multimodal Transportation Study (MTS) is to be completed by the applicant as detailed in the [Howard County Design Manual Volume III](#), Chapter 5 page 5-10 which states: "For development projects in proximity of a county school, county park, county library, or other specified location, a multimodal transportation study will be submitted to DPZ along with the first submission of the Sketch, Preliminary Equivalent Sketch, or Site Development Plan."

Note: The applicant may also be required to complete a level of service study for motor vehicle traffic, a safety evaluation, a parking/access study, and/or a noise study at the discretion of the Department of Public Works in consultation with the Office of Transportation. In addition, all qualifying development projects are required to conduct an Adequate Road Facilities Test Evaluation as outlined in Chapter 4. Those requirements are not fulfilled by the completion of this form.

II. STEPS

Y/N

A. Does your project generate more than 5 peak hour trips?

If no, this form is complete. Please sign page 2 to certify that your project is exempt from submitting a MTS.

B. Is your project located within the below distances to any of the destinations listed in Table 1?

Please use this [interactive map](#) to identify if any of the below destinations are within a designated radius of the proposed development, and select yes or no for each destination.

If none, this form is complete. Please sign page 2 to certify that your project is exempt from submitting a MTS.

Table 1: Destinations and distances requiring multimodal transportation studies

Destination	Distance
Howard County Public School (Elementary or Middle School)	1 mile
Howard County Public School (High School)	1.5 miles
Howard County Public Library	0.5 miles
Howard County Park	0.5 miles
Transit Oriented Development	0.5 miles
US Route 40 from the Patapsco River to the interchange with Interstate 70	0.5 miles
Main Street in Ellicott City from the Patapsco River to Rogers Avenue	0.5 miles
Main Street in Elkrigde from US Route 1 to Washington Boulevard	0.5 miles

If you selected yes for any of the above destinations, please list them below:

Troy Park at Elkrigde

The site is designated as a TOD

C. **For each of the destinations within the specified distance of your development, provide a map showing a pedestrian and bicycle connection between the development and the destination.** Note: Developers are just required to show these connections, *not* build them.

- The pedestrian connection identified must be suitable for an elementary school aged child, e.g. sidewalks or a 10' wide shared use path *with* designated street crossings. The map should clearly note whether each segment of the pedestrian facility is existing or proposed.
- The bicycle connection must be Bicycle Level of Traffic Stress 1 (LTS1). LTS guidance is provided on pages 5-11 and 5-12 of [Volume III of the Design Manual](#). The map should clearly note and whether each segment of the bicycle facility is existing or proposed. The bicycle connection may take advantage of existing LTS1 streets or separated bicycle routes (shared use paths), which should be designated as "existing." Connections along any existing LTS2-4 streets or through undeveloped land used should be designated as "proposed." The bicycle connection should have no gaps in LTS1 connectivity between the development and destination. This [interactive map](#) shows the existing LTS for every street in Maryland and existing Separated Bicycle Routes.
- Note that a continuous 10' wide shared use path fulfills both pedestrian and bicycle connectivity requirements.
- An [example of a Multimodal Transportation Study](#) is provided on the Office of Transportation website.
- For questions on Multimodal Transportation Studies, contact the Howard County Office of Transportation, transportation@howardcountymd.gov, 410-313-4312

Click Here to Insert Map (add additional maps as separate pages)

I answered no to question A or B, and as result, am not required to submit a Multimodal Transportation Study.

Name Signature Date

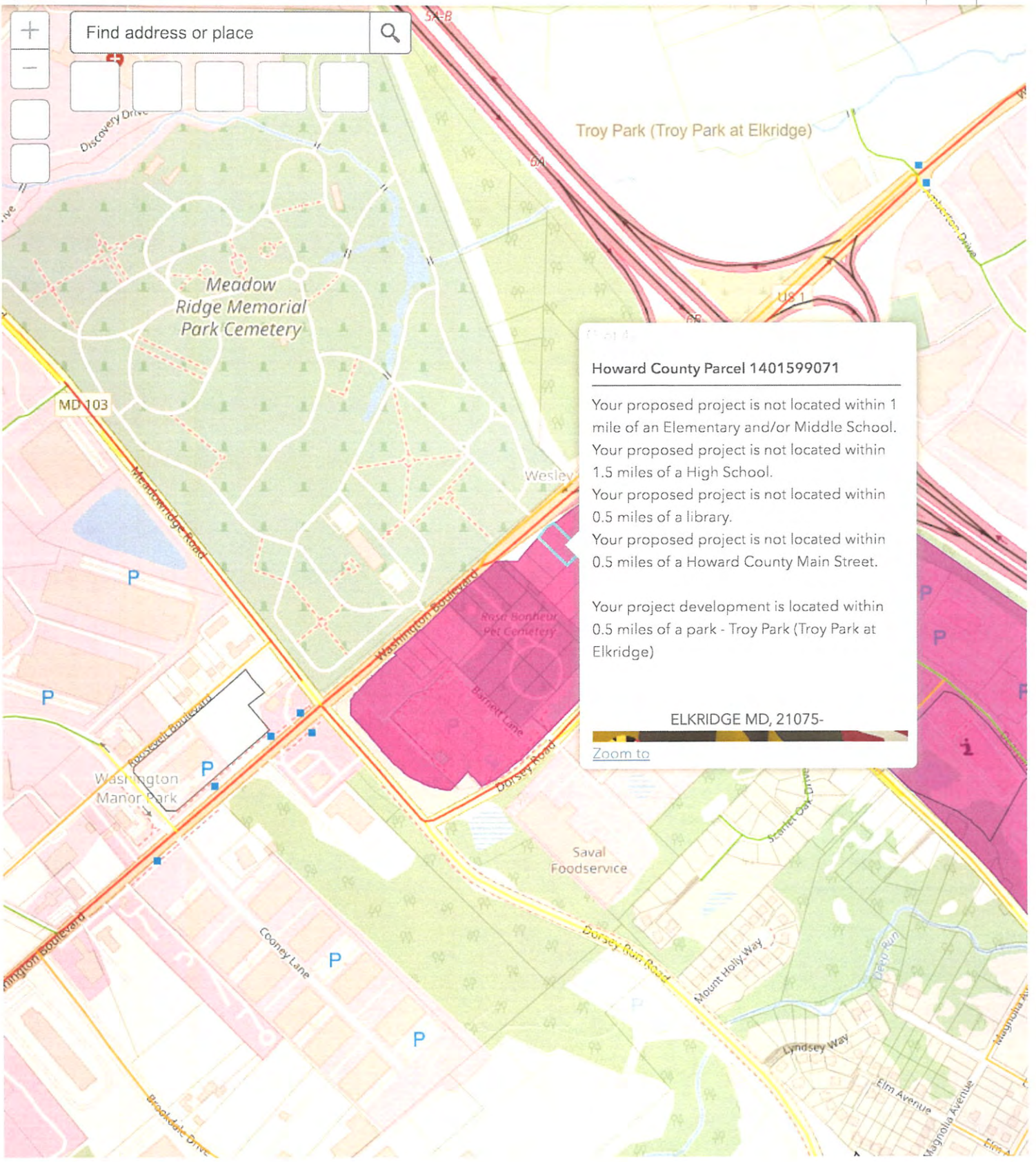
I answered yes to question A and B and have attached the map(s) showing the pedestrian and bicycle connection(s) between the proposed development and nearby destinations to this form.

Mickey Cornelius

Name Signature Date 8/14/2024

Check the Help and Resources instructions accessible from the ProjectDox login screen for the appropriate locations to upload all documentation including this form. Once you have completed your uploads, remember to complete your ProjectDox task.

Save Form



Find address or place



Four empty input boxes for address or place search.

Howard County Parcel 1401599071

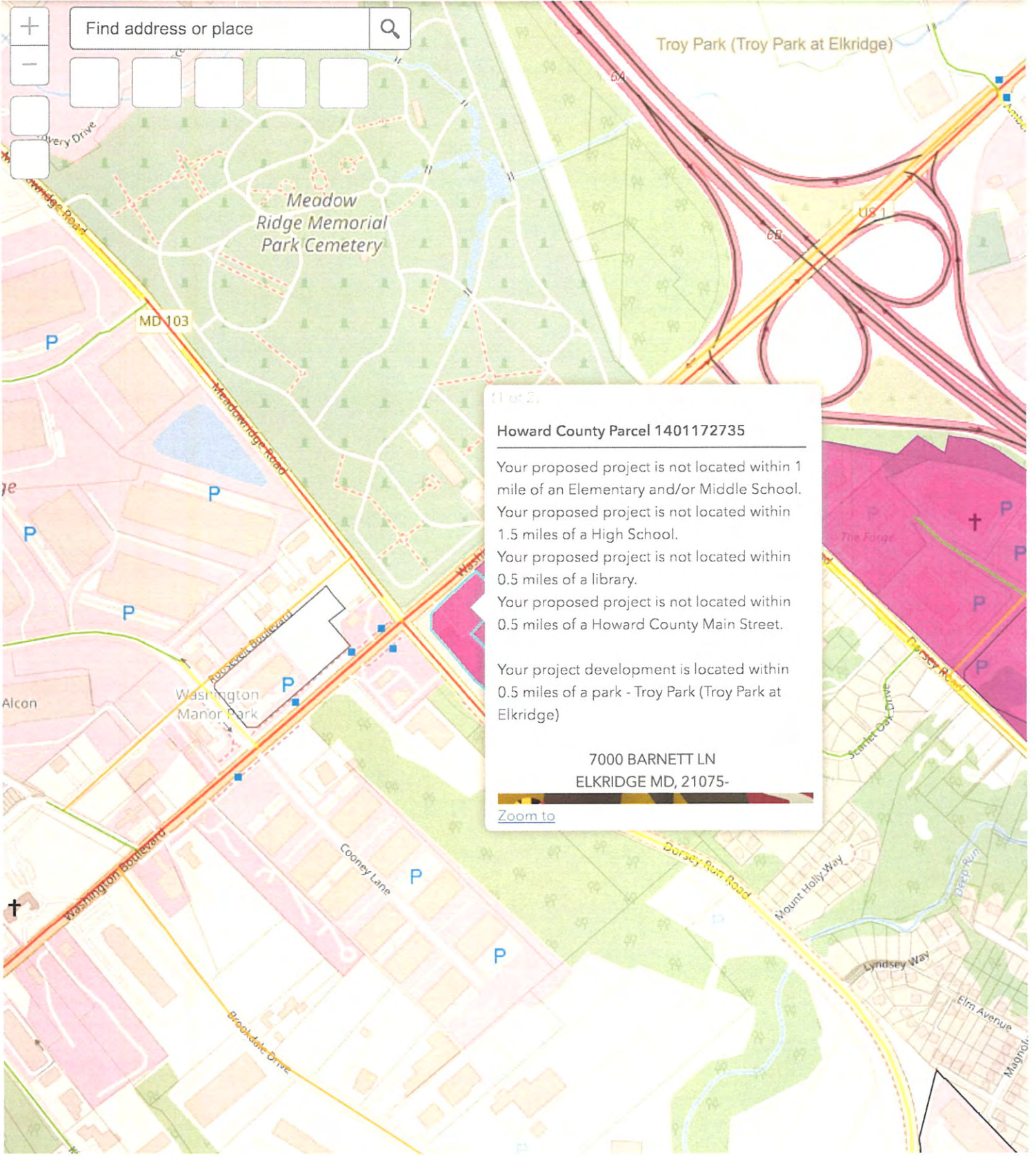
Your proposed project is not located within 1 mile of an Elementary and/or Middle School.
 Your proposed project is not located within 1.5 miles of a High School.
 Your proposed project is not located within 0.5 miles of a library.
 Your proposed project is not located within 0.5 miles of a Howard County Main Street.

Your project development is located within 0.5 miles of a park - Troy Park (Troy Park at Elkridge)

ELKRIDGE MD, 21075-

[Zoom to](#)

600ft
 -76.761 39 187 Degrees



(1 of 2)

Howard County Parcel 1401172735

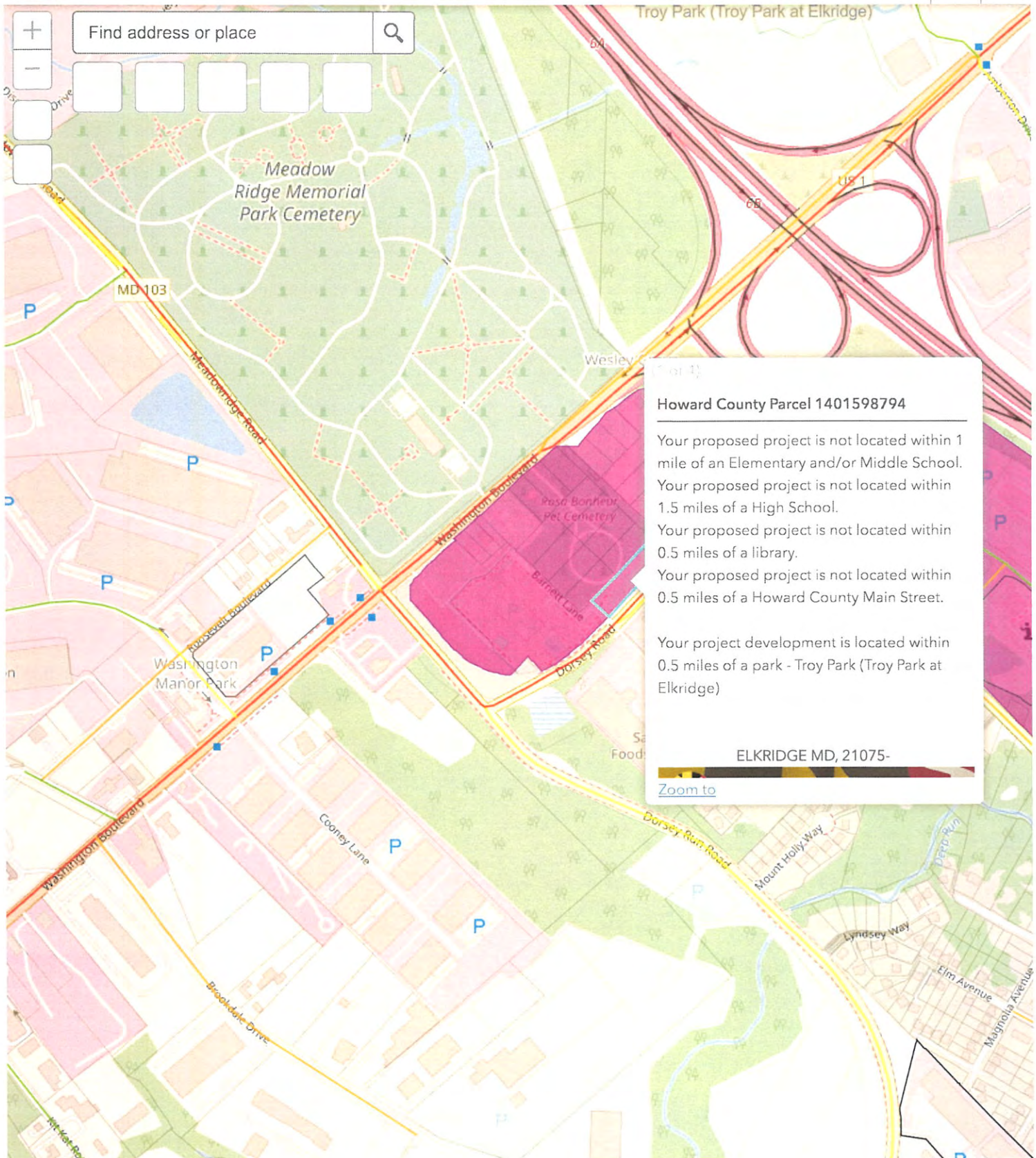
Your proposed project is not located within 1 mile of an Elementary and/or Middle School.
 Your proposed project is not located within 1.5 miles of a High School.
 Your proposed project is not located within 0.5 miles of a library.
 Your proposed project is not located within 0.5 miles of a Howard County Main Street.

Your project development is located within 0.5 miles of a park - Troy Park (Troy Park at Elkridge)

**7000 BARNETT LN
 ELKRIDGE MD, 21075-**

[Zoom to](#)

600ft
 -76.755 39 184 Degrees



Find address or place

+
 -
 [Map Style Selections]
 [Map Style Selections]

1 of 1

Howard County Parcel 1401598794

- Your proposed project is not located within 1 mile of an Elementary and/or Middle School.
- Your proposed project is not located within 1.5 miles of a High School.
- Your proposed project is not located within 0.5 miles of a library.
- Your proposed project is not located within 0.5 miles of a Howard County Main Street.
- Your project development is located within 0.5 miles of a park - Troy Park (Troy Park at Elkridge)

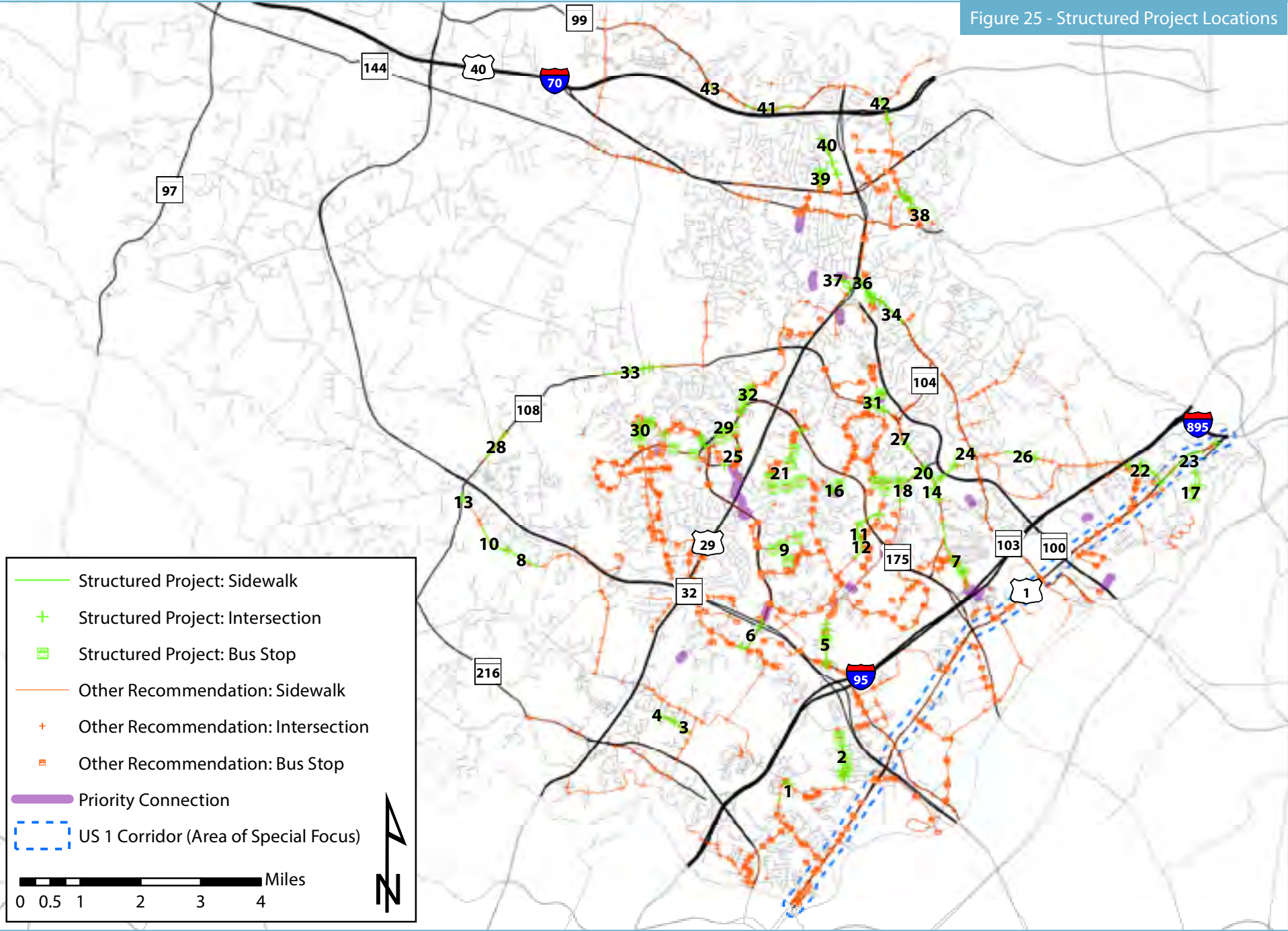
ELKRIDGE MD, 21075-

[Zoom to](#)

600ft

76.764 39 179 Degrees

Figure 25 - Structured Project Locations





BIKE HOWARD

Elkridge

Bikeway Networks

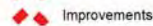
Map No. 6

Bike Facility Recommendations

Short Term



Existing

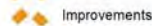


Improvements

Mid Term



Existing

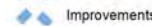


Improvements

Long Term



Existing



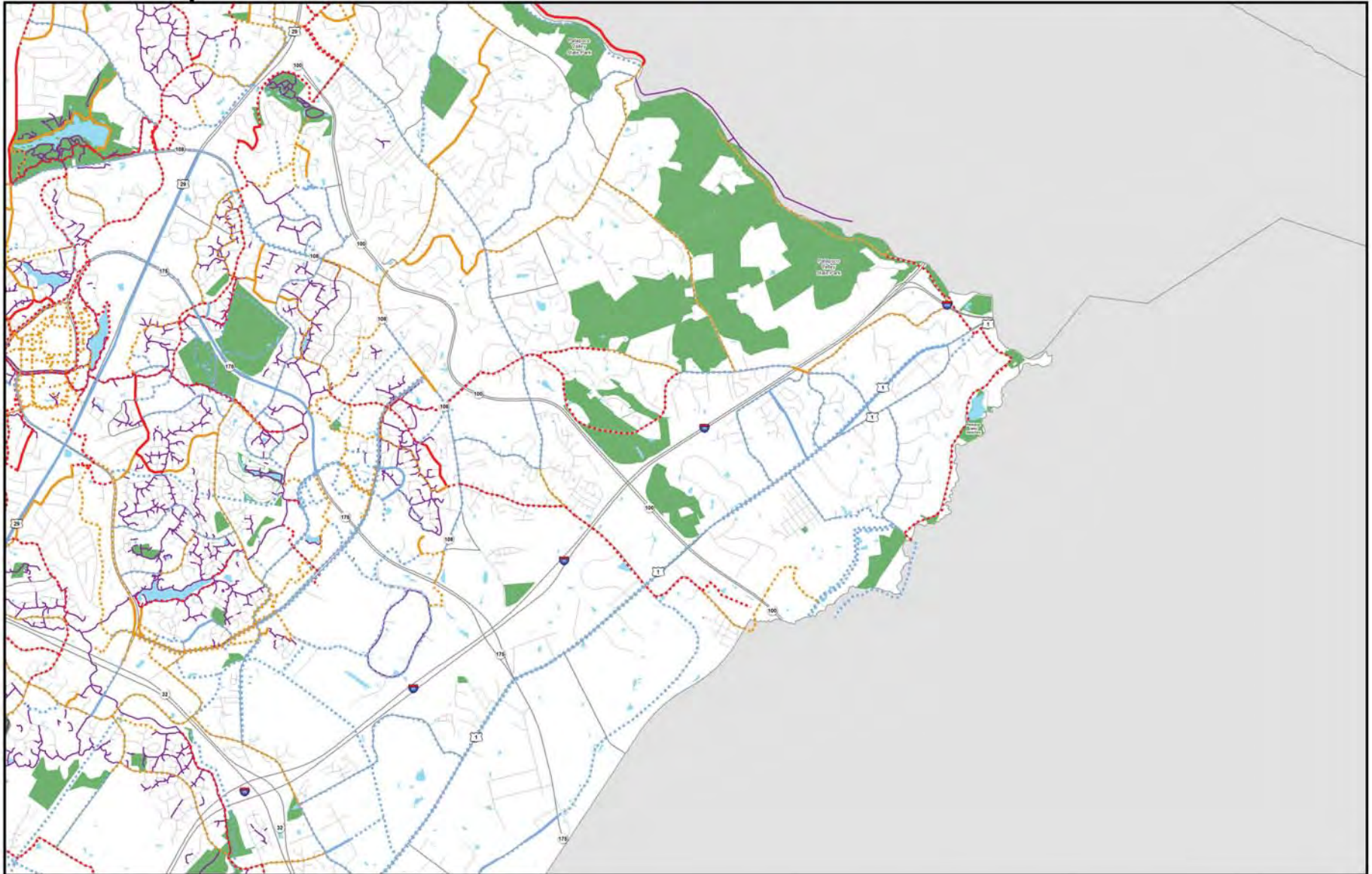
Improvements



Further Study



Existing Pathways and Trails (HC, CA, and Others)





Bike Howard

Structured Projects

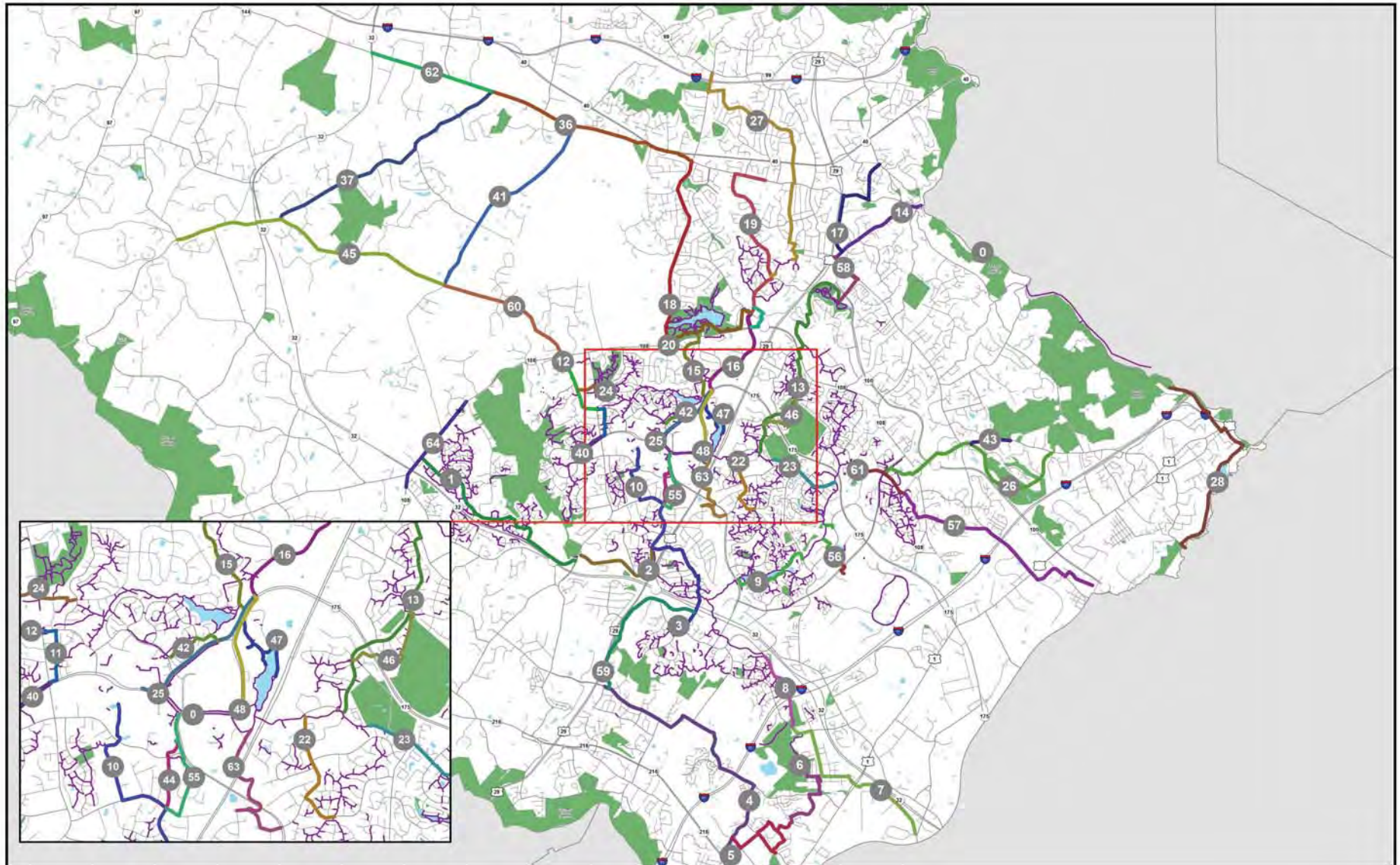
Map No. 10



Structured Projects-Line colors are used to show each structured project)



Existing Pathways and Trails (HC, CA and Others)





Bike Howard Structured Projects

Estimated Cost: \$1,284,997
Length (Miles): 3.7

Project Description:

The project calls for a series of bike lanes, improved paths, sharrows and an intersection improvement to develop an east/west connection to the Dorsey MARC Station.

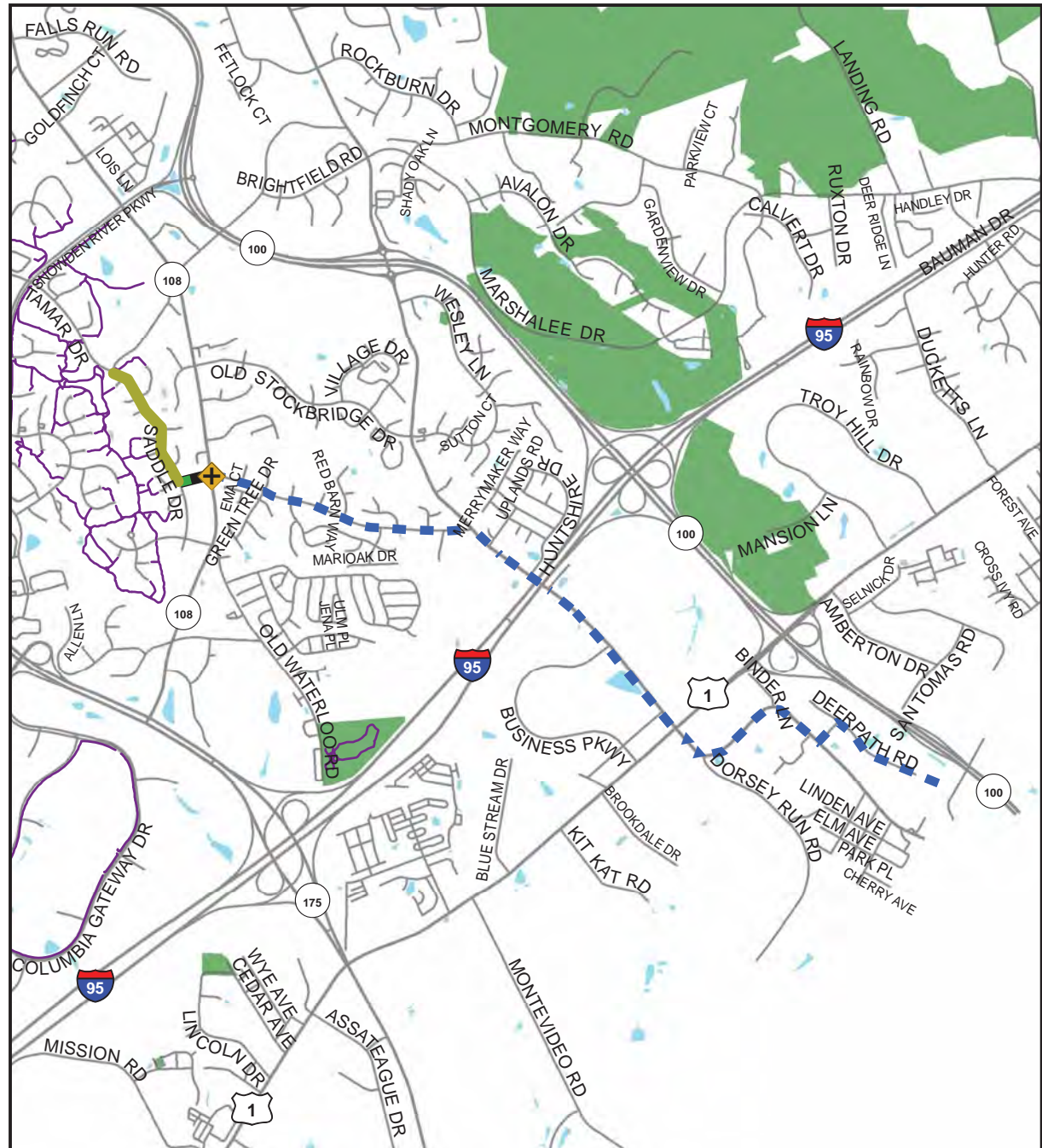
Primary Location/Streets:

Old Montgomery Road , Mayfield Avenue, Meadowridge Road

Start: Old Montgomery Road
End: Dorsey MARC Station

Linear Recommendations	Existing Facilities
Shared Use Path Construct New	Bike Lane/Buffered Bike Lane
Shared Use Path Upgrade	Paved Shoulder/Shared Roadway
Sidewalk w/ Bikes Permitted	Existing Pathways (CA, HC and Others)
Neighborhood Greenway	
Bike Lane/Climbing Lane/Buffered Bike Lane	
Sharrow	
Cycletrack	
Shared Roadway/Paved and Striped Shoulder Advisory Bike Lane	
Spot Recommendations	
Bike Link or Signs Needed	
Bridge (Improvement/build)	
Crossing Improvement or Pathway Crossing	
Tunnel (Minor Improvements)	

Proposed/Preliminary Structured Project Number: 57

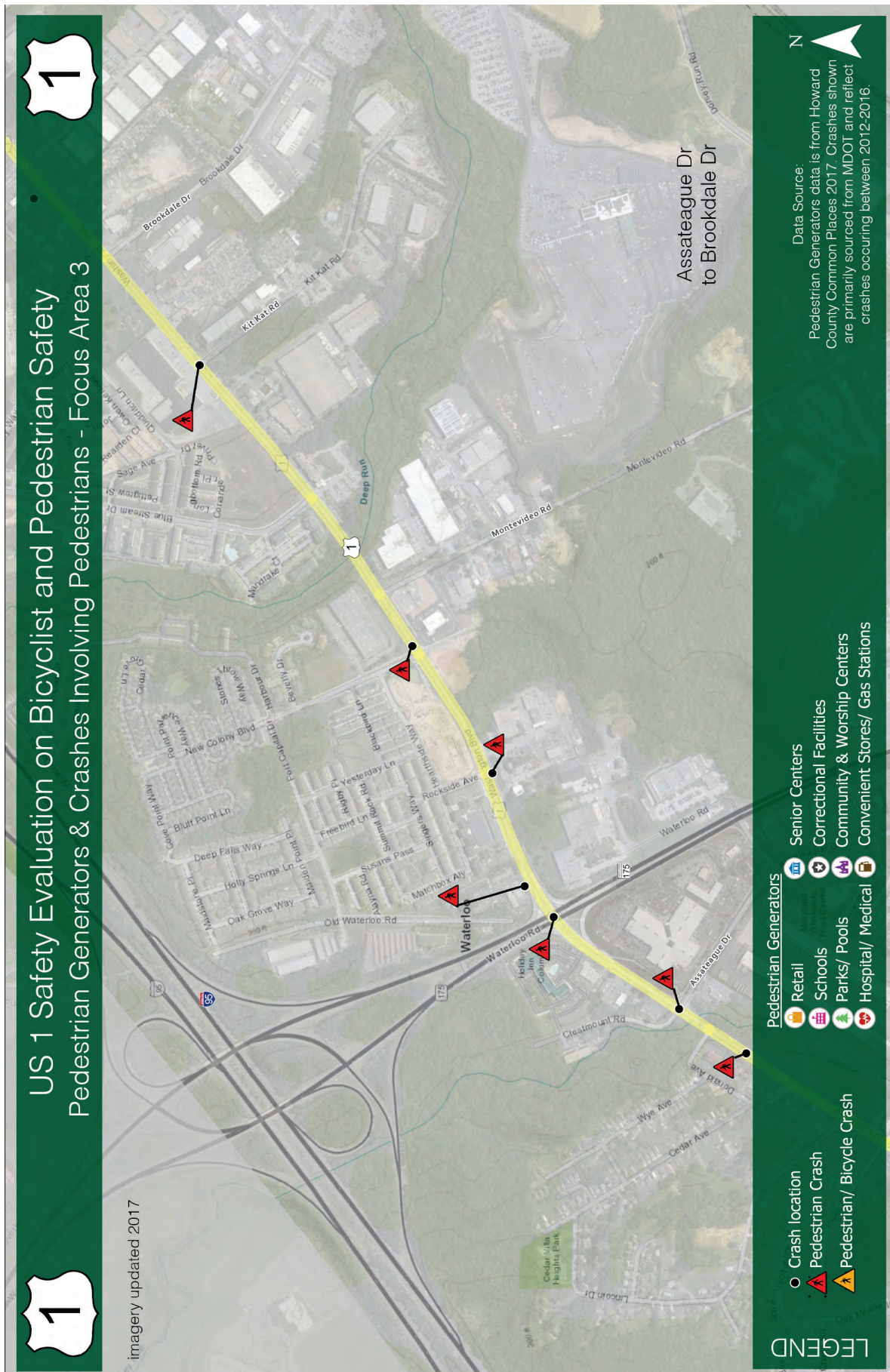


US 1 Safety Evaluation on Bicyclists and Pedestrian Safety

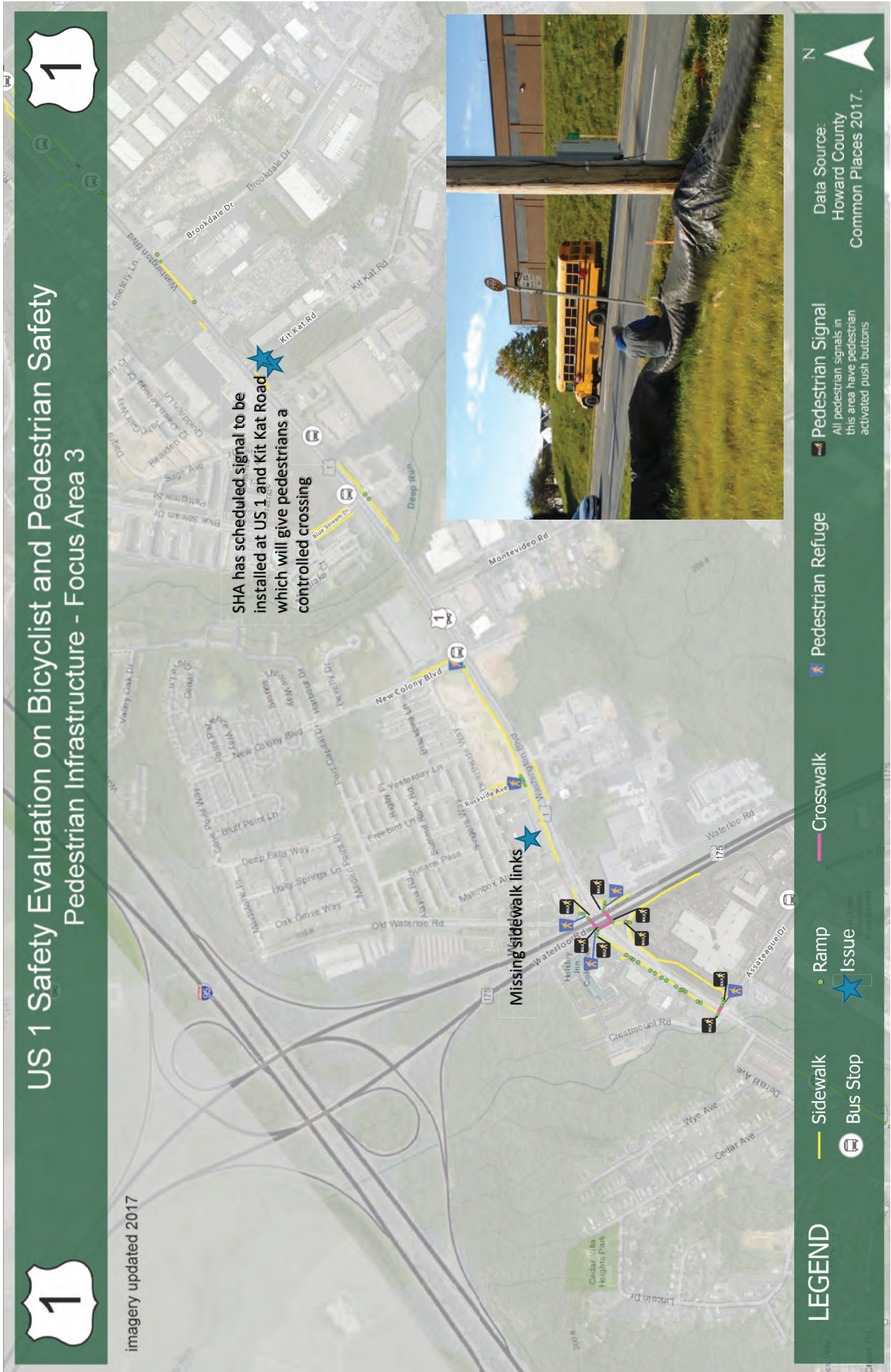
Final Report | 7

201





Map 3. Area 3 Pedestrian Crashes & Generators Overlay



Area 3 Recommendations: Assateague Drive to Brookdale Drive

- » To provide for bicycle facilities along this segment, this report recommends installing a **shared use path** between MD 175 and Brookdale Drive. Alternatively or additionally a **low-stress signed bike route** could be developed between Old Waterloo Road and Meadowridge Road along parallel local County streets including Port Capitol Drive, Blue Stream Drive, Quidditch Lane, and Roosevelt Boulevard with the construction of a **new pedestrian bridge** over Deep Run.
- » While sidewalks are recommended for all segments currently lacking, a **priority sidewalk completion segment** is recommended to fill in the 130 foot gap between existing sidewalk segments just north of MD 175. Pedestrian demand is evident by the well-worn path.
- » To increase the frequency of pedestrian controlled crossing, this report is carrying forward the planned capital improvement project by MDOT SHA to construct a **new traffic signal** with pedestrian signals, curb ramps, and marked crosswalks at US 1 and Kit Kat Road. This crossing will support the increased pedestrian activity during the Flea Market.
- » It is recommended to provide a **sidewalk connection to four bus stops** along the corridor. This may include either a mainline sidewalk path parallel to US 1, or a perpendicular branch connection to the bus stops in areas where the existing sidewalk is set back from the curb.
- » To improve access to bus stops, **relocating the existing bus stop** at Montevideo Road to the proposed signal at Port Capitol where the bus stop will align with the proposed controlled crossing is recommended.



Map 12. Area 3 Recommendations: Assateague Drive to Brookdale Drive