



AGENDA FOR THE TOWN MEETING

October 14, 2019

7:00 p.m.

PLEDGE TO THE FLAG

CALL TO ORDER

PERSONAL REQUESTS FOR AGENDA:

CONSENT AGENDA

- Approval of New Christmas Decorations for Christmas in the Valley³
- Town Meeting Minutes
 - September 5, 2019 – Town Workshop
 - September 9, 2019 – Town Meeting

UNFINISHED BUSINESS:

- Speed Limit Reduction – Middletown Glen Subdivision (Vote)
- Review of Traffic Study for Memar Property¹ (Vote)
- Discussion of Crosswalk at Prospect Street and Franklin Street² (Vote)
- Discussion of Proposed Text Amendments:
 - Accessory Structures¹
 - Residential Parking Requirements for Townhouses & Apartments¹

REPORT OF COMMITTEES:

Water/Sewer	Commissioner Falcinelli
Public Works	Commissioner Bussard
Sustainability	Commissioner Dietrick
Planning Commission Liaison	Commissioner Catania
Parks & Recreation	Commissioner Goodman
Public Information	Commissioner Falcinelli

¹ Fourth Appearance on Town Agenda(s)

² Second Appearance on Town Agenda(s)

NEW BUSINESS:

- Appointment of Town Attorney³ (*Vote*)
- Vacancy on Middletown Board of Appeals³ (*Vote*)
- Review of Proposed Handicap Accessible Ramp for Municipal Center³ (*Vote*)

PUBLIC COMMENTS:

ANNOUNCEMENTS:

- *March of the Scarecrows – Saturday, October 19, 2019 at Middletown Park*
- *Color Me Autumn – Saturday, October 19, 2019 at Middletown Park*
- *Green Team Tour of East Wastewater Treatment Plant – Saturday, October 26, 2019 at 11:00AM (Holter Road across from Middletown Parkway)*
- *Halloween Parade – Saturday, October 26, 2019*

ADJOURNMENT

³ Second Appearance on Town Meeting Agenda(s)



5900 Kelbrook Lane. Glen Allen, VA 23059

Phone: 804-380-2705

Fax: 919-954-0203

Price Quote

Proposal / Contract

Bill to: Town of Middletown, MD
Attn: Jennifer Facinelli
31 W Main St.
Middletown, MD 21769

Date: 8/29/19
F.O.B.: Bill Customer
Shipping Date: ASAP
Via: Best Available

Ship To: 301-371-6474

Sales Tax Exemption # _____

Quantity	Size	Description	Price	Unit	Amount
22	3.5'	P-302 Pole Mounted Wreath with TTBC commercial Grade garland and 30 each C7 WW LEDs. Wreath trimmed with 3 smooth berry clusters per side Includes FBT-4 Jockey Red Structural Bow Gold Trim	\$368		\$8,096
22	18x45"	Custom Digitally Printed on 18 oz. Blackout Vinyl Red Sparkle Tree Banner	\$70		\$1,540

Freight will be billed upon delivery

Total Merchandise	\$ 9,636
Applicable Sales Tax	\$ n/a
Installation	\$ n/a
Balance Due	\$ 9,636

Joel Mosca
Mosca Design Representative

Purchaser

Date

Date

By signing above purchaser agrees to the terms of the price quote and authorizes Mosca Design, Inc. to place order accordingly. Quote good for 90 days and while supplies last.
or mail price quote to Mosca Design, Inc.

**TOURISM COUNCIL OF FREDERICK COUNTY, INC.
TOURISM REINVESTMENT IN PROMOTION AND PRODUCT PROGRAM**

FY20 DEVELOPMENT GRANT AGREEMENT

THIS DEVELOPMENT GRANT AGREEMENT ("Agreement") is made between the Tourism Council of Frederick County, Inc. ("TCFC") and Town of Middletown ("Awardee") whose Federal Identification Number is 52-6003394.

RECITALS

A. It is the intent of TCFC and Frederick County Government to make a portion of the annual hotel tax revenue that is directed to TCFC available for the promotion of local non-profit attractions and events and the development of tourism product through non-profit attractions, events and activities. The Tourism Reinvestment in Promotion and Product ("TRIPP") program has been developed by TCFC to allocate this funding through a competitive application process.

B. Awardee has requested grant assistance from TCFC for the purpose of attracting visitors to Frederick County through the development of Awardee's activity consistent with the goals of the TRIPP program.

C. TRIPP Development Grant funding will be allocated on a matching basis toward the cost of Awardee's proposed tourism development project.

THEREFORE, IN CONSIDERATION of the foregoing and the mutual promises and covenants contained in this Agreement, TCFC and Awardee agree as follows:

1. Award. TCFC has approved the award of funding to be expended in accordance with the tourism development project(s) described in Awardee's TRIPP application in an amount not to exceed \$6,985 (the "Award") for the project "**Expansion of amenities for Town sponsored events.**"

a. Award formula: TCFC has determined the award based on Awardee's proposed project budget and Awardee's commitment to provide a match or match credit equal to the Award amount, per the TRIPP Grant guidelines (the "Guidelines"), incorporated herein as Exhibit A.

b. Award term: The Agreement is in effect for FY20 (July 1, 2019 – June 30, 2020)

2. Purpose. Award funds will only be used for the purposes of and in the manner set forth in Awardee's FY20 TRIPP Development Grant application.

3. Guidelines. Execution of this Agreement by Awardee shall bind Awardee to all terms and conditions in Exhibit A.

4. Disbursement. TCFC will disburse grant funds as follows: Once Awardee submits proof of project expenditures equaling twice the award amount, TCFC will disburse the Award funds to the Awardee. If necessary for cash flow, awardee may submit for a first reimbursement when expenses reach \$1,000. Expenditures, match, and Final Report must be provided in accordance with Exhibit A. If funding is or becomes unavailable, TCFC shall have no obligation to disburse undisbursed funds.

5. Notices. All notices, requests, and consents made pursuant to this Agreement must be in writing. Any such communication is effective when mailed, first-class postage prepaid, as follows:

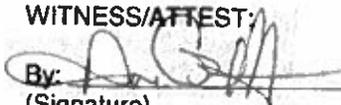
- a. Communications to TCFC: John Fieseler, Executive Director
Tourism Council of Frederick County, Inc.
151 S. East St.
Frederick, MD 21701
- b. Communications to Awardee: Andrew J. Bowen
Town Administrator
Town of Middletown
31 W. Main St.
Middletown, MD 21769

6. Amendment. This agreement may be amended only by a written instrument executed by both of the parties.

7. Maryland Law. This agreement shall be construed, interpreted, and enforced in accordance with the laws of the State of Maryland.

8. Entire Agreement. This agreement, together with the Exhibits attached hereto and incorporated by reference herein, represents the complete and final understanding of the parties. No other understanding or representations, oral or written, regarding the subject matter of this Agreement, may be deemed to exist or to bind the parties at time of execution.

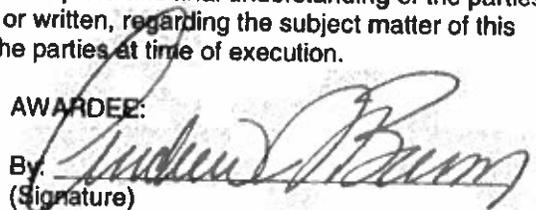
WITNESS/ATTEST:

By: 
(Signature)

Ann Griffin
(Typed Name)

Office Manager
(Title)

AWARDEE:

By: 
(Signature)

Andrew J. Bowen
(Typed Name)

Town Administrator
(Title)

WITNESS:

TOURISM COUNCIL OF FREDERICK COUNTY, INC.

By: _____

John J. Fieseler, Executive Director

Date: _____

Attachment Exhibit A: Grantee requirements per FY20 Product Development Guidelines:
Tourism Reinvestment in Promotion and Product (TRIPP) Program

BURGESS AND COMMISSIONERS OF MIDDLETOWN MARYLAND

TOWN WORKSHOP MEETING MINUTES

WORKSHOP MEETING

September 5, 2019

The workshop meeting of the Burgess and Commissioners of Middletown was called to order on September 5, 2019, by Burgess Miller at 7:00 p.m. in the Middletown Municipal Center, 31 W. Main Street, Middletown, Maryland. Present were: Commissioners Larry Bussard, Christopher Goodman, Tom Catania and Rick Dietrick.

STAFF REPORTS:

Community Deputy Report – Deputy McCarrick gave the Deputy report for August.

Staff Planner Report – Cindy gave her report (copy attached).

Engineer's Report – Bruce gave his report.

Main Street Manager's Report — Becky was not in attendance, but her report was included in the packet.

Zoning Administrator's Report – Mark gave his report.

PERSONAL REQUESTS FOR AGENDA: None

CONSENT AGENDA:

- *Town Meeting Minutes – August 26, 2019*

UNFINISHED BUSINESS:

Staff Recommendation for Locations of Electronic Vehicle Charging Stations – At last month's meeting Drew reported that Potomac Edison will install charging stations for free at any location and whoever uses the station will pay for their usage by credit card. Drew went over the locations staff is recommending installing the stations at. Staff is recommending 1 in the leased parking lot at the corner of East Green & North Church street and 1 at the lower section of the Elm Street Parking lot.

Review of LED Crosswalk Costs – Bruce went over the quotes that he has received to date on these signs. Last month Burgess Miller stated that Bruce received a quote from Silicon Constellation of \$30,897.01 for signs to be installed at 3 locations. The Board thought the quote seemed high and asked Bruce to obtain a few more quotes. Bruce stated that he received a quote from Tapco, and the signs do not have as many lights and the warranty is not as long as Silicon Constellation. Bruce stated that he has contacted another company but has not been able to get connected with a representative to provide him a quote.

Recommendation from Public Works Committee on East Green Street Crosswalk Location -

Discussion of Proposed Text Amendments:

- **Accessory Structures** – Mark reviewed what he is proposing to change in the code regarding accessory buildings. Burgess Miller stated that this will be on the Joint Town Board and Planning Commission meeting in October.
- **Residential Parking Requirements for Townhouses & Apartments** – Cindy stated that both the Town Board and Planning Commission have reviewed this and feel that we should go with what New Market has which is 2 parking spaces per dwelling unit + 0.5 per bedroom over 2 bedrooms.

NEW BUSINESS:

Proclamation for Middletown Goes Purple - This is a grass roots initiative within the county to reduce substance abuse related deaths and overdoses and supports those in addiction recovery and their families. This observance will occur during the month of September (National Recovery Month). Everyone is encouraged to wear purple every Friday to bring awareness and understanding of mental health and substance abuse disorders, and to celebrate those living in recovery.

Review of Traffic Study for Memar Property – Drew stated that this study was done by consultant chosen by the Town. This study is a requirement of the annexation agreement the Town approved from Memar Corporation to construct 148 active adult dwelling units. Drew stated that although the traffic will increase, we will remain as a category A at 6 out of the 7 locations the consultant looked at.

PUBLIC COMMENTS:

ANNOUNCEMENTS:

- *Month of September – Frederick County Goes Purple*
- *Month of September – Emergency Preparedness*
- *Heritage Festival – Saturday, September 28, 2019 from 10am.-5pm.*

Workshop adjourned at 8:35pm.

Respectfully submitted,

Annette Alberghini
Administrative Assistant

BURGESS AND COMMISSIONERS OF MIDDLETOWN MARYLAND

TOWN MEETING MINUTES

REGULAR MEETING

September 9, 2019

The first regular meeting of the Burgess and Commissioners of Middletown was called to order on September 9, 2019, by Burgess Miller at 7:00 p.m. in the Middletown Municipal Center, 31 W. Main Street, Middletown, Maryland. Present were: Commissioners Larry Bussard, Christopher Goodman, Tom Catania and Rick Dietrick.

PERSONAL REQUESTS FOR AGENDA:

Jonathan Switzer, Founder of CrossBridges and Elaine Canonico with MUMC – Frederick County Goes Purple – Burgess Miller presented a proclamation to Mr. Switzer proclaiming “Middletown Goes Purple” the entire month of September in observance of National Recovery Month. Mr. Switzer stated that this initiative within the county is to reduce substance abuse related deaths and overdoses and supports those in addiction recovery and their families. Everyone is encouraged to wear purple every Friday to bring awareness and understanding of mental health and substance abuse disorders, and to celebrate those living in recovery.

CONSENT AGENDA:

- *Town Meeting Minutes – August 26, 2019*

Motion by Commissioner Bussard to approve the consent agenda as presented, seconded by Commissioner Goodman. Motion carried 5-0.

UNFINISHED BUSINESS:

Staff Recommendation for Locations of Electronic Vehicle Charging Stations – At last month’s meeting Drew reported that Potomac Edison will install charging stations for free at any location and whoever uses the station will pay for their usage by credit card. Drew went over the locations staff is recommending installing the stations at. Staff is recommending 1 in the leased parking lot at the corner of East Green & North Church street and 1 at the lower section of the Elm Street Parking lot.

Motion by Commissioner Catania to approve the proposed locations by staff, seconded by Commissioner Dietrick. Motion carried 5-0.

Review of LED Crosswalk Costs – Drew reviewed the quotes that Bruce Carbaugh received. 1) Silicon Constellations for 3 locations = \$25,947 or 2) Tapco for 3 locations = \$22,470.

Motion by Commissioner Goodman to approve the quote from Tapco, seconded by Commissioner Catania. Motion carried 5-0.

Recommendation from Public Works Committee on East Green Street Crosswalk Location – Commissioner Bussard stated that is Committee met on-site to look at the best possibility for a crosswalk. The Public Works Committee is recommending the crosswalk on the west side of the entrance into Middletown Glen in the middle of the current sidewalk. By consensus of the Board this location was approved.

Discussion of Proposed Text Amendments:

- **Accessory Structures** – Burgess Miller stated that this will be on the Joint Town Board and Planning Commission meeting in October.

- **Residential Parking Requirements for Townhouses & Apartments** – Burgess Miller stated that both the Town Board and Planning Commission have looked at this and discussed and agree to change the parking requirements to 2 parking spaces per dwelling unit + 0.5 per bedroom over 2 bedrooms.

REPORT OF COMMITTEES:

WATER & SEWER – no report.

PUBLIC WORKS – Commissioner Bussard reported:

Boiler replacement is complete at Town Hall, the oil tank will be removed on Friday, September 20th, Main Street waterline is complete, the 2019 street patching contract is underway, the design of the handicap access ramp to the rear of Town Hall is being designed and the contractor putting in the ADA ramps throughout town is on-going.

Commissioner Bussard stated that our guys do a great job!

SUSTAINABILITY – Commissioner Dietrick reported:

Cindy is working on re-apply for Sustainable MD, the committee is working on a “no idle” zone at the schools, working on trying to get a composting program at Middletown Elementary and working on the Town’s tree canopy assessment.

The next meeting is September 17, 2019 at 5pm.

PLANNING COMMISSION – Commissioner Catania reported:

Workshop Wednesday, September 11, 2019 at 7pm. and meeting is Monday, September 16, 2019 at 7pm. On the agenda for discussion is the Tabor Bard demolition and the Miller property redline changes to existing plans.

PARKS AND REC. COMMITTEE – Commissioner Goodman reported:

The Parks & Rec. committee will be meeting on September 18, 2019 at 6:30pm. at Wiles Branch Park. The committee will be looking at place’s benches, bike racks, etc. could go if people would want to donate.

PUBLIC INFORMATION – no report.

NEW BUSINESS:

Review of Traffic Study for Memar Property – Drew stated that this study was done by consultant chosen by the Town. This study is a requirement of the annexation agreement the Town approved from Memar Corporation to construct 148 active adult dwelling units. Drew stated that although the traffic will increase, we will remain as a category A at 6 out of the 7 locations the consultant looked at.

Rich Gallagher, 23 Woodmere Circle – asked what the break point was between levels A, B & C? Mr. Gallagher also asked what would the impact be if the road through the County Park was closed?

Bob Smart, 7525 Coblenz Road – stated that he thought the report was good although, the report does not include the school traffic during evening peak time. Mr. Smart also asked if the condition of the roads (Cone Branch & Layla are 2 lanes with a turn lane and Coblenz is not) was taken into consideration?

Bruce Dzielinski, 7769 Coblenz Road – stated that statically speaking the sample size taken in inaccurate. Mr. Dzielinski stated that Saturday traffic is busier than weekday in the morning & afternoon.

Mr. Dzielinski stated that deviation of confidence is a big range statically speaking. Drew stated that he would contact the Traffic Study consultant to find out why they chose the sample size and why.

PUBLIC COMMENTS:

ANNOUNCEMENTS:

- *Month of September – Frederick County Goes Purple*
- *Month of September – Emergency Preparedness*
- *Heritage Festival – Saturday, September 28, 2019 from 10am.-5pm.*
- *Town Meeting Cancellation – Monday, September 23, 2019*

Workshop adjourned at 8:21pm.

Respectfully submitted,

Annette Alberghini
Administrative Assistant

DRAFT



MEMORANDUM

DATE: October 3, 2019
TO: Burgess and Commissioners
FROM: Andrew J. Bowen, Town Administrator
SUBJECT: Speed Data Information for Middletown Glen

ISSUE

Should the Burgess and Commissioners lower the speed limit(s) in the Middletown Glen subdivision?

BACKGROUND

The Burgess and Commissioners received a petition from residents in the Middletown Glen subdivision in April of 2019 requesting to lower the speed limit(s) within the subdivision. The Town Board then directed Staff to install the Speed Sign on Ingalls Drive to gather data on speeds. The Speed Sign was installed on Ingalls Drive on two (2) separate occasions and the data gathered determined that the 85% percentile speed was 15 MPH. Based on traffic engineering standards, this information would warrant a lowering of the speed limit.

At the August 26, 2019 Town Meeting, the Town Board voted to invite residents of the Middletown Glen subdivision to attend the October 3, 2019 Town Workshop to discuss these findings. Letters were sent to all the property owners and the letter indicated if they could not attend the meeting, they could provide a written response via letter or email.

Three (3) emails have been received as of the date of this memo. One (1) email was in favor and two (2) were not in favor of lowering the speed limit.

RECOMMENDATION

Staff acknowledges that the traffic engineering standards have been met to warrant the lowering of the speed limit in the Middletown Glen subdivision. The decision of keeping the speed limit the same or lowering it to 15 MPH rests with the Burgess and Commissioners.

ATTACHMENTS

Petition
Speed Sign Data
Form Letter Sent to Residents
Emails from Residents

Drew Bowen

From: Katrina Maha [REDACTED]
Sent: Wednesday, April 10, 2019 8:17 AM
To: Drew Bowen
Subject: Middletown Glen Speed Limit Review Request
Attachments: new doc 2019-04-10 08.04.10_1.pdf

Good Morning Mr. Bowen,

Please find the attached request from the Middletown Glen community asking for the board to review the speed limit throughout the neighborhood.

We feel that due to the narrow roads and the numerous children throughout the neighborhood the speed limit is too high. We currently are not a feeder road for vehicles outside the neighborhood either. We have Children at Play signs in parts of the neighborhood and I myself have a yellow safety slow down sign that I placed in my yard yet we still have numerous people flying by our homes disregarding the signs and stop signs.

So first we would like to ask that the limit be reduced, the next step would be requesting speed bumps or other options to keep our children safe in our small community.

Thank you for time!
Katrina Mahar

Katrina
Sent from my iPhone

Middletown Municipal Center
31 W. Main Street
Middletown, MD 21769
Attn: Andrew Bowen

The Middletown Glen Community would like to request the Middletown Board to review the speed limit throughout the community (Ingalls Drive, Dean Lane and Gaver Way). The residents feel that the speed limit may be too high considering the narrow width of the roads. We greatly appreciate the Board members taking the time to review our request.

Resident Name

Resident Address

Katrina Mahar	203 Ingalls Dr.
NICHOLAS CARROLL	121 INGALLS DR.
Jen Winkle	123 Ingalls Drive
MISSY Vierling	6 Gaver Way
Colleen Dunn	8 Gaver Way
Melissa Ward	10 Gaver Way
Amy Gilloway	305 Ingalls Drive
Laurel Sousa	303 Ingalls Drive
Stacia Underberg	5 Fink Lane
Jessica Collier	105 Ingalls Dr
Erin Landsman	3 Dean Lane
Brittany Mills	113 Ingalls Drive
Hattie Gerst	201 Ingalls Drive.

SPEED LAWS IN MARYLAND 2019

There appears to be no restriction for how low a speed can be posted in an urban area. The MD legislature has legislation for specific counties but Frederick is not one of them. The MD Code is reprinted at the end of this information.

From the MDSHA website.

Speed Limits

Maryland's State and local traffic engineers receive requests to raise, lower, or simply review speed limits on streets and highways throughout the State. Here is how speed limits are set and how speed limits affect traffic and safety.

To learn more, visit

Percentile Speed and Safety

Restrictions

How are speed limits set?

Speed limits for various streets and highways are set by Maryland vehicle law. In many instances, these statutory limits do not account for actual traffic conditions important in the safe and efficient movement of traffic. The law allows these limits to be raised or lowered based on traffic engineering studies.

What conditions influence speed limits?

Speed limits are set higher or lower than the statutory limits when one or more of the following circumstances are present:

- Traffic characteristics are unusual because of land use or other conditions
- Road design elements substantially differ from the norm
- Prevailing speeds are consistently higher or lower than the statutory speed limit
- Transition between rural and urban areas on major highways suggest reconsidering speed limits
- Schools and significant pedestrian traffic suggest reconsidering speed limits
- Road construction requires modified speed limits
- Frequent collisions in which speed is a contributing cause suggest reconsidering speed limits
- Unusual or unanticipated conditions suggest reconsidering speed limits

After a speed limit is established, changes could prompt a new traffic engineering study to determine if the speed limit needs to be raised or lowered.

Speed Limits - Restrictions

Are there any restrictions on how high or low speed limits may go?

Maryland law restricts how much speed limits may be raised or lowered and sets broad standards. For example, 70 mph is the maximum speed limit that can be established on any interstate highway or expressway. And 55 mph is the maximum speed limit that can be established on all other highways.

What is a traffic engineering study?

A traffic engineering study is the observation and analysis of road and traffic characteristics to guide the further application of traffic engineering principles. The study of speed limits examines the following:

- Review of the road's environment, features, and condition and traffic characteristics.
- Observation and measurement of vehicle speeds at one or more representative spots along the road in ideal weather and under free-flowing traffic.
- Analysis of vehicle speeds to determine average and 85th percentile speeds, as well as other characteristics.
- Review of the road's speed history.
- Review of unusual conditions not apparent to drivers.

What is the 85th percentile speed?

The 85th percentile speed is the speed at or below which 85 percent of the motorists drive on a given road when unaffected by slower traffic or poor weather. This is the speed that most motorists on that road consider safe and reasonable under ideal conditions. It is a good guideline for the appropriate speed limit for that road.

Will crashes increase if the speed limit is raised?

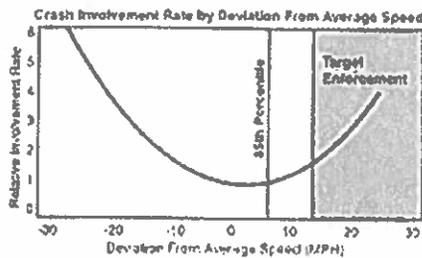
Probably not. Research shows that the posted speed limit has little effect on the speeds at which most motorists drive. Raising the speed limit does not significantly raise the speeds at which motorists drive and lowering the limit generally does not appreciably decrease their speeds. However, the more motorists learn from experience that set speed limits are safe and reasonable, the greater the chance that motorists will heed them. Speed limits significantly lower than the 85th percentile speed are ignored by drivers and difficult to enforce.

In most instances, a speed limit based on the 85th percentile reflects the expectations of most drivers; that is:

- a safe and comfortable limit
- facilitates speed enforcement
- offers the greatest chance of achieving uniformity in speeds on a given road.

When motorists drive at a relatively uniform speed, tailgating, lane changing, and overtaking are reduced. As a result, collisions are less likely to occur.

Those who drive much faster or slower than most drivers around them place themselves and others at considerable risk of a collision. When the posted limit is reasonable, enforcement can be targeted to the relatively small percentage that exceeds the speed limit.



Speed Limits - Percentile Speed and safety

Does a speed limit set at the 85th percentile speed satisfy everyone?

Society expects behavioral consistency among those driving on our streets and highways. But drivers' skills, attitudes, and time pressures vary greatly, as does their perception of an appropriate speed limit. Whatever the speed limit, some will consider it too high; others, too low. What you should expect is that, within the latitude provided in Maryland law, engineers set the most appropriate speed limits on the basis of thorough study and the application of sound traffic engineering principles.

If motorists speed through a residential neighborhood, what should be done?

If the speed limit appears to be appropriate but speeders are creating a hazard, that calls for enforcement. Contact the law enforcement officers with jurisdiction over your street and ask them to check speeds and enforce the law.

If your street's speed limit itself seems unrealistically high, contact the traffic engineering agency with jurisdiction – all large political subdivisions have a traffic engineering office. If there is no such office, contact your law enforcement agency.

What if those steps fail to achieve appropriate speeds?

Some residential areas need slower speeds than posted speed limits. Traffic engineering studies can determine if "traffic calming" techniques, such as roundabouts, chokers, speed humps (not speed bumps), raised crosswalks, pedestrian refuge areas, or other physical controls, can reduce speeds and make your street safer.

Is it always safe to drive at the speed limit?

Speed limits are set for ideal conditions. Drivers need to respond to adverse conditions. Maryland vehicle law requires that motorists drive at a reasonable and prudent speed and with a regard for danger. Motorists must adjust their speed according to the existing vehicle and pedestrian traffic, road surface, lighting, and weather conditions. You should always maintain a safe speed.

MARYLAND DEPARTMENT OF TRANSPORTATION

Effective: March 27, 2019

MD Code, Transportation, § 21-803

§ 21-803. Maximum speed limits altered by local authorities

Currentness

Engineering and traffic investigations

(a)(1) If, on the basis of an engineering and traffic investigation, a local authority determines that any maximum speed limit specified in this subtitle is greater or less than reasonable or safe under existing conditions on any part of a highway in its jurisdiction, it may establish a reasonable and safe maximum speed limit for that part of the highway, which may:

- (i) Decrease the limit at an intersection;
- (ii) Increase the limit in an urban district to not more than 50 miles per hour;
- (iii) Decrease the limit in an urban district; or
- (iv) Decrease the limit outside an urban district to not less than 25 miles per hour.

(2) An engineering and traffic investigation is not required to conform a posted maximum speed limit in effect on December 31, 1974, to a different limit specified in § 21-801.1(b) of this subtitle.

School zones

(b) In school zones designated and posted by the local authorities of any county:

(1) The county may decrease the maximum speed limit to 15 miles per hour during school hours, provided the county pays the cost of placing and maintaining the necessary signs; and

(2) Any municipality within each county may decrease the maximum speed limit in a school zone within the municipality to 15 miles per hour during school hours, provided the municipality pays the cost of placing and maintaining the necessary signs.

Speed limit effective when posted on signs

(c) An altered maximum speed limit established under this section is effective when posted on appropriate signs giving notice of the limit.

Approval by State Highway Administration

(d) Except in Baltimore City, any alteration by a local authority of a maximum speed limit on a part or extension of a State highway is not effective until it is approved by the State Highway Administration.

Maximum speed limits for alleys

(e)(1) If a local authority determines that any maximum speed limit specified in this subtitle is greater than reasonable or safe in an alley in its jurisdiction, the local authority may establish a reasonable and safe maximum speed limit for the alley.

(2) The local authority shall post a speed limit established under this subsection on appropriate signs giving notice of the speed limit.

Credits

Added by Acts 1977, c. 14, § 2, eff. July 1, 1977. Amended by Acts 1977, c. 469; Acts 1979, c. 497; Acts 1982, c. 252; Acts 1997, c. 6, § 1, eff. Oct. 1, 1997; Acts 2019, c. 8, § 1, eff. March 27, 2019.

Formerly Art. 66 ½, § 11-803.

Editors' Notes

HISTORICAL AND STATUTORY NOTES

2019 Legislation

Acts 2019, c. 8, § 1, amended (a)(1)(ii) by providing:

"(ii) Increase the limit in an urban district to not more than 50 miles an per hour;"

Acts 2019, c. 8, § 1, amended (a)(1)(iv) by providing:

"(iv) Decrease the limit outside an urban district to not less than 25 miles an per hour.

MD Code, Transportation, § 21-803, MD TRANS § 21-803

Current through legislation effective July 1, 2019, from the 2019 Regular Session of the General Assembly.

Average Vehicle Count

Technician Name: administrator

Location: Ingalls Drive

Report Period: 7/22/2019 to 7/27/2019

Address:

Total Vehicle Count: 1,110

Speed Limit: 25



Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Average Weekday	Average Weekend	Average Week	Average Speed	85% Speed
00-01	n/a	2	0	0	1	1	n/a	1	1	1	13	17
01-02	n/a	3	0	0	0	0	n/a	1	0	1	3	3
02-03	n/a	0	0	1	0	0	n/a	0	0	0	19	19
03-04	n/a	0	0	0	0	0	n/a	n/a	n/a	n/a	n/a	n/a
04-05	n/a	1	0	0	1	0	n/a	1	0	0	16	17
05-06	n/a	1	1	0	2	0	n/a	1	0	1	15	14
06-07	n/a	4	1	2	5	2	n/a	3	2	3	11	17
07-08	9	11	22	9	H 20	1	n/a	14	1	12	10	16
08-09	11	11	10	5	10	4	n/a	9	4	9	12	17
09-10	14	12	6	14	H 20	10	n/a	13	10	13	11	15
10-11	H 19	13	24	18	8	H 16	n/a	16	16	16	12	17
11-12	14	13	7	18	13	15	n/a	13	15	13	12	18
12-13	12	21	12	H 20	18	5	n/a	17	5	15	12	16
13-14	14	11	25	9	7	6	n/a	13	6	12	12	16
14-15	9	16	18	17	10	H 16	n/a	14	16	14	11	16
15-16	18	28	8	19	13	5	n/a	17	5	15	11	17
16-17	4	20	H 28	16	7	14	n/a	15	14	15	10	14
17-18	7	10	12	19	10	1	n/a	12	1	10	10	14
18-19	9	15	9	15	8	n/a	n/a	11	n/a	11	12	16
19-20	8	12	11	11	5	n/a	n/a	9	n/a	9	11	16
20-21	9	H 31	6	8	17	n/a	n/a	14	n/a	14	9	13
21-22	5	5	16	4	3	n/a	n/a	7	n/a	7	8	13
22-23	1	1	3	0	2	n/a	n/a	1	n/a	1	7	7
23-24	0	0	5	1	0	n/a	n/a	1	n/a	1	12	11
TOTAL:	163	241	224	206	180	96	0	203	96	193	11	15

Statistics Summary Report

Technician Name: administrator

Location: Ingalls Drive

Report Period: 7/22/2019 to 7/27/2019

Address:

Total Vehicle Count: 1,110

Speed Limit: 25

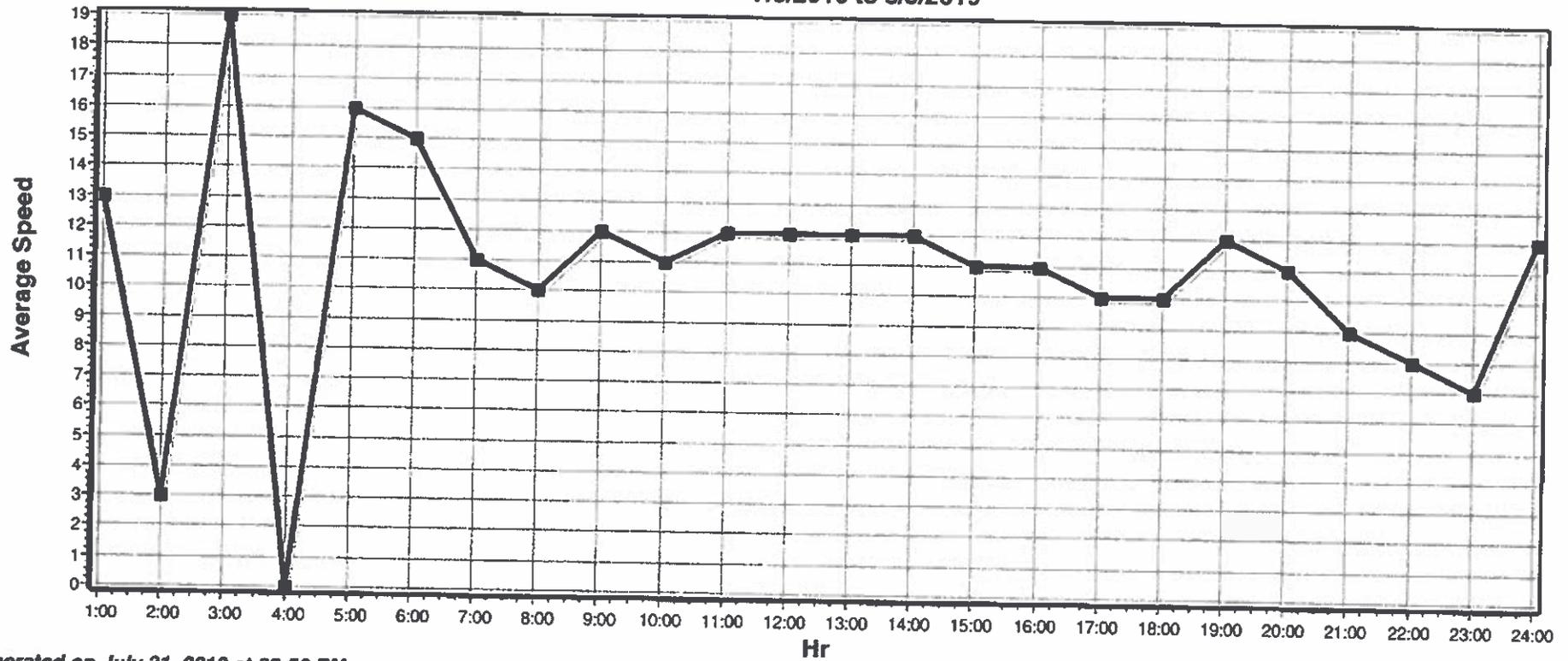


Hour	Total Vehicles	Average Vehicles	Total Violations	% Violations	Min. Speed	Max. Speed	Avg. Speed	85% Speed
00-01	4	1	0	0%	3	19	13	17
01-02	3	1	0	0%	3	3	3	3
02-03	1	0	0	0%	19	19	19	19
03-04	0	0	0	0%	0	0	0	0
04-05	2	0	0	0%	15	17	16	17
05-06	4	1	0	0%	12	17	15	14
06-07	14	3	0	0%	4	21	11	17
07-08	72	12	0	0%	3	19	10	16
08-09	51	9	0	0%	3	24	12	17
09-10	76	13	0	0%	3	18	11	15
10-11	98	16	0	0%	3	22	12	17
11-12	80	13	1	1%	4	27	12	18
12-13	88	15	0	0%	3	25	12	16
13-14	72	12	0	0%	4	22	12	16
14-15	86	14	0	0%	3	22	11	16
15-16	91	15	0	0%	3	21	11	17
16-17	89	15	0	0%	3	23	10	14
17-18	59	10	0	0%	3	19	10	14
18-19	56	11	0	0%	3	21	12	16
19-20	47	9	0	0%	3	21	11	16
20-21	71	14	0	0%	3	19	9	13
21-22	33	7	0	0%	3	15	8	13
22-23	7	1	0	0%	3	11	7	7
23-24	6	1	0	0%	3	16	12	11
	1,110	193	1	0%	5	18	11	15



Average Speed Hourly Values

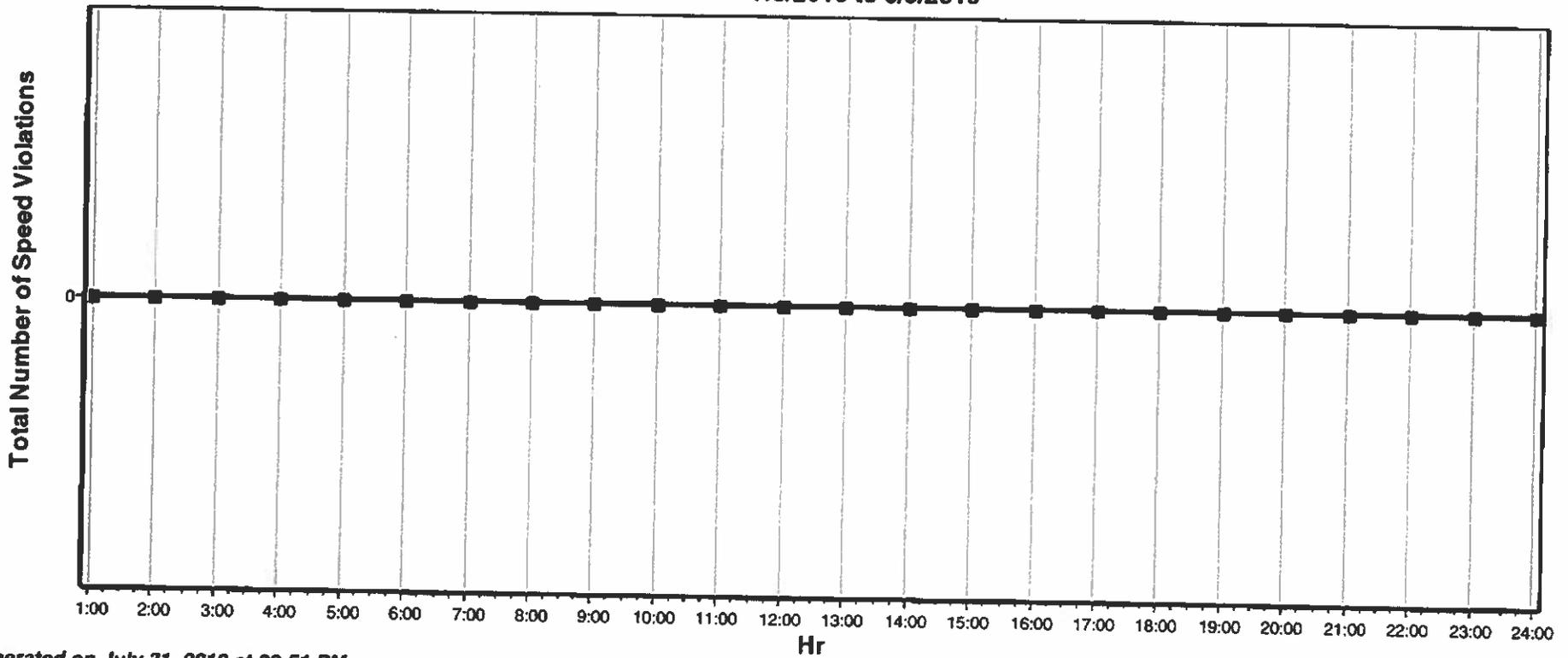
Ingalls Drive ()
7/8/2019 to 8/5/2019





Total Number of Speed Violations Hourly Values

Ingalls Drive ()
7/8/2019 to 8/5/2019



John D. Miller
Burgess

Commissioners
Larry K. Bussard
Thomas S. Catania
Richard L. Dietrick
Jennifer J. Falcinelli
Christopher I. Goodman

Middletown
Founded in 1767



September 12, 2019

NAME
STREET ADDRESS
CITY, STATE ZIP

RE: MIDDLETOWN GLEN
SPEED LIMIT REDUCTION MEETING

Dear **NAME**:

In April of this year, the Burgess and Commissioners received a petition from thirteen (13) residents in the Middletown Glen subdivision requesting a reduction in the speed limit within the subdivision. Based on this request, the Town proceeded to investigate the speeds in the subdivision using our Speed Sign which records speeds of vehicles.

After a review of this information, it was demonstrated that the actual speed that most vehicles were traveling was 15 MPH. This is referred to as the 85th percentile. This information does support the petitioners request to lower the speed limit in the Middletown Glen subdivision.

Before the Burgess and Commissioners make any decision on this petition request, the Town Board would like to invite you to the next Town Workshop on **Thursday, October 3, 2019 at 7:00PM** to receive feedback regarding this possible change to the speed limit within your subdivision. If you are not able to attend this meeting, you are welcome to submit your input via mail or email to office@ci.middletown.md.us.

If you should have any questions, please do not hesitate to contact the Town Office at 301.371.6171.

Sincerely,
Burgess and Commissioners
Middletown, Maryland

Andrew J. Bowen
Town Administrator

CC: File

Drew Bowen

From: Sarah & Adam Martin [REDACTED]
Sent: Tuesday, October 1, 2019 5:52 PM
To: Drew Bowen
Subject: Middletown Glen Speed Limit Reduction Meeting

Hello-

We are emailing you as we will not be able to attend the Town Meeting, but wanted to voice our opinion.

We are residents in the Middletown Glen Community and we are NOT in favor the the speed limit change. The current speed limit is fine for this community. We do NOT feel that this is necessary per your testing of the speed where the average speed was below the speed limit currently. Also, now that most/all of the construction is completed the neighborhood roads have not seemed as crowded besides the occasional people that still park on the street. We have not seen or feel that this is necessary to reduce the speed limit.

Thanks,
Adam and Sarah Martin

Drew Bowen

From: Sherrie Chubin [REDACTED]
Sent: Sunday, September 22, 2019 8:08 PM
To: Drew Bowen
Subject: Middletown Glen, Speed Limit Reduction Meeting

Thank you for your letter of Sept 12 informing us of the meeting to discuss the speed limit reduction. I just wanted to say that my husband and I are all for the change. This is a small community with lots of children. 15 MPH is fast enough and should not be any higher.

Thank you for allowing me to have a say via email.

Sherrie and Ron Chubin
117 Ingalls Dr
Middletown, MD

Drew Bowen

From: Mark Griffiths [REDACTED]
Sent: Tuesday, September 17, 2019 7:59 PM
To: Drew Bowen
Subject: Speed Limit Reduction Meeting - Middletown Glen

Good Evening,

Regarding the possible change to lower the speed limit from 25 mph to 15 mph in Middletown Glen I would like to point out the following: after posting the speed sign "it was demonstrated that the speed that most vehicles were traveling was 15 MPH." This is a good thing, and shows that the 85th percentile of the drivers measured were obeying the posted limit of 25 MPH by not exceeding it. This demonstrates that the residents of the neighborhood are aware of the number of children who reside here and respect the speed limit for their safety. This does not logically follow that therefore the speed limit should be lowered to 15 MPH. With no parking allowed on either side of the street on Ingalls Dr., the danger of a small child running into the street without being seen by a driver is greatly reduced.

There are 81 lots/families in Middletown Glen; 13 residents have petitioned to lower the speed limit. While I believe that all children should be afforded safety in the neighborhood, the majority (silent or not) have not voiced that a reduction of the speed limit is necessary to proclaim the streets of Middletown Glen safe for children. Unless a majority of the residents support the reduction through email/mail response or attendance at the October 3 meeting, the current speed limit should be held.

Respectfully,
Mark Griffiths

**TRAFFIC IMPACT ANALYSIS
FOXFIELD SECTION 6
MIDDLETOWN, MARYLAND**

**Prepared For:
The Town of Middletown**

June 19, 2019

Project Manager: Mike Nalepa - Street Traffic Studies, Ltd.

STS Job No.: 6663

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- C CAPACITY CALCULATIONS - EXISTING CONDITIONS
- D CAPACITY CALCULATIONS - TOTAL CONDITIONS

INTRODUCTION

The Memar Corporation is proposing to construct 148 age restricted single family dwelling units along the west side of Coblenz Road opposite of Smithfield Drive in the Town of Middletown. Access to the site will be via the extension of Smithfield Drive at it's existing intersection with Coblenz Road.

The objective of the analysis was to evaluate the impact the proposed development will have on the road network in the vicinity of the subject site. The methodology used for the analysis followed guidelines established by the Maryland State Highway Administration as outlined in the scoping email contained in Appendix A.

The principal scope of services performed as part of this study included:

- o Field inspection of the road network in the vicinity of the site to determine the existing pavement widths and traffic controls.
- o Manual turning movement traffic counts at seven (7) locations in the study area.
- o Determination of planned developments to be included in the analysis as background traffic.
- o Trip generation and distribution analyses for the planned development, as well as the subject site.
- o Analysis of the above data to determine the impact of the proposed development on the road network under study.
- o Preparation of a report detailing the results of the field studies and analyses performed.

BASE CONDITIONS

The Memar Corporation is proposing to construct 148 age restricted single family homes along the west side of Coblenz Road opposite of Smithfield Drive. Access to the site will be via the extension of Smithfield Drive from it's existing terminus west at Coblenz Road.

The site location is shown on Exhibit 1.

Existing Road Network

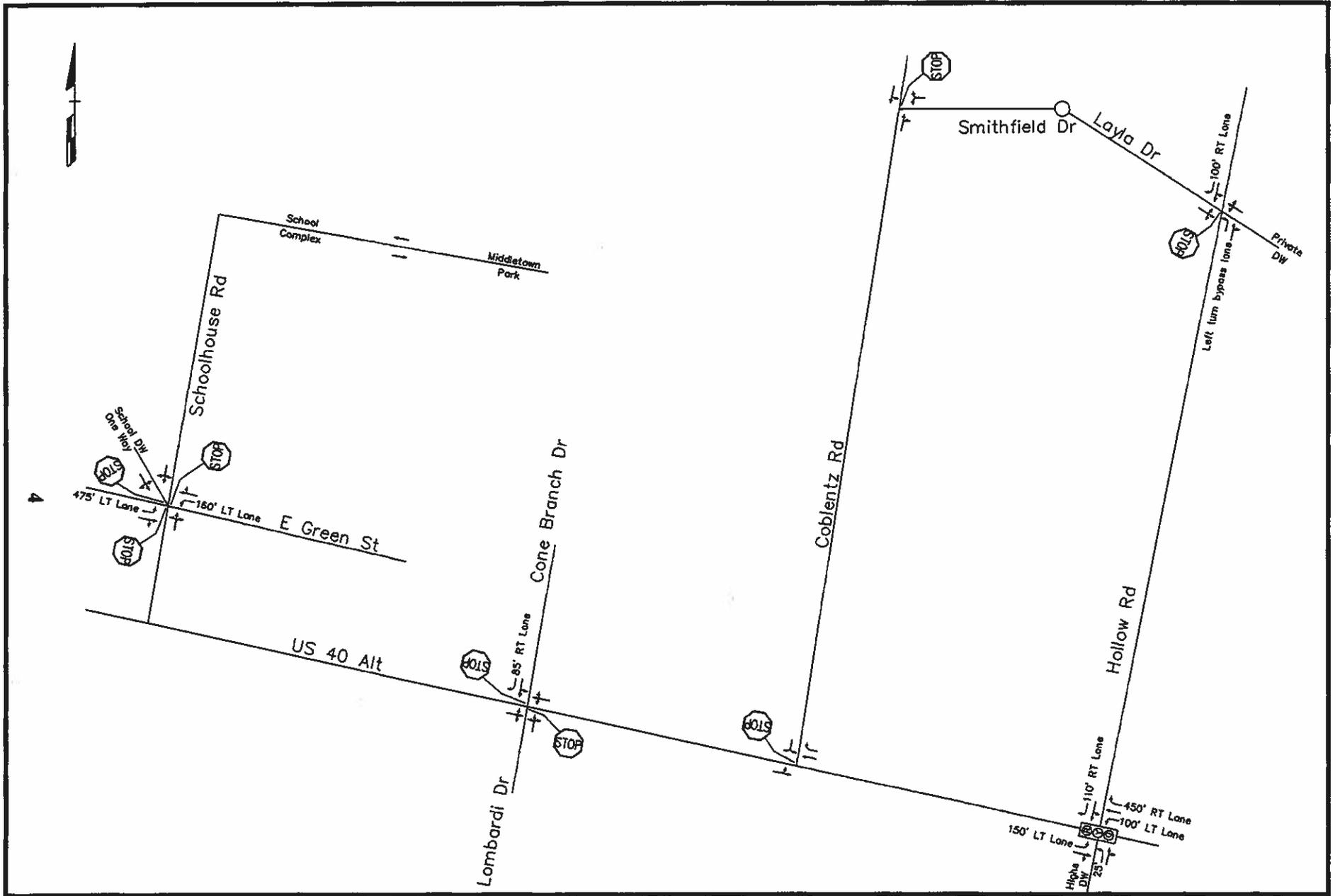
Based on the direction provided by the Town of Middletown the following intersections were analyzed as part of this study.

- US 40 Alt @ Hollow Road
- US 40 Alt @ Coblenz Road
- US 40 Alt @ Cone Branch Road-Lombardi Drive
- Hollow Road @ Layla Drive
- Coblenz Road @ Smithfield Drive
- Schoolhouse Road @ East Green Street
- Entrance to the school complex from Middletown Park

Field inspection of the intersections under study revealed the existing lane use illustrated in Exhibit 2.

Existing Traffic Volumes

STSLTD conducted manual turning movement counts in May 2019 between the hours of 6:00 - 9:00 AM and 4:00 - 7:00 PM to determine the existing traffic conditions. The existing peak hour volumes are shown in Exhibit 3 and the summarized data sheets showing the total vehicles observed are contained in Appendix B.



NO SCALE

EXHIBIT 2
EXISTING LANE USE

Analysis of Existing Traffic Conditions

In accordance with Maryland State Highway Administration (MSHA) guidelines, intersection capacity analyses were performed applying the Critical Lane Volume (CLV) technique to all of the critical intersections. The results of the capacity analyses are shown in Table 1.

**TABLE 1
RESULTS OF CLV CAPACITY ANALYSES
EXISTING TRAFFIC CONDITIONS**

<u>INTERSECTION</u>	<u>MORNING PEAK HOUR</u>	<u>EVENING PEAK HOUR</u>
US 40 Alt @ Hollow Rd	B(1044)	B(1026)
US 40 Alt @ Coblantz Rd	A(783)	A(774)
US 40 Alt @ Cone Branch Rd	A(725)	A(718)
Hollow Rd @ Layla Dr	A(179)	A(189)
Coblantz Rd @ Smithfield Dr	A(120)	A(50)
Schoolhouse Rd @ E Green St	A(526)	A(344)

X(0000) - Level of Service(Critical Lane Volume)

Although MSHA guidelines establish Level of Service D as the acceptable threshold, the Town of Middletown requires that a Level of Service C be maintained. A review of the results shown in Table 1 reveal that the critical intersections are operating at acceptable levels of service during both the morning and evening peak periods'

The capacity calculations are contained in Appendix C.

BACKGROUND TRAFFIC

Proposed Road Improvements

There are no improvements funded for construction in either the State Highway Administration (SHA) publication Consolidated Transportation Program which would have a significant effect on traffic in the area. There is a reconstruction project along US 40 Alternate within the study area; however this improvement will not add capacity at any of the study intersections along US 40 Alternate.

Growth in Thru Traffic

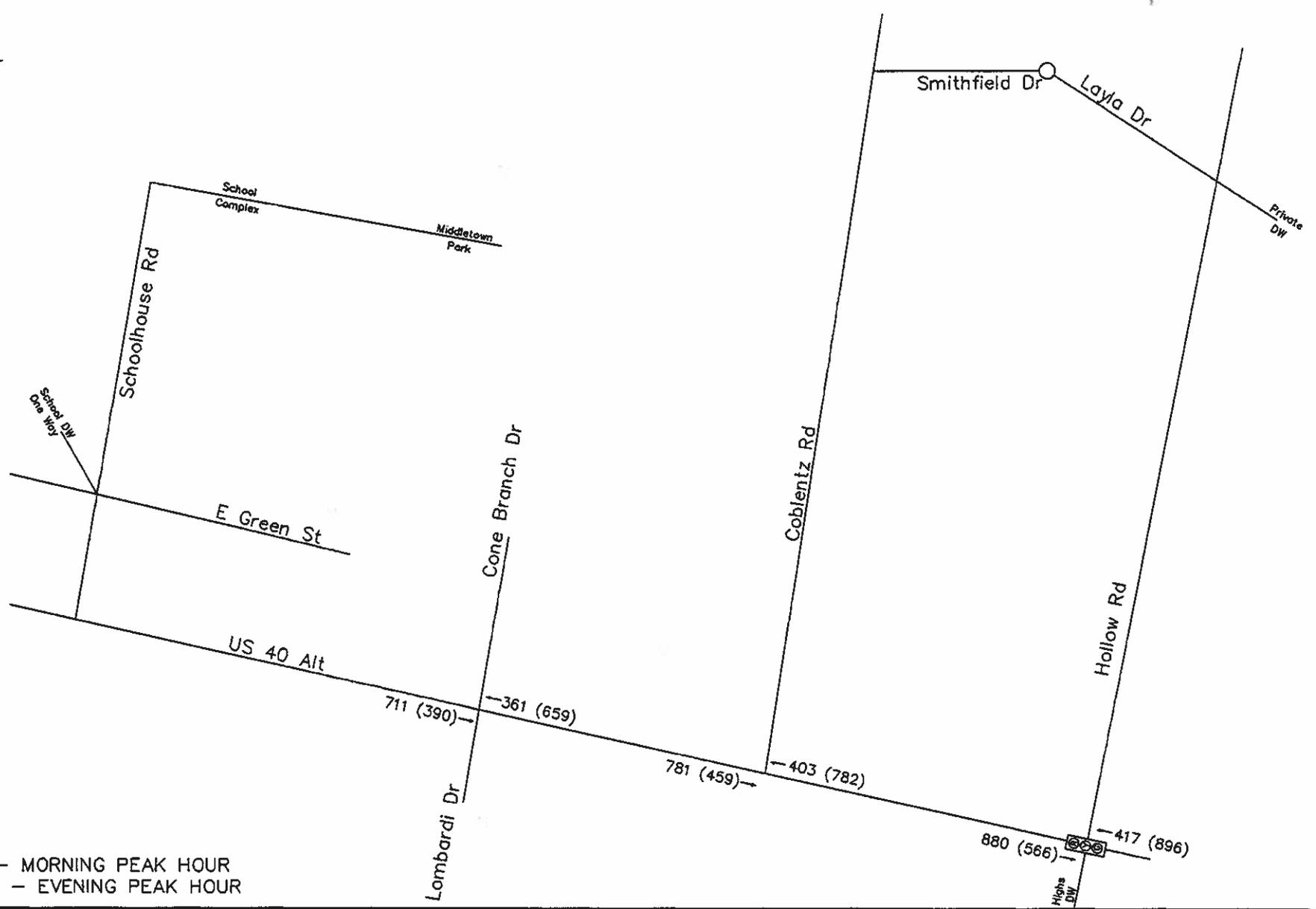
Due to development restrictions on the property, a design year of 2027 was assumed for this project and based on historical volume records the growth rate in this area was determined to be 1% per year. Therefore the 2027 Growth Adjusted volumes are shown in Exhibit 4.

Planned Developments

To provide an adequate assessment of traffic volumes traffic from approved, but un-built or completed projects within the study area must be included. The Town of Middletown did not identify any current projects within the study area that would have a significant impact on traffic at the study intersections.



8



0000 - MORNING PEAK HOUR
(0000) - EVENING PEAK HOUR

NO SCALE

EXHIBIT 4
2027 GROWTH ADJUSTMENT

SITE TRAFFIC ANALYSIS

The Memar Corporation is proposing to construct 148 age restricted single family homes along the west side of Coblenz Road opposite of Smithfield Drive. Access to the site will be via the extension of Smithfield Drive from it's existing terminus west at Coblenz Road.

Trip Generation

To determine the traffic associated with the proposed development trip generation rates found in the Institute of Transportation Engineer's publication, Trip Generation, Tenth Edition were used. The trip generation rates and trips generated are shown in Table 2.

**TABLE 2
TRIP GENERATION
FOXFIELD SECTION 6**

<u>LAND USE</u>	<u>MORNING PEAK HOUR</u>			<u>EVENING PEAK HOUR</u>		
	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
<u>Generation Rate</u>						
Sr Housing Detached (251)						
Trips/du	$\text{Ln}(T)=0.76\text{Ln}(X)+0.21$			$\text{Ln}(T)=0.78\text{Ln}(X)+0.28$		
Trips/148 du's	18	37	55	40	25	65

Trip Distribution

The trips generated by the site were assigned to the road network as shown in Exhibit 5. The Total Traffic Volumes are shown in Exhibit 6.

Analysis of Total Traffic Conditions

Intersection capacity analyses were performed applying the Critical Lane Volume (CLV) technique to all of the critical intersections. The results of the capacity analyses are shown in Table 3.



SITE GENERATED TRIPS

IN: 18 (40)
OUT: 37 (25)

Site
Access

21 (14)
16 (11)

4 (8)

Smithfield Dr

Loyal Dr

5%

2 (1)
19 (13)

1 (2)

3 (6)

Private
DW

School
Complex

Middletown
Park

Schoolhouse Rd

School Dr
One Way

10

E Green St

Cone Branch Dr

Coblentz Rd

US 40 Alt

25%

4 (10)

9 (6)

9 (6)
7 (5)

4 (10)

10 (22)

Hollow Rd

19 (13)

3 (6)
10 (22)

7 (5)

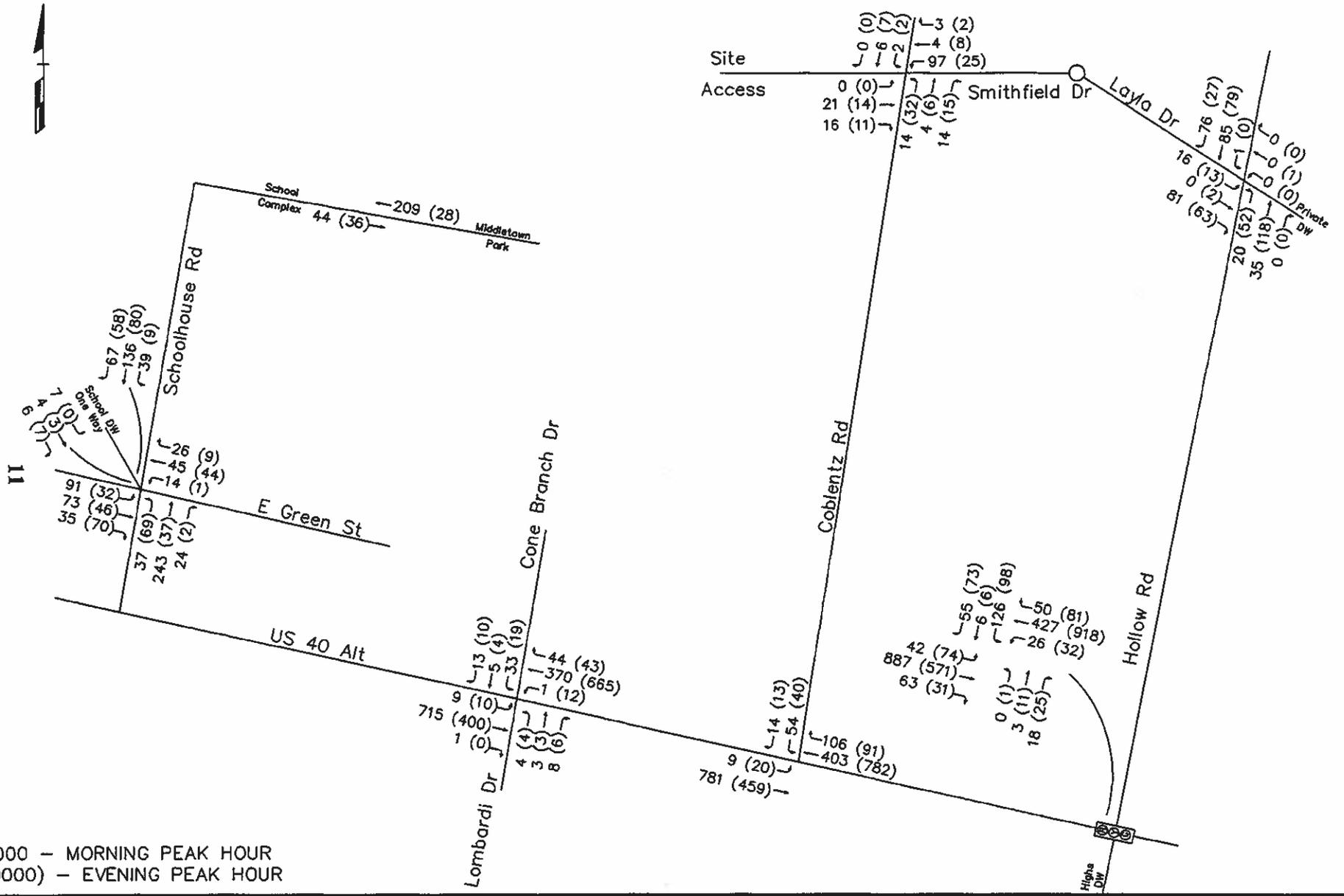
Highway
DW

70%

0000 - MORNING PEAK HOUR
(0000) - EVENING PEAK HOUR

NO SCALE

**EXHIBIT 5
SITE GENERATED TRIPS**



0000 - MORNING PEAK HOUR
 (0000) - EVENING PEAK HOUR

NO SCALE

EXHIBIT 6
 TOTAL TRAFFIC VOLUMES

TABLE 3
RESULTS OF CLV CAPACITY ANALYSES
TOTAL TRAFFIC CONDITIONS

<u>INTERSECTION</u>	<u>MORNING PEAK HOUR</u>	<u>EVENING PEAK HOUR</u>
US 40 Alt @ Hollow Rd	B(1139)	B(1131)
US 40 Alt @ Coblenz Rd	A(867)	A(855)
US 40 Alt @ Cone Branch Rd	A(783)	A(774)
Hollow Rd @ Layla Dr	A(203)	A(209)
Coblenz Rd @ Smithfield Dr	A(169)	A(108)

X(0000) - Level of Service(Critical Lane Volume)

The capacity calculations are contained in Appendix D.

A review of the capacity analyses results in Table 3 reveal that all of the critical intersections are projected to operate within acceptable limits after full development of the Foxfields Section 6 project. The Foxfield Section 6 development does not have an impact on the Schoolhouse Road/East Green Street intersection so a capacity analyses for total traffic conditions was not performed at this intersection.

Queuing Analyses

Queuing analyses were performed at the US 40 Alternate/Hollow Road intersection to determine if the projected volumes at this intersection would result queues that would extend beyond the turn lanes provided. The MSHA procedures for projecting queue lengths were used and based on the projected levels of service at the intersection a 100 second cycle length was assumed. The results of the queuing analyses are shown below.

Eastbound US 40 Alt left turns. A 150 foot left turn lane is provided and the evening peak hour has the highest projected volume (74 left turns). Based on this volume a queue of 73 feet could be expected; therefore the existing 150 foot left turn lane is adequate to accommodate the projected queue. (PM Peak Hour: $74 \times 100/3600 \times 1.4 \times 25 = 73$ feet)

Westbound US 40 Alt left turns. A 100 foot left turn lane is provided and the evening peak hour has the highest projected volume (32 left turns). Based on this volume a queue of 31 feet could be expected; therefore the existing 100 foot left turn lane is adequate to accommodate the projected queue. (PM Peak Hour: $32 \times 100/3600 \times 1.4 \times 25 = 31$ feet)

Westbound US 40 Alt right turns. A 450 foot right turn lane is provided and the evening peak hour has the highest projected volume (81 right turns). Based on this volume a queue of 79 feet could be expected; therefore the existing 450 foot right turn lane is adequate to accommodate the projected queue. (PM Peak Hour: $81 \times 100/3600 \times 1.4 \times 25 = 79$ feet)

Southbound Hollow Road right turns. A 110 foot right turn lane is provided and the evening peak hour has the highest projected volume (73 right turns). Based on this volume a queue of 71 feet could be expected; therefore the existing 110 foot right turn lane is adequate to accommodate the projected queue. (PM Peak Hour: $73 \times 100/3600 \times 1.4 \times 25 = 71$ feet)

The queuing analyses show that the existing turn lanes are sufficient to accommodate the projected queues at this intersection.

CONCLUSIONS

The field studies and analyses performed as part of this study reveal that the Foxfields Section 6 project can develop as proposed and acceptable levels of service will be maintained at all of the study intersections.

APPENDIX A
SCOPING LETTER & CONCEPT PLAN

Mike Nalepa

From: Trevor Frederick <trevor@fsa-md.com>
Sent: Monday, March 4, 2019 11:43 AM
To: Mike Nalepa
Cc: fred@fsa-md.com
Subject: Foxfield Section 6 TIS
Attachments: Attachments.html

Citrix Attachments	Expires August 31, 2019
7090 Concept Plan 01302018.pdf	7.6 MB
Memar Traffic Count Location Map.jpg	2.1 MB
Download Attachments	
Trevor Frederick uses Citrix Files to share documents securely.	

Hi Mike,

We are working on a new residential subdivision in Middletown, Maryland for 148 age restricted units. The town is requesting a traffic study for the project. Please see email below.

Can you provide us with a proposal to complete this work?

I've attached a copy of the concept plan for your use.

Thanks,
Trevor

From: Drew Bowen <abowen@ci.middletown.md.us>
Sent: Thursday, February 28, 2019 11:18 AM
To: Trevor Frederick <trevor@fsa-md.com>; Bruce Carbaugh <bcarbaugh@ci.middletown.md.us>
Subject: RE: Traffic Study Intersection Map

Trevor:

Please see attached map. I have identified seven (7) locations where traffic counts would be useful to determine traffic flow as it relates to the Memar Property.

- **Hollow Road & Layla Drive** (*Shown in Red to indicate a location we discussed at our meeting*)
- **East Main Street & Coblentz Road** (*Shown in Red to indicate a location we discussed at our meeting*)
- **East Main Street & Cone Branch Drive** (*Shown in Yellow*)

- **US Alt. 40 (Old National Pike) & Hollow Road (*Shown in Yellow*)**
- **Coblentz Road & Smithfield Drive (*Shown in Yellow*)**
- **Schoolhouse Drive & East Green Street (*Shown in Blue*)**
- **Access Road from Middletown Park into School Property (*Shown in Blue*)**

FCPS recently completed a traffic study for the Middletown School Complex and I provided Fred with their contact information. The engineer probably has traffic count numbers for the areas shown in blue that you could use for this traffic study and would not need to have updated numbers since the study is recent.

The reason for the additional locations is to clearly identify the school traffic from the regular traffic. You would not want traffic count numbers from the school traffic effecting the impacts to the Memar Property since those impacts do not have to be addressed by the developer. Any questions, please feel free to call.

Thanks Drew

Andrew J. Bowen
Town Administrator
Burgess and Commissioners
Middletown, MD 21769
31 West Main Street
Middletown, MD 21769
Office – 301.371.6171
Cell – 240.674.8937
abowen@ci.middletown.md.us

From: Trevor Frederick <trevor@fsa-md.com>
Sent: Tuesday, February 26, 2019 5:02 PM
To: Bruce Carbaugh <bcarbaugh@ci.middletown.md.us>
Cc: Drew Bowen <abowen@ci.middletown.md.us>
Subject: RE: Traffic Study Intersection Map

Ok, I will sit tight until I hear back from you.

-Trevor

From: Bruce Carbaugh <bcarbaugh@ci.middletown.md.us>
Sent: Tuesday, February 26, 2019 2:57 PM
To: Trevor Frederick <trevor@fsa-md.com>
Cc: Drew Bowen <abowen@ci.middletown.md.us>
Subject: Traffic Study Intersection Map

Trevor,

I sent the map too soon, Drew and I will be meeting this week to discuss and I will get back to you.

Bruce A. Carbaugh

Town of Middletown
 Director of Public Works
 P 301-371-6171



Town of Middletown - Frederick County

APPENDIX B

VEHICLE TURNING MOVEMENT COUNTS

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: US-40 ALT
 and: Hollow Rd
 Counted by: CB

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/08/19
 Weather : Cloudy
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Thursday
 STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Hollow Rd				TRAFFIC FROM SOUTH on: High's Gas Station				TRAFFIC FROM WEST on: US-40 ALT				TRAFFIC FROM EAST on: US-40 ALT				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
08:00-15	2	1	5	8	1	1	0	2	9	80	0	89	3	15	1	19	118
15-30	2	1	19	22	1	0	0	1	12	134	3	149	0	30	2	32	204
30-45	7	2	11	20	3	0	0	3	10	149	6	165	4	52	3	59	247
45-00	7	3	18	28	4	1	0	5	4	134	6	144	5	88	9	82	257
07:00-15	17	4	27	48	4	1	0	5	10	179	5	194	3	111	15	129	378
15-30	15	0	35	50	5	1	0	6	20	203	5	228	8	71	19	98	382
30-45	11	1	17	29	4	1	0	5	13	225	16	254	11	99	7	117	405
45-00	12	1	28	41	5	0	0	5	20	208	16	242	4	104	6	114	402
08:00-15	4	3	29	36	4	0	2	6	19	194	13	226	1	97	3	101	369
15-30	8	2	21	31	3	1	2	6	9	144	11	164	4	94	12	110	311
30-45	14	2	28	44	6	1	2	9	8	167	8	183	4	90	11	105	341
45-00	10	0	38	48	1	2	0	3	9	241	9	259	4	87	10	101	409
AM 3 HOUR TOTALS	109	20	272	401	41	9	8	58	143	2058	98	2297	51	918	98	1067	3821
1 HOUR TOTALS																	
08-07	18	7	51	76	9	2	0	11	35	497	15	547	12	165	15	192	828
815-715	33	10	73	116	12	2	0	14	36	598	20	652	12	261	29	302	1084
830-730	46	9	89	144	18	3	0	19	44	665	22	731	20	302	46	368	1282
845-745	60	8	95	163	17	4	0	21	47	741	32	820	27	349	50	428	1420
07-08	55	6	107	168	18	3	0	21	63	813	42	918	28	385	47	458	1565
715-815	42	5	109	156	18	2	2	22	72	828	50	950	24	371	35	430	1558
730-830	35	7	95	137	16	2	4	22	61	769	56	886	20	394	28	442	1487
745-845	38	8	108	154	18	2	6	26	56	711	48	815	13	385	32	430	1423
08-09	36	7	114	157	14	4	6	24	45	746	41	832	13	388	36	417	1430
PEAK HOUR 07-08	55	6	107	168	18	3	0	21	63	813	42	918	28	385	47	458	1565
PM																	
04:00-15	13	2	22	37	7	2	0	9	15	134	14	163	9	165	24	198	407
15-30	25	0	16	41	4	1	0	5	9	127	28	164	8	204	30	242	452
30-45	29	4	22	55	5	2	0	7	7	127	15	149	6	178	35	219	430
45-00	16	4	15	35	9	2	1	12	9	108	18	135	9	219	19	247	429
05:00-15	20	2	32	54	8	3	0	11	8	127	23	158	9	183	17	219	440
15-30	22	0	20	42	7	2	1	10	5	115	18	138	5	217	24	246	436
30-45	15	1	18	34	5	3	0	8	12	146	23	181	13	187	19	229	452
45-00	16	3	15	34	5	3	0	8	8	135	10	153	5	220	15	240	435
06:00-15	22	0	17	39	10	0	1	11	9	129	13	150	3	193	15	211	411
15-30	19	1	15	35	7	2	0	9	7	108	12	127	10	146	19	177	348
30-45	17	2	24	43	8	0	0	8	8	110	15	133	6	140	24	170	354
45-00	10	2	11	23	7	2	0	9	2	79	9	90	5	150	19	174	296
PM 3 HOUR TOTALS	224	21	227	472	82	22	3	107	97	1444	198	1739	88	2224	260	2572	4880
1 HOUR TOTALS																	
04-05	83	10	75	168	25	7	1	33	40	496	75	611	32	766	108	906	1718
415-515	90	10	85	185	26	8	1	35	31	489	84	604	32	794	101	927	1751
430-530	87	10	89	186	29	9	2	40	27	477	74	578	29	807	95	931	1735
445-545	73	7	85	165	29	10	2	41	32	496	82	610	36	826	79	941	1757
05-06	73	6	85	164	25	11	1	37	31	523	74	628	32	827	75	934	1763
515-615	75	4	70	149	27	8	2	37	34	524	64	622	26	827	73	926	1734
530-630	72	5	65	142	27	8	1	36	36	517	58	611	31	758	88	857	1846
545-645	74	6	71	151	30	5	1	36	32	481	50	563	24	701	73	798	1548
06-07	68	5	67	140	32	4	1	37	26	425	49	500	24	631	77	732	1409
PEAK HOUR 05-06	73	6	85	164	25	11	1	37	31	523	74	628	32	827	75	934	1763

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: US-40 ALT
 and: Hollow Rd
 Counted by: CB bikes only

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/08/19
 Weather : Cloudy
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Thursday
 STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Hollow Rd				TRAFFIC FROM SOUTH on: High's Gas Station				TRAFFIC FROM WEST on: US-40 ALT				TRAFFIC FROM EAST on: US-40 ALT				TOTAL N+S + E+W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM																	
3 HOUR																	
TOTALS	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
1 HOUR																	
TOTALS																	
06-07	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
615-715	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
830-730	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
645-745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715-815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
730-830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
745-845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR																	
615-715	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
PM																	
04:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM																	
3 HOUR																	
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
1 HOUR																	
TOTALS																	
04-05	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
430-530	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
445-545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
515-815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
545-845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR																	
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1

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EB US 40 Alt approaching Hollow Rd



WB US 40 Alt approaching Hollow Rd



Higs DW approaching US 40 Alt



SB Hollow Rd approaching US 40 Alt

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: US 40-ALT
 and: Coblenz Rd
 Counted by: CB

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/08/19
 Weather : Partly Cloudy
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Wednesday
 STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Coblenz Rd				TRAFFIC FROM SOUTH on:				TRAFFIC FROM WEST on: US-40 ALT				TRAFFIC FROM EAST on: US-40 ALT				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
08:00-15	2	0	4	6	0	0	0	0	0	89	2	91	0	21	0	21	118
15-30	0	0	3	3	0	0	0	0	0	91	1	92	0	19	1	20	115
30-45	0	0	7	7	0	0	0	0	0	128	0	128	0	33	6	39	174
45-00	0	0	5	5	0	0	0	0	0	121	2	123	0	82	17	79	207
07:00-15	0	0	12	12	0	0	0	0	0	141	3	144	0	105	55	160	316
15-30	2	0	15	17	0	0	0	0	0	198	0	198	0	82	25	107	322
30-45	2	0	7	9	0	0	0	0	0	189	1	190	0	90	8	98	297
45-00	1	0	13	14	0	0	0	0	0	193	1	194	0	95	8	103	311
08:00-15	1	0	8	9	0	0	0	0	0	110	1	111	0	94	7	101	221
15-30	3	0	15	18	0	0	0	0	0	109	3	112	0	64	10	74	204
30-45	0	0	22	22	0	0	0	0	0	111	0	111	0	81	7	88	221
45-00	1	0	15	16	0	0	0	0	0	150	2	152	0	51	6	57	225
AM 3 HOUR																	
TOTALS	12	0	126	138	0	0	0	0	0	1630	16	1646	0	797	150	947	2731
1 HOUR TOTALS																	
08-07	2	0	19	21	0	0	0	0	0	429	5	434	0	135	24	159	614
815-715	0	0	27	27	0	0	0	0	0	481	6	487	0	219	79	298	812
830-730	2	0	39	41	0	0	0	0	0	588	5	593	0	282	103	385	1019
845-745	4	0	39	43	0	0	0	0	0	649	6	655	0	339	105	444	1142
07-08	5	0	47	52	0	0	0	0	0	721	5	726	0	372	96	468	1246
715-815	6	0	43	49	0	0	0	0	0	690	3	693	0	381	48	408	1151
730-830	7	0	43	50	0	0	0	0	0	801	6	807	0	343	33	378	1033
745-845	5	0	58	63	0	0	0	0	0	523	5	528	0	334	32	388	957
08-09	5	0	80	85	0	0	0	0	0	480	6	486	0	290	30	320	871
PEAK HOUR																	
07-08	5	0	47	52	0	0	0	0	0	721	5	726	0	372	96	468	1246
PM																	
04:00-15	3	0	8	9	0	0	0	0	0	117	0	117	0	142	14	156	282
15-30	1	0	3	4	0	0	0	0	0	98	2	100	0	149	15	164	268
30-45	1	0	5	6	0	0	0	0	0	114	1	115	0	181	13	194	315
45-00	2	0	12	14	0	0	0	0	0	94	3	97	0	177	16	193	304
05:00-15	1	0	10	11	0	0	0	0	0	122	4	126	0	183	23	206	343
15-30	3	0	8	11	0	0	0	0	0	94	2	96	0	181	17	198	305
30-45	2	0	10	12	0	0	0	0	0	95	3	98	0	160	11	171	281
45-00	0	0	14	14	0	0	0	0	0	100	4	104	0	165	18	183	301
08:00-15	1	0	14	15	0	0	0	0	0	104	3	107	0	167	19	186	308
15-30	1	0	15	16	0	0	0	0	0	89	3	92	0	139	16	157	265
30-45	2	0	13	15	0	0	0	0	0	76	0	76	0	114	11	125	216
45-00	0	0	4	4	0	0	0	0	0	83	0	83	0	119	11	130	197
PM 3 HOUR																	
TOTALS	17	0	114	131	0	0	0	0	0	1166	25	1191	0	1877	186	2063	3365
1 HOUR TOTALS																	
04-05	7	0	26	33	0	0	0	0	0	423	8	429	0	649	58	707	1169
415-515	5	0	30	35	0	0	0	0	0	428	10	438	0	690	67	757	1230
430-530	7	0	35	42	0	0	0	0	0	424	10	434	0	722	69	791	1287
445-545	8	0	40	48	0	0	0	0	0	405	12	417	0	701	67	788	1233
06-08	6	0	42	48	0	0	0	0	0	411	13	424	0	689	89	758	1230
515-615	6	0	48	52	0	0	0	0	0	393	12	405	0	673	65	738	1195
530-630	4	0	53	57	0	0	0	0	0	388	13	401	0	631	68	697	1155
545-645	4	0	56	60	0	0	0	0	0	389	10	379	0	585	66	651	1080
06-07	4	0	46	50	0	0	0	0	0	332	6	338	0	539	59	598	988
PEAK HOUR																	
430-530	7	0	35	42	0	0	0	0	0	424	10	434	0	722	69	791	1287

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: US-40 ALT
 and: Coblenz Rd
 Counted by: CB bikes only

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/08/19
 Weather : Partly Cloudy
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Wednesday
 STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Coblenz Rd				TRAFFIC FROM SOUTH on:				TRAFFIC FROM WEST on: US-40 ALT				TRAFFIC FROM EAST on: US-40 ALT				TOTAL N+S + E+W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM																	
3 HOUR																	
TOTALS	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
1 HOUR																	
TOTALS																	
08-07	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
815-715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
830-730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
845-745	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07-08	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
715-815	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
730-830	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
745-845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR																	
07-08	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
PM																	
04:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM																	
3 HOUR																	
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 HOUR																	
TOTALS																	
04-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
430-530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
445-545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
515-615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
545-645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR																	
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

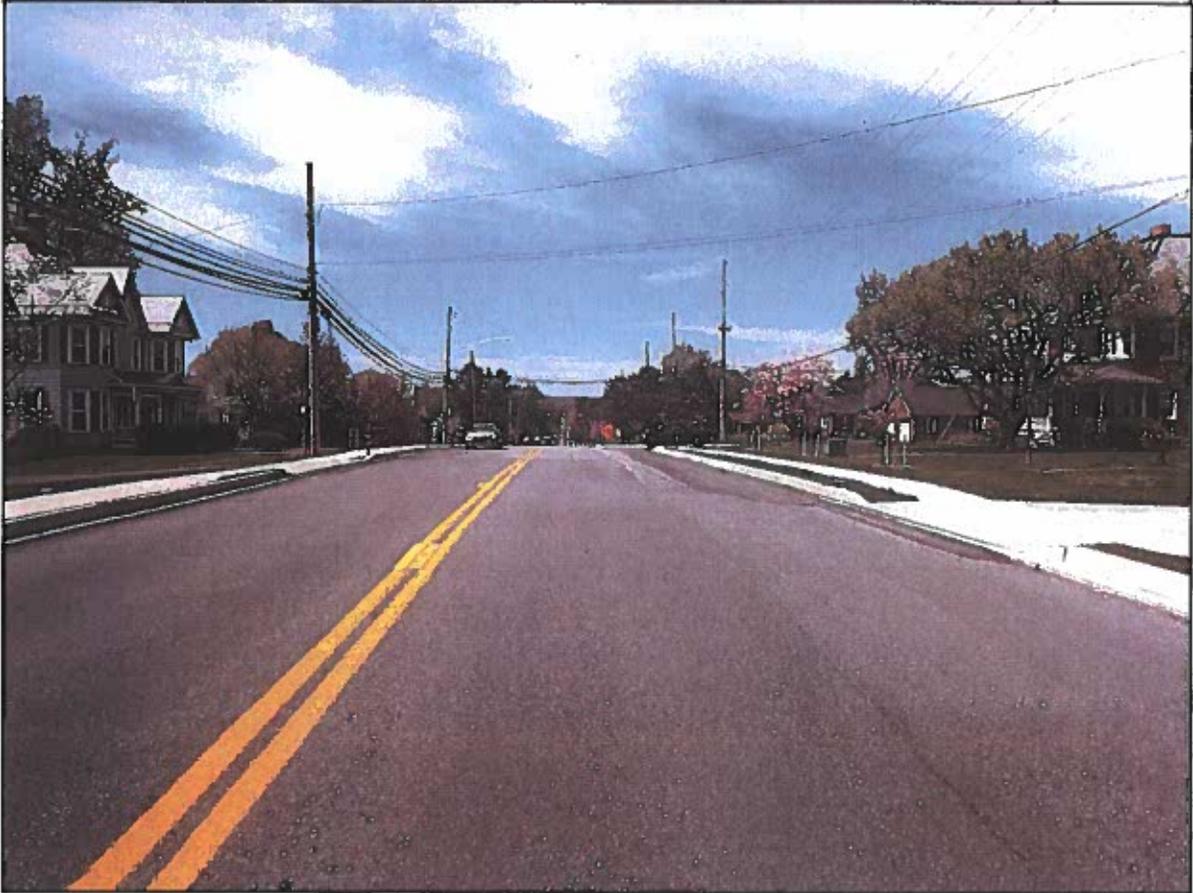
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EB US 40 Alt approaching Coblenz Rd



WB US 40 Alt approaching Coblentz Rd



SB Coblentz Rd approaching US 40 Alt

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: US-40 ALT
 and: Cone Branch Dr
 Counted by: ET

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/08/19
 Weather : Cloudy
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Wednesday
 STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Cone Branch Dr				TRAFFIC FROM SOUTH on: Lombardy Dr				TRAFFIC FROM WEST on: US-40 ALT				TRAFFIC FROM EAST on: US-40 ALT				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
08:00-15	0	1	7	8	0	0	2	2	0	71	1	72	0	14	0	14	98
15-30	0	0	2	2	0	0	1	1	0	128	1	129	0	24	1	25	157
30-45	1	1	3	5	0	0	0	0	1	127	2	130	0	30	1	31	166
45-00	1	0	5	6	0	1	3	4	0	104	1	105	0	53	4	57	172
07:00-15	2	0	4	6	1	1	0	2	0	145	4	149	0	80	4	84	241
15-30	3	2	6	11	1	1	1	3	0	173	4	177	0	90	9	99	290
30-45	3	1	9	13	1	1	2	4	1	164	0	165	0	75	13	88	270
45-00	5	2	14	21	1	0	5	6	0	175	1	176	1	88	18	107	310
08:00-15	1	0	8	9	0	0	2	2	0	115	0	115	2	73	8	83	209
15-30	3	1	4	8	0	0	1	1	0	104	0	104	0	57	3	60	173
30-45	3	0	7	10	2	0	4	6	0	97	3	100	0	83	3	86	202
45-00	3	0	14	17	0	0	2	2	0	139	2	141	0	60	1	61	221
AM																	
3 HOUR																	
TOTALS	25	8	83	116	6	4	23	33	2	1542	19	1563	3	727	65	795	2507
1 HOUR																	
TOTALS																	
08-07	2	2	17	21	0	1	6	7	1	430	5	436	0	121	6	127	591
815-715	4	1	14	19	1	2	4	7	1	504	8	513	0	187	10	197	738
830-730	7	3	18	28	2	3	4	9	1	549	11	561	0	253	18	271	869
845-745	9	3	24	36	3	4	6	13	1	588	9	598	0	298	30	328	973
07-08	13	5	33	51	4	3	8	15	1	657	9	667	1	333	44	378	1111
715-815	12	5	37	54	3	2	10	15	1	627	5	633	3	326	48	377	1079
730-830	12	4	35	51	2	1	10	13	1	658	1	660	3	293	42	338	982
745-845	12	3	33	48	3	0	12	15	0	491	4	495	3	301	32	336	894
08-09	10	1	33	44	2	0	9	11	0	455	5	460	2	273	15	290	805
PEAK HOUR																	
07-08	13	5	33	51	4	3	8	15	1	657	9	667	1	333	44	378	1111
PM																	
04:00-15	1	0	8	9	2	0	2	4	0	104	2	106	2	156	16	174	293
15-30	2	2	3	7	2	0	0	2	0	83	4	87	5	156	8	169	265
30-45	3	0	3	6	0	0	0	0	0	92	2	94	2	148	7	157	257
45-00	4	2	5	11	0	3	4	7	0	81	2	83	3	149	12	164	265
05:00-15	0	1	6	7	0	0	0	0	0	81	0	81	1	145	8	154	242
15-30	6	0	7	13	0	0	1	1	0	88	1	89	1	132	9	142	225
30-45	2	0	4	6	1	1	1	3	2	78	2	80	2	138	6	146	235
45-00	2	2	4	8	0	0	0	0	0	60	3	63	2	135	11	148	219
08:00-15	3	1	8	12	1	1	3	5	0	52	1	53	0	99	7	106	176
15-30	5	0	2	7	1	0	0	1	0	57	4	61	1	100	1	102	171
30-45	5	0	8	13	0	0	0	0	1	72	2	75	0	117	5	122	210
45-00	2	0	2	4	0	0	2	2	1	83	0	84	0	131	6	137	207
PM																	
3 HOUR																	
TOTALS	35	8	60	103	7	5	13	25	4	889	23	916	19	1606	98	1721	2765
1 HOUR																	
TOTALS																	
04-05	10	4	19	33	4	3	6	13	0	380	10	370	12	609	43	664	1080
415-515	9	5	17	31	2	3	4	9	0	337	8	345	11	598	35	644	1029
430-530	13	3	21	37	0	3	5	8	0	322	5	327	7	574	36	617	989
445-545	12	3	22	37	1	4	6	11	2	308	5	313	7	564	35	606	987
05-06	10	3	21	34	1	1	2	4	2	285	6	293	8	550	34	590	921
515-615	13	3	23	39	2	2	5	9	2	258	7	265	5	504	33	542	855
530-630	12	3	18	33	3	2	4	9	2	245	10	257	5	472	25	502	801
545-645	15	3	22	40	2	1	3	6	1	241	10	252	3	451	24	478	776
06-07	15	1	20	36	2	1	5	8	2	244	7	253	1	447	19	467	764
PEAK HOUR																	
04-05	10	4	19	33	4	3	6	13	0	380	10	370	12	609	43	664	1080

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: US-40 ALT
 and: Cone Branch DR
 Counted by: ET bikes only

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD

Location : Frederick County
 Date : 05/08/19
 Weather : Cloudy
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD

Day: Wednesday

STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Cone Branch Dr				TRAFFIC FROM SOUTH on: Lombardy Dr				TRAFFIC FROM WEST on: US-40 ALT				TRAFFIC FROM EAST on: US-40 ALT				TOTAL N+S + E+W	
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL		
AM																		
08:00-15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM																		
3 HOUR																		
TOTALS	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1 HOUR																		
TOTALS																		
06-07	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
615-715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
630-730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
645-745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715-815	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
730-830	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
745-845	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08-09	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HOUR																		
730-830	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PM																		
04:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM																		
3 HOUR																		
TOTALS	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	2
1 HOUR																		
TOTALS																		
04-05	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
430-530	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
445-545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-06	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
515-815	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
530-830	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
545-845	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
08-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR																		
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1

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EB US 40 Alt approaching Lombardi Dr



WB US 40 Alt approaching Cone Branch Dr



NB Lombardi Dr approaching US 40 Alt



SB Cone Branch Dr approaching US 40 Alt

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Coblenz Rd
 and: Smithfield Dr
 Counted by: CB

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD

Location : Frederick County
 Date : 05/07/19
 Weather : Clear
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD

Day: Tuesday

STREET
 TRAFFIC
 STUDIES

LTD

TIME	TRAFFIC FROM NORTH on: Coblenz Rd				TRAFFIC FROM SOUTH on: Coblenz Rd				TRAFFIC FROM WEST on:				TRAFFIC FROM EAST on: Smithfield Dr				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
08:00-15	0	1	1	2	0	0	1	1	0	0	0	0	1	0	0	1	4
15-30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
30-45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2
45-00	0	0	1	1	0	1	0	1	0	0	0	0	6	0	0	6	8
07:00-15	0	0	0	0	0	0	1	1	0	0	0	0	44	0	1	45	46
15-30	0	2	0	2	0	0	3	3	0	0	0	0	40	0	2	42	47
30-45	0	3	1	4	0	2	2	4	0	0	0	0	6	0	0	6	14
45-00	0	1	1	2	0	2	8	10	0	0	0	0	7	0	0	7	19
08:00-15	0	1	0	1	0	0	3	3	0	0	0	0	5	0	1	6	10
15-30	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	7
30-45	0	1	0	1	0	0	3	3	0	0	0	0	10	0	0	10	14
45-00	0	1	2	3	0	4	6	10	0	0	0	0	7	0	0	7	20
AM																	
3 HOUR																	
TOTALS	0	10	6	16	0	9	29	38	0	0	0	0	135	0	4	139	193
1 HOUR																	
TOTALS																	
06-07	0	1	2	3	0	1	3	4	0	0	0	0	9	0	0	9	16
615-715	0	0	1	1	0	1	3	4	0	0	0	0	52	0	1	53	58
830-730	0	2	1	3	0	1	6	7	0	0	0	0	90	0	3	93	103
845-745	0	5	2	7	0	3	6	9	0	0	0	0	98	0	3	99	115
07-08	0	6	2	8	0	4	14	18	0	0	0	0	97	0	3	100	126
715-815	0	7	2	9	0	4	16	20	0	0	0	0	58	0	3	61	90
730-830	0	5	2	7	0	4	13	17	0	0	0	0	25	0	1	26	50
745-845	0	3	1	4	0	2	14	16	0	0	0	0	29	0	1	30	50
08-09	0	3	2	5	0	4	12	16	0	0	0	0	29	0	1	30	51
PEAK HOUR																	
07-08	0	6	2	8	0	4	14	18	0	0	0	0	97	0	3	100	126
PM																	
04:00-15	0	0	1	1	0	1	5	6	0	0	0	0	6	0	0	6	13
15-30	0	1	0	1	0	2	4	6	0	0	0	0	5	0	0	5	12
30-45	0	1	0	1	0	1	1	2	0	0	0	0	8	0	1	9	12
45-00	0	1	1	2	0	0	5	5	0	0	0	0	6	0	1	7	14
05:00-15	0	1	0	1	0	2	4	6	0	0	0	0	5	0	0	5	12
15-30	0	4	1	5	0	3	5	8	0	0	0	0	6	0	0	6	19
30-45	0	1	0	1	0	0	6	6	0	0	0	0	2	0	0	2	9
45-00	0	0	1	1	0	1	6	6	0	0	0	0	8	0	0	8	15
08:00-15	0	2	1	3	0	0	6	6	0	0	0	0	2	0	2	4	13
15-30	0	1	0	1	0	1	2	3	0	0	0	0	4	0	0	4	8
30-45	0	0	0	0	0	0	3	3	0	0	0	0	3	0	0	3	6
45-00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	4	4
PM																	
3 HOUR																	
TOTALS	0	12	5	17	0	11	48	57	0	0	0	0	58	0	5	63	137
1 HOUR																	
TOTALS																	
04-05	0	3	2	5	0	4	15	19	0	0	0	0	25	0	2	27	51
415-515	0	4	1	5	0	5	14	19	0	0	0	0	24	0	2	26	50
430-530	0	7	2	9	0	6	15	21	0	0	0	0	25	0	2	27	57
445-545	0	7	2	9	0	5	20	25	0	0	0	0	19	0	1	20	54
05-06	0	6	2	8	0	6	20	26	0	0	0	0	21	0	0	21	55
515-615	0	7	3	10	0	4	22	26	0	0	0	0	18	0	2	20	56
530-630	0	4	2	6	0	2	19	21	0	0	0	0	16	0	2	18	45
545-645	0	3	2	5	0	2	16	18	0	0	0	0	17	0	2	19	42
06-07	0	3	1	4	0	1	11	12	0	0	0	0	12	0	3	15	31
PEAK HOUR																	
430-530	0	7	2	9	0	6	15	21	0	0	0	0	26	0	2	27	57

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Coblenz Rd
 and: Smithfield Dr
 Counted by: CB bikes only

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD

Location : Frederick County
 Date : 05/07/19
 Weather : Clear
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD

Day: Tuesday

STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Coblenz Rd				TRAFFIC FROM SOUTH on: Coblenz Rd				TRAFFIC FROM WEST on:				TRAFFIC FROM EAST on: Smithfield Dr				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM																	
3 HOUR																	
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
1 HOUR																	
TOTALS																	
06-07	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
615-715	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
630-730	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
645-745	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
07-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
715-815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
730-830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
745-845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HOUR																	
615-715	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
PM																	
04:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM																	
3 HOUR																	
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1 HOUR																	
TOTALS																	
04-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
430-530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
445-545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
515-615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
545-645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HOUR																	
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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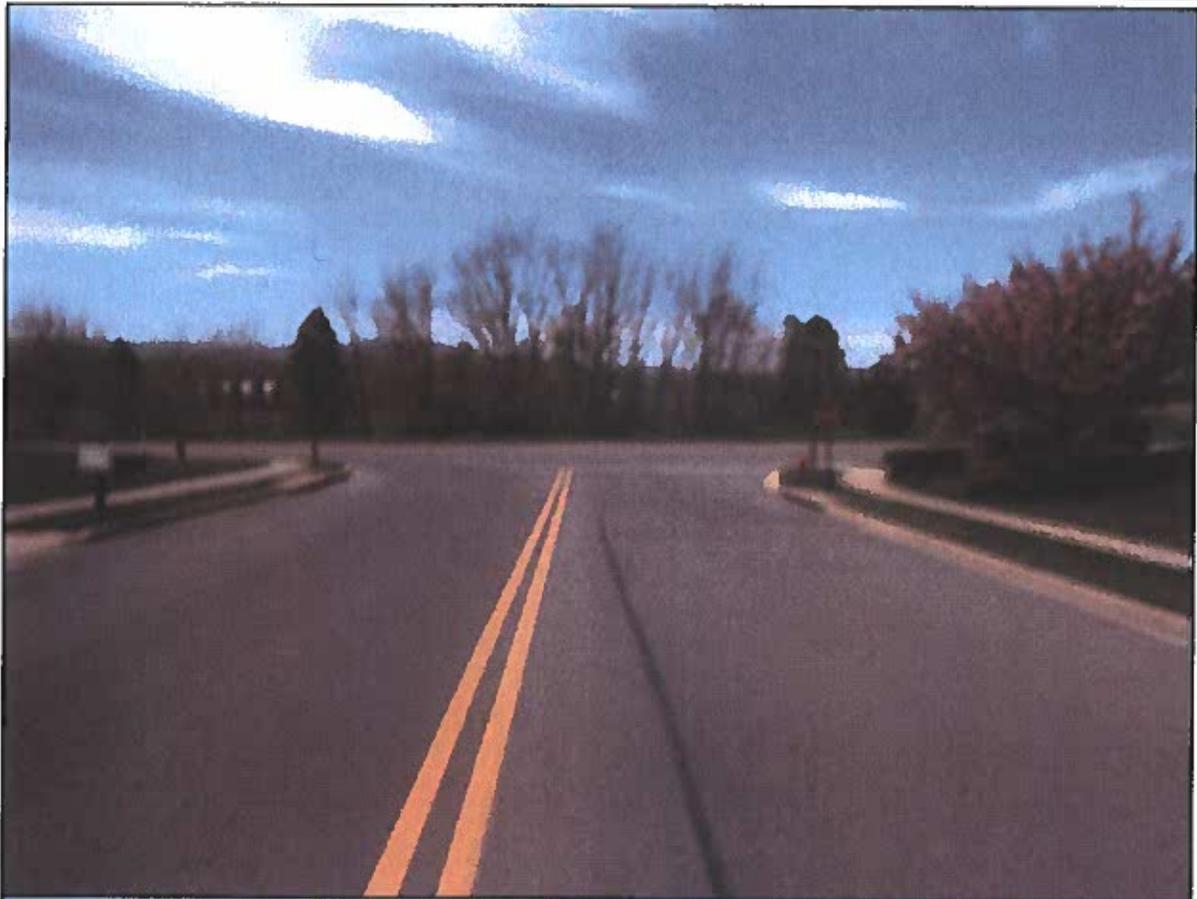
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NB Coblantz Rd approaching Smithfield Dr



SB Coblentz Rd approaching Smithfield Dr



WB Smithfield Dr approaching Coblentz Rd

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: Hollow Rd
 and: Layla Dr
 Counted by: ET

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/09/19
 Weather : Cloudy
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Thursday
 STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Hollow Rd				TRAFFIC FROM SOUTH on: Hollow Rd				TRAFFIC FROM WEST on: Layla Dr				TRAFFIC FROM EAST on: Private Farm				TOTAL N+S + E+W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	8	0	8	0	2	0	2	3	0	1	4	0	0	0	0	14
15-30	2	8	0	10	1	2	0	3	12	0	0	12	0	0	0	0	25
30-45	0	11	0	11	0	1	0	1	8	0	2	10	0	0	0	0	22
45-00	8	18	1	25	0	10	0	10	5	0	0	5	0	0	0	0	40
07:00-15	27	28	0	53	7	7	0	14	15	0	3	18	0	0	0	0	85
15-30	36	22	0	58	3	9	0	12	22	0	5	27	0	0	0	0	97
30-45	6	20	1	27	2	9	0	11	13	0	4	17	0	0	0	0	55
45-00	6	17	0	23	6	10	0	15	12	0	2	14	0	0	0	0	52
08:00-15	0	19	0	19	7	10	0	17	12	0	4	16	0	0	0	0	52
15-30	3	18	0	19	5	10	0	15	9	0	1	10	0	0	0	0	44
30-45	6	20	0	26	7	7	0	14	15	1	2	18	0	1	0	1	59
45-00	3	19	0	22	7	7	0	14	16	0	2	18	0	0	0	0	54
AM 3 HOUR TOTALS	97	202	2	301	44	84	0	128	142	1	26	169	0	1	0	1	599
1 HOUR TOTALS																	
06-07	10	43	1	54	1	15	0	16	28	0	3	31	0	0	0	0	101
615-715	37	61	1	99	8	20	0	28	40	0	5	45	0	0	0	0	172
630-730	71	75	1	147	10	27	0	37	50	0	10	60	0	0	0	0	244
645-745	77	84	2	163	12	35	0	47	55	0	12	67	0	0	0	0	277
07-08	75	85	1	161	17	35	0	52	62	0	14	76	0	0	0	0	289
715-815	48	78	1	127	17	38	0	55	59	0	15	74	0	0	0	0	258
730-830	15	72	1	88	19	39	0	58	46	0	11	57	0	0	0	0	203
745-845	15	72	0	87	24	37	0	61	48	1	9	58	0	1	0	1	207
08-09	12	74	0	86	26	34	0	60	62	1	9	62	0	1	0	1	209
PEAK HOUR 07-08	75	85	1	161	17	35	0	52	62	0	14	76	0	0	0	0	289
PM																	
04:00-15	8	21	0	29	7	13	0	20	6	0	10	16	0	0	0	0	85
15-30	3	21	0	24	13	27	0	40	16	1	3	20	0	0	0	0	84
30-45	7	17	0	24	18	33	0	51	7	0	3	10	0	0	0	0	85
45-00	10	16	0	26	7	26	0	33	10	1	2	13	0	1	0	1	73
05:00-15	5	25	0	30	6	32	0	40	17	0	4	21	0	0	0	0	91
15-30	6	17	0	23	13	26	0	39	9	0	5	14	0	0	0	0	78
30-45	5	12	0	17	13	27	0	40	6	0	7	13	0	0	0	0	70
45-00	0	16	0	16	10	24	0	34	7	0	1	8	0	0	0	0	58
06:00-15	7	24	0	31	8	16	0	24	8	0	1	9	0	0	0	0	64
15-30	3	9	1	13	11	22	0	33	13	1	8	22	0	0	0	0	68
30-45	5	26	1	32	10	14	0	24	2	0	0	2	1	0	0	1	59
45-00	1	11	2	14	14	19	0	33	2	0	1	3	0	0	1	1	51
PM 3 HOUR TOTALS	60	215	4	279	132	279	0	411	103	3	45	151	1	1	1	3	844
1 HOUR TOTALS																	
04-05	28	75	0	103	45	99	0	144	39	2	18	59	0	1	0	1	307
415-515	25	79	0	104	46	118	0	164	50	2	12	64	0	1	0	1	333
430-530	28	75	0	103	46	117	0	163	43	1	14	58	0	1	0	1	325
445-545	26	70	0	96	41	111	0	152	42	1	18	61	0	1	0	1	310
05-06	16	70	0	86	44	109	0	153	39	0	17	56	0	0	0	0	295
515-815	18	69	0	87	44	93	0	137	30	0	14	44	0	0	0	0	288
530-830	15	61	1	77	42	89	0	131	34	1	17	52	0	0	0	0	280
545-845	15	75	2	92	39	78	0	115	30	1	10	41	1	0	0	1	249
06-07	16	70	4	90	43	71	0	114	25	1	10	36	1	0	1	2	242
PEAK HOUR 415-515	25	79	0	104	46	118	0	164	50	2	12	64	0	1	0	1	333

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: Hollow Rd
 and: Layla Dr
 Counted by: ET bikes only

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/09/19
 Weather : Cloudy
 Entered by SKN

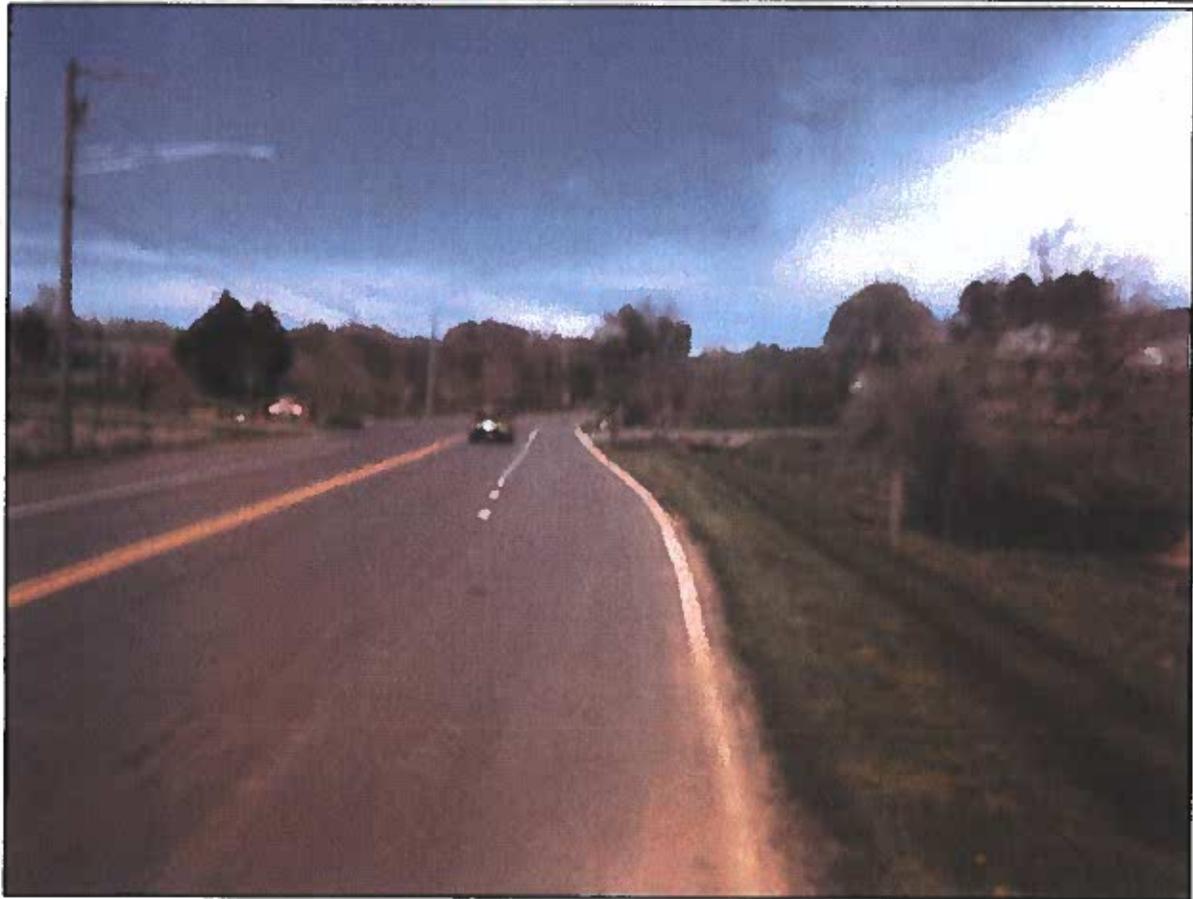
STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Thursday
 STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Hollow Rd				TRAFFIC FROM SOUTH on: Hollow Rd				TRAFFIC FROM WEST on: Layla Dr				TRAFFIC FROM EAST on: Private Farm				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM																	
3 HOUR																	
TOTALS	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
1 HOUR																	
TOTALS																	
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
615-715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
630-730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
645-745	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
715-815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
730-830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
745-845	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
08-09	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
PEAK HOUR																	
06-09	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
PM																	
04:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM																	
3 HOUR																	
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1 HOUR																	
TOTALS																	
04-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
430-530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
445-545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
515-615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530-630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
545-645	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HOUR																	
515-615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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NB Hollow Rd approaching Layla Dr



SB Hollow Rd approaching Layla Dr



EB Layla Dr approaching Hollow Rd

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: Schoolhouse Dr
 and: E Green St
 Counted by: ET

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/07/19
 Weather : Clear
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Tuesday
 STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Schoolhouse Dr				TRAFFIC FROM SOUTH on: Schoolhouse Dr				TRAFFIC FROM WEST on: E Green St				TRAFFIC FROM EAST on: E Green St				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	2	0	2	0	4	1	5	6	5	3	13	0	2	1	3	23
15-30	7	2	0	9	5	8	0	13	6	0	17	23	0	0	0	0	45
30-45	1	2	0	3	4	9	0	13	5	7	12	24	0	1	0	1	41
45-00	8	1	1	10	9	24	0	33	3	6	19	28	0	0	2	2	73
07:00-15	16	28	5	49	9	104	1	114	4	3	45	52	0	1	3	4	219
15-30	29	72	28	129	8	115	0	123	9	7	31	47	1	3	11	15	314
30-45	14	22	3	39	12	11	12	35	11	35	11	57	7	20	1	28	159
45-00	8	14	3	25	8	13	11	32	11	28	4	43	6	21	11	38	138
08:00-15	6	3	2	11	15	7	3	25	13	8	4	25	0	12	2	14	75
15-30	6	2	0	8	28	10	0	38	18	6	9	33	1	9	5	15	94
30-45	5	4	0	9	41	30	2	73	32	9	14	55	2	11	2	15	152
45-00	4	13	1	18	18	13	1	32	29	12	13	54	0	12	0	12	116
AM 3 HOUR TOTALS	104	185	43	312	167	348	31	536	148	126	182	454	17	92	38	147	1449
1 HOUR TOTALS																	
06-07	16	7	1	24	18	45	1	64	19	18	51	88	0	3	3	6	182
815-715	32	33	6	71	27	145	1	173	18	16	93	127	0	2	5	7	378
830-730	54	103	34	191	30	252	1	283	21	23	107	151	1	5	16	22	647
845-745	67	123	37	227	38	254	13	305	27	51	108	184	8	24	17	49	765
07-08	67	136	39	242	37	243	24	304	35	73	91	199	14	45	26	85	830
715-815	57	111	36	204	43	148	28	215	44	78	50	172	14	58	25	95	686
730-830	34	41	8	83	63	41	28	130	53	77	28	158	14	62	18	95	468
745-845	25	23	5	53	92	60	16	168	74	51	31	156	9	53	20	82	459
08-09 PEAK HOUR	21	22	3	46	102	60	6	168	92	35	40	167	3	44	9	56	437
07-08	67	136	39	242	37	243	24	304	35	73	91	199	14	45	26	85	830
PM																	
04:00-15	20	26	6	51	23	15	0	38	26	8	11	45	1	16	3	20	154
15-30	14	19	1	34	14	9	0	23	16	15	7	38	0	10	2	12	107
30-45	11	22	2	35	12	8	0	20	11	9	10	30	0	10	2	12	97
45-00	13	13	1	27	20	5	2	27	17	14	4	35	0	8	2	10	99
05:00-15	5	6	2	15	13	4	0	17	20	10	7	37	2	15	2	19	88
15-30	9	6	2	17	13	19	3	35	13	14	15	42	0	10	2	12	106
30-45	18	9	4	29	10	19	1	30	10	9	12	31	3	11	2	16	106
45-00	6	6	1	13	17	16	1	34	8	8	5	21	1	11	1	13	81
08:00-15	5	3	0	8	9	7	1	17	11	7	12	30	0	8	3	9	64
15-30	2	4	0	6	7	14	0	21	7	6	21	36	0	5	1	6	69
30-45	34	25	2	61	4	14	0	18	6	7	15	30	1	9	1	11	120
45-00	7	12	4	23	12	31	1	44	6	7	10	23	0	8	2	10	100
PM 3 HOUR TOTALS	142	153	24	319	154	161	9	324	153	116	129	398	8	119	23	150	1191
1 HOUR TOTALS																	
04-05	58	80	9	147	69	37	2	108	70	46	32	148	1	44	9	54	457
415-515	43	62	6	111	59	26	2	87	64	48	28	140	2	43	8	53	391
430-530	38	49	7	94	58	36	5	99	61	47	36	144	2	43	8	53	390
445-545	43	36	9	88	56	47	6	109	60	47	38	145	5	44	8	57	399
05-06	36	29	9	74	53	58	5	116	51	41	39	131	6	47	7	60	381
515-615	36	24	7	67	49	61	6	116	42	38	44	124	4	38	8	50	357
530-630	29	22	5	56	43	56	3	102	38	32	50	118	4	33	7	44	320
545-645	47	38	3	88	37	51	2	90	34	30	53	117	2	31	6	39	334
06-07 PEAK HOUR	48	44	6	98	32	66	2	100	32	29	58	119	1	28	7	36	353
04-05	58	80	9	147	69	37	2	108	70	46	32	148	1	44	9	54	457

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: Middletown Elementary School
 and: E Green St
 Counted by: ET

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/07/19
 Weather : Sunny
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Tuesday
 STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on: Middletown Elementary				TRAFFIC FROM SOUTH on:				TRAFFIC FROM WEST on:				TRAFFIC FROM EAST on:				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:00-15	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15-30	3	1	1	5	0	0	0	0	0	0	0	0	0	0	0	0	5
30-45	1	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	4
45-00	2	3	2	7	0	0	0	0	0	0	0	0	0	0	0	0	7
08:00-15	1	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
15-30	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
30-45	5	5	2	12	0	0	0	0	0	0	0	0	0	0	0	0	12
45-00	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
AM																	
3 HOUR																	
TOTALS	14	19	12	45	0	0	0	0	0	0	0	0	0	0	0	0	45
1 HOUR																	
TOTALS																	
06-07	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
615-715	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
630-730	3	2	3	8	0	0	0	0	0	0	0	0	0	0	0	0	8
645-745	4	2	6	12	0	0	0	0	0	0	0	0	0	0	0	0	12
07-08	6	4	7	17	0	0	0	0	0	0	0	0	0	0	0	0	17
715-815	7	9	6	22	0	0	0	0	0	0	0	0	0	0	0	0	22
730-830	4	9	7	20	0	0	0	0	0	0	0	0	0	0	0	0	20
745-845	8	14	6	28	0	0	0	0	0	0	0	0	0	0	0	0	28
08-09	8	13	4	25	0	0	0	0	0	0	0	0	0	0	0	0	25
PEAK HOUR																	
745-845	8	14	6	28	0	0	0	0	0	0	0	0	0	0	0	0	28
PM																	
04:00-15	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
15-30	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
30-45	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
45-00	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00-15	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
15-30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM																	
3 HOUR																	
TOTALS	7	8	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15
1 HOUR																	
TOTALS																	
04-05	7	3	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
415-515	5	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
430-530	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
445-545	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
06-06	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
515-615	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
530-630	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
545-645	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
06-07	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HOUR																	
04-05	7	3	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: Schoolhouse Dr
 and: E Green St
 Counted by: ET bikes only

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/07/19
 Weather : Clear
 Entered by SKN

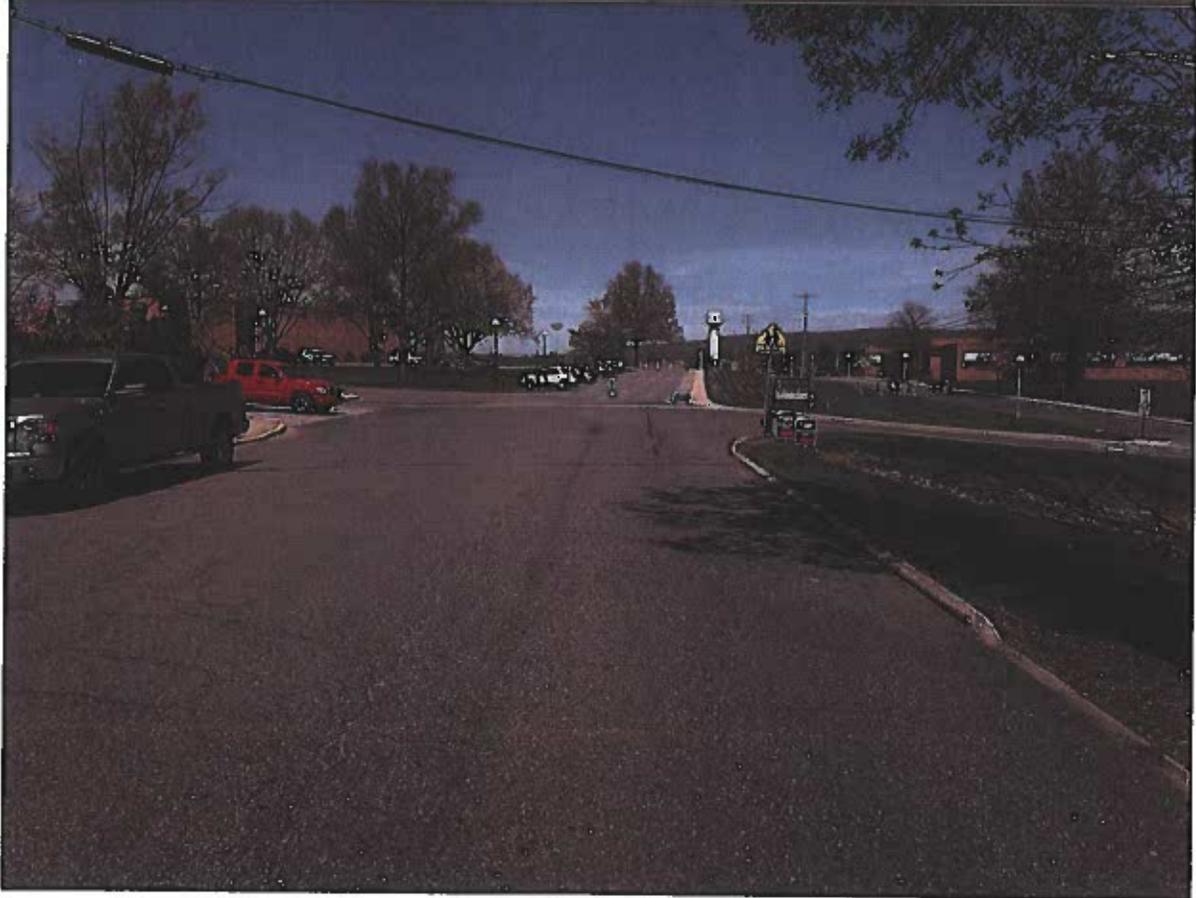
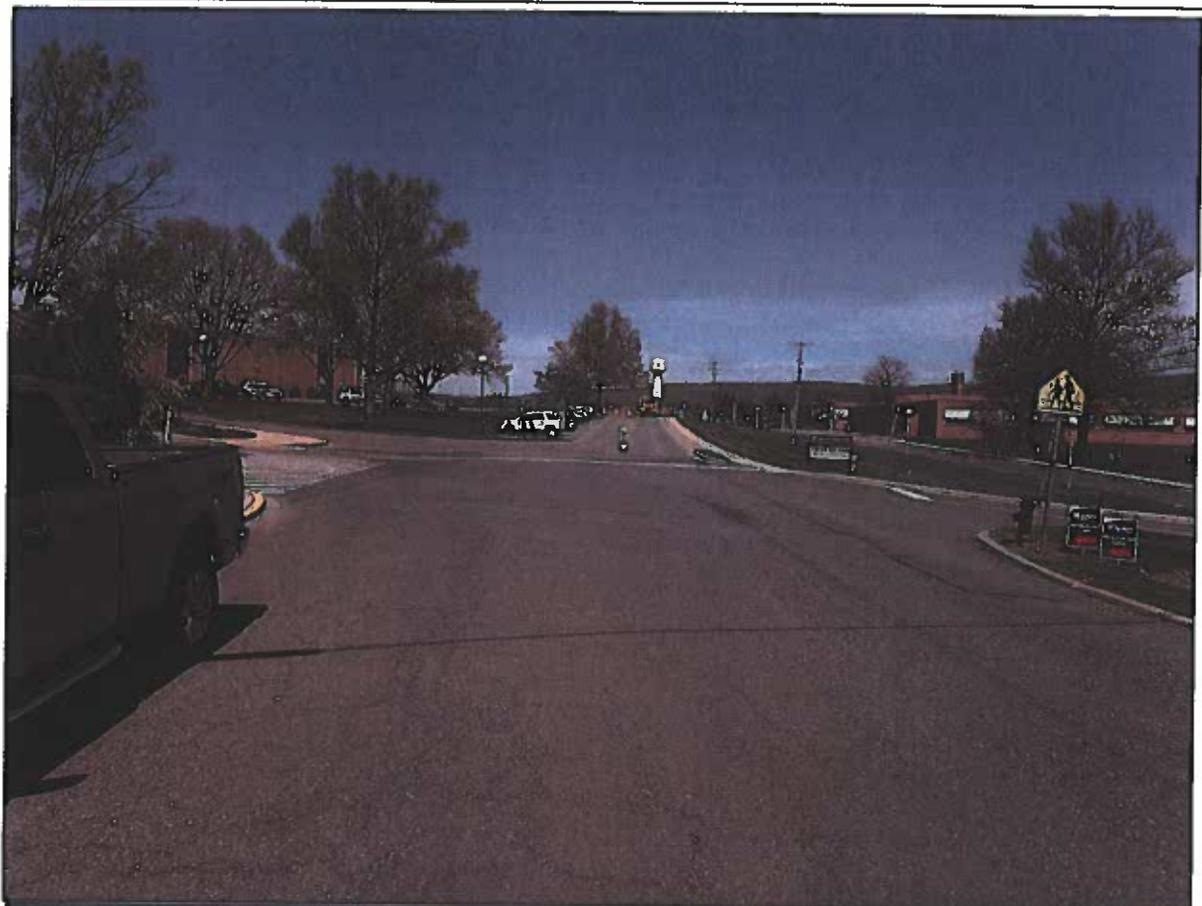
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 Day: Tuesday
 STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on: Schoolhouse Dr				TRAFFIC FROM SOUTH on: Schoolhouse Dr				TRAFFIC FROM WEST on: E Green St				TRAFFIC FROM EAST on: E Green St				TOTAL N+S + E+W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
AM																	
3 HOUR																	
TOTALS	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	
1 HOUR																	
TOTALS																	
08-07	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	
815-715	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	
630-730	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
645-745	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
07-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
715-815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
730-830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
745-845	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HOUR																	
08-07	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	
PM																	
04:00-15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45-00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	
PM																	
3 HOUR																	
TOTALS	0	0	0	0	0	0	1	1	0	1	0	1	0	2	0	2	
1 HOUR																	
TOTALS																	
04-05	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	
415-515	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
430-530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
445-545	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
05-06	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
515-615	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	
530-630	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	
545-645	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
06-07	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	
PEAK HOUR																	
515-615	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	

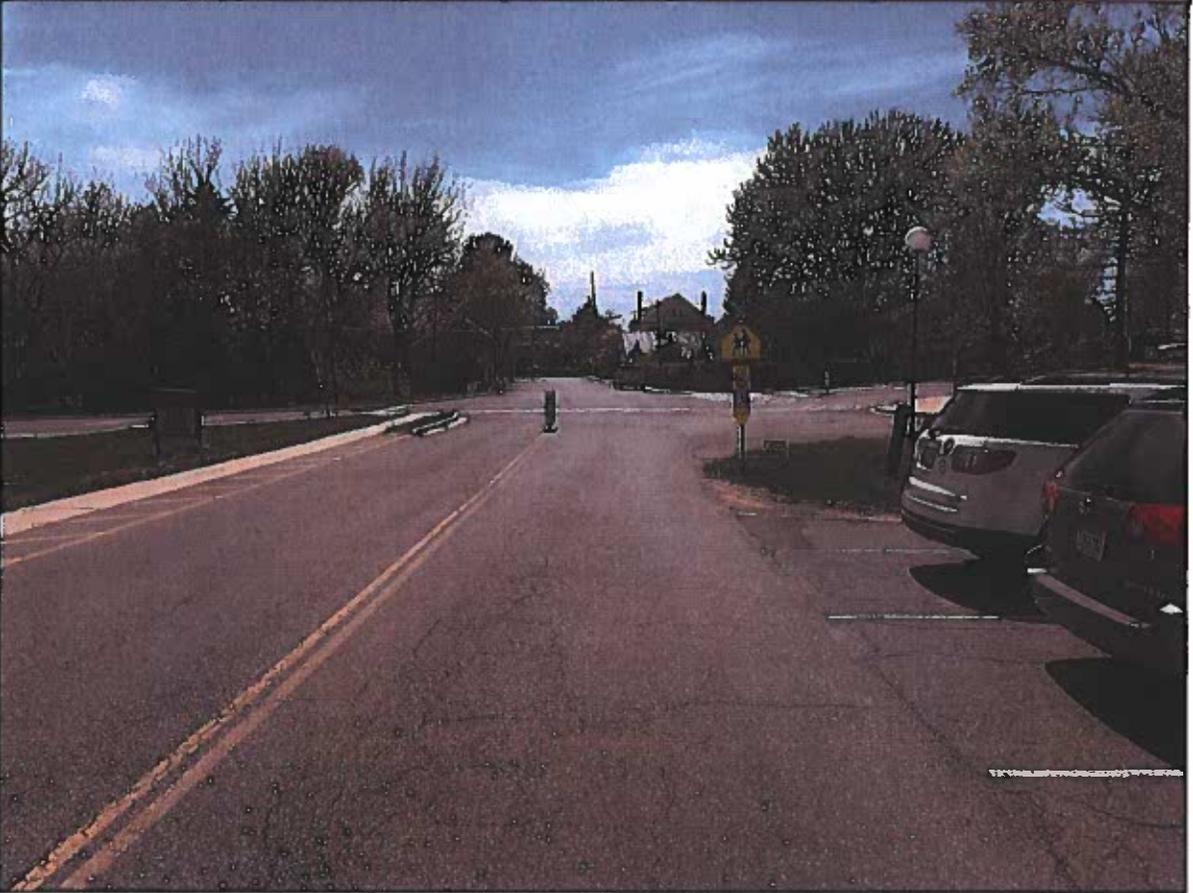
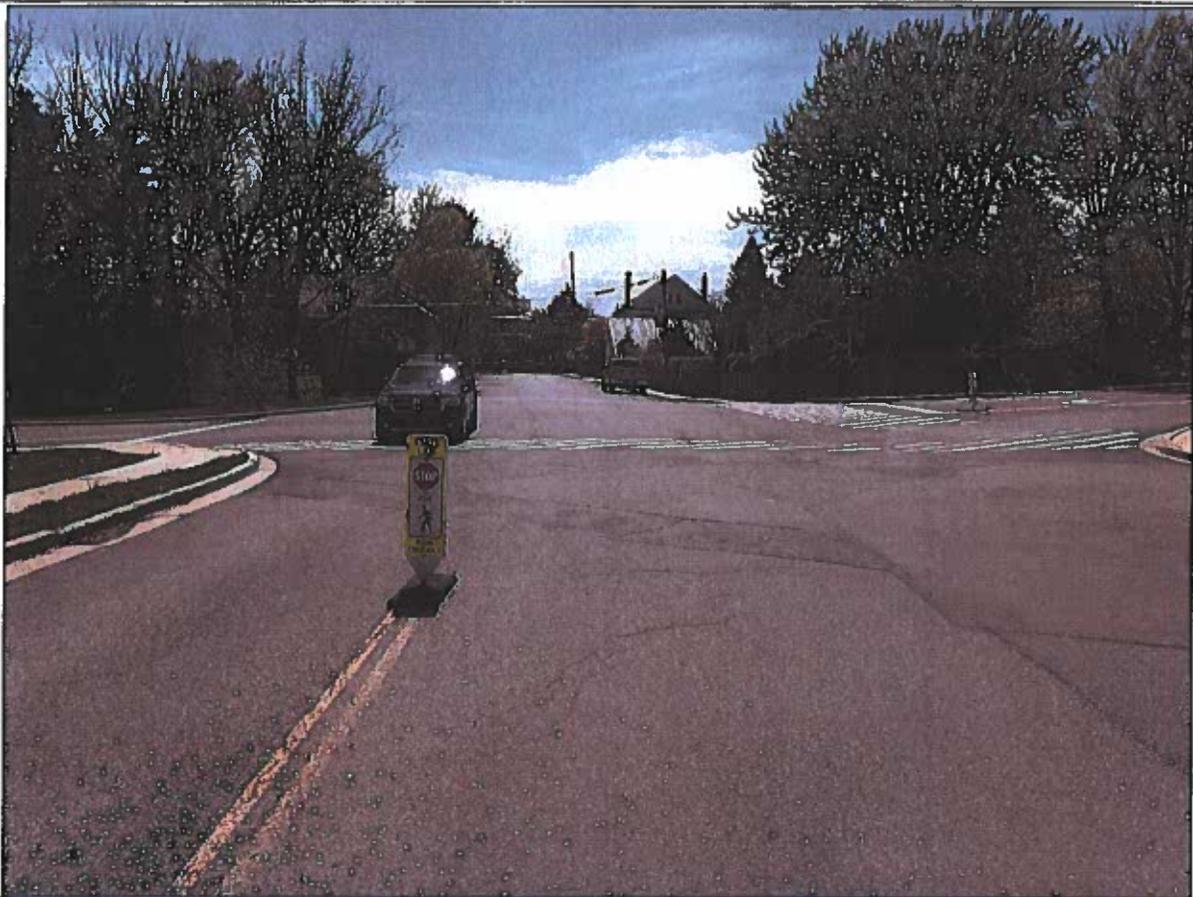
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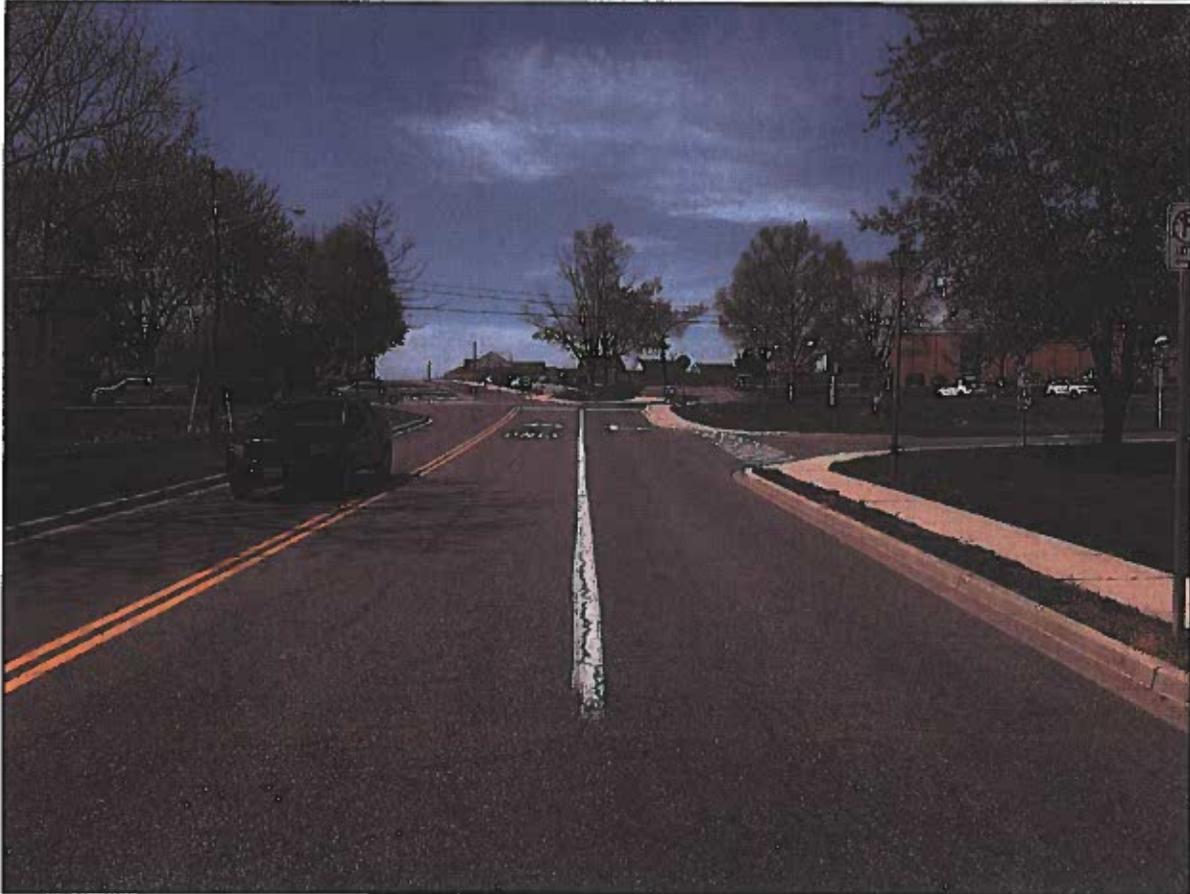
NB Schoolhouse Dr approaching E Green St



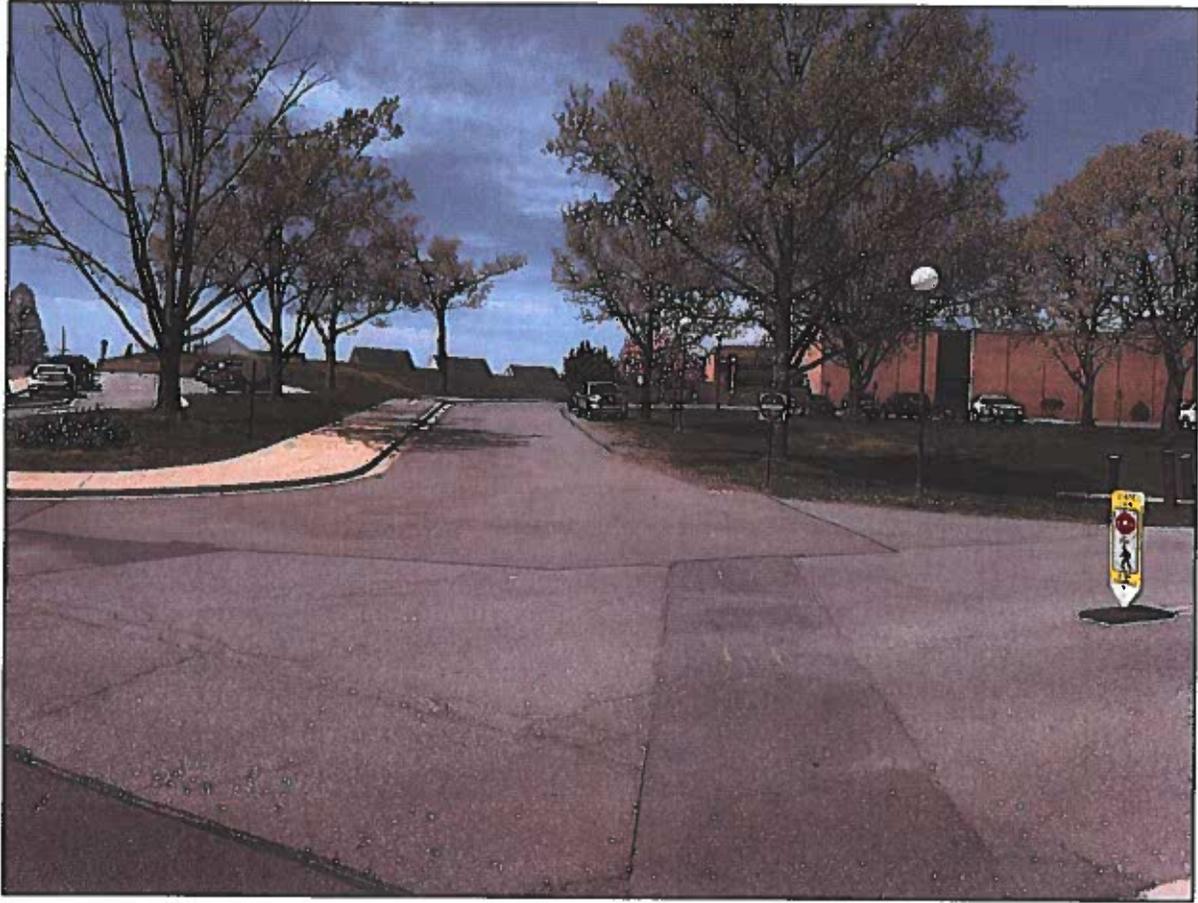
SB Schoolhouse Dr approaching E Green St



EB E Green St approaching Schoolhouse Dr



WB E Green St approaching Schoolhouse Dr



School Driveway at intersection

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: Middletown Park
 and: School Complex
 Counted by: SKN

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/07/19
 Weather : Clear
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Tuesday
 STREET
 TRAFFIC
 STUDIES
 LTD

TIME	TRAFFIC FROM NORTH on:				TRAFFIC FROM SOUTH on:				TRAFFIC FROM WEST on: School Complex				TRAFFIC FROM EAST on: Middletown Park				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	15	15
07:00-15	0	0	0	0	0	0	0	0	0	6	0	6	0	71	0	71	77
15-30	0	0	0	0	0	0	0	0	0	36	0	36	0	118	0	118	154
30-45	0	0	0	0	0	0	0	0	0	2	0	2	0	5	0	5	7
45-00	0	0	0	0	0	0	0	0	0	5	0	5	0	4	0	4	9
08:00-15	0	0	0	0	0	0	0	0	0	1	0	1	0	6	0	6	7
15-30	0	0	0	0	0	0	0	0	0	2	0	2	0	5	0	5	7
30-45	0	0	0	0	0	0	0	0	0	6	0	6	0	14	0	14	20
45-00	0	0	0	0	0	0	0	0	0	7	0	7	0	8	0	8	15
AM																	
3 HOUR										67	0	67	0	249	0	249	318
TOTALS	0	0	0	0	0	0	0	0	0								
1 HOUR																	
TOTALS																	
08-07	0	0	0	0	0	0	0	0	0	2	0	2	0	18	0	18	20
815-715	0	0	0	0	0	0	0	0	0	8	0	8	0	89	0	89	97
830-730	0	0	0	0	0	0	0	0	0	42	0	42	0	207	0	207	249
845-745	0	0	0	0	0	0	0	0	0	44	0	44	0	209	0	209	253
07-08	0	0	0	0	0	0	0	0	0	49	0	49	0	198	0	198	247
715-815	0	0	0	0	0	0	0	0	0	44	0	44	0	133	0	133	177
730-830	0	0	0	0	0	0	0	0	0	10	0	10	0	20	0	20	30
745-845	0	0	0	0	0	0	0	0	0	14	0	14	0	29	0	29	43
08-09	0	0	0	0	0	0	0	0	0	16	0	16	0	33	0	33	49
PEAK HOUR																	
845-745	0	0	0	0	0	0	0	0	0	44	0	44	0	209	0	209	253
PM																	
04:00-15	0	0	0	0	0	0	0	0	0	6	0	6	0	7	0	7	13
15-30	0	0	0	0	0	0	0	0	0	5	0	5	0	8	0	8	13
30-45	0	0	0	0	0	0	0	0	0	8	0	8	0	5	0	5	13
45-00	0	0	0	0	0	0	0	0	0	5	0	5	0	6	0	6	11
05:00-15	0	0	0	0	0	0	0	0	0	8	0	8	0	3	0	3	11
15-30	0	0	0	0	0	0	0	0	0	16	0	16	0	11	0	11	27
30-45	0	0	0	0	0	0	0	0	0	7	0	7	0	8	0	8	15
45-00	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	8
08:00-15	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6
15-30	0	0	0	0	0	0	0	0	0	6	0	6	0	9	0	9	16
30-45	0	0	0	0	0	0	0	0	0	3	0	3	0	9	0	9	12
45-00	0	0	0	0	0	0	0	0	0	9	0	9	0	5	0	5	14
PM																	
3 HOUR										78	0	78	0	78	0	78	156
TOTALS	0	0	0	0	0	0	0	0	0								
1 HOUR																	
TOTALS																	
04-05	0	0	0	0	0	0	0	0	0	24	0	24	0	26	0	26	50
415-515	0	0	0	0	0	0	0	0	0	28	0	28	0	22	0	22	48
430-530	0	0	0	0	0	0	0	0	0	37	0	37	0	25	0	25	62
445-545	0	0	0	0	0	0	0	0	0	36	0	36	0	28	0	28	84
05-06	0	0	0	0	0	0	0	0	0	33	0	33	0	28	0	28	59
515-615	0	0	0	0	0	0	0	0	0	28	0	28	0	26	0	26	54
530-630	0	0	0	0	0	0	0	0	0	18	0	18	0	24	0	24	42
545-645	0	0	0	0	0	0	0	0	0	14	0	14	0	25	0	25	38
06-07	0	0	0	0	0	0	0	0	0	21	0	21	0	26	0	26	47
PEAK HOUR																	
445-545	0	0	0	0	0	0	0	0	0	36	0	36	0	28	0	28	64

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 VEHICLE TURNING MOVEMENT COUNT - SUMMARY
 Intersection of: Middletown Park
 and: School Complex
 Counted by: SKN bikes only

STSLTD STSLTD STSLTD STSLTD STSLTD STSLTD
 Location : Frederick County
 Date : 05/07/19
 Weather : Clear
 Entered by SKN

STSLTD STSLTD STSLTD STSLTD STSLTD
 Day: Tuesday
 STREET TRAFFIC STUDIES LTD

TIME	TRAFFIC FROM NORTH on:				TRAFFIC FROM SOUTH on:				TRAFFIC FROM WEST on: School Complex				TRAFFIC FROM EAST on: Middletown Park				TOTAL N + S + E + W
	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	RIGHT	THRU	LEFT	TOTAL	LEFT	THRU	RIGHT	TOTAL	
AM																	
06:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
AM																	
3 HOUR TOTALS	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4
1 HOUR TOTALS																	
06-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
615-715	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
630-730	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
645-745	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07-08	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
715-815	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
730-830	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
745-845	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08-09	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
PEAK HOUR																	
645-745	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
PM																	
04:00-15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
15-30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45-00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
45-00	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5
PM																	
3 HOUR TOTALS	0	0	0	0	0	0	0	0	0	4	0	4	0	4	0	4	8
1 HOUR TOTALS																	
04-05	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
415-515	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
430-530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
445-545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
515-615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530-630	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
545-645	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
06-07	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6
PEAK HOUR																	
06-07	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6

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STSLTD STSLTD STSLTD STSLTD STSLTD



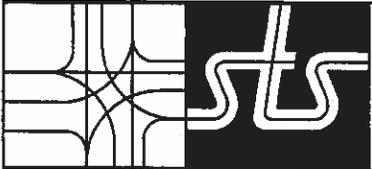
EB School complex entering park



WB park access entering school complex

APPENDIX C

CAPACITY CALCULATIONS - EXISTING CONDITIONS



**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: Thurs 5/9/19
 Conditions/ Design Year: Existing Traffic Volumes
 Computed By: MN Date: _____

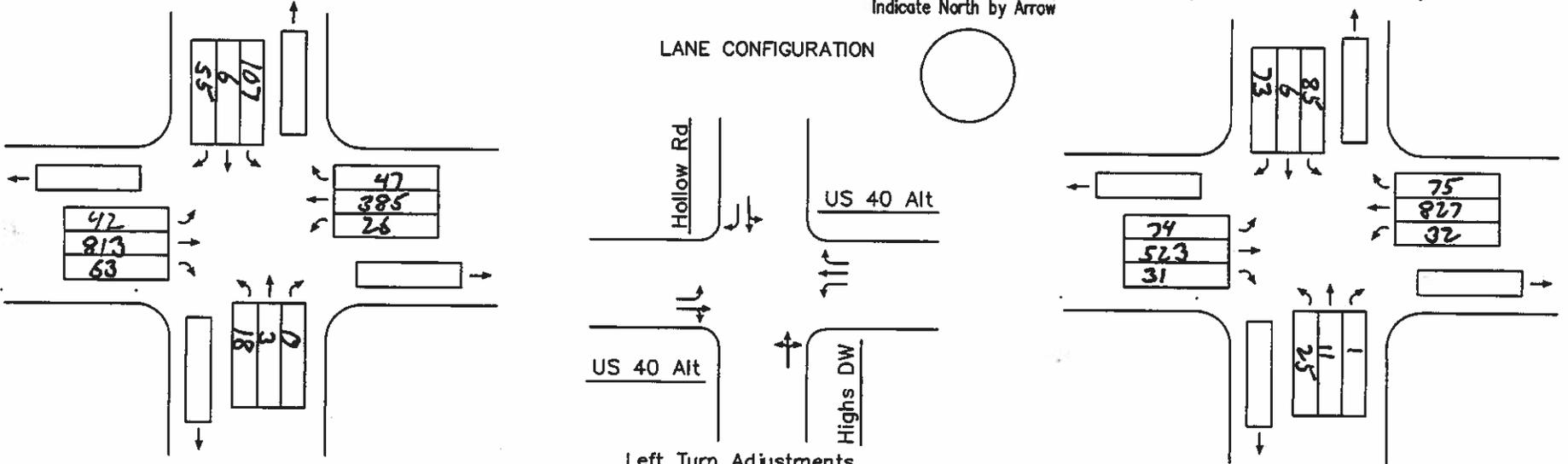
Location: US 40 Alt @
Hollow Rd

Morning Peak Hour 7:00 / 8:00 AM

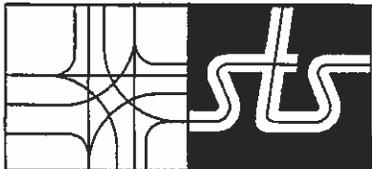
Evening Peak Hour 5:00 / 6:00 PM

Indicate North by Arrow

LANE CONFIGURATION



Phasing <input checked="" type="checkbox"/>				Key			Opposing Through and Right-Turn Volume		Passenger Car Equivalent		No. of Lanes		Lane Use Factor		Service Level		Critical Lane Vol. Tot.	
				1	0 to 199	1.1	1 = 1.00	A = 1000 or Less										
				2	200 to 599	2.0	2 = .55	B = 1000 to 1150										
				3	600 to 799	3.0	3 = .40	C = 1150 to 1300										
				4	800 to 999	4.0	4 = .30	D = 1300 to 1450										
				5	1000+	5.0		E = 1450 to 1600										
								F = Greater than 1600										
Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *		Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *				
	NB	20 ⁺ +3	1.0	23	107	130			NB	28 ⁺ +11+1	1.0	40	85	125	✓			
	SB	118 ⁺ +6	1.0	124	18	142	✓		SB	94+6	1.0	100	25	125				
	EB	813+63	1.0	876	26	902	✓		EB	523+31	1.0	554	32	586				
	WB	385	1.0	385	42	427			WB	827	1.0	827	74	901	✓			
Remarks:				* critical volume	TOTAL	1044	V/C	Remarks:				* critical volume	TOTAL	1026	V/C			
				LEVEL OF SERVICE	B							LEVEL OF SERVICE	B					



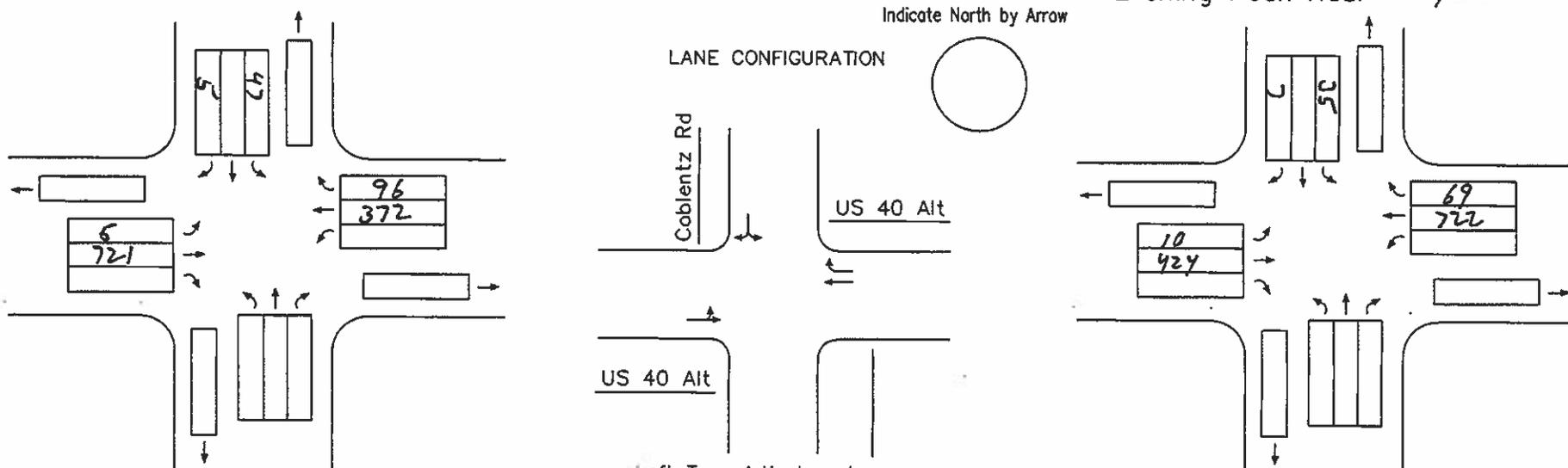
TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE

Count Date: Wed 5/8/19
 Conditions/ Design Year: Existing Traffic Volumes
 Computed By: MN Date: _____

Location: US 40 Alt @
Coblentz Rd

Morning Peak Hour 7:00/8:00 AM

Evening Peak Hour 4:30/5:30 PM



Phasing <input checked="" type="checkbox"/>	Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
	1	0 to 199	1.1	1 =	1.00	A =	1000 or Less
	2	200 to 599	2.0	2 =	.55	B =	1000 to 1150
	3	600 to 799	3.0	3 =	.40	C =	1150 to 1300
	4	800 to 999	4.0	4 =	.30	D =	1300 to 1450
	5	1000+	5.0			E =	1450 to 1600
						F =	Greater than 1600

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
	SB	47+5	1.0	52	-	52	✓		SB	35+7	1.0	42	-	42	✓
	EB	10+721	1.0	731	-	731	✓		EB	30+424	1.0	454	-	454	
	WB	372	1.0	372	5	377			WB	722	1.0	722	10	732	✓

Remarks: * critical volume TOTAL 783 v/c LEVEL OF SERVICE A Remarks: * critical volume TOTAL 774 v/c LEVEL OF SERVICE A



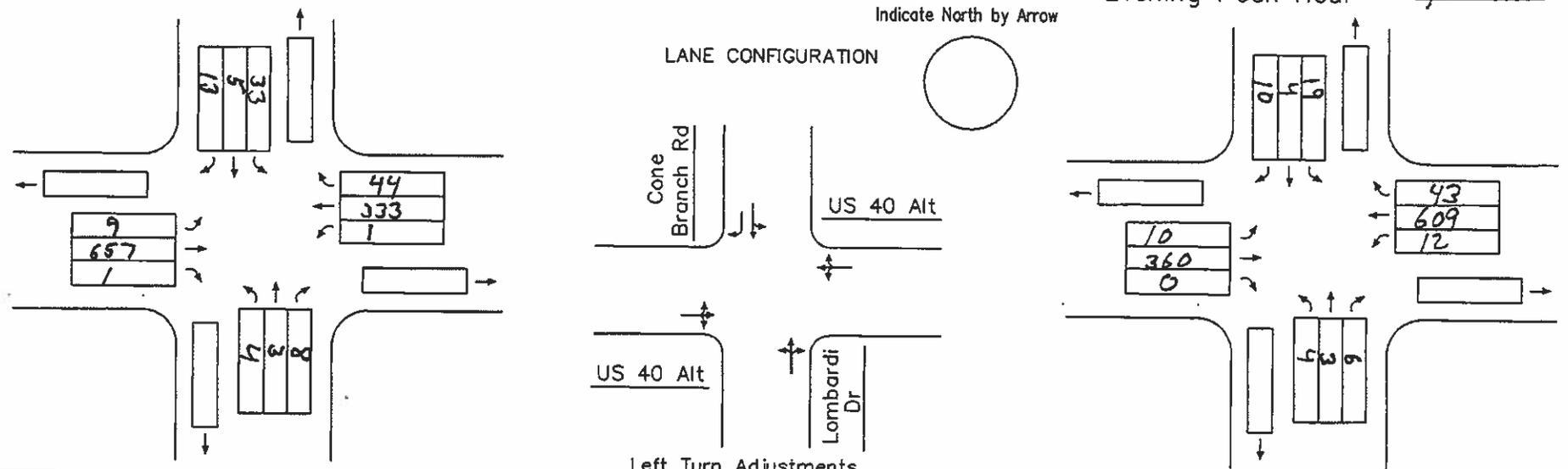
TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE

Count Date: Wed 5/8/19
 Conditions/ Design Year: Existing Traffic Volumes
 Computed By: MN Date: _____

Location: US 40 Alt @
Cone Branch Rd-Lombardi Dr

Morning Peak Hour 7:00/8:00 AM

Evening Peak Hour 4:00/5:00 PM



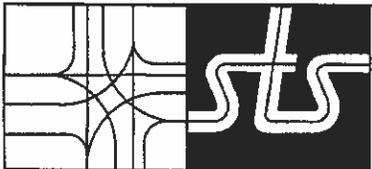
Left Turn Adjustments

Phasing	Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
	1	0 to 199	1.1	1 = 1.00	A = 1000 or Less		
	2	200 to 599	2.0	2 = .55	B = 1000 to 1150		
	3	600 to 799	3.0	3 = .40	C = 1150 to 1300		
	4	800 to 999	4.0	4 = .30	D = 1300 to 1450		
	5	1000+	5.0		E = 1450 to 1600		
					F = Greater than 1600		

Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *
NB	4+3+8	1.0	15	33	48	NB	4+3+6	1.0	13	19	32
SB	33+5	1.0	38	4	42	SB	19+4	1.0	23	4	27
EB	18+657+1	1.0	676	1	677	EB	30+360	1.0	390	12	402
WB	3+33+44	1.0	380	9	389	WB	29+609+43	1.0	676	10	686

Remarks: * critical volume TOTAL 725 V/C _____ LEVEL OF SERVICE A

Remarks: * critical volume TOTAL 718 V/C _____ LEVEL OF SERVICE A



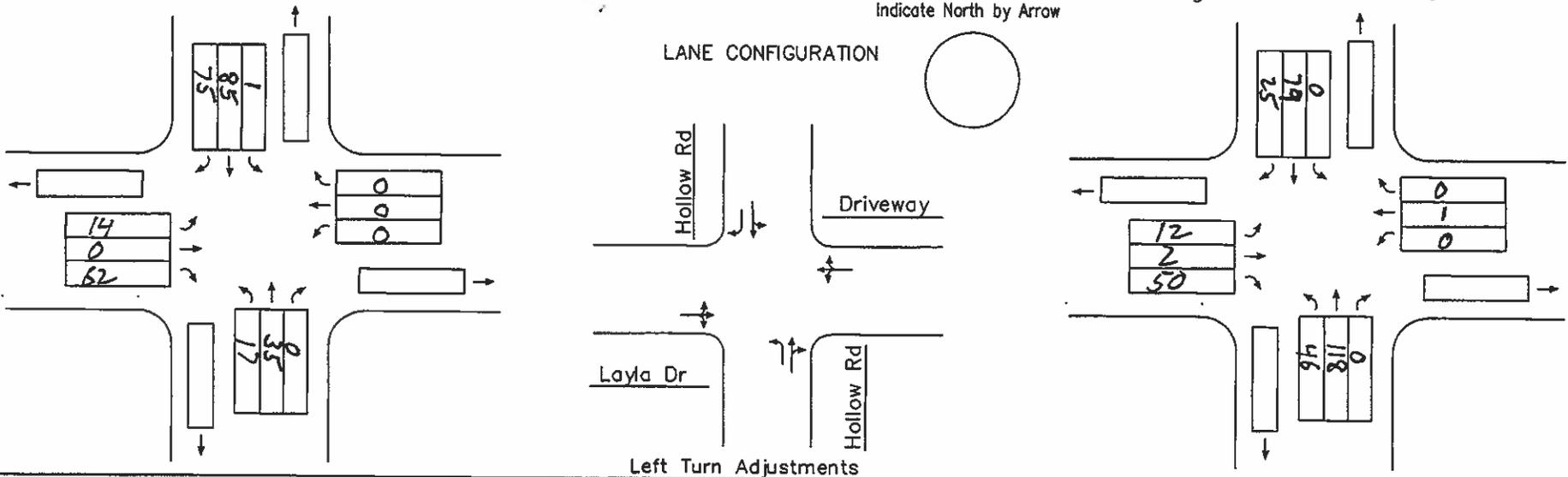
**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: Thurs 5/9/19
 Conditions/ Design Year: Existing Traffic Volumes
 Computed By: MN Date: _____

Location: Hollow Rd @ Layla Dr

Morning Peak Hour 7:00 / 8:00 AM

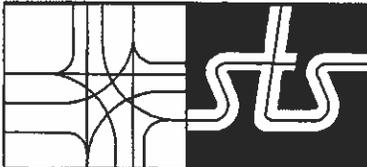
Evening Peak Hour 4:15 / 5:15 PM



Phasing	Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
<input checked="" type="checkbox"/>	1	0 to 199	1.1	1 = 1.00	A = 1000 or Less		
<input type="checkbox"/>	2	200 to 599	2.0	2 = .55	B = 1000 to 1150		
<input type="checkbox"/>	3	600 to 799	3.0	3 = .40	C = 1150 to 1300		
<input type="checkbox"/>	4	800 to 999	4.0	4 = .30	D = 1300 to 1450		
<input type="checkbox"/>	5	1000+	5.0		E = 1450 to 1600		
					F = Greater than 1600		

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *
	NB	35	1.0	35	1	36		NB	118	1.0	118	0	118
	SB	1+85	1.0	86	17	103	✓	SB	79	1.0	79	46	125
	EB	14+62	1.0	76	0	76	✓	EB	12+2+50	1.0	64	0	64
	WB	0	1.0	0	14	14		WB	1	1.0	1	12	13

Remarks:	* critical volume TOTAL <u>179</u>	V/C	Remarks:	* critical volume TOTAL <u>189</u>	V/C
	LEVEL OF SERVICE <u>A</u>			LEVEL OF SERVICE <u>A</u>	



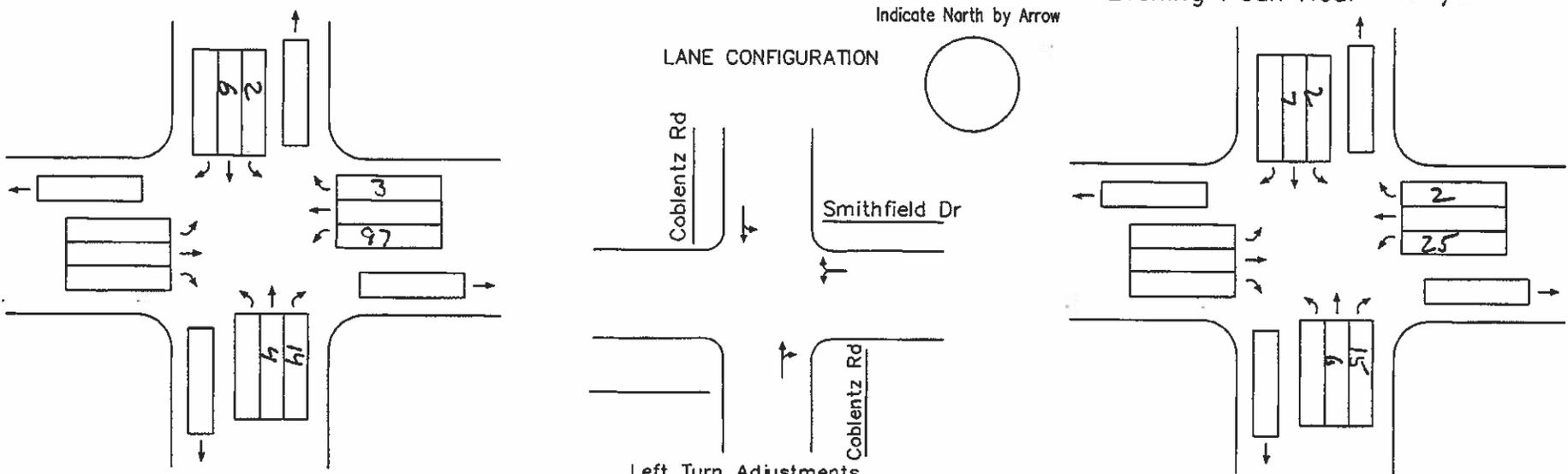
TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE

Count Date: Tu 5/7/19
 Conditions/ Design Year: Existing Traffic Volumes
 Computed By: MN Date: _____

Location: Coblentz Rd @ Smithfield Dr

Morning Peak Hour 7:00/8:00 AM

Evening Peak Hour 4:30/5:30 PM



Phasing <input checked="" type="checkbox"/>	Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
	1	0 to 199	1.1	1 =	1.00	A =	1000 or Less
	2	200 to 599	2.0	2 =	.55	B =	1000 to 1150
	3	600 to 799	3.0	3 =	.40	C =	1150 to 1300
	4	800 to 999	4.0	4 =	.30	D =	1300 to 1450
	5	1000+	5.0			E =	1450 to 1600
						F =	Greater than 1600

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *
	NB	4+14	1.0	18	2	20		NB	6+15	1.0	21	2	23
	SB	2+6	1.0	8	-	8		SB	2+7	1.0	9	-	9
	WB	97+3	1.0	100	-	100		WB	25+2	1.0	27	-	27

Remarks: * critical volume TOTAL 120 V/C Remarks: * critical volume TOTAL 50 V/C
 LEVEL OF SERVICE A LEVEL OF SERVICE A



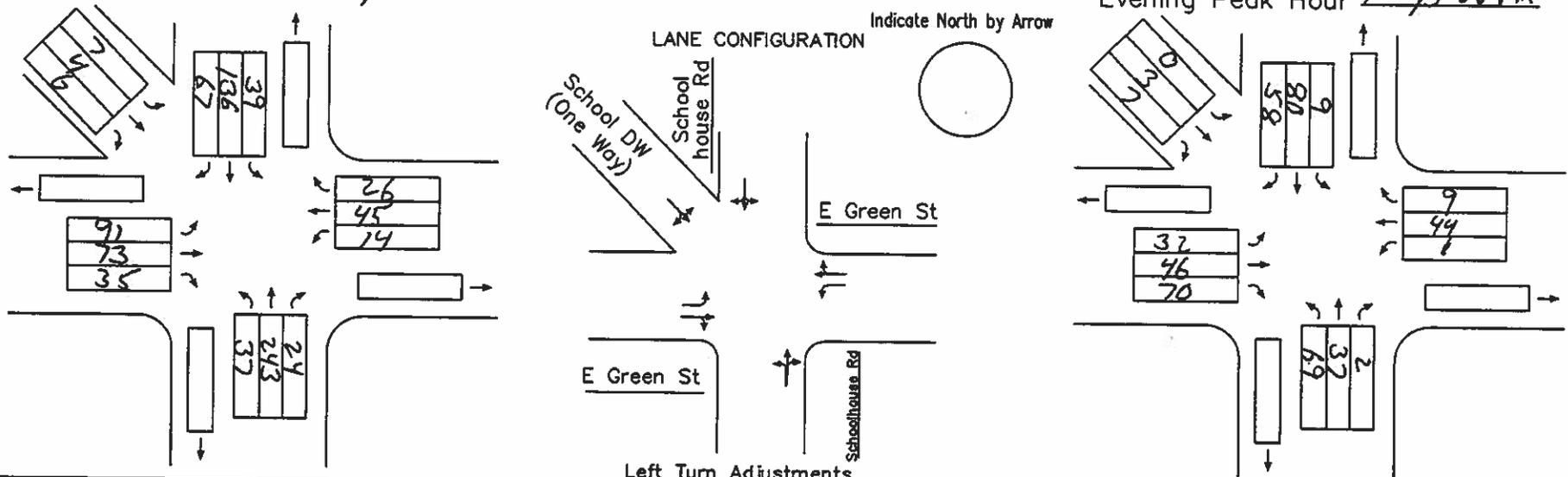
**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: Tu 5/7/19
 Conditions/ Design Year: Existing Traffic Volumes
 Computed By: MN Date: _____

Location: E Green St @
Schoolhouse Rd

Morning Peak Hour 7:00/8:00 AM

Evening Peak Hour 4:00/5:00 PM



Left Turn Adjustments

Phasing <input checked="" type="checkbox"/>		Key		Opposing Through and Right-Turn Volume		Passenger Car Equivalent		No. of Lanes		Lane Use Factor		Service Level		Critical Lane Vol. Tot.	
		1	0 to 199		1.1	1	= 1.00	A	= 1000 or Less						
		2	200 to 599		2.0	2	= .55	B	= 1000 to 1150						
		3	600 to 799		3.0	3	= .40	C	= 1150 to 1300						
		4	800 to 999		4.0	4	= .30	D	= 1300 to 1450						
		5	1000+		5.0			E	= 1450 to 1600						
								F	= Greater than 1600						
Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
	NB	41+243+24	1.0	308	39	347	✓		NB	76+37+2	1.0	115	9	124	
	SB	78+136+67	1.0	281	37	318			SB	10+80+58	1.0	148	69	217	✓
	EB	73+35	1.0	108	14	122			EB	46+70	1.0	116	1	117	✓
	WB	45+76	1.0	121	91	162	✓		WB	44+9	1.0	53	32	85	
	SE	7+4+6	1.0	17	-	17	✓		SE	317	1.0	10	-	10	✓
Remarks:		* critical volume		TOTAL	526	V/C	Remarks:	* critical volume		TOTAL	394	V/C			
		LEVEL OF SERVICE		A				LEVEL OF SERVICE		A					

APPENDIX D

CAPACITY CALCULATIONS - TOTAL CONDITIONS



**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: NA
 Conditions/Design Year: Total Traffic Volumes
 Computed By: MN Date: _____

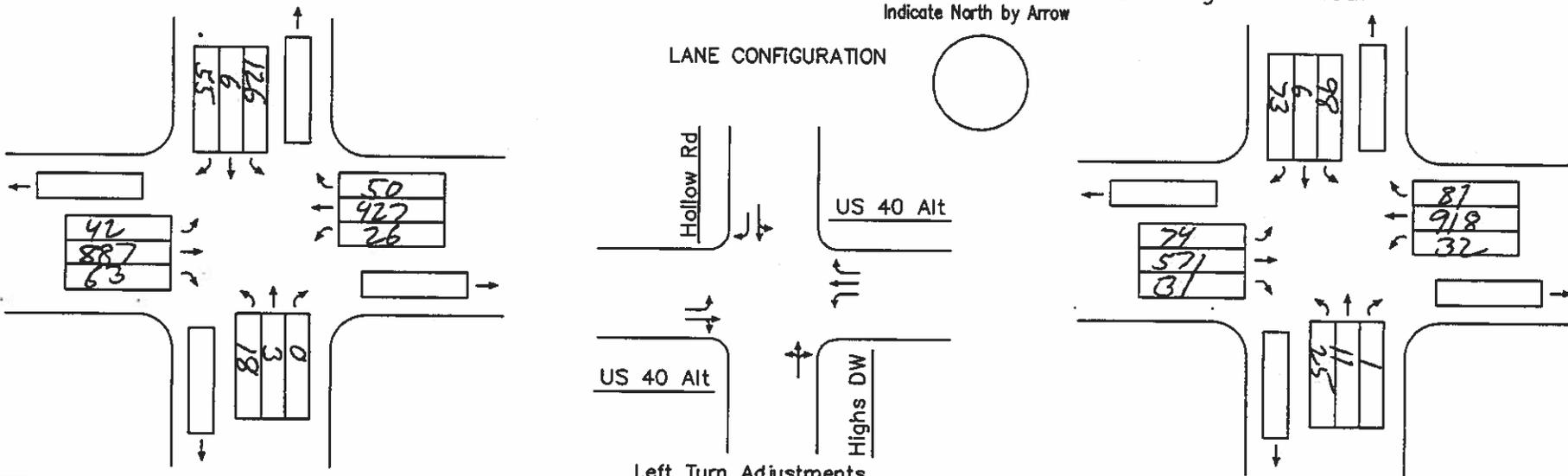
Location: US 40 Alt @
Hollow Rd

Morning Peak Hour _____

Evening Peak Hour _____

Indicate North by Arrow

LANE CONFIGURATION



Left Turn Adjustments

Phasing

Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
1	0 to 199	1.1	1 =	1.00	A =	1000 or Less
2	200 to 599	2.0	2 =	.55	B =	1000 to 1150
3	600 to 799	3.0	3 =	.40	C =	1150 to 1300
4	800 to 999	4.0	4 =	.30	D =	1300 to 1450
5	1000+	5.0			E =	1450 to 1600
					F =	Greater than 1600

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *
	NB	28*+3	1.0	23	126	149		NB	28*+11+1	1.0	40	98	138
	SB	39*+6	1.0	145	18	163	✓	SB	108*+6	1.0	114	25	139
	EB	887+63	1.0	950	26	976	✓	EB	571+31	1.0	602	32	634
	WB	427	1.0	427	42	469		WB	918	1.0	918	74	992

Remarks:

* critical volume TOTAL 1139 V/C
 LEVEL OF SERVICE B

Remarks:

* critical volume TOTAL 1131 V/C
 LEVEL OF SERVICE B



**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: NA
 Conditions/Design Year: Total Traffic Volumes
 Computed By: MN Date: _____

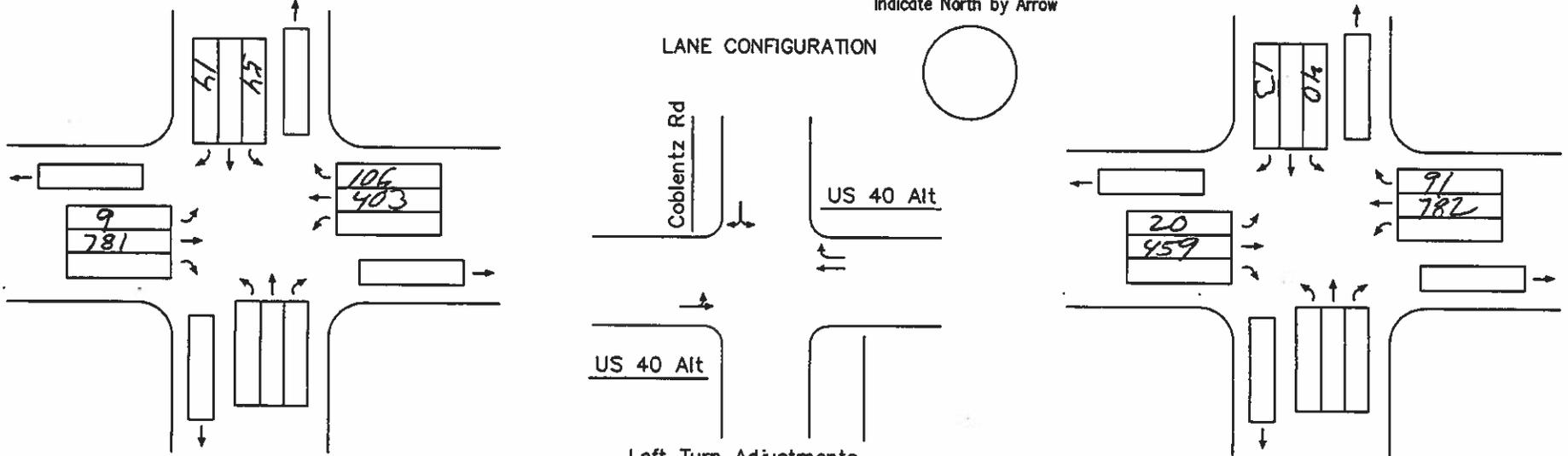
Location: US 40 Alt @
Coblentz Rd

Morning Peak Hour _____

Evening Peak Hour _____

Indicate North by Arrow

LANE CONFIGURATION

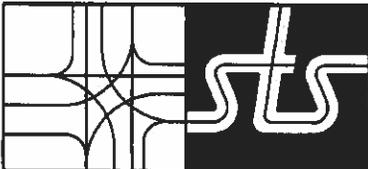


Phasing <input checked="" type="checkbox"/>				Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
				1	0 to 199	1.1	1 = 1.00	A = 1000 or Less		
				2	200 to 599	2.0	2 = .55	B = 1000 to 1150		
				3	600 to 799	3.0	3 = .40	C = 1150 to 1300		
				4	800 to 999	4.0	4 = .30	D = 1300 to 1450		
				5	1000+	5.0		E = 1450 to 1600		
								F = Greater than 1600		

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
	SB	57+14	1.0	68	-	68	✓		SB	40+13	1.0	53	-	53	✓
	EB	106+781	1.0	799	-	799	✓		EB	91+782	1.0	873	-	873	
	WB	403	1.0	403	9	412			WB	459	1.0	459	20	479	✓

Remarks: * critical volume TOTAL 867 V/C _____ LEVEL OF SERVICE _____

Remarks: * critical volume TOTAL 855 V/C _____ LEVEL OF SERVICE A



**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: NA
 Conditions/Design Year: Total Traffic Volumes
 Computed By: MN Date: _____

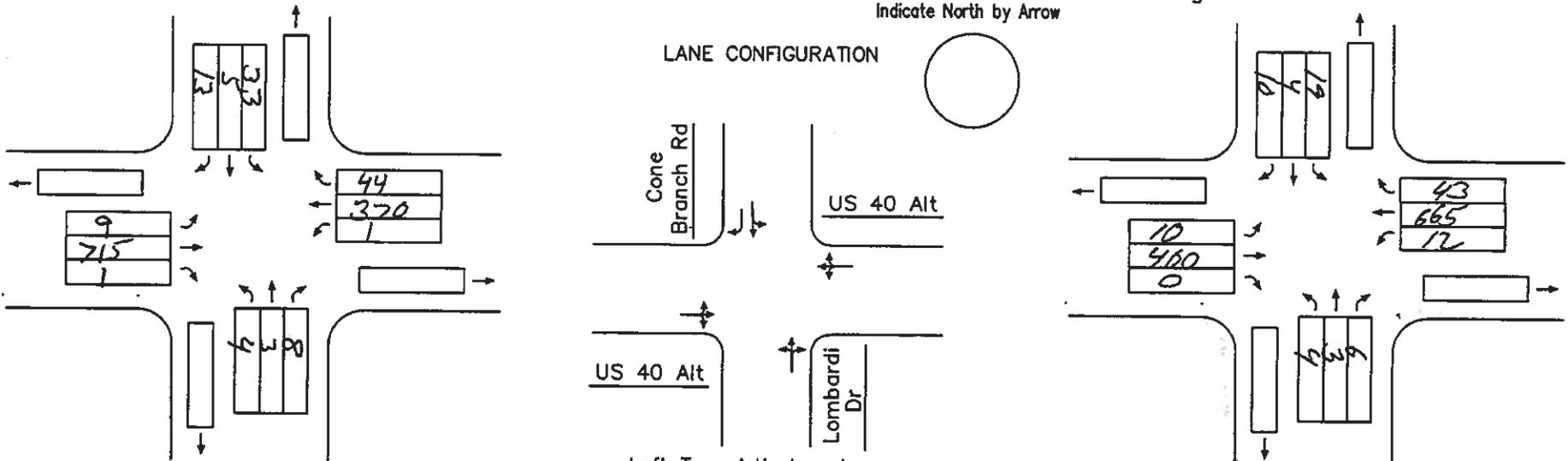
Location: US 40 Alt @
Cone Branch Rd-Lombardi Dr

Morning Peak Hour _____

Evening Peak Hour _____

Indicate North by Arrow

LANE CONFIGURATION

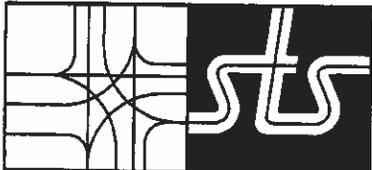


Left Turn Adjustments

Phasing <input checked="" type="checkbox"/>				Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
				1	0 to 199	1.1	1 = 1.00	A = 1000 or Less		
				2	200 to 599	2.0	2 = .55	B = 1000 to 1150		
				3	600 to 799	3.0	3 = .40	C = 1150 to 1300		
				4	800 to 999	4.0	4 = .30	D = 1300 to 1450		
				5	1000+	5.0		E = 1450 to 1600		
								F = Greater than 1600		

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
	NB	4+3+8	1.0	15	33	48	✓		NB	4+3+6	1.0	13	19	32	✓
	SB	33+5	1.0	38	4	42			SB	19+4	1.0	23	4	27	
	EB	18+715+1	1.0	734	1	735	✓		EB	30+400	1.0	430	12	442	
	WB	3+370+44	1.0	417	9	426			WB	24+665+43	1.0	732	10	742	✓

Remarks:	* critical volume TOTAL <u>783</u> V/C	Remarks:	* critical volume TOTAL <u>774</u> V/C
	LEVEL OF SERVICE <u>A</u>		LEVEL OF SERVICE <u>A</u>



**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: NA
 Conditions/ Design Year: Total Traffic Volumes
 Computed By: MN Date: _____

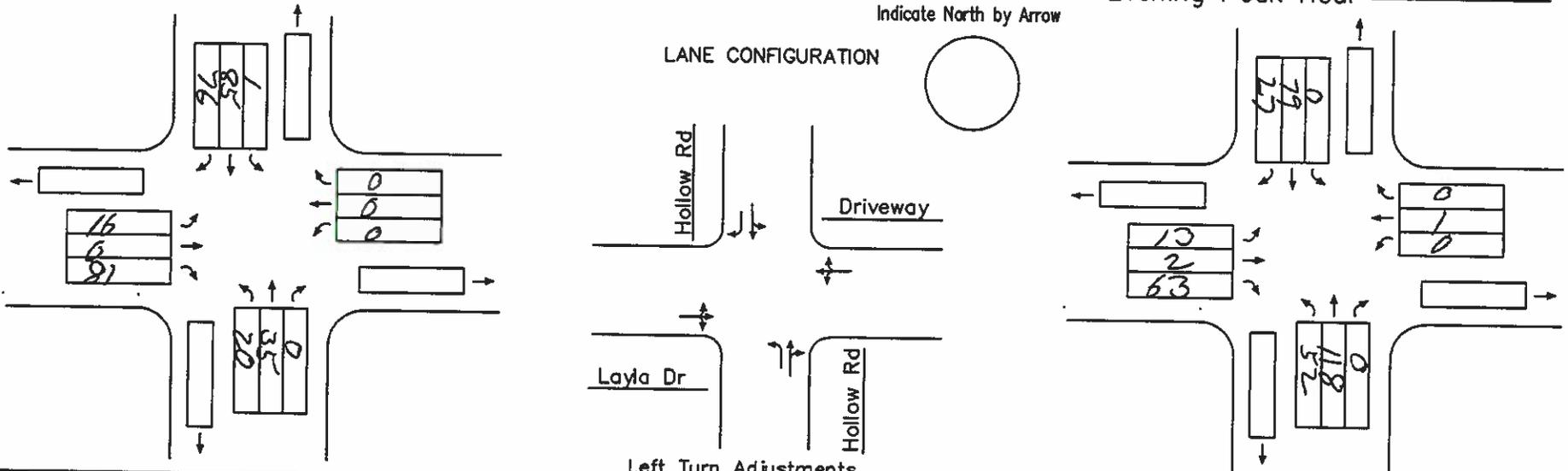
Location: Hollow Rd @ Layla Dr

Morning Peak Hour _____

Evening Peak Hour _____

Indicate North by Arrow

LANE CONFIGURATION

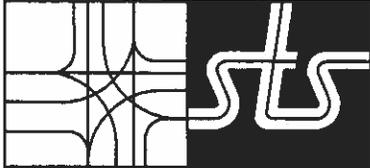


Left Turn Adjustments

Phasing <input checked="" type="checkbox"/>				Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	200 to 599	2.0	2 = .55	B = 1000 to 1150		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	600 to 799	3.0	3 = .40	C = 1150 to 1300		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	800 to 999	4.0	4 = .30	D = 1300 to 1450		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	1000+	5.0		E = 1450 to 1600		
								F = Greater than 1600		

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume *
	NB	35	1.0	35	1	36		NB	118	1.0	118	0	118
	SB	1+85	1.0	86	20	106	✓	SB	79	1.0	79	52	131
	EB	16+81	1.0	97	0	97	✓	EB	13+2+63	1.0	78	0	78
	WB	0	1.0	0	16	16		WB	1	1.0	1	13	14

Remarks: _____ * critical volume TOTAL 203 V/C _____ Remarks: _____ * critical volume TOTAL 209 V/C _____
 LEVEL OF SERVICE _____ LEVEL OF SERVICE _____



**TURNING MOVEMENT SUMMARY
AND
LEVEL OF SERVICE**

Count Date: NA
 Conditions/ Design Year: Total Traffic Volumes
 Computed By: MN Date: _____

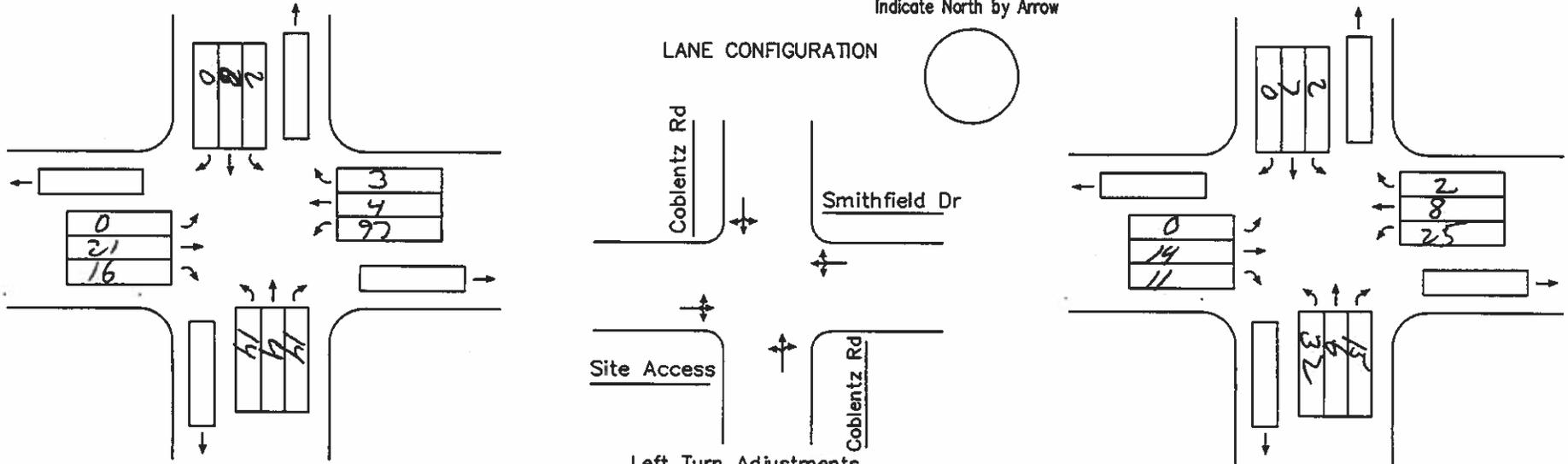
Location: Coblentz Rd @
Smithfield Dr

Morning Peak Hour _____

Evening Peak Hour _____

Indicate North by Arrow

LANE CONFIGURATION



Left Turn Adjustments

Phasing <input checked="" type="checkbox"/>				Key	Opposing Through and Right-Turn Volume	Passenger Car Equivalent	No. of Lanes	Lane Use Factor	Service Level	Critical Lane Vol. Tot.
				1	0 to 199	1.1	1 = 1.00	A = 1000 or Less		
				2	200 to 599	2.0	2 = .55	B = 1000 to 1150		
				3	600 to 799	3.0	3 = .40	C = 1150 to 1300		
				4	800 to 999	4.0	4 = .30	D = 1300 to 1450		
				5	1000+	5.0		E = 1450 to 1600		
								F = Greater than 1600		

Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*	Ø	Movement	Volume(1)	Lane Use Factor(2)	Lane Volume (1)x(2)	Opposing Lefts	Critical Lane Volume	*
	NB	15+4+14	1.0	33	2	35	✓		NB	35+6+15	1.0	56	2	58	✓
	SB	2+6	1.0	8	14	22			SB	2+7	1.0	9	32	41	
	EB	21+16	1.0	37	97	134	✓		EB	14+11	1.0	25	25	50	✓
	WB	97+4+3	1.0	104	0	104			WB	25+8+2	1.0	35	0	35	

Remarks:	* critical volume	TOTAL	169	V/C	Remarks:	* critical volume	TOTAL	108	V/C
	LEVEL OF SERVICE		A			LEVEL OF SERVICE		A	

To: John Miller, Burgess

From: Mark Hinkle, Zoning Administrator

Date: August 26, 2019

Subject: Accessory structures and proposed changes

I have compiled some information regarding “accessory structures” from other municipalities like Middletown, for comparison. Also, included in this memo is a proposed change to the current Code

Items of note:

- Most allow as a minimum, the structure to occupy 30% of rear yard.
- Most allow accessory structures as close as 6 feet to the property line.
- More than half limited the height to between 15-20 feet.

Let me know if you have questions or need further information as the Town Board deliberates this issue.

Middletown:

CURRENT: Allowable Projections of Accessory Buildings into Yards. One-story accessory buildings with a maximum height of twenty-five (25) feet may project into yards provided that: (1) the building does not occupy more than thirty (30) percent of the rear yard; (2) when more than ten (10) feet from the building, it may project into the side or rear yards providing it projects no closer than six feet to the side or rear lot lines; (3) garage accessory buildings entered from alley or street in the case of double frontage lots are not closer than ten (10) feet to the street or alley line; (4) one-story accessory structures on townhouse lots may be located up to two feet of a side property line and six feet of a rear property line provided the accessory structure is no more than eighty (80) square feet in size; (5) any accessory structure greater than twenty (20) feet in height must provide an additional one foot of setback for each one foot of additional height; (6) all accessory structures defined as sheds must be located to the rear of the principal structure.

PROPOSED: Allowable Projections of Accessory Buildings into Yards. The following regulations apply to any accessory building, use or structure within the Town, irrespective of zoning district:

Location. All accessory buildings and structures shall be located behind the front building line of the principal building.

Easements. No accessory building or structure, except for public utility panels or boxes, shall be erected in any easement areas. All accessory buildings or structures shall be a minimum of one foot off easements.

Height and size. One-story or 10 feet in height, or a maximum of 15 feet with roof. Accessory buildings or structures may project into yards provided that: (1) An accessory structure shall be limited in size, when located on a residential zoned property, to the following. (a) The total square footage of all floors of the accessory structure shall not exceed the above grade finished square foot size of primary dwelling. (b) The footprint of an accessory structure may not exceed the greater of One-half of the footprint of the principal dwelling; or Six hundred square feet, except in the follow situation, One (1) accessory structure may exceed the footprint limits, provided that the footprint of that accessory structure does not exceed 2000 square feet, and provided that the lot size equals or exceeds 20,000 square feet. The square footage allowed for business purposes in an accessory structure shall be 600 square feet. (2) When more than ten (10) feet from the building, it may project into the side or rear yards providing it projects no closer than six feet to the side or rear lot lines; (3) garage accessory buildings entered from alley or street in the case of double frontage lots are not closer than ten (10) feet to the street or alley line; (4) one-story or 10 feet in height, or a maximum of 15 feet with roof accessory structures on townhouse lots may be located up to two feet of a side property line and six feet of a rear property line provided the accessory structure is no more than eighty (80) square feet in size.

It is the homeowner's responsibility to have the accessory structure approved by his or her homeowners' association where applicable. A Zoning Certificate from the Town does not negate a homeowners' association's covenants and/or restrictions.

Myersville:

§ 165-8. Accessory buildings. One-story accessory structures are permitted in rear yards and shall be distant at least 10 feet from alley lines and at least six feet from any lot lines of adjoining lots. [Amended 10-11-2005]

Accessory buildings may be erected as a part of the principal buildings or, if at least six feet therefrom, may be connected thereto by a breezeway or similar structure, provided that all yard requirements for a principal building are met.

Taneytown:

§ 205-24. Accessory buildings or structures. [Amended 10-11-1982 by Ord. No. 9-82] An accessory structure shall not be erected within 10 feet of a street line or five feet of any other property line or within a front yard of any property and shall not exceed 15 feet in height or occupy more than 30% of a required rear yard. The setback requirements of this section shall not apply to attached dwelling units as defined in this chapter. No more than two accessory buildings or structures shall be allowed on any lot on which there is located an attached dwelling as defined in this chapter.

Mt. Airy:

§ 112-34. Accessory structures. Permit required. Accessory structures over 100 square feet require a building permit. A. Location. Accessory structures are not permitted in front yard areas. Accessory structures 100 square feet or less shall be set back three feet from side and rear lot lines. Accessory structures over 100 square feet shall be set back a minimum of six feet from side and rear lot lines. B. Maximum lot coverage. The total coverage of any structure on one lot shall not exceed 30% of the total rear yard area. C. Height general rule. Accessory structures shall not exceed one story or 10 feet in height. For structures covered by a roof, the highest point of the roof shall not exceed 15 feet in height. [Amended 3-3-2003 by Ord. No. 2003-6] Garages may have up to two stories but shall not exceed the elevation of the principal structure. Garages exceeding one story must meet all setbacks and other requirements of this chapter that apply to the principal structure. (1) Any use of a garage or accessory structure as a residence shall be considered an accessory apartment and as such subject to the special exception process and standards provided under § 112-62F(22) of this chapter, as well as any other applicable rules, requirements and regulations for accessory apartments. (2) It is the homeowner's responsibility to have any accessory structure approved by his or her homeowners' association where applicable. A permit from the Town does not negate a homeowners' association covenants and/or restrictions. (3) D. Permitted accessory uses and structures: Detached garage (attached garages are considered part of the principal use and structure.) (1) (2) Swimming pool. (3) Garden or tool shed. (4) Freestanding gazebo. (5) Satellite dish. (6) Hot tub or sauna. E. :1 Homeowners' association. It is the homeowner's responsibility to have the accessory structure approved by his

or her homeowners' association where applicable. A permit from the Town does not negate a homeowners' association's covenants and/or restrictions.

New Windsor:

§ 215-88. Exceptions and yard requirements. Allowable projections of structures into yards and other exceptions to yard requirements. Except as otherwise provided herein, architectural features of buildings, such as window sills, cornices, roof overhangs and unenclosed porches, open fire escapes, fireproof outside stairways, chimneys and flues may project into the required yard not more than six feet. Ground floor terraces, patios or attached raised or elevated decks may extend into the rear yard, not, however, to within six feet of either side lot line. A. Side yards not required for second story residential uses in nonresidential structures. Side yards shall not be required for residential dwellings erected above commercial structures. B. Allowable projections of business structures into yards. Signs, awnings, canopies and marquees as attached to and part of a building may project into the front yard in the commercial districts only. C. Allowable projections of accessory buildings into yards. Accessory buildings may project into yards, provided that the building does not occupy more than 30% of the rear yard; when more than 10 feet from the building and 60 feet from the front yard, it may project into the side or rear yards, provided that it projects no closer than six feet to the side or rear lot lines; and garage accessory buildings entered from an alley or street, in case of double frontage lots, are not closer than 10 feet to the street or alley line. D. Allowance projections of fences into yards. Fences may be constructed in or project into yards, provided that no fence or planting more than three feet high shall be located within 30 feet of a street intersection, no fence more than four feet high may be located closer to the front of the lot than the principal building and no fence more than six feet high shall be allowed on any other part of the lot.

Antrim PA:

§ 150-65. Accessory building regulations. An accessory building not attached to the principal structure may be located in any required side or rear yard, provided that: (1) Such building shall not exceed 20 feet in height. Such building shall be set back five feet from any lot line, if accessory to a residential use. (2) All such buildings in the aggregate shall not occupy more than 30% of the area of the required rear or side yard where located.

Manchester:

The following regulations apply to any accessory building, use or structure within the Town, irrespective of zoning district: Location. All accessory buildings and structures shall be located behind the front building line of the principal building. No detached accessory building or structure shall be located closer than six feet to any principal building unless it exists fully in the rear of the building and does not exist outside of the footprint of the principal dwelling. All

accessory buildings or structures shall be located a minimum of five feet inside rear and side property lines unless otherwise noted in regulations. A. Easements. No accessory building or structure, except for utility panels or boxes, shall be erected in any easement areas. All accessory buildings or structures shall be a minimum of one foot off easements. B. Height. Any accessory building or structure shall not exceed one story or 10 feet in height, or a maximum of 15 feet with roof. Accessory buildings and structures may not exceed the height of any principal building. C. Area. In the R-40,000, R-20,000 and R-15,000 residential districts, the maximum total area of all accessory buildings or structures on any lot shall not exceed 50% of the perimeter area of the structure and shall not cover more than 50% of the rear yard. In the R-10,000 and R-7,500 residential districts and the BL Business Local district the maximum total area of all accessory buildings or structures shall not cover more than 75% of the rear yard. The maximum size of any one structure shall not exceed 1,000 square feet. The maximum total area of all accessory buildings or structures shall not exceed 1,500 square feet.

Havre de Grace:

Accessory structures and fences shall not be located in a front yard and shall not occupy more than 50% of the entire yard. Accessory structures and uses customarily incidental to any principal permitted use or conditional use shall be permitted without hearing.

MEMORANDUM

Date: 6/3/2019

To: Burgess and Commissioners, Middletown

From: Cynthia K. Unangst, Middletown Staff Planner

RE: Required residential parking regulations for apartments and townhouses

The subject of required residential parking for apartments and townhouses was discussed at the joint workshop of the Middletown Planning Commission and the Town Board on May 6, 2019. The regulations for other municipalities in Frederick County were reviewed at that workshop, and the Town Board decided that perhaps there should be some changes to the Middletown Code in relation to the required parking for apartments and townhouses. Below is the required parking chart showing the regulations for Middletown in relation to other municipalities.

Required Parking - Residential:

<i>Municipality</i>	<i>Multifamily dwellings (or apartments)</i>	<i>Townhouses</i>
Middletown	3 per dwelling unit	3 per dwelling unit
Brunswick	2 - 3 per unit depending on # of bedrooms	2 per dwelling unit + 0.5 per bedroom, per unit
Emmitsburg	2 per dwelling unit	2 per dwelling unit
Frederick City	min. 1.5 per dwelling unit max. 2.5 per dwelling unit	min. 2 per dwelling unit max. 3 per dwelling unit
Mount Airy	2 per dwelling unit	3 per dwelling unit
Myersville	2.5 per dwelling unit	2.5 per dwelling unit
New Market	2 per dwelling unit + 0.5 per bedroom over 2 bedrooms	2 per dwelling unit + 0.5 per bedroom over 2 bedrooms
Thurmont	2 per dwelling unit + 1 per five units	2 per dwelling unit + 1 per five units
Walkersville	3 per dwelling unit	3 per dwelling unit
Woodsboro	2 per dwelling unit	2 per dwelling unit



ENGINEER'S COST ESTIMATE

\$15,000 - \$20,000

APPROVED CIP BUDGET

\$30,000

