

Neelsville Middle School

Montgomery County, Maryland

October 25, 2021

Local Area Transportation Review

Prepared for:

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TABLE OF CONTENTS

➤ EXECUTIVE SUMMARY	1
➤ INTRODUCTION AND SUMMARY OF FINDINGS	2
➤ MOTOR VEHICLE ADEQUACY	5
Figure 1 Site Location Map	6
Figure 2 Aerial Photo	7
Figure 3 Existing Lane Use	8
Figure 4 Existing Peak Hour Traffic Volumes	9
Figure 5 Adjusted Existing Peak Hour Traffic Volumes	10
Table 1 Trip Generation Rate for Pipeline Development	11
Table 2 Trip Generation for Pipeline Developments	11
Figure 6 Trip Assignment for Seneca Meadows Corporate Center	12
Figure 7 Trip Assignment for Montgomery Community College	12
Figure 8 Combined Trip Assignment for Pipeline Developments	13
Figure 9 Background Peak Hour Traffic Volumes	13
Table 3 Trip Generation Rate for Subject Site	14
Table 4 Trip Generation and Total for Subject Site	14
Figure 10 Traffic Adjustment for Proposed Concept Plan	15
Figure 11 Trip Assignment for Subject Site	16
Figure 12 Total Peak Hour Traffic Volumes	16
Table 5 Summary of Intersection Capacity Analysis (CLV)	17
➤ PEDESTRIAN SYSTEM ADEQUACY	18
Table 6 Pedestrian Adequacy Scoping Requirements	18
Figure 13 Overview Map	19
Figure 14 Pedestrian Level of Comfort – Overview Map	21
Figure 15 Pedestrian Level of Comfort – Detail Photographs 1–10	22
Figure 16 Pedestrian Level of Comfort – Detail Photographs 11–20	23
Figure 17 Pedestrian Level of Comfort – Detail Photographs 21–29	24
Figure 18 Pedestrian Level of Comfort – Detail Photographs 30 –39	25
Figure 19 Pedestrian Level of Comfort – Detail Photographs 40 –42	26
Table 7 PLOC – Photograph Descriptions	27
Figure 20 Streetlight Compliance – Overview Map	30
Figure 21 ADA Compliance – Detail Photographs 1–7	31
Figure 22 ADA Compliance – Detail Photographs 8–15	32
Table 8 ADA – Photograph Descriptions	33

TABLE OF CONTENTS, Continued

➤ BICYCLE SYSTEM ADEQUACY.....	34
Table 9 Bicycle Adequacy Scoping Requirements	34
Figure 23 Bicycle Adequacy – Overview Map	35
Figure 24 Bicycle Adequacy – Detail Photographs 1–9	36
➤ BUS TRANSIT SYSTEM ADEQUACY.....	37
Figure 25 Transit Adequacy – Overview Map – Route Details	38
Table 10 Transit Adequacy Scoping Requirements	39
Figure 26 Transit Adequacy – Overview Map – Route Details	40
➤ VISION ZERO STATEMENT	41
Table 11 Vision Zero Scoping Requirements	41
Figure 27 HIN Network.....	42
Figure 28 Crash (2015 – 2021 Q2) Locations	44
Table 12 Speed Data Summary	45
Figure 29 Site Circulation and Amenities.....	46
➤ RESULTS, RECOMMENDATIONS, AND CONCLUSIONS.....	47

APPENDICES

APPENDIX A – Scoping Documentation

APPENDIX B – Intersection Turning Movement Counts and Aerial Photographs

APPENDIX C – Intersection Capacity Analysis Worksheets and SimTraffic Output

APPENDIX D – Transit Schedules

APPENDIX E – Speed and Crash Data

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. 29931, Expiration Date: 01/08/2022.



Prepared by: Carl R. Wilson, Jr., P.E., PTOE, RSP
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CRW:amr
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EXECUTIVE SUMMARY

- Neelsville Middle School is located at 11700 Neelsville Church Road in the Germantown section of Montgomery County. More generally, the property is located on the south side of the roadway, east of MD 355.
- In 2019, Neelsville Middle School served a population of 956 students. Because of the attendance area for this facility, most students arrive by bus. No walkers are assigned to the school.
- Access to the property is currently available via one full-movement driveway along Neelsville Church Road, which is used by both passenger vehicles and school buses.
- Capacity for the school is proposed to increase to 1,190 students with completion of this project.
- There are more than 50 peak hour person trips projected to be generated by the modifications to this site. Therefore, to address Local Area Transportation Review (LATR) requirements, a vehicular, pedestrian, bicycle, and transit adequacy must be addressed. In addition, a Vision Zero statement is required.
- This project is a Mandatory Referral. Therefore, all information is provided for advisory purposes only.
- With regard to vehicular adequacy, all study intersections will exhibit acceptable levels of service in the future with the buildout of this site.

INTRODUCTION AND SUMMARY OF FINDINGS

Study Purpose

The Traffic Group, Inc. has prepared this Local Area Transportation Review (LATR) to quantify the impact the proposed expansion of Neelsville Middle School will have on the surrounding road network in the Germantown section of Montgomery County. An operational middle school is currently sited on the property, with a student population of 956. With the completion of this expansion, a total of 1,190 students will be accommodated.

Access to the property is currently available via one point along Neelsville Church Road, which operates under stop control. Upon completion of this expansion, a second point of access will be provided which will provide separation from bus and vehicular traffic. The access points are proposed to operate under stop control.

This site is being developed by Montgomery County Public Schools (MCPS) and is therefore being reviewed as a Mandatory Referral project. All findings in this document are considered advisory in nature.

Study Criteria/Methodology

This study was conducted in accordance with Montgomery County's LATR requirements. The original scoping form was submitted to the Maryland-National Capital Park and Planning Commission (M-NCPPC) in August 2020 to address requirements under the previous Subdivision Staging Policy.

A supplemental scoping form was submitted on September 1, 2021, to address the non-vehicular components of the new Growth and Infrastructure Policy. A copy of the Scoping Agreement and the original approval can be found in Appendix A. To date, no formal correspondence has been received regarding the scoping documentation.

It was determined through the scoping process that the site will generate an additional 50 or more total weekday peak hour person trips. Therefore, the full Transportation Impact Study is required, which will address vehicular, pedestrian, bicycle, and transit adequacy at designated distances from the site. A Vision Zero statement is also provided. Details on the limits of each of these analyses are described in the respective section of this document.

Neelsville Middle School is situated within the Germantown East Policy Area, which is classified as yellow. For sites within Yellow Policy Areas, Critical Lane Volume (CLV) analysis is required for all intersections. If a CLV is greater than 1,350, Highway Capacity Manual (HCM) analysis would also be required. A CLV of 1,425 is considered acceptable within this policy area.

All turning movement counts for this project were collected in 2019 using historic data supplemented with StreetLight Data which utilizes Bluetooth technology.

Scope of Services

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

- Conduct a field inspection to collect physical information concerning the nearby road system including a compilation of ground level and aerial photographs.
- Utilize available intersection turning movement count data for all study intersections.
- Prepare trip generation and trip distribution for all approved background developments and for the proposed expansion of Neelsville Middle School.
- Undertake intersection capacity analysis to determine existing and projected future levels of service at all study intersections using required methodologies.
- Review pedestrian adequacy within the designated study area including Pedestrian Level of Comfort (PLOC), street lighting, and Americans with Disabilities Act (ADA) compliance.
- Review bicycle system adequacy by quantifying Level of Traffic Stress (LTS) for all road segments within the designated study area.
- Address bus transit system adequacy by reviewing transit facilities and documenting amenities.
- Address Vision Zero requirements to review high injury segments, assess safety issues, review travel speeds, and describe site access.

Summary of Findings and Recommendations

This LATR will show that the proposed expansion of Neelsville Middle School will have a minimal impact on surrounding intersection operations. All intersections were found to operate with acceptable levels of service under existing conditions. In the future with the full buildout of the site, all intersections will maintain a CLV below 1,425. Since all locations are considered acceptable, improvements are not required to demonstrate vehicular adequacy.

Pedestrian, bicycle, transit, and safety analyses were also conducted within the defined study area. Several items were noted as areas of concern. Potential improvements were also identified that would provide adequate facilities in conjunction with typical LATR requirements. Since this project is being developed by MCPS, it is exempt from providing off-site improvements through the Mandatory Referral process. Therefore, all off-site areas of concern are provided for information purposes only, and physical improvements are not required.

On site, several enhancements are being provided to extend vehicular queuing areas and improve pedestrian safety. The improvements include sidewalks and crosswalks that will safely allow for passage of pedestrians. In addition, all bus traffic is being separated from passenger vehicle traffic.

MOTOR VEHICLE ADEQUACY

EXISTING TRAFFIC CONDITIONS

Site Information

Neelsville Middle School is located at 11700 Neelsville Church Road in the Germantown section of Montgomery County. More generally, the property is located on the south side of the roadway, east of MD 355 (Frederick Road). Access to the property is currently available via one point along Neelsville Church Road, which operates under stop control. Bus traffic and passenger vehicular traffic share the access point. A map showing the general area can be found in Figure 1.

The site is currently developed with an operational middle school. A total of 956 students were assigned to the school in 2019. Because of the attendance area for the facility, most students arrive to the site by bus. There are no walkers assigned to the school. An aerial photograph is included as Figure 2.

Study Area

Based on M-NCPPC requirements, the following intersections were identified to be included in this analysis:

- MD 355 at Shakespeare Boulevard
- MD 355 at Neelsville Church Road
- MD 355 at Germantown Road
- Germantown Road at Shakespeare Boulevard
- Neelsville Church Road at School Access

Neelsville Church Road generally runs in the east/west direction from MD 355 to a terminus north of Germantown Road for a total distance of approximately 1.2 miles. The roadway features one travel lane in each direction and is not divided. To the east of Neelsville Middle School, the roadway features undeveloped land and residential uses. The posted speed limit along Neelsville Church Road is 25 MPH. There are no shoulders along the roadway.

In the vicinity of Neelsville Middle School, MD 355 features two travel lanes in each direction divided by a median. The roadway is owned and maintained by the Maryland State Highway Administration (SHA). Auxiliary turn lanes are available at each of the study intersections along MD 355 to facilitate left and right turns. Traffic signalization is available at the Shakespeare Boulevard and Germantown Road intersections. Neelsville Church Road is controlled by stop signs on the minor approaches.

Figure 1 - Site Location Map

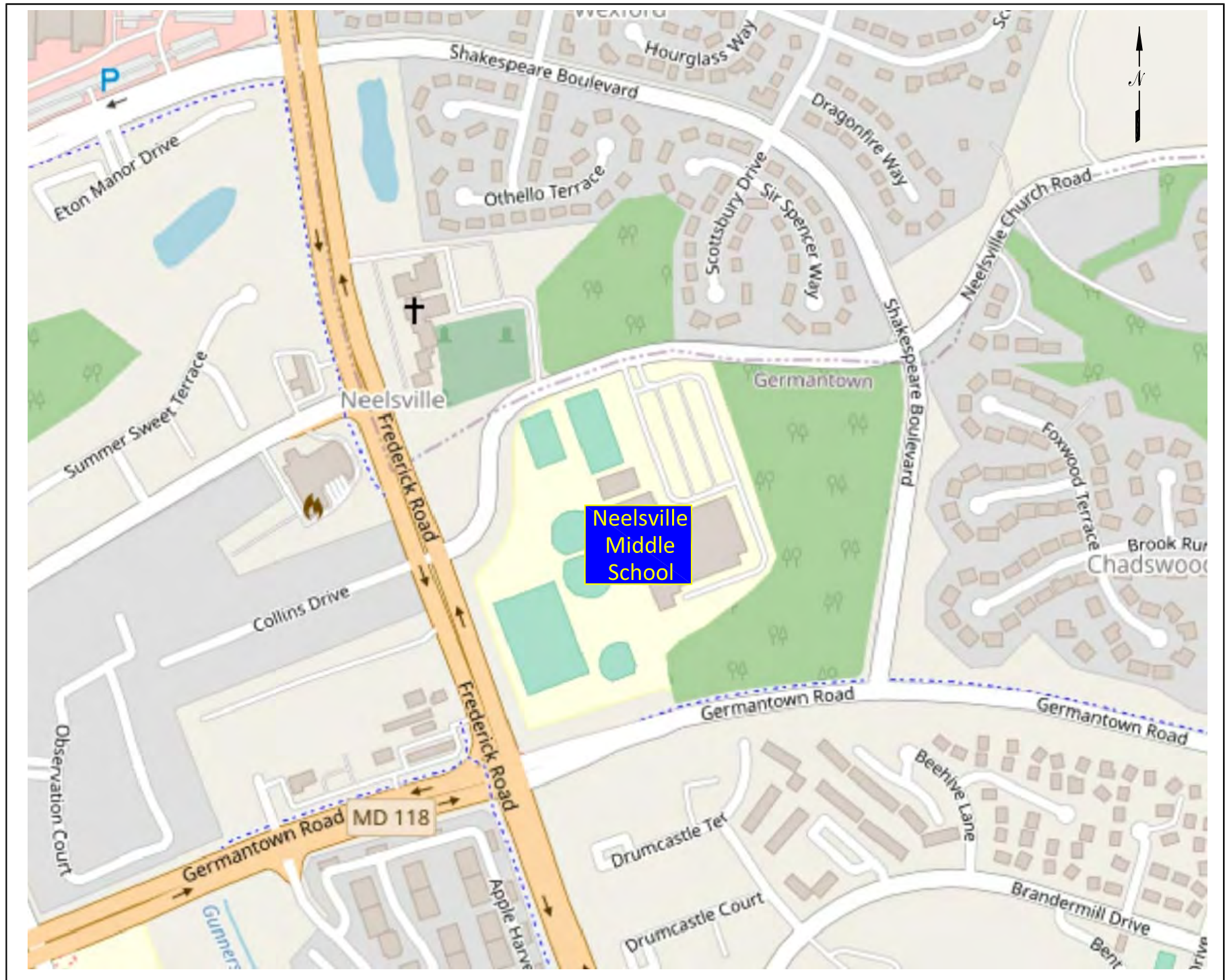
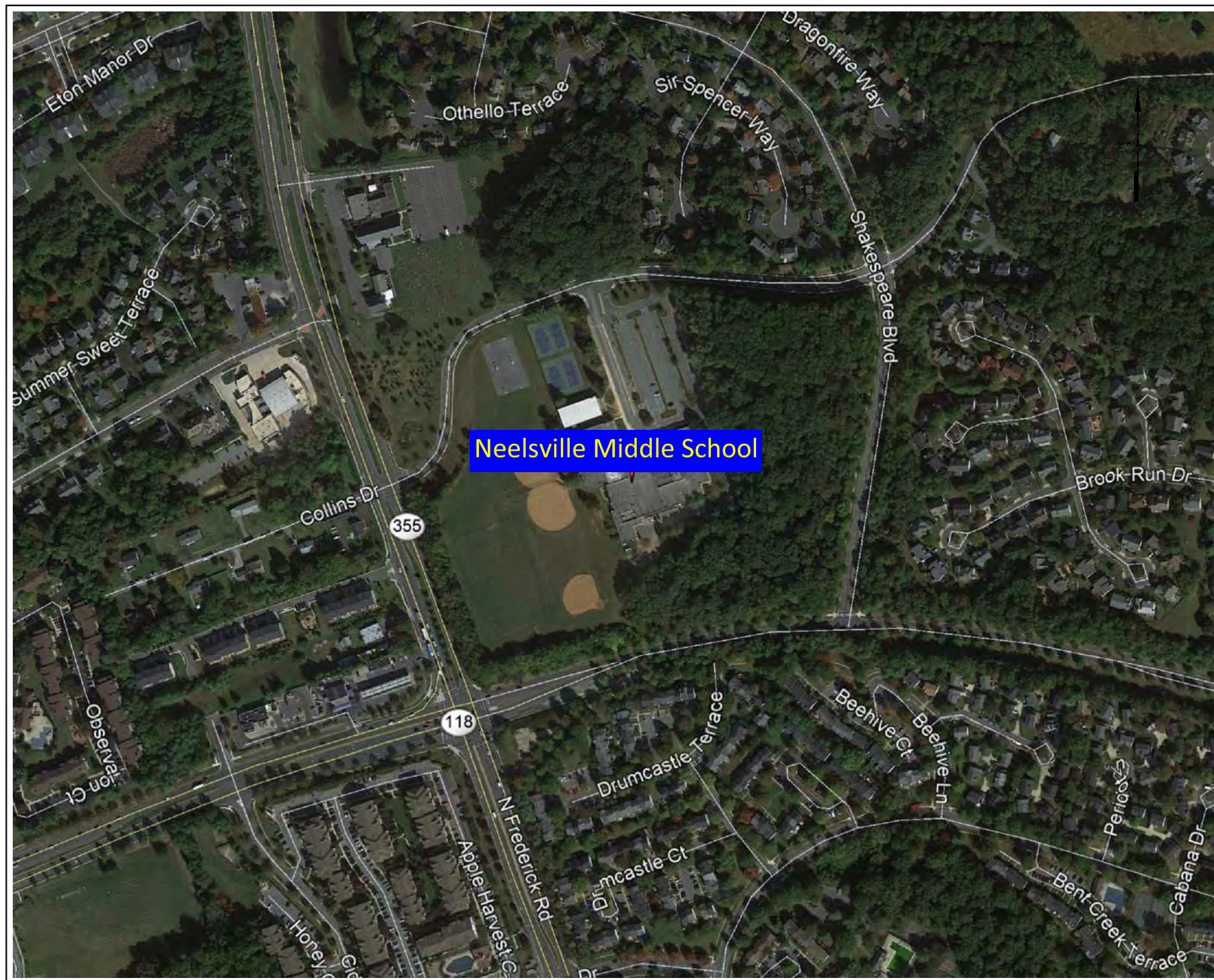


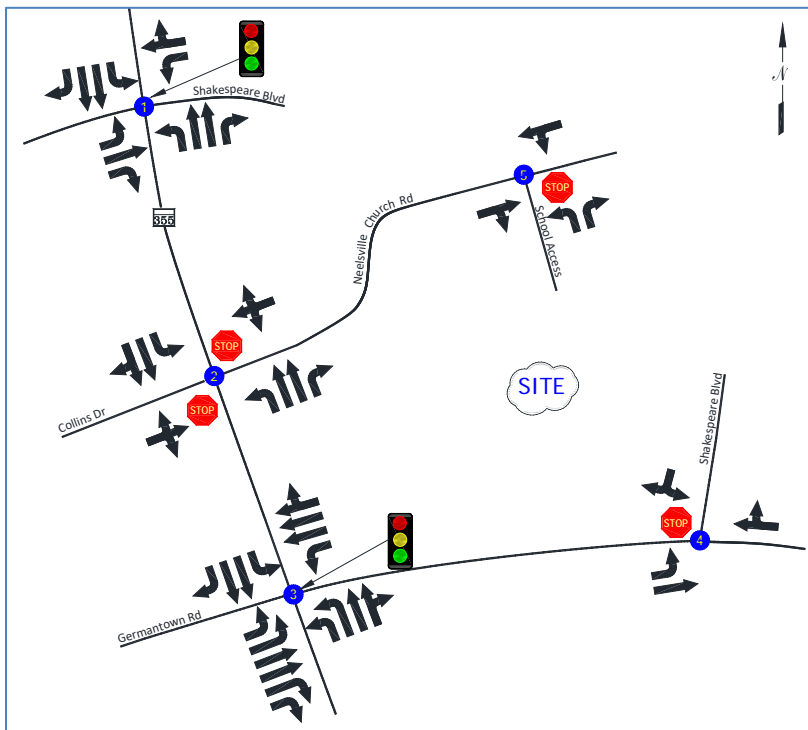
Figure 2 - Aerial Photo



Germantown Road extends from MD 28 (Darnestown Road) easterly through the intersection with MD 355. Between those two locations, the roadway is under state maintenance. To the east of MD 355, Montgomery County maintains the roadway. Beyond Neelsville Church Road, Germantown Road converts to Watkins Mill Road and extends for a distance to Montgomery Village. Near the site, the width of Germantown Road is narrowing to provide one travel lane in each direction. To the west of MD 355, the road is significantly wider providing three travel lanes in each direction. The posted speed limit of Germantown Road near Neelsville Middle School is 40 MPH.

Figure 3 has been prepared to demonstrate the existing lane use. Aerial photographs from each of the intersections can be found in Appendix B.

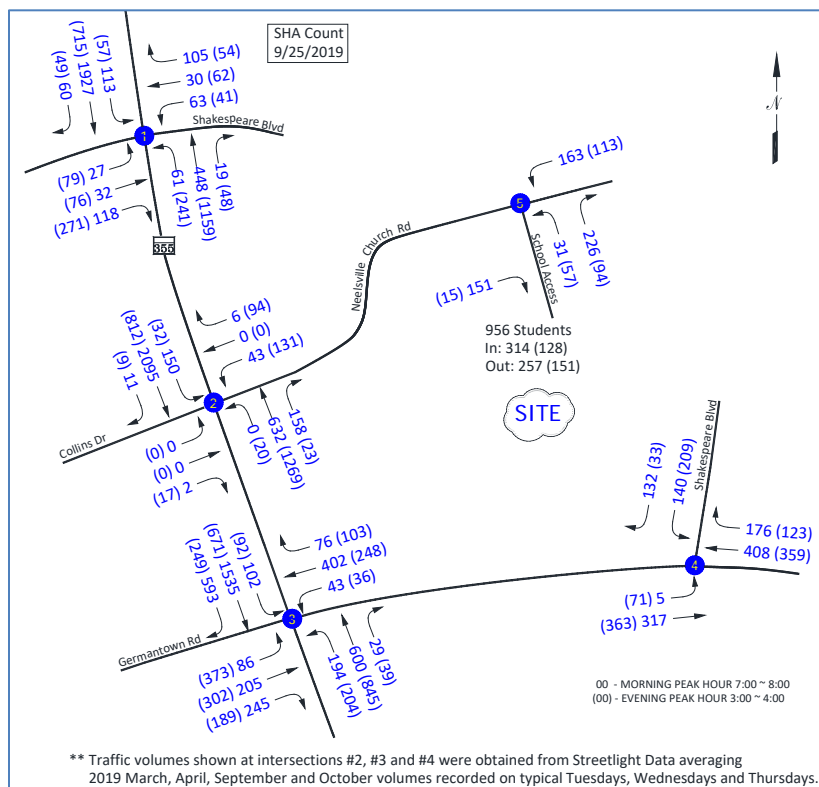
Figure 3. Existing Lane Use



Traffic Volumes

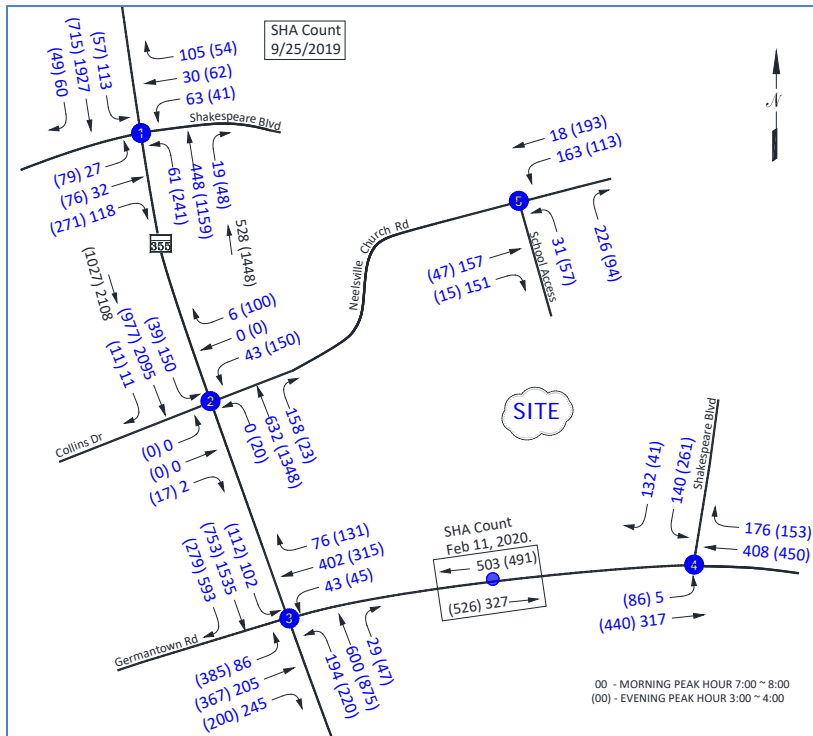
Intersection turning movement counts were obtained for each of the study intersections using historic turning movement counts from SHA and data from StreetLight Data. StreetLight Data uses Bluetooth technology to obtain and archive billions of anonymized location records from smartphones and vehicular navigation systems. The data can then be paired with land parcel records and digital road network mapping to formulate projected traffic volumes at given locations where the sample size is adequate. In this case, multiple zones were configured along MD 355 and Germantown Road to establish peak hour traffic volumes. Specifically, data from Tuesdays, Wednesdays, and Thursdays in the months of March, April, September, and October 2019 were used in this analysis. Figure 4 details the existing peak hour traffic volumes.

Figure 4. Existing Peak Hour Traffic Volumes



An SHA count was utilized at the intersection of MD 355 at Shakespeare Boulevard, which was obtained in 2019. In addition, SHA collected a volume count along Germantown Road on February 11, 2020. These counts were utilized to adjust the existing peak hour traffic volumes as shown in Figure 5. As shown within the figure, all volumes from StreetLight Data were increased as necessary to present a conservative analysis. Data for the school access was obtained from the Institute of Transportation Engineers (ITE) Trip Generation (10th Edition) using the middle school land use to account for site driveway trips.

Figure 5. Adjusted Existing Peak Hour Traffic Volumes



Background Traffic

MC Atlas was reviewed to determine background developments in the vicinity of Neelsville Middle School. Two background developments were identified to be approved, but portions remain unbuilt. They include:

- Seneca Meadows Corporate Center
- Montgomery College

ITE's Trip Generation (10th Edition) was utilized to establish the rates and equations to quantify trips associated with each development. Table 1 provides a summary of the trip generation rates and equations for each individual development. Applying the rates and equations to the unbuilt land use size was undertaken as shown in Table 2. The adjusted vehicle trips for the Policy Area are also shown within the table.

Table 1. Trip Generation Rate for Pipeline Development

Formula/Rate	Directional Distribution			
	AM Peak Hour		PM Peak Hour	
	IN	OUT	IN	OUT
Junior/Community College (ksf, ITE-540)				
AM Peak Hour Trips = 2.07 x Students	77%	23%	50%	50%
PM Peak Hour Trips = 1.86 X Students				
General Office Building (ksf, ITE-710)				
AM Peak Hour Trips = 0.94 x ksf + 26.49	86%	14%	16%	84%
Ln(PM Peak Hour Trips) = 0.95 x Ln(ksf) + 0.36				

** ITE Trip Generation Manual 10th Edition, 2017.

Table 2. Trip Generation for Pipeline Developments

Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Seneca Meadows Corporate Center (Unbuilt Office, Germantown Town Center)								
General Office	366,619	sq.ft.	319	52	371	63	328	391
Adjusted Vehicle Trips by Policy Area (91%)			290	47	337	57	298	355
Montgomery College (Unbuilt Junior College, Germantown East)								
Jurior/Community College	150,000	sq.ft.	239	72	311	139	140	279
Adjusted Vehicle Trips by Policy Area (91%)			217	66	283	126	127	253

Note: Vehicle-Trip Generation Rate Adjustment Factor obtained from Local Area Transportation Review Guideline. Fall 2017.

Based on current land use and projected travel patterns, the trips associated with each background development were distributed and assigned to the road network. Figures 6 and 7 include the trip assignments for the respective background developments. As shown, neither has a significant impact on the study intersections. Figure 8 includes a combined trip assignment for both background developments.

Adding the background trips to the existing peak hour traffic volumes results in the background peak hour traffic volumes as summarized in Figure 9.

Figure 6. Trip Assignment for Seneca Meadows Corporate Center

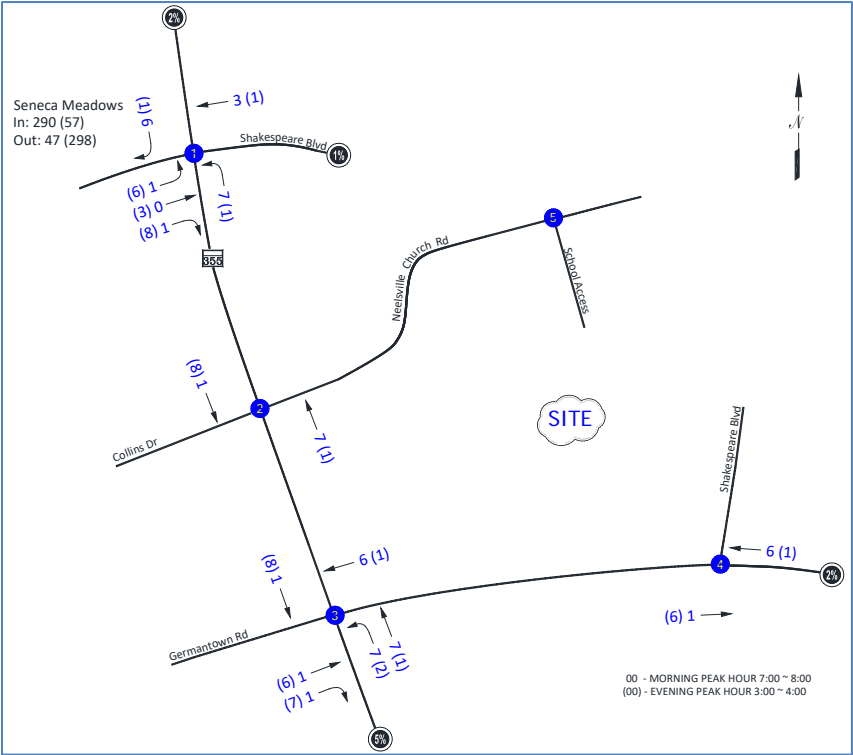


Figure 7. Trip Assignment for Montgomery Community College

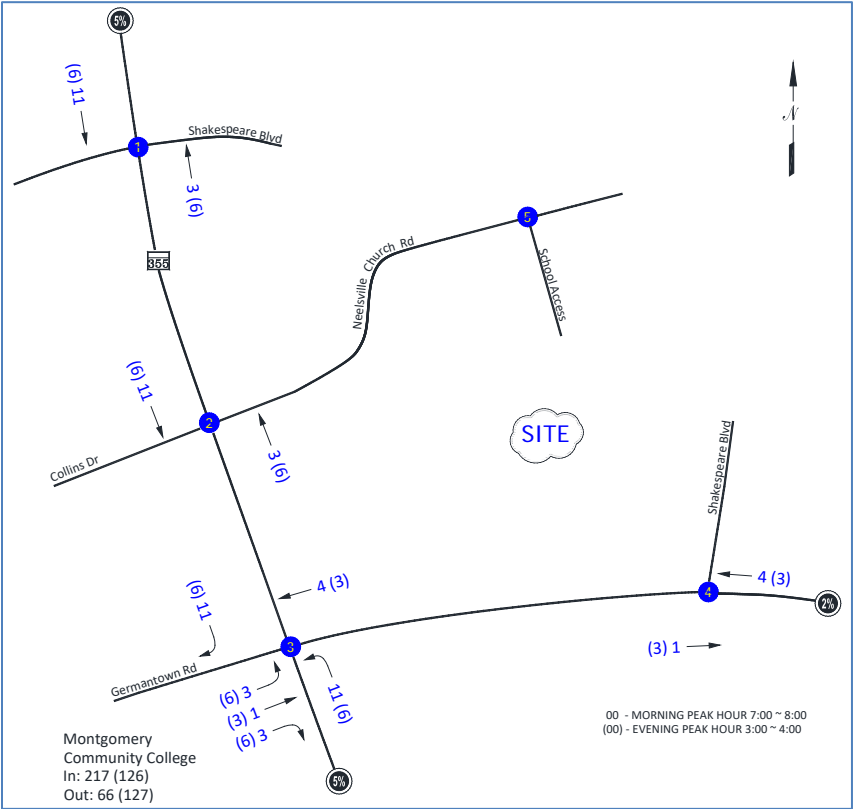


Figure 8. Combined Trip Assignment for Pipeline Developments

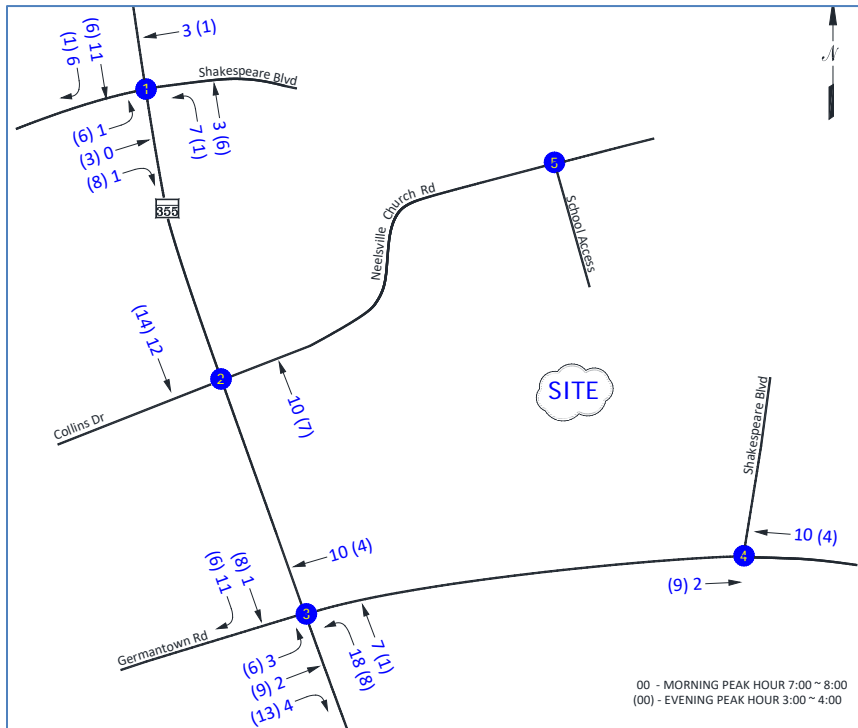
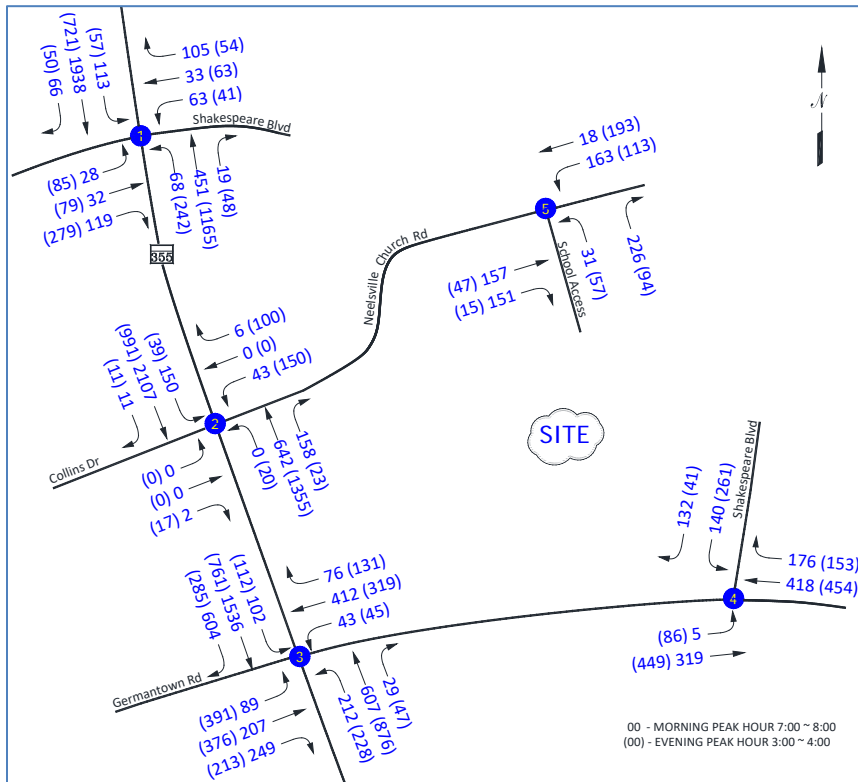


Figure 9. Background Peak Hour Traffic Volumes



TOTAL TRAFFIC CONDITIONS

ITE's Trip Generation (10th Edition) was again utilized to quantify the number of trips projected to be generated by the expansion of Neelsville Middle School. Table 3 shows a summary of the trip generation rate for the site. As noted within the table, the equations are based on the number of students for the peak hour generator. The peak hour generator represents the highest use for the site which does not necessarily coincide with regular adjacent street peak hours.

Table 3. Trip Generation Rate for Subject Site

Formula/Rate	Directional Distribution			
	AM Peak Hour		PM Peak Hour	
	IN	OUT	IN	OUT
<i>Middle/Junior High School (students, Peak Hour Generator, ITE-522)</i>				
$\text{Ln}(\text{Morning Trips}) = 0.93 \times \text{Ln}(\text{Students}) + 0.06$	55%	45%	46%	54%
$\text{Ln}(\text{Evening Trips}) = 0.96 \times \text{Ln}(\text{Student}) - 0.86$				

** ITE Trip Generation Manual 10th Edition, 2017.

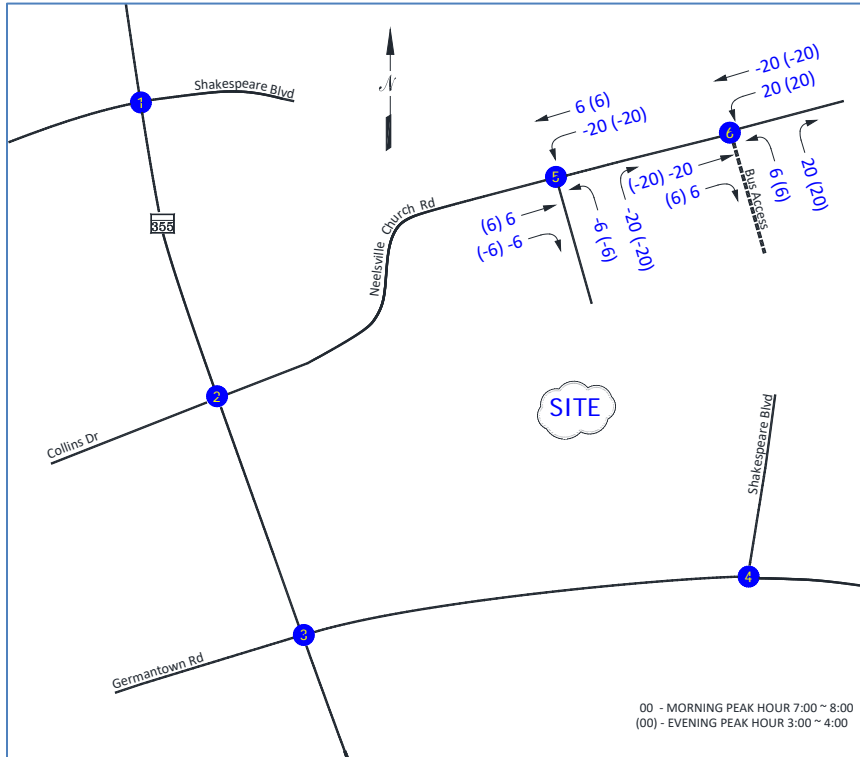
The site capacity is projected to increase by a total of 234 students. When calculating the differential between the existing capacity of 956 and the future design capacity of 1,190 students. Specific policy area adjustments were made to the trips as shown in Table 4. The total adjusted vehicle trips for the increase are 129 during the morning peak period and 65 during the evening peak period.

Table 4. Trip Generation and Total for Subject Site

Land Use	Size		AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
<i>Existing Neelsville Middle School</i>									
Middle School	956	Students	345	283	628	141	166	307	
<i>Proposed New Middle School</i>									
Middle School	1,190	Students	423	347	770	174	205	379	
<i>Net New ITE Trips for Subject Site</i>			78	64	142	33	39	72	
Adjusted Vehicle Trips by Policy Area (91%)			71	58	129	30	35	65	
Total Person Trips (Vehicle Trips / 69.5%)			186			94			
Auto Passenger Trips (Person Trips x 23.2%)			43			22			
Transit Trips (Person Trips x 2.5%)			5			2			
Non-Motorized Trips (Person Trips x 4.8%)			9			5			
Pedestrian Trips (Transit + Non-Motorized Trips)			14			7			

The proposed Neelsville Middle School will reconfigure the site access points to provide a separate bus access point along Neelsville Church Road. All vehicular traffic will access the facility via Neelsville Church Road as it does today; however, the entrance will be relocated to the west approximately 300 ft to align directly opposite the driveway for Neelsville Presbyterian Church. As a result, an adjustment to the existing traffic was prepared to show the new routing of buses to the new access point. A total of 26 buses are projected to be accommodated at the school. Figure 10 provides a summary of the traffic adjustment.

Figure 10. Traffic Adjustment for Proposed Concept Plan



Based on the attendance area for the site, the trips projected to be generated were distributed and assigned to the road network. Figure 11 provides a summary of the new trip assignment. Combining the new trips with the background peak hour traffic volumes results in the total peak hour traffic volumes as shown in Figure 12.

Figure 11. Trip Assignment for Subject Site

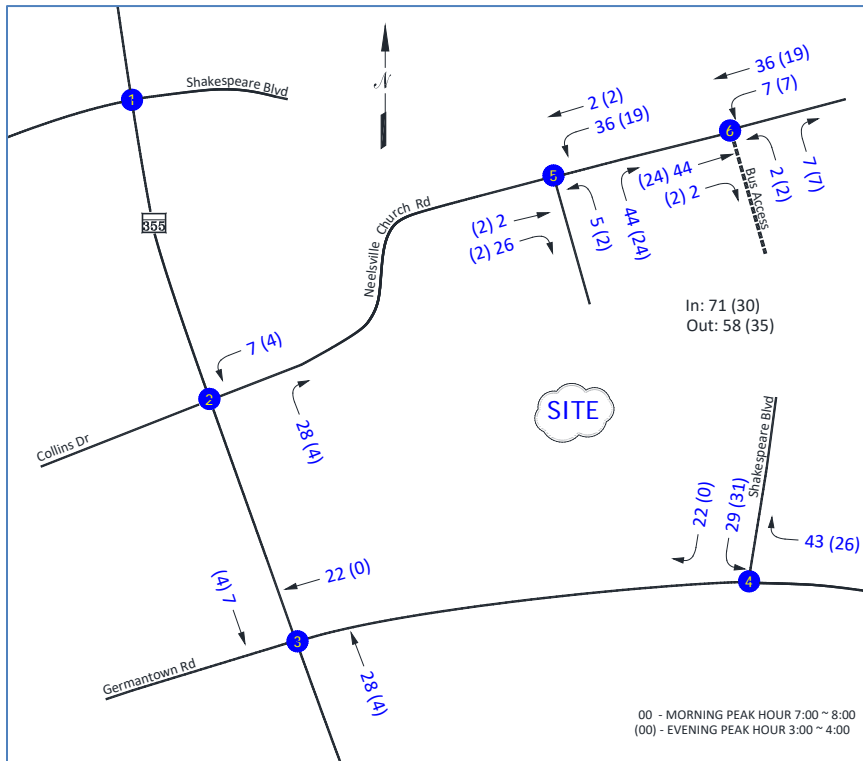
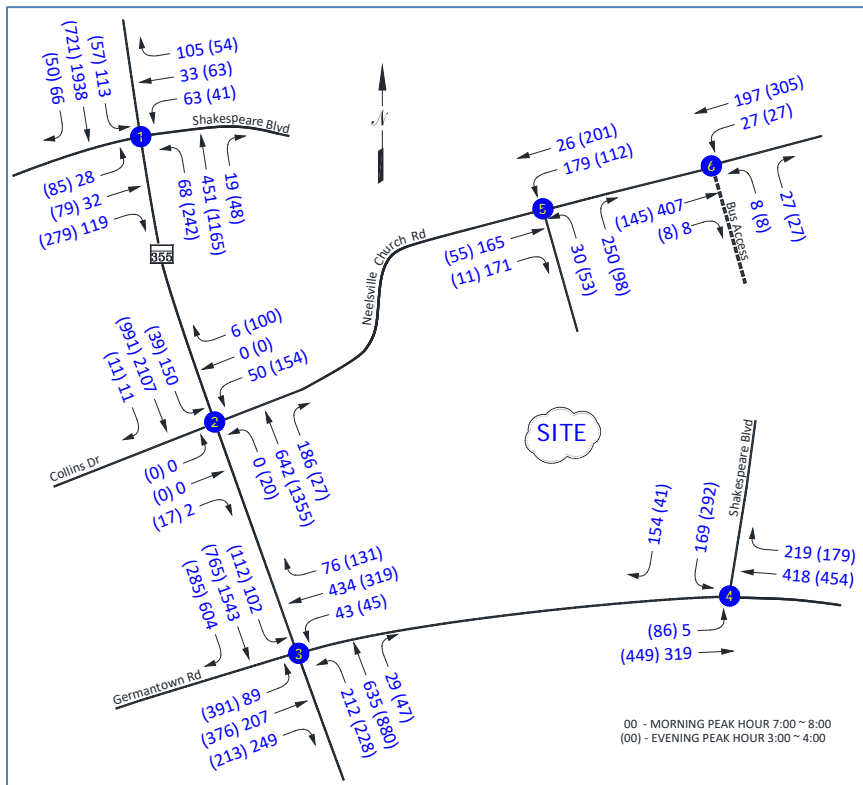


Figure 12. Total Peak Hour Traffic Volumes



INTERSECTION CAPACITY ANALYSIS

All intersections were evaluated using Critical Lane Volume (CLV) methodology as required by M-NCPPC and SHA. The results of the intersection capacity analysis can be found in Table 5. As shown within the table, all intersections currently operate with a CLV below the congestion standard of 1425. In the future when considering the impact of background developments and site traffic, all intersections are projected to operate acceptable levels of service. Details on the CLV analysis can also be found in Appendix C.

Table 5. Summary of Intersection Capacity Analysis (CLV)

Intersection	CLV					
	Existing Traffic		Background Traffic		Total Traffic	
	AM	PM	AM	PM	AM	PM
1. MD 355 at Shakespeare Blvd	1244	866	1261	876	1261	876
2. MD 355 at Neelsville Church Rd	1167	947	1174	1024	---	---
Proposed Concept Plan	---	---	---	---	1181	1028
3. MD 355 at Germantown Rd	1140	889	1154	975	---	---
Proposed Concept Plan	---	---	---	---	1166	977
4. Germantown Rd at Shakespeare Blvd	861	795	871	995	---	---
Proposed Concept Plan	---	---	---	---	965	1052
5. Neelsville Church Rd at School Access (Vehicles)	534	363	534	363	---	---
Proposed Concept Plan	---	---	---	---	795	464
5. Neelsville Church Rd at School Access (Bus)	---	---	---	---	---	---
Proposed Concept Plan	---	---	---	---	450	340

Note: Subdivision Staging Policy Intersection Congestion Standards for Germantown East is 1425.

PEDESTRIAN SYSTEM ADEQUACY

The Pedestrian System Adequacy Test is required for any site that generates 50 or more peak hour person trips. This test consists of three separate components:

- Pedestrian Level of Comfort
- Street lighting
- ADA compliance

The scope of the Pedestrian System Adequacy Test varies by the number of peak hour person trips generated and the specific policy area. Table 6 shows the requirements based on the site characteristics.

Table 6. Pedestrian Adequacy Scoping

Peak-Hour Person Trips Generated	Red and Orange Policy Area Walkshed*	Yellow and Green Policy Area Walkshed*
50 – 99	400'	250'
100 – 199	750'	400'
200 – 349	900'	500'
350 or more	1,000'	600'

* The maximum required length of sidewalk and streetlighting improvements beyond the frontage is 4 times the appropriate value in this column. The maximum span required for ADA improvements beyond the frontage is equal to the appropriate value in this column.

Since Neelsville Middle School is located within a Yellow Policy Area and will generate between 100 and 199 peak hour person trips, a 400-ft walk shed must be studied. Figure 13 provides an overview showing the distance from the site.



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FIGURE 13
OVERVIEW MAP



Pedestrian Level of Comfort (PLOC)

In order for a site to achieve adequacy, either “somewhat comfortable” (PLOC-2) or “very comfortable” (PLOC-1) scores must be achieved at streets and intersections for roads classified as Primary Residential or higher within the 400-ft defined walk shed. M-NCPPC has developed a database of PLOC which is available through MC Atlas. Output from this database serves as the base map for this analysis. Figure 14 contains a summary of the PLOC within the walk shed.

Most of the adjacent roadways are considered PLOC-1 or PLOC-2. Several segments, however, are below the threshold. They include:

Undesirable

- Frederick Road at Germantown Road – Crosswalks. Each of the four legs of the intersection of Frederick Road at Germantown Road is considered undesirable from a pedestrian crossing standpoint as it features approximately 130 ft of crossing space without pedestrian refuge. In addition, the southbound approach of MD 355 features a “hot right” where pedestrians cross a channelized right turn.
- MD 355 at Neelsville Church Road – South Leg. The crosswalk at this location is listed as undesirable presumably because of the crossing distance of approximately 110 ft. This is a midblock crossing without any available pedestrian refuge.

Uncomfortable

- Frederick Road (East). To the south of Germantown Road, there is a sidewalk available; however, there is only approximately a 4-ft grass strip between the sidewalk and travel lanes. The same situation is present north of Neelsville Church Road.
- Frederick Road (West). Sidewalk is available throughout the entire length of the segment; however, there is a limited grass strip through part of it consisting of only 3–4 ft.

Within the acceptable areas, there are some noted deficiencies which include narrow sidewalks, discontinuous sidewalks, and tree incursions. Figures 15–19 detail the areas of concern. A brief description of the photographs and potential improvements can be found in Table 7.



Montgomery County, Maryland

NEELSVILLE MIDDLE SCHOOL

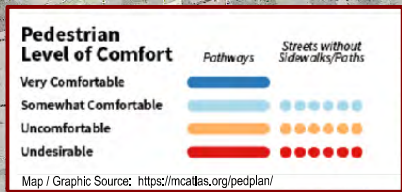
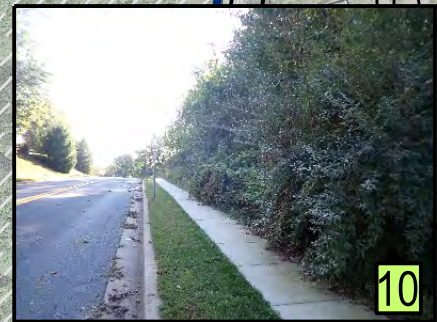
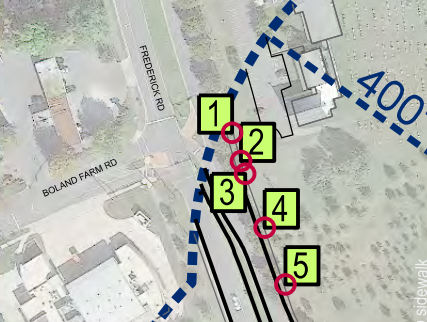
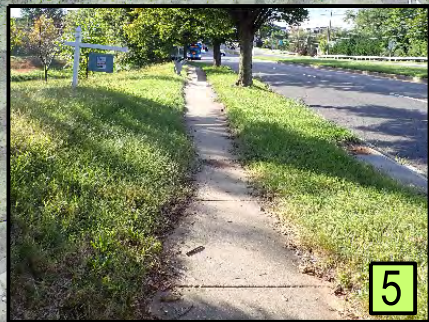
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FIGURE 14

PEDESTRIAN LEVEL OF COMFORT

OVERVIEW MAP





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Montgomery County, Maryland

NEELSVILLE MIDDLE SCHOOL

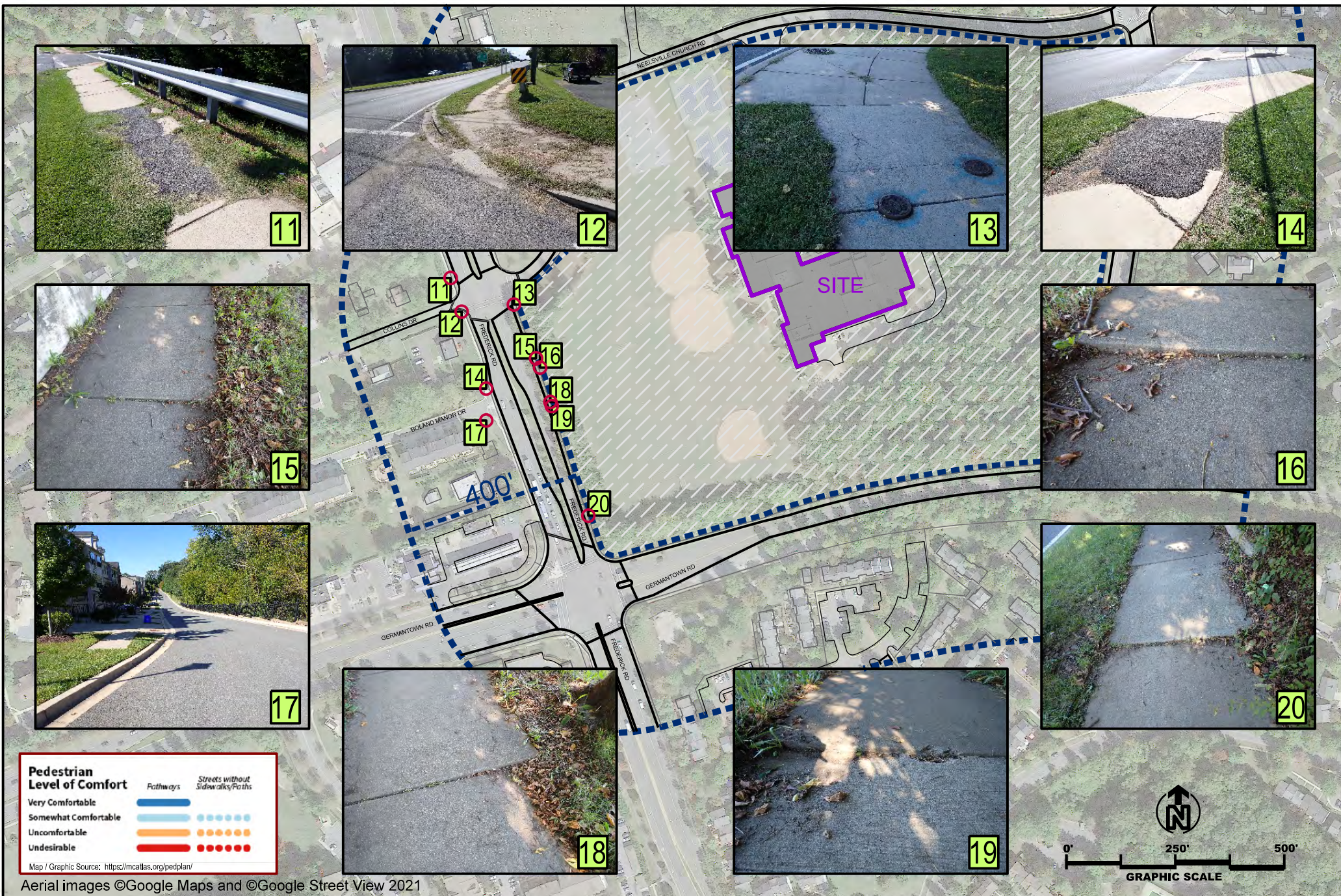
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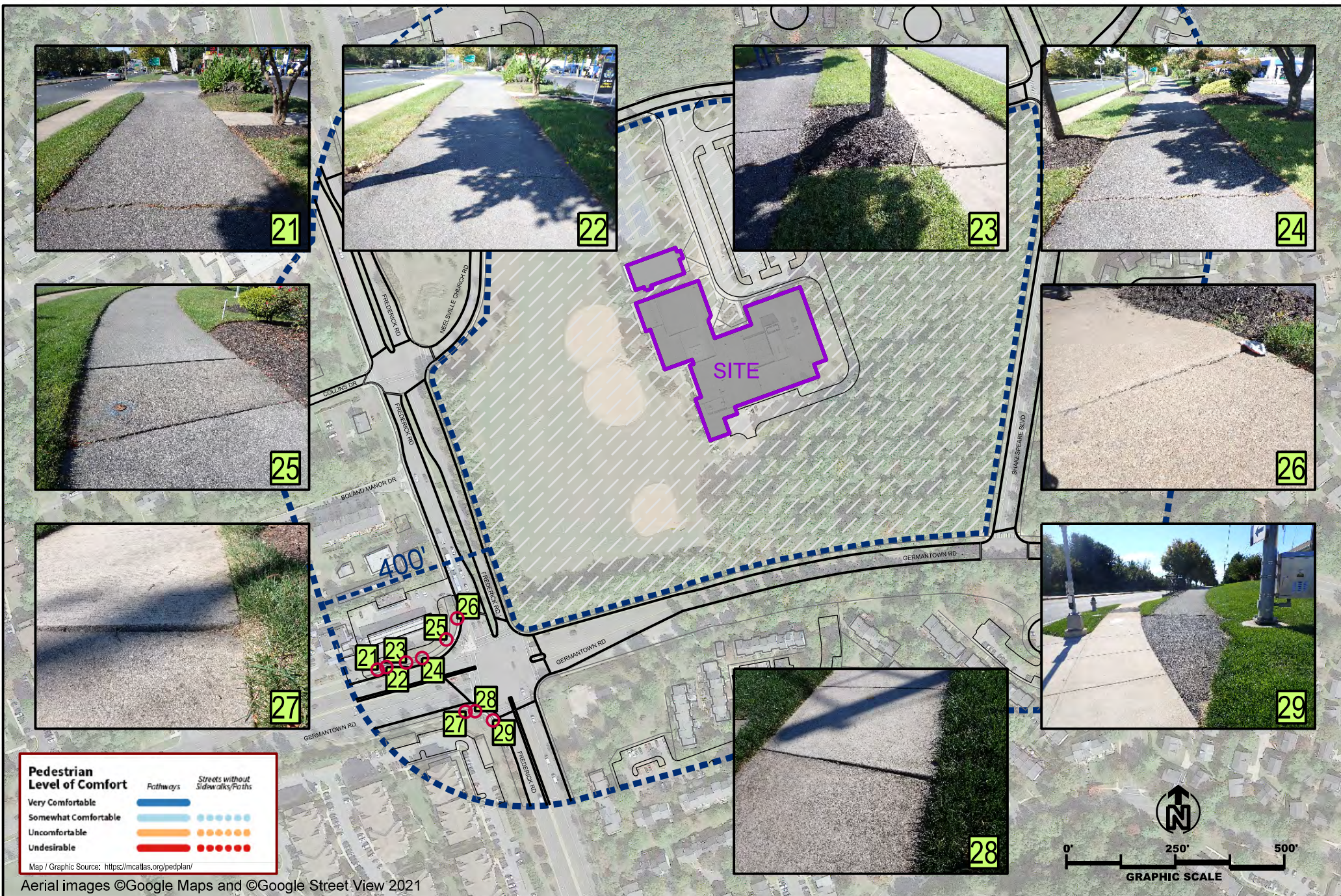
PEDESTRIAN LEVEL OF COMFORT

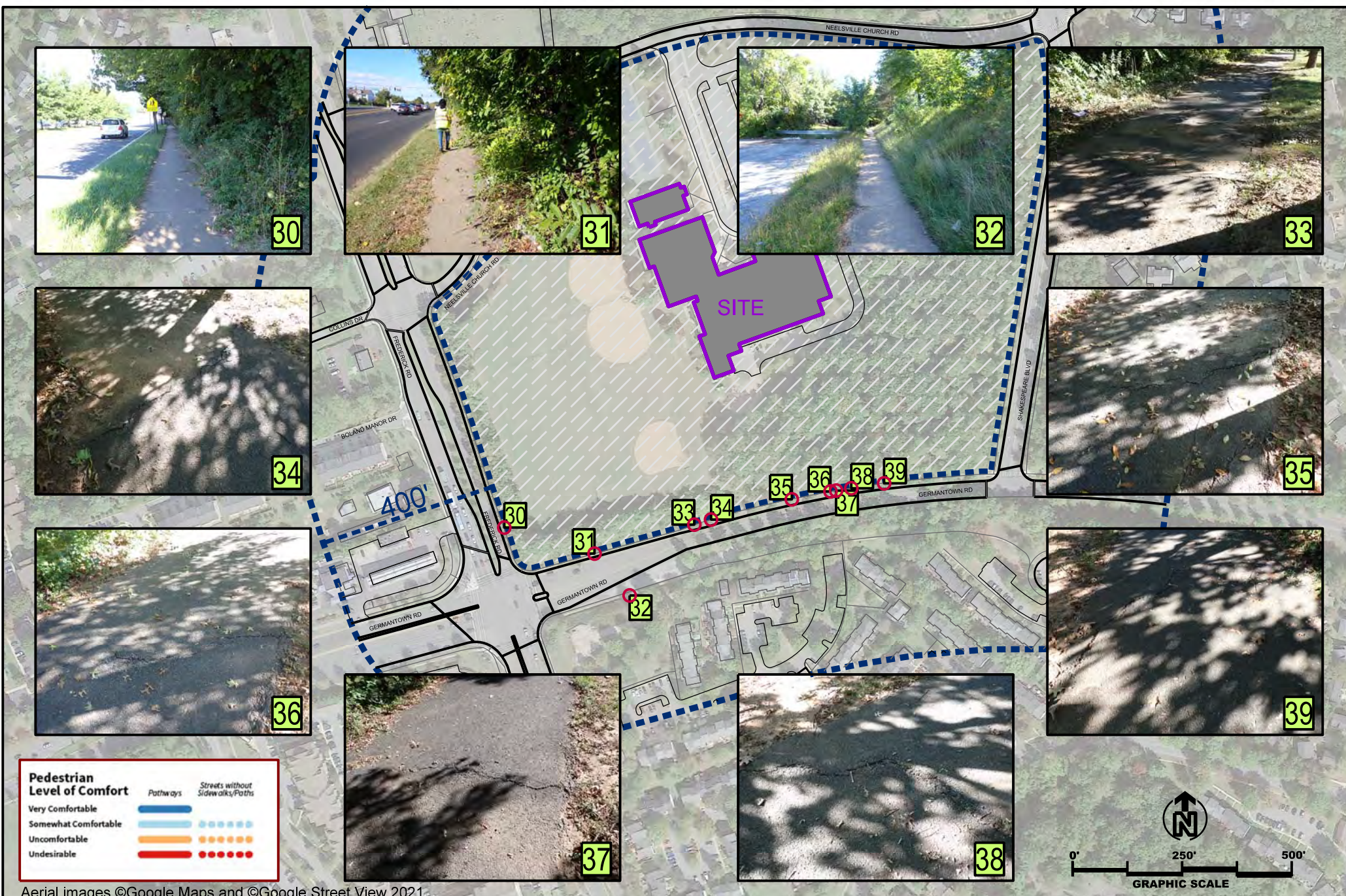
DETAIL PHOTOGRAPHS

FIGURE 15









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PEDESTRIAN LEVEL OF COMFORT

DETAIL PHOTOGRAPHS

FIGURE 18





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41



42



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PEDESTRIAN LEVEL OF COMFORT

DETAIL PHOTOGRAPHS

FIGURE 19

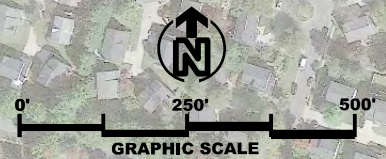


Table 7. PLOC – Photograph Descriptions

Location	Photo	Area of Concern	Potential Improvement
Frederick Rd. (Northbound); @ Boland Farm Rd.	1	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Northbound); 25' South of Boland Farm Rd.	2	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Northbound); 45' South of Boland Farm Rd.	3	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Northbound); 131' South of Boland Farm Rd.	4	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Northbound); 160'-290' South of Boland Farm Rd.	5	Vegetation Overgrowth	Remove vegetation
Frederick Rd. (Southbound); 115' North of Collins Dr.	6	Deteriorating Sidewalk	Provide repair
Frederick Rd. (Southbound); 125'-135' North of Collins Dr.	7	Missing Sidewalk	Provide sidewalk
Frederick Rd. (Southbound); 170'-180' North of Collins Dr.	8	Missing Sidewalk	Provide sidewalk
Neelsville Church Rd. (Westbound); @ Site Access	9	Vegetation Overgrowth	Remove vegetation
Neelsville Church Rd. (Eastbound); 1300'-1350' East of Frederick Rd.	10	Vegetation Overgrowth	Remove vegetation
Frederick Rd. (Southbound); 40'-55' North of Collins Dr.	11	Missing Sidewalk	Provide sidewalk
Frederick Rd. (Southbound); @ Collins Dr.	12	Vegetation Overgrowth	Remove vegetation
Frederick Rd. (Northbound); 630' North of Germantown Rd.	13	Utility Access Lip	Repair to level
Frederick Rd. (Southbound); 460' North of Germantown Rd.	14	Missing Sidewalk	Provide sidewalk
Frederick Rd. (Northbound); 500' North of Germantown Rd.	15	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Northbound); 480' North of Germantown Rd.	16	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Southbound); @ Boland Manor Dr.	17	Missing Sidewalk	Provide sidewalk
Frederick Rd. (Northbound); 400' North of Germantown Rd.	18	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Northbound); 390' North of Germantown Rd.	19	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Northbound); 120' North of Germantown Rd.	20	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 445' East of Millennium Ct.	21	Deteriorating Sidewalk	Provide repair
Germantown Rd. (Westbound); 460' East of Millennium Ct.	22	Deteriorating Sidewalk	Provide repair
Germantown Rd. (Westbound); 515' East of Millennium Ct.	23	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 550' East of Millennium Ct.	24	Deteriorating Sidewalk	Provide repair

Table 7. PLOC – Photograph Descriptions (Continued)

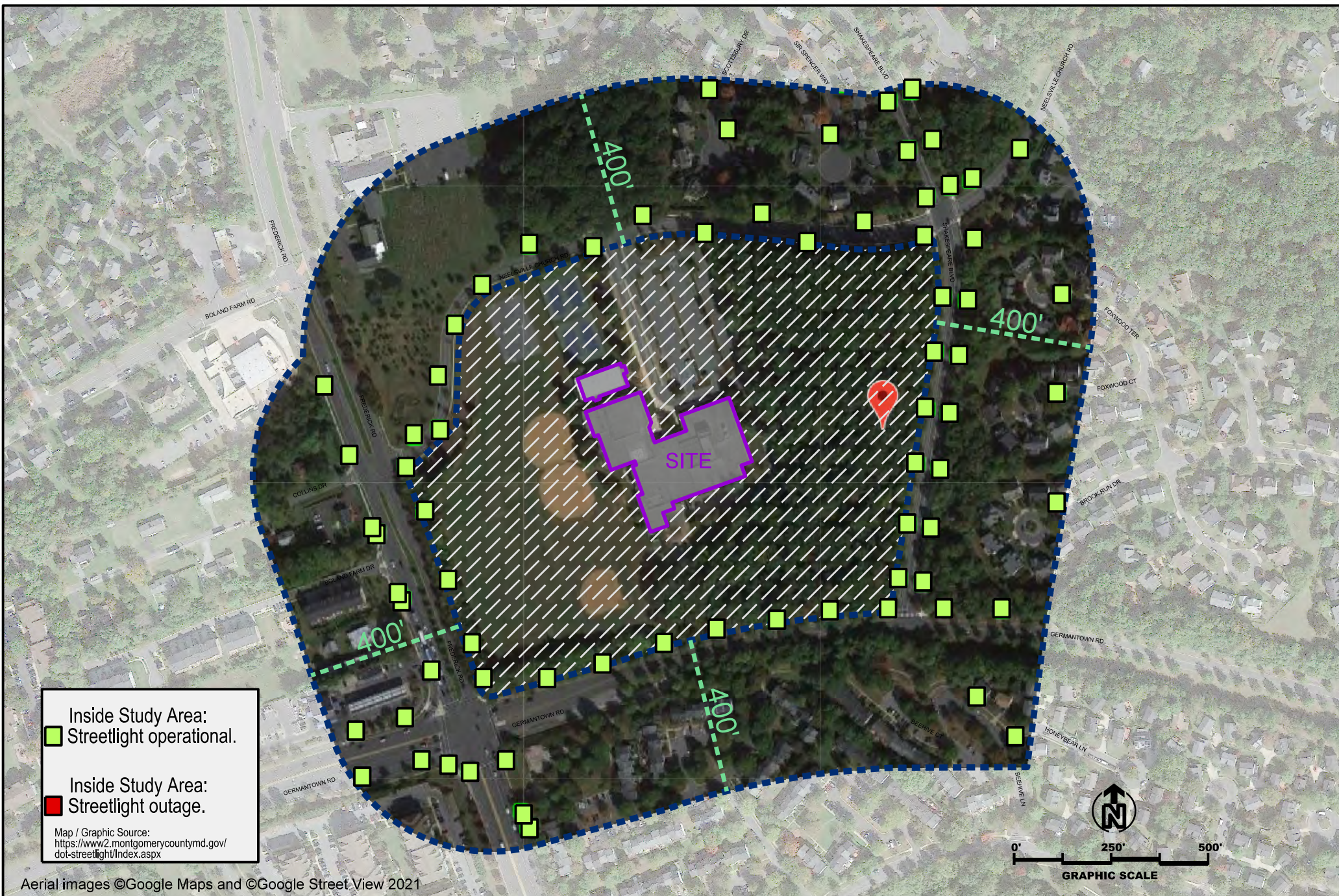
Germantown Rd. (Westbound); 625' East of Millennium Ct.	25	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Southbound); 90' North of Germantown Rd.	26	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Eastbound); 70' West of Frederick Rd.	27	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Eastbound); 45' West of Frederick Rd.	28	Lifted Sidewalk	Provide repair to level sidewalk
Frederick Rd. (Southbound); @ Germantown Rd.	29	Deteriorating Sidewalk	Provide repair
Frederick Rd. (Northbound); 60'-120' North of Germantown Rd.	30	Vegetation Overgrowth	Remove vegetation
Germantown Rd. (Westbound); 750' West of Shakespeare Blvd. to Frederick Rd.	31	Vegetation Overgrowth	Remove vegetation
Germantown Rd. (Eastbound); 60'-380' East of Frederick Rd.	32	Vegetation Overgrowth	Remove vegetation
Germantown Rd. (Westbound); 685'-715' West of Shakespeare Blvd.	33	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 660' West of Shakespeare Blvd.	34	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 470' West of Shakespeare Blvd.	35	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 380' West of Shakespeare Blvd.	36	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 370' West of Shakespeare Blvd.	37	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 335' West of Shakespeare Blvd.	38	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 260' West of Shakespeare Blvd.	39	Lifted Sidewalk	Provide repair to level sidewalk
Shakespeare Blvd. (Southbound); 235'-825' South of Neelsville Church Rd.	40	Vegetation Overgrowth	Remove vegetation
Germantown Rd. (Westbound); 120' East of Shakespeare Blvd.	41	Lifted Sidewalk	Provide repair to level sidewalk
Germantown Rd. (Westbound); 150' East of Shakespeare Blvd.	42	Lifted Sidewalk	Provide repair to level sidewalk

Street Lighting

As shown within the MCDOT Streetlight Index, there are approximately 75 streetlights within the defined study area. Figure 20 details the location of all street lighting. The lighting is noted as functional with no service calls placed on any existing installation.

ADA Compliance

ADA compliance was reviewed in the study area primarily at curb ramps. Deficiencies noted in the PLOC portion of the analysis could also apply to ADA compliance. Figures 21 and 22 contain photographs of the areas of concern. Table 8 provides details on each of the photographs along with potential improvements.

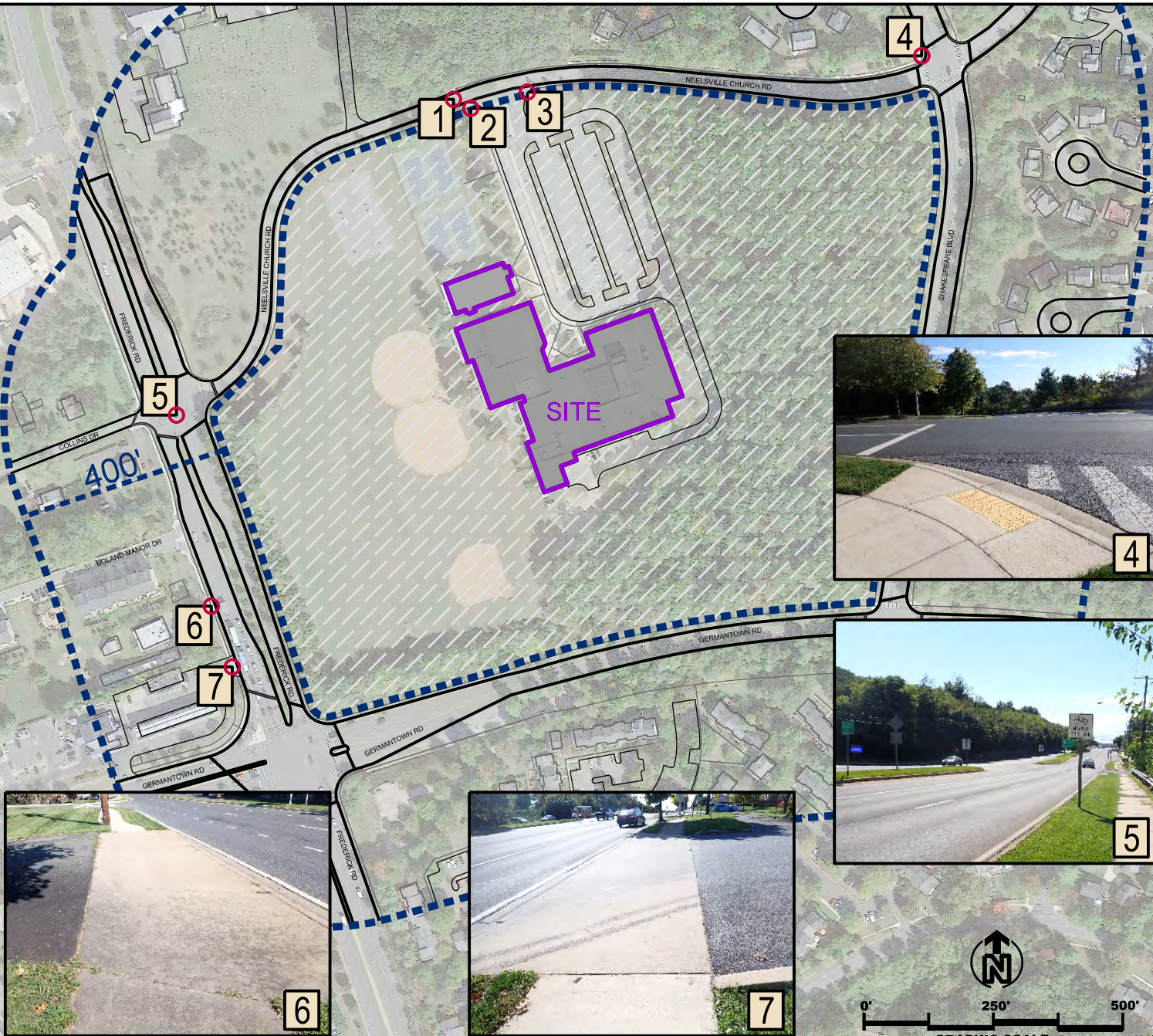
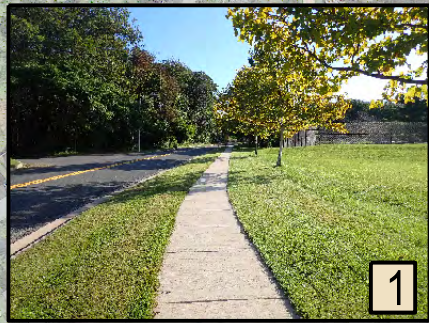


Montgomery County, Maryland

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Local Area Transportation Review

FIGURE 20
STREETLIGHT COMPLIANCE
 OVERVIEW MAP



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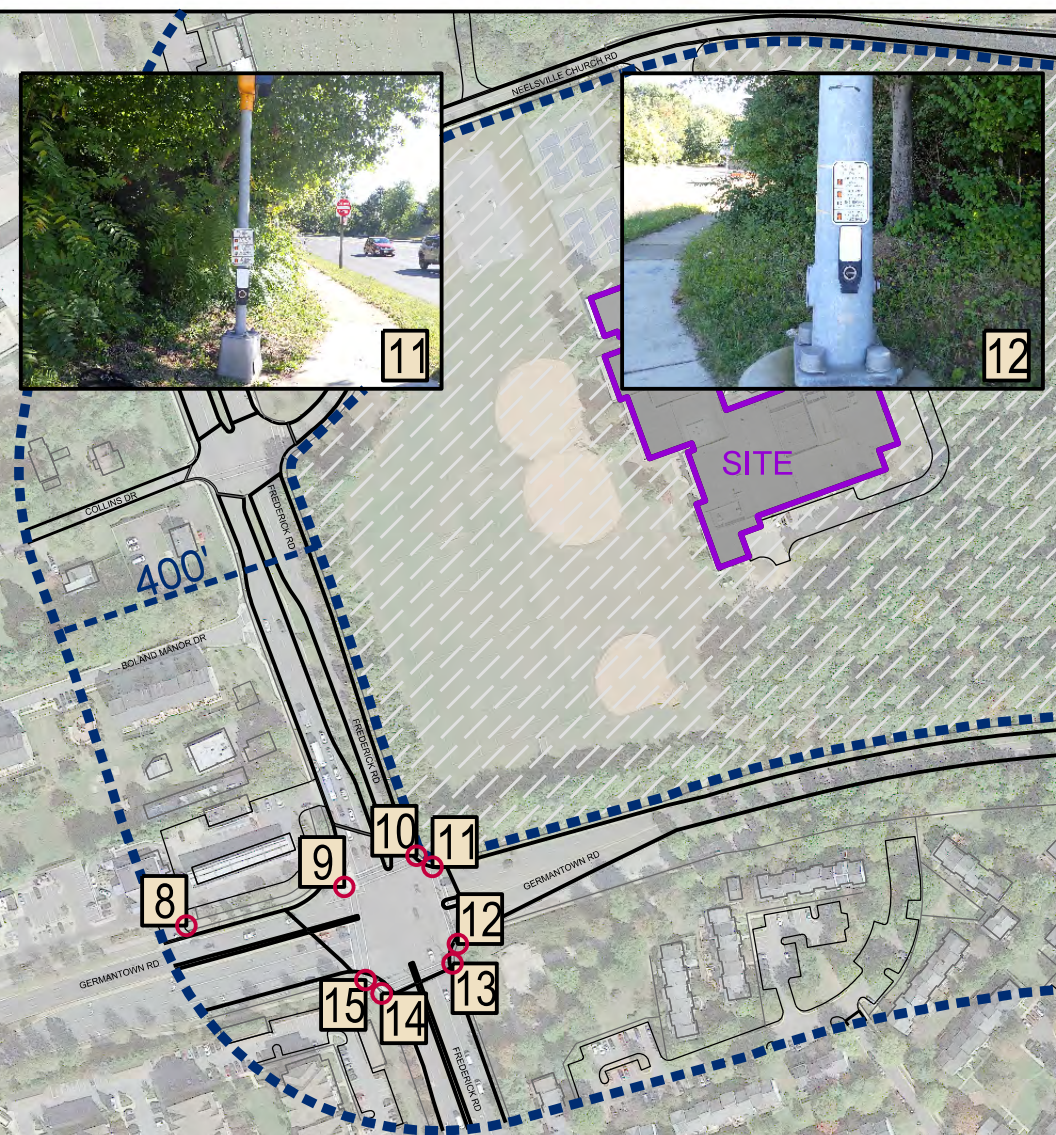
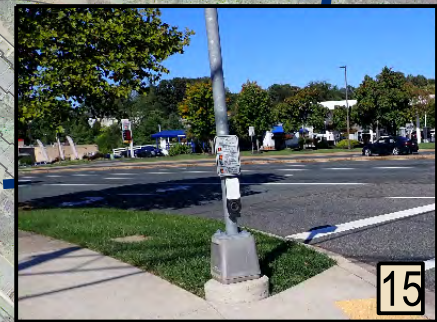
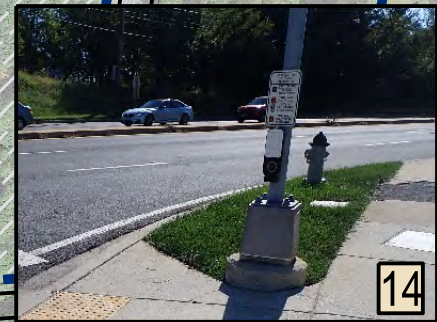
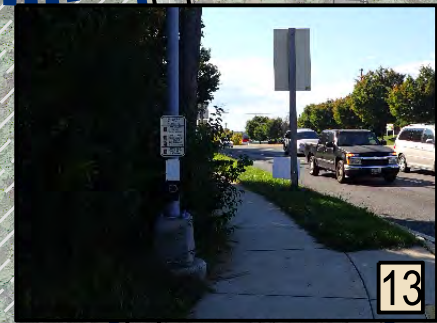
Montgomery County, Maryland

NEELSVILLE MIDDLE SCHOOL

Local Area Transportation Review

FIGURE 21
ADA COMPLIANCE
DETAIL PHOTOGRAPHS





Aerial images ©Google Maps and ©Google Street View 2021

Montgomery County, Maryland

NEELSVILLE MIDDLE SCHOOL

Local Area Transportation Review

FIGURE 22
ADA COMPLIANCE
DETAIL PHOTOGRAPHS



Table 8. ADA – Photograph Descriptions

Location	Photo	Area of Concern	Potential Improvement
Neelsville Church Rd. @ Site Access	1	Missing Advanced Warning Signage	Install correct signage
Neelsville Church Rd. @ Site Access	2	Missing Crosswalks	Install correct crosswalks
Neelsville Church Rd. @ Site Access	3	Missing Crosswalks	Install correct crosswalks
NW & NE Corners of Neelsville Church Rd. @ Shakespeare Blvd	4	Missing Crosswalks	Install correct crosswalks
Frederick Rd. @ Neelsville Church Rd./Collins Dr.	5	Missing Advanced Warning Signage	Install correct signage
Frederick Rd. (Southbound); 275' North of Germantown Rd.	6	Missing ADA Detectable Warning Surface	Install correct surface
Frederick Rd. (Southbound) @ 7/11 Access	7	Missing ADA Detectable Warning Surface	Install correct surface
Germantown Rd. (Westbound) @ 7/11 Access	8	Missing ADA Detectable Warning Surface	Install correct surface
NW Corner of Frederick Rd. @ Germantown Rd.	9	Missing Pedcrossing Braille Crossing Signage	Install correct signage
NE Corner of Frederick Rd. @ Germantown Rd.	10	Missing Pedcrossing Braille Crossing Signage	Install correct signage
NE Corner of Frederick Rd. @ Germantown Rd.	11	Missing Pedcrossing Braille Crossing Signage	Install correct signage
SE Corner of Frederick Rd. @ Germantown Rd.	12	Missing Pedcrossing Braille Crossing Signage	Install correct signage
SE Corner of Frederick Rd. @ Germantown Rd.	13	Missing Pedcrossing Braille Crossing Signage	Install correct signage
SW Corner of Frederick Rd. @ Germantown Rd.	14	Missing Pedcrossing Braille Crossing Signage	Install correct signage
SW Corner of Frederick Rd. @ Germantown Rd.	15	Missing Pedcrossing Braille Crossing Signage	Install correct signage

BICYCLE SYSTEM ADEQUACY

A low Level of Traffic Stress (LTS-2) is required to achieve bicycle system adequacy. The bicycle test is required for any site generating more than 50 peak hour person trips and considers different elements of the road network and adjacent features, including traffic volumes, speeds, road classification, presence of side paths, separated bike lanes, and other components.

The Neelsville Middle School will generate between 100 and 199 trips and it is in a Yellow Policy Area. Therefore, a 400-ft distance is applicable to test bicycle adequacy. Table 9 shows the M-NCPPC requirements. M-NCPPC has developed a database of bicycle stress, which is available through MC Atlas. The output from the database is used as the base map for this analysis. A site visit was undertaken in October 2021 to confirm the information and ensure no changes have been made. Figure 23 shows the bicycle levels of stress.

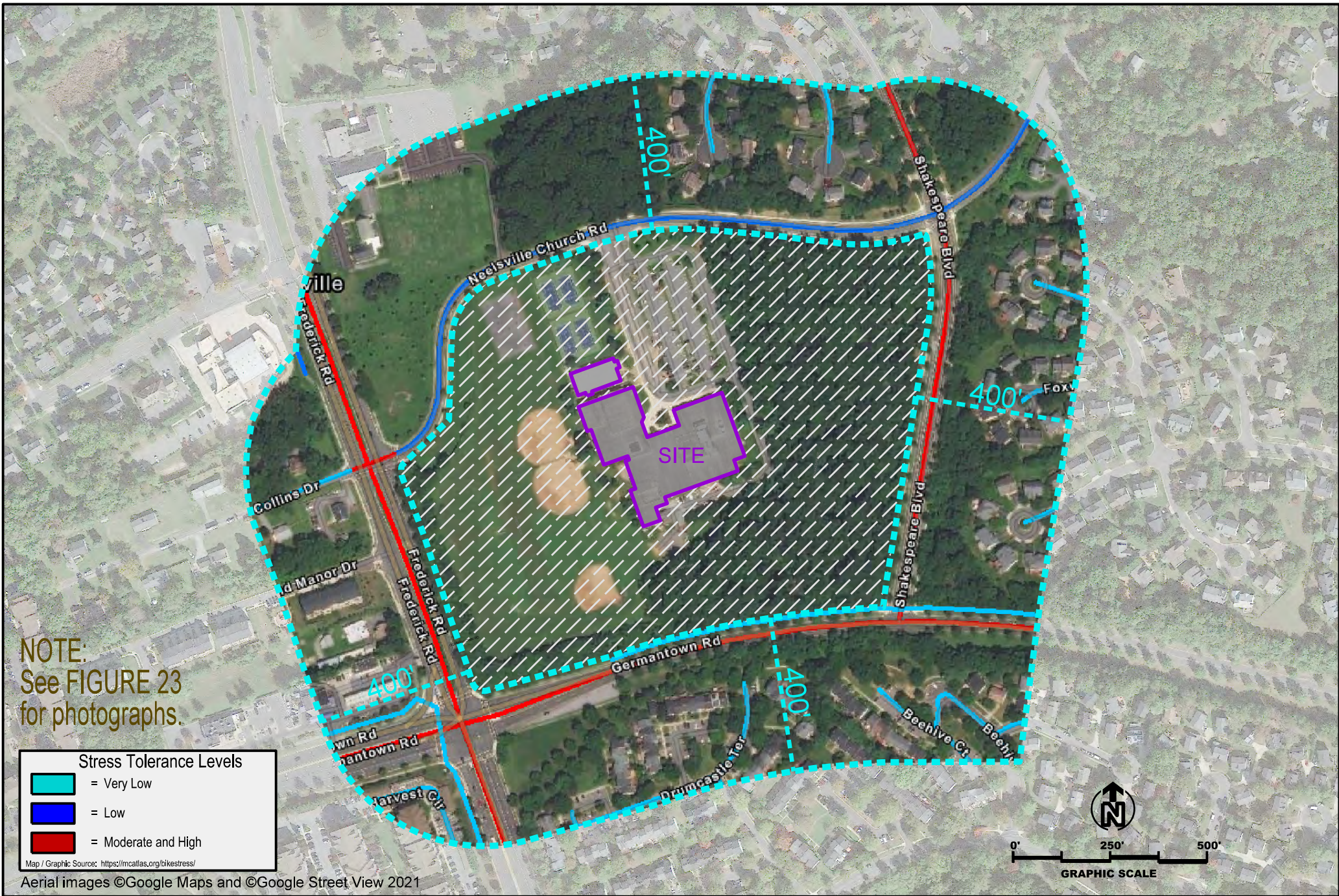
Table 9. Bicycle Adequacy Scoping Requirements

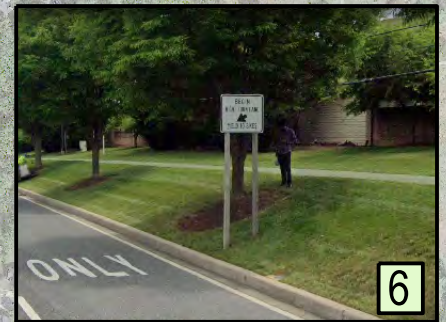
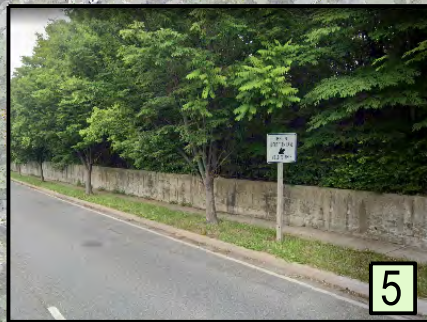
Peak-Hour Person Trips Generated	Red and Orange Policy Areas	Yellow and Green Policy Areas
50 – 99	400'	250'
100 – 199	750'	400'
200 – 349	900'	500'
350 or more	1,000'	600'

As shown within Figure 23, moderate and high levels of bicycle stress can be found along the following roadways:

- Frederick Road (MD 355) – Only 'Share the Road' signing is available. No separate bicycle facilities are available.
- Germantown Road – The eastbound Germantown Road approach within the study area does not have a separate bicycle facility. The north side of the roadway, however, does have a paved shared use path.
- Shakespeare Boulevard has identical bicycle features on both sides of the roadway. Specifically, a marked bike lane is available along both the northbound and southbound directions. This condition is not reflected within the bicycle level of stress map.

Photographs detailing the deficient conditions for bicycles can be found in Figure 24.





Stress Tolerance Levels

- = Very Low
- = Low
- = Moderate and High

Map / Graphic Source: <https://mcatlas.org/bikestress/>

Aerial images ©Google Maps and ©Google Street View 2021

Montgomery County, Maryland

NEELSVILLE MIDDLE SCHOOL

Local Area Transportation Review

FIGURE 24

BICYCLE ADEQUACY

OVERVIEW MAP



BUS TRANSIT SYSTEM ADEQUACY

The study area is served by Ride On Routes 55, 70, and 79. Figure 25 shows the general routes that are available within 1,000 ft of the site.

Route 55 operates between Rockville Metro Station and Germantown Transit Center. Some of the major stops along the route include:

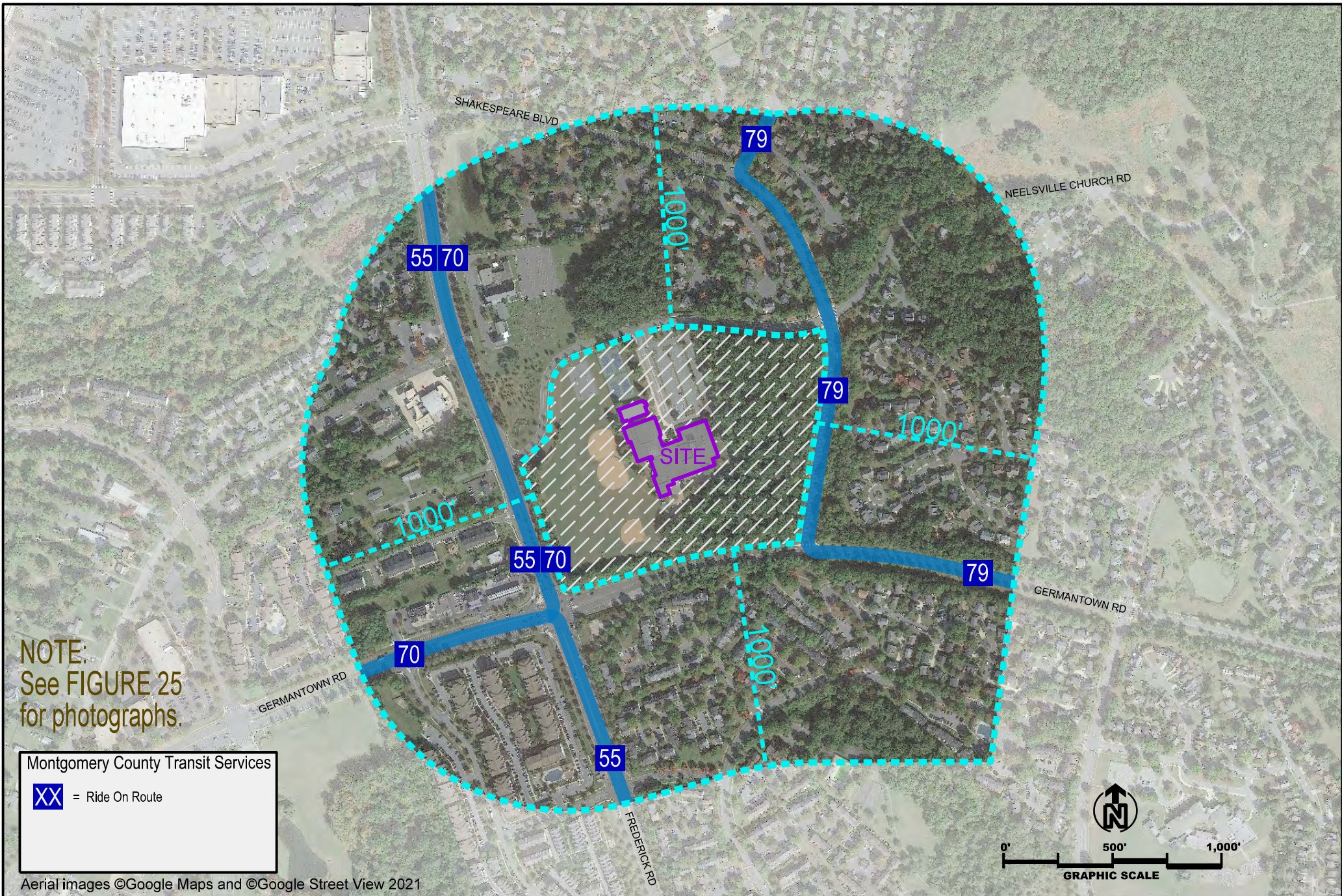
- Montgomery College – Rockville
- Shady Grove Station
- Lake Forest Transit Center
- Montgomery College – Germantown

Service on this route is generally available from 4:15 AM to 12:49 AM, Monday through Friday. More limited service is available on Saturdays and Sundays. The routes feature a 30-minute headway during off-peak periods and less than 12 minutes during the peak periods.

Route 70 operates between Milestone Park & Ride/Shakespeare Boulevard to the Bethesda Metro Rail Station. Other major stops along the bus route include the following:

- Medical Center Metro Station
- Suburban Hospital

Service on this route is available from 4:45 AM to 8:29 PM, Monday through Friday. Headways are approximately 35 minutes throughout the day.



NEELSVILLE MIDDLE SCHOOL

Local Area Transportation Review

FIGURE 25

TRANSIT ADEQUACY

OVERVIEW MAP - ROUTE DETAILS



Service on Route 79 is available Monday through Friday during peak periods only. The route extends from the Clarksburg Town Center to the Shady Grove Metro Station. Service is available from 5:05 AM to 9:28 AM and then from 3:10 PM to 7:58 PM. Buses operate on 45 to 47-minute headways. Details on all of the transit routes can be found in Appendix D.

Adequacy for the bus transit system is determined by the number of shelters within a certain distance from the site. Table 10 shows the requirements. Since this location will generate between 100 and 199 person trips and is situated within a Yellow Policy Area, two shelters are required within 1,000 ft. Figure 26 details the existing bus stops and available amenities. As shown, only a single shelter is currently available. All remaining bus stops feature bus pads and signing only. The shelter is available along Frederick Road, south of Germantown Road.

Table 10. Transit Adequacy Scoping Requirements

Peak-Hour Person Trips Generated	Red and Orange Policy Areas	Yellow Policy Areas
50 – 99	2 shelters within 500'	1 shelter within 500'
100 – 199	2 shelters within 1,000'	2 shelters within 1,000'
200 – 349	3 shelters within 1,300'	2 shelters within 1,300'
350 or more	4 shelters within 1,500'	3 shelters within 1,500'



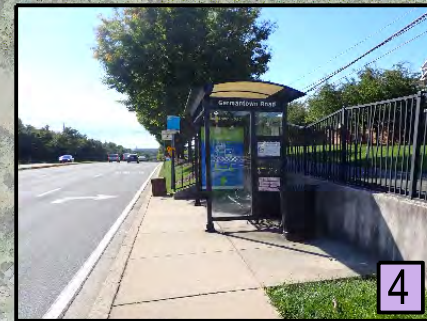
1



2



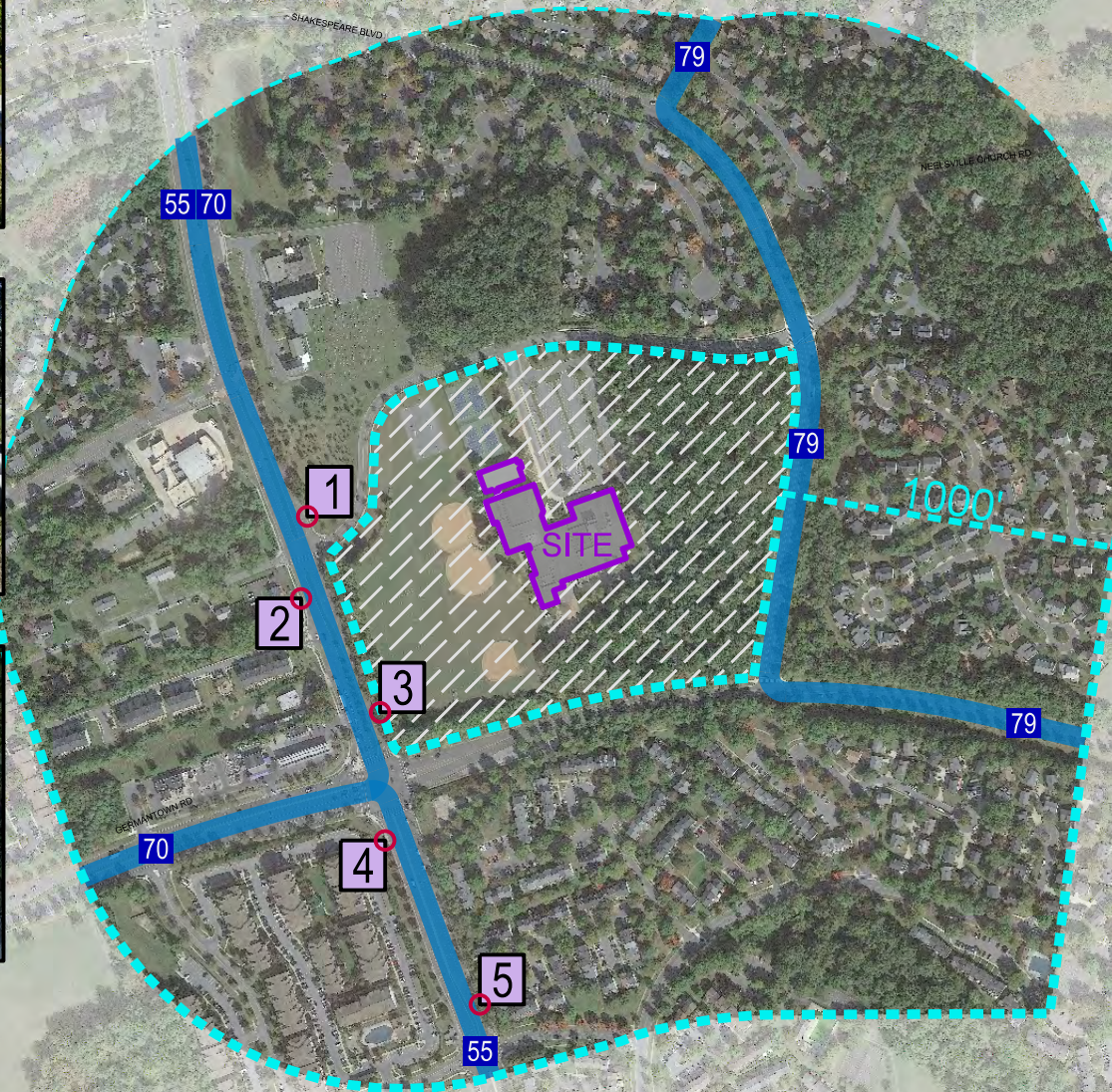
3



4



5



Montgomery County Transit Services

XX = Ride On Route

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Montgomery County, Maryland



0' 500' 1,000'
GRAPHIC SCALE

NEELSVILLE MIDDLE SCHOOL

Local Area Transportation Review

FIGURE 26
TRANSIT ADEQUACY
OVERVIEW MAP - ROUTE DETAILS



VISION ZERO STATEMENT

This section of the LATR assesses the High Injury Network (HIN) and overall safety issues. In addition, traffic speeds are reviewed on the key roadways within the study area. The site access is also discussed in the sections below. Table 11 details the scoping requirements. As shown within the table, an area extending 400 ft beyond site frontage must be reviewed. A maximum of two speed studies are also required.

Table 11. Vision Zero Scoping Requirements

Peak-Hour Person Trips Generated	Distance from Site Frontage		Max. Number of Speed Studies	
	Red and Orange Policy Areas	Yellow and Green Policy Areas	Red and Orange Policy Areas	Yellow and Green Policy Areas
50-99	400'	250'	2	1
100-199	750'	400'	4	2
200-349	900'	500'	6	3
350 or more	1,000'	600'	8	4

High Injury Network

M-NCPPC maintains a database of corridors that are considered part of the HIN. Roadways meet this threshold if there are five or more serious or fatal crashes and one or more collisions per mile per year. The HIN database was reviewed, and two segments were identified in the study area. They include:

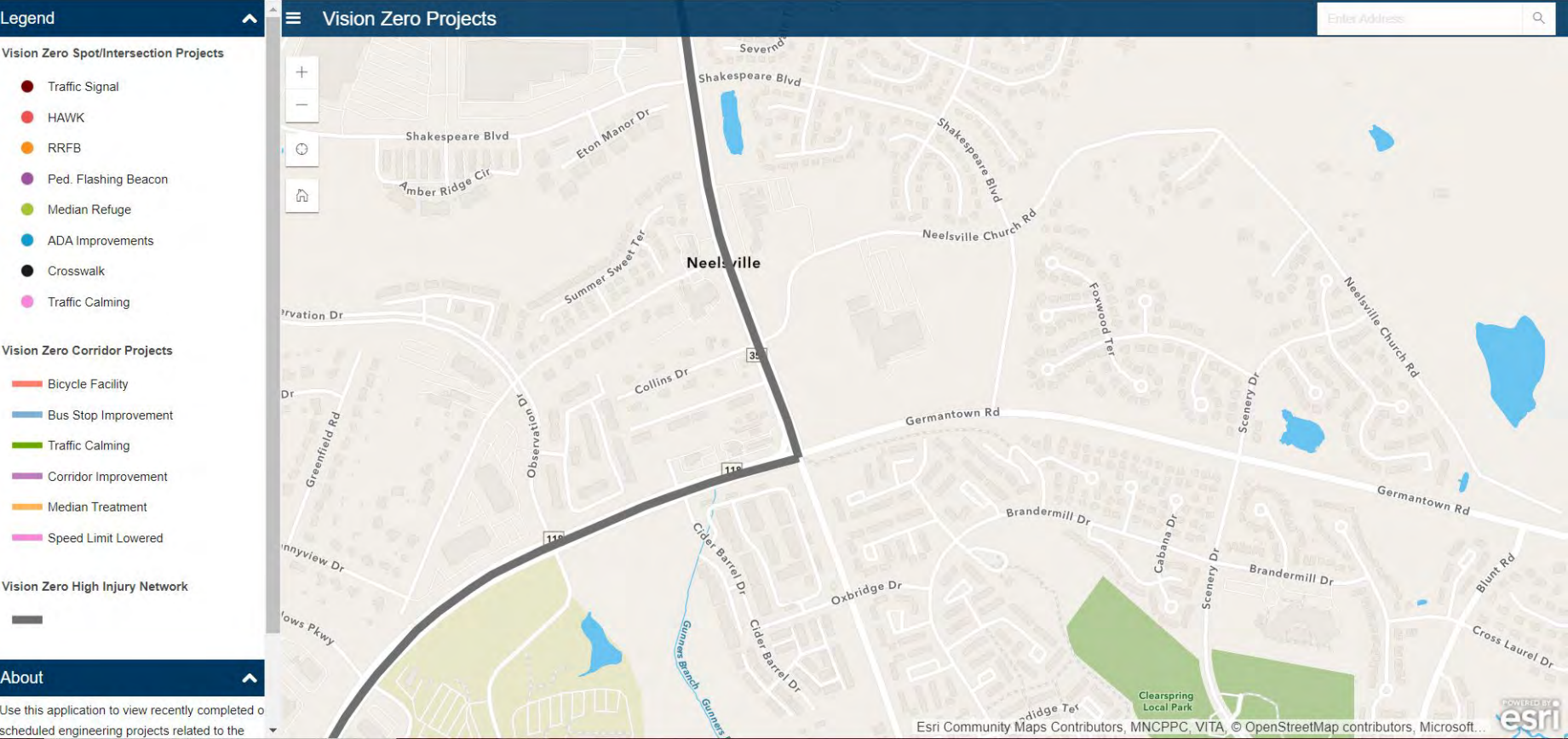
- MD 355 – Germantown Road to Ridge Road
- Germantown Road (MD 118) – I-270 to MD 355

Figure 27 shows the HIN mapping.

The MD 355 segment incorporates a total distance 0.88 miles. A total of 11 severe and fatal crashes have been reported from 2012 to 2016. This corresponds to a crash density of 2.50 and a crash rate of 19.66. Nine percent (9%) of the severe crashes involved pedestrians and bicyclists where one pedestrian was injured. None of the crashes in this corridor was fatal.

The Germantown Road segment extends for a total of 0.72 miles. Along this segment, six severe and fatal crashes were reported from 2012 through 2016. One pedestrian was injured within the crashes accounting for 17% of the injuries.

Figure 27. HIN Network



Crash Data

Crash data was obtained from the Maryland Open Data portal, which is maintained by the State of Maryland. Within the study area, significant crash history has been reported from 2015 through 2021, particularly at the intersection of Frederick Road at Germantown Road. Relatively few crashes have been reported at other adjacent intersections within 400 ft of the site. Over the 5½ year crash reporting period, most locations feature no more than 1–2 crashes per year. Full details on the crash data can be found in Appendix E. Figure 28 contains a summary of the number of crashes at each location.

A review of the crash data contained in the appendix reveals that a significant majority of all crashes involved property damage only. Rear ends were the most prevalent collision type representing over 60% of all crashes at the intersection of MD 355 at Germantown Road. The crashes generally were spread throughout the day and occurred on different approaches and within different areas of the road, including left turn lanes, right turn lanes, and acceleration lanes.

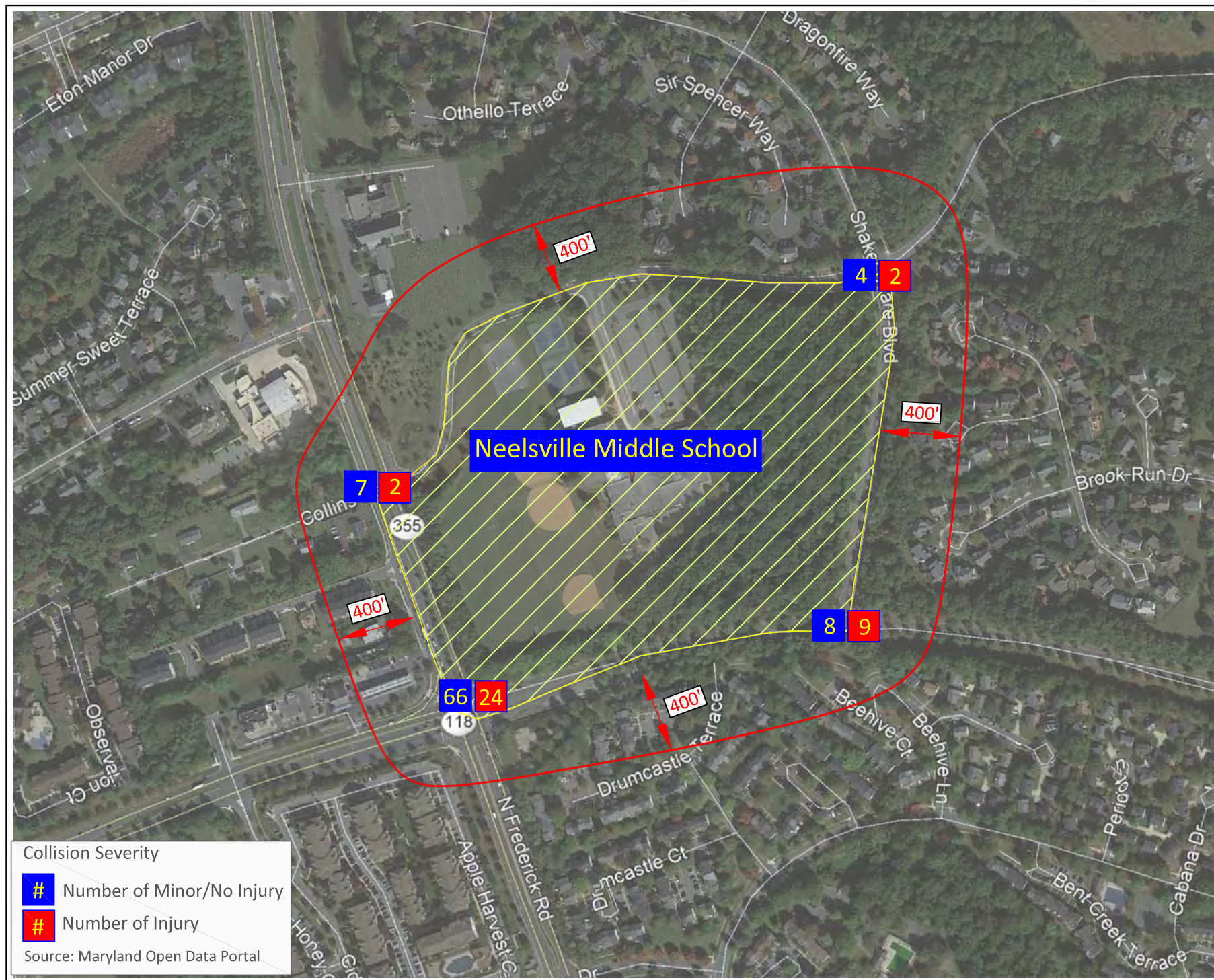
There was a total of 10 same direction angle (left turn) collisions that were reported over the 5½ year period. With no permissive left turns at this location, these collisions can only occur when drivers disobey the traffic signal.

At the intersection of MD 355 at Shakespeare Boulevard, a total of five crashes were reported from 2016 through 2021. Four of the five crashes involved property damage only. Three crashes were single vehicle crashes.

At Neelsville Church Road and MD 355, a total of four crashes were reported during the same time period. Two involved injury crash, which both were angle collisions.

Given the relative minimal crash history at surrounding intersections and amount of property damage crashes that occurred at MD 355 and Germantown Road, it is not expected that the addition at Neelsville Middle School will have a direct impact on intersection safety.

Figure 28 - Crash (2015 - 2021 Q2) Locations



Speed Data

A total of two 48-hour speed studies were undertaken within the study area along selected roadways. Table 12 details the measured 85th percentile speeds and the posted speed limits. As shown within the table, the travel speeds were very consistent with the speed limit, and the measured 85th percentile speed was near the posted speed limit and likely adequate for the current conditions. Complete speed study data can be found in Appendix E.

Table 12. Speed Data Summary

Location	Posted Speed	Measured 85 th Percentile Speed
Neelsville Church Road	25	27 eastbound, 31 westbound
MD 355	45	44 northbound, 46 southbound

Site Access

Vehicular access to Neelsville Middle School is proposed via one point along Neelsville Church Road opposite access to the church parking lot. This main access point will serve passover vehicular traffic only. Within this area, any vehicles dropping students off will be routed immediately to the right as shown within the blue arrow. Traffic would then circulate through the parking area to exit.

Access for all bus traffic is proposed to the east along Neelsville Church Road. The two access points will be separated by approximately 300 ft. The bus loop will extend around the site and all bus boardings and alightings will occur to the south of the school. This configuration will provide extensive storage space on site. The bus loop is denoted by the yellow area within Figure 29.

Each access point will operate under stop control.

Within the site, several crosswalks are proposed to assist pedestrian traffic from the parking area to the school building. In addition, crosswalks are proposed along Neelsville Church Road at each site access point. The crosswalks are shown within Figure 29.



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NEELSVILLE MIDDLE SCHOOL

Local Area Transportation Review

FIGURE 29

SITE CIRCULATION and AMENITIES

RESULTS, RECOMMENDATIONS, AND CONCLUSIONS

Study Purpose

The Traffic Group, Inc. has prepared this LATR to quantify the impact the proposed expansion of Neelsville Middle School will have on the surrounding road network in the Germantown section of Montgomery County. An operational middle school is currently sited on the property, with a student population of 956. With the completion of this expansion, a total of 1,190 students will be accommodated.

Access to the property is currently available via one point along Neelsville Church Road, which operates under stop control. Upon completion of this expansion, a second point of access will be provided which will provide separation from bus and vehicular traffic. The access points are proposed to operate under stop control.

This site is being developed by MCPS and is therefore being reviewed as a Mandatory Referral project. All findings in this document are considered advisory in nature.

Study Criteria/Methodology

This study was conducted in accordance with Montgomery County's LATR requirements. The original scoping form was submitted to M-NCPPC in August 2020 to address requirements under the previous Subdivision Staging Policy.

A supplemental scoping form was submitted on September 1, 2021, to address the non-vehicular components of the new Growth and Infrastructure Policy. A copy of the Scoping Agreement and the original approval can be found in Appendix A. To date, no formal correspondence has been received regarding the scoping documentation.

It was determined through the scoping process that the site will generate an additional 50 or more total weekday peak hour person trips. Therefore, the full Transportation Impact Study is required, which will address vehicular, pedestrian, bicycle, and transit adequacy at designated distances from the site. A Vision Zero statement is also provided. Details on the limits of each of these analyses are described in the respective section of this document.

Neelsville Middle School is situated within the Germantown East Policy Area, which is classified as yellow. For sites within Yellow Policy Areas, CLV analysis is required for all intersections. If a CLV is greater than 1,350, HCM analysis would also be required. A CLV of 1,425 is considered acceptable within this policy area.

All turning movement counts for this project were collected in 2019 using historic data supplemented with StreetLight Data which utilizes Bluetooth technology.

Summary of Findings and Recommendations

This LATR will show that the proposed expansion of Neelsville Middle School will have a minimal impact on surrounding intersection operations. All intersections were found to operate with acceptable levels of service under existing conditions. In the future with the full buildout of the site, all intersections will maintain a CLV below 1,425. Since all locations are considered acceptable, improvements are not required to demonstrate vehicular adequacy.

Pedestrian, bicycle, transit, and safety analyses were also conducted within the defined study area. Several items were noted as areas of concern. Potential improvements were also identified that would provide adequate facilities in conjunction with typical LATR requirements. Since this project is being developed by MCPS, it is exempt from providing off-site improvements through the Mandatory Referral process. Therefore, all off-site areas of concern are provided for information purposes only, and physical improvements are not required.

On site, several enhancements are being provided to extend vehicular queuing areas and improve pedestrian safety. The improvements include sidewalks and crosswalks that will safely allow for passage of pedestrians. In addition, all bus traffic is being separated from passenger vehicle traffic.

APPENDIX A

Scoping Documentation



From: [Carl Wilson](#)
To: [Freer, Walker](#)
Subject: LATR Scoping Form for Neelsville Middle School
Date: Monday, August 24, 2020 11:53:00 AM
Attachments: [Scoping Form.pdf](#)

Hi Walker-

Attached please find a scoping agreement for the reconstruction of Neelsville Middle School. We plan to use one count from 2019 and supplement with available big data obtained from 2019 or early 2020 when school was in session. Please let me know if you have any questions.

Thanks!

Carl



**Carl Wilson, Jr., P.E, PTOE, RSP
Vice President**

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T 410.931.6600
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MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Local Area Transportation Review

TRANSPORTATION IMPACT STUDY SCOPE OF WORK AGREEMENT

Updated July 2020

Scoping Approval - Prior to initiating a Local Area Transportation Review study or supplemental traffic study, scoping *must be approved* by relevant agencies, including the Planning Department, the Montgomery County Department of Transportation, and the State Highway Administration (where relevant). It is the responsibility of the Applicant to obtain approval, which is demonstrated below via signature or electronic signature of the relevant agency representatives. Generally, the Applicant should anticipate a turnaround time of ten (10) business days for form review. Substantially large projects may require additional time and/or may warrant a scoping meeting.

Montgomery County Planning Department

Name (print): _____ Signature: _____ Date: _____

Montgomery County Department of Transportation

Name (print): _____ Signature: _____ Date: _____

State Highway Administration (where relevant)

Name (print): _____ Signature: _____ Date: _____

Applicant Contact Information

Transportation Consultant
(company, contact name, email,
and phone number)

Name of Applicant /
Developer

Project Information

Include Tables/Graphics, As Needed

Project Name
(include plan no. if known)

Project Location
(include address if known)

Policy Area(s)
(subdivision staging policy map)

Master Plan(s) /
Sector Plan Area(s)

Application Type(s)

☐ Preliminary Plan

☐ Site Plan

☐ Sketch/Concept/Pre-
Preliminary (Optional)

☐ Amendment

☐ Conditional Use
(formerly special exception)

☐ Local Map
Amendment

☐ APF at Building
Permit

☐ Other:

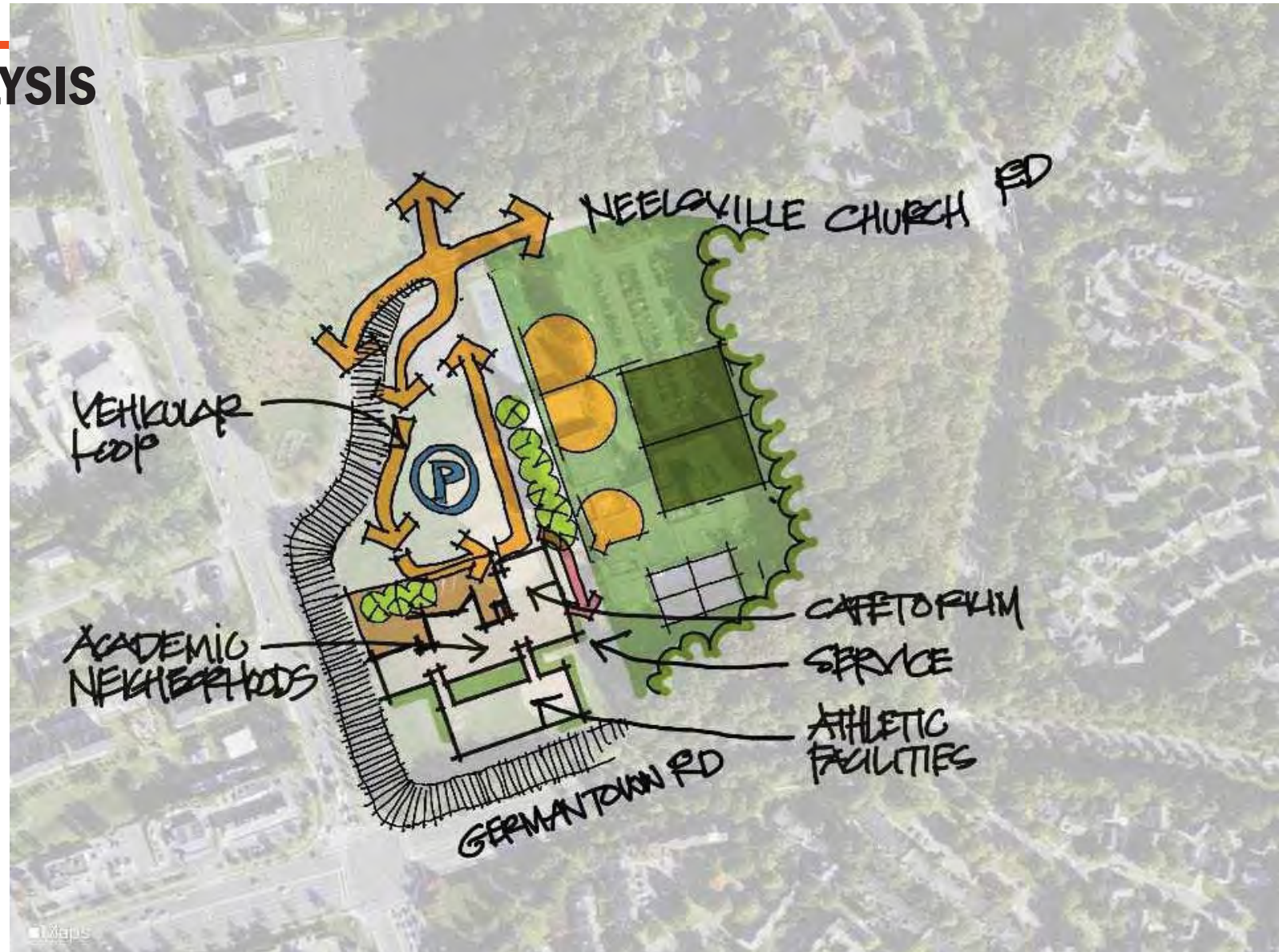
Project Description & Previous Approvals (proposed land uses, zoning, no. of units, square footage, construction phasing, prior approvals and proposals, existing uses, site operations, year built, status of Adequate Public Facilities [APF], other relevant info)			
1.Site Access (proposed access location(s), existing/adjacent/opposite curb cuts, interparcel connections, access configurations and restrictions, internal circulation, private roads, parking/loading areas, other relevant info)			
2.Transportation Analysis Requirement	<input type="checkbox"/> Transportation Impact Study Generates <u>50 or more</u> total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, <u>AND</u> is outside of the White Flint and White Oak Policy Areas. Fill out remainder of this form and include in transportation impact study appendix.		<input type="checkbox"/> Transportation Study Exemption Statement Generates <u>49 or fewer</u> total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, <u>OR</u> within White Flint and White Oak Policy Areas.
3.Project-based Transportation Demand Management Plan Required (see Chapter 42, Articles I and II)	<input type="checkbox"/> No	<input type="checkbox"/> Yes (In Transportation Management District [TMD])	<input type="checkbox"/> Amend Existing TMAg
4.Established Transportation Management District (TMD)?	<input type="checkbox"/> No	<input type="checkbox"/> Yes TMD Name: _____	
Transportation Impact Study Assumptions <i>Include Tables/Graphics, As Needed</i>			
5.Study Years / Phases	Existing Year: _____		Phases / Build-out Year(s): _____
6.Study Periods	<input type="checkbox"/> AM <input type="checkbox"/> PM <input type="checkbox"/> Mid-day <input type="checkbox"/> Saturday <input type="checkbox"/> Sunday <input type="checkbox"/> Other: _____		

7.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts must be collected within 12-months of completed and accepted application)	# of tiers of intersections to study (refer current LATR Guidelines): _____ <i>For the purpose of determining the number of tiers of study intersections, trip calculation for the subject site should also include nearby unbuilt properties in common ownership. No trip reductions should be taken in this calculation other than a credit for existing developments over 12 years old.</i>				
	1)		7)		
	2)		8)		
	3)		9)		
	4)		10)		
	5)		11)		
	6)		attach more rows if necessary		
8.Trip Generation (clearly cite sources and methodology including use of average rates vs. equation; include trip generation for existing site, current approvals, proposed uses, and net changes)	Total Person Trips	Vehicle Trips* (Auto Driver)	Transit Trips*	Walking Trips* (non-motorized + transit)	Bicycling Trips* (non-motorized)
	<i>* Only required if total peak hour person trips are 50 or more in either the AM or PM peak hour. Sum of all vehicle, transit, and non-motorized trips shall be the equivalent of total person trips. Use table at the end of the form to show all calculations and assumptions for mode breakout.</i>				
9.Trip Reductions (include justification and supporting documentation for internal capture, pass-by, diverted, Transportation Demand Management)					
10.Trip Distribution % (include a map of the proposed project in addition to a list or table)					
11.Pipeline Developments to be considered as background traffic (include name, plan #, land uses, and sizes for approved but unbuilt developments or concurrently pending applications; info can be obtained from the M-NCPPC Pipeline website: - website is updated quarterly)					
12.Pipeline Transportation Projects to be considered as background condition (fully funded for construction in County Capital Improvement Program, State Consolidated Transportation Program, developer projects, etc. within the next 6 years)					

Preliminary Mitigation Analysis		<i>*Refer to the LATR Guidelines for details on how to mitigate</i>	
14.Vehicular Analysis	<input type="checkbox"/> Vehicular Analysis Anticipated (Vehicular mitigation to be determined after study)	<ul style="list-style-type: none"> TEST: HCM Analysis is required to be provided for all intersections analyzed in studies for: 1) "Red & Orange" policy areas, and 2) intersections with a CLV of more than 1,350 in "Yellow & Green" policy areas. 3) CLV analysis required for all intersections regardless of policy area. CLV assessment and signal timing worksheets are to be included in the study appendix. MITIGATION: Required if HCM delay analyses exceed policy area standard 	
15.Pedestrian Analysis	<input type="checkbox"/> Pedestrian Mitigation Anticipated	<ul style="list-style-type: none"> TEST: If the plan generates 50 or more pedestrian peak hour trips, mitigation of surrounding pedestrian conditions is required MITIGATION: Required if ADA non-compliance issues within 500 foot radius of site boundary and if pedestrian crosswalk delay at LATR intersections within 500 feet of site boundary is lower than Level of Service (LOS) D 	
16.Bicycle Analysis	<input type="checkbox"/> Bicycle Mitigation Anticipated	<ul style="list-style-type: none"> TEST: If the plan generates 50 or more bicycle peak hour trips and is within 0.25 miles of an existing educational institution or existing/planned bikeshare station, mitigation of surrounding bicycle conditions is required MITIGATION: Required to make improvements to provide a low Level of Traffic Stress to any existing similar facility within 750 feet of the site boundary; Alternatively, project may provide a master planned improvement that provides an equivalent improvement in the level of traffic stress for cyclists 	
17.Transit Analysis	<input type="checkbox"/> Transit Mitigation Anticipated	<ul style="list-style-type: none"> TEST: If the plan generates 50 or more transit peak hour trips and the peak load of bus routes at bus stops within 1,000 feet of site boundary exceeds (or is worse than) peak load of LOS D (1.25 transit riders per seat during the peak period in the peak direction), mitigation of transit conditions is required MITIGATION: Required to provide or fund improvements that would mitigate the trips exceeding the standard that are attributable to the development 	
Additional Analysis or Software Required	<input type="checkbox"/> Queuing Analysis <input type="checkbox"/> Signal Warrant Analysis <input type="checkbox"/> Weaving/Merge Analysis	<input type="checkbox"/> Accident Analysis <input type="checkbox"/> Synchro <input type="checkbox"/> SIDRA	<input type="checkbox"/> VISSIM <input type="checkbox"/> CORSIM <input type="checkbox"/> Other _____
M-NCPPC Clarifications		Additional Assumptions & Special Circumstances for Discussion	
<ul style="list-style-type: none"> Transportation impact study will comply with all other requirements of the LATR Guidelines not listed on this form. If physical improvements are proposed as mitigation, the transportation impact study will demonstrate feasibility with regards to right-of-way and utility relocation (at a minimum). If the development proposal significantly changes after this transportation impact study scope has been agreed to, the Applicant will work with M-NCPPC staff to amend the scope to accurately reflect the new proposal. A receipt from MCDOT showing that the transportation impact study review fee has been paid will be provided to M-NCPPC DARC at the time the development application is submitted. Minimum of seven paper copies (more if near the County line or an incorporated City) and two PDF copies of the transportation impact study and appendices will be provided. 			

CREATIVE ANALYSIS

TESTING A CONCEPT #1



CREATIVE ANALYSIS

TESTING AN IDEA #2



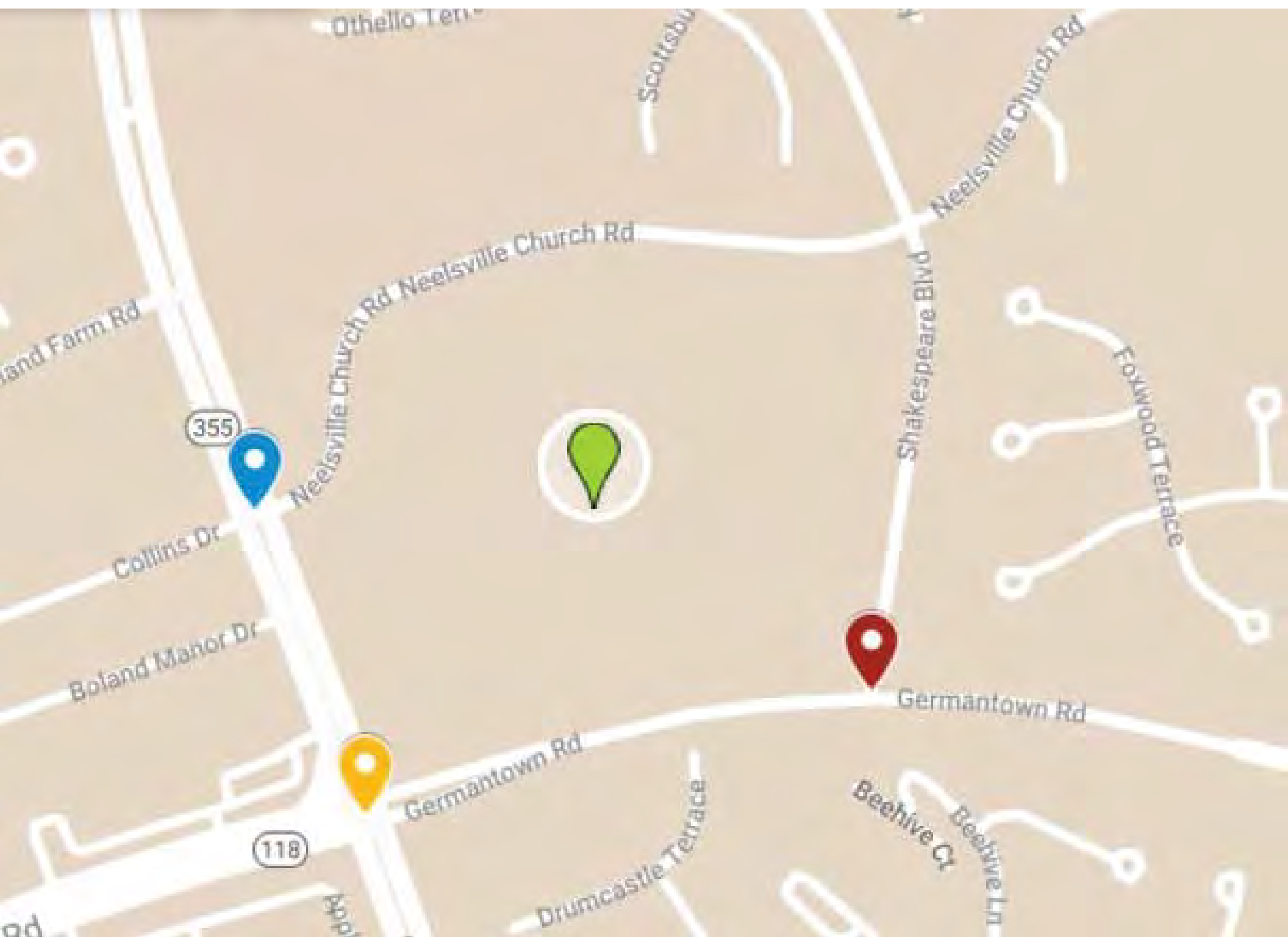
PERKINS EASTMAN
NEELSVILLE MIDDLE SCHOOL

CREATIVE ANALYSIS

TESTING AN IDEA #3



PERKINS EASTMAN
NEELSVILLE MIDDLE SCHOOL



Trip Generation Rates

Formula/Rate	Directional Distribution			
	AM Peak Hour		PM Peak Hour	
	IN	OUT	IN	OUT

Middle School (Students, ITE-520)

Morning Trips = 0.57 x Students 54% 46% 46% 54%

Evening Trips = 0.35 x Students

Trip Generation for Subject Site

Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total

Existing

Middle School 956 Students 294 251 545 154 181 335

Proposed

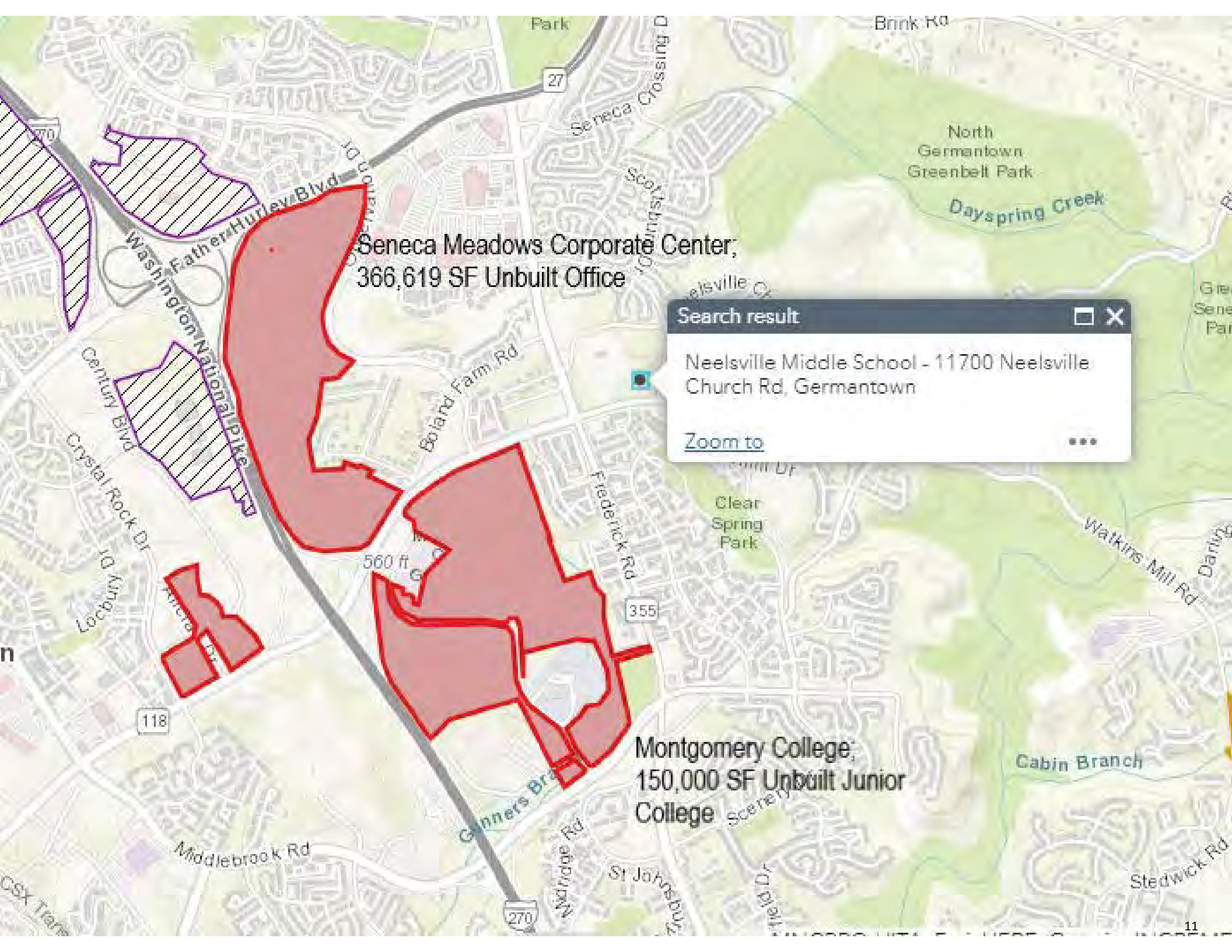
Middle School 1190 Students 366 312 678 192 225 417

Net New ITE Trips for Subject Site 72 61 133 38 44 82

Adjusted Vehicle Trips by Policy Area (91%)	66	56	121	17	40	75
Total Person Trips (Vehicle Trips / 69.5%)	174			108		
Auto Passenger Trips (19.4%)	40			25		
Transit Trips (2.5%)	4			3		
Non-Motorized Trips (4.2%)	8			5		



EXHIBIT 10 TRIP GENERATION FOR SUBJECT SITE



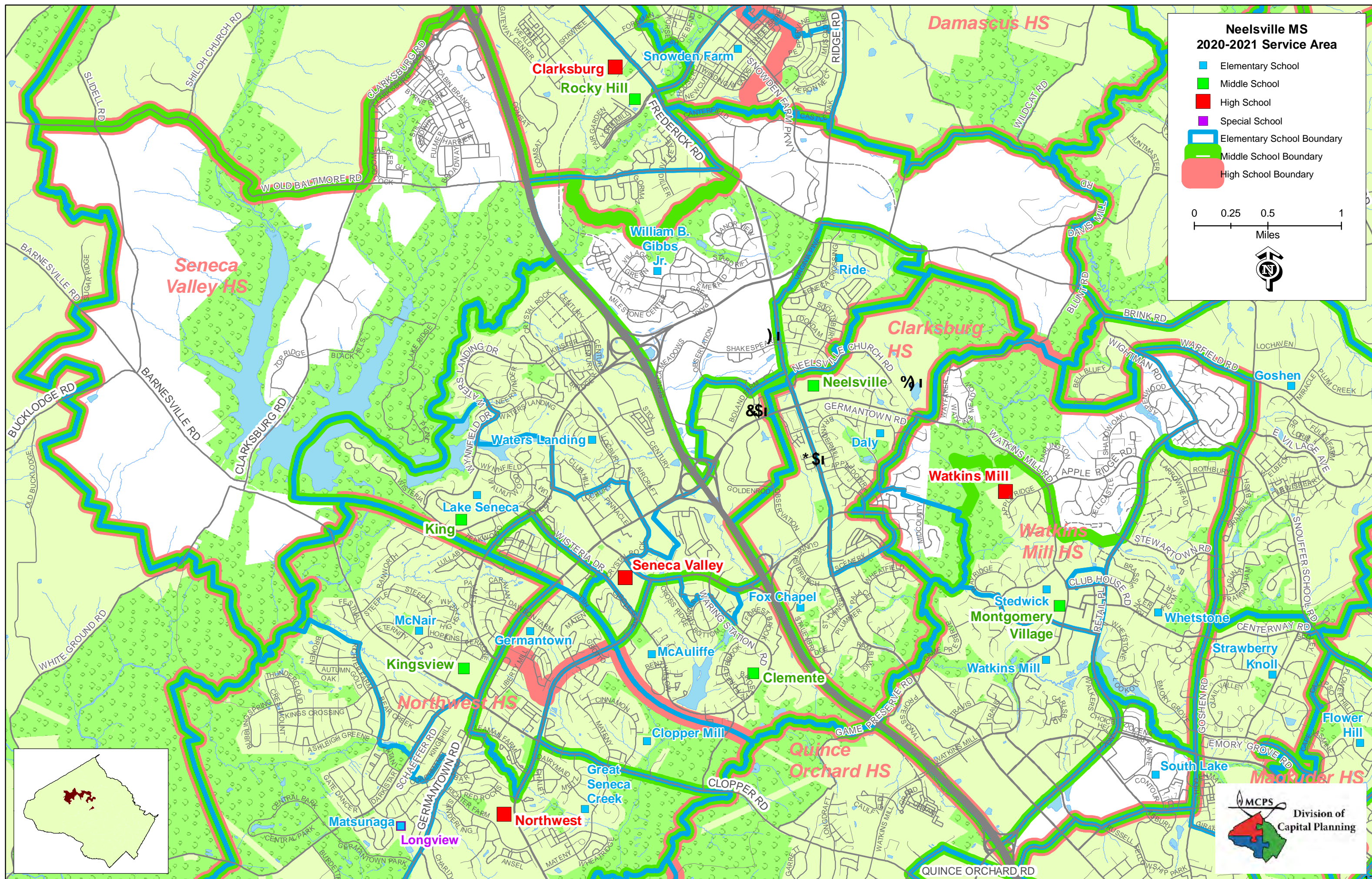
Seneca Meadows Corporate Center;
366,619 SF Unbuilt Office

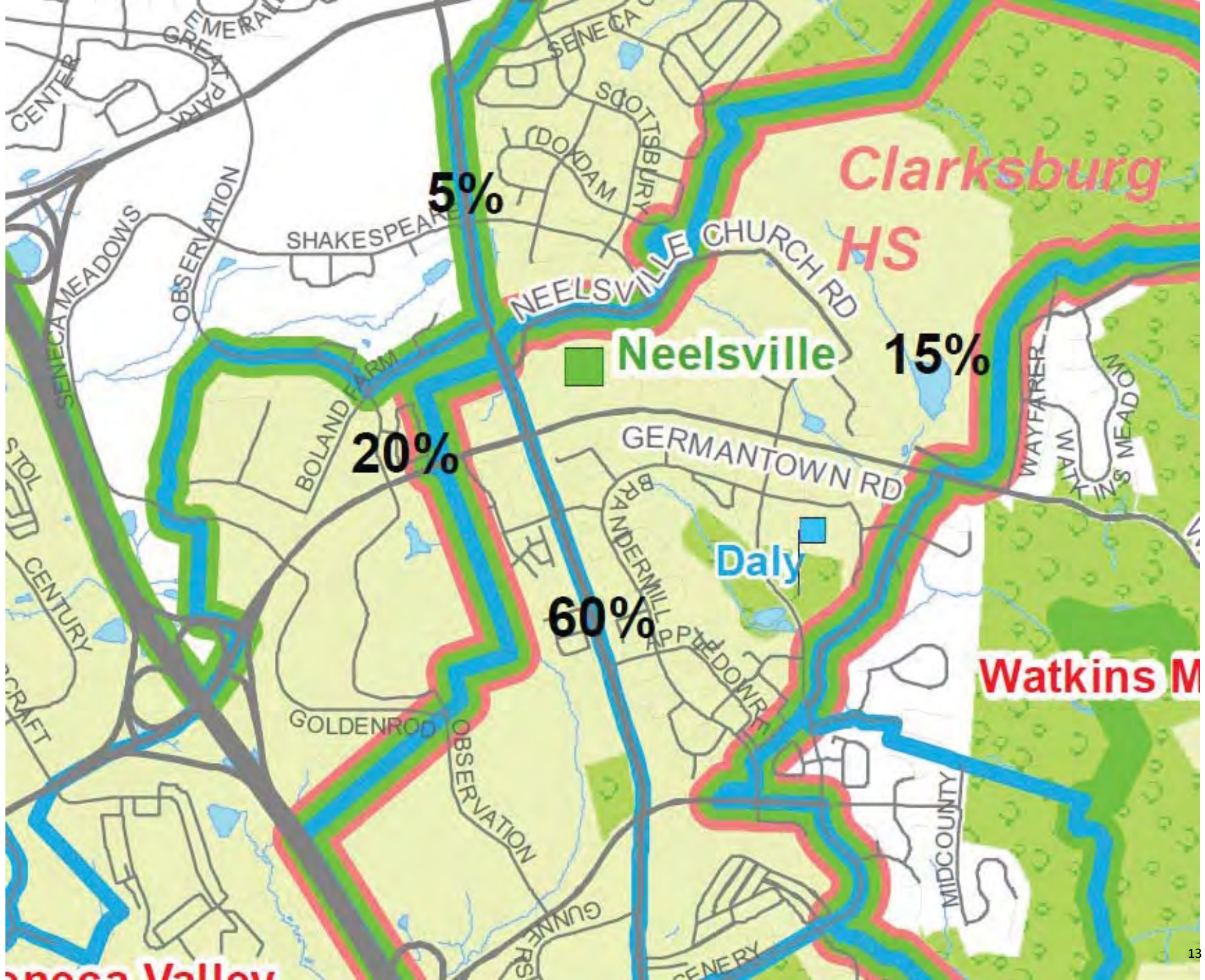
Search result

Neelsville Middle School - 11700 Neelsville
Church Rd, Germantown

[Zoom to](#)

Montgomery College;
150,000 SF Unbuilt Junior
College





From: [Freer, Walker](#)
To: [Carl Wilson](#)
Cc: [Van Alstyne, Chris](#)
Subject: RE: Neelsville MS Ped/Bike/Transit/Safety
Date: Wednesday, September 1, 2021 5:08:56 PM
Attachments: [Revised LATR Scoping Form - Neelsville MS.pdf](#)

Carl,

Neelsville Middle School is located in the Up-County, so I'm copying Chris on your request.

Thanks,
Walker

Walker M. Freer
Transportation Planner Coordinator

Montgomery County Planning Department
2425 Reedie Drive, 13th Floor, Silver Spring, MD 20902
walker.freer@montgomeryplanning.org
o: 301.495.4651



WE'VE MOVED!
THE NEW PARK AND PLANNING HEADQUARTERS IS NOW LOCATED AT
2425 REEDIE DRIVE, WHEATON, MD 20902

From: Carl Wilson <cwilson@trafficgroup.com>
Sent: Wednesday, September 1, 2021 5:00 PM
To: Freer, Walker <Walker.Freer@montgomeryplanning.org>
Subject: Neelsville MS Ped/Bike/Transit/Safety

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Hi Walker-

Since the initial scope of work was approved for Neelsville Middle School, the new Growth and Infrastructure Policy has gone into effect with the pedestrian, bike transit adequacy and safety components. To address the non-vehicular components, we have prepared an updated Scoping Agreement. Please review and let me know if you have any questions or need any additional information.

Thanks!
Carl

Carl Wilson, Jr., P.E, PTOE, RSP
Vice President



The Traffic Group, Inc.
9900 Franklin Square Dr. - Suite H
Baltimore, MD 21236
T 410.931.6600
M 410.292.5545
F 410.931.6601
cwilson@trafficgroup.com
www.trafficgroup.com

Merging Innovation and Excellence®





MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Local Area Transportation Review

TRANSPORTATION IMPACT STUDY SCOPE OF WORK AGREEMENT

Updated Winter 2021

Scoping Approval - Prior to initiating a Local Area Transportation Review study or supplemental traffic study, scoping *must be approved* by relevant agencies, including the Planning Department, the Montgomery County Department of Transportation, and the State Highway Administration (where relevant). It is the responsibility of the Applicant to obtain approval, which is demonstrated below via signature or electronic signature of the relevant agency representatives. Generally, the Applicant should anticipate a turnaround time of ten (10) business days for form review. Substantially large projects may require additional time and/or may warrant a scoping meeting.

Montgomery County Planning Department

Name (print): _____ Signature: _____ Date: _____

Montgomery County Department of Transportation

Name (print): _____ Signature: _____ Date: _____

State Highway Administration (where relevant)

Name (print): _____ Signature: _____ Date: _____

Applicant Contact Information

Transportation Consultant (company, contact name, email, and phone number)	The Traffic Group, Inc. Carl Wilson / 410-292-5545 / cwilson@trafficgroup.com
Name of Applicant / Developer	Montgomery County Public Schools

Project Information

Include Tables/Graphics, As Needed

Project Name (include plan no. if known)	Neelsville Middle School Renovation			
Project Location (include address if known)	11700 Neelsville Church Road			
Policy Area(s) (subdivision staging policy map)	Germantown East	Master Plan(s) / Sector Plan Area(s)		Germantown
Application Type(s)	<input type="checkbox"/> Preliminary Plan	<input type="checkbox"/> Site Plan	<input type="checkbox"/> Sketch/Concept/Pre-Preliminary (Optional)	<input type="checkbox"/> Amendment
	<input type="checkbox"/> Conditional Use (formerly special exception)	<input type="checkbox"/> Local Map Amendment	<input type="checkbox"/> APF at Building Permit	XOther: Mandatory Ref.

Project Description & Previous Approvals (proposed land uses, zoning, no. of units, square footage, construction phasing, prior approvals and proposals, existing uses, site operations, year built, status of Adequate Public Facilities [APF], other relevant info)	Neelsville Middle School is proposed to be reconstructed. Student capacity will increase from 956 to 1190.				
1.Site Access (proposed access location(s), existing/adjacent/opposite curb cuts, interparcel connections, access configurations and restrictions, internal circulation, private roads, parking/loading areas, other relevant info)	Two points of access are proposed along Neelsville Church Road. Each will operate under stop control.				
2.Transportation Analysis Requirement	<input checked="" type="checkbox"/> Transportation Impact Study Generates <u>50</u> or more total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, <u>AND</u> is outside of the White Flint and White Oak Policy Areas. Fill out remainder of this form and include in transportation impact study appendix.		<input type="checkbox"/> Transportation Study Exemption Statement Generates <u>49</u> or fewer total weekday peak hour person trips (vehicular, transit, bicycle, and/or pedestrian) with no reductions other than a credit for existing developments over 12 years old, <u>OR</u> within White Flint and White Oak Policy Areas.		
3.Project-based Transportation Demand Management Plan Required (see Chapter 42, Articles I and II)	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (In Transportation Management District [TMD])	<input type="checkbox"/> Amend Existing TMAg		
4.Established Transportation Management District (TMD)?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes TMD Name: _____			
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Transportation Impact Study Assumptions</td> <td style="width: 50%; text-align: right;"><i>Include Tables/Graphics, As Needed</i></td> </tr> </table>				Transportation Impact Study Assumptions	<i>Include Tables/Graphics, As Needed</i>
Transportation Impact Study Assumptions	<i>Include Tables/Graphics, As Needed</i>				

5.Study Years / Phases	Existing Year: 2021	Phases / Build-out Year(s): 2024			
6.Study Periods	<input checked="" type="checkbox"/> AM <input checked="" type="checkbox"/> PM <input type="checkbox"/> Mid-day <input type="checkbox"/> Saturday <input type="checkbox"/> Sunday <input type="checkbox"/> Other: _____				
7.Study Intersections (For projects generating 50 or more person trips, list all signalized & significant unsignalized intersections, and site driveways traffic counts must be collected within 12-months of completed and accepted application)	# of tiers of intersections to study (refer current LATR Guidelines): _____ <i>For the purpose of determining the number of tiers of study intersections, trip calculation for the subject site should also include nearby unbuilt properties in common ownership. No trip reductions should be taken in this calculation other than a credit for existing developments over 12 years old.</i>				
	1) Previously Scoped - No Changes		7)		
	2)		8)		
	3)		9)		
	4)		10)		
	5)		11)		
	6)		attach more rows if necessary		
8.Trip Generation (clearly cite sources and methodology including use of average rates vs. equation; include trip generation for existing site, current approvals, proposed uses, and net changes)	Total Person Trips	Vehicle Trips* (Auto Driver)	Transit Trips*	Walking Trips* (non-motorized + transit)	Bicycling Trips* (non-motorized)
	186	129	5	14	9
<i>* Only required if total peak hour person trips are 50 or more in either the AM or PM peak hour. Sum of all vehicle, transit, and non-motorized trips shall be the equivalent of total person trips. Use table at the end of the form to show all calculations and assumptions for mode breakout.</i>					
9.Trip Reductions (include justification and supporting documentation for internal capture, pass-by, diverted, Transportation Demand Management)	Not Applicable				
10.Trip Distribution % (include a map of the proposed project in addition to a list or table)	Not applicable; previously approved.				
11.Pipeline Developments to be considered as background traffic (include name, plan #, land uses, and sizes for approved but unbuilt developments or concurrently pending applications; info can be obtained from the M-NCPPC Pipeline website: - website is updated quarterly)	None				

<p>12. Pipeline Transportation Projects to be considered as background condition</p> <p>(fully funded for construction in County Capital Improvement Program, State Consolidated Transportation Program, developer projects, etc. within the next 6 years)</p>	None
13. Vision Zero Statement	<p>Trigger: All LATR studies for a site that generates 50 or more weekday peak hour person trips must develop a Vision Zero Statement.</p> <p>Requirements: The Vision Zero Statement consists of four components:</p> <ol style="list-style-type: none"> 1. Review High Injury Network segments: Document any segments on the High Injury Network (HIN) that are within a certain distance of the site frontage. 2. Assess proximate safety issues: Review the crash history for all segments and crossings within a certain distance of the site frontage. 3. Review traffic speeds: Conduct speed studies within a certain distance from the site frontage. 4. Describe site access: Address the safety issues identified in steps 1 through 3 and describe how site circulation promotes safety, outlining how safe access will be provided to the site. <p>The applicant should refer to the <i>LATR Guidelines</i> to determine the applicable scoping distance pertaining to steps 1 through 3 and requirements pertaining to steps 1 through 4.</p> <p>There are no HNI segments near the subject site. US 29 is the closest, and it is almost 1 mile away.</p>

Preliminary Mitigation Analysis		<i>*Refer to the LATR Guidelines for details on how to mitigate</i>
14. Vehicular Analysis	<p><input type="checkbox"/> Vehicular Analysis Anticipated (Vehicular mitigation to be determined after study)</p> <p>YES</p>	<p>TEST: The motor vehicle adequacy test will not be applied in "Red" policy areas and these areas will not be subject to LATR motor vehicle mitigation requirements. If the plan generates 50 or more weekday peak hour person trips, HCM Analysis is required to be provided for all intersections analyzed in studies for: 1) "Orange" policy areas, and 2) intersections with a CLV of more than 1,350 in "Yellow & Green" policy areas. 3) With the exception of intersections located within "Red" policy areas, CLV analysis required for all intersections regardless of policy area. CLV assessment and signal timing worksheets are to be included in the study appendix.</p> <p>MITIGATION: The applicant must mitigate its impact on vehicle delay or down to the applicable policy area standard, whichever is less.</p>

15. Pedestrian Analysis	<input type="checkbox"/> Pedestrian Mitigation Anticipated YES	<p>TEST: If the plan generates 50 or more weekday peak hour person trips, mitigation of surrounding pedestrian conditions is required.</p> <p>MITIGATION: Mitigation consists of three components:</p> <ol style="list-style-type: none"> (1) Pedestrian Level of Comfort (PLOC). Pedestrian system adequacy is defined by providing a "Somewhat Comfortable" or "Very Comfortable PLOC score on streets and intersections for roads classified as Primary Residential or higher within a certain walkshed from the site. (2) Street Lighting. The applicant must evaluate existing street lighting based on MCDOT standards along roadways and paths from the development within a certain walkshed from the site frontage. Where standards are not met, the applicant must upgrade the street lighting to meet the applicable standard. (3) ADA Compliance. The applicant must fix ADA noncompliance issues within a certain walkshed from the site frontage equivalent to half the walkshed specified in the required scoping distance. <p>The applicant should refer to the <i>LATR Guidelines</i> to determine the applicable scoping walkshed distance requirement for each component described above.</p>
16. Bicycle Analysis	<input type="checkbox"/> Bicycle Mitigation Anticipated YES	<p>TEST: If the plan generates 50 or more peak hour weekday person trips mitigation of surrounding bicycle conditions is required</p> <p>MITIGATION: Required to ensure a low Level of Traffic Stress (LTS-2) on all existing transportation rights-of-way within a certain distance of the site frontage ; Alternatively, the project may provide a master planned improvement that provides an equivalent improvement in the level of traffic stress for cyclists within a certain distance of the site frontage.</p> <p>The applicant should refer to the <i>LATR Guidelines</i> to determine the applicable scoping distance requirement.</p>
17. Bus Transit Analysis	<input type="checkbox"/> Transit Mitigation Anticipated YES	<p>TEST: If the plan generates 50 or more peak hour person trips mitigation of surrounding transit conditions is required. Projects located within "Green" policy areas are exempt from the bus transit adequacy test.</p> <p>MITIGATION: Required to ensure that there are bus shelters outfitted with realtime traveler information displays and other standard amenities, along with a safe, efficient, and accessible path between the site and a bus stop, at a certain number of bus stops within a certain distance from the site.</p> <p>The applicant should refer to the <i>LATR Guidelines</i> to determine the applicable number of bus stop and scoping distance requirement.</p>
Additional Analysis or Software Required	<div> <input type="checkbox"/> Queuing Analysis <input type="checkbox"/> Accident Analysis <input type="checkbox"/> VISSIM </div> <div> <input type="checkbox"/> Signal Warrant Analysis <input type="checkbox"/> Synchro <input type="checkbox"/> CORSIM </div> <div> <input type="checkbox"/> Weaving/Merge Analysis <input type="checkbox"/> SIDRA <input type="checkbox"/> Other _____ </div>	
M-NCPPC Clarifications		Additional Assumptions & Special Circumstances for Discussion
<p>Transportation impact study will comply with all other requirements of the LATR Guidelines not listed on this form.</p> <p>If physical improvements are proposed as mitigation, the transportation impact study will demonstrate feasibility with regards</p>		<p>The purpose of this Agreement is to address the pedestrian, bicycle, transit and safety LATR components. Motor vehicle adequacy scoping has previously been addressed.</p>

to right-of-way and utility relocation (at a minimum).

If the development proposal significantly changes after this transportation impact study scope has been agreed to, the Applicant will work with M-NCPPC staff to amend the scope to accurately reflect the new proposal.

A receipt from MCDOT showing that the transportation impact study review fee has been paid will be provided to M-NCPPC DARC at the time the development application is submitted.

Minimum of seven paper copies (more if near the County line or an incorporated City) and two PDF copies of the transportation impact study and appendices will be provided.

Please refer to attached images showing the PLOC, ADA noncompliance, bikeshed, bus shelters, and speed study locations.

DRAFT

Table 4 – Trip Generation and Total for Subject Site

Land Use	Size		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Existing Neelsville Middle School								
Middle School	956	Students	345	283	628	141	166	307
Proposed New Middle School								
Middle School	1,190	Students	423	347	770	174	205	379
Net New ITE Trips for Subject Site			78	64	142	33	39	72
Adjusted Vehicle Trips by Policy Area (91%)			71	58	129	30	35	65
Total Person Trips (Vehicle Trips / 69.5%)			186			94		
Auto Passenger Trips (Person Trips x 23.2%)			43			22		
Transit Trips (Person Trips x 2.5%)			5			2		
Non-Motorized Trips (Person Trips x 4.8%)			9			5		
Pedestrian Trips (Transit + Non-Motorized Trips)			14			7		

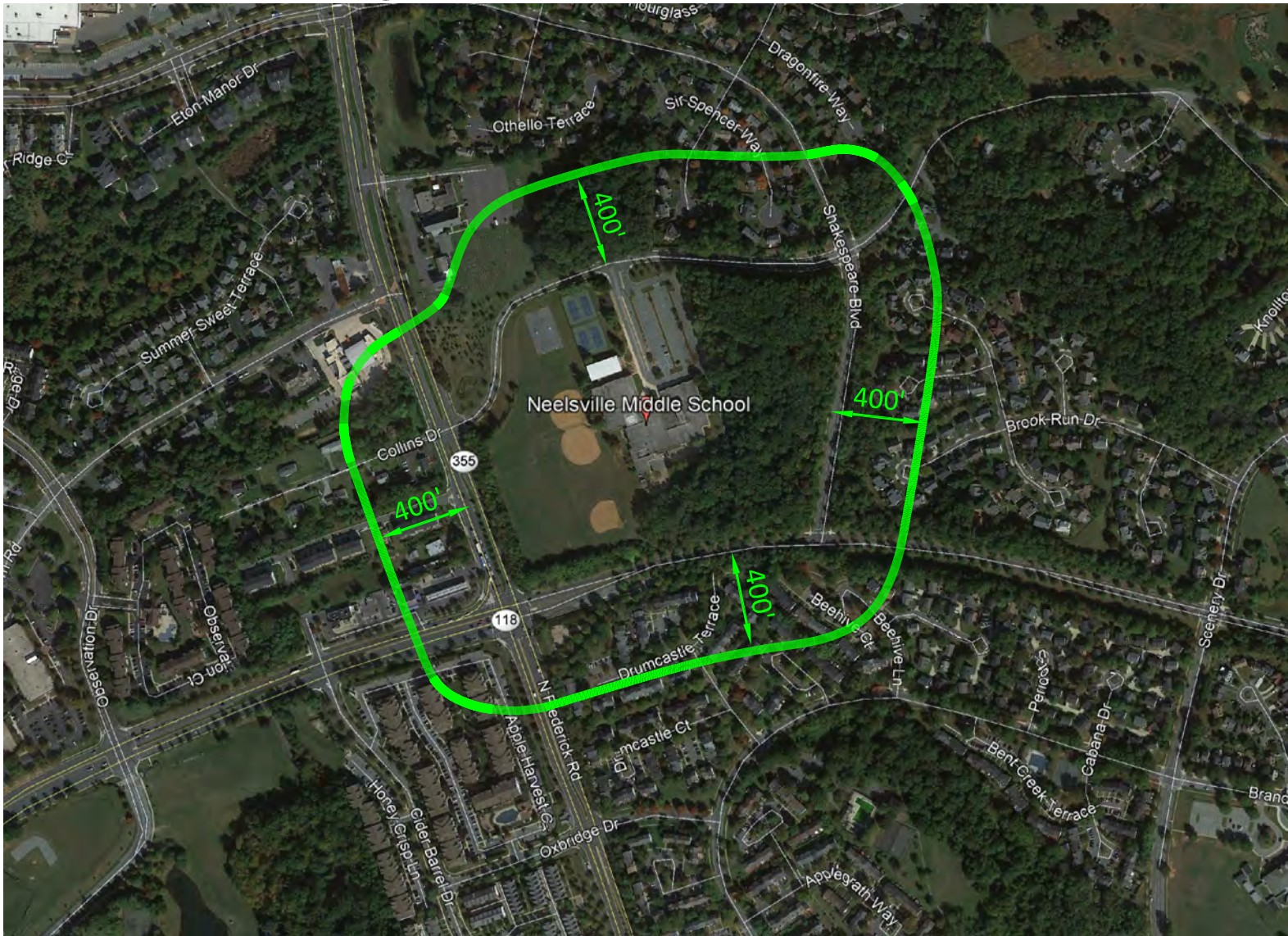
Pedestrian Adequacy:

Sidewalk, Streetlight, ADA compliance evaluations

Bicycle Adequacy:

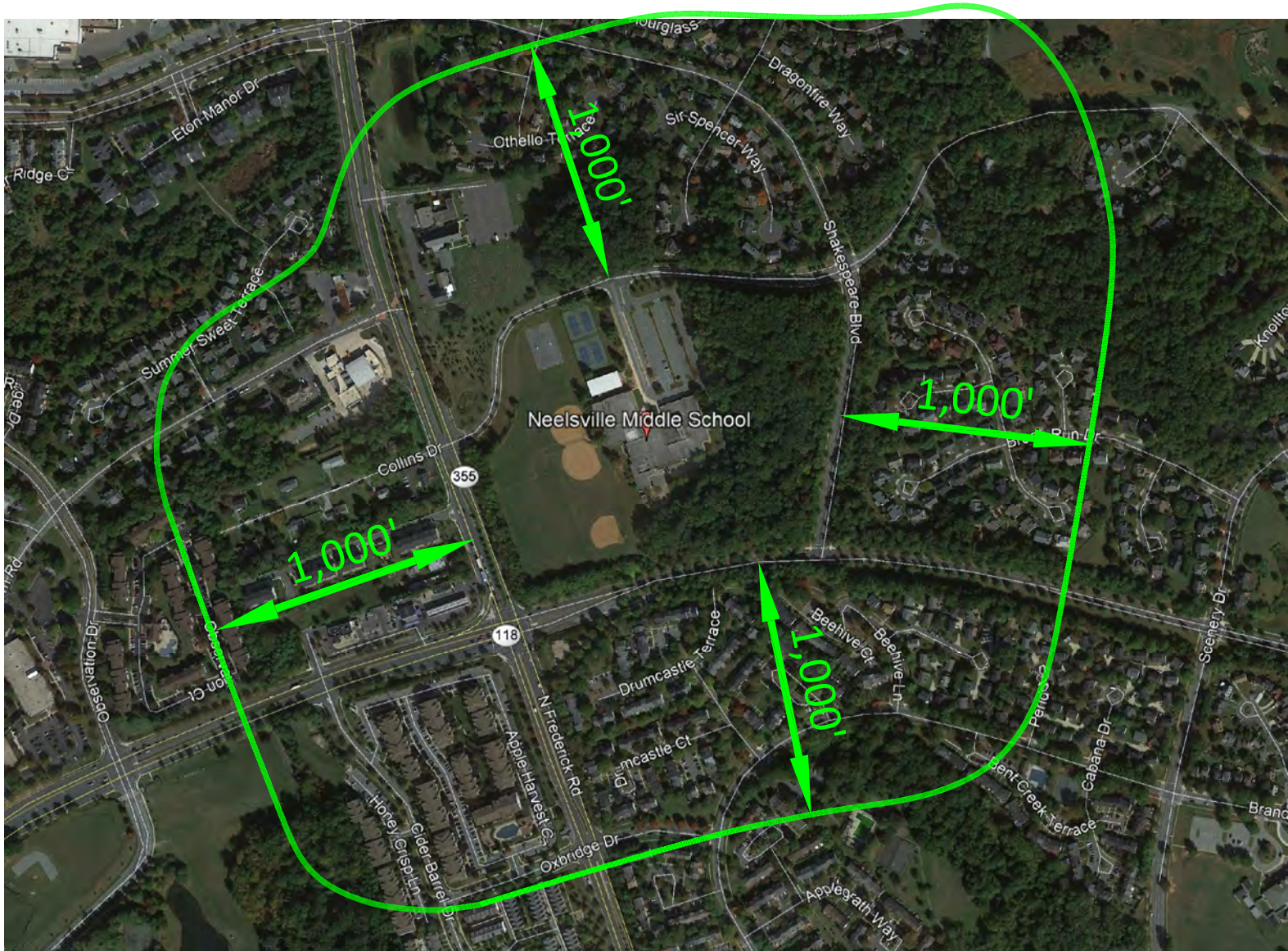
Bicycle Level of Stress Evaluation

400 feet from frontage



Transit Adequacy:

Evaluate shelters and amenities within
1,000 feet from frontage



APPENDIX B

Intersection Turning Movement Counts and Aerial Photographs





**Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report**

Station ID: S2004150026 County: Montgomery Comments:

Date: 9/25/2019 12:00:00 AM Town: none

Location: MD 355 at SHAKESPEARE BLVD Weather: Sunny/Warm

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	07:00	08:00	3003	C	0.8	12:00PM-19:00PM	17:00	18:00	3390	C	0.73

MD 355						MD 355					Shakespeare Blvd					Shakespeare Blvd				
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	0	5	43	4	52	1	5	44	13	63	0	2	3	2	7	0	3	7	20	30	152
01:00	0	0	25	0	25	0	4	25	5	34	0	4	0	0	4	0	0	0	2	2	65
02:00	0	1	19	0	20	0	4	22	2	28	0	1	1	0	2	0	0	0	3	3	53
03:00	1	3	42	0	46	0	5	10	0	15	0	7	2	2	11	0	2	2	5	9	81
04:00	0	4	102	6	112	0	12	46	3	61	0	25	5	4	34	0	2	0	15	17	224
05:00	0	6	384	38	428	0	30	104	6	140	0	42	7	17	66	0	6	3	32	41	675
06:00	1	44	1569	44	1658	0	71	278	4	353	0	103	28	40	171	0	17	9	83	109	2291
07:00	1	112	1927	60	2100	0	61	448	19	528	0	105	30	63	198	0	27	32	118	177	3003
08:00	1	96	1831	76	2004	1	98	437	20	556	0	83	50	41	174	0	33	42	132	207	2941
09:00	1	51	1189	54	1295	1	171	480	19	671	0	86	53	43	182	0	29	20	164	213	2361
10:00	3	33	779	44	859	1	199	483	27	710	0	57	51	35	143	0	46	41	211	298	2010
11:00	2	47	779	54	882	0	222	606	34	862	1	42	43	42	128	0	75	53	242	370	2242
12:00	2	53	772	69	896	2	240	704	38	984	0	40	43	51	134	0	76	63	275	414	2428
13:00	0	54	835	46	935	0	223	783	34	1040	0	42	48	58	148	0	71	54	271	396	2519
14:00	1	62	764	43	870	1	201	817	39	1058	0	44	42	42	128	0	83	59	303	445	2501
15:00	0	57	715	49	821	2	239	1159	48	1448	0	41	62	54	157	0	79	76	271	426	2852
16:00	2	56	715	46	819	4	251	1350	59	1664	0	43	79	90	212	0	100	82	270	452	3147
17:00	2	75	796	43	916	3	282	1423	52	1760	0	54	96	86	236	0	119	90	269	478	3390
18:00	3	76	824	55	958	1	313	1175	63	1552	1	59	85	97	242	0	95	95	288	478	3230
19:00	1	88	730	56	875	2	248	894	55	1199	0	37	54	76	167	1	70	79	310	460	2701
20:00	0	64	526	25	615	2	177	640	48	867	0	31	46	38	115	0	59	78	257	394	1991
21:00	0	27	306	19	352	1	120	374	53	548	0	19	17	25	61	0	34	43	190	267	1228
22:00	0	20	188	15	223	0	57	221	29	307	0	20	11	12	43	0	22	36	117	175	748
23:00	1	10	101	8	120	3	28	112	18	161	0	6	8	5	19	0	7	19	85	111	411
TOTAL	22	1044	15961	854	17881	25	3261	12635	688	16609	2	993	864	923	2782	1	1055	983	3933	5972	43244
AMPEAK	1	112	1927	60	2100	0	61	448	19	528	0	105	30	63	198	0	27	32	118	177	3003
PMPEAK	2	75	796	43	916	3	282	1423	52	1760	0	54	96	86	236	0	119	90	269	478	3390



**Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report**

Station ID: S2004150026
Date: 9/25/2019 12:00:00 AM
Location: MD 355 at SHAKESPEARE BLVD
Interval: 60 Min

County: Montgomery
Town: none
Weather: Sunny/Warm
Comments:

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:00	08:00	3003	C	0.8	12:00PM-19:00PM	17:00	18:00	3390	C	0.73

MD 355	MD 355	Shakespeare Blvd	Shakespeare Blvd
From North	From South	From East	From West

Begin Hour	School Children	Pedestrians	Bicycles	School Childer	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
00:00	0	1	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	1	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	1	0	0	0	0	0	0	0
05:00	0	3	0	0	1	0	0	0	0	0	2	1
06:00	0	2	0	0	1	0	0	2	0	0	0	0
07:00	0	3	0	0	0	2	0	3	0	0	1	0
08:00	0	5	0	0	4	0	0	3	1	0	0	0
09:00	0	2	0	0	7	0	0	3	0	0	0	0
10:00	0	8	0	0	0	0	0	2	0	0	1	0
11:00	0	9	0	0	1	0	0	2	1	0	0	0
12:00	0	6	0	0	2	1	0	3	0	0	0	0
13:00	0	3	0	0	1	0	0	1	0	0	1	0
14:00	0	8	0	0	2	0	0	3	0	0	0	0
15:00	0	7	0	0	2	0	0	4	0	0	0	1
16:00	0	9	0	0	1	0	0	2	0	0	0	0
17:00	0	14	0	0	2	2	0	8	0	0	5	1
18:00	0	8	0	0	3	1	0	6	0	0	2	0
19:00	0	7	0	0	3	0	0	3	0	0	1	0
20:00	0	12	0	0	2	1	0	1	0	0	2	0
21:00	0	4	0	0	1	0	0	0	0	0	1	0
22:00	0	2	0	0	1	0	0	0	0	0	1	0
23:00	0	2	0	0	1	0	0	2	0	0	2	0
TOTAL	0	115	0	0	37	7	0	48	2	0	19	3
AMPEAK	0	3	0	0	0	2	0	3	0	0	1	0
PMPEAK	0	14	0	0	2	2	0	8	0	0	5	1



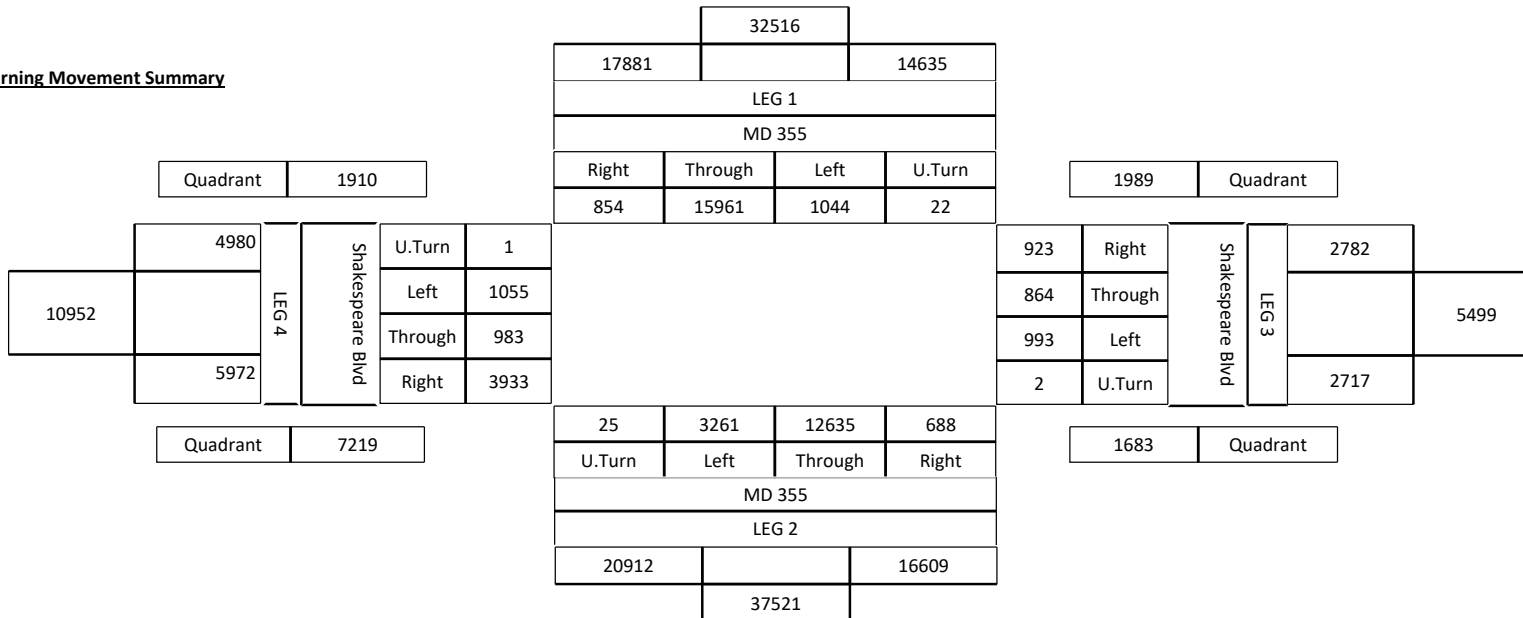
**Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report**

Station ID:	S2004150026	County:	Montgomery	Comments:	
Date:	9/25/2019 12:00:00 AM	Town:	none		
Location:	MD 355 at SHAKESPEARE BLVD	Weather:	Sunny/Warm		
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	07:00	08:00	3003	C	0.8	12:00PM-19:00PM	17:00	18:00	3390	C	0.73



Turning Movement Summary





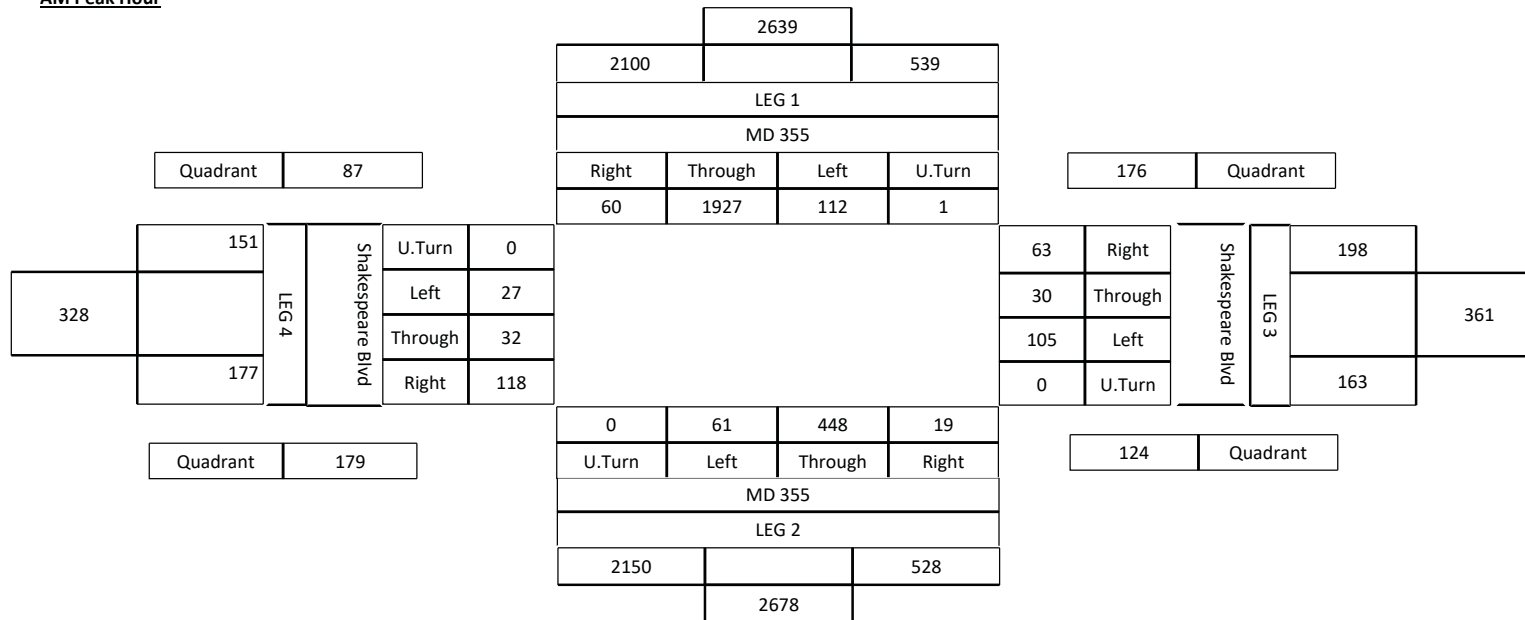
**Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report**

Station ID:	S2004150026	County:	Montgomery	Comments:	
Date:	9/25/2019 12:00:00 AM	Town:	none		
Location:	MD 355 at SHAKESPEARE BLVD	Weather:	Sunny/Warm		
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	07:00	08:00	3003	C	0.8	12:00PM-19:00PM	17:00	18:00	3390	C	0.73



AM Peak Hour



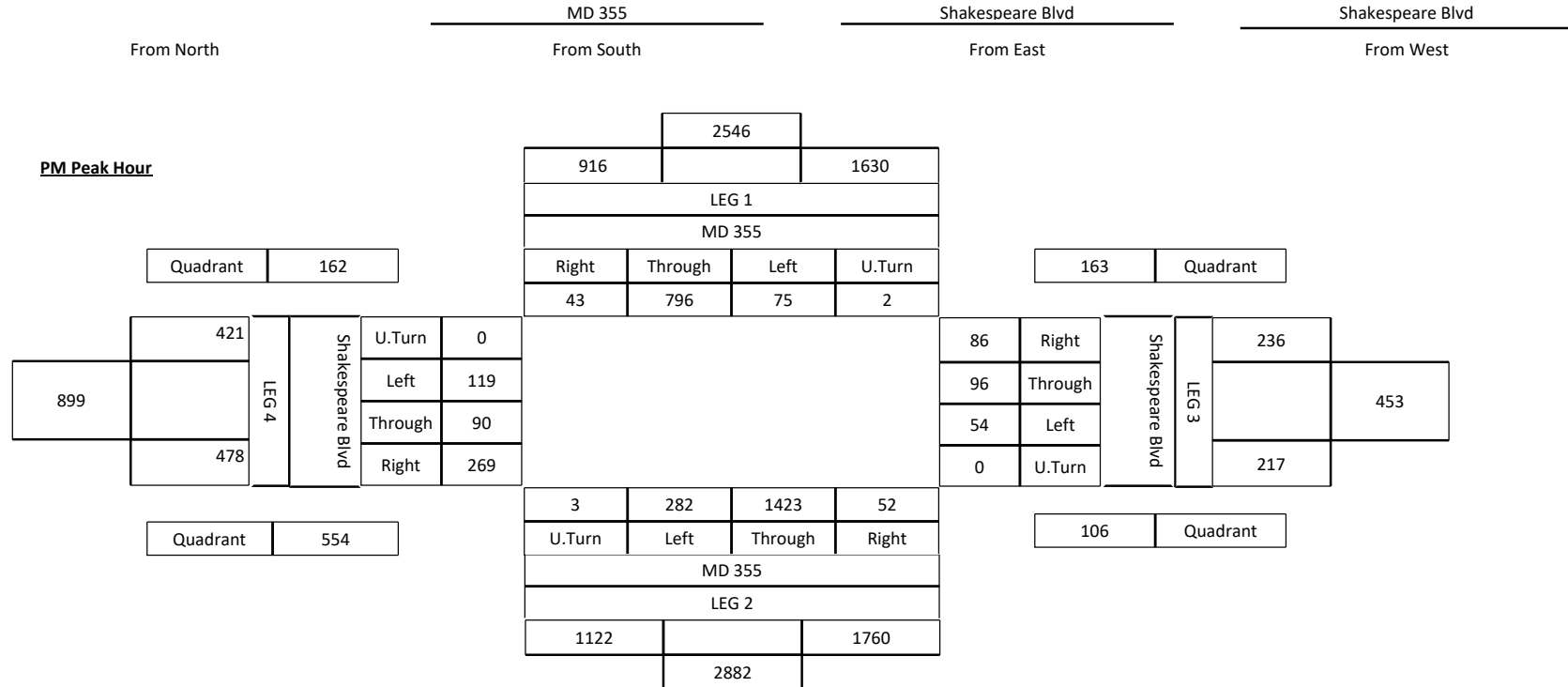


**Maryland Department of Transportation
State Highway Administration
Data Services Division
Turning Movement Summary Report**

Station ID: S2004150026
Date: 9/25/2019 12:00:00 AM
Location: MD 355 at SHAKESPEARE BLVD
Interval: 60 Min

County: Montgomery
Town: none
Weather: Sunny/Warm
Comments:

PEAK	AM PERIOD	Start	End	Volume	LOS	V/C	PM PERIOD	Start	End	Volume	LOS	V/C
Hours	6:00AM-12:00PM	07:00	08:00	3003	C	0.8	12:00PM-19:00PM	17:00	18:00	3390	C	0.73





MD 355 at Shakespeare Blvd

Google Earth



300 ft

TURNING MOVEMENT COUNT



Day Type	Data Range	Location
1: Weekday (Tu-Th)	2019	MD 355 at Neelsville Church Rd

Day Part	Collins Dr EB			Neelsville Church Rd WB			MD 355 NB			MD 355 SB			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	
07: 6am (6am-7am)	-	-	17	16	3	2	-	253	1	9	1,454	7	1,762
08: 7am (7am-8am)	-	-	2	43	-	6	-	632	158	150	2,095	11	3,097
09: 8am (8am-9am)	9	-	5	21	-	18	8	403	102	84	1,926	19	2,595
15: 2pm (2pm-3pm)	8	-	4	21	-	13	-	980	48	15	909	-	1,998
16: 3pm (3pm-4pm)	-	-	17	131	-	94	20	1,269	23	32	812	9	2,407
17: 4pm (4pm-5pm)	6	-	-	29	-	23	14	1,615	25	15	854	18	2,599



MD 355 at Neelsville Church Rd

Google Earth

300 ft



TURNING MOVEMENT COUNT



Day Type	Data Range					Location
1: Weekday (Tu-Th)	2019	March	April	September	October	MD 355 at Germantown Rd

Day Part	Germantown Rd EB			Germantown Rd WB			MD 355 NB			MD 355 SB			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	
07: 6am (6am-7am)	42	140	113	39	136	23	61	190	16	26	1,221	240	2,247
08: 7am (7am-8am)	86	205	245	43	402	76	194	600	29	102	1,535	593	4,110
09: 8am (8am-9am)	138	196	229	62	313	40	155	317	27	68	1,437	516	3,498
15: 2pm (2pm-3pm)	295	215	168	18	182	84	165	640	32	89	661	226	2,775
16: 3pm (3pm-4pm)	373	302	189	36	248	103	204	845	39	92	671	249	3,351
17: 4pm (4pm-5pm)	445	301	214	53	307	124	229	1,074	48	97	634	198	3,724

Bike Counts Report (15 Min Interval)

Intersection: Frederick Rd (MD 355) at Germantown Rd

Count Date: Wednesday, 4/10/2019

Count Source: Gorove/Slade Associates



AM Start Time	PM End Time	Is Holiday?	AM Peak Hour	PM Peak Hour
06:30	19:00	No	:	17:30

	NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND				OTHER BOUND			
	FREDERICK RD (MD 355)				FREDERICK RD (MD 355)				GERMANTOWN RD (MD 118)				GERMANTOWN RD (MD 118)							
START TIME	L	T	R	O	L	T	R	O	L	T	R	O	L	T	R	O	L	T	R	O
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Bike Counts Report (30 Min Interval)

Intersection: Frederick Rd (MD 355) at Germantown Rd

Count Date: Wednesday, 4/10/2019

Count Source: Gorove/Slade Associates



AM Start Time	PM End Time	Is Holiday?
06:30	19:00	No

	NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND				OTHER BOUND			
	FREDERICK RD (MD 355)				FREDERICK RD (MD 355)				GERMANTOWN RD (MD 118)				GERMANTOWN RD (MD 118)							
START TIME	L	T	R	O	L	T	R	O	L	T	R	O	L	T	R	O	L	T	R	O
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Bike Counts Report (60 Min Interval)

Intersection: Frederick Rd (MD 355) at Germantown Rd

Count Date: Wednesday, 4/10/2019

Count Source: Gorove/Slade Associates



AM Start Time	PM End Time	Is Holiday?
06:30	19:00	No

	NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND				OTHER BOUND			
	FREDERICK RD (MD 355)				FREDERICK RD (MD 355)				GERMANTOWN RD (MD 118)				GERMANTOWN RD (MD 118)							
START TIME	L	T	R	O	L	T	R	O	L	T	R	O	L	T	R	O	L	T	R	O
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Pedestrian Counts Report (15 Min Interval)

Intersection: Frederick Rd (MD 355) at Germantown Rd

Count Date: Wednesday, 4/10/2019

Count Source: Gorove/Slade Associates



AM Start Time	PM End Time	Is Holiday?	AM Peak Hour	PM Peak Hour
06:30	19:00	No	07:30	17:15

	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND	OTHER BOUND
START TIME	FREDERICK RD (MD 355)	FREDERICK RD (MD 355)	GERMANTOWN RD (MD 118)	GERMANTOWN RD (MD 118)	
06:30	0	1	0	2	
06:45	0	0	0	0	
07:00	0	0	0	0	
07:15	0	0	1	0	
07:30	2	0	0	3	
07:45	0	1	1	1	
08:00	1	1	1	1	
08:15	0	2	0	0	
08:30	0	0	0	1	
08:45	2	1	1	2	
09:00	1	0	1	0	
09:15	1	0	0	1	
15:00	0	0	0	0	
15:15	2	0	3	2	
15:30	0	1	0	0	
15:45	0	0	0	1	
16:00	0	0	0	2	
16:15	0	2	3	2	
16:30	2	2	3	4	
16:45	0	0	0	0	
17:00	0	0	2	1	
17:15	0	1	2	2	
17:30	0	3	1	3	
17:45	0	3	1	6	
Total	11	18	20	34	

Pedestrian Counts Report (30 Min Interval)

Intersection: Frederick Rd (MD 355) at Germantown Rd

Count Date: Wednesday, 4/10/2019

Count Source: Gorove/Slade Associates



AM Start Time	PM End Time	Is Holiday?
06:30	19:00	No

	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND	OTHER BOUND
START TIME	FREDERICK RD (MD 355)	FREDERICK RD (MD 355)	GERMANTOWN RD (MD 118)	GERMANTOWN RD (MD 118)	
06:30	0	1	0	2	
07:00	0	0	1	0	
07:30	2	1	1	4	
08:00	1	3	1	1	
08:30	2	1	1	3	
09:00	2	0	1	1	
16:00	0	2	3	4	
16:30	2	2	3	4	
17:00	0	1	4	3	
17:30	0	6	2	9	
Total	9	17	17	31	

Pedestrian Counts Report (60 Min Interval)

Intersection: Frederick Rd (MD 355) at Germantown Rd

Count Date: Wednesday, 4/10/2019

Count Source: Gorove/Slade Associates



AM Start Time	PM End Time	Is Holiday?
06:30	19:00	No

	NORTH BOUND	SOUTH BOUND	EAST BOUND	WEST BOUND	OTHER BOUND
START TIME	FREDERICK RD (MD 355)	FREDERICK RD (MD 355)	GERMANTOWN RD (MD 118)	GERMANTOWN RD (MD 118)	
06:30	0	1	1	2	
07:30	3	4	2	5	
08:30	4	1	2	4	
16:00	2	4	6	8	
17:00	0	7	6	12	
Total	9	17	17	31	



MD 355 at Germantown Rd

Google Earth

300 ft

TURNING MOVEMENT COUNT



Day Type	Data Range					Location
1: Weekday (Tu-Th)	2019	Mar	Apr	Sep	Oct	Germantown Rd at Shakespeare Dr

Day Part	Germantown Rd EB			Germantown Rd WB			Shakespeare Blvd SB			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	
07: 6am (6am-7am)	9	176	-	-	156	47	-	-	-	504
08: 7am (7am-8am)	5	317	-	-	408	176	-	-	-	1,178
09: 8am (8am-9am)	19	291	-	-	325	110	-	-	-	970
15: 2pm (2pm-3pm)	31	302	-	-	273	84	-	-	-	762
16: 3pm (3pm-4pm)	71	363	-	-	359	123	-	-	-	1,158
17: 4pm (4pm-5pm)	93	362	-	-	450	147	-	-	-	1,161



Germantown Rd at Shakespeare Blvd

Google Earth



100 ft



Neelsville Church Rd at School Access

Google Earth



**Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report**

Location ID: B150106
Location: GERMANTOWN RD-.10 MI E OF MD355
County: Montgomery
Date Range: 02/11/2020 to 02/12/2020

Week Of: 02/09/2020 Direction:EastBound

Begin Hour	02/09 Sun	02/10 Mon	02/11 Tue	02/12 Wed	02/13 Thu	02/14 Fri	02/15 Sat	DAILY AVG	WEEKDAY AVG	WEEKEND AVG
0:00	0	0	39	59	0	0	0	49	49	0
1:00	0	0	25	21	0	0	0	23	23	0
2:00	0	0	20	10	0	0	0	15	15	0
3:00	0	0	17	16	0	0	0	17	17	0
4:00	0	0	16	24	0	0	0	20	20	0
5:00	0	0	65	61	0	0	0	63	63	0
6:00	0	0	151	189	0	0	0	170	170	0
7:00	0	0	330	324	0	0	0	327	327	0
8:00	0	0	377	351	0	0	0	364	364	0
9:00	0	0	285	324	0	0	0	305	305	0
10:00	0	0	252	300	0	0	0	276	276	0
11:00	0	0	279	307	0	0	0	293	293	0
12:00	0	0	333	367	0	0	0	350	350	0
13:00	0	0	316	359	0	0	0	338	338	0
14:00	0	0	402	473	0	0	0	438	438	0
15:00	0	0	544	508	0	0	0	526	526	0
16:00	0	0	606	593	0	0	0	600	600	0
17:00	0	0	691	707	0	0	0	699	699	0
18:00	0	0	598	550	0	0	0	574	574	0
19:00	0	0	421	441	0	0	0	431	431	0
20:00	0	0	352	330	0	0	0	341	341	0
21:00	0	0	278	318	0	0	0	298	298	0
22:00	0	0	157	154	0	0	0	156	156	0
23:00	0	0	99	87	0	0	0	93	93	0
TOTAL	0	0	6,653	6,873	0	0	0	6,763	6,763	0
AM Peak Hour	0:00	0:00	8:00	12:00	0:00	0:00	0:00			
6PM-12PM Volume	0	0	377	367	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	691	707	0	0	0			



**Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report**

Location ID: B150106

Location: GERMANTOWN RD-.10 MI E OF MD355

County: Montgomery

Date Range: 02/11/2020 to 02/12/2020

Week Of: 02/09/2020 Direction: WestBound

Begin Hour	02/09 Sun	02/10 Mon	02/11 Tue	02/12 Wed	02/13 Thu	02/14 Fri	02/15 Sat	DAILY AVG	WEEKDAY AVG	WEEKEND AVG
0:00	0	0	25	31	0	0	0	28	28	0
1:00	0	0	14	12	0	0	0	13	13	0
2:00	0	0	13	12	0	0	0	13	13	0
3:00	0	0	13	10	0	0	0	12	12	0
4:00	0	0	49	50	0	0	0	50	50	0
5:00	0	0	118	133	0	0	0	126	126	0
6:00	0	0	265	265	0	0	0	265	265	0
7:00	0	0	490	515	0	0	0	503	503	0
8:00	0	0	551	573	0	0	0	562	562	0
9:00	0	0	442	482	0	0	0	462	462	0
10:00	0	0	328	336	0	0	0	332	332	0
11:00	0	0	284	304	0	0	0	294	294	0
12:00	0	0	285	341	0	0	0	313	313	0
13:00	0	0	319	360	0	0	0	340	340	0
14:00	0	0	363	351	0	0	0	357	357	0
15:00	0	0	477	504	0	0	0	491	491	0
16:00	0	0	567	556	0	0	0	562	562	0
17:00	0	0	589	549	0	0	0	569	569	0
18:00	0	0	476	465	0	0	0	471	471	0
19:00	0	0	339	327	0	0	0	333	333	0
20:00	0	0	270	276	0	0	0	273	273	0
21:00	0	0	146	147	0	0	0	147	147	0
22:00	0	0	127	104	0	0	0	116	116	0
23:00	0	0	59	50	0	0	0	55	55	0
TOTAL	0	0	6,609	6,753	0	0	0	6,681	6,681	0
AM Peak Hour	0:00	0:00	8:00	8:00	0:00	0:00	0:00			
6PM-12PM Volume	0	0	551	573	0	0	0			
PM Peak Hour	0:00	0:00	17:00	16:00	0:00	0:00	0:00			
PM Peak Volume	0	0	589	556	0	0	0			



**Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report**

Location ID: B150106

Location: GERMANTOWN RD-.10 MI E OF MD355

County: Montgomery

Date Range: 02/11/2020 to 02/12/2020

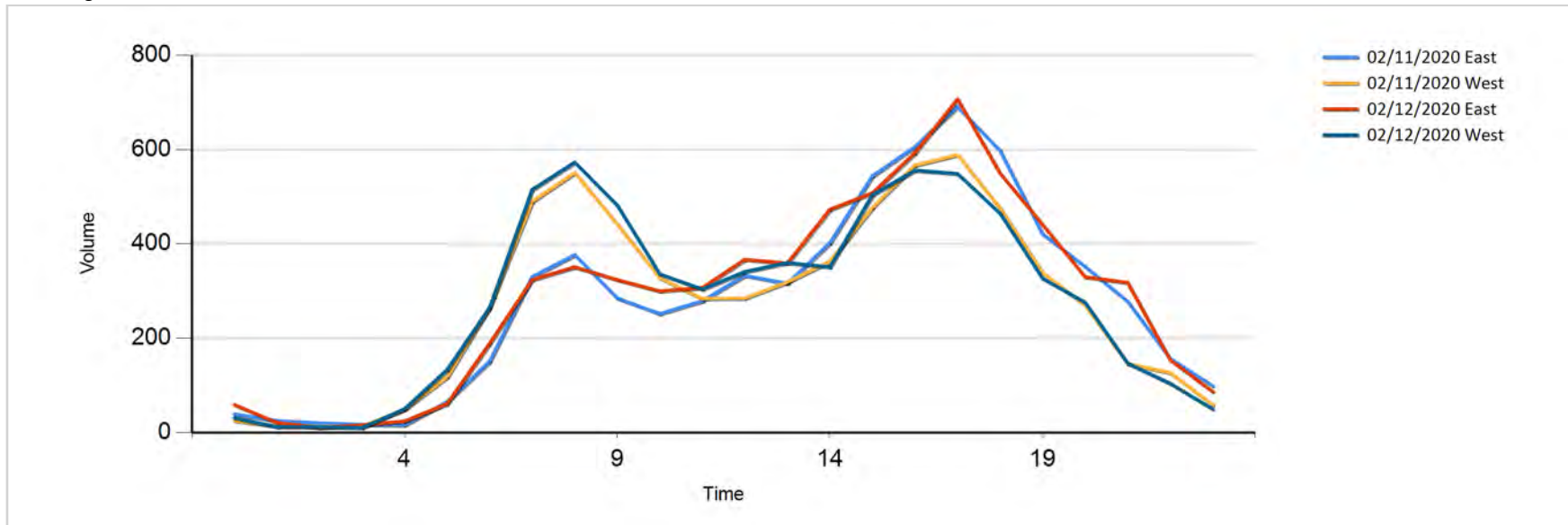
***** Summary Of Total Report *****

Begin Hour	SUN	MON	TUE	WED	THU	FRI	SAT	DAILY AVG	WEEKDAY AVG	WEEKEND AVG
0:00	0	0	64	90	0	0	0	77	77	0
1:00	0	0	39	33	0	0	0	36	36	0
2:00	0	0	33	22	0	0	0	28	28	0
3:00	0	0	30	26	0	0	0	28	28	0
4:00	0	0	65	74	0	0	0	70	70	0
5:00	0	0	183	194	0	0	0	189	189	0
6:00	0	0	416	454	0	0	0	435	435	0
7:00	0	0	820	839	0	0	0	830	830	0
8:00	0	0	928	924	0	0	0	926	926	0
9:00	0	0	727	806	0	0	0	767	767	0
10:00	0	0	580	636	0	0	0	608	608	0
11:00	0	0	563	611	0	0	0	587	587	0
12:00	0	0	618	708	0	0	0	663	663	0
13:00	0	0	635	719	0	0	0	677	677	0
14:00	0	0	765	824	0	0	0	795	795	0
15:00	0	0	1,021	1,012	0	0	0	1,017	1,017	0
16:00	0	0	1,173	1,149	0	0	0	1,161	1,161	0
17:00	0	0	1,280	1,256	0	0	0	1,268	1,268	0
18:00	0	0	1,074	1,015	0	0	0	1,045	1,045	0
19:00	0	0	760	768	0	0	0	764	764	0
20:00	0	0	622	606	0	0	0	614	614	0
21:00	0	0	424	465	0	0	0	445	445	0
22:00	0	0	284	258	0	0	0	271	271	0
23:00	0	0	158	137	0	0	0	148	148	0
TOTAL	0	0	13,262	13,626	0	0	0	13,444	13,444	0
AM Peak Hour	0:00	0:00	8:00	8:00	0:00	0:00	0:00			
6PM-12PM Volume	0	0	928	924	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	1,280	1,256	0	0	0			



Maryland Department of Transportation
State Highway Administration
Data Services Division
Volume Detail Report

Location ID: B150106
Location: GERMANTOWN RD-.10 MI E OF MD355
County: Montgomery
Date Range: 02/11/2020 to 02/12/2020



APPENDIX C

Intersection Capacity Analysis Worksheets



CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Shakespeare Blvd

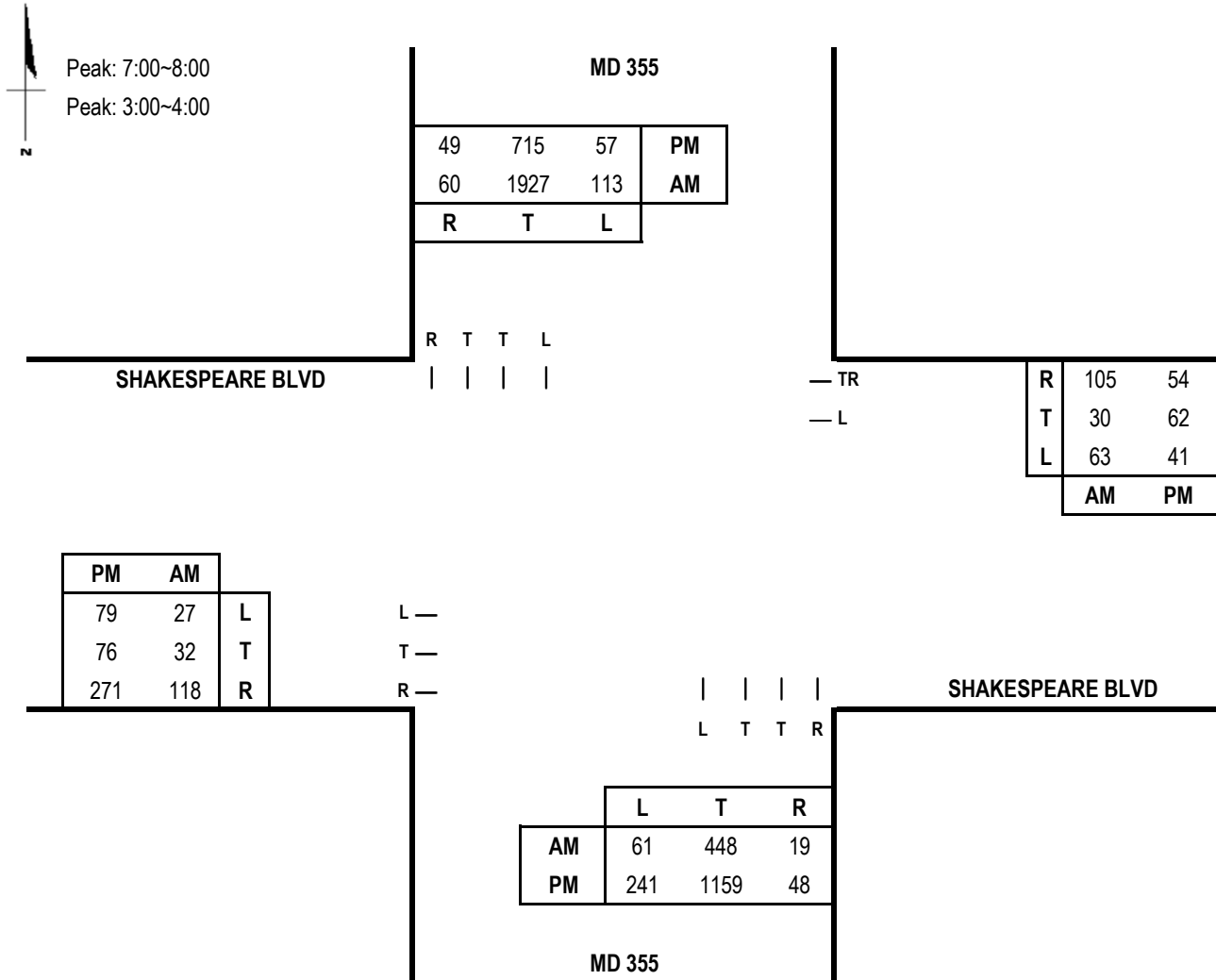
Date of Count: 9/25/2019

N/S Road: MD 355

Day of Count: Wednesday

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
NB	448	0.53	237	113	1.00	113	1082
SB	1927	0.53	1021	61	1.00	61	
EB	57	1.00	57	63	1.00	63	162
WB	135	1.00	135	27	1.00	27	
CLV TOTAL=							1,244

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	1159	0.53	614	57	1.00	57	671
SB	715	0.53	379	241	1.00	241	
EB	76	1.00	76	41	1.00	41	195
WB	116	1.00	116	79	1.00	79	
CLV TOTAL=							866

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Shakespeare Blvd

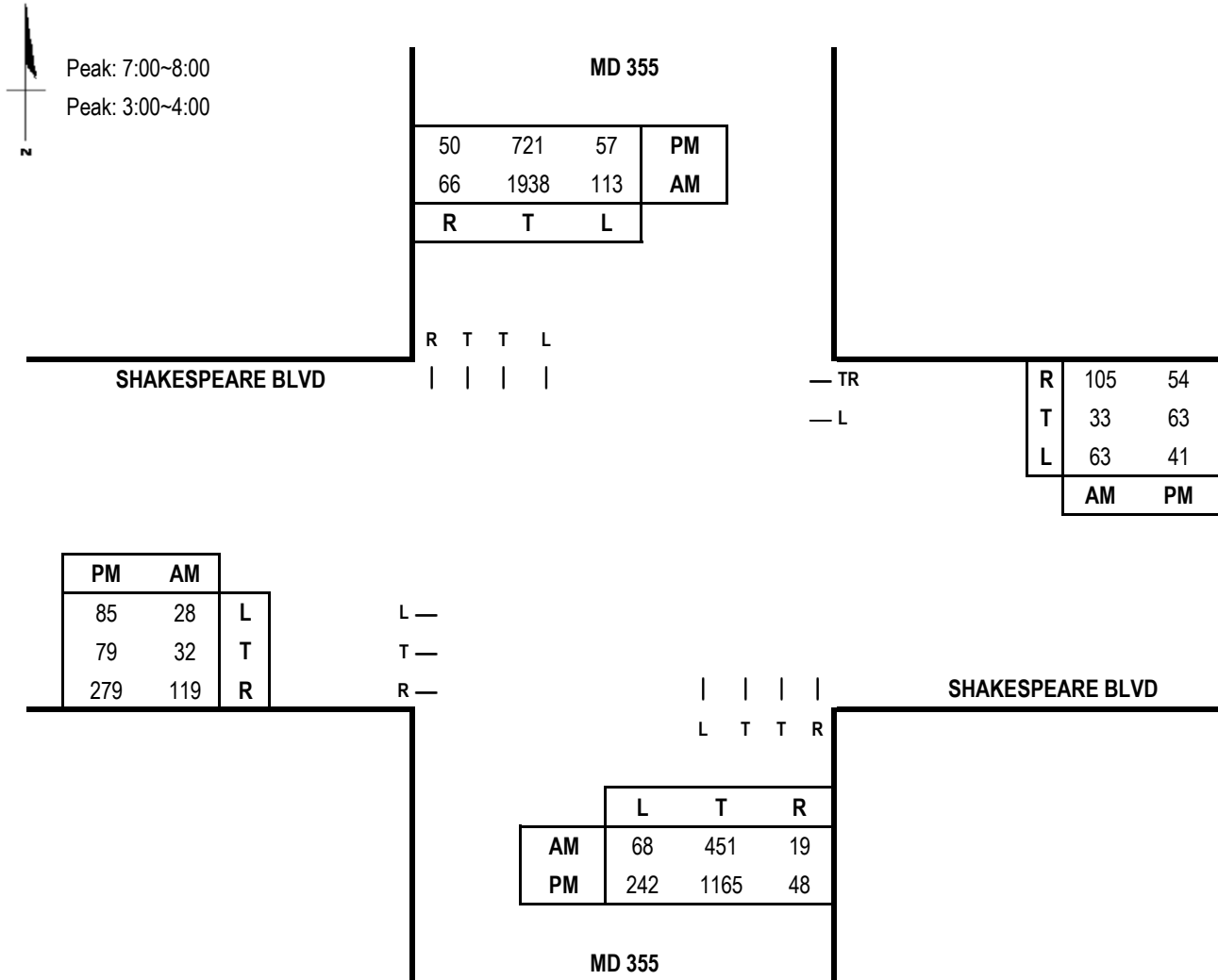
Date of Count: 9/25/2019

N/S Road: MD 355

Day of Count: Wednesday

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
NB	451	0.53	239	113	1.00	113	1095
SB	1938	0.53	1027	68	1.00	68	
EB	51	1.00	51	63	1.00	63	166
WB	138	1.00	138	28	1.00	28	
CLV TOTAL=							1,261

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	1165	0.53	617	57	1.00	57	674
SB	721	0.53	382	242	1.00	242	
EB	79	1.00	79	41	1.00	41	202
WB	117	1.00	117	85	1.00	85	
CLV TOTAL=							876

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Shakespeare Blvd

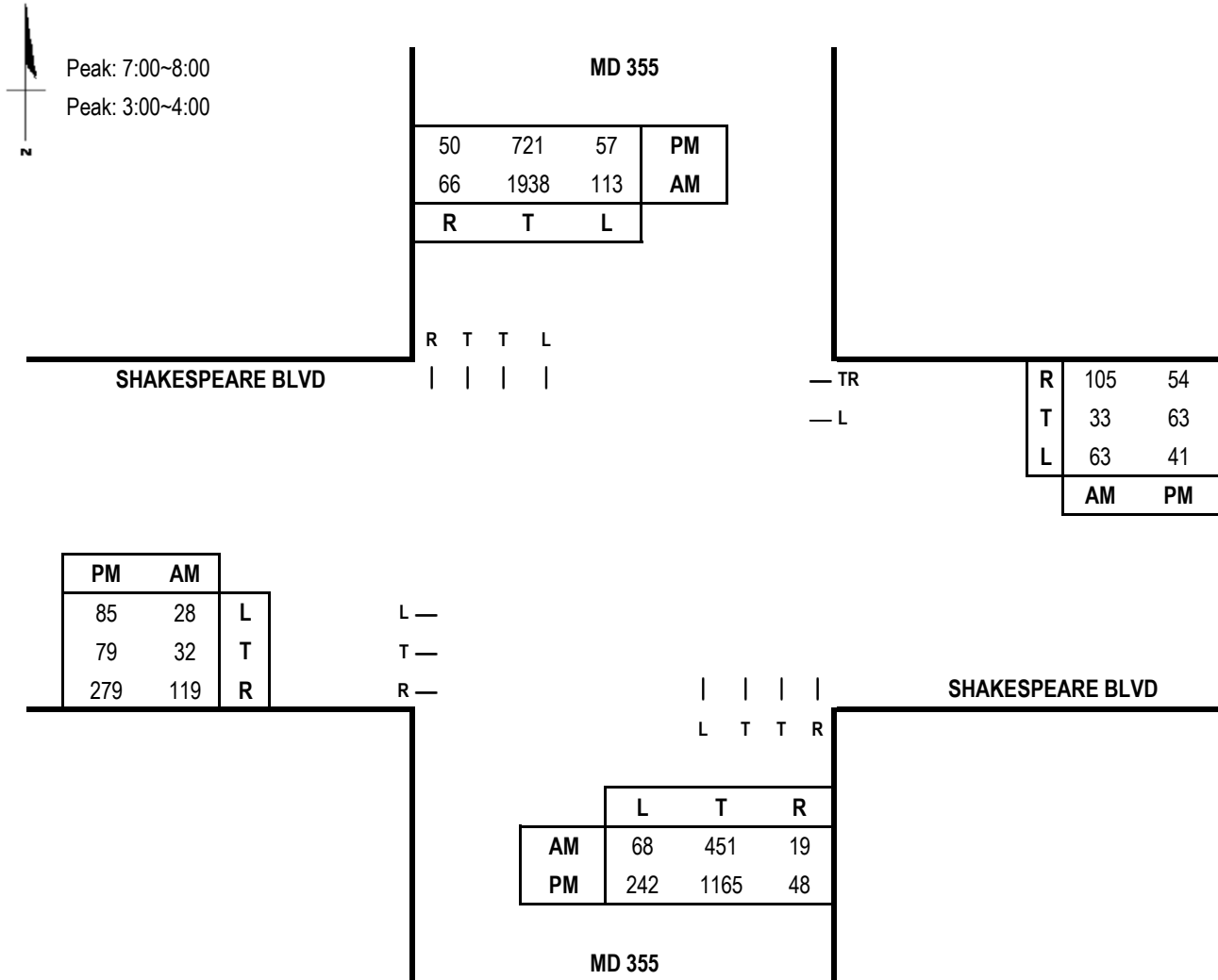
Date of Count: 9/25/2019

N/S Road: MD 355

Day of Count: Wednesday

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
NB	451	0.53	239	113	1.00	113	1095
SB	1938	0.53	1027	68	1.00	68	
EB	51	1.00	51	63	1.00	63	166
WB	138	1.00	138	28	1.00	28	
CLV TOTAL=							1,261

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	1165	0.53	617	57	1.00	57	674
SB	721	0.53	382	242	1.00	242	
EB	79	1.00	79	41	1.00	41	202
WB	117	1.00	117	85	1.00	85	
CLV TOTAL=							876

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Neelsville Church Rd/Collins Dr

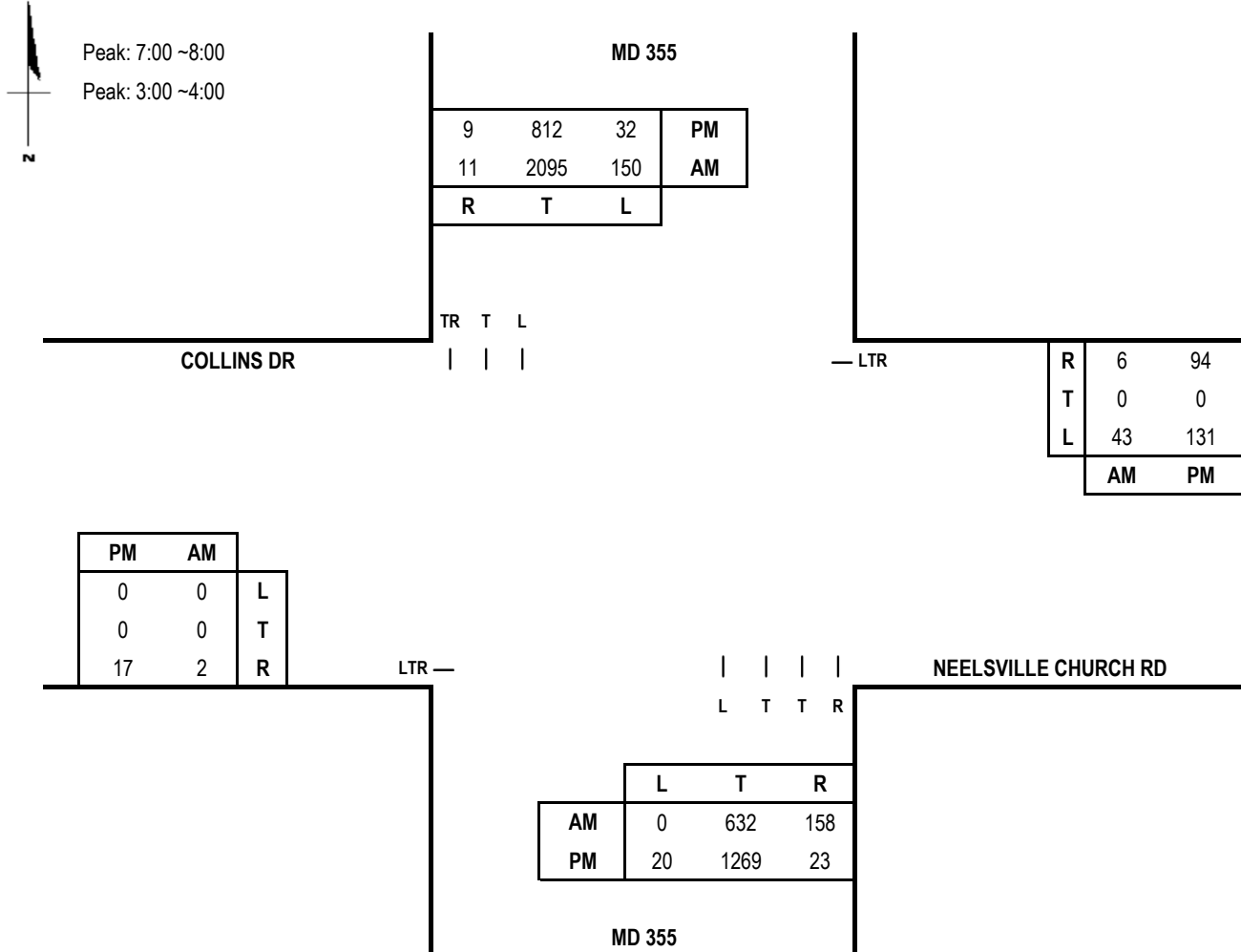
Date of Count:

N/S Road: MD 355

Day of Week:

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	2	1.00	2				2
WB	49	1.00	49				49
NB	632	0.53	335	150	1.00	150	1116
SB	2106	0.53	1116	0	1.00	0	
CLV TOTAL=							1,167

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	17	1.00	17				17
WB	225	1.00	225				225
NB	1269	0.53	673	32	1.00	32	705
SB	821	0.53	435	20	1.00	20	
CLV TOTAL=							947

Scenario ID - EXIST2

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Neelsville Church Rd/Collins Dr

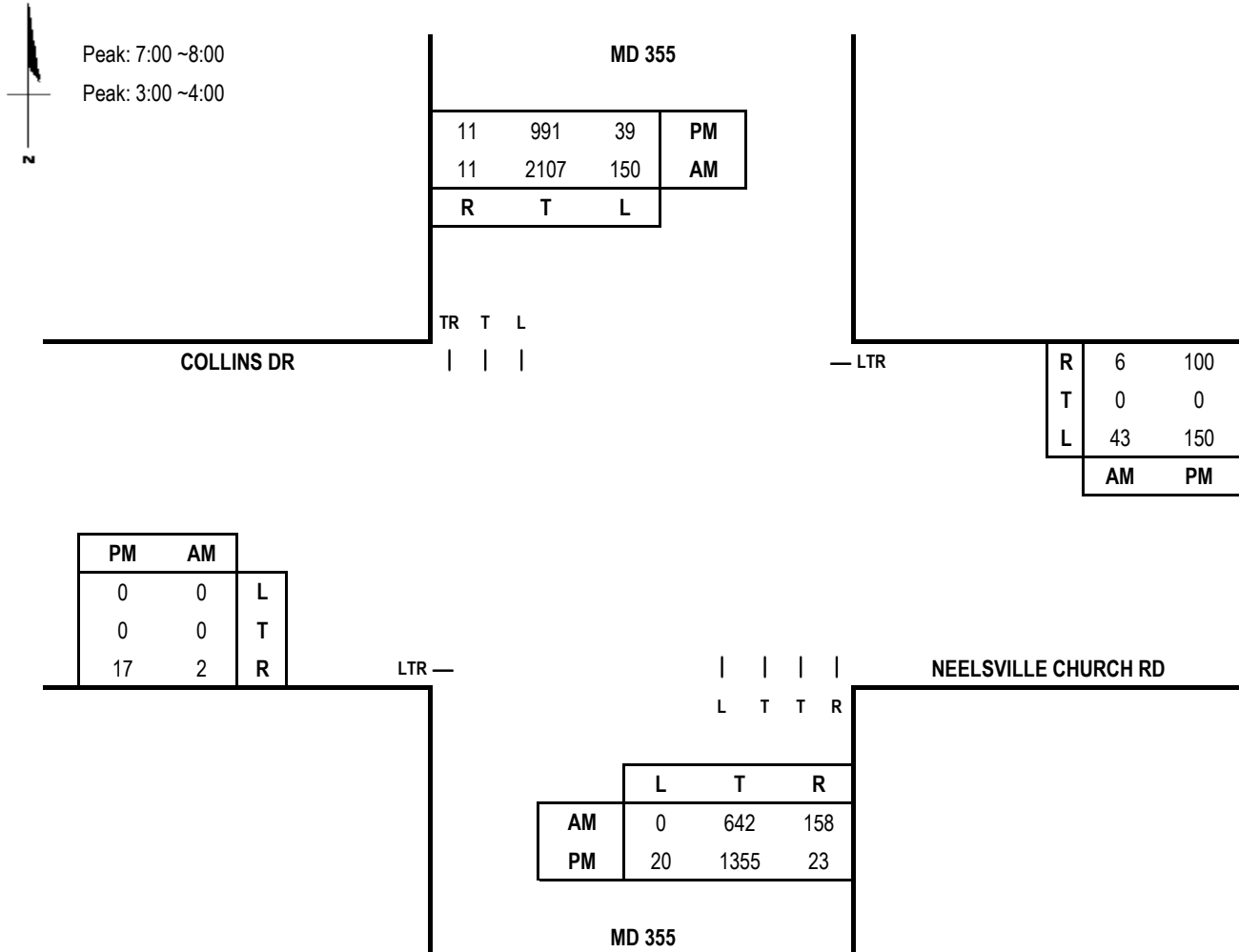
Date of Count:

N/S Road: MD 355

Day of Week:

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	2	1.00	2				2
WB	49	1.00	49				49
NB	642	0.53	340	150	1.00	150	1123
SB	2118	0.53	1123	0	1.00	0	
CLV TOTAL=							1,174

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	17	1.00	17				17
WB	250	1.00	250				250
NB	1355	0.53	718	39	1.00	39	757
SB	1002	0.53	531	20	1.00	20	
CLV TOTAL=							1,024

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Neelsville Church Rd/Collins Dr

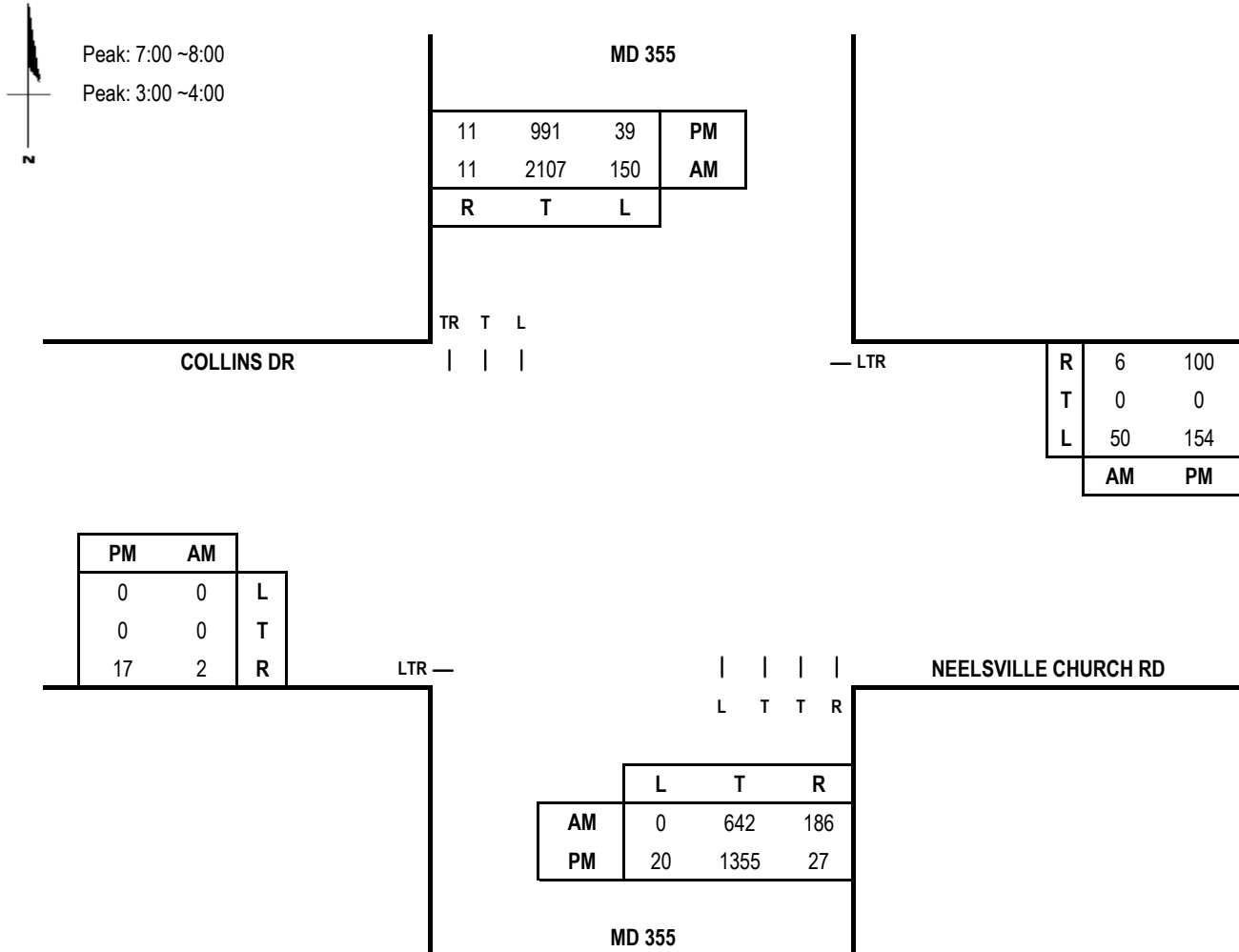
Date of Count:

N/S Road: MD 355

Day of Week:

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	2	1.00	2				2
WB	56	1.00	56				56
NB	642	0.53	340	150	1.00	150	1123
SB	2118	0.53	1123	0	1.00	0	
CLV TOTAL=							1,181

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
EB	17	1.00	17				17
WB	254	1.00	254				254
NB	1355	0.53	718	39	1.00	39	757
SB	1002	0.53	531	20	1.00	20	
CLV TOTAL=							1,028

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Germantown Rd

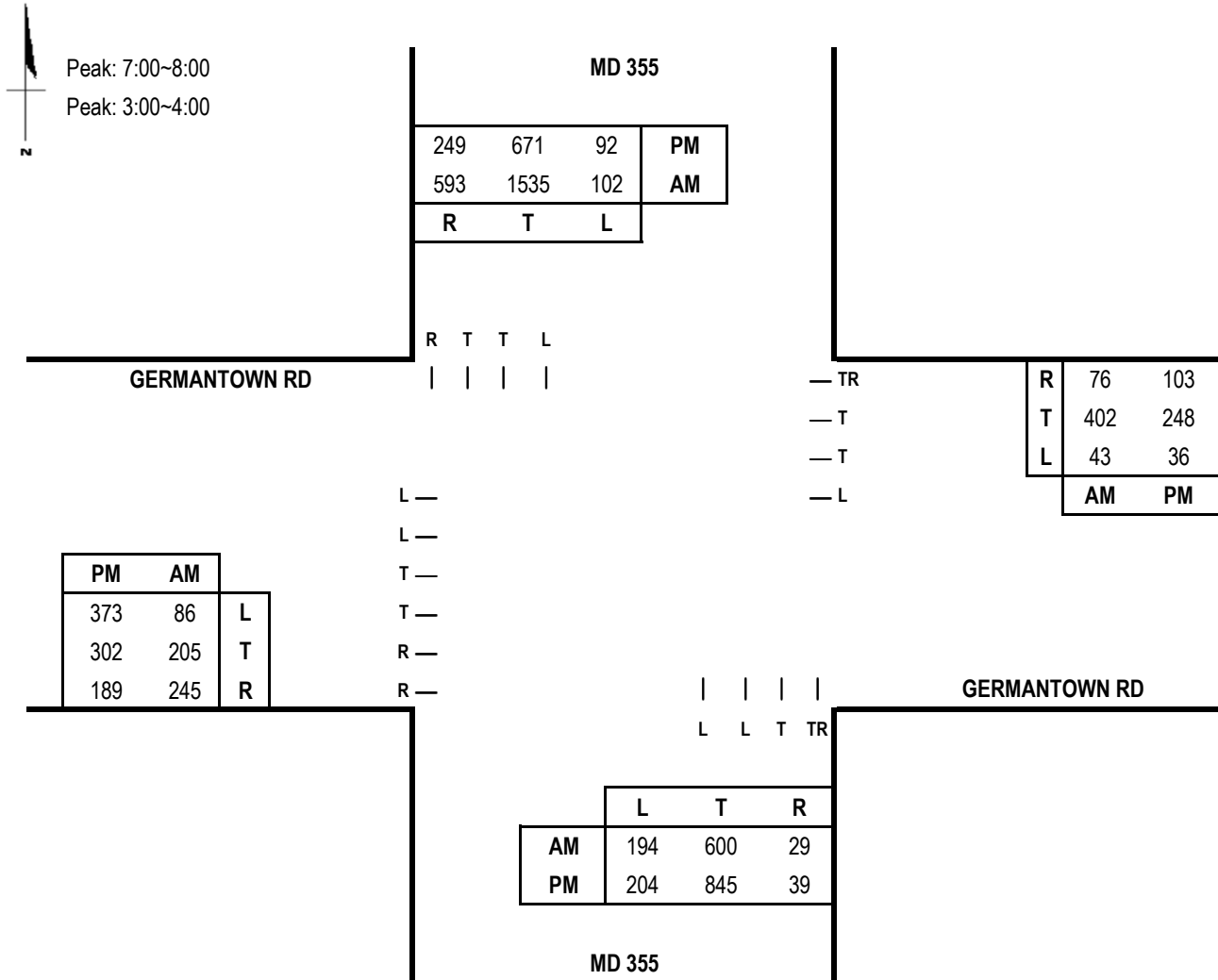
Date of Count:

N/S Road: MD 355

Day of Count:

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
NB	629	0.53	333	102	1.00	102	917
SB	1535	0.53	814	194	0.53	103	
EB	205	0.53	109	43	1.00	43	223
WB	478	0.37	177	86	0.53	46	
CLV TOTAL=							1,140

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	884	0.53	469	92	1.00	92	561
SB	671	0.53	356	204	0.53	108	
EB	302	0.53	160	36	1.00	36	328
WB	351	0.37	130	373	0.53	198	
CLV TOTAL=							889

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Germantown Rd

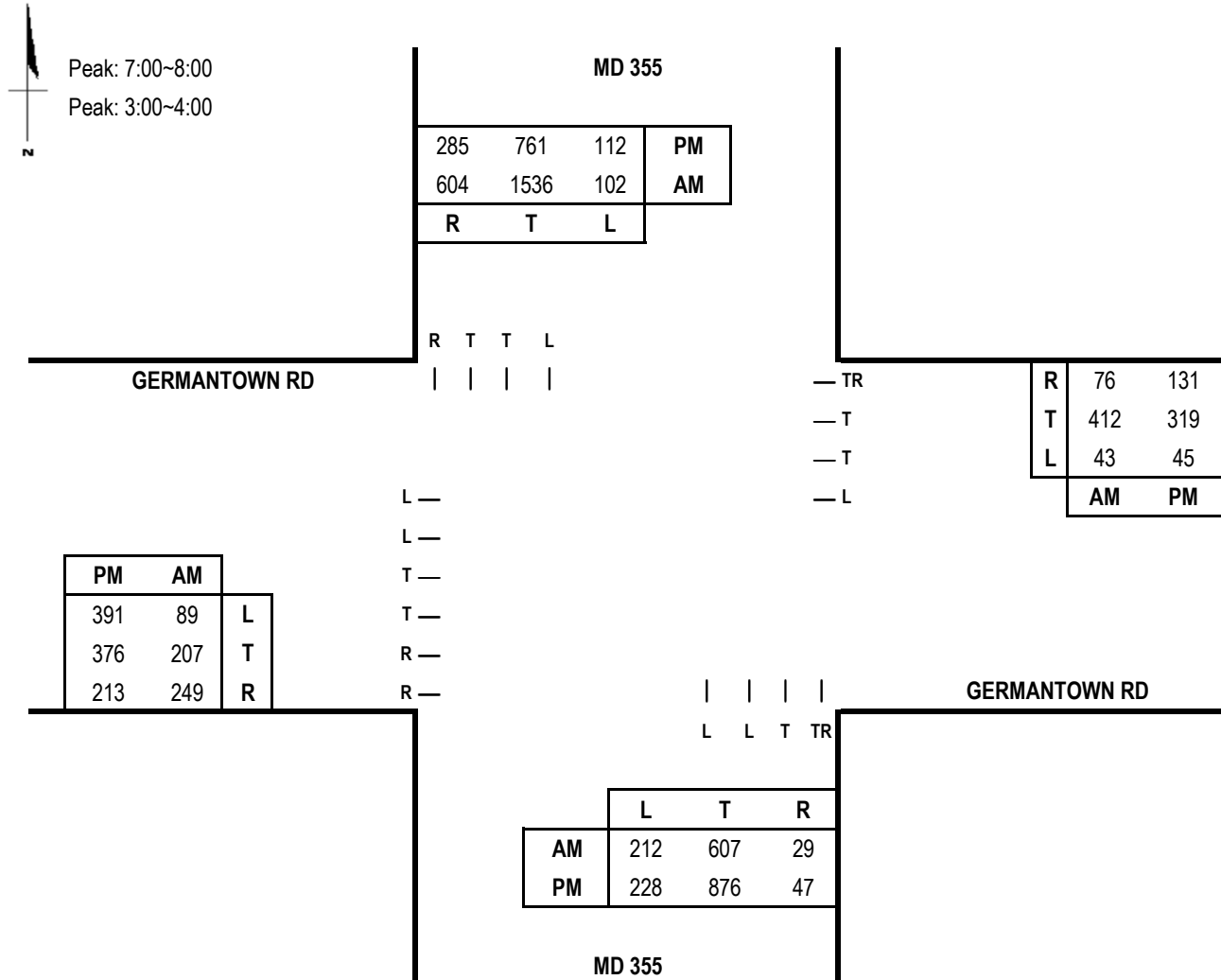
Date of Count:

N/S Road: MD 355

Day of Count:

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
NB	636	0.53	337	102	1.00	102	926
SB	1536	0.53	814	212	0.53	112	
EB	207	0.53	110	43	1.00	43	228
WB	488	0.37	181	89	0.53	47	
CLV TOTAL=							1,154

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	923	0.53	489	112	1.00	112	601
SB	761	0.53	403	228	0.53	121	
EB	376	0.53	199	45	1.00	45	374
WB	450	0.37	167	391	0.53	207	
CLV TOTAL=							975

CRITICAL LANE VOLUME (CLV) METHODOLOGY

for Montgomery County

E/W Road: Germantown Rd

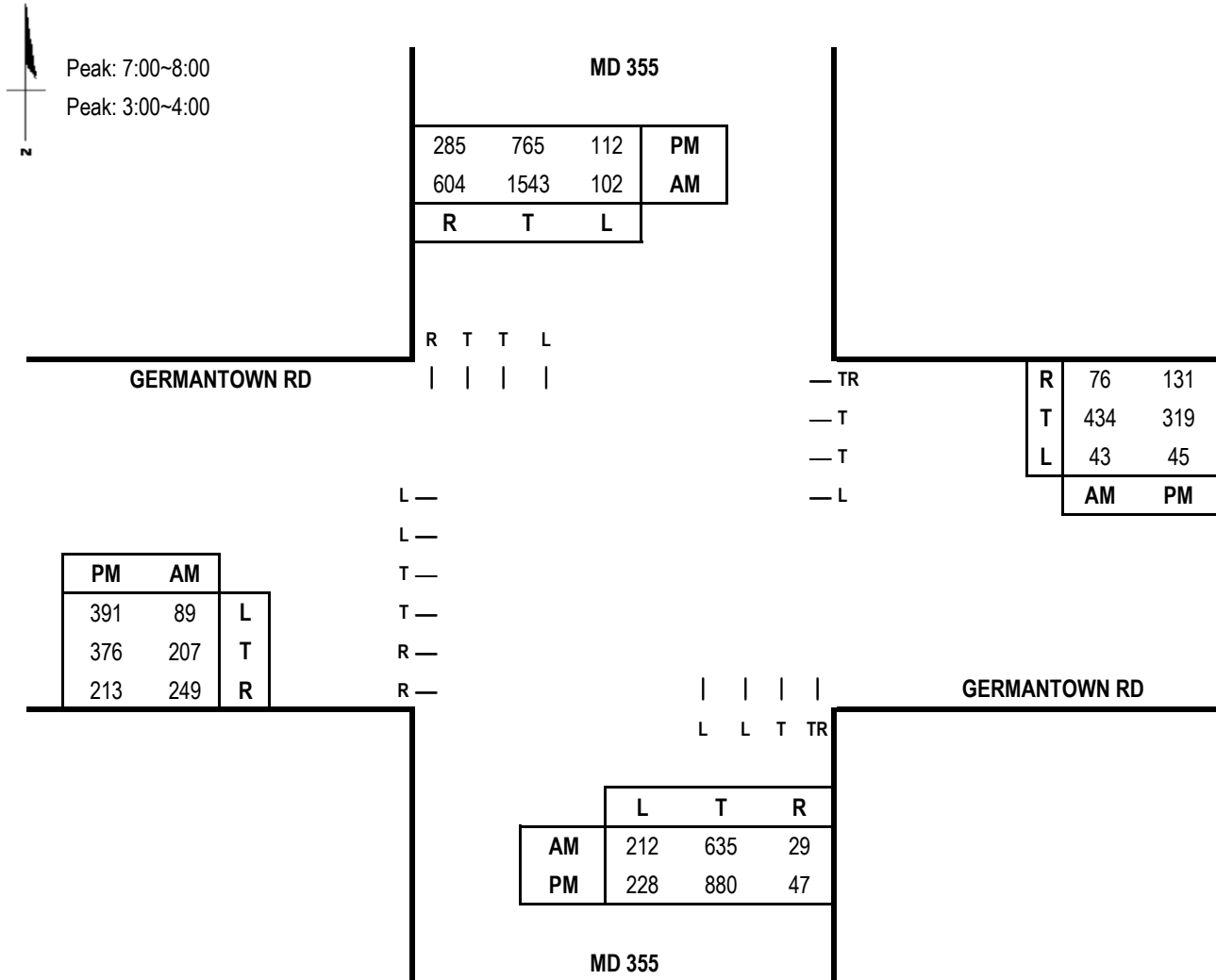
Date of Count:

N/S Road: MD 355

Day of Count:

Conditions: Total Traffic

Analyst: Richard Huang



Capacity Analysis

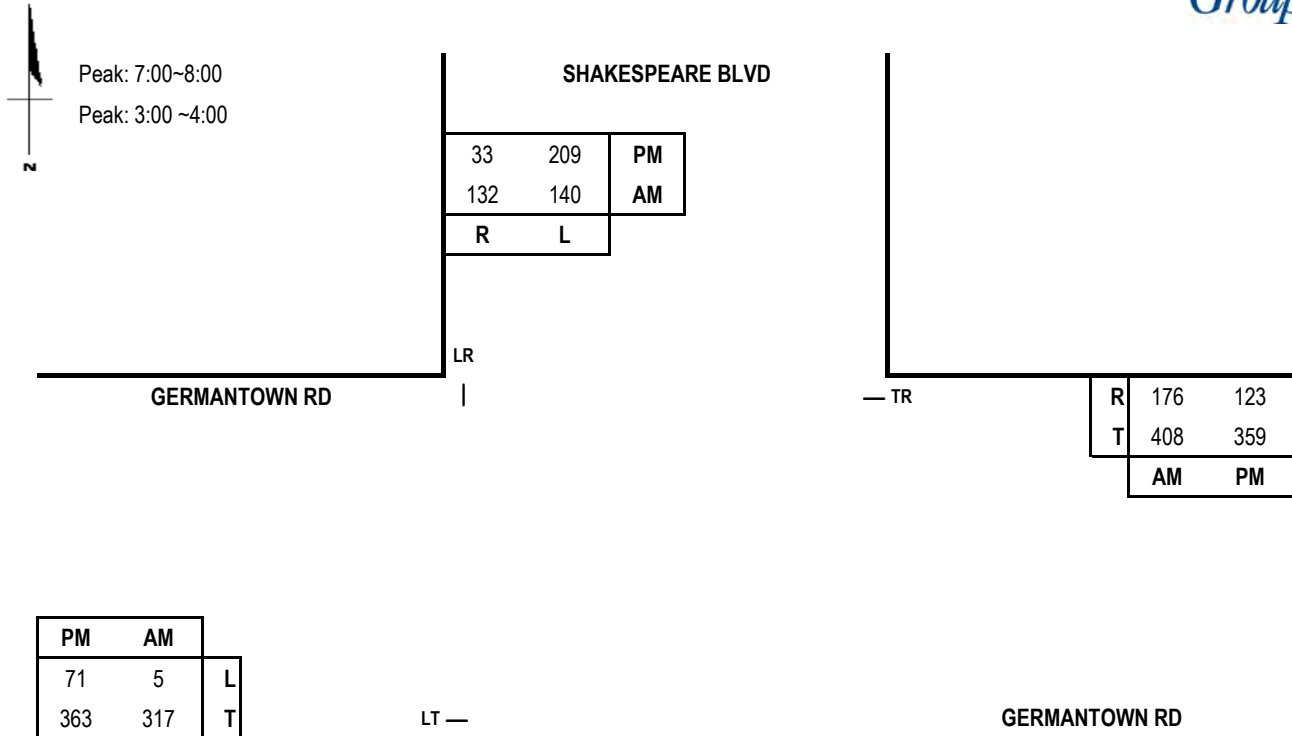
Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	664	0.53	352	102	1.00	102	930
SB	1543	0.53	818	212	0.53	112	
EB	207	0.53	110	43	1.00	43	236
WB	510	0.37	189	89	0.53	47	
CLV TOTAL=							1,166

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	927	0.53	491	112	1.00	112	603
SB	765	0.53	405	228	0.53	121	
EB	376	0.53	199	45	1.00	45	374
WB	450	0.37	167	391	0.53	207	
CLV TOTAL=							977

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Germantown Rd
N/S Road: Shakespeare Blvd
Conditions: Existing Traffic

Date of Count:
Day of Count:
Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	272	1.00	272			
EB	322	1.00	322			
WB	584	1.00	584	5	1.00	5
CLV TOTAL=						861

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	242	1.00	242			
EB	434	1.00	434			
WB	482	1.00	482	71	1.00	71
CLV TOTAL=						795

Scenario ID - EXIST4

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Germantown Rd

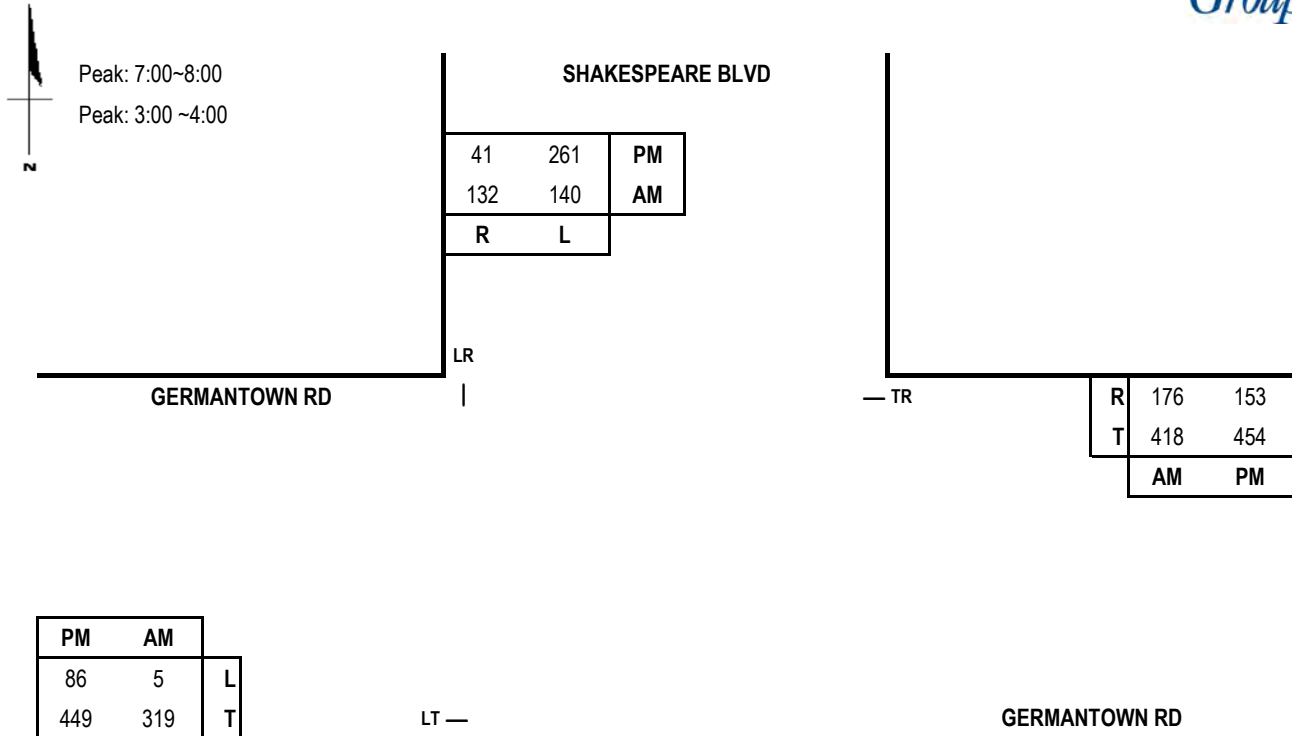
Date of Count:

N/S Road: Shakespeare Blvd

Day of Count:

Conditions: Background Traffic

Analyst: Richard Huang



Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	272	1.00	272			
EB	324	1.00	324			
WB	594	1.00	594	5	1.00	5
CLV TOTAL=						871

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	302	1.00	302			
EB	535	1.00	535			
WB	607	1.00	607	86	1.00	86
CLV TOTAL=						995

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Germantown Rd

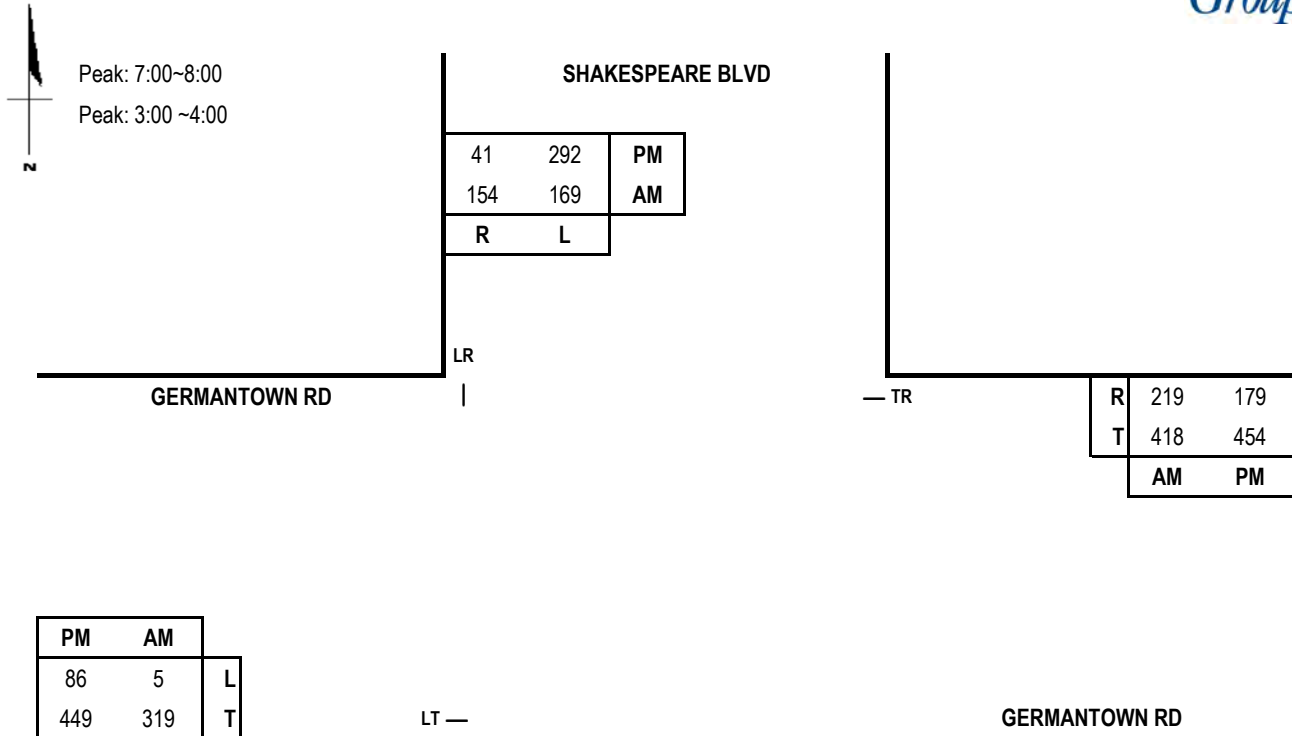
Date of Count:

N/S Road: Shakespeare Blvd

Day of Count:

Conditions: Total Traffic

Analyst: Richard Huang



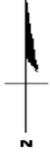
Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	323	1.00	323			
EB	324	1.00	324			
WB	637	1.00	637	5	1.00	5
CLV TOTAL=						965

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
SB	333	1.00	333			
EB	535	1.00	535			
WB	633	1.00	633	86	1.00	86
CLV TOTAL=						1,052

CRITICAL LANE VOLUME (CLV) METHODOLOGY

for Montgomery County

E/W Road: Neelsville Church Rd**N/S Road:** Vehicle Access**Conditions:** Existing Traffic**Date of Count:****Day of Count:****Analyst:** Richard Huang

NEELSVILLE CHURCH RD

— LT

T	18	193
L	163	113
	AM	PM

PM	AM
47	157
15	151

T
R

TR —

| |
L R

NEELSVILLE CHURCH RD

	L	R
AM	31	226
PM	57	94

VEHICLE ACCESS

Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	63	1.00	63			
EB	308	1.00	308	163	1.00	163
WB	181	1.00	181			
CLV TOTAL=						534

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	57	1.00	57			
EB	62	1.00	62	113	1.00	113
WB	306	1.00	306			
CLV TOTAL=						363

CRITICAL LANE VOLUME (CLV) METHODOLOGY

for Montgomery County

E/W Road: Neelsville Church Rd

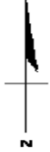
N/S Road: Vehicle Access

Conditions: Background Traffic

Date of Count:

Day of Count:

Analyst: Richard Huang



NEELSVILLE CHURCH RD

— LT

T	18	193
L	163	113
AM	PM	

PM	AM	
47	157	T
15	151	R

TR —

L	R

NEELSVILLE CHURCH RD

	L	R
AM	31	226
PM	57	94

VEHICLE ACCESS

Capacity Analysis

Morning Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	63	1.00	63			
EB	308	1.00	308	163	1.00	163
WB	181	1.00	181			
CLV TOTAL=						534

Evening Peak Hour						
Dir	Thru Volumes			+ Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total
NB	57	1.00	57			
EB	62	1.00	62	113	1.00	113
WB	306	1.00	306			
CLV TOTAL=						363

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Neelsville Church Rd

N/S Road: Vehicle Access

Conditions: Total Traffic

Date of Count:

Day of Count:

Analyst: Richard Huang



NEELSVILLE CHURCH RD

— LT

T	26	201
L	179	112
AM	PM	

PM	AM	
55	165	T
11	171	R

TR —

|
LR

NEELSVILLE CHURCH RD

	L	R
AM	30	250
PM	53	98

VEHICLE ACCESS

Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	280	1.00	280				280
EB	336	1.00	336	179	1.00	179	515
WB	205	1.00	205				
CLV TOTAL=							795

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	151	1.00	151				151
EB	66	1.00	66	112	1.00	112	313
WB	313	1.00	313				
CLV TOTAL=							464

CRITICAL LANE VOLUME (CLV) METHODOLOGY for Montgomery County

E/W Road: Neelsville Church Rd

N/S Road: Bus Access

Conditions: Total Traffic

Date of Count:

Day of Count:

Analyst: Richard Huang



NEELSVILLE CHURCH RD

— LT

T	197	305
L	27	27
	AM	PM

PM	AM
145	407
8	8
	T
	R

TR —

L	R

NEELSVILLE CHURCH RD

	L	R
AM	8	27
PM	8	27

BUS ACCESS

Capacity Analysis

Morning Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			AM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	415	1.00	415	27	1.00	27	442
WB	224	1.00	224				
CLV TOTAL=							450

Evening Peak Hour							
Dir	Thru Volumes			+ Opposing Lefts			PM
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	8	1.00	8				8
EB	153	1.00	153	27	1.00	27	332
WB	332	1.00	332				
CLV TOTAL=							340

APPENDIX D

Transit Schedules





55 To Rockville

SUNDAY

SEE TIMEPOINT LOCATION ON ROUTE MAP

1	3	4	5	6	7	8	9	10	11
5:30	5:35	5:39	5:45	5:51	5:59	6:02	6:06	6:14	6:20
6:05	6:10	6:14	6:20	6:26	6:34	6:37	6:41	6:49	6:55
6:40	6:45	6:49	6:55	7:01	7:09	7:12	7:16	7:24	7:30
7:15	7:20	7:24	7:30	7:36	7:44	7:47	7:51	7:59	8:05
7:40	7:45	7:49	7:55	8:01	8:09	8:12	8:16	8:24	8:30
8:00	8:06	8:11	8:18	8:25	8:33	8:36	8:40	8:48	8:54
8:20	8:26	8:31	8:38	8:45	8:53	8:56	9:00	9:08	9:14
8:40	8:46	8:51	8:58	9:05	9:13	9:16	9:20	9:28	9:34
9:00	9:06	9:11	9:18	9:25	9:33	9:36	9:40	9:48	9:54
9:20	9:26	9:31	9:38	9:45	9:53	9:56	10:00	10:08	10:14
9:40	9:46	9:51	9:58	10:05	10:13	10:16	10:20	10:28	10:34
10:00	10:06	10:11	10:18	10:25	10:33	10:36	10:40	10:48	10:54
10:15	10:21	10:26	10:33	10:40	10:48	10:51	10:55	11:03	11:09
10:30	10:36	10:41	10:48	10:56	11:05	11:09	11:13	11:22	11:29
10:45	10:51	10:56	11:03	11:11	11:20	11:24	11:28	11:37	11:44
11:00	11:06	11:11	11:18	11:26	11:35	11:39	11:43	11:52	11:59
11:15	11:21	11:26	11:33	11:41	11:50	11:54	11:58	12:07	12:14
11:30	11:36	11:41	11:48	11:56	12:05	12:09	12:13	12:22	12:29
11:45	11:51	11:56	12:03	12:11	12:20	12:24	12:28	12:37	12:44
12:00	12:06	12:11	12:18	12:26	12:35	12:39	12:43	12:52	12:59
12:15	12:21	12:26	12:33	12:41	12:50	12:54	12:58	1:07	1:14
12:30	12:36	12:41	12:48	12:56	1:05	1:09	1:13	1:22	1:29
12:45	12:51	12:56	1:03	1:11	1:20	1:24	1:28	1:37	1:44
1:00	1:06	1:11	1:18	1:26	1:35	1:39	1:43	1:52	1:59
1:15	1:21	1:26	1:33	1:41	1:50	1:54	1:58	2:07	2:14
1:30	1:36	1:41	1:48	1:56	2:05	2:09	2:13	2:22	2:29
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2:00	2:06	2:11	2:18	2:26	2:35	2:39	2:43	2:52	2:59
2:15	2:21	2:26	2:33	2:41	2:50	2:54	2:58	3:07	3:14
2:30	2:36	2:41	2:49	2:57	3:06	3:10	3:14	3:23	3:30
2:45	2:51	2:56	3:04	3:12	3:21	3:25	3:29	3:38	3:45
3:00	3:06	3:11	3:19	3:27	3:36	3:40	3:44	3:53	4:00
3:15	3:21	3:26	3:34	3:42	3:51	3:55	3:59	4:08	4:15
3:30	3:36	3:41	3:49	3:57	4:06	4:10	4:14	4:23	4:30
3:45	3:51	3:56	4:04	4:12	4:21	4:25	4:29	4:38	4:45
4:00	4:06	4:11	4:19	4:27	4:36	4:40	4:44	4:53	5:00
4:20	4:26	4:31	4:39	4:47	4:56	5:00	5:04	5:13	5:20
4:40	4:46	4:51	4:58	5:05	5:13	5:16	5:20	5:28	5:34
5:00	5:06	5:11	5:18	5:25	5:33	5:36	5:40	5:48	5:54
5:20	5:26	5:31	5:38	5:45	5:53	5:56	6:00	6:08	6:14
5:40	5:46	5:51	5:58	6:05	6:13	6:16	6:20	6:28	6:34
6:00	6:06	6:11	6:18	6:25	6:33	6:36	6:40	6:48	6:54
6:20	6:26	6:31	6:38	6:45	6:53	6:56	7:00	7:08	7:14
6:40	6:46	6:51	6:58	7:05	7:13	7:16	7:20	7:28	7:34
7:05	7:11	7:16	7:23	7:30	7:38	7:41	7:45	7:53	7:59
7:40	7:46	7:51	7:58	8:05	8:13	8:16	8:20	8:28	8:34
8:15	8:20	8:25	8:31	8:37	8:44	8:47	8:50	8:58	9:04
8:50	8:55	9:00	9:06	9:12	9:19	9:22	9:25	9:33	9:39
9:25	9:30	9:35	9:41	9:47	9:54	9:57	10:00	10:08	10:14
10:00	10:05	10:10	10:16	10:22	10:29	10:32	10:35	10:43	10:49
10:40	10:45	10:50	10:57	11:03	11:10	11:13	11:16	11:24	11:30
11:35	11:40	11:45	11:51	11:57	12:04	12:07	12:10	12:18	12:24

NOTES: AM PM

55 To Germantown Transit Center (GTC)

SUNDAY

SEE TIMEPOINT LOCATION ON ROUTE MAP

11	10	9	8	7	6	5	4	3	1
5:55	6:00	6:06	6:09	6:12	6:20	6:27	6:33	6:37	6:42
6:30	6:35	6:41	6:44	6:47	6:55	7:02	7:08	7:12	7:17
7:05	7:10	7:16	7:19	7:22	7:30	7:37	7:43	7:47	7:52
7:35	7:40	7:46	7:49	7:52	8:00	8:07	8:13	8:17	8:22
8:05	8:12	8:19	8:22	8:25	8:34	8:41	8:48	8:53	8:59
8:35	8:42	8:49	8:52	8:55	9:04	9:11	9:18	9:23	9:29
9:05	9:12	9:19	9:22	9:25	9:34	9:41	9:48	9:53	9:59
9:35	9:42	9:49	9:52	9:55	10:04	10:11	10:18	10:23	10:29
10:05	10:12	10:19	10:22	10:25	10:34	10:41	10:48	10:53	10:59
10:35	10:42	10:49	10:52	10:55	11:04	11:11	11:18	11:23	11:29
11:00	11:07	11:14	11:17	11:20	11:29	11:36	11:43	11:48	11:54
11:20	11:27	11:34	11:37	11:40	11:49	11:56	12:03	12:08	12:14
11:40	11:47	11:54	11:57	12:00	12:09	12:16	12:23	12:28	12:34
12:00	12:06	12:16	12:20	12:23	12:33	12:41	12:48	12:53	1:00
12:15	12:23	12:31	12:35	12:38	12:48	12:56	1:03	1:08	1:15
12:30	12:38	12:46	12:50	12:53	1:03	1:11	1:18	1:23	1:30
1:15	1:23	1:31	1:35	1:38	1:48	1:56	2:03	2:08	2:15
1:30	1:38	1:46	1:50	1:53	2:03	2:11	2:18	2:23	2:30
1:45	1:53	2:01	2:05	2:08	2:18	2:26	2:33	2:38	2:45
2:00	2:08	2:16	2:20	2:23	2:33	2:41	2:48	2:53	3:00
2:15	2:23	2:31	2:35	2:38	2:48	2:56	3:03	3:08	3:15
2:30	2:38	2:46	2:50	2:53	3:03	3:11	3:18	3:23	3:30
2:45	2:53	3:01	3:05	3:08	3:18	3:26	3:33	3:38	3:45
3:00	3:09	3:17	3:21	3:24	3:35	3:43	3:50	3:55	4:02
3:15	3:24	3:32	3:36	3:39	3:50	3:58	4:05	4:10	4:17
4:15	4:23	4:31	4:35	4:38	4:48	4:56	5:03	5:08	5:14
4:30	4:38	4:46	4:50	4:53	5:03	5:11	5:18	5:23	5:29
4:45	4:53	5:01	5:05	5:08	5:18	5:26	5:33	5:38	5:44
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8:40	8:47	8:54	8:57	9:00	9:09	9:16	9:23	9:27	9:33
9:10	9:17	9:24	9:27	9:30	9:39	9:46	9:53	9:57	10:03
9:40	9:46	9:53	9:56	9:59	10:09	10:16	10:23	10:27	10:33
10:10	10:16	10:23	10:26	10:29	10:36	10:42	10:48	10:52	10:57
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11:45	11:51	11:58	12:01	12:04	12:11	12:17	12:23	12:27	12:32

NOTES: AM PM

FARES Effective July 1, 2021

Regular Fare, Token, or SmarTrip®	\$2.00
SmarTrip® Fare Transfer from MetroRail	\$1.50

Seniors age 65 years or older with a Senior SmarTrip® card or valid Medicare Card and Photo ID

Person with disability with Metro Disabled ID Card

Person with disability with Metro Disability ID Card – Attendee Eligible

Attendee also rides free.

MetroAccess - Certified Customer with ID

MetroAccess - Companion

Children under age 5

Local Bus Transfer with SmarTrip®

Children 5 to 18 with a Youth Cruiser SmarTrip® Card or student ID

Anytime

FREE

FREE

HOW TO RIDE A BUS

Schedule check for timepoint nearest your location. Wait at the blue and white **RIDE ON** bus stop sign. Arrive several minutes before scheduled time. Have exact fare ready (drivers do not make change).

- Not all stops are listed on a public timetable.
- If you are unfamiliar with your stop, sit or stand behind the line near the front of the bus and ask the bus driver to notify you when your stop is approaching.
- Ask the bus driver if you are not sure if the bus goes to your stop.
- If you have internet access (at home or somewhere else, such as a public library), it may be easier for you to use an online trip planner rather than a paper timetable.
- Be mindful of changes in the schedule, for holidays or bad weather.
- Please observe the following rules for all patrons:
 - No eating, drinking, or smoking.
 - Electronic devices may be played with earphones set at low level.

Montgomery County assures that no person shall, on the grounds of race, color, or national origin, as provided by Title VI of the Civil Rights Act of 1964 and the Civil Rights Act of 1987, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. For more information or to file a complaint, please contact the Montgomery County Office of Human Rights.

WELCOME TO RIDE ON

RIDE ON is a community bus service operated by the Montgomery County Department of Transportation. RIDE ON operates over 75 routes that serve all 13 Montgomery County Metrolink stations and 7 MARC stations. For detailed information, or to have timetables mailed, call 311. Outside Montgomery County 240-777-0311.

Visit our web site at: www.rideonbus.com

Regular Mailing Address: Montgomery County DOT Division of Transit Services 101 Monroe Street, 5th Floor Rockville, MD 20850

Real Time information is available at: www.rideonrealtime.com

For more information, or to request this document in an alternate format or translated into another language, please call 311, or outside Montgomery County 240-777-0311.

Para más información o para pedir este documento en un formato diferente o traducido a otro idioma, por favor, llame al 311 o de fuera del Condado de Montgomery al 240-777-0311. 240-777-0311.

如需更多信息，請撥打311。如需在不在蒙哥馬利郡，請撥打240-777-0311。

자세한 정보를 원하시거나 다른 형식 또는 다른 언어로의 번역본으로 원하실 경우, 전화번호 311, 또는 몽고메리 카운티 이외의 지역에서는 240-777-0311로 연락하십시오.

အသေးစိတ် သတင်းများကို 311 သို့မဟုတ် အခြားနေရာမှ အသေးစိတ် သတင်းများကို 311 သို့မဟုတ် အခြားနေရာမှ 240-777-0311 နံပါတ်သို့ ခေါ်ဆိုပါ။

Pour plus d'informations ou pour recevoir un exemplaire de ce document sous un format différent ou traduit dans une autre langue, veuillez composer le 311 ou le 240-777-0311, à l'extérieur du comté de Montgomery.

Để tìm hiểu thêm, hoặc để yêu cầu cung cấp tài liệu này theo định dạng khác hay chuyển ngữ sang ngôn ngữ khác, vui lòng gọi 311 hoặc số 240-777-0311 nếu gọi từ bên ngoài Quận Montgomery.

HOLIDAY SCHEDULE

Weekday Schedule operates on Indigenous Peoples' Day

Saturday Schedule operates on Independence Day

Sunday Schedule operates on New Year's Day, Memorial Day, Labor Day, Thanksgiving Day, Christmas Day, Veterans Day

Special Schedule operates on MLK, Jr. Day, Presidents' Day, Veterans Day

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Instagram instagram.com/RideOnMCT

Thank You for Riding with Us!

Printed on recycled paper with soy-based ink

EFFECTIVE: JULY 18, 2021

55

Approximate travel time between stops

- 4-5 mins Germantown Transit Center (GTC)
- 3-5 mins Montgomery College (Germantown) MON-SAT ONLY
- 4-6 mins Milestone Center
- 5-7 mins MD 355 & Middlebrook Rd
- 4-10 mins Travis Ave & Watkins Mill Rd
- 6-12 mins Lakeforest Transit Center
- 2-4 mins MD 355 & Deer Park Rd
- 3-5 mins MD 355 & Shady Grove Rd
- 7-12 mins Shady Grove (West)
- 5-9 mins Montgomery College (Rockville)
- Rockville

SERVICE DAYS

DAILY

Ride On Montgomery County Transit

Telephone 311

Online at www.rideonbus.com

Real Time Info at www.rideonrealtime.com

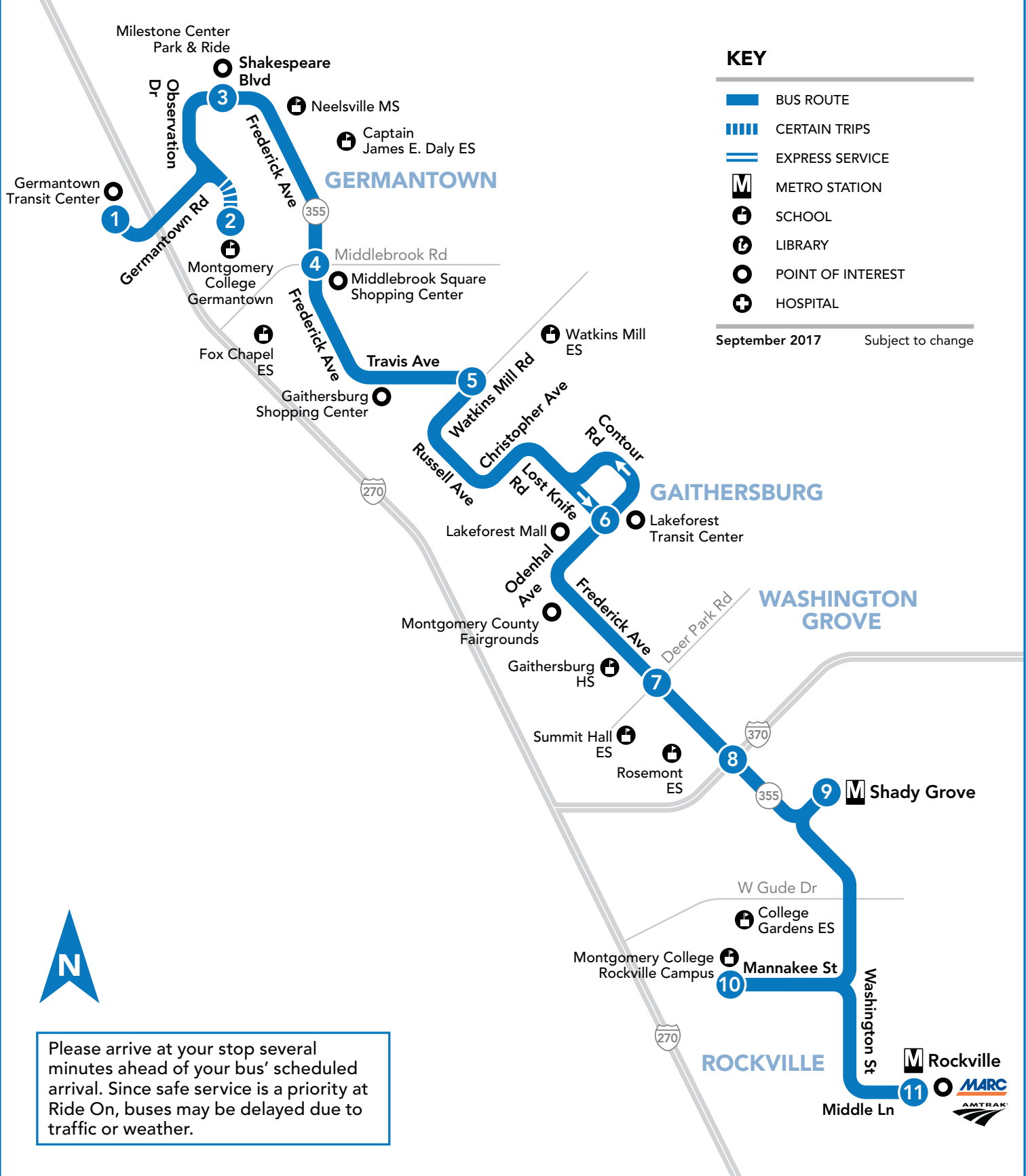
NOTES:	AM	PM
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NOTES: AM PM

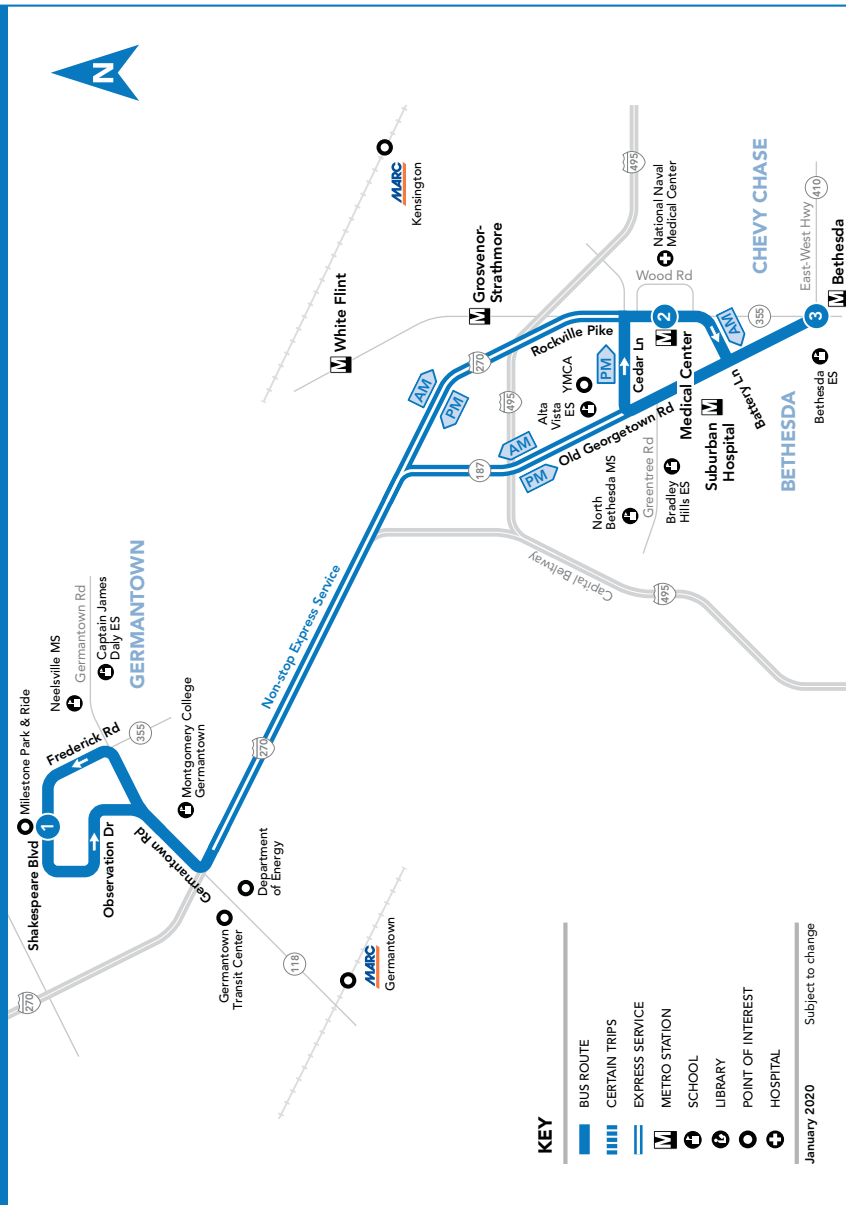
NOTES: AM PM

55

Germantown Transit Center (GTC) –
Montgomery College (Germantown) - Milestone Ctr –
Lakeforest TC – Shady Grove M – Rockville M



Please arrive at your stop several minutes ahead of your bus' scheduled arrival. Since safe service is a priority at Ride On, buses may be delayed due to traffic or weather.



WELCOME TO RIDE ON

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Outside Montgomery County **240-777-0311**

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Regular Mailing Address:
Montgomery County DOT
Division of Transit Services
101 Monroe Street, 5th
Floor Rockville, MD 20850

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如需更多信息、需要以其它格式提供本文檔或需要將本文檔翻譯成其它語言，請撥打311。如果您不在蒙哥馬利郡，請撥打240-777-0311。

자세한 정보를 원하시거나 본 문서를 다른 형식 또는 다른 언어로의 번역본으로 원하실 경우, 전화번호 311, 또는 몽고메리 카운티 이외의 지역에서는 240-777-0311로 연락하시기 바랍니다.

ለተጨማሪ መረጃ፣ ወይም ይህንን ደብዳቤ በተለያዩ መልክ ለመግኘት ወይም ወደሌላ ቋንቋ ለማስተርጎም፣ አባዛዎንን በ 311 ወይም ከዋናንጎረሳዊ ካውንቲ ውጪ 240-777-0311 ይደውሉ።

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HOLIDAY SCHEDULE

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Saturday Schedule operates on Independence Day

Sunday Schedule operates on New Year's Day, Memorial Day, Labor Day, Thanksgiving Day, Christmas Day

Special Schedule operates on MLK, Jr. Day, Presidents' Day, Veterans Day

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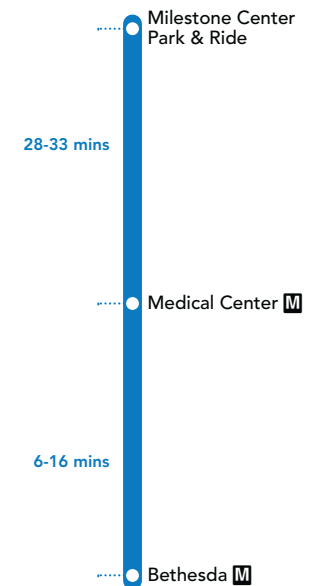
EFFECTIVE: SEPTEMBER 27, 2020



EXPRESS

70

Approximate travel
time between stops



SERVICE DAYS

MONDAY - FRIDAY

Ride On
Montgomery County Transit



Telephone 311

Online at www.rideonbus.comReal Time Info at www.rideonrealtime.com

70 To Bethesda

MONDAY THROUGH FRIDAY

SEE TIMEPOINT LOCATION ON ROUTE MAP

Milestone Center Park & Ride	Medical Center 	Bethesda 
1	2	3
4:45	5:08	5:13
5:20	5:43	5:48
5:55	6:26	6:31
6:30	7:06	7:13
7:05	7:45	7:53
7:40	8:20	8:28
8:15	8:52	9:01
8:50	9:27	9:36
9:30	10:07	10:16
3:17		3:50
3:52		4:25
4:32		5:05
5:11		5:49
5:46		6:19
6:21		6:54
6:52		7:25

NOTES:

AM



PM

- * AM EXPRESS SERVICE TO BETHESDA:
Bus serves all stops between Milestone Center and MD118- Germantown Rd & Seneca Meadow Pkwy, and all stops from Medical Center Station to Bethesda Station.
- PM EXPRESS SERVICE TO BETHESDA:
Bus serves all stops between Milestone Center and MD118- Germantown Rd & Seneca Meadow Pkwy, and all stops from Suburban Hospital to Bethesda Station.

70 To Germantown-Milestone Park & Ride

MONDAY THROUGH FRIDAY

SEE TIMEPOINT LOCATION ON ROUTE MAP

Bethesda 	Medical Center 	Milestone Center Park & Ride
3	2	1
5:18		5:49
5:53		6:24
6:36		7:09
7:18		7:49
7:58		8:29
8:33		9:04
2:30	2:44	3:12
3:05	3:19	3:47
3:40	3:56	4:27
4:15	4:33	5:06
4:50	5:08	5:41
5:25	5:43	6:16
6:00	6:16	6:47
6:35	6:50	7:19
7:10	7:21	7:44
7:55	8:06	8:29

NOTES:

AM

PM

- * AM EXPRESS SERVICE TO MILESTONE CENTER.
Bus serves all stops between Bethesda Station and Old Georgetown Rd & Lincoln Street and all stops between MD118- Germantown Rd & Seneca Meadow Pkwy to Milestone Center.
- PM EXPRESS SERVICE TO MILESTONE CENTER.
Bus serves all stops between Bethesda Station and Medical Center Station inclusive, and all stops from MD118-Germantown Rd & Seneca Meadow Pkwy to Milestone Center.

Please arrive at your stop several minutes ahead of your bus' scheduled arrival. Since safe service is a priority at Ride On, buses may be delayed due to traffic or weather.

There is NO Saturday or Sunday service on this route

HOW TO RIDE A BUS

Check schedule for timepoint nearest your location. Wait at the blue and white **RIDE ON** bus stop sign. Arrive several minutes before scheduled time. Have exact fare ready (drivers do not make change).

- Not all stops are listed on a public timetable.
- If you are unfamiliar with your stop, sit or stand behind the line near the front of the bus and ask the bus driver to notify you when your stop is approaching.
- Ask the bus driver if you are not sure if the bus goes to your stop.
- If you have internet access (at home or somewhere else, such as a public library), it may be easier for you to use an online trip planner rather than a paper timetable.
- Be mindful of changes in the schedule, for holidays or bad weather.
- Please observe the following rules for all patrons: No eating, drinking, or smoking.
- Electronic devices may be played with earphones set at low level.

HOW TO READ A TIMETABLE

- Find the schedule for the day of the week and the direction you wish to ride.
- Find the timepoints closest to your origin and destination. The timepoints are shown on the route map and indicate the time the bus is scheduled to be at the particular location. Your nearest bus stop may be between timepoints.
- Read down the column to see the times when a trip will be at the given timepoint. Read the times across to the right to see when the trip reaches other timepoints. If no time is shown, that trip does not serve that timepoint.

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FARES

Express Fare (Route 70)	\$4.25
SmarTrip® or Cash	\$4.25
SmarTrip® Transfer from Metrorail	\$3.75
SmarTrip® Transfer from local bus	\$2.25
Boarding with Weekly, Monthly, TLC Passes – Additional Paid with cash	\$2.25
Seniors and persons with disability Express Fares (Route 70) except during free periods:	
Senior/Disabled SmarTrip® or Cash	\$2.10
Senior/Disabled SmarTrip® Transfer from Metrorail	\$1.60
Senior/Disabled SmarTrip® Transfer from local bus	\$1.10
Senior/Disabled Boarding with Weekly Pass – Additional Paid with cash	\$1.10
Children under age 5 Limit 2 children per paying passenger	FREE

GUARANTEED RIDE HOME

When you take Metrobus, Metrorail and Ride On to work, you are eligible to participate in the free Commuter Connections Guaranteed Ride Home Program. To register and to receive program details call:
Commuter Services at **301-770-POOL(7665)**.

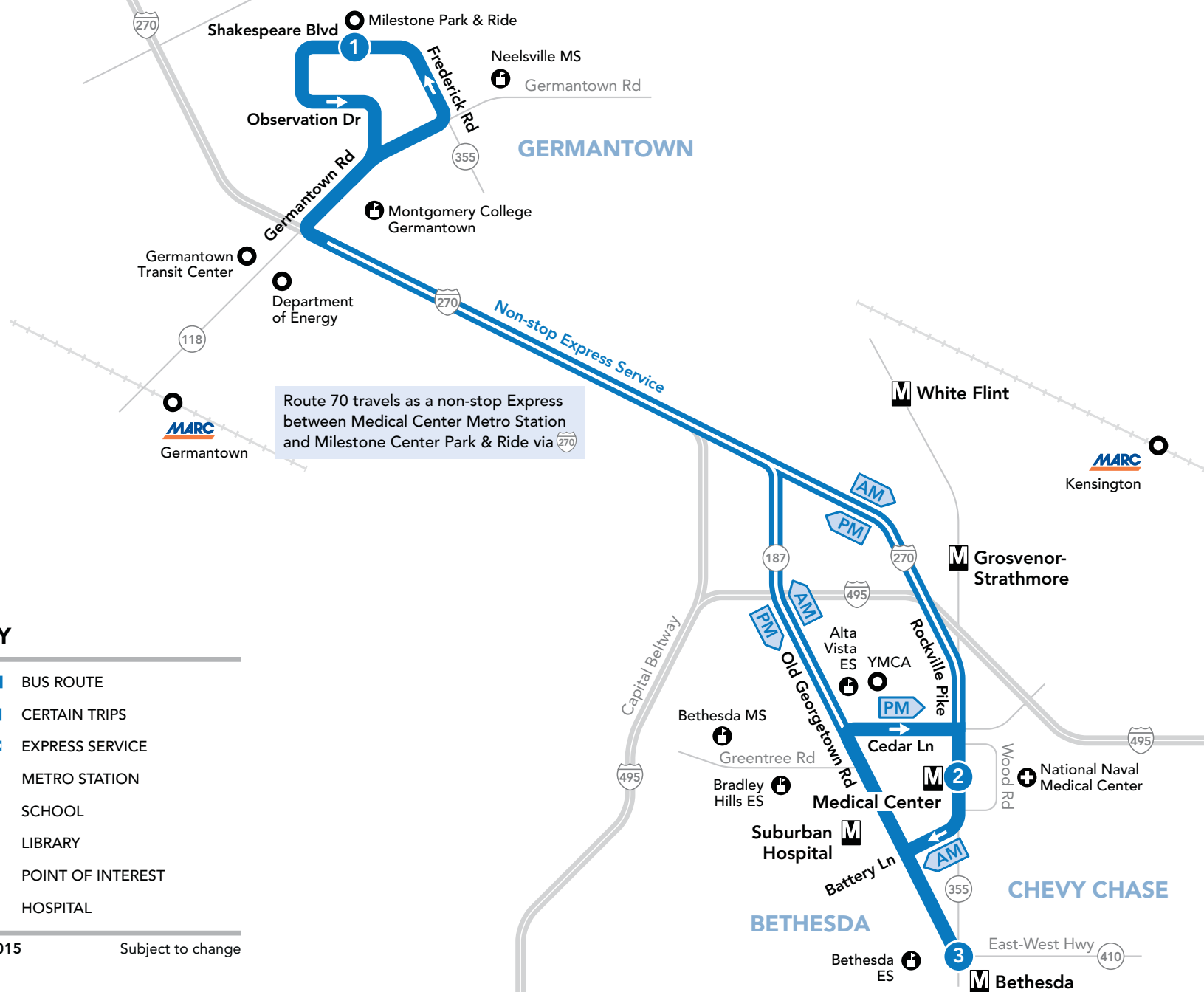
METROACCESS

Alternative paratransit service to this Ride On route for people with certified disabilities is available. Call MetroAccess at **301-562-5360**.



70

Germantown – Milestone Park & Ride – Medical Center M – Suburban Hospital – Bethesda M



FARES

Effective September 15, 2019

Regular Fare, Token, or SmarTrip®	\$2.00
SmarTrip® Fare Transfer from MetroRail	\$1.50
Seniors and persons with disability with valid ID (including attendant-eligible) except during free periods:	
Senior/Disabled SmarTrip® or Cash	\$1.00
Senior/Disabled SmarTrip® Transfer from Metrorail	\$0.50
Seniors age 65 years or older with a Senior SmarTrip® card or valid Metro Senior ID Card or with valid Medicare Card and Photo ID from 9:30 am – 3:00 pm Monday through Friday and Saturday from 8:30 am – 4:00 pm.	FREE
Person with disability with Metro Disabled ID Card from 9:30 am – 3:00 pm Monday through Friday and Saturday from 8:30 am – 4:00 pm.	
Person with disability with Metro Disability ID Card – Attendant Eligible from 9:30 am – 3:00 pm Mon. through Fri. and Sat. from 8:30 am – 4:00 pm. Attendant rides half fare or free depending on time.	
MetroAccess - Certified Customer with ID MetroAccess - Companion	
Children under age 5	FREE
Local Bus Transfer with SmarTrip®	
Children 5 to 18 with a Youth Cruiser SmarTrip® Card or student ID Anytime	

HOW TO RIDE A BUS

Check schedule for timepoint nearest your location. Wait at the blue and white **RIDE ON** bus stop sign. Arrive several minutes before scheduled time. Have exact fare ready (drivers do not make change).

- Not all stops are listed on a public timetable.
- If you are unfamiliar with your stop, sit or stand behind the line near the front of the bus and ask the bus driver to notify you when your stop is approaching.
- Ask the bus driver if you are not sure if the bus goes to your stop.
- If you have internet access (at home or somewhere else, such as a public library), it may be easier for you to use an online trip planner rather than a paper timetable.
- Be mindful of changes in the schedule, for holidays or bad weather.
- Please observe the following rules for all patrons: No eating, drinking, or smoking.
- Electronic devices may be played with earphones set at low level.

WELCOME TO RIDE ON

RIDE ON is a community bus service operated by the Montgomery County Department of Transportation.

RIDE ON operates over 75 routes that serve all 13 Montgomery County Metrorail stations and 7 MARC stations. For detailed information, or to have timetables mailed, call **311**. Outside Montgomery County **240-777-0311**

Visit our web site at:

www.rideonbus.com

Real Time information is available at:

www.rideonrealtime.com

Regular Mailing Address:

Montgomery County DOT
Division of Transit Services
101 Monroe Street, 5th
Floor Rockville, MD 20850

For more information, or to request this document in an alternate format or translated into another language, please call 311, or outside Montgomery County 240-777-0311.

Para más información o para pedir este documento en un formato diferente o traducido a otro idioma, por favor, llame al 311 o de fuera del Condado de Montgomery al 240-777-0311.

如需更多信息、需要以其它格式提供本文檔或需要將本文檔翻譯成其它語言，請撥打311。如果您不在蒙哥馬利郡，請撥打240-777-0311。

자세한 정보를 원하시거나 본 문서를 다른 형식 또는 다른 언어로의 번역본으로 원하실 경우, 전화번호 311, 또는 몽고메리 카운티 이외의 지역에서는 240-777-0311로 연락하시기 바랍니다.

ለተጨማሪ መረጃ፣ ወይም ደህንነት ጽሑፍን በተለያዩ መልክ ለመጠየቅ ወይም ወደሌላ ቋንቋ ለማስተርጎም፣ ከባለሙያዎች ጋር በ 311 ወይም ከሞንትጎመሪ ካውንቲ ውጪ 240-777-0311 ይደውሉ።

Pour plus d'informations ou pour recevoir un exemplaire de ce document sous un format différent ou traduit dans une autre langue, veuillez composer le 311 ou le 240-777-0311, à l'extérieur du comté de Montgomery.

Để tìm hiểu thêm, hoặc để yêu cầu cung cấp tài liệu này theo định dạng khác hay chuyển ngữ sang ngôn ngữ khác, vui lòng gọi 311 hoặc số 240-777-0311 nếu gọi từ bên ngoài Quận Montgomery.

HOLIDAY SCHEDULE

Weekday Schedule operates on Indigenous Peoples' Day

Saturday Schedule operates on Independence Day

Sunday Schedule operates on New Year's Day, Memorial Day, Labor Day, Thanksgiving Day, Christmas Day

Special Schedule operates on MLK, Jr. Day, Presidents' Day, Veterans Day

 **Like us on Facebook**
facebook.com/RideOnMCT

 **Follow us on Twitter**
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 **Subscribe to email alerts at**
www.montgomerycountymd.gov/govdelivery

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MONTGOMERY RIDEON to 468311

 **YouTube**
youtube.com/RideOnMCT

 **Instagram**
instagram.com/RideOnMCT

Thank You for Riding with Us!

Printed on recycled paper with soy-based ink

EFFECTIVE: MAY 9, 2021
Map Correction May 11, 2021



79

Approximate travel
time between stops

5-6 mins

9 mins

9 mins

3-4 mins

3-4 mins

10-15 mins



**PM
SERVICE**



**AM
SERVICE**

MD 121 &
Gateway Center

Snowden Farm Pkwy
& Stringtown Rd

Skylark &
Ridge Rds

Scottsbury Dr &
Shakespeare Blvd

Scenery &
Brandermill Drs

MD 355 &
Middlebrook Rd

Shady Grove
Metro Station 

SERVICE DAYS

MONDAY - FRIDAY

Ride On

Montgomery County Transit

Telephone **311**

Online at www.rideonbus.com

Real Time Info at www.rideonrealtime.com

79

Clarksburg Town Center – I-270 – I-370 – Shady Grove Metro Station



Please arrive at your stop several minutes ahead of your bus' scheduled arrival. Since safe service is a priority at Ride On, buses may be delayed due to traffic or weather.

79 To Shady Grove Metro Station

MONDAY THROUGH FRIDAY

SEE TIMEPOINT LOCATION ON ROUTE MAP

	MD 121 & Gateway Center	Snowden Farm & Stringtown Rd	Skylark & Ridge Rds	Scottsbury Dr & Shakespear Blvd	Scenery & Bradenmill Drs	MD 355 & Middlebrook Rd	Shady Grove Metro Station (East)
1	5:05	5:10	5:16	5:24	5:27	5:32	5:43
2	5:50	5:55	6:01	6:09	6:12	6:17	6:28
3	6:35	6:41	6:48	6:57	7:00	7:05	7:16
4	7:20	7:26	7:33	7:42	7:45	7:50	8:01
5	8:05	8:10	8:17	8:25	8:28	8:32	8:43
6	8:50	8:55	9:02	9:10	9:13	9:17	9:28
7							

NOTES: AM Service Only AM

79 To Clarksburg Town Center

MONDAY THROUGH FRIDAY

SEE TIMEPOINT LOCATION ON ROUTE MAP

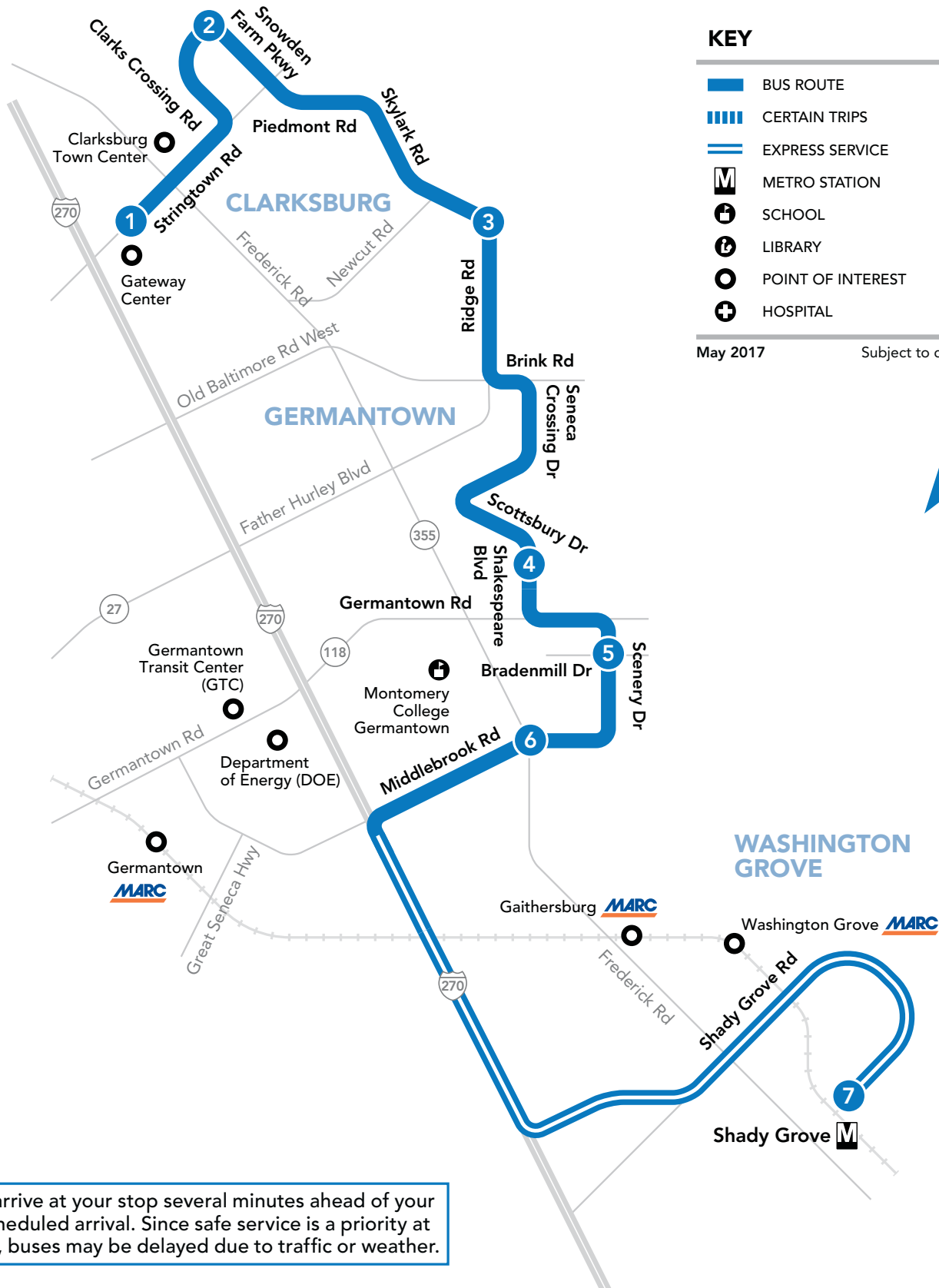
	Shady Grove Metro Station (East)	MD 355 & Middlebrook Rd	Scenery & Bradenmill Drs	Scottsbury Dr & Shakespear Blvd	Skylark & Ridge Rds	Snowden Farm & Stringtown Rd	MD 121 & Gateway Center
7	3:10	3:23	3:26	3:29	3:37	3:43	3:48
6	3:55	4:08	4:11	4:14	4:22	4:28	4:33
5	4:40	4:54	4:57	5:00	5:09	5:15	5:21
4	5:05	5:19	5:22	5:25	5:34	5:40	5:46
3	5:50	6:04	6:07	6:10	6:19	6:25	6:31
2	6:35	6:48	6:51	6:54	7:02	7:08	7:13
1	7:20	7:33	7:36	7:39	7:47	7:53	7:58

NOTES: PM Service Only PM

METROACCESS

Alternative paratransit service to this Ride On route for people with certified disabilities is available. Call MetroAccess at **301-562-5360**.

Montgomery County assures that no person shall, on the grounds of race, color, or national origin, as provided by Title VI of the Civil Rights Act of 1964 and the Civil Rights Act of 1987, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. For more information or to file a complaint, please contact the Montgomery County Office of Human Rights.



APPENDIX E

Speed and Crash Data



YEAR	JUNCTION	COLLISION TYPE	LANE DESC	REPORT NO	REPORT TYPE	ACC_DATE	ACC_TIME	RTE_NO	ROUTE TYPE	LOG MILE	MAINROAD NAME	DISTANCE	FEET/MILES	REFERENCE NO	REFERENCE TYPE	REFERENCE ROAD NAME
2015	Non Intersection	Same Movement Angle		MCP22980075		20151218	14:12:00	355	MD	18.81	FREDERICK RD	75		118	MD	GERMANTOWN RD
2015	Intersection	Same Movement Angle	Left Turn Lane	MCP2590000J		20150101	21:01:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2015	Intersection Related	Same Direction Rear End		MCP28750016		20150831	17:47:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2015	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP2964000T		20150828	17:07:00	355	MD	18.81	FREDERICK RD	10		118	MD	GERMANTOWN RD
2015	Intersection Related	Same Direction Rear End	Left Turn Lane	MCP2890000P		20150924	22:16:00	355	MD	18.81	FREDERICK RD	100		6,377	CO	GERMANTOWN RD
2015	Not Applicable	Same Direction Rear End	Right Turn Lane	MCP28820019		20150919	19:02:00	355	MD	18.81	FREDERICK RD	100		6,377	CO	GERMANTOWN RD
2015	Intersection	Same Movement Angle	Right Turn Lane	MCP2851000Y		20150330	15:49:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2015	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP2882000K		20150114	19:14:00	355	MD	18.81	FREDERICK RD	300		118	MD	GERMANTOWN RD
2015	Intersection	Same Direction Rear End	Right Turn Lane	MCP9133000J		20151217	11:28:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2016	Non Intersection	Same Direction Rear End	Left Turn Lane	MCP3016000B	Injury Crash	20160119	16:46:00	355	MD	18.81	FREDERICK RD	50		118	MD	GERMANTOWN RD
2016	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP2831001D	Property Damage	20160819	15:12:00	355	MD	18.81	FREDERICK RD	50		118	MD	GERMANTOWN RD
2016	Intersection	Same Movement Angle	Right Turn Lane	MCP2950000S	Property Damage	20160218	22:44:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2016	Non Intersection	Same Direction Sideswipe		MCP2946001R	Property Damage	20160911	16:45:00	355	MD	18.81	FREDERICK RD	30		118	MD	GERMANTOWN RD
2016	Intersection	Same Direction Sideswipe	Left Turn Lane	MCP1020001D	Injury Crash	20160211	9:55:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2016	Intersection	Same Direction Rear End	Left Turn Lane	MCP04050007	Property Damage	20160806	12:45:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2016	Intersection Related	Same Direction Rear End	Left Turn Lane	MCP9133000W	Injury Crash	20160814	9:10:00	355	MD	18.81	FREDERICK RD	20		118	MD	GERMANTOWN RD
2016	Intersection	Same Movement Angle	Right Turn Lane	MCP27610012	Injury Crash	20160422	5:41:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2016	Intersection	Same Direction Rear End	Acceleration Lane	MCP2878001X	Injury Crash	20160812	18:30:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2016	Intersection	Single Vehicle	Left Turn Lane	MCP3016000T	Property Damage	20160628	7:35:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2016	Non Intersection	Same Direction Sideswipe		MCP2893002J	Injury Crash	20161114	15:15:00	355	MD	18.81	FREDERICK RD	100		118	MD	GERMANTOWN RD
2016	Intersection	Head On Left Turn	Left Turn Lane	MCP10200022	Property Damage	20161201	8:41:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2017	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP1022008J	Property Damage	20171228	6:49:00	355	MD	18.81	FREDERICK RD	275		118	MD	GERMANTOWN RD
2017	Non Intersection	Same Direction Rear End		MCP2962001Q	Property Damage	20170922	9:13:00	355	MD	18.81	FREDERICK RD	100		6,377	CO	GERMANTOWN RD
2017	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP28930039	Property Damage	20170802	19:02:00	355	MD	18.81	FREDERICK RD	200		118	MD	GERMANTOWN RD
2017	Intersection	Head On Left Turn		MCP0405000J	Property Damage	20170624	10:47:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2017	Intersection	Same Direction Rear End	Right Turn Lane	MCP2790001D	Injury Crash	20170710	21:56:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2017	Not Applicable	Same Direction Rear End	Left Turn Lane	MCP29210025	Property Damage	20170930	21:09:00	355	MD	18.81	FREDERICK RD	100		118	MD	GERMANTOWN RD
2017	Non Intersection	Same Direction Rear End		MCP2072001N	Property Damage	20170617	13:30:00	355	MD	18.81	FREDERICK RD	20		118	MD	GERMANTOWN RD
2017	Intersection	Same Direction Rear End	Left Turn Lane	MCP30220014	Injury Crash	20170911	15:27:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2017	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP1022006C	Property Damage	20170216	13:25:00	355	MD	18.81	FREDERICK RD	250		6,377	CO	GERMANTOWN RD
2017	Intersection Related	Same Direction Rear End	Acceleration Lane	MCP13090010	Property Damage	20171116	14:14:00	355	MD	18.81	FREDERICK RD	15		118	MD	GERMANTOWN RD
2017	Intersection	Same Direction Rear End	Left Turn Lane	MCP1453004T	Property Damage	20171018	9:36:00	355	MD	18.81	FREDERICK RD	0		6,377	CO	GERMANTOWN RD
2018	Intersection	Same Movement Angle	Right Turn Lane	MCP10220081	Injury Crash	20181119	10:12:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2018	Not Applicable	Same Direction Rear End	Left Turn Lane	MCP2072002B	Property Damage	20180704	14:12:00	355	MD	18.81	FREDERICK RD	10		6,377	CO	GERMANTOWN RD
2018	Intersection Related	Same Direction Rear End	Left Turn Lane	MCP1015001K	Property Damage	20180716	8:08:00	355	MD	18.81	FREDERICK RD	20		118	MD	GERMANTOWN RD
2018	Intersection Related	Same Direction Left Turn		MCP21810024	Property Damage	20180401	14:14:00	355	MD	18.81	FREDERICK RD	50		118	MD	GERMANTOWN RD
2018	Intersection Related	Opposite Direction Sideswipe	Right Turn Lane	MCP3024001D	Injury Crash	20181029	19:40:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2018	Intersection	Same Direction Rear End	Acceleration Lane	MCP3022001R	Property Damage	20180412	19:22:00	355	MD	18.81	FREDERICK RD	0		6,377	CO	GERMANTOWN RD
2018	Intersection	Other		MCP30750014	Injury Crash	20180419	16:55:00	355	MD	18.81	FREDERICK RD	0		6,377	CO	GERMANTOWN RD
2018	Intersection	Same Movement Angle	Right Turn Lane	MCP2790001J	Injury Crash	20180111	11:57:00	355	MD	18.81	FREDERICK RD	0		6,377	CO	GERMANTOWN RD
2019	Non Intersection	Same Direction Rear End	Left Turn Lane	MCP94280029	Injury Crash	20190825	13:11:00	355	MD	18.81	FREDERICK RD	0.1		118	MD	GERMANTOWN RD
2019	Intersection Related	Same Direction Sideswipe		MCP1453007B	Property Damage	20190510	7:56:00	355	MD	18.81	FREDERICK RD	100		118	MD	GERMANTOWN RD
2019	Intersection	Same Movement Angle	Left Turn Lane	MCP3071001C	Property Damage	20190511	2:31:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2019	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP14530076	Injury Crash	20190312	12:07:00	355	MD	18.81	FREDERICK RD	550		118	MD	GERMANTOWN RD
2019	Intersection	Same Direction Rear End	Left Turn Lane	MCP30610018	Property Damage	20190105	0:10:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2019	Intersection	Same Direction Rear End	Left Turn Lane	MCP25150021	Property Damage	20190707	17:00:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2019	Not Applicable	Same Direction Rear End	Left Turn Lane	MCP20720031	Property Damage	20190912	8:20:00	355	MD	18.81	FREDERICK RD	100		118	MD	GERMANTOWN RD

YEAR	JUNCTION	COLLISION TYPE	LANE DESC	REPORT NO	REPORT TYPE	ACC_DATE	ACC_TIME	RTE_NO	ROUTE TYPE	LOG MILE	MAINROAD NAME	DISTANCE	FEET/MILES	REFERENCE NO	REFERENCE TYPE	REFERENCE ROAD NAME
2019	Non Intersection	Same Direction Left Turn	Left Turn Lane	MCP3126001P	Property Damage	20191017	19:55:00	355	MD	18.81	FREDERICK RD	0	Feet	118	MD	GERMANTOWN RD
2019	Intersection	Same Movement Angle	Right Turn Lane	MCP2921003H	Property Damage	20191124	17:12:00	355	MD	18.81	FREDERICK RD	0	Feet	118	MD	GERMANTOWN RD
2019	Intersection Related	Same Direction Rear End	Left Turn Lane	MCP2902003T	Property Damage	20191117	14:37:00	355	MD	18.81	FREDERICK RD	10	Feet	6,377	CO	GERMANTOWN RD
2019	Intersection	Same Direction Rear End	Left Turn Lane	MCP2950001Y	Property Damage	20190203	22:08:00	355	MD	18.81	FREDERICK RD	0		118	MD	GERMANTOWN RD
2020	Intersection	Same Direction Rear End		MCP29500029	Property Damage	20200621	0:11:00	355	MD	18.81	FREDERICK RD	0	Feet	118	MD	GERMANTOWN RD
2020	Intersection	Same Movement Angle	Right Turn Lane	MCP29020047	Injury Crash	20200520	13:51:00	355	MD	18.81	FREDERICK RD	0	Feet	6,377	CO	GERMANTOWN RD
2020	Intersection	Head On Left Turn		MCP2674001V	Property Damage	20200930	19:40:00	355	MD	18.81	FREDERICK RD	0	Feet	118	MD	GERMANTOWN RD
2020	Intersection	Same Direction Sideswipe	Right Turn Lane	MCP2702001W	Property Damage	20200804	14:00:00	355	MD	18.81	FREDERICK RD	0	Feet	6,377	CO	GERMANTOWN RD
2020	Not Applicable	Same Direction Rear End	Left Turn Lane	MCP2072003G	Property Damage	20200115	14:50:00	355	MD	18.81	FREDERICK RD	20	Feet	118	MD	GERMANTOWN RD
2020	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP3240001K	Property Damage	20201113	15:45:00	355	MD	18.81	FREDERICK RD	100	Feet	118	MD	GERMANTOWN RD
2020	Intersection Related	Same Direction Rear End		MCP3240001L	Property Damage	20201123	18:17:00	355	MD	18.81	FREDERICK RD	0	Feet	118	MD	GERMANTOWN RD
2020	Intersection	Same Direction Rear End	Right Turn Lane	MCP3258000G	Property Damage	20201105	13:53:00	355	MD	18.81	FREDERICK RD	0	Feet	118	MD	GERMANTOWN RD
2020	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP3240001H	Property Damage	20201113	15:45:00	355	MD	18.81	FREDERICK RD	100	Feet	118	MD	GERMANTOWN RD
2021	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP14530092	Injury Crash	20210108	7:35:00	355	MD	18.81	FREDERICK RD	30	Feet	118	MD	GERMANTOWN RD
2021	Intersection	Same Direction Rear End		MCP3240001T	Injury Crash	20210223	18:20:00	355	MD	18.81	FREDERICK RD	0	Feet	118	MD	GERMANTOWN RD
2021	Intersection Related	Same Direction Rear End	Left Turn Lane	MCP3285000K	Injury Crash	20210315	7:24:00	355	MD	18.81	FREDERICK RD	25	Feet	118	MD	GERMANTOWN RD
2015	Intersection Related	Same Direction Rear End		MCP2349000B		20150202	13:00:00	355	MD	18.84	FREDERICK RD	0			UU	SPUR TO MD 118
2015	Not Applicable	Same Direction Rear End	Left Turn Lane	MCP28820013		20150706	19:17:00	355	MD	18.95	FREDERICK RD	20		2,359	CO	COLLINS DR
2016	Intersection	Same Movement Angle	Left Turn Lane	MCP2055000X	Property Damage	20160413	12:51:00	355	MD	18.95	FREDERICK RD	0		25	CO	NEELSVILLE CHURCH RD
2016	Intersection	Same Direction Rear End	Acceleration Lane	MCP2898001T	Property Damage	20161207	17:56:00	355	MD	18.95	FREDERICK RD	0		25	CO	NEELSVILLE CHURCH RD
2016	Intersection	Head On Left Turn	Right Turn Lane	MCP1397000F	Property Damage	20160103	11:37:00	355	MD	18.95	FREDERICK RD	0		0	UU	CROSSOVER
2017	Crossover Related	Same Direction Rear End	Acceleration Lane	MCP2780003C	Property Damage	20171026	16:41:00	355	MD	18.95	FREDERICK RD	10		2,359	CO	COLLINS DR
2018	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP229800JM	Injury Crash	20180604	18:00:00	355	MD	18.95	FREDERICK RD	0		0	UU	CROSSOVER
2020	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP3240000V	Property Damage	20200626	14:40:00	355	MD	18.95	FREDERICK RD	50	Feet	25	CO	NEELSVILLE CHURCH RD
2020	Intersection	Single Vehicle	Left Turn Lane	MCP2950002D	Property Damage	20201212	0:52:00	355	MD	18.95	FREDERICK RD	0	Feet	2,359	CO	COLLINS DR

YEAR	JUNCTION	COLLISION TYPE	LANE DESC	REPORT NO	REPORT TYPE	ACC_DATE	ACC_TIME	RTE_NO	ROUTE TYPE	LOG MILE	MAINROAD NAME	DISTANCE	FEET/MILES	REFERENCE NO	REFERENCE TYPE	REFERENCE ROAD NAME
2020	Intersection	Other	Right Turn Lane	MCP30750023	Injury Crash	20190210	21:43:00	6,377	CO	0.227	GERMANTOWN RD	0		0	UU	SHAKESPEARE BLVD
2020	Intersection	Head On Left Turn	Right Turn Lane	MCP3154000G	Injury Crash	20180901	19:54:00	6,377	CO	0.227	GERMANTOWN RD	0		0	UU	SHAKESPEARE BLVD
2019	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP1453003T	Injury Crash	20170223	7:37:00	6,377	CO	0.227	GERMANTOWN RD	50		0	UU	SHAKESPEARE BLVD
2015	Intersection	Single Vehicle		MCP28820028	Injury Crash	20180727	15:20:00	6,377	CO	0.227	GERMANTOWN RD	0		0	UU	SHAKESPEARE BLVD
2015	Intersection Related	Single Vehicle		MCP1020001V	Injury Crash	20161123	9:56:00	6,377	CO	0.227	GERMANTOWN RD	10		0	UU	SHAKESPEARE BLVD
2017	Intersection	Single Vehicle	Right Turn Lane	MCP2790000V	Injury Crash	20160115	20:40:00	6,377	CO	0.227	GERMANTOWN RD	0		0	UU	SHAKESPEARE BLVD
2018	Intersection	Same Direction Rear End	Right Turn Lane	MCP3024001P	Injury Crash	20191127	17:34:00	6,377	CO	0.227	GERMANTOWN RD	0	Feet	0	UU	SHAKESPEARE BLVD
2017	Intersection	Same Direction Rear End		MCP2950001C	Injury Crash	20170429	21:53:00	6,377	CO	0.227	GERMANTOWN RD	0		0	UU	SHAKESPEARE BLVD
2015	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP26740029	Injury Crash	20210420	16:15:00	6,377	CO	0.227	GERMANTOWN RD	50	Feet	0	UU	SHAKESPEARE BLVD
2018	Non Intersection	Other	Right Turn Lane	MCP24980011	Property Damage	20170624	0:17:00	6,377	CO	0.227	GERMANTOWN RD	0.01		0	UU	SHAKESPEARE BLVD
2018	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP2088000Y	Property Damage	20190202	13:48:00	6,377	CO	0.227	GERMANTOWN RD	5		0	UU	SHAKESPEARE BLVD
2017	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP229800V7	Property Damage	20210128	14:08:00	6,377	CO	0.227	GERMANTOWN RD	5	Feet	0	UU	SHAKESPEARE BLVD
2019	Not Applicable	Single Vehicle	Right Turn Lane	MCP2882001F		20151124	16:32:00	6,377	CO	0.227	GERMANTOWN RD	50		0	UU	SHAKESPEARE BLVD
2015	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP2882000T		20150415	18:28:00	6,377	CO	0.227	GERMANTOWN RD	3			UU	SHAKESPEARE BLVD
2018	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP1501000F		20150116	8:35:00	6,377	CO	0.227	GERMANTOWN RD	1			UU	SHAKESPEARE BLVD
2015	Intersection	Same Movement Angle	Left Turn Lane	MCP2893002S	Injury Crash	20170312	7:56:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2018	Not Applicable	Other		MCP20720015	Injury Crash	20161023	10:26:00	118	MD	7.08	GERMANTOWN RD	100		355	MD	FREDERICK RD
2015	Intersection	Same Movement Angle		MCP2825000R	Injury Crash	20170423	2:11:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2016	Intersection	Same Direction Rear End		MCP30090010	Injury Crash	20180708	10:05:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2016	Intersection	Same Direction Rear End	Right Turn Lane	MCP3201001Q	Injury Crash	20201228	14:23:00	118	MD	7.08	GERMANTOWN RD	0	Feet	355	MD	FREDERICK RD
2016	Intersection	Same Direction Rear End	Acceleration Lane	MCP28980032	Injury Crash	20201126	20:30:00	118	MD	7.08	GERMANTOWN RD	0	Feet	355	MD	FREDERICK RD
2016	Not Applicable	Same Direction Rear End	Deceleration Lane	MCP2921003X	Property Damage	20200915	20:01:00	118	MD	7.08	GERMANTOWN RD	250	Feet	355	MD	FREDERICK RD
2019	Non Intersection	Same Direction Rear End	Acceleration Lane	MCP2881003B	Property Damage	20200801	23:26:00	118	MD	7.08	GERMANTOWN RD	1	Feet	355	MD	FREDERICK RD
2015	Intersection	Same Movement Angle	Right Turn Lane	MCP2950001B	Property Damage	20170402	22:32:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2018	Non Intersection	Same Direction Sideswipe	Right Turn Lane	MCP3061000W	Property Damage	20180123	7:15:00	118	MD	7.08	GERMANTOWN RD	300		355	MD	FREDERICK RD
2019	Intersection	Same Direction Rear End	Left Turn Lane	MCP30610012	Property Damage	20180901	2:20:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2020	Intersection	Single Vehicle	Right Turn Lane	MCP30710015	Property Damage	20190107	2:53:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2017	Non Intersection	Same Direction Rear End	Left Turn Lane	MCP2921002F	Property Damage	20180404	20:18:00	118	MD	7.08	GERMANTOWN RD	5		355	MD	FREDERICK RD
2017	Interchange Related	Same Direction Rear End	Right Turn Lane	MCP1030000J	Property Damage	20161109	7:36:00	118	MD	7.08	GERMANTOWN RD	2		6,377	CO	GERMANTOWN RD
2017	Intersection	Same Movement Angle		MCP102200CV	Property Damage	20190731	8:46:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2019	Intersection	Same Direction Rear End		MCP2516001Y	Property Damage	20180714	13:44:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2017	Intersection Related	Same Direction Rear End	Right Turn Lane	MCP3037002Z	Property Damage	20200221	17:34:00	118	MD	7.08	GERMANTOWN RD	50	Feet	355	MD	FREDERICK RD
2017	Intersection	Same Movement Angle	Right Turn Lane	MCP2893003B	Property Damage	20171107	18:43:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2015	Intersection	Same Direction Rear End Right Turn	Acceleration Lane	MCP3022000K	Property Damage	20170428	16:14:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2019	Not Applicable	Same Direction Rear End	Deceleration Lane	MCP2921002X	Property Damage	20190120	18:54:00	118	MD	7.08	GERMANTOWN RD	30		355	MD	FREDERICK RD
2018	Intersection Related	Same Movement Angle	Right Turn Lane	MCP2445002G	Property Damage	20210425	8:03:00	118	MD	7.08	GERMANTOWN RD	120	Feet	355	MD	FREDERICK RD
2020	Intersection	Other	Right Turn Lane	MCP2590000L		20150129	23:36:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2020	Intersection	Other		MCP13970005		20150122	7:27:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2021	Intersection	Same Direction Rear End	Left Turn Lane	MCP2790000J		20150219	23:54:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD
2021	Non Intersection	Same Direction Rear End Left Turn	Right Turn Lane	MCP2072000D		20150204	11:29:00	118	MD	7.08	GERMANTOWN RD	100		355	MD	FREDERICK RD
2021	Intersection	Same Direction Rear End Right Turn		MCP25720005		20150511	19:24:00	118	MD	7.08	GERMANTOWN RD	0		355	MD	FREDERICK RD

YEAR	JUNCTION	COLLISION TYPE	LANE DESC	REPORT NO	REPORT TYPE	ACC_DATE	ACC_TIME	RTE_NO	ROUTE TYPE	LOG MILE	MAINROAD NAME	DISTANCE	FEET/MILES	REFERENCE NO	REFERENCE TYPE	REFERENCE ROAD NAME
2019	Not Applicable	Single Vehicle	Right Turn Lane	MCP20720030	Injury Crash	20190817	7:48:00	6136	CO	0.97	SHAKESPEARE BLVD	10		25	CO	NEELSVILLE CHURCH RD
2019	Intersection Related	Single Vehicle	Right Turn Lane	MCP20880011	Property Damage	20190320	10:31:00	6136	CO	0.97	SHAKESPEARE BLVD	50		25	CO	NEELSVILLE CHURCH RD
2018	Intersection	Same Direction Rear End	Right Turn Lane	MCP3022001W	Property Damage	20180527	17:58:00			0	SHAKESPEARE BLVD	0				GERMANTOWN ROAD
2017	Non Intersection	Single Vehicle	Right Turn Lane	MCP9133001H	Property Damage	20170429	6:40:00	6136	CO	0.97	SHAKESPEARE BLVD	0.1		25	CO	NEELSVILLE CHURCH RD
2016	Intersection	Same Direction Sideswipe		MCP1453002M	Property Damage	20160202	8:06:00			0	SHAKESPEARE BLVD	0				GERMANTOWN RD

YEAR	JUNCTION	COLLISION TYPE	LANE DESC	REPORT NO	REPORT TYPE	ACC_DATE	ACC_TIME	RTE_NO	ROUTE TYPE	LOG MILE	MAINROAD NAME	DISTANCE	FEET/MILES	REFERENCE NO	REFERENCE TYPE	REFERENCE ROAD NAME
2015	Non Intersection	Single Vehicle	Right Turn Lane	MCP2950000N		20151024	21:09:00	25	CO	0.35	NEELSVILLE CHURCH RD			6,136	CO	SHAKESPEARE BLVD
2016	Non Intersection	Same Direction Rear End	Right Turn Lane	MCP2962000W	Property Damage	20161226	2:50:00			0.35	NEELSVILLE CHURCH RD			6,136	CO	SHAKESPEARE BLVD
2019	Intersection	Same Movement Angle	Right Turn Lane	MCP102200CS	Injury Crash	20190718	14:40:00	25	CO	0.35	NEELSVILLE CHURCH RD	0		6,136	CO	SHAKESPEARE BLVD
2019	Intersection	Same Movement Angle	Right Turn Lane	MCP3037002N	Injury Crash	20190424	20:20:00	25	CO	0	NEELSVILLE CHURCH RD	0		355	MD	FREDERICK RD

MD 355 Southbound
300 Feet North of Neelsville Church Road
Montgomery County, Maryland

The Traffic Group, Inc.

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SB1, SB2

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	250	
10/06/21	0	0	0	1	1	7	8	16	24	7	4	0	2	0	0	70
01:00	0	0	0	1	0	1	4	12	8	7	4	1	0	0	0	38
02:00	0	0	1	2	0	0	0	4	7	7	0	0	1	0	0	22
03:00	0	0	1	1	0	1	2	8	17	7	5	1	0	0	0	43
04:00	0	0	2	2	0	2	4	21	21	15	4	4	2	0	0	77
05:00	0	0	4	5	0	2	12	36	71	51	31	11	3	0	0	226
06:00	0	0	11	11	4	15	29	103	208	147	56	11	1	2	1	599
07:00	0	0	36	32	29	68	204	426	408	182	33	7	1	1	0	1427
08:00	0	0	18	45	43	112	262	452	364	107	23	3	0	0	0	1429
09:00	0	1	33	51	10	23	87	245	371	206	57	10	4	0	0	1098
10:00	0	3	31	42	8	22	87	270	368	167	48	7	1	0	0	1054
11:00	0	0	30	36	10	43	136	350	390	145	40	8	4	0	0	1192
12 PM	0	1	25	47	10	22	136	366	315	116	17	7	0	0	0	1062
13:00	0	0	19	30	5	30	104	344	318	141	40	7	0	0	0	1038
14:00	0	0	25	43	7	36	126	405	295	137	33	4	2	1	0	1114
15:00	0	0	20	46	10	38	173	354	339	117	24	10	0	0	0	1131
16:00	0	0	35	45	19	63	194	414	330	127	29	7	2	0	0	1265
17:00	0	0	32	49	9	53	171	393	339	130	25	10	1	1	0	1213
18:00	0	0	26	36	11	58	195	397	320	124	33	5	1	0	0	1206
19:00	0	0	20	39	13	52	179	354	222	65	30	8	3	0	0	985
20:00	0	0	18	26	13	31	104	223	211	79	18	6	3	0	0	732
21:00	0	0	8	11	3	26	91	135	118	55	14	4	1	0	0	466
22:00	0	0	9	11	5	8	38	104	92	28	11	2	0	0	2	310
23:00	0	0	2	0	0	5	20	42	50	17	5	3	0	0	0	144
Total	0	5	406	612	210	718	2366	5474	5206	2184	584	136	32	5	3	17941

MD 355 Southbound
300 Feet North of Neelsville Church Road
Montgomery County, Maryland

The Traffic Group, Inc.

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SB1, SB2

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	250	
10/07/21	0	0	0	3	1	3	6	19	11	11	4	2	0	1	1	62
01:00	0	0	1	4	2	1	1	9	9	7	2	2	1	0	0	39
02:00	0	0	0	1	1	1	2	7	11	6	2	1	0	0	0	32
03:00	0	0	1	2	0	0	0	4	6	5	3	0	0	0	0	21
04:00	0	0	2	4	0	0	1	23	32	18	7	6	1	1	0	95
05:00	0	0	4	2	1	1	14	37	71	66	27	7	1	0	1	232
06:00	0	0	4	16	1	9	22	149	198	157	71	12	3	0	0	642
07:00	0	1	21	32	15	77	204	383	427	285	68	15	6	1	0	1535
08:00	0	1	33	56	49	94	213	492	427	211	50	13	0	0	0	1639
09:00	0	0	23	40	6	19	79	265	379	211	54	16	3	0	0	1095
10:00	0	0	27	23	1	22	98	289	298	122	43	11	6	0	0	940
11:00	0	1	24	46	10	23	91	273	339	138	44	8	1	0	0	998
12 PM	0	0	24	25	7	12	84	343	346	158	49	13	4	1	0	1066
13:00	0	0	21	35	4	29	109	347	328	131	47	6	4	3	0	1064
14:00	0	0	17	38	9	34	120	303	349	160	42	8	1	0	0	1081
15:00	0	0	13	45	12	34	152	397	358	116	24	10	1	0	0	1162
16:00	0	0	27	45	13	33	127	323	349	148	39	11	1	1	0	1117
17:00	0	0	28	51	16	41	183	396	364	115	40	10	2	1	1	1248
18:00	0	2	25	43	6	51	201	402	337	102	27	7	1	0	0	1204
19:00	0	0	19	41	13	50	209	381	222	78	14	2	0	0	0	1029
20:00	0	0	20	19	11	33	145	249	185	70	21	4	3	0	0	760
21:00	0	0	4	15	11	20	64	141	135	71	21	4	1	1	0	488
22:00	0	0	5	12	0	5	55	91	79	32	13	9	4	4	2	311
23:00	0	0	1	1	1	5	20	52	62	18	7	2	0	0	0	169
Total	0	5	344	599	190	597	2200	5375	5322	2436	719	179	44	14	5	18029
Grand Total	0	10	750	1211	400	1315	4566	10849	10528	4620	1303	315	76	19	8	35970

Stats
15th Percentile : 31 MPH
50th Percentile : 39 MPH
85th Percentile : 46 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 39 MPH
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 21377
Percent in Pace : 59.4%
Number of Vehicles > 45 MPH : 6341
Percent of Vehicles > 45 MPH : 17.6%

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MD 355 Northbound
300 Feet North of Neelsville Church Road
Montgomery County, Maryland

NB1, NB2

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	250	
10/06/21	0	0	0	0	0	4	8	16	12	12	3	2	0	1	0	58
01:00	0	0	0	0	0	2	7	10	7	4	0	1	0	0	0	31
02:00	0	0	0	0	0	1	0	3	8	4	4	0	0	0	0	20
03:00	0	0	0	0	0	2	3	11	7	8	3	0	1	0	0	35
04:00	0	0	0	0	0	3	4	10	11	12	3	4	1	0	1	49
05:00	0	0	0	0	0	1	6	19	42	36	9	4	1	1	0	119
06:00	0	0	0	0	2	9	40	90	108	71	18	5	2	0	0	345
07:00	0	0	0	0	8	36	130	219	153	44	14	4	1	0	0	609
08:00	0	1	1	9	22	66	208	262	132	41	10	1	0	0	0	753
09:00	0	0	1	2	9	26	120	274	206	83	23	8	0	0	0	752
10:00	0	0	0	0	0	34	121	229	251	112	24	13	0	0	0	784
11:00	0	0	0	0	9	31	173	360	323	136	23	7	2	0	0	1064
12 PM	0	0	0	0	3	46	175	356	266	67	22	5	0	0	0	940
13:00	0	0	10	3	3	37	156	325	276	127	31	3	3	0	1	975
14:00	0	0	0	0	5	67	214	413	273	90	28	2	0	0	0	1092
15:00	0	0	0	0	10	82	283	534	365	90	20	4	0	0	0	1388
16:00	0	7	8	33	48	147	478	571	285	83	18	5	2	0	0	1685
17:00	0	0	0	6	55	165	486	643	264	67	12	2	0	0	1	1701
18:00	0	0	3	8	24	76	314	558	274	62	11	3	1	1	0	1335
19:00	0	0	0	0	3	53	235	372	231	77	23	7	1	0	0	1002
20:00	0	0	1	1	3	28	114	225	160	82	19	5	1	0	0	639
21:00	0	0	0	0	0	9	47	153	136	68	14	3	0	0	2	432
22:00	0	0	0	0	2	8	28	70	77	42	11	2	1	1	1	243
23:00	0	0	0	0	1	2	14	44	37	23	4	4	0	0	0	129
Total	0	8	24	62	207	935	3364	5767	3904	1441	347	94	17	4	6	16180

MD 355 Northbound
300 Feet North of Neelsville Church Road
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NB1, NB2

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
10/07/21	0	0	0	0	1	0	9	19	21	10	3	1	0	1	0	65
01:00	0	0	0	0	0	1	5	12	9	4	2	0	1	0	0	34
02:00	0	0	0	0	0	2	1	6	8	7	2	0	0	0	0	26
03:00	0	0	0	0	0	0	5	4	6	1	1	0	1	1	0	19
04:00	0	0	0	1	1	1	2	8	11	9	6	2	1	0	0	42
05:00	0	0	0	0	0	2	10	21	41	35	19	2	3	0	0	133
06:00	0	0	0	0	1	6	25	95	125	63	22	8	4	0	0	349
07:00	0	0	0	0	5	14	82	186	175	81	33	7	2	0	0	585
08:00	0	0	0	1	9	43	102	235	210	86	35	11	4	0	0	736
09:00	0	0	0	1	5	22	132	233	195	94	34	6	0	0	0	722
10:00	0	0	0	0	1	32	116	271	204	94	27	4	1	0	0	750
11:00	0	0	0	0	2	40	165	317	237	116	22	6	0	1	2	908
12 PM	0	1	0	3	17	56	175	320	265	99	45	7	2	2	0	992
13:00	0	0	0	0	9	48	174	347	302	101	26	3	2	1	0	1013
14:00	0	0	0	1	7	24	205	354	332	120	27	9	2	0	1	1082
15:00	0	0	0	2	24	81	279	558	301	116	16	3	1	1	0	1382
16:00	0	0	0	0	21	68	266	606	417	135	24	6	0	1	0	1544
17:00	0	0	3	23	42	124	441	619	272	91	15	2	0	0	3	1635
18:00	0	0	4	7	29	108	303	505	319	111	17	3	0	0	0	1406
19:00	0	1	3	3	17	46	199	349	230	78	25	4	0	0	0	955
20:00	0	0	1	1	6	26	121	263	214	66	11	5	1	1	0	716
21:00	0	0	0	0	0	7	62	153	153	69	21	7	1	1	1	475
22:00	0	0	0	0	1	6	27	70	80	35	11	4	0	0	0	234
23:00	0	0	0	0	0	3	17	39	56	26	3	3	2	0	1	150
Total	0	2	11	43	198	760	2923	5590	4183	1647	447	103	28	10	8	15953
Grand Total	0	10	35	105	405	1695	6287	11357	8087	3088	794	197	45	14	14	32133

Stats
15th Percentile : 32 MPH
50th Percentile : 38 MPH
85th Percentile : 44 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 39 MPH
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 19444
Percent in Pace : 60.5%
Number of Vehicles > 45 MPH : 4152
Percent of Vehicles > 45 MPH : 12.9%

Neelsville Church Road
East of Church Access
Montgomery County, Maryland

The Traffic Group, Inc.

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Eastbound

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	250	
10/06/21	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	4	5	1	0	0	0	0	0	0	0	0	0	10
07:00	0	0	7	51	51	4	0	0	0	0	0	0	0	0	0	113
08:00	0	2	11	28	16	5	3	1	1	0	0	0	0	0	0	67
09:00	0	0	1	1	7	4	6	0	0	0	0	0	0	0	0	19
10:00	0	0	0	6	6	1	2	1	0	0	0	0	0	0	0	16
11:00	0	0	1	4	8	5	6	0	0	0	0	0	0	0	0	24
12 PM	0	0	1	5	14	2	2	1	0	0	0	0	0	0	0	25
13:00	0	0	0	4	10	5	3	1	0	0	0	0	0	0	0	23
14:00	0	10	8	15	16	6	0	0	0	0	0	0	0	0	0	55
15:00	0	0	0	7	10	4	5	1	0	0	0	0	0	0	0	27
16:00	0	0	1	7	4	8	4	3	0	0	0	0	0	0	0	27
17:00	0	0	0	12	8	4	2	4	0	0	0	0	0	0	0	30
18:00	0	0	1	4	7	6	3	1	0	0	0	0	0	0	0	22
19:00	0	0	2	4	5	2	1	1	0	0	0	0	0	0	0	15
20:00	0	0	0	3	7	7	1	0	0	0	0	0	0	0	0	18
21:00	0	0	2	2	6	0	1	0	0	0	0	0	0	0	0	11
22:00	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	3
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	13	35	160	186	65	39	14	1	0	0	0	0	0	0	513

Neelsville Church Road
East of Church Access
Montgomery County, Maryland

The Traffic Group, Inc.

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Eastbound

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	250	
10/07/21	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
06:00	0	0	1	6	2	0	0	0	0	0	0	0	0	0	0	9
07:00	0	0	7	38	54	6	0	0	0	0	0	0	0	0	0	105
08:00	0	0	9	35	17	4	2	1	0	0	0	0	0	0	0	68
09:00	0	0	0	5	2	1	2	1	0	0	0	0	0	0	0	11
10:00	0	0	0	2	8	4	1	0	0	0	0	0	0	0	0	15
11:00	0	0	1	5	7	3	4	1	0	0	0	0	0	0	0	21
12 PM	0	0	0	11	10	0	2	1	0	0	0	0	0	0	0	24
13:00	0	0	1	5	6	3	0	1	0	0	0	0	0	0	0	16
14:00	0	6	9	14	16	5	1	0	0	0	0	0	0	0	0	51
15:00	0	1	6	7	6	6	2	0	0	0	0	0	0	0	0	28
16:00	0	0	1	9	4	6	6	1	0	0	0	0	0	0	0	27
17:00	0	0	3	9	12	10	4	2	0	0	0	0	0	0	0	40
18:00	0	0	1	7	5	7	1	0	0	0	0	0	0	0	0	21
19:00	0	0	0	0	3	3	2	1	1	0	0	0	0	0	0	10
20:00	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	5
21:00	0	0	0	3	0	2	1	0	0	0	0	0	0	0	0	6
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	7	39	158	154	63	31	9	1	0	0	0	0	0	0	462
Grand Total	0	20	74	318	340	128	70	23	2	0	0	0	0	0	0	975

Stats 15th Percentile : 15 MPH
 50th Percentile : 21 MPH
 85th Percentile : 27 MPH
 95th Percentile : 33 MPH

Mean Speed(Average) : 22 MPH
 10 MPH Pace Speed : 16-25 MPH
 Number in Pace : 658
 Percent in Pace : 67.5%
 Number of Vehicles > 25 MPH : 223
 Percent of Vehicles > 25 MPH : 22.9%

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Montgomery County, Maryland

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Westbound

Start Time	05	06	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	250	
10/06/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3
05:00	0	0	0	0	0	3	2	1	1	0	0	0	0	0	0	7
06:00	0	0	0	2	3	6	6	3	2	0	0	0	0	0	0	22
07:00	0	0	1	5	25	5	6	4	1	0	0	0	0	0	0	47
08:00	0	0	0	12	36	17	3	2	0	0	0	0	0	0	0	70
09:00	0	0	0	1	3	1	4	3	1	0	0	0	0	0	0	13
10:00	0	0	0	0	5	3	2	3	1	0	0	0	0	0	0	14
11:00	0	0	0	5	8	3	3	2	1	0	0	0	0	0	0	22
12 PM	0	0	0	2	9	7	1	6	0	0	0	0	0	0	0	25
13:00	0	0	0	3	12	2	2	0	0	0	0	0	0	0	0	19
14:00	0	0	0	5	21	8	3	0	0	0	0	0	0	0	0	37
15:00	0	0	1	7	51	19	0	0	0	0	0	0	0	0	0	78
16:00	0	0	0	3	17	6	2	3	0	0	0	0	0	0	0	31
17:00	0	0	0	5	17	3	0	1	0	0	0	0	0	0	0	26
18:00	0	1	0	2	12	4	3	1	0	0	0	0	0	0	0	23
19:00	0	0	0	2	11	2	2	1	0	0	0	0	0	0	0	18
20:00	0	0	1	0	1	2	1	0	0	0	0	0	0	0	0	5
21:00	0	0	0	1	3	4	0	2	1	0	0	0	0	0	0	11
22:00	0	0	0	2	1	2	1	1	1	0	0	0	0	0	0	8
23:00	0	0	0	3	1	4	1	0	0	0	0	0	0	0	0	9
Total	0	1	3	60	238	102	44	34	9	0	0	0	0	0	0	491

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Westbound

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	250	
10/07/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	1	5	1	0	0	0	0	0	0	0	7
06:00	0	0	0	1	3	5	8	5	1	0	0	0	0	0	0	23
07:00	0	0	0	3	24	9	4	2	0	0	0	0	0	0	0	42
08:00	0	0	0	20	33	13	3	0	2	1	0	0	0	0	0	72
09:00	0	0	1	0	7	1	4	6	2	0	0	0	0	0	0	21
10:00	0	0	0	0	2	3	2	4	0	0	0	0	0	0	0	11
11:00	0	0	0	2	7	6	5	0	0	0	0	0	0	0	0	20
12 PM	0	0	0	5	11	5	0	1	0	0	0	0	0	0	0	22
13:00	0	0	0	3	4	1	2	1	1	0	0	0	0	0	0	12
14:00	0	0	0	6	28	5	3	2	0	0	0	0	0	0	0	44
15:00	0	0	1	9	52	13	5	0	1	0	0	0	0	0	0	81
16:00	0	0	0	6	24	4	2	0	0	0	0	0	0	0	0	36
17:00	0	0	0	4	19	3	3	1	0	0	0	0	0	0	0	30
18:00	0	0	0	3	6	4	2	2	0	0	0	0	0	0	0	17
19:00	0	0	0	1	9	0	0	0	0	0	0	0	0	0	0	10
20:00	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	4
21:00	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
22:00	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
Total	0	0	3	65	230	76	49	27	8	1	0	0	0	0	0	459
Grand Total	0	1	6	125	468	178	93	61	17	1	0	0	0	0	0	950

Stats 15th Percentile : 20 MPH
 50th Percentile : 23 MPH
 85th Percentile : 31 MPH
 95th Percentile : 37 MPH

Mean Speed(Average) : 26 MPH
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 646
 Percent in Pace : 68.0%
 Number of Vehicles > 25 MPH : 350
 Percent of Vehicles > 25 MPH : 36.8%