Stokes Estate Residential Project
Traffic Impact Study

Westtown Township, Chester County

Prepared for submission to:

Westtown Township

Revised April 2023
Revised November 2022
Revised April 2022
May 2021

Driven by Success
TRG
TRANSPORTATION RESOURCE GROUP, INC.

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Pennsylvania P.E. No. 039625

Project No. 278.012.21

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SCOPE AND NATURE OF PROPOSED DEVELOPMENT

This report describes the transportation impact analysis for the proposed residential development located in Westtown Township, Chester County. The development is proposed east of Shiloh Road (T-626) and west of the east branch of the Chester Creek. See Figure 1 for a site location map. The site is referred to as the Stokes Estate Tract, which is currently undeveloped. Keystone Custom Homes has recently purchased the adjacent Galilea and O'Brien lots to reconfigure the planned single family residential development. The proposed development will now include a maximum of 86 residential units comprised of up to 82 new residential lots, plus the four existing residential dwellings (Galilea – 2 houses, O'Brien, and the existing historic home). The development will have full movement access onto Shiloh Road via two separate connections, one forming a 4-legged intersection opposite Hunt Drive, and the other forming a 4-legged intersection opposite Oakbourne Road. The development will consist entirely of single family (detached) homes. The development tract measures 64.956 acres. A site plan which depicts the scope and nature of the proposed development is attached as Figure 2.

Keystone Custom Homes would like to obtain the necessary approval so that they can institute construction as early as the Fall of 2023. They anticipate full buildout of the development in 2028. A design year of 2033 was used for the analysis.

The purpose of this study is to identify significant traffic problems associated with the ability of the existing roadways to accommodate the volume of traffic anticipated from the development and to assure safe and efficient site access. If necessary, improvements will be recommended to mitigate the impact of development traffic on the surrounding roadway network. This study is prepared in accordance with Westtown Township's guidelines on traffic impact studies as detailed in Chapter 149 of their Subdivision and Land Development Ordinance (SALDO).

DESCRIPTION OF PROPOSED ACCESS POINTS

The project is proposed to include two primary access points. The first access point is proposed on Shiloh Road (T-626) directly across from the existing Hunt Drive (T-546), creating a four-legged intersection. The second access point is also proposed on Shiloh Road (T-626), but directly across from the existing Oakbourne Road (T-359), creating a four-legged intersection. Stop sign control will remain on Hunt Drive and Oakbourne Road, and the proposed access road will also be stop controlled. Free-flow traffic on Shiloh Road would remain unchanged. In this area, Shiloh Road, is slightly rolling, with the Hunt Drive – proposed access intersection located at the apex of a hill, therefore allowing sight distance in excess of the Township requirements when appropriate embankment removal on the Stokes Estate property is performed. The speed limit on Shiloh Road is posted at 30 mph. SALDO Section 149-908 was used to determine the sight distance at the proposed access intersections. The SALDO sight distance criteria calls for clear sight triangles of 75 feet for roadways below collector level and 100 feet for roadways at collector level. According to the 2019 Westtown Township Comprehensive Plan, Shiloh Road is classified as a Township owned collector road. Details of the sight distance will be shown on the land development plans.

Field views were conducted at the access point and study intersections and forms are included in the Appendices showing lane widths, grades, and traffic control.

EXISTING CONDITIONS

The development is proposed in a mainly residential area of Westtown Township. The West Chester Bayard Rustin High School is located south of the site just north of S.R.0926. The major roadway system in the study area is comprised of state and township roads. Table 1 summarizes the roadway system characteristics for the roadways in Westtown Township, while Figure 3 shows the existing lane configuration and traffic control at the study intersections.

Table 1: Roadway System Characteristics

Road Name	Ownership (State or Township)	Number of Travel Lanes	Lane Widths	Shoulder Widths	Speed Limit	ADT	Functional Classification
Street Road	S.R.0926	2	12’	4’	45 mph	11,900	Arterial Highway
Westtown Thornton Road	S.R.2005	2	11’	2’	35 mph	2,400	Local Road
Westtown Road	S.R.2007	2	10’	1’-2’	35 mph	2,000	Collector
Little Shiloh Road	S.R.2005/ T-367	2	10’	2’	25 mph	4,400	Collector
Shiloh Road	T-626	2	10’	1’-2’	30 mph	5,800	Collector
Hunt Drive	T-546	2	10’	curbed	Not Posted	300	Local Road
Oakbourne Road	T-359	2	10’	1’	35 mph	1,900	Collector
Shiloh Hill Drive	T-559	2	10’	curbed	Not Posted	200	Local Road

The ADT volumes on the state roadways were obtained from PennDOT’s Traffic Information Repository (TIRe) website. ADT volumes on the Township roads were calculated using the PM peak hour volumes and a “k” factor of 10. The right-of-way on Shiloh Road is 68’ per the PennDOT signal plan at S.R.0926. Right-of-way on Shiloh Road in the vicinity of the access roadway opposite Hunt Drive is shown on the site plan developed by D.L. Howell & Associates, Inc., the project’s civil engineer.

Based on the characteristics of the proposed development, the weekday AM and PM peak hours were analyzed. Turning movement counts were conducted on Tuesday, October 5, 2021 from 6:00 AM to 9:00 AM and 2:00 PM to 6:00 PM at the following study intersections:

- Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road (S.R.2005)
- Hunt Drive (T-546)/Shiloh Road (T-626)
- Oakbourne Road (T-359)/Shiloh Road (T-626)
- Little Shiloh Road (S.R.2005 – T-367)/Shiloh Road (T-626)
- Little Shiloh Road (T-367)/Shiloh Hill Drive (T-559)
- Little Shiloh Road (T-367) – Falcon Lane/Westtown Road (S.R.2007)

All intersections in the study area are unsignalized except for the Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road intersection which is signalized. Five of the six study intersections are "off-site intersections". Only one intersection, Hunt Drive/Shiloh Road is an "on-site intersection", due to the construction of a new fourth leg for the intersection which provides direct access to the proposed development.

Counts were recorded in 15-minute intervals, with the peak hour being selected from the four highest consecutive 15-minute periods. The following AM and PM peak hours occurred at the study intersections:

Intersection	AM Peak Hour	PM Peak Hour
Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road (S.R.2005)	7:15 AM – 8:15 AM	4:45 PM – 5:45 PM
Hunt Drive (T-546)/Shiloh Road (T-626)	7:00 AM – 8:00 AM	4:45 PM – 5:45 PM
Oakbourne Road (T-359)/Shiloh Road (T-626)	7:00 AM – 8:00 AM	4:45 PM – 5:45 PM
Little Shiloh Road (S.R.2005 – T-367)/Shiloh Road (T-626)	7:00 AM – 8:00 AM	4:45 PM – 5:45 PM
Little Shiloh Road (T-367)/Shiloh Hill Drive (T-559)	7:15 AM – 8:15 AM	5:00 PM – 6:00 PM
Little Shiloh Road (T-367) – Falcon Lane/Westtown Road (S.R.2007)	7:30 AM – 8:30 AM	5:00 PM – 6:00 PM

In order to analyze the intersections conservatively, no "common peak hour" was determined. Since the peak traffic volumes were used at each respective intersection, there was no "balancing" between the study intersections. Figure 4 in the Appendices shows the existing weekday AM and PM peak hour traffic volumes at the study intersections. Details of the TMC counts are included in the Appendices. Since these new traffic counts were conducted after September 7, 2021 no COVID-19 adjustments are required in accordance with PennDOT Strike-off-Letter 494-21-07.

CALCULATION OF INTERSECTION CAPACITY

This section discusses the methodology used in calculating levels of service and capacity analysis at the study intersections. The Highway Capacity Manual (6th Ed.) procedures were used to determine level of service (LOS) and capacity for intersections. Synchro version 11.1, build 2, revision 9 (11.1.2.9) was used for the analysis. Unsignalized intersections are rarely at capacity from an overall standpoint. Traffic movements from minor crossroads and major road left turns are largely affected by the distribution of gaps in the major street traffic stream, and motorist judgment in choosing gaps through which to execute their maneuvers. Gaps in the traffic stream depend on several factors, including the type of maneuvers being executed, type of minor street control, the average speed of the major street and geometric and environmental conditions. LOS criteria for unsignalized and signalized intersections are based on control delay (in seconds per vehicle) to motorists. Various factors affect delay, including traffic volumes, lane configurations and widths, traffic signal phasing and cycle lengths, trucks percentages, etc. All the methodologies and factors identified in Section 19-804 (A)(4) were used in the analysis.

LOS ranges form "A" to "F" with "A" having the most favorable performance. PennDOT's "Policy and Procedures for Transportation Impact Studies" suggests new intersections must be designed to at least operate at an LOS C or better for rural conditions and an LOS D or better for urban conditions. Also, the overall intersection LOS for "With Development" scenarios should be no worse than "Without Development" scenarios. Level of service ranges for unsignalized and signalized intersections can be found in Table 2.

Table 2: Level of Service Ranges – Unsignalized and Signalized Intersections

Level of Service	Expected Traffic Delay	Average Control Delay (1)	Control Delay (2)
A	Little or No Delay	<10	<10
B	Short Traffic Delays	>10 and ≤15	>10 and ≤ 20
C	Average Traffic Delays	>15 and ≤ 25	>20 and ≤ 35
D	Long Traffic Delays	>25 and ≤ 35	>35 and ≤ 55
E	Very Long Traffic Delays	>35 and ≤ 50	>55 and ≤ 80
F	Failure, Extreme Congestion	>50	>80

(1) UNSIGNALIZED – SEC/VEH
(2) SIGNALIZED – SEC/VEH

ESTIMATE OF TRIP GENERATION

The level of traffic likely to be generated by the proposed development has been estimated using procedures in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed. 2021) to determine the potential traffic impact on the study intersections. Land use code 210, Single-family Detached Housing was utilized for the development. The number of new units (82) was used as the independent variable. The four existing residences (Galilea- 2 houses, O'Brien and the existing historic home) were already included as part of the existing traffic counts. Details of this trip generation analysis can be found in the Appendices. Table 1 summarizes the estimated site trip generation for the proposed development during the typical weekday AM and PM peak hours and during the typical weekday.

Table 3: Estimated Site Trip Generation

Land Use (Code)	# New Units	AM Peak Hour			PM Peak Hour			ADWT
		Enter	Exit	Total	Enter	Exit	Total	
Single-Family Detached Housing (210)	82	16	46	62	52	30	82	841

DISTRIBUTION OF TRAFFIC

Figure 5 shows the trip distribution percentages for the new site traffic on the roadway system. The site trip distribution was based on a cordon line methodology which used the traffic volumes entering and exiting the study area. The trip distribution was favored to Street Road (S.R.0926) for eastbound traffic accessing the Greater Philadelphia area and Street Road (S.R.0926) to the west for traffic to access U.S. 202. The proposed distribution used for the new site traffic is as follows:

- 25% oriented to/from the east on Street Road (S.R.0926)
- 25% oriented to/from the west on Street Road (S.R.0926)
- 15% oriented to/from the west on Little Shiloh Road (S.R.2005)
- 20% oriented to/from the north on Westtown Road (S.R.2007)
- 5% oriented to/from the south on Westtown Thornton Road
- 10% oriented to/from the west on Oakbourne Road

Figure 6 shows the site trips generated by the proposed development and assigned to the roadway network. Details of the site trip distribution and assignment are included in the Appendices.

COMPARISON OF COUNTS AND CAPACITIES, EXISTING

Based on the level of service methodologies previously discussed, an analysis of existing conditions was analyzed. Table A in the Appendices shows the results of the existing level of service/capacity analysis. Figure 7 graphically shows the existing level of service results at the study intersections during the AM and PM peak hours. As shown in Table A, the study intersections are all operating at an overall LOS B or better, except for the Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road (S.R.2005) signalized intersection which operates at an overall LOS E during the AM and the PM peak hours based on the existing signal timings. The northbound approach is operating at an LOS F during both the peak hours.

COMPARISON OF COUNTS AND CAPACITIES, FUTURE

An analysis of future conditions for both the No Build (Without Development) and Build (With Development) scenarios was completed for the 2028 opening year and the 2033 design year.

Some level of external traffic growth on the roadway system can be expected even without the proposed development. This growth can be attributed to a nominal increase in through traffic and traffic generated by developments outside the study area. There are no known developments planned within the immediate study area to be included in the base traffic volumes. A 0.54 percent average annual growth rate was used to factor the existing traffic counts to the opening year 2028 and the design year 2033 as recommended by PennDOT Bureau of Planning and Research's Table "Growth Factors for August 2022 to July 2023". Figures 8 and 9 in the Appendices show the AM and PM opening year (2028) and design year (2033) peak hour without development traffic volumes at the study intersections.

A level of service analysis was conducted at the study intersections for both the opening year (2028) and the design year (2033) without development scenarios to determine the future level of service without the proposed development. Traffic signal timings were optimized for both the Build and No Build scenarios. Table A in the Appendices shows the results of the level of service analysis, while Figures 10 and 11 in the Appendices graphically show the level of service results for the 2028 and 2033 No Build conditions. During both scenarios, all unsignalized intersections will continue to operate at an overall LOS B or better, except for the signalized intersection of Street Road (S.R.0926)/Shiloh Road (T-626) – Westtown Thornton Road (S.R.2005), which will operate at an overall LOS D during the AM and PM peak hours during both the 2028 and 2033 years.

The opening year (2028) and the design year (2033) with development peak hour volumes were derived by combining existing traffic, growth in background and through traffic, and the site trips generated by the proposed development. Figures 12 and 13 in the Appendices shows the AM and PM opening year (2028) and design year (2033) with development traffic volumes at the study intersections.

A level of service analysis was conducted at the study area intersections for the opening year (2028) and design year (2033) with development scenario to determine the level of service with the proposed development. Table A in the Appendices shows the results of the level of service analysis, and Figures 14 and 15 in the Appendices show the peak hour opening year (2028) and design year (2033) level of service results. As with the No Build conditions, the unsignalized intersections will continue to operate at an overall LOS B or better. In the year 2028 and 2033, the signalized intersection will operate at an overall LOS D during the AM and PM peak hours.

As shown in Table A in the Appendices, the change in overall level of service results at the study intersections between future without development and future with development scenarios either remains unchanged or shows less than a ten-second variance in overall delay. The site access intersection is forecasted to operate at an overall LOS A during the peak hours.

NECESSARY IMPROVEMENTS

The proposed access intersection with Shiloh Road (T-626) will operate with acceptable levels of service. Additionally, the need for left and right turn lanes on Shiloh Road (T-626) at the access intersection was evaluated for with development traffic conditions utilizing PennDOT guidelines outlined in Publication 46 Chapter 11.17. The analysis found that neither left nor right turn lanes are warranted at the access intersection. Details of the turn lane analysis are included in the Appendices.

The impact of the project on the local roadway system and study intersections is minimal. Discounting the existing traffic from the historic farmhouse, O'Brien and Galilea properties, the project will generate 62 new trips during the AM peak hour and 81 PM peak hour trips. No physical roadway improvements are needed to mitigate the impacts of the site and no turning movement restrictions need to be placed on the proposed access points.

CONDITIONAL USE DISCUSSION

As presented in the Township's Zoning Code in regard to Conditional Use cases,

> *"The burden of proof shall be upon the applicant to prove to the satisfaction of the Board of Supervisors, by credible evidence, that the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The peak traffic generated by the development shall be accommodated in a safe and efficient manner. Such analysis shall consider any improvements to streets that the applicant is committed to complete or fund."*

After reviewing the data contained in this traffic impact study (TIS), including the crash analysis, I believe the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The site trips from the development shall be accommodated in a safe and efficient manner as demonstrated in this TIS.

TECHNICAL APPENDICES

FIGURES

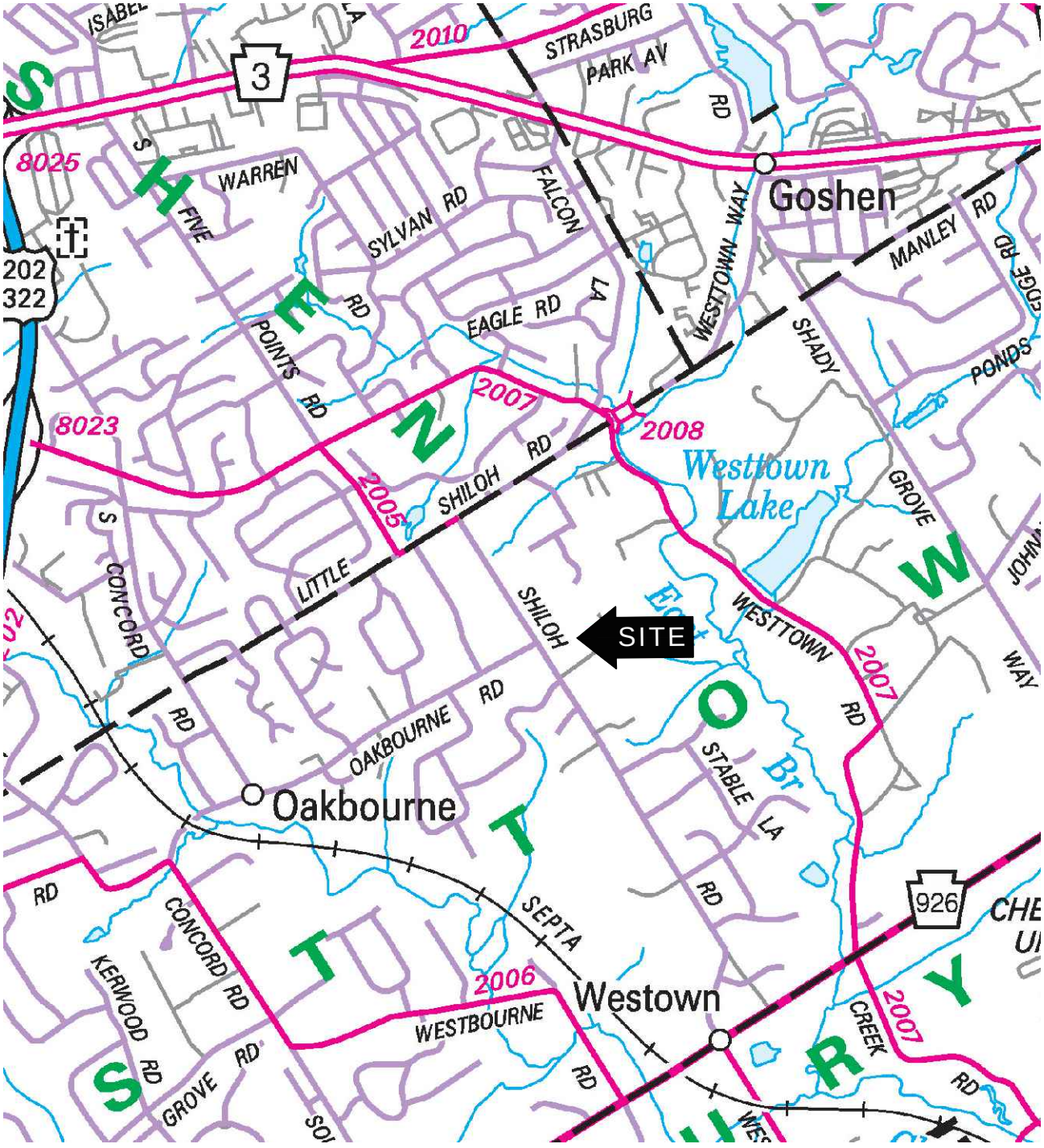

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FIGURE 1

SITE LOCATION

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA

RESIDENTIAL DEVELOPMENT

ART. VI – R1 RESIDENTIAL DISTRICT
SECT. 170-501.C.: CONDITIONAL USES
(2). RESIDENTIAL DEVELOPMENT (FLEXIBLE DEVELOPMENT PROCEDURE – ARTICLE IX)
ART. IX – FLEXIBLE DEVELOPMENT PROCEDURE
SECT. 170-903.: PERMITTED USES
A. SINGLE FAMILY DETACHED DWELLINGS
SEC. 170-904.: DENSITY STANDARDS
BASE DENSITY = 1.1 D.U./ACRE OF TRACT AREA (*SEE TRACT AREA CALCULATION)
BONUS DENSITY = 1.5 D.U./ACRE OF TRACT AREA (MAXIMUM ACHIEVABLE)

AREA AND BULK REGULATIONS	REQUIRED	PROPOSED
MAX. NET RESIDENTIAL DENSITY	4 UNITS/ACRE	3.30 UNITS/ACRE
MIN. DISTANCE FROM CURB	30 FT.	30 FT.
MIN. DISTANCE BETWEEN BUILDINGS	30 FT.	30 FT.
MAX. BUILDING HEIGHT	3 STORIES/38 FT.	<3 STORIES/38 FT.
SETBACK FROM TRACT BOUNDARY	50'	50'

TRACT AREA CALCULATION

TRACT AREA (GROSS)	3,523,402 S.F. / 80.886 ACS.(±)
EX. LEGAL R/W	4,663 SF.
EX. UTILITY EASEMENTS	260,525 SF.
AREA EQUAL TO 75% OF:	
FLOODPLAIN	– 144,110 S.F.
PROHIBITIVE SLOPES	– 70,941 S.F.
WETLANDS	– 61,077 S.F.
AREA EQUAL TO 25% OF SEASONALLY HIGH WATER TABLE SOILS	– 132,496 S.F.
TRACT AREA =	2,849,590 S.F. (65.418 AC.)
BASE DENSITY (1.1 MULTIPLIER)=	71 LOTS

OPEN SPACE

MINIMUM OPEN SPACE
= 40% GROSS TRACT AREA

REQUIRED
GROSS TRACT = 80.886 ACRES
80.886 ACRES X 40% = 32.35 ACRES

PROPOSED
GROSS OPEN SPACE = 47.53 ACRES (58.76% GROSS TRACT AREA)
QUALIFYING MIN. REQUIRED OPEN SPACE = 32.36 ACRES (40.01% GROSS TRACT AREA)
QUALIFYING INCREMENTAL BONUS O.S. = 12.15 ACRES (15.02% GROSS TRACT AREA)

SEE TABLE ON SHEET C01.5 FOR TABULATION

DRAWING INDEX

DENSITY CALCULATION

BASE DENSITY: 1.1 D.U. / TRACT AREA

BONUS DENSITY: +0.075 D.U. / 5% OF ADDITIONAL OPEN SPACE = (15.02% EXTRA) = 0.075 * 3 = 0.225 BONUS

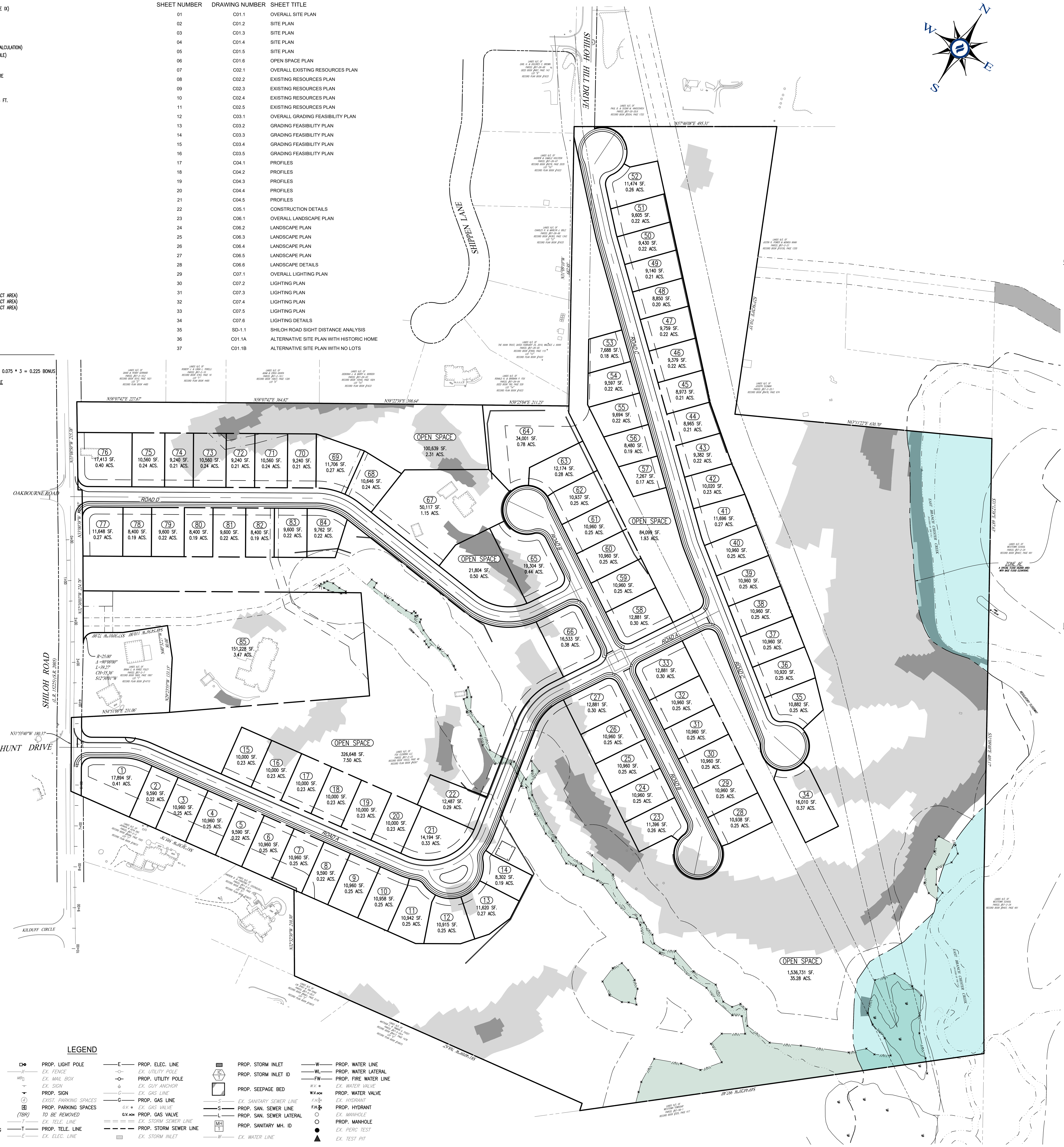
MAXIMUM DENSITY = 1.1 + 0.225 = 1.325 D.U. * 65.418 ACS. = 86 LOTS ACHIEVABLE

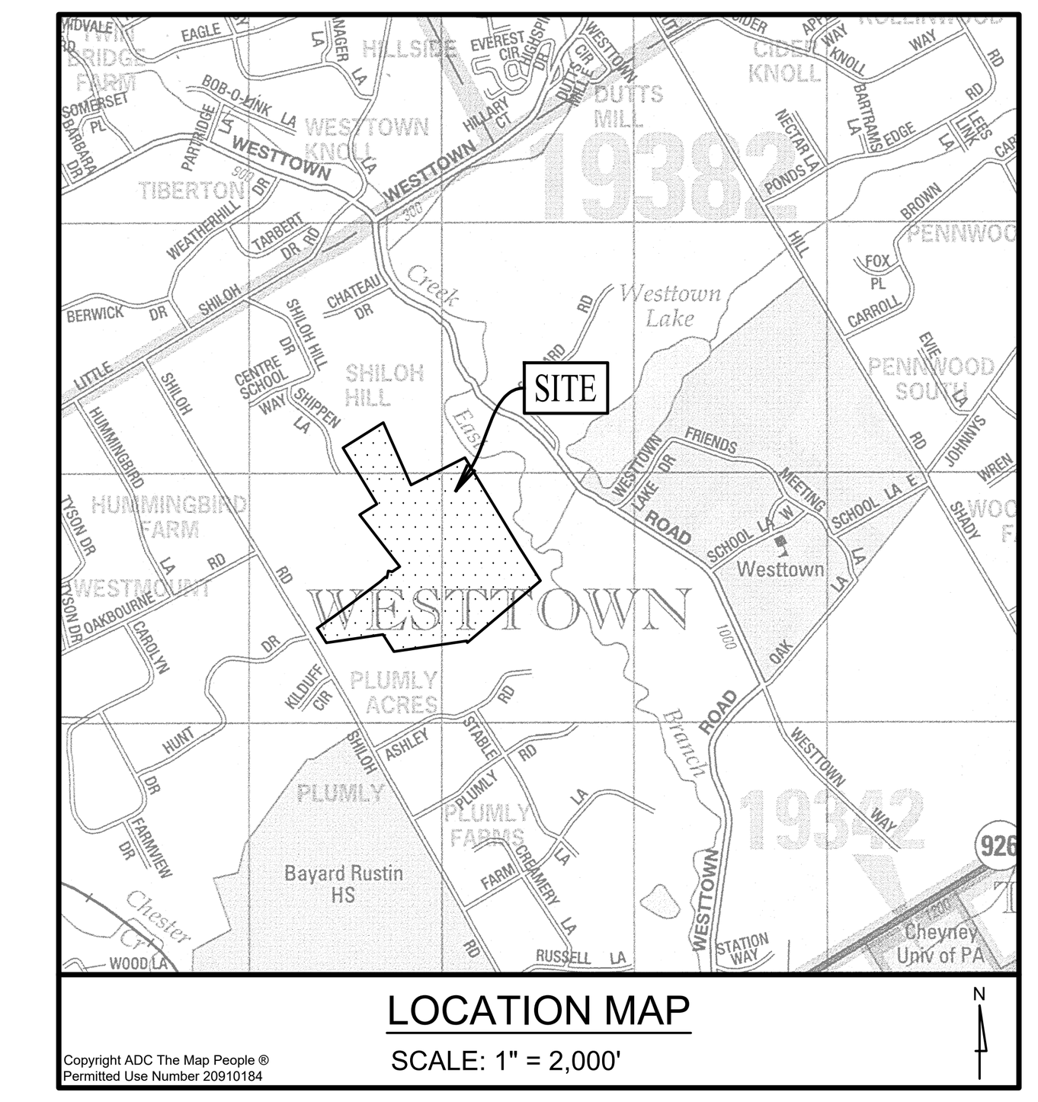
RESIDENTIAL LOT AREA	25.74 ACRES
PROPOSED LOTS	85
DENSITY	3.30 DU/AC.
AVERAGE SIZE	0.303 ACRES

PRECAUTIONARY STEEP SLOPES (15–25%)

GROSS TRACT AREA = 80.886 ACS (3,523,402 SF)
25% OF THE GROSS TRACT AREA = 880,850 SF

AREA OF PRECAUTIONARY STEEP SLOPES = 547,921 SF < 25% OF THE TRACT AREA
THEREFORE SECTION 170-402.D(3)(f) DOES NOT APPLY





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GENERAL NOTES

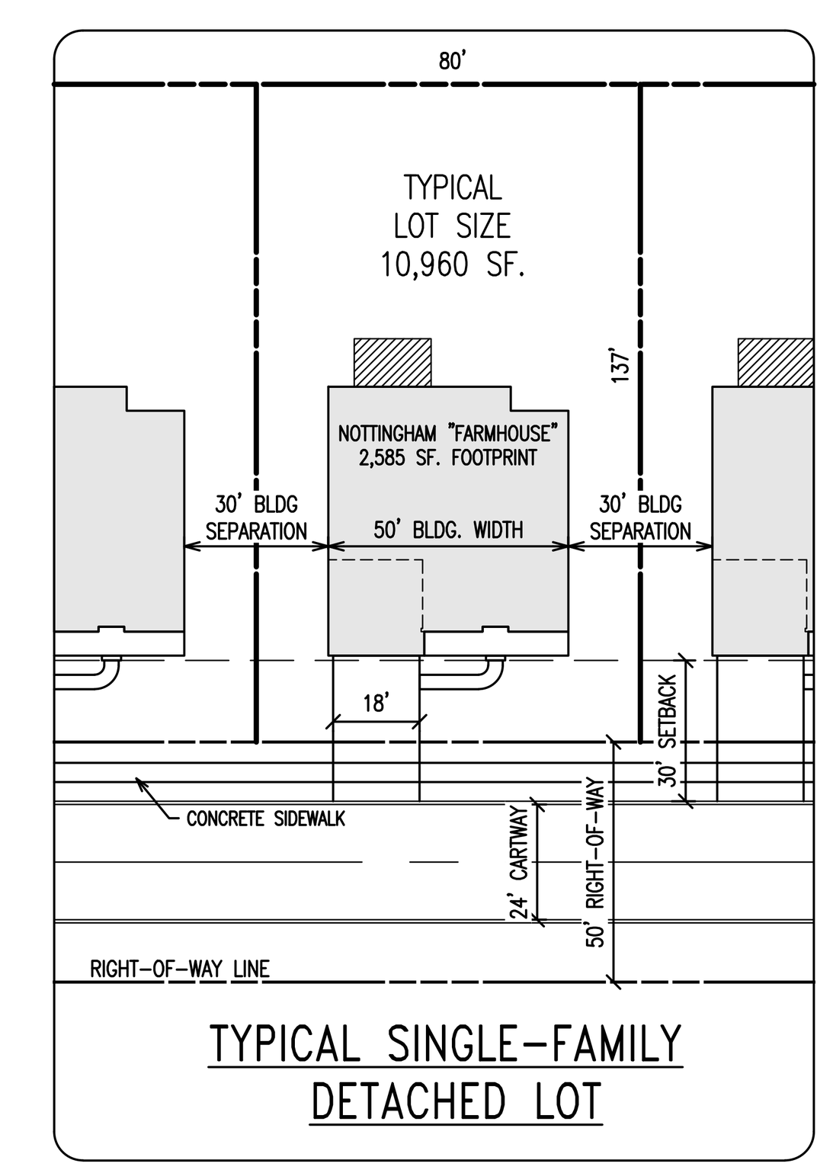
1. RECORD OWNER/MAILING ADDRESS: FOX CLEARING, LLC, 227 GRANITE RUN DRIVE, SUITE 100, LANCASTER, PA 17601
2. SITE ADDRESS: 1013 SHILOH ROAD, WEST CHESTER, PA 19382
3. TAX PARCEL #: 67-2-23
4. SOURCE OF TITLE: RECORD BOOK 10533 PAGE 48
5. LOT AREA: 64.956 ACRES (GROSS) 64.849 ACRES (NET OF SHILOH ROAD R/W)

FOX CLEARING, LLC 227 GRANITE RUN DRIVE, SUITE 100 LANCASTER, PA 17601	IVAR & JENNIFER L. GALILEA 1011 SHILOH ROAD WEST CHESTER, PA 19382	IVAR & JENNIFER L. GALILEA 1011 SHILOH ROAD WEST CHESTER, PA 19382	JOHN R. & CHRISTINE O'BRIEN 1007 SHILOH ROAD WEST CHESTER, PA 19382
1013 SHILOH ROAD WEST CHESTER, PA 19382	1011 SHILOH ROAD WEST CHESTER, PA 19382	927 SHILOH ROAD WEST CHESTER, PA 19382	1007 SHILOH ROAD WEST CHESTER, PA 19382
67-2-23	67-2-8	67-2-9	67-2-7.1
RECORD BOOK 10533 PAGE 48	RECORD BOOK 6827, PAGE 401	RECORD BOOK 7447, PAGE 1358	RECORD BOOK 4373, PAGE 1479
64.956 ACRES (GROSS) 64.849 ACRES (NET OF SHILOH ROAD R/W)	9.133 ACRES	1.133 ACRES	5.664 ACRES

6. BOUNDARY, TOPOGRAPHY AND PHYSICAL IMPROVEMENTS SHOWN ARE FROM FIELD SURVEY BY HOWELL KLINE SURVEYING, LLC. PERFORMED DURING OCTOBER, NOVEMBER, DECEMBER 2020 AND JANUARY 2023.
7. CONTOURS & TOPOGRAPHIC INFORMATION PLOTTED FROM AERIAL SURVEY BY NOREAST MAPPING, INC. AERIAL MAPPING WAS PRODUCED TO NATIONAL MAP ACCURACY STANDARDS. GROUND CONTROL AND SUPPLEMENTAL DATA BY HOWELL KLINE SURVEYING, LLC. DATUM: NAVD 88 (COMPUTED USING GEOID12A) & NAD 83 (2011) (EPOCH:2010.0000) (AS DETERMINED BY GPS OBSERVATION). SITE BENCH = RIM OF SANITARY MANHOLE LOCATED AT THE INTERSECTION OF HUNT DRIVE AND SHILOH ROAD, ELEVATION= 406.91', CONTOUR INTERVAL: 2 FEET.
8. UNDERGROUND UTILITIES SHOWN WERE PLOTTED FROM OBSERVABLE EVIDENCE AT THE TIME OF SURVEY AND INFORMATION FROM PLANS SUPPLIED BY UTILITY COMPANIES. NO GUARANTEE IS MADE THAT UNDERGROUND UTILITIES ARE ACCURATELY OR COMPLETELY SHOWN HEREON.
9. A PORTION OF THIS PROPERTY IS LOCATED WITHIN FLOOD HAZARD ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATIONS PER THE NATIONAL FLOOD INSURANCE RATE MAP FOR CHESTER COUNTY, PA. MAP NO. 42029C0215G, PANEL 215 OF 380, DATED SEPTEMBER 29, 2017. FLOOD PLAIN BOUNDARIES SHOWN HEREON WERE SCALED FROM THE ABOVE MENTIONED MAP.
10. WETLANDS BOUNDARY LINES WERE DELINEATED BY BRICKHOUSE ENVIRONMENTAL, CONSULTANTS AND ENGINEERS AND VORTEX ENVIRONMENTAL AND FLAGS LOCATED BY HOWELL KLINE SURVEYING, LLC. PERFORMED ON OCTOBER 30, 2020 AND JANUARY 2023 RESPECTIVELY.
11. THIS SITE IS CLASSIFIED AS "2-OF LOCAL HISTORIC VALUE" ON THE TOWNSHIP HISTORIC RESOURCES MAP.
12. THE PURPOSE OF THIS PLAN IS TO DETAIL THE PROPOSED SITE IMPROVEMENTS FOR CONDITIONAL USE OF AN 85 LOT RESIDENTIAL SUBDIVISION INCLUDING, BUT NOT LIMITED TO, CONCEPTUAL STORMWATER MANAGEMENT, GRADING, AND LANDSCAPING.
13. SOILS INFORMATION PROVIDED WITH SUPPORT FROM THE NATURAL RESOURCES CONSERVATION SERVICE. SOILS ATTRIBUTE DATA IS SERVED FROM THE NRCS SOIL DATA MART.
14. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION.
15. AN NPDES PERMIT IS REQUIRED TO BE OBTAINED PRIOR TO ANY CONSTRUCTION ACTIVITIES ON THIS SITE.
16. ALL DIMENSIONS ARE TO EDGE OF PAVING OR FACE OF BUILDING UNLESS NOTED OTHERWISE. SCALED DIMENSIONS SHALL NOT BE USED WITHOUT FIRST CONTACTING D.L. HOWELL & ASSOCIATES.
17. THIS PLAN PROPOSES PUBLIC WATER SUPPLY AND PUBLIC SEWER. PUBLIC WATER WILL BE PROVIDED BY AQUA PENNSYLVANIA. ALL WORK SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND SPECIFICATIONS.
18. AN INDIVIDUAL GRADING, AND EROSION AND SEDIMENT CONTROL PLAN FOR EACH BUILDING GROUP SHALL BE SUBMITTED WITH THE BUILDING PERMIT FOR THE TOWNSHIP'S REVIEW AND APPROVAL.
19. ALL MONUMENTS TO BE SET IN ACCORDANCE WITH WESTTOWN TOWNSHIP SUBDIVISION & LAND DEVELOPMENT ORDINANCE.
20. ALL PROPOSED UTILITIES MUST BE PLACED UNDERGROUND.
21. D.L. HOWELL & ASSOCIATES, INC. DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS OF THE EXISTING SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS. NOR DOES D.L. HOWELL & ASSOCIATES, INC. GUARANTEE THAT ALL SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE START OF THE WORK.
22. THE FINAL ARCHITECTURE AND LOT PLACEMENT FOR EACH HOME IS YET TO BE DETERMINED. FOOTPRINTS ARE FOR CONCEPTUAL PURPOSES ONLY.
23. REPRESENTATIVES OF WESTTOWN TOWNSHIP AND/OR OTHER GOVERNMENTAL AUTHORITIES SHALL HAVE PERMISSION TO GAIN ACCESS TO THE STORMWATER FACILITIES THROUGH A BLANKET EASEMENT OVER THE PROPERTY TO PERFORM INSPECTIONS, MAINTENANCE AND REPAIRS OF THE BASIN, AS NECESSARY.
24. STORMWATER DEVICES SHALL NOT BE REMOVED, ALTERED OF RELOCATED BY THE LANDOWNER. IN THE EVENT OF THE FAILURE OF THE LANDOWNER TO COMPLY WITH THESE CONDITIONS AND RESTRICTIONS, THE TOWNSHIP SHALL HAVE THE AUTHORITY TO RESTORE SAID STORMWATER MANAGEMENT FACILITIES TO THEIR ORIGINAL STATE AND THE COSTS THEREOF SHALL BE ASSESSED TO THE LANDOWNER. THE TOWNSHIP, BEFORE IT MAY EXERCISE THIS RIGHT, SHALL NOTIFY THE LANDOWNER BY CERTIFIED MAIL OF ITS INTENTION TO DO SO. THE NOTICE SHALL SET FORTH IN WHAT MANNER THE OWNER HAS ALTERED THE STORMWATER MANAGEMENT FACILITIES, AND IF THE OWNER FAILS TO CORRECT THE ALTERATION LISTED IN THE NOTICE FROM THE TOWNSHIP, THEN AND ONLY THEN THE TOWNSHIP MAY EXERCISE THIS RIGHT.
25. A SEWAGE FACILITIES PLANNING MODULE IS REQUIRED IN ACCORDANCE WITH THE SEWAGE FACILITIES PLANNING ACT (ACT 537). APPROVAL OF THIS PLAN IN NO WAY IMPLIES OR GUARANTEES THAT SUCH APPROVAL CAN BE OBTAINED.
26. ALL NEW SANITARY WORK, INCLUDING BUT NOT LIMITED TO GRAVITY SEWER MAIN, AND APPURTENANCES, MANHOLES, ETC., SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF WESTTOWN TOWNSHIP.
27. ALL STORM SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH REQUIREMENTS OF WESTTOWN TOWNSHIP AND THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, AS APPLICABLE. WESTTOWN TOWNSHIP IS NOT RESPONSIBLE FOR INSTALLATION OR MAINTENANCE OF ANY STORMWATER FACILITIES NOT DEDICATED FOR PUBLIC USE.
28. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN THE AREA OF AN EASEMENT OF STORM DRAINAGE FACILITY THAT COULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT, ANY EASEMENT AGREEMENT, OR THE STORM DRAINAGE FACILITY.

REFERENCE PLAN(S)

1. PLAN ENTITLED "PLAN OF SUBDIVISION FOR MILTON R. STOKES", PREPARED BY HENRY S. CONREY INC, DATED 10/29/1982, LAST REVISED 1/20/1983, RECORD PLAN BOOK #4267.
2. PLAN ENTITLED "PLAN OF PROPERTY FOR HAWTHORNE", PREPARED BY INGRAM ENGINEERING SERVICES, INC., PLOTTED ON 6/29/2016, LAST REVISED 5/3/2016, RECORD PLAN BOOK #19973.
3. PLAN ENTITLED "FINAL LAN OF LOTS JOHN & CHRISTINE O'BRIEN", PREPARED BY ROBERT W. MATTOX, PLS INC., DATED 10/5/1998, LAST REVISED 11/5/1998, RECORD PLAN BOOK #14715.
4. PLAN ENTITLED "IVAR GALILEA", PREPARED BY MESKO ENGINEERING ASSOCIATES, INC., DATED 12/27/2005, LAST REVISED 2/8/2006, RECORD PLAN BOOK #17755.
5. PLAN ENTITLED "PRELIMINARY/FINAL PLAN OF SUBDIVISION FOR 1015 SHILOH ROAD", PREPARED BY EDWARD B. WALSH & ASSOCIATES, INC., DATED 11/11/2008, LAST REVISED 6/2/2009, RECORD PLAN BOOK #18673.
6. PLAN ENTITLED "FINAL SUBDIVISION PLAN – PROPERTY OF JAMES S. LEES JR., PREPARED BY G.D. HOUTMAN & SON, DATED 4/3/1978, LAST REVISED 4/13/1978, RECORD PLAN BOOK #1633.



TYPICAL SINGLE-FAMILY DETACHED LOT

ZONE AE FLOODPLAIN
15%–25% SLOPES
25%+ SLOPES
WETLANDS

LEGEND

EX. PROPERTY LINE
PROP. PROPERTY LINE
EX. RIGHT-OF-WAY
PROP. RIGHT-OF-WAY
EX. MONUMENT
PROP. MONUMENT
EX. REBAR
PROP. REBAR
EX. EASEMENT
PROP. EASEMENT
EX. WETLANDS
EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING SPOT ELEV.
NEW SPOT ELEV.
SOILS TYPE
SOILS LINE
EX. CONC. CURB
PROP. CONC. CURB
EX. EDGE OF PAVING
PROP. EDGE OF PAVING
EX. LIGHT POLE
PROP. LIGHT POLE
EX. FENCE
EX. MAIL BOX
EX. SIGN
PROP. SIGN
EXIST. PARKING SPACES
PROP. PARKING SPACES
TO BE REMOVED
EX. TELE. LINE
PROP. TELE. LINE
EX. ELEC. LINE
PROP. ELEC. LINE
EX. UTILITY POLE
PROP. UTILITY POLE
EX. GUY ANCHOR
EX. GAS LINE
PROP. GAS LINE
EX. GAS VALVE
PROP. GAS VALVE
EX. STORM SEWER LINE
PROP. STORM SEWER LINE
EX. STORM INLET
PROP. STORM INLET
PROP. STORM INLET ID
PROP. SEEPAGE BED
EX. SANITARY SEWER LINE
PROP. SAN. SEWER LINE
PROP. SAN. SEWER LATERAL
PROP. SANITARY MH. ID
EX. WATER LINE
PROP. WATER LINE
PROP. WATER LATERAL
PROP. FIRE WATER LINE
EX. WATER VALVE
PROP. WATER VALVE
EX. HYDRANT
PROP. HYDRANT
EX. MANHOLE
PROP. MANHOLE
EX. PERC TEST
EX. TEST PIT

RECORD OWNER/APPLICANT:

FOX CLEARING, LLC
227 GRANITE RUN DRIVE, SUITE 100
LANCASTER, PA 17601

OVERALL SITE PLAN

SCALE: 1"=100'

GRAPHIC SCALE
1 inch = 100 feet

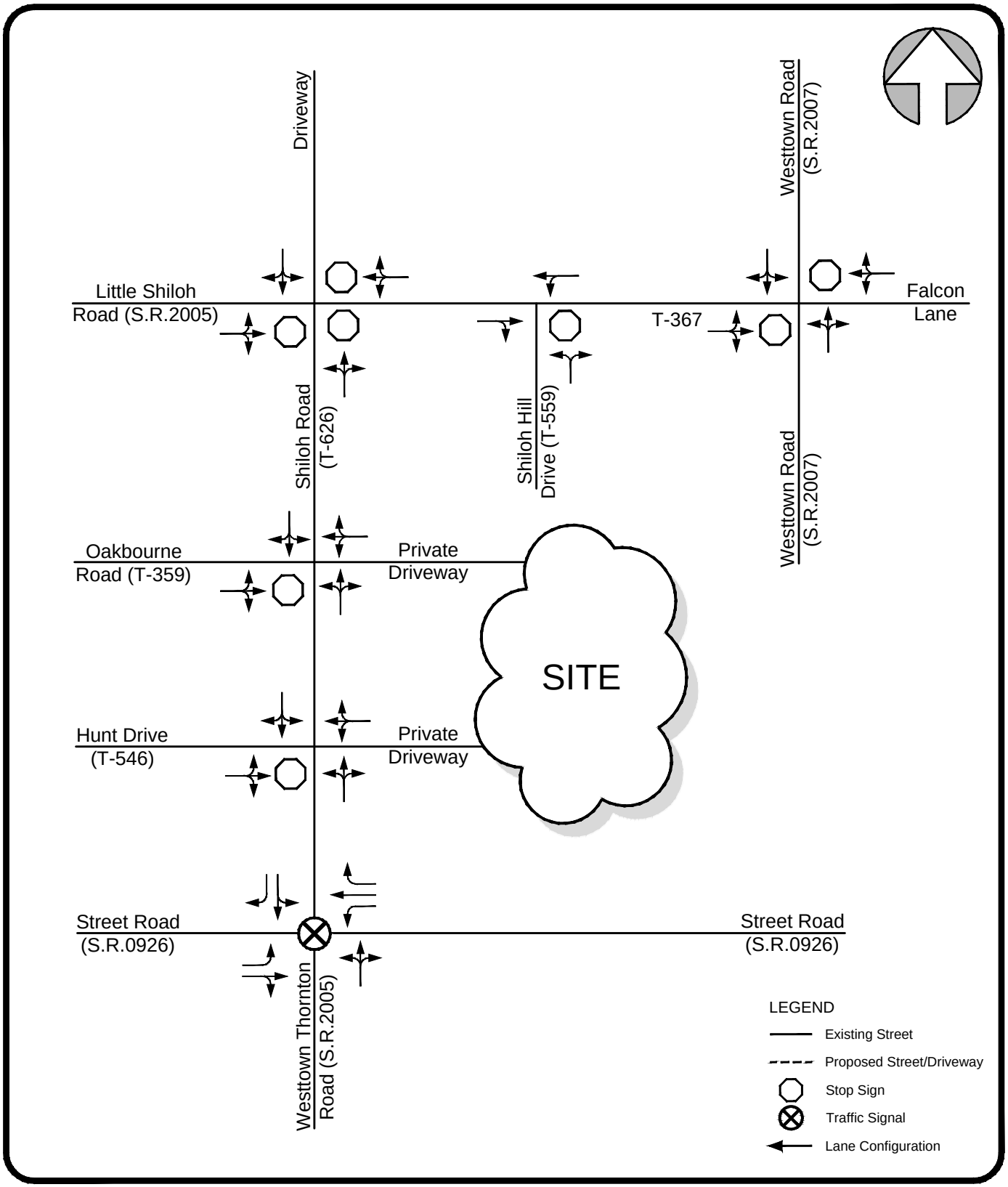
REV.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		

CONDITIONAL USE
OVERALL SITE PLAN

CLIENT: FOX CLEARING, LLC
PROJECT: STOKES ESTATE
LOCATION: 1013 SHILOH ROAD WESTTOWN TOWNSHIP, CHESTER COUNTY, PA

DATE:	03/17/23
SCALE:	1"=100'
DRAWN BY:	ADM
CHECKED BY:	DWG
PROJECT NO.:	3868
CAD FILE:	01 SITE PLAN.dwg
PLOTTED:	03/17/23
DRAWING NO.:	C01.1
SHEET	01 OF 37

Q:\CIVIL 3D JOBS\3868\3868 PRODUCTION PLANS\SHEET SET\CONDITIONAL USE\01 SITE PLAN.DWG



Driven by Success
TRG
TRANSPORTATION RESOURCE GROUP, INC.

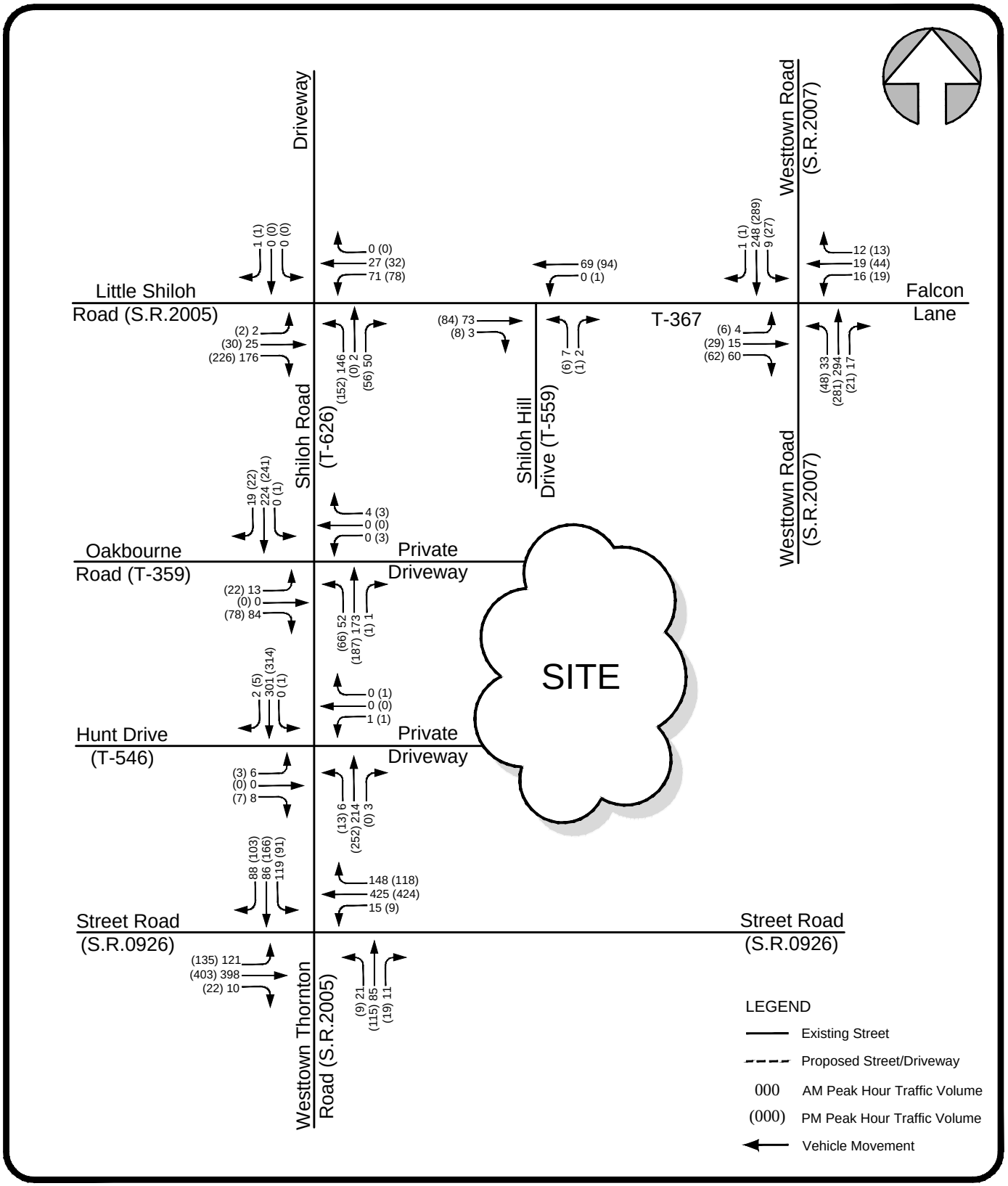
FIGURE 3

EXISTING LANE CONFIGURATION
AND TRAFFIC CONTROL

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



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TRANSPORTATION RESOURCE GROUP, INC.

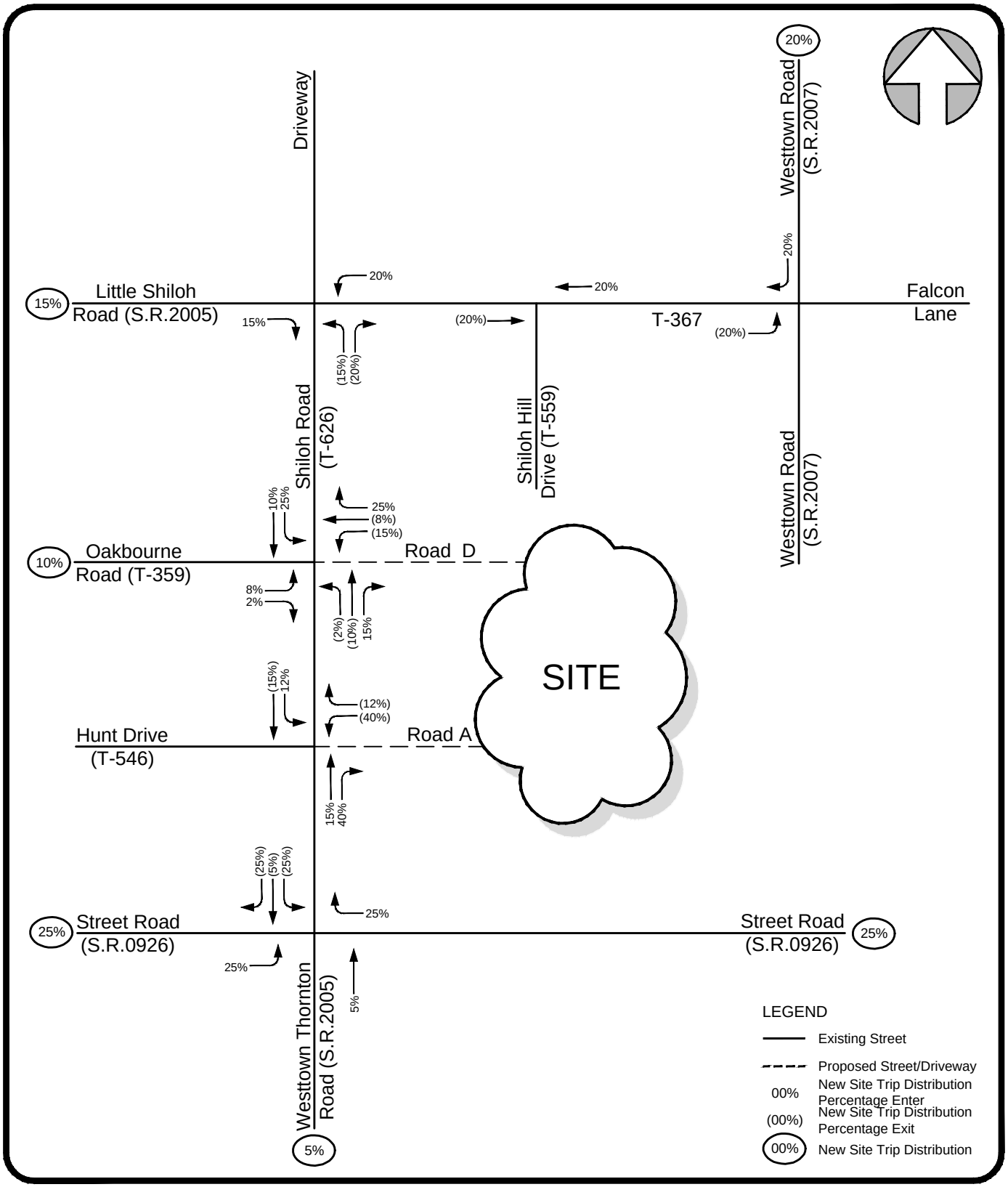
FIGURE 4

EXISTING PEAK HOUR TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



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TRG
TRANSPORTATION RESOURCE GROUP, INC.

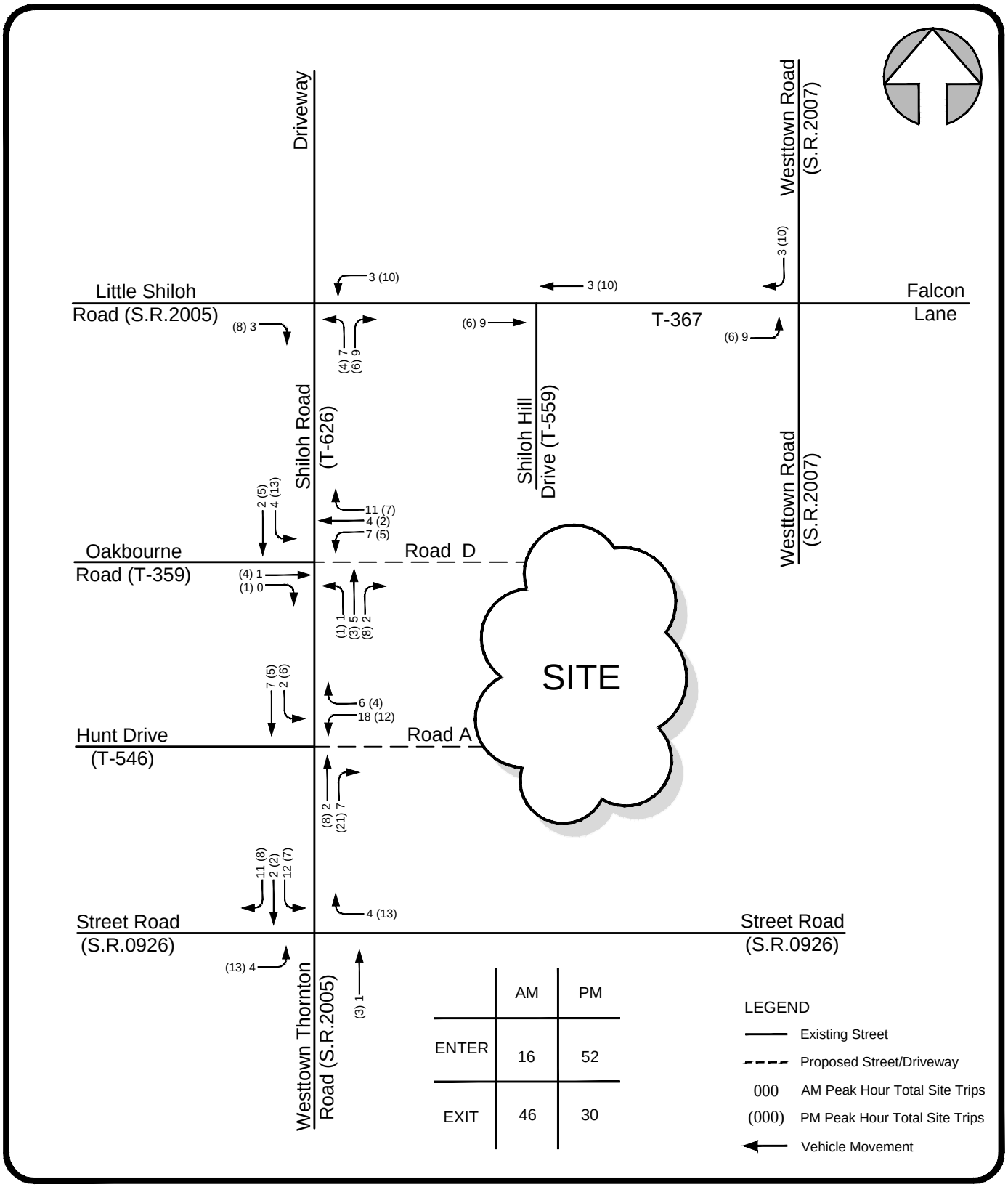
FIGURE 5

NEW SITE TRIP DISTRIBUTION
AND ASSIGNMENT

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



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TRANSPORTATION RESOURCE GROUP, INC.

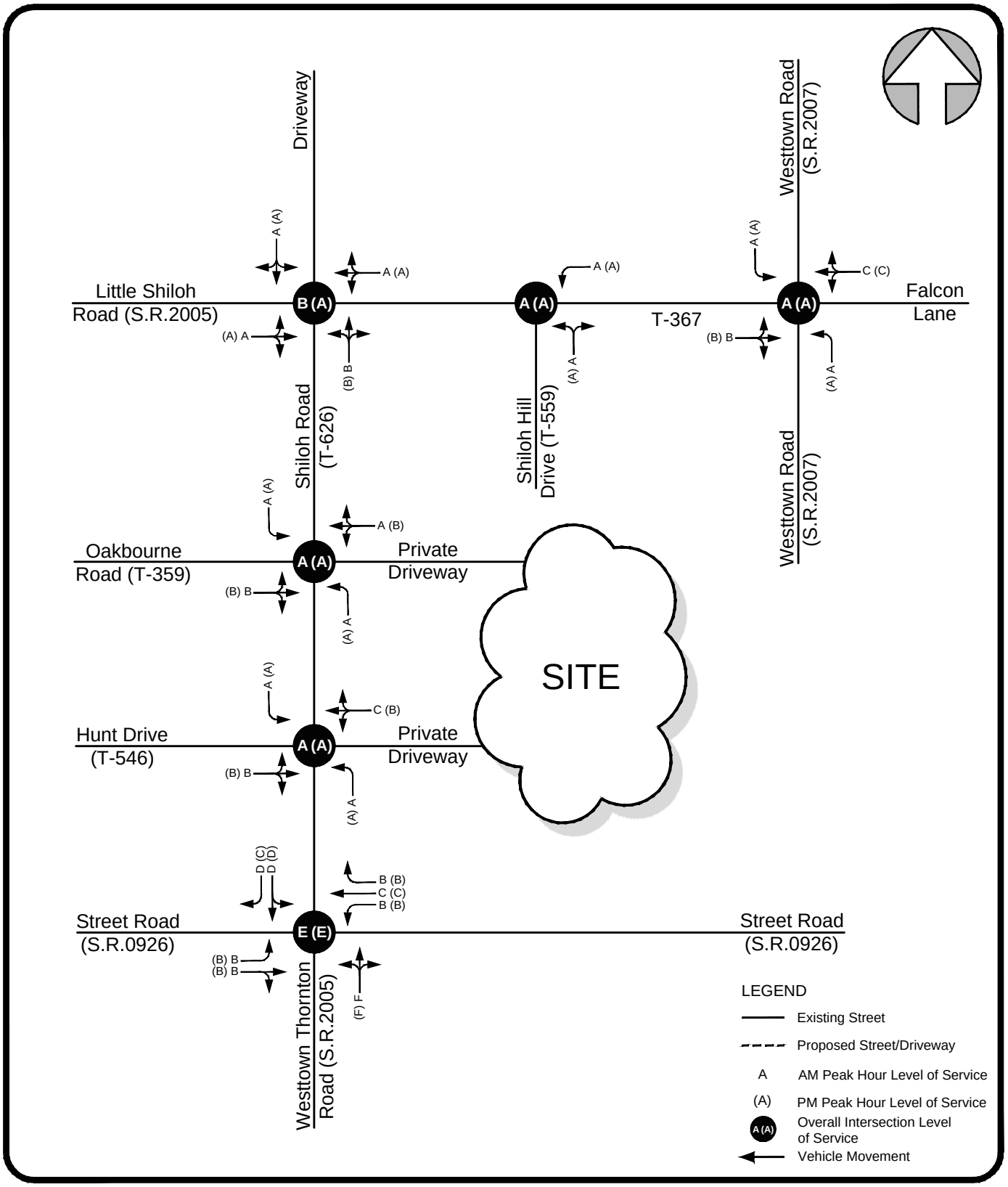
FIGURE 6

TOTAL SITE TRIPS
AM & PM PEAK HOURS

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



TRANSPORTATION RESOURCE GROUP, INC.

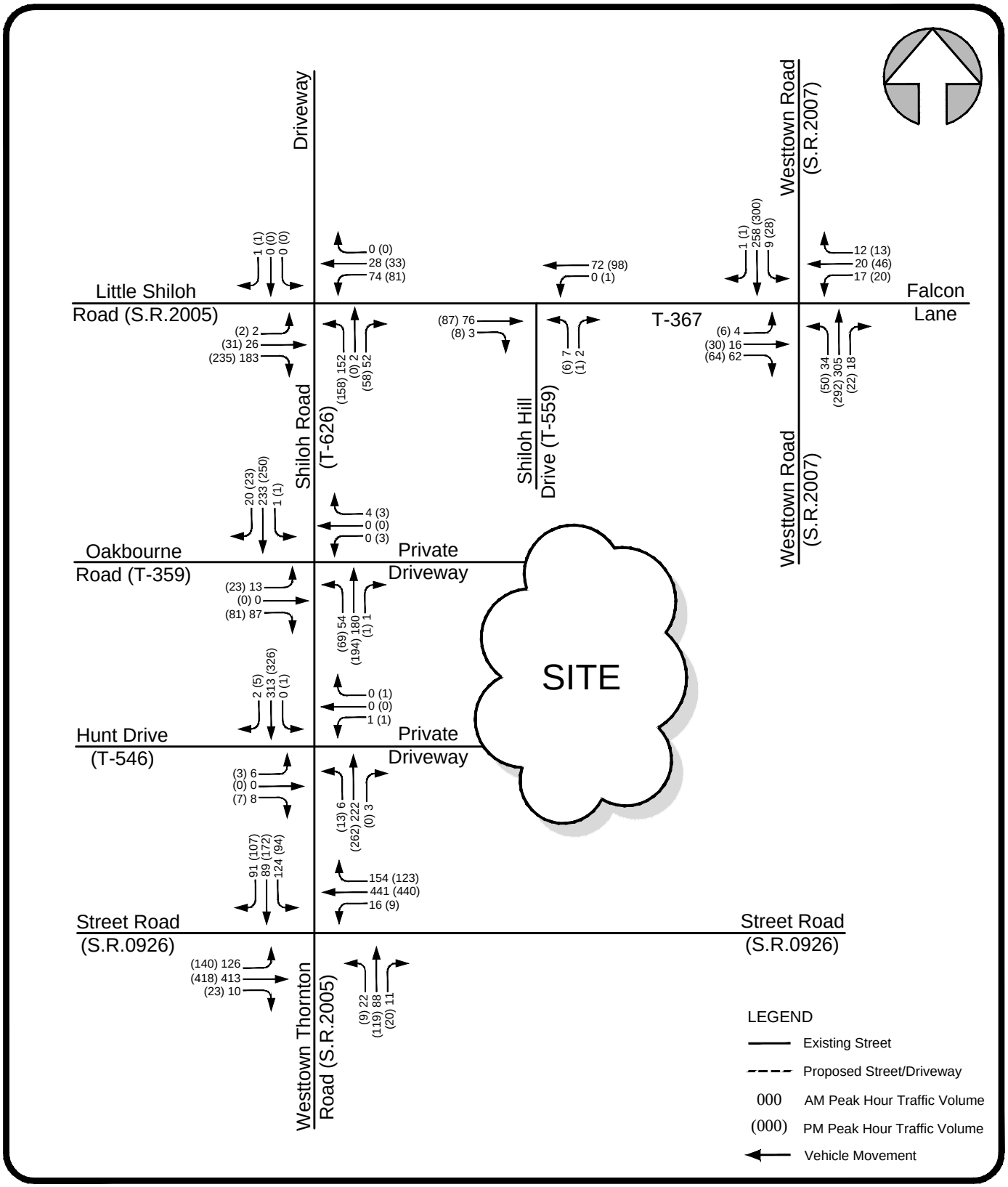
FIGURE 7

EXISTING PEAK HOUR
LEVEL OF SERVICE RESULTS

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



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TRANSPORTATION RESOURCE GROUP, INC.

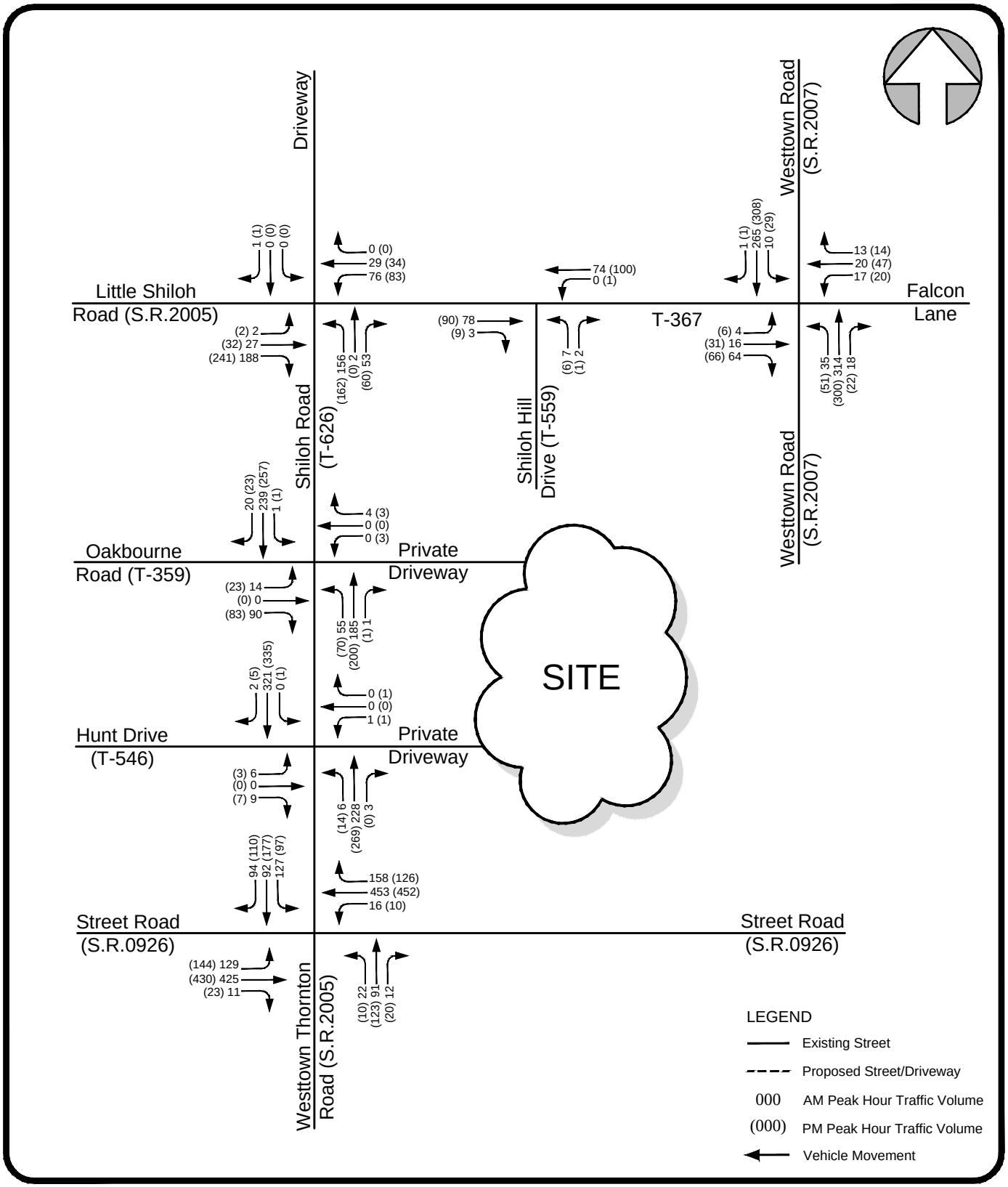
FIGURE 8

OPENING YEAR (2028)
NO BUILD PEAK HOUR
TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



TRANSPORTATION RESOURCE GROUP, INC.

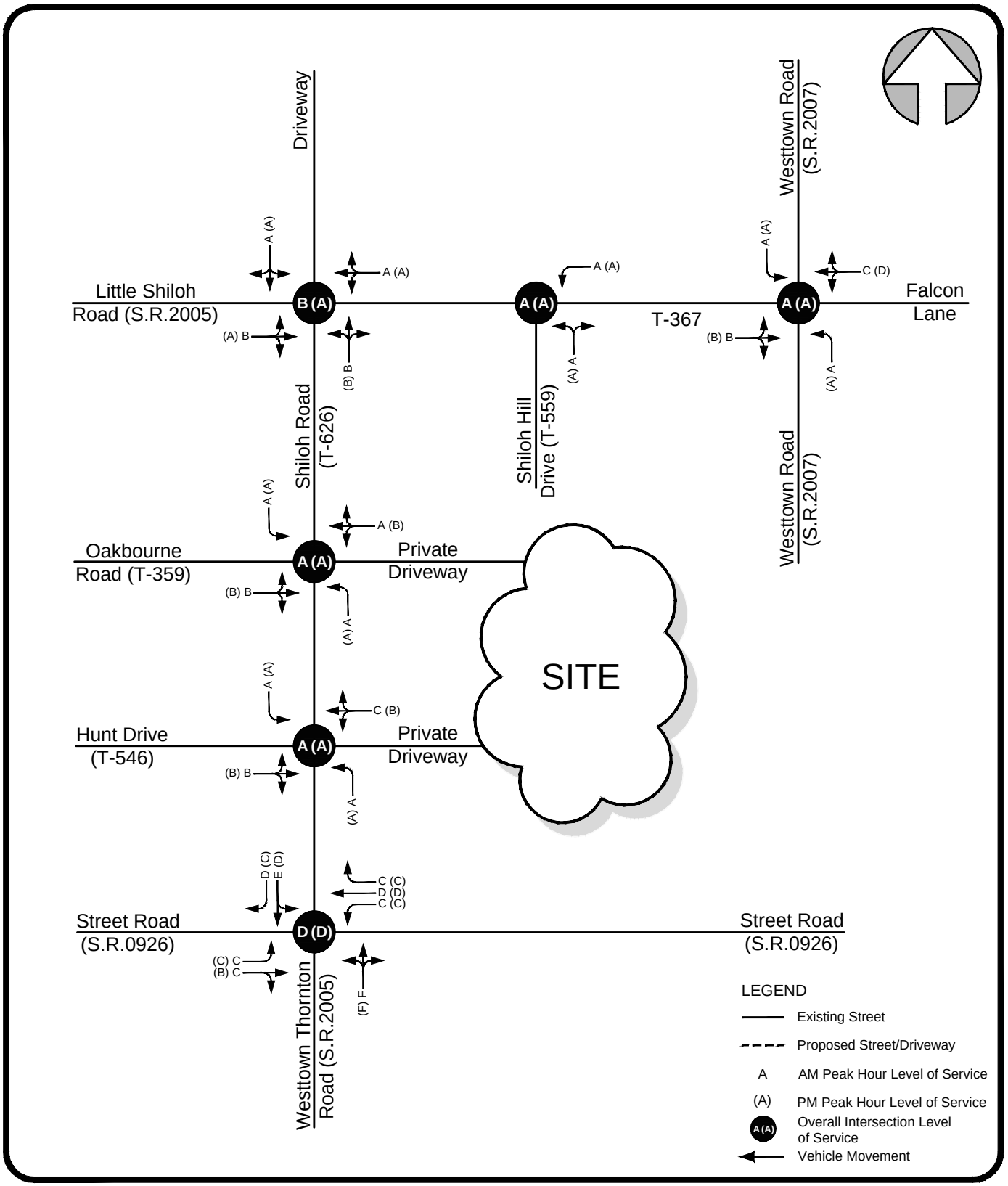
FIGURE 9

DESIGN YEAR (2033)
NO BUILD PEAK HOUR
TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



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TRG
TRANSPORTATION RESOURCE GROUP, INC.

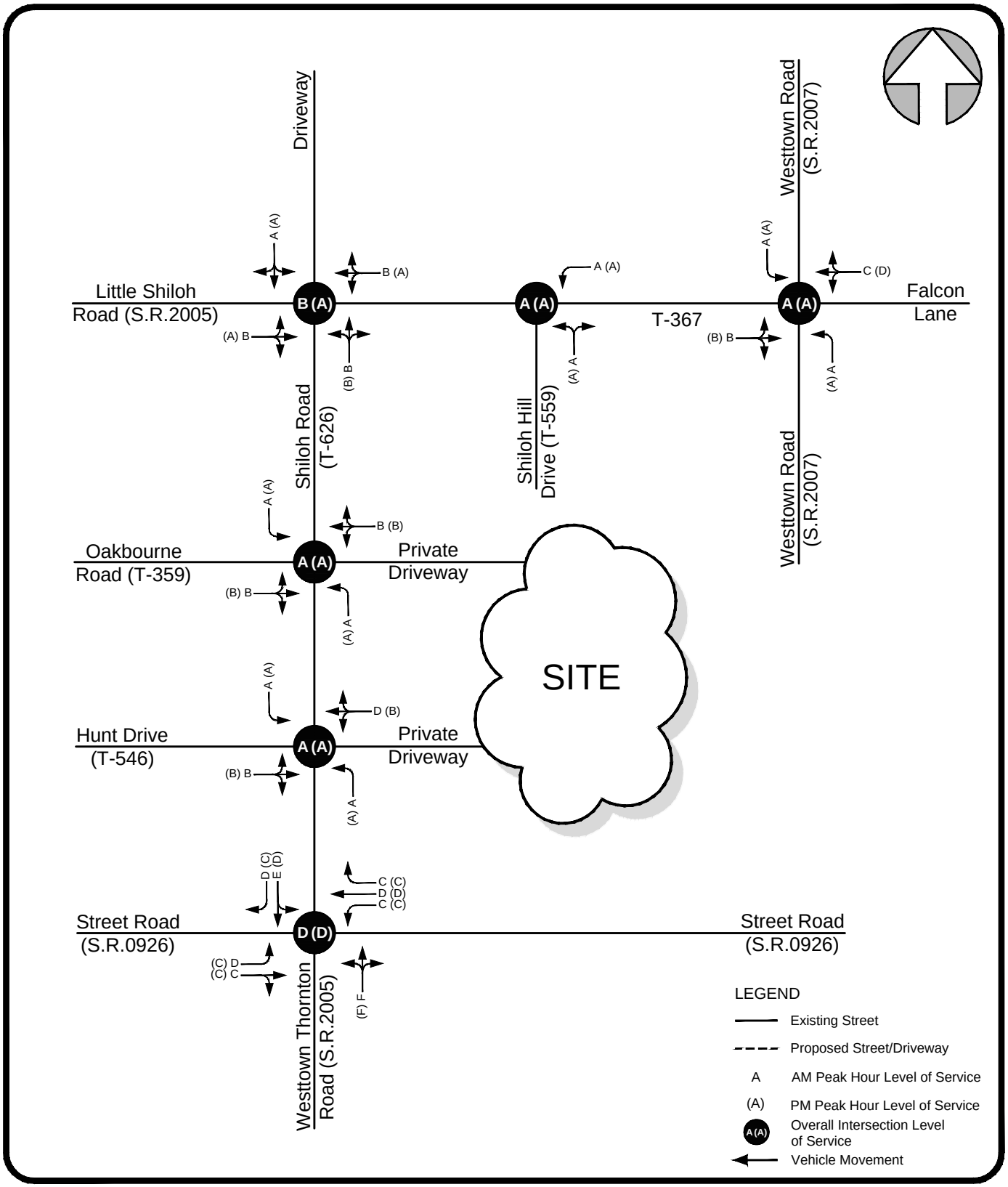
FIGURE 10

OPENING YEAR (2028)
NO BUILD PEAK HOUR
LEVELS OF SERVICE

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



TRANSPORTATION RESOURCE GROUP, INC.

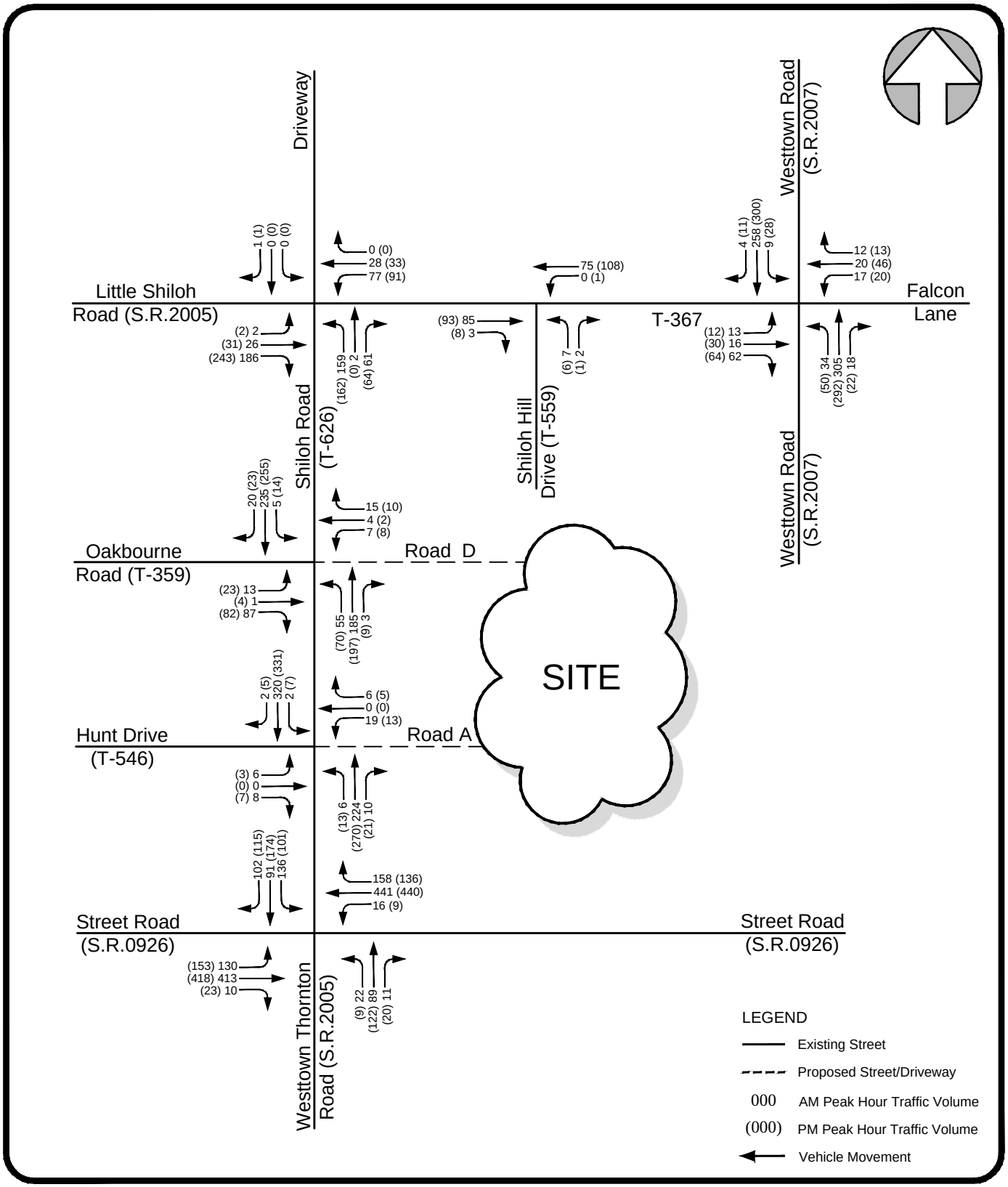
FIGURE 11

DESIGN YEAR (2033)
NO BUILD PEAK HOUR
LEVELS OF SERVICE

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



TRANSPORTATION RESOURCE GROUP, INC.

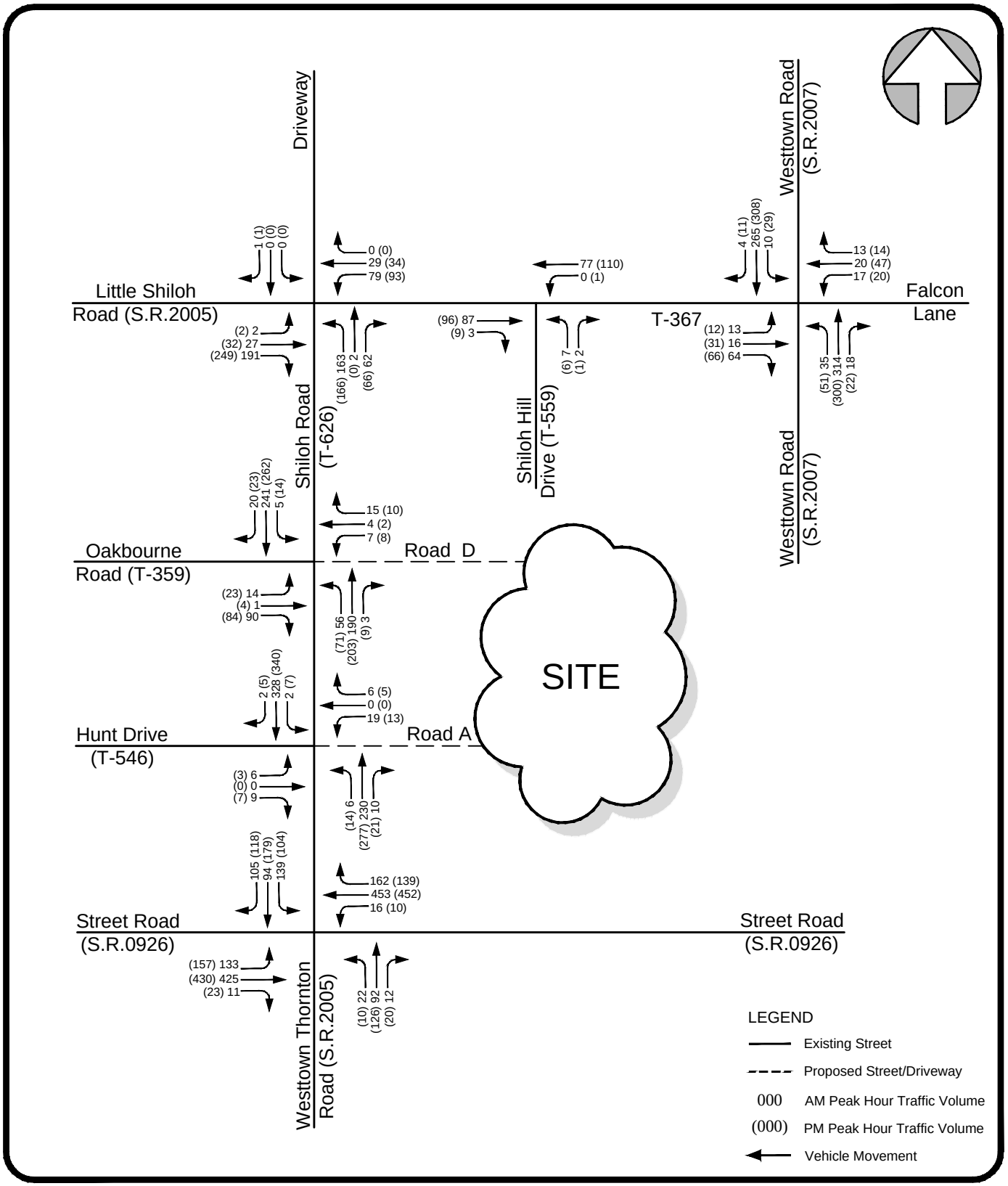
FIGURE 12

OPENING YEAR (2028)
BUILD PEAK HOUR
TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA



Driven by Success
TRG
TRANSPORTATION RESOURCE GROUP, INC.

FIGURE 13

DESIGN YEAR (2033)
BUILD PEAK HOUR
TRAFFIC VOLUMES

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA

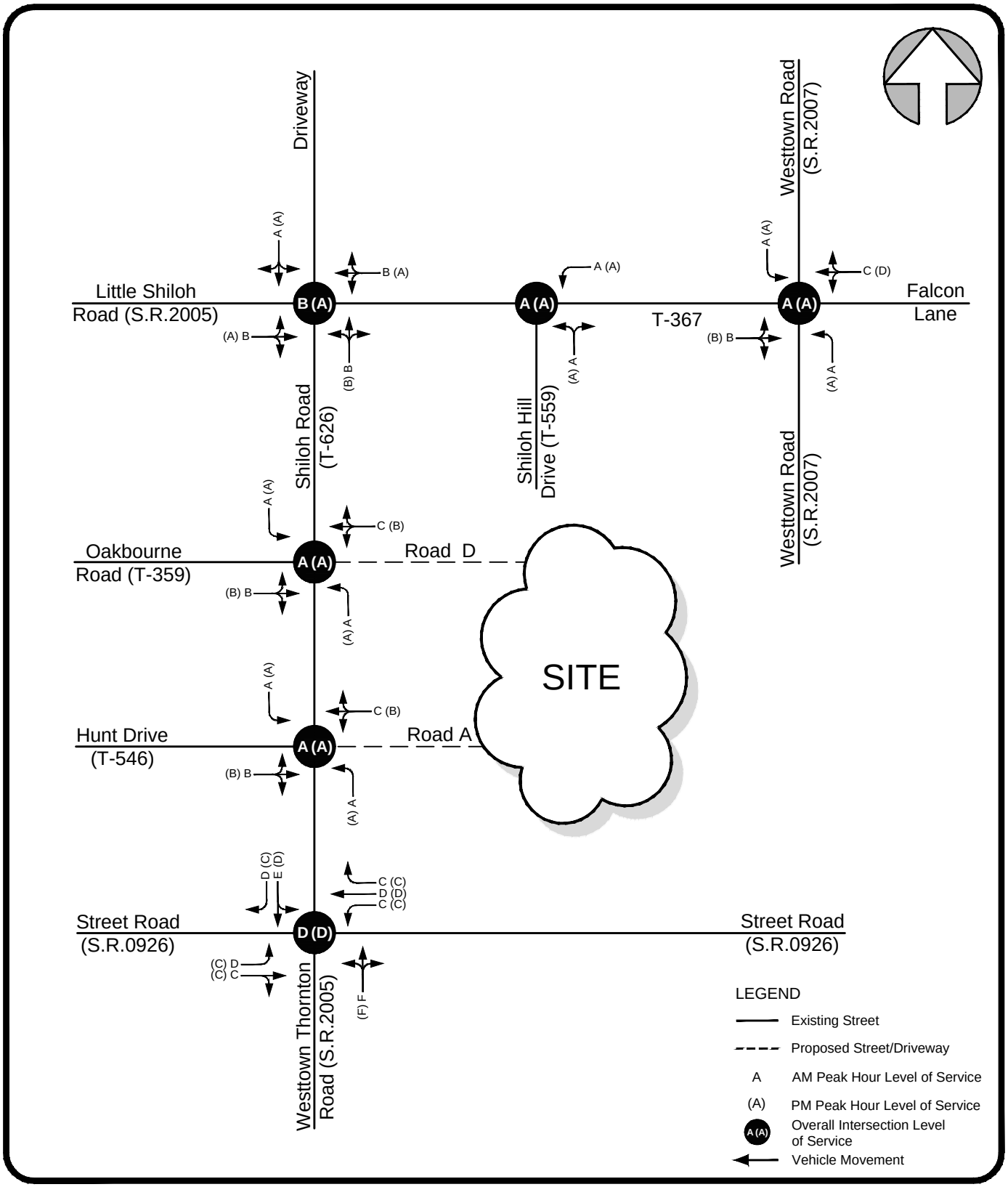


FIGURE 14

OPENING YEAR (2028)
BUILD PEAK HOUR
LEVELS OF SERVICE

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA

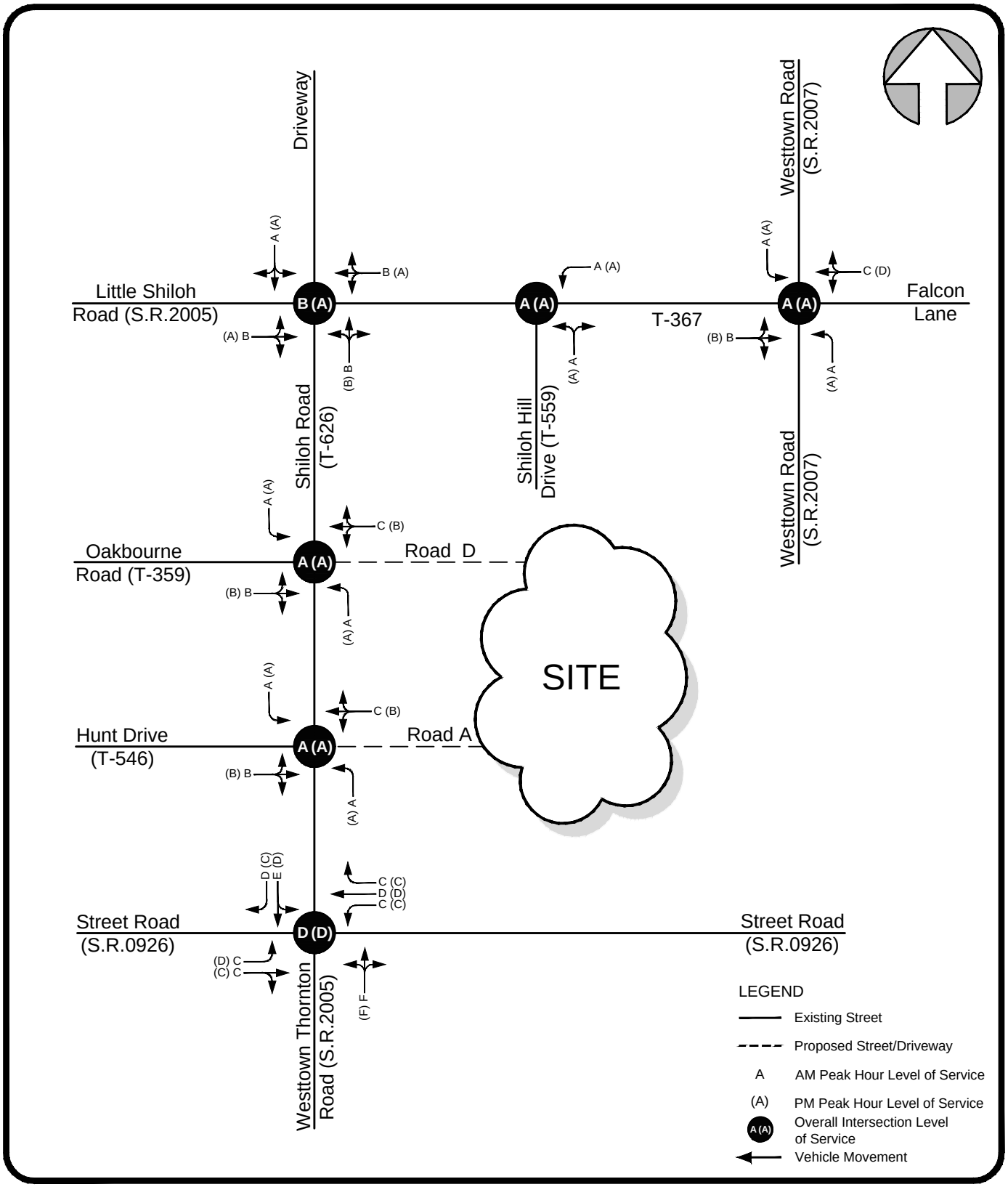


FIGURE 15

DESIGN YEAR (2033)
BUILD PEAK HOUR
LEVELS OF SERVICE

TRAFFIC IMPACT STUDY

Stokes Estate Residential Project

WESTTOWN TOWNSHIP
CHESTER COUNTY, PA

LEVELS OF SERVICE / QUEUE TABLES

Table A

Future Intersection Level of Service Results

Intersection	Approach (Movement)	Existing Traffic Volumes		2028 Traffic Volumes w/out Development		2028 Traffic Volumes with Development		2033 Traffic Volumes w/out Development		2033 Traffic Volumes with Development	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EB	B	B	C	C	C	C	C	C	C	C
	EBL	B	B	C	C	D	C	D	C	D	C
	EBTR	B	B	C	B	C	C	C	C	C	C
	WB	C	C	D	D	D	D	D	D	D	D
	WBL	B	B	C	C	C	C	C	C	C	C
	WBT	C	C	D	D	D	D	D	D	D	D
	WBR	B	B	C	C	C	C	C	C	C	C
	NB	F (528.5)	F (414.2)	F (155.1)	F (116.0)	F (159.5)	F (125.6)	F (171.5)	F (133.4)	F (176.1)	F (141.8)
	SB	D	D	E	D	E	D	E	D	E	D
	SBLT	D	E	E	D	E	D	E	D	E	D
	SBR	D	C	D	C	D	C	D	C	D	C
	OVERALL	E (64.8)	E (60.9)	D (46.1)	D (39.6)	D (48.2)	D (41.1)	D (49.3)	D (42.2)	D (51.9)	D (43.6)
Hunt Drive (T-546) / Shiloh Road (T-626)	EB	B	B	B	B	B	B	B	B	B	B
	WB	C	B	C	B	C	B	D	B	C	B
	NBL	A	A	A	A	A	A	A	A	A	A
	SBL	A	A	A	A	A	A	A	A	A	A
	OVERALL	A (0.5)	A (0.4)	A (0.5)	A (0.4)	A (1.2)	A (0.8)	A (0.5)	A (0.4)	A (1.3)	A (0.8)
Oakbourne Road (T-359) / Shiloh Road (T-626)	EB	B	B	B	B	B	B	B	B	B	B
	WB	A	B	A	B	C	B	B	B	C	B
	NBL	A	A	A	A	A	A	A	A	A	A
	SBL	A	A	A	A	A	A	A	A	A	A
	OVERALL	A (3.1)	A (2.9)	A (3.2)	A (3.0)	A (3.8)	A (3.4)	A (3.3)	A (3.0)	A (4.0)	A (3.4)
Little Shiloh Road (S.R.2005/T-367) / Shiloh Road (T-626)	EB	A	A	B	A	B	A	B	A	B	A
	WB	A	A	A	A	B	A	B	A	B	A
	NB	B	B	B	B	B	B	B	B	B	B
	SB	A	A	A	A	A	A	A	A	A	A
	OVERALL	B (10.4)	A (9.6)	B (10.7)	A (9.8)	B (11.0)	A (10.0)	B (10.9)	A (10.0)	B (11.3)	A (10.2)
Little Shiloh Road (T-367) / Shiloh Hill Drive (T-559)	WBL	A	A	A	A	A	A	A	A	A	A
	NB	A	A	A	A	A	A	A	A	A	A
	OVERALL	A (0.5)	A (0.4)	A (0.5)	A (0.4)	A (0.5)	A (0.4)	A (0.5)	A (0.4)	A (0.5)	A (0.3)
Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (S.R.2007)	EB	B	B	B	B	B	B	B	B	B	B
	WB	C	C	C	D	C	D	C	D	C	D
	NBL	A	A	A	A	A	A	A	A	A	A
	SBL	A	A	A	A	A	A	A	A	A	A
	OVERALL	A (2.9)	A (4.6)	A (3.0)	A (4.9)	A (3.2)	A (5.0)	A (3.1)	A (5.0)	A (3.3)	A (5.2)

Table B

Queue Analysis (In Feet) - HCM (6th Edition)

Intersection	Lanes	Existing Storage / Proposed Storage (in feet)	Existing Traffic Volumes		2028 Traffic Volumes without Development		2028 Traffic Volumes with Development	
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EBL	125'	83	63	135	98	145	115
	EBTR	+800'	280	210	375	300	375	303
	WBL	100'	13	5	18	8	18	8
	WBT	+800'	420	298	570	423	570	425
	WBR	175'	130	73	168	103	173	115
	NB	+800'	548	498	345	293	353	310
	SBLT	+800'	303	318	355	308	403	323
	SBR	150'	3	95	130	110	150	3
Hunt Drive (T-546) / Shiloh Road (T-626)	EB	+500'	5	3	5	3	5	3
	WB	+500'	0	0	0	0	13	3
	NBL	+500'	0	0	0	3	0	3
	SBL	+500'	0	0	0	0	0	0
Oakbourne Road (T-359) / Shiloh Road (T-626)	EB	+500'	25	15	28	15	28	18
	WB	+500'	0	0	0	0	10	5
	NBL	+500'	8	5	8	8	8	8
	SBL	+500'	0	0	0	0	0	0
Little Shiloh Road (S.R.2005 /T-367) / Shiloh Road (T-626)	EB	+500'	40	38	45	43	45	45
	WB	+500'	20	15	20	18	23	20
	NB	+500'	48	35	53	38	60	40
	SB	+500'	0	0	0	0	0	0
Little Shiloh Road (S.R.2005) / Shiloh Hill Drive (T-559)	WBL	+500'	0	0	0	0	0	0
	NB	+500'	0	0	0	0	0	0
Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (S.R.2007)	EB	+500'	13	18	13	20	15	23
	WB	+500'	15	33	15	38	15	38
	NBL	260'	3	5	3	5	3	5
	SBL	+500'	0	3	0	3	0	3

Table B (cont.)

Queue Analysis (In Feet) - HCM (6th Edition)

Intersection	Lanes	Existing Storage / Proposed Storage (in feet)	Existing Traffic Volumes		2033 Traffic Volumes without Development		2033 Traffic Volumes with Development	
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EBL	125'	83	63	148	105	160	123
	EBTR	+800'	280	210	390	313	390	318
	WBL	100'	13	5	20	8	20	8
	WBT	+800'	420	298	603	440	603	445
	WBR	175'	130	73	173	105	178	120
	NB	+800'	548	498	373	323	380	338
	SBLT	+800'	303	318	378	330	430	343
	SBR	150'	3	95	138	115	155	125
Hunt Drive (T-546) / Shiloh Road (T-626)	EB	+500'	5	3	5	3	5	3
	WB	+500'	0	0	0	0	13	3
	NBL	+500'	0	0	0	3	0	3
	SBL	+500'	0	0	0	0	0	0
Oakbourne Road (T-359) / Shiloh Road (T-626)	EB	+500'	25	15	28	15	30	18
	WB	+500'	0	0	0	0	10	5
	NBL	+500'	8	5	8	8	8	8
	SBL	+500'	0	0	0	0	0	0
Little Shiloh Road (S.R.2005 /T-367) / Shiloh Road (T-626)	EB	+500'	40	38	48	43	50	48
	WB	+500'	20	15	23	18	23	20
	NB	+500'	48	35	55	40	63	43
	SB	+500'	0	0	0	0	0	0
Little Shiloh Road (S.R.2005) / Shiloh Hill Drive (T-559)	WBL	+500'	0	0	0	0	0	0
	NB	+500'	0	0	0	0	0	0
Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (S.R.2007)	EB	+500'	13	18	13	20	15	23
	WB	+500'	15	33	18	40	18	40
	NBL	260'	3	5	3	5	3	5
	SBL	+500'	0	3	0	3	0	3

Table C

Queue Analysis (In Feet) - Synchro

Intersection	Lanes	Existing Storage / Proposed Storage (in feet)	Existing Traffic Volumes				2028 Traffic Volumes without Development				2028 Traffic Volumes with Development				2033 Traffic Volumes without Development				2033 Traffic Volumes with Development			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th
Street Road (S.R.0926) / Shiloh Road (T-626) - Westtown Thornton Road (S.R.2005)	EBL	125'	48	62	38	65	61	103	58	117	64	113	64	146	68	121	58	127	72	130	64	153
	EBTR	+800'	216	220	147	214	278	281	227	321	278	281	227	321	291	291	231	326	291	291	231	326
	WBL	100'	8	18	3	13	9	21	4	16	9	21	4	16	9	21	5	17	9	21	5	17
	WBT	+800'	316	318	210	307	387	387	293	450	387	387	293	450	403	401	300	458	403	401	300	458
	WBR	175'	84	105	47	84	102	126	65	112	105	129	73	123	105	129	66	113	108	132	73	123
	NB	+800'	119	203	79	225	108	140	102	171	110	142	104	183	113	145	106	187	114	147	108	191
	SBLT	+800'	163	224	137	326	198	246	184	304	214	271	192	320	205	256	193	329	234	282	201	344
	SBR	150'	64	103	50	113	77	106	67	118	88	118	73	127	80	110	70	123	90	121	75	130

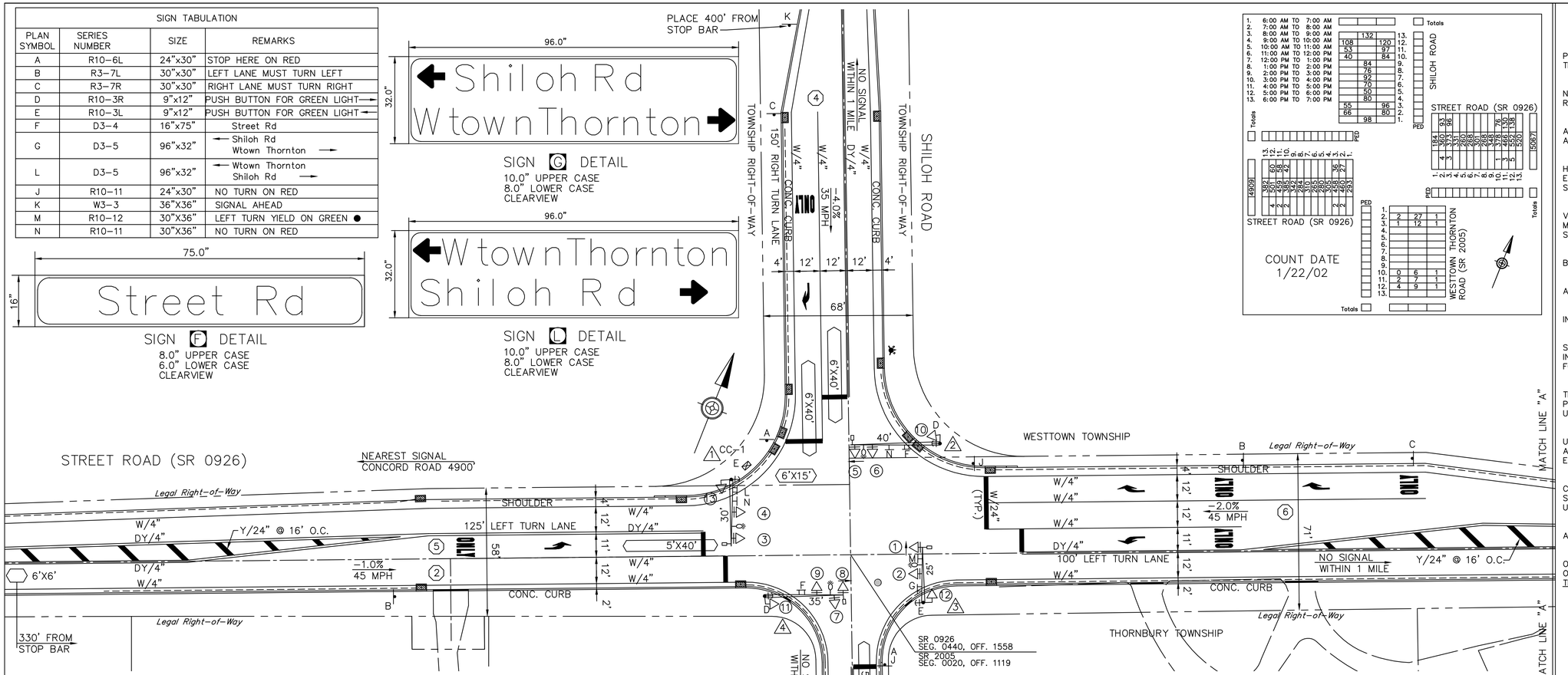
EXISTING CONDITIONS (Signal Plans, Sketches)

SIGN TABULATION			
PLAN SYMBOL	SERIES NUMBER	SIZE	REMARKS
A	R10-6L	24"x30"	STOP HERE ON RED
B	R3-7L	30"x30"	LEFT LANE MUST TURN LEFT
C	R3-7R	30"x30"	RIGHT LANE MUST TURN RIGHT
D	R10-3R	9"x12"	PUSH BUTTON FOR GREEN LIGHT →
E	R10-3L	9"x12"	PUSH BUTTON FOR GREEN LIGHT ←
F	D3-4	16"x75"	Street Rd
G	D3-5	96"x32"	← Shiloh Rd Wtown Thornton →
L	D3-5	96"x32"	← Wtown Thornton Shiloh Rd →
J	R10-11	24"x30"	NO TURN ON RED
K	W3-3	36"X36"	SIGNAL AHEAD
M	R10-12	30"X36"	LEFT TURN YIELD ON GREEN ●
N	R10-11	30"X36"	NO TURN ON RED

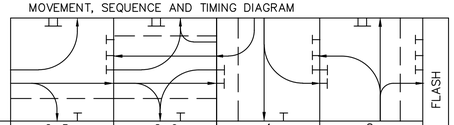
SIGN (F) DETAIL
8.0" UPPER CASE
6.0" LOWER CASE
CLEARVIEW

SIGN (G) DETAIL
10.0" UPPER CASE
8.0" LOWER CASE
CLEARVIEW

SIGN (L) DETAIL
10.0" UPPER CASE
8.0" LOWER CASE
CLEARVIEW



MOVEMENT, SEQUENCE AND TIMING DIAGRAM

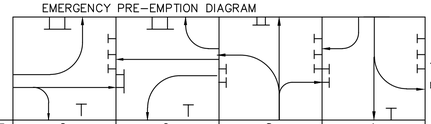


PHASE	2+5			2+6			4			8			
INTERVAL / SIGNALS	1	2	3	4	5	6	7	8	9	10	11	12	
1	⇆	Y①	R②	G	Y	R	R	R	R	R	R	R	Y
2	G	Y②	R②	G	Y	R	R	R	R	R	R	R	Y
3,4	R	R	R	G	Y	R	R	R	R	R	R	R	Y
5	R	R	R	R	R	R	R	R	R	⇆	Y	R	R
6,7	R	R	R	R	R	R	R	R	R	G	Y	R	R
8	R	R	R	R	R	R	⇆	Y	R	R	R	R	R
9	R	R	R	R	R	R	G	Y	R	R	R	R	R
10	R	R	R	G	Y	R	R	R	R	R	R	R	R
11	G	Y②	R②	R	R	R	R	R	R	R	R	R	R
12	R	R	R	R	R	R	R	R	R	G	Y	R	R
13	R	R	R	R	R	R	G	Y	R	R	R	R	R

FIXED		5	2		5	2		4	2		4	2	
MINIMUM	3			17			3			3			
SEC./ACT.				2									
MAX. INITIAL				35									
PASSAGE	3			5			3			3			
TBR				35									
TTR				10									
MIN. GAP				2.7									
MAX 1	7			47			13			7			
MAX 2	7			47			18			7			
PEDESTRIAN							15*			15*			
MEMORY	NON-LOCK			MIN. RECALL			NON-LOCK			LOCK			

* UPON PEDESTRIAN ACTUATION ONLY

EMERGENCY PRE-EMPTION DIAGRAM



PHASE	2			6			8			4			
INTERVAL / SIGNALS	13	14	15	16	17	18	19	20	21	22	23	24	
1	⇆	Y①	R②	R	R	R	R	R	R	R	R	R	
2	G	Y②	R②	R	R	R	R	R	R	R	R	R	
3,4	R	R	R	G	Y	R	R	R	R	R	R	R	
5	R	R	R	R	R	R	G	Y	R	R	R	R	
6,7	R	R	R	R	R	R	R	R	R	G	Y	R	
8	R	R	R	R	R	R	R	R	R	R	R	R	
9	R	R	R	R	R	R	R	R	R	R	R	R	
10	R	R	R	R	R	R	R	R	R	R	R	R	
11	R	R	R	R	R	R	R	R	R	R	R	R	
12	R	R	R	R	R	R	R	R	R	R	R	R	
13	R	R	R	R	R	R	R	R	R	R	R	R	
	**	5	2	**	5	2	**	4	2	**	4	2	

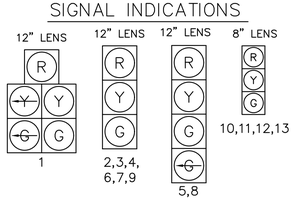
** FOR DURATION OF PRE-EMPTION

OPERATION NOTES

① G/⇆Y IF FOLLOWED BY PHASE 2+6.
② G IF FOLLOWED BY PHASE 2+6.
③ SIGNAL TO REMAIN GREEN WHEN RETURNING TO PHASE 2+6

MAX 2 TO OPERATE MON.-FRI. 6:00 AM TO 9:00 AM
MAX 1 TO OPERATE AT ALL OTHER TIMES

SIGNAL INDICATIONS



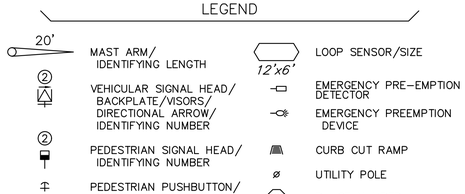
SIGNALS TO BE EQUIPPED WITH TUNNEL VISORS 1,2,3,4,5,6,7,8,9

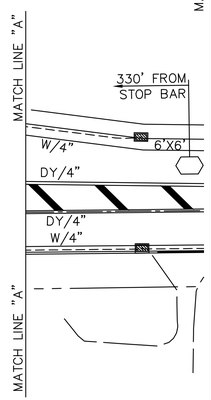
SIGNALS TO BE EQUIPPED WITH TUNNEL VISORS & LOUVERS 10,11,12,13

EMERGENCY PRE-EMPTION NOTES:

- CONTROLLER TO BE EQUIPPED WITH EMERGENCY PRE-EMPTION FOR THE EASTBOUND & WESTBOUND APPROACHES OF STREET ROAD AND THE SOUTHBOUND APPROACH OF SHILOH ROAD AND NORTHBOUND APPROACH OF WESTTOWN THORNTON ROAD WITH A FAIL SAFE DEVICE FOR EACH DIRECTION OF OPERATION. THIS EMERGENCY BEACON SHALL CONSIST OF A FLASHING WHITE FLOOD LIGHT, AND SHALL FLASH WHEN THE EMERGENCY VEHICLE HAS CONTROL OF THE INTERSECTION FOR THE APPROPRIATE APPROACH.
- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE, SHALL TERMINATE ALL GREEN INDICATIONS IMMEDIATELY, FOLLOWED BY THE COMPLETE YELLOW AND RED CLEARANCE INTERVALS, ACCORDINGLY. THEN THE GREEN INTERVAL FOR THE PREEMPTED PHASE SHALL FOLLOW.
- THE SIGNALS, WHEN ACTIVATED BY EMERGENCY VEHICLE SHALL TIME OUT ALL YELLOW AND RED INDICATIONS, FOLLOWED BY THE GREEN INTERVAL OF THE PRE-EMPTION PHASE GOVERNED BY THE APPROACHING EMERGENCY VEHICLE.
- IF SIGNALS HAVE BEEN ACTUATED BY PEDESTRIAN PUSHBUTTON, AND THE SIGNAL IS PRE-EMPTED, THE PEDESTRIAN TIME SHALL BE SPLIT BETWEEN PED "WALK" AND PED "CLEAR", THE PED "WALK" INTERVAL SHALL TERMINATE IMMEDIATELY, FOLLOWED BY THE PED "CLEAR" INTERVAL, THIS INTERVAL SHALL TIME OUT FOLLOWED BY THE APPROPRIATE SELECTIVE CLEARANCES, BEFORE GOING INTO EMERGENCY PRE-EMPTION.
- IF THE SIGNALS, WHEN ACTIVATED BY AN EMERGENCY VEHICLE, ARE FLASHING ALL SIGNALS SHALL REMAIN FLASHING.
- IF ADDITIONAL PRE-EMPTION PHASES ARE ACTIVATED WHILE IN PRE-EMPTION, THE ORIGINAL PRE-EMPTION PHASE SHALL TIME OUT BEFORE PROCEEDING TO THE NEXT PRE-EMPTION PHASE.
- UPON COMPLETION OF PRE-EMPTION, PHASE 2,4,6 OR 8 IN RETURNING TO NORMAL OPERATION, PHASE 2+6 INTERVAL 4 SHALL FOLLOW.
- IN EMERGENCY PRE-EMPTION, NO PRIORITY SHALL BE ESTABLISHED, PRE-EMPTION SHALL BE A "FIRST COME, FIRST SERVE" OPERATION.

LEGEND





25 0 25

GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 68.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF ACT 187, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, EFFECTIVE DATE DECEMBER 19, 1996.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT FOR REVIEW PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-7800 SERIES.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: CHESTER
MUNICIPALITY: WESTTOWN TOWNSHIP AND THORNBURY TOWNSHIP
INTERSECTION: STREET ROAD (SR 0926) WESTTOWN THORNTON ROAD (SR 2005) AND SHILOH ROAD

REVIEWED:

MUNICIPAL OFFICIAL (WESTTOWN TOWNSHIP) DATE

MUNICIPAL OFFICIAL (THORNBURY TOWNSHIP) DATE

RECOMMENDED:

DATE

DISTRICT TRAFFIC ENGINEER DATE

NO.	REVISION	DES./ REVW.	DATE	REVW.	DATE	RECOM.	DATE
1	"RELOCATE SHILOH ROAD" NEW DRAWING						

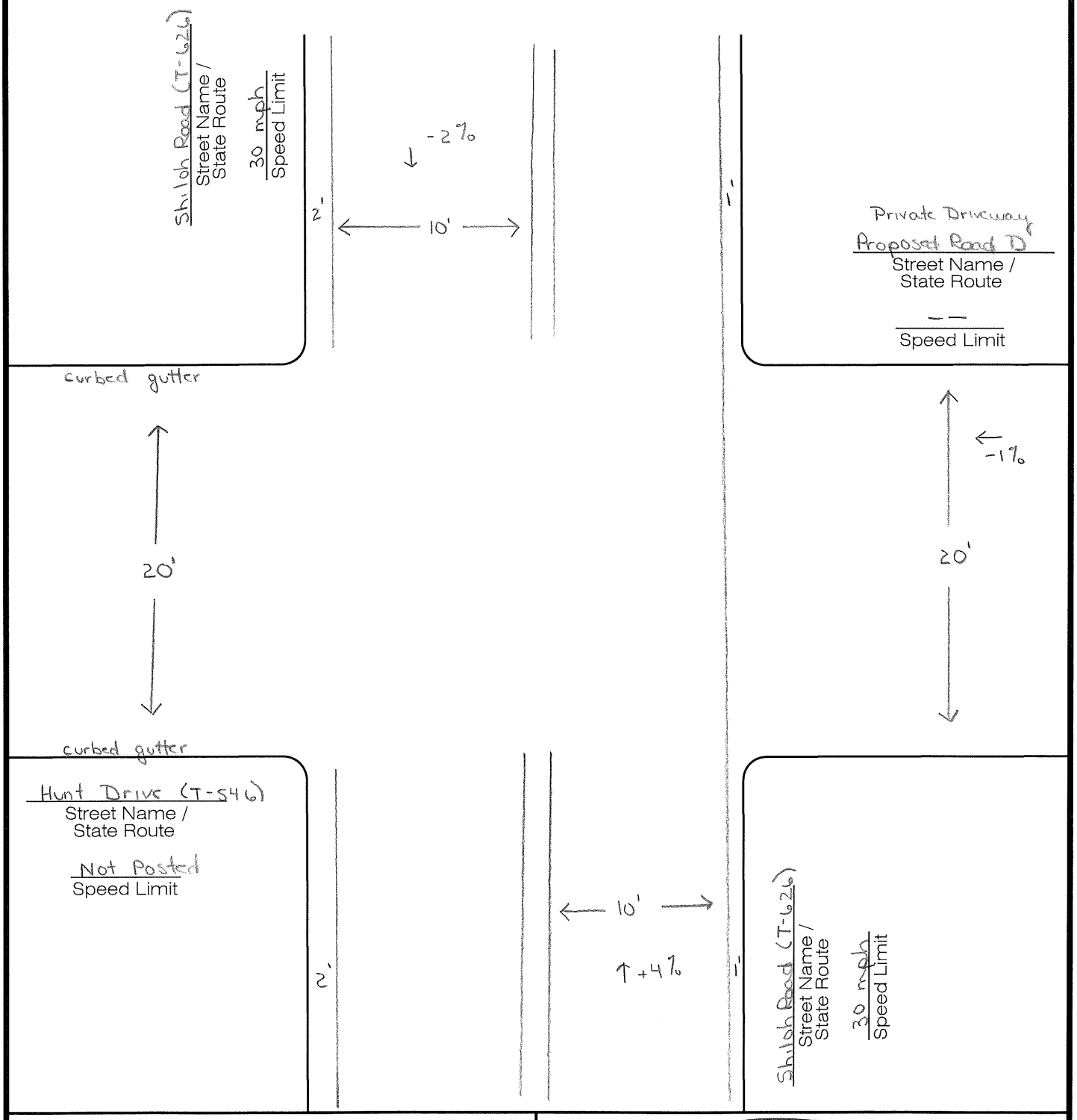
SHEET 2 OF 2 | PERMIT # 62-3286 | FILE # 3286

SITE INVENTORY - FIELD SHEET

Intersection: Shiloh Road (T-626) / Hunt Drive (T-546) - Proposed Road D

Project Name: Stokes Estates Residential Dev. Municipality: Westtown Township

Project Number: 278.012.21 Recorder(s): JAS / LJS Date: 4/16/21



1. Identify lane configuration and lane widths
2. Note shoulder widths / type and / or curb
3. Note any medians, islands, or channelization
4. Note grade of approaches
5. Note sight distance and restrictions
6. Identify segment / offset if state road
7. Note surrounding land uses
8. Note signs, traffic control, pavement markings, bus stops, and parking locations
9. Take pictures in ALL four directions

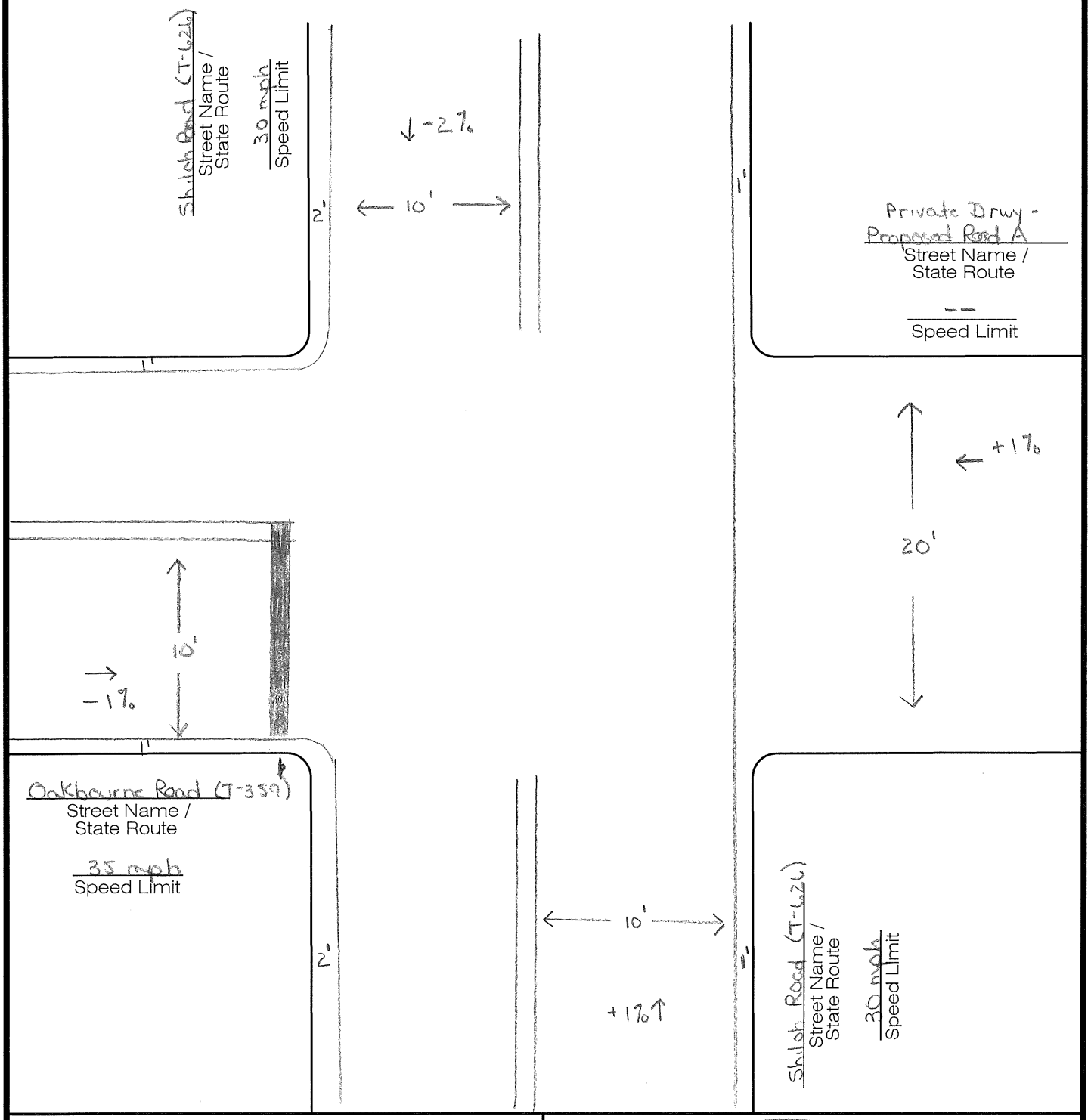
Driven by Success
TRG
TRANSPORTATION RESOURCE GROUP, INC.

SITE INVENTORY - FIELD SHEET

Intersection: Shiloh Road (T-626)/Oakbourne Road (T-359)- Proposed Road A

Project Name: Stokes Estate Residential Dev. Municipality: Westtown Township

Project Number: 278.021.21 Recorder(s): JAS / LJS Date: 4/16/21



1. Identify lane configuration and lane widths
2. Note shoulder widths / type and / or curb
3. Note any medians, islands, or channelization
4. Note grade of approaches
5. Note sight distance and restrictions
6. Identify segment / offset if state road
7. Note surrounding land uses
8. Note signs, traffic control, pavement markings, bus stops, and parking locations
9. Take pictures in ALL four directions

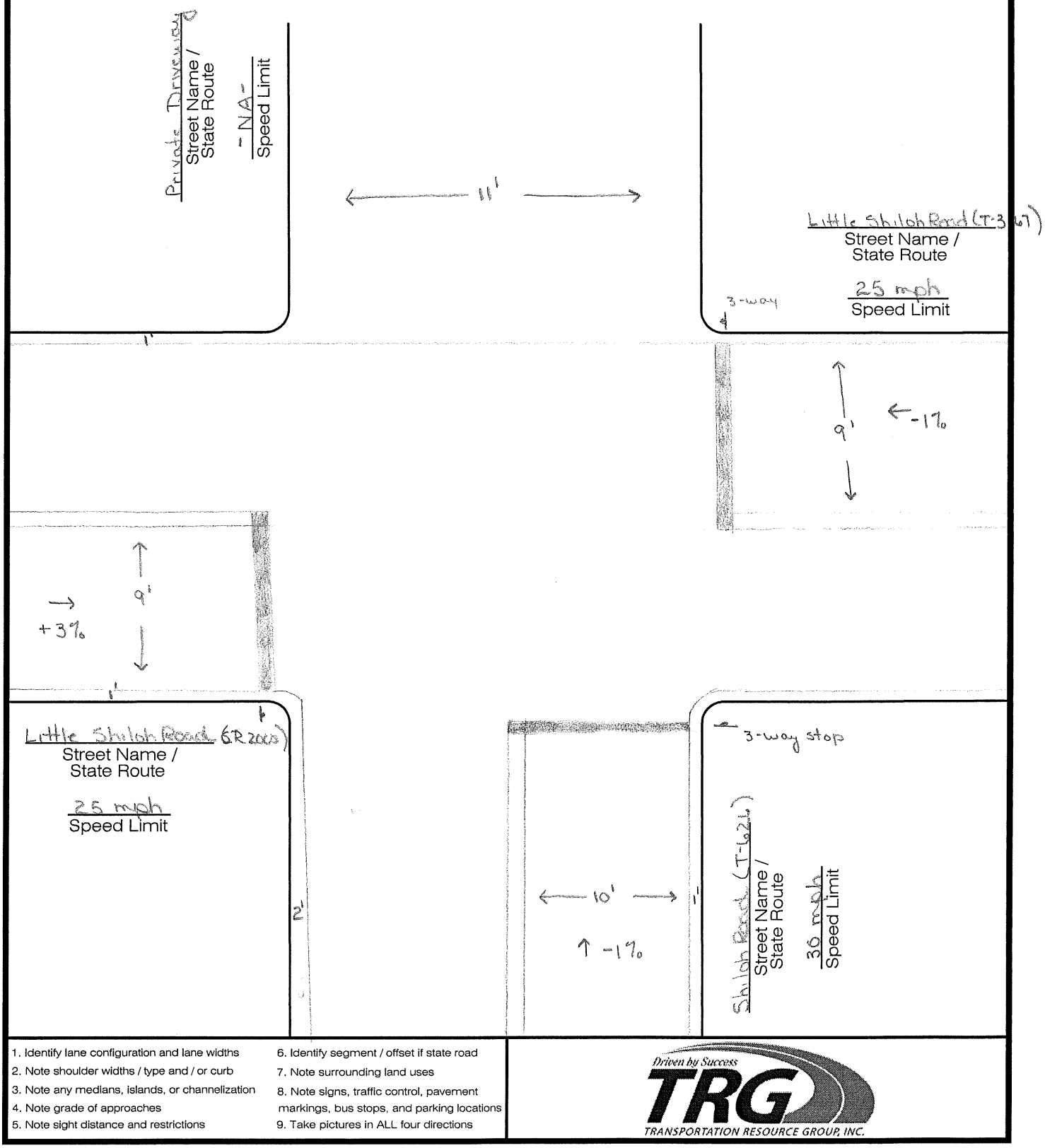
Driven by Success
TRG
TRANSPORTATION RESOURCE GROUP, INC.

SITE INVENTORY - FIELD SHEET

Intersection: Shiloh Road (T-626) / Little Shiloh Road (SR 2005)

Project Name: Stokes Estates Residential Dev. Municipality: Westtown Township

Project Number: 278.021.21 Recorder(s): JAS / LIS Date: 4/16/21



1. Identify lane configuration and lane widths
2. Note shoulder widths / type and / or curb
3. Note any medians, islands, or channelization
4. Note grade of approaches
5. Note sight distance and restrictions
6. Identify segment / offset if state road
7. Note surrounding land uses
8. Note signs, traffic control, pavement markings, bus stops, and parking locations
9. Take pictures in ALL four directions

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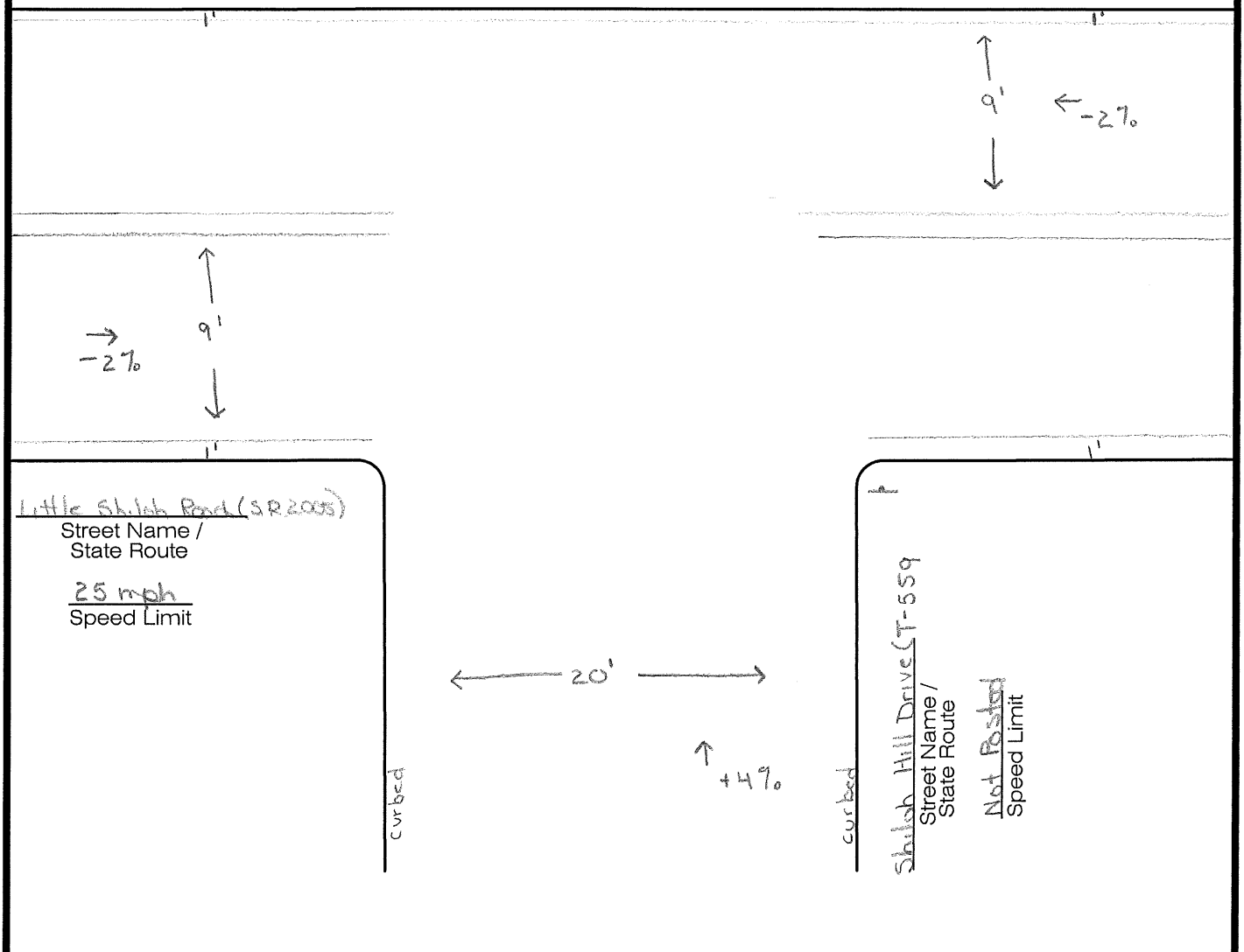
TRANSPORTATION RESOURCE GROUP, INC.

SITE INVENTORY - FIELD SHEET

Intersection: Little Shiloh Road (S.R 2005) / Shiloh Hill Drive (T-559)

Project Name: Stokes Estates Residential Dev. Municipality: Westtown Township

Project Number: 278.021.21 Recorder(s): JAS / LJS Date: 4/16/21



1. Identify lane configuration and lane widths
2. Note shoulder widths / type and / or curb
3. Note any medians, islands, or channelization
4. Note grade of approaches
5. Note sight distance and restrictions
6. Identify segment / offset if state road
7. Note surrounding land uses
8. Note signs, traffic control, pavement markings, bus stops, and parking locations
9. Take pictures in ALL four directions

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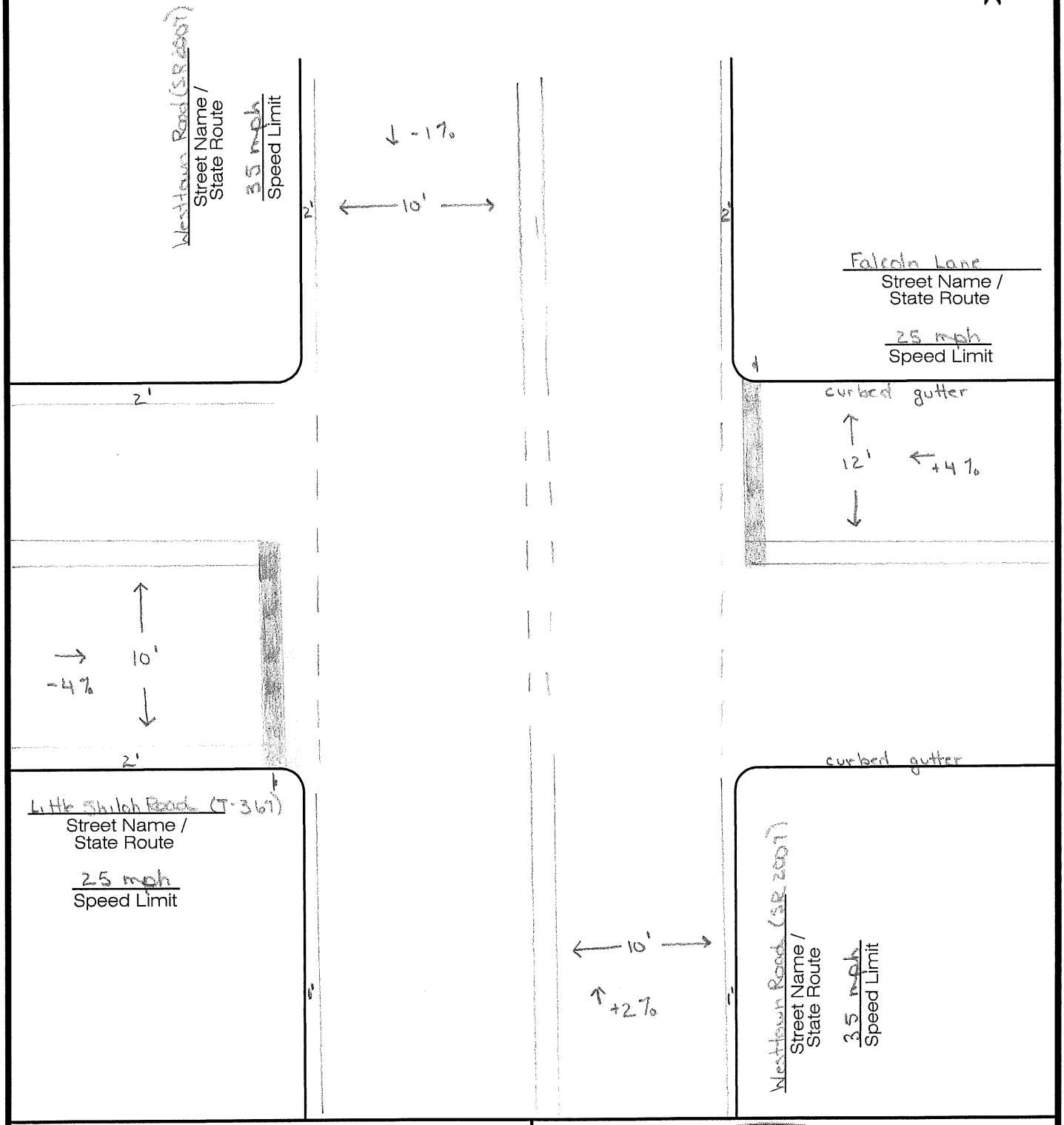
TRANSPORTATION RESOURCE GROUP, INC.

SITE INVENTORY - FIELD SHEET

Intersection: Little Shiloh Road (T-367) - Falcoln Lane / Westtown Road (SR 2007)

Project Name: Stokes Estates Residential Dev. Municipality: Westtown Township

Project Number: 278.021.21 Recorder(s): JAS / LJS Date: 4/16/21



1. Identify lane configuration and lane widths
2. Note shoulder widths / type and / or curb
3. Note any medians, islands, or channelization
4. Note grade of approaches
5. Note sight distance and restrictions
6. Identify segment / offset if state road
7. Note surrounding land uses
8. Note signs, traffic control, pavement markings, bus stops, and parking locations
9. Take pictures in ALL four directions

Driven by Success
TRG
TRANSPORTATION RESOURCE GROUP, INC.

TRAFFIC COUNTS

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Chester County, PA
Street Rd & Shiloh Rd-Westtown Thornton Rd
Tuesday, October 5, 2021
Location: 39.933198, -75.54736

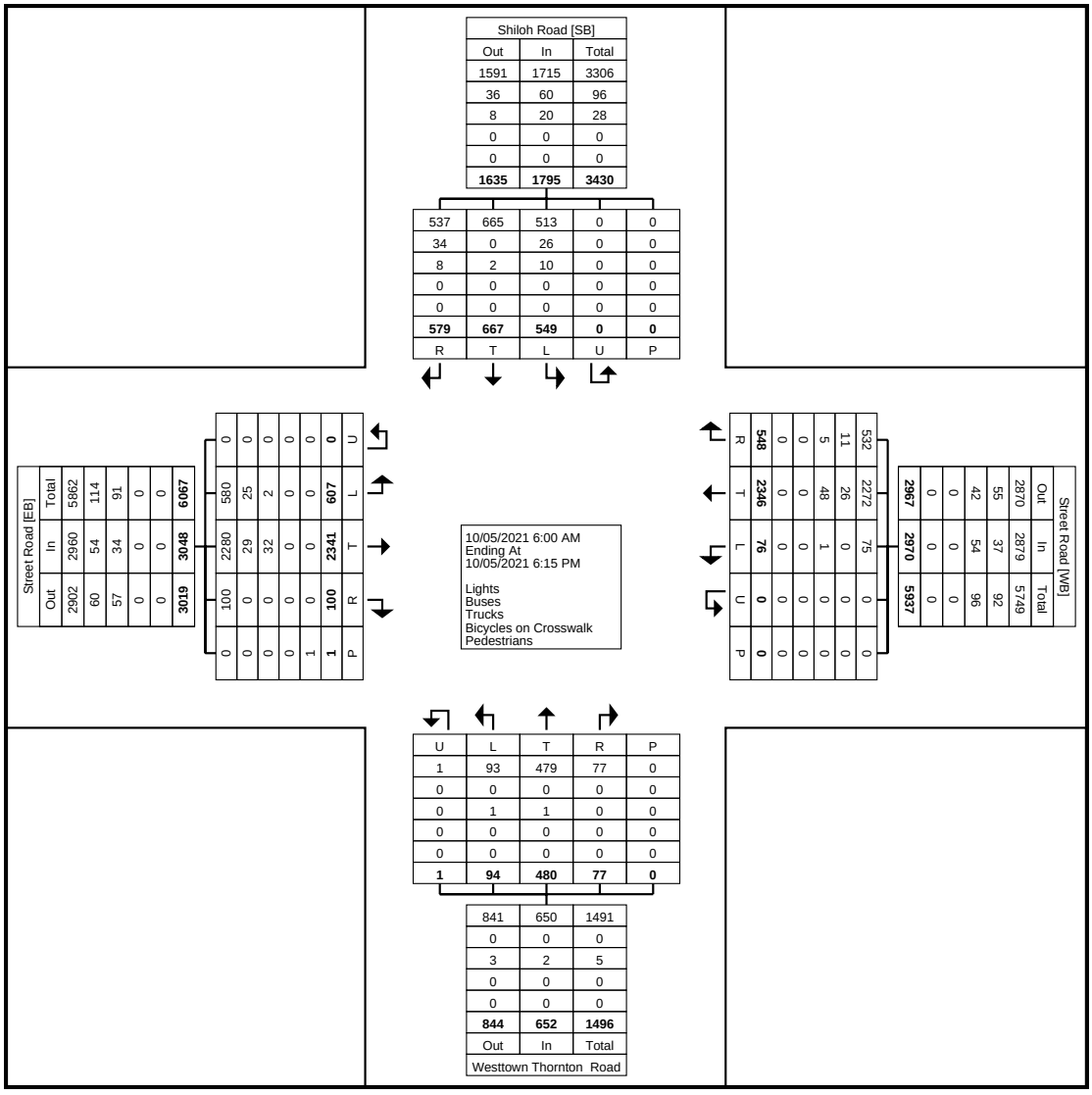
Count Name: Street Rd & Shiloh Rd-Westtown Thornton Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Data

Start Time	Street Road Eastbound							Street Road Westbound							Westtown Thornton Road Northbound							Shiloh Road Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
6:00 AM	1	23	0	0	0	0	24	0	8	2	0	0	0	10	1	1	0	0	0	0	2	4	1	2	0	0	0	7	43
6:15 AM	7	45	0	0	0	0	52	0	23	1	0	0	0	24	0	4	0	0	0	0	4	4	1	1	1	0	0	7	87
6:30 AM	4	45	0	0	0	0	49	0	33	7	1	0	0	41	1	17	1	0	0	0	19	10	3	6	0	0	0	19	128
6:45 AM	12	71	0	0	0	0	83	1	62	9	0	0	0	72	2	10	1	0	0	0	13	4	4	5	0	0	0	13	181
Hourly Total	24	184	0	0	0	0	208	1	126	19	1	0	0	147	4	32	2	0	0	0	38	22	9	14	1	0	0	46	439
7:00 AM	54	80	1	0	0	0	135	1	47	42	0	0	0	90	0	19	1	0	0	0	20	23	11	21	1	0	0	56	301
7:15 AM	86	87	0	0	0	0	173	4	87	114	0	0	0	205	5	40	1	1	0	0	47	48	26	28	0	0	0	102	527
7:30 AM	15	85	1	0	0	0	101	5	108	14	1	0	0	128	3	14	2	0	0	0	19	43	22	38	0	0	0	103	351
7:45 AM	7	98	2	0	0	0	107	2	119	10	0	0	0	131	9	20	2	0	0	0	31	8	17	14	0	0	0	39	308
Hourly Total	162	350	4	0	0	0	516	12	361	180	1	0	0	554	17	93	6	1	0	0	117	122	76	101	1	0	0	300	1487
8:00 AM	13	128	7	0	0	0	148	4	111	9	0	0	0	124	4	11	5	0	0	0	20	20	21	8	0	0	0	49	341
8:15 AM	20	87	2	0	0	0	109	2	82	30	0	0	0	114	3	19	3	0	0	0	25	14	25	5	4	0	0	48	296
8:30 AM	9	94	2	0	0	0	105	3	91	8	0	0	0	102	6	14	3	0	0	0	23	16	11	18	1	0	0	46	276
8:45 AM	10	89	4	0	0	0	103	4	90	3	0	0	0	97	13	9	2	0	0	0	24	14	28	21	0	0	0	63	287
Hourly Total	52	398	15	0	0	0	465	13	374	50	0	0	0	437	26	53	13	0	0	0	92	64	85	52	5	0	0	206	1200
9:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:00 PM	19	64	3	1	0	0	87	0	44	21	1	0	0	66	2	18	5	0	0	0	25	6	17	5	1	0	0	29	207
2:15 PM	19	72	5	0	0	0	96	2	53	14	1	0	0	70	4	11	2	0	0	0	17	62	47	63	0	0	0	172	355
2:30 PM	26	77	7	0	0	0	110	2	102	17	1	0	0	122	4	9	3	0	0	0	16	14	22	31	0	0	0	67	315
2:45 PM	19	62	5	0	0	0	86	2	70	10	2	0	0	84	5	13	1	0	0	0	19	20	27	26	0	0	0	73	262
Hourly Total	83	275	20	1	0	0	379	6	269	62	5	0	0	342	15	51	11	0	0	0	77	102	113	125	1	0	0	341	1139
3:00 PM	21	93	3	0	0	0	117	7	99	12	1	0	0	119	4	17	3	0	0	0	24	18	20	21	1	0	0	60	320
3:15 PM	19	86	8	0	0	0	113	5	82	8	0	0	0	95	3	14	2	0	0	0	19	19	23	22	0	0	0	64	291
3:30 PM	8	89	7	2	0	0	106	0	108	15	0	0	0	123	1	12	0	0	0	0	13	24	23	17	0	0	0	64	306
3:45 PM	20	107	7	1	0	0	135	2	93	9	1	0	0	105	1	13	1	0	0	0	15	24	28	19	1	0	0	72	327
Hourly Total	68	375	25	3	0	0	471	14	382	44	2	0	0	442	9	56	6	0	0	0	71	85	94	79	2	0	0	260	1244
4:00 PM	17	104	1	0	0	0	122	7	97	9	1	0	0	114	4	19	4	0	0	0	27	15	27	14	0	0	0	56	319
4:15 PM	21	95	4	0	0	0	120	3	90	23	0	0	0	116	4	9	6	0	1	0	20	17	36	20	1	0	0	74	330
4:30 PM	21	83	4	0	0	0	108	5	123	13	0	0	0	141	6	28	4	0	0	0	38	24	38	38	0	0	0	100	387
4:45 PM	36	88	6	0	0	0	130	1	98	21	1	0	0	121	2	28	5	0	0	0	35	26	45	26	0	0	0	97	383
Hourly Total	95	370	15	0	0	0	480	16	408	66	2	0	0	492	16	84	19	0	1	0	120	82	146	98	1	0	0	327	1419
5:00 PM	30	120	9	0	0	0	159	3	82	25	0	0	0	110	0	20	5	0	0	0	25	21	46	24	1	0	0	92	386
5:15 PM	31	87	1	0	0	1	119	2	126	30	1	0	0	159	5	37	2	0	0	0	44	18	30	18	0	0	0	66	388
5:30 PM	38	108	6	0	0	0	152	3	118	40	0	0	0	161	2	30	7	0	0	0	39	26	45	34	0	0	0	105	457
5:45 PM	24	74	1	0	0	0	99	6	98	19	0	0	0	123	0	24	5	0	0	0	29	7	23	22	0	0	0	52	303
Hourly Total	123	389	17	0	0	1	529	14	424	114	1	0	0	553	7	111	19	0	0	0	137	72	144	98	1	0	0	315	1534
6:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	607	2341	96	4	0	1	3048	76	2346	536	12	0	0	2970	94	480	76	1	1	0	652	549	667	567	12	0	0	1795	8465
Approach %	19.9	76.8	3.1	0.1	0.0	-	-	2.6	79.0	18.0	0.4	0.0	-	-	14.4	73.6	11.7	0.2	0.2	-	-	30.6	37.2	31.6	0.7	0.0	-	-	-
Total %	7.2	27.7	1.1	0.0	0.0	-	36.0	0.9	27.7	6.3	0.1	0.0	-	35.1	1.1	5.7	0.9	0.0	0.0	-	7.7	6.5	7.9	6.7	0.1	0.0	-	21.2	-
Lights	580	2280	96	4	0	-	2960	75	2272	521	11	0	-	2879	93	479	76	1	1	-	650	513	665	527	10	0	-	1715	8204
% Lights	95.6	97.4	100.0	100.0	-	-	97.1	98.7	96.8	97.2	91.7	-	-	96.9	98.9	99.8	100.0	100.0	100.0	-	99.7	93.4	99.7	92.9	83.3	-	-	95.5	96.9
Buses	25	29	0	0	0	-	54	0	26	11	0	0	-	37	0	0	0	0	0	-	0	26	0	34	0	0	-	60	151
% Buses	4.1	1.2	0.0	0.0	-	-	1.8	0.0	1.1	2.1	0.0	-	-	1.2	0.0	0.0	0.0	0.0	0.0	-	0.0	4.7	0.0	6.0	0.0	-	-	3.3	1.8
Trucks	2	32	0	0	0	-	34	1	48	4	1	0	-	54	1	1	0	0	0	-	2	10	2	6	2	0	-	20	110
% Trucks	0.3	1.4	0.0	0.0	-	-	1.1	1.3	2.0	0.7	8.3	-	-	1.8	1.1	0.2	0.0	0.0	0.0	-	0.3	1.8	0.3	1.1	16.7	-	-	1.1	1.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Street Rd & Shiloh Rd-Westtown Thornton Rd
Tuesday, October 5, 2021
Location: 39.933198, -75.54736

Count Name: Street Rd & Shiloh Rd-Westtown Thornton Rd
Site Code:
Start Date: 10/05/2021



Turning Movement Data Plot

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Chester County, PA
Street Rd & Shiloh Rd-Westtown Thornton Rd
Tuesday, October 5, 2021
Location: 39.933198, -75.54736

Count Name: Street Rd & Shiloh Rd-Westtown Thornton Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Street Road Eastbound							Street Road Westbound							Westtown Thornton Road Northbound							Shiloh Road Southbound							
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:15 AM	86	87	0	0	0	0	173	4	87	114	0	0	0	205	5	40	1	1	0	0	47	48	26	28	0	0	0	102	527
7:30 AM	15	85	1	0	0	0	101	5	108	14	1	0	0	128	3	14	2	0	0	0	19	43	22	38	0	0	0	103	351
7:45 AM	7	98	2	0	0	0	107	2	119	10	0	0	0	131	9	20	2	0	0	0	31	8	17	14	0	0	0	39	308
8:00 AM	13	128	7	0	0	0	148	4	111	9	0	0	0	124	4	11	5	0	0	0	20	20	21	8	0	0	0	49	341
Total	121	398	10	0	0	0	529	15	425	147	1	0	0	588	21	85	10	1	0	0	117	119	86	88	0	0	0	293	1527
Approach %	22.9	75.2	1.9	0.0	0.0	-	-	2.6	72.3	25.0	0.2	0.0	-	-	17.9	72.6	8.5	0.9	0.0	-	-	40.6	29.4	30.0	0.0	0.0	-	-	-
Total %	7.9	26.1	0.7	0.0	0.0	-	34.6	1.0	27.8	9.6	0.1	0.0	-	38.5	1.4	5.6	0.7	0.1	0.0	-	7.7	7.8	5.6	5.8	0.0	0.0	-	19.2	-
PHF	0.352	0.777	0.357	0.000	0.000	-	0.764	0.750	0.893	0.322	0.250	0.000	-	0.717	0.583	0.531	0.500	0.250	0.000	-	0.622	0.620	0.827	0.579	0.000	0.000	-	0.711	0.724
Lights	118	383	10	0	0	-	511	15	407	146	1	0	-	569	20	85	10	1	0	-	116	115	84	81	0	0	-	280	1476
% Lights	97.5	96.2	100.0	-	-	-	96.6	100.0	95.8	99.3	100.0	-	-	96.8	95.2	100.0	100.0	100.0	-	-	99.1	96.6	97.7	92.0	-	-	-	95.6	96.7
Buses	3	6	0	0	0	-	9	0	8	0	0	0	-	8	0	0	0	0	0	-	0	4	0	6	0	0	-	10	27
% Buses	2.5	1.5	0.0	-	-	-	1.7	0.0	1.9	0.0	0.0	-	-	1.4	0.0	0.0	0.0	0.0	-	-	0.0	3.4	0.0	6.8	-	-	-	3.4	1.8
Trucks	0	9	0	0	0	-	9	0	10	1	0	0	-	11	1	0	0	0	0	-	1	0	2	1	0	0	-	3	24
% Trucks	0.0	2.3	0.0	-	-	-	1.7	0.0	2.4	0.7	0.0	-	-	1.9	4.8	0.0	0.0	0.0	-	-	0.9	0.0	2.3	1.1	-	-	-	1.0	1.6
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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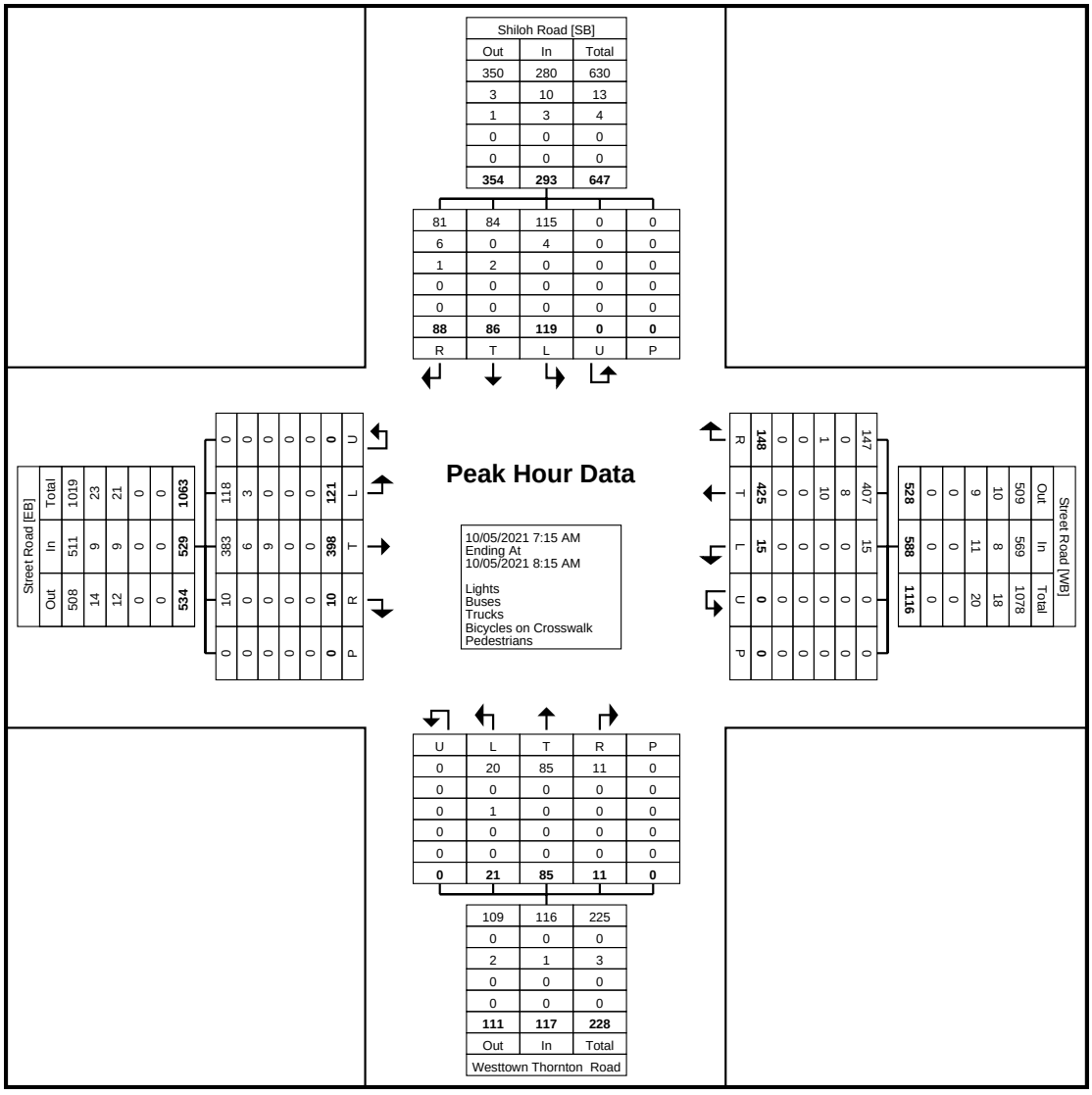
Chester County, PA
Street Rd & Shiloh Rd-Westtown Thornton Rd
Tuesday, October 5, 2021
Location: 39.933198, -75.54736

Count Name: Street Rd & Shiloh Rd-Westtown Thornton Rd
Site Code:
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (7:15 AM)

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Chester County, PA
Street Rd & Shiloh Rd-Westtown Thornton Rd
Tuesday, October 5, 2021
Location: 39.933198, -75.54736

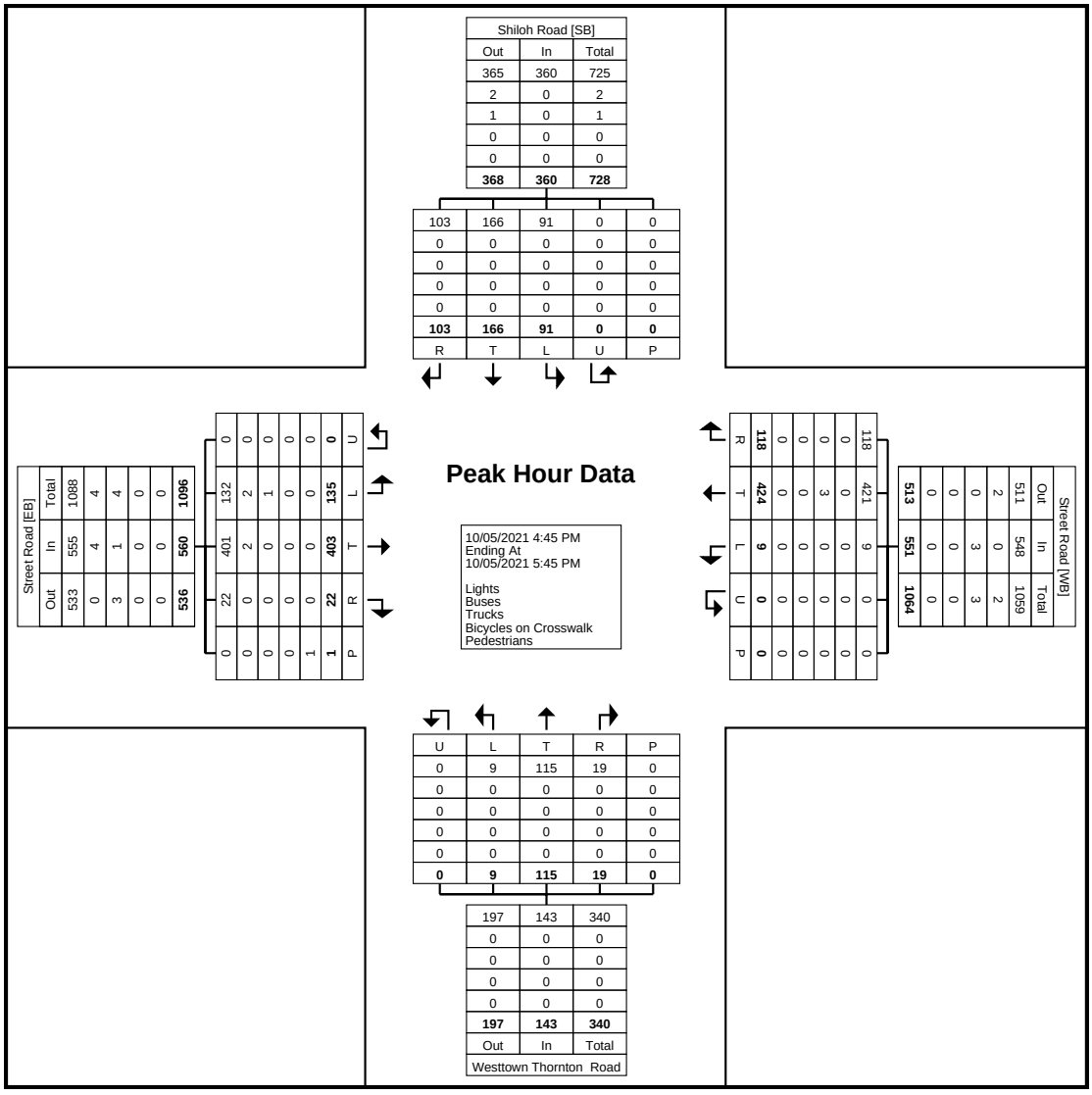
Count Name: Street Rd & Shiloh Rd-Westtown Thornton Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Street Road Eastbound							Street Road Westbound							Westtown Thornton Road Northbound							Shiloh Road Southbound							
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
4:45 PM	36	88	6	0	0	0	130	1	98	21	1	0	0	121	2	28	5	0	0	0	35	26	45	26	0	0	0	97	383
5:00 PM	30	120	9	0	0	0	159	3	82	25	0	0	0	110	0	20	5	0	0	0	25	21	46	24	1	0	0	92	386
5:15 PM	31	87	1	0	0	1	119	2	126	30	1	0	0	159	5	37	2	0	0	0	44	18	30	18	0	0	0	66	388
5:30 PM	38	108	6	0	0	0	152	3	118	40	0	0	0	161	2	30	7	0	0	0	39	26	45	34	0	0	0	105	457
Total	135	403	22	0	0	1	560	9	424	116	2	0	0	551	9	115	19	0	0	0	143	91	166	102	1	0	0	360	1614
Approach %	24.1	72.0	3.9	0.0	0.0	-	-	1.6	77.0	21.1	0.4	0.0	-	-	6.3	80.4	13.3	0.0	0.0	-	-	25.3	46.1	28.3	0.3	0.0	-	-	-
Total %	8.4	25.0	1.4	0.0	0.0	-	34.7	0.6	26.3	7.2	0.1	0.0	-	34.1	0.6	7.1	1.2	0.0	0.0	-	8.9	5.6	10.3	6.3	0.1	0.0	-	22.3	-
PHF	0.888	0.840	0.611	0.000	0.000	-	0.881	0.750	0.841	0.725	0.500	0.000	-	0.856	0.450	0.777	0.679	0.000	0.000	-	0.813	0.875	0.902	0.750	0.250	0.000	-	0.857	0.883
Lights	132	401	22	0	0	-	555	9	421	116	2	0	-	548	9	115	19	0	0	-	143	91	166	102	1	0	-	360	1606
% Lights	97.8	99.5	100.0	-	-	-	99.1	100.0	99.3	100.0	100.0	-	-	99.5	100.0	100.0	100.0	-	-	-	100.0	100.0	100.0	100.0	100.0	-	-	100.0	99.5
Buses	2	2	0	0	0	-	4	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	4
% Buses	1.5	0.5	0.0	-	-	-	0.7	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.2
Trucks	1	0	0	0	0	-	1	0	3	0	0	0	-	3	0	0	0	0	0	-	0	0	0	0	0	0	-	0	4
% Trucks	0.7	0.0	0.0	-	-	-	0.2	0.0	0.7	0.0	0.0	-	-	0.5	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Street Rd & Shiloh Rd-Westtown Thornton Rd
Tuesday, October 5, 2021
Location: 39.933198, -75.54736

Count Name: Street Rd & Shiloh Rd-Westtown Thornton Rd
Site Code:
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (4:45 PM)

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Chester County, PA
Shiloh Rd & Hunt Dr
Tuesday, October 5, 2021
Location: 39.946701, -75.554599

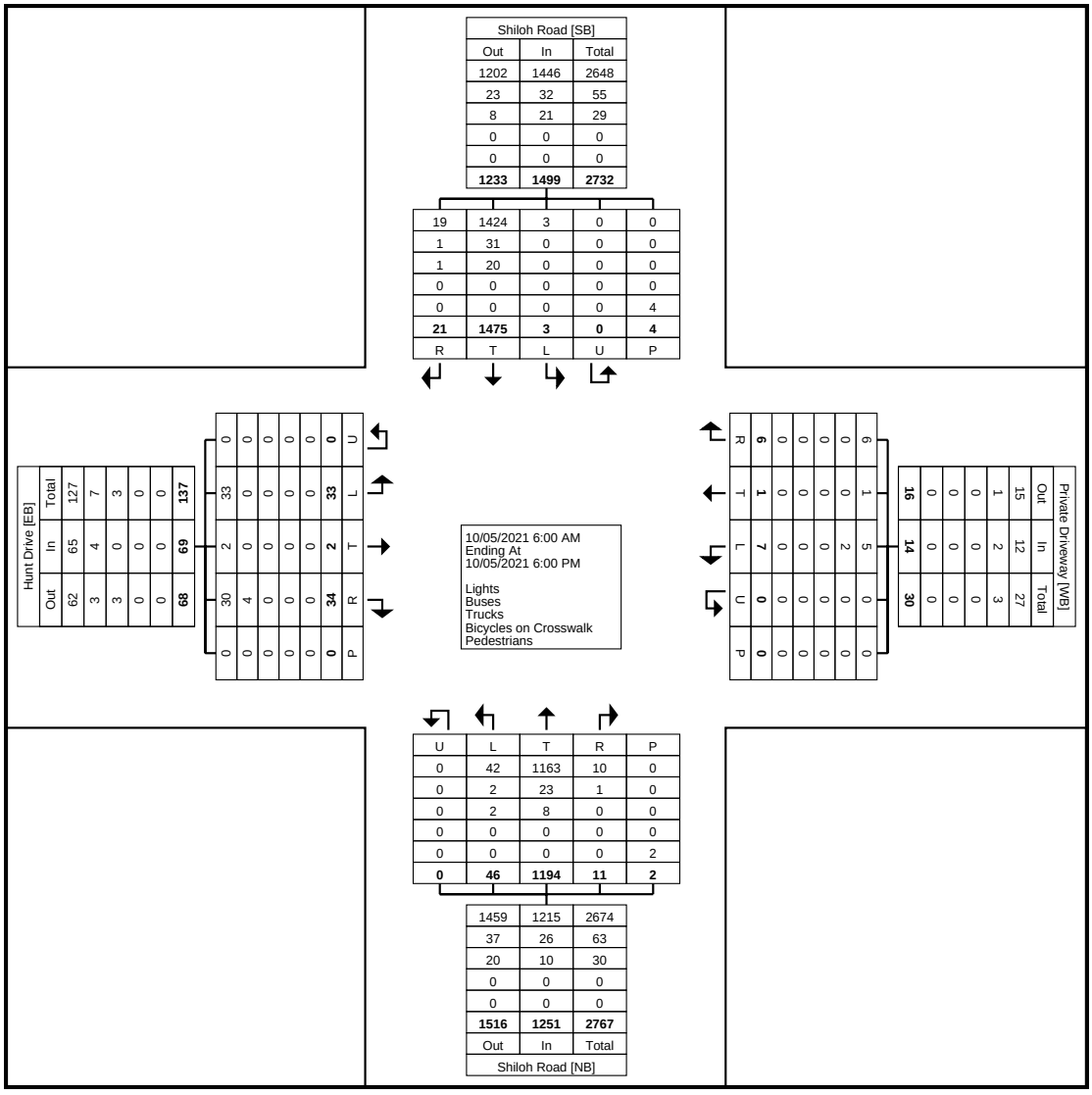
Count Name: Shiloh Rd & Hunt Drive
Site Code:
Start Date: 10/05/2021

Turning Movement Data

Start Time	Hunt Drive Eastbound						Private Driveway Westbound						Shiloh Road Northbound						Shiloh Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	0	1	1	0	0	2	0	0	0	0	0	0	0	2	1	0	0	3	0	4	0	0	0	4	9
6:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	6	1	0	0	7	0	3	0	0	0	3	11
6:30 AM	1	0	0	0	0	1	1	0	0	0	0	1	1	21	1	0	0	23	0	24	0	0	0	24	49
6:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	22	1	0	0	23	0	36	1	0	2	37	61
Hourly Total	2	1	2	0	0	5	1	0	0	0	0	1	1	51	4	0	0	56	0	67	1	0	2	68	130
7:00 AM	0	0	2	0	0	2	1	0	0	0	0	1	2	25	0	0	0	27	0	97	0	0	0	97	127
7:15 AM	3	0	5	0	0	8	0	0	0	0	0	0	2	87	2	0	0	91	0	125	1	0	0	126	225
7:30 AM	2	0	1	0	0	3	0	0	0	0	0	0	1	56	1	0	0	58	0	38	0	0	0	38	99
7:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	46	0	0	0	47	0	41	1	0	0	42	90
Hourly Total	6	0	8	0	0	14	1	0	0	0	0	1	6	214	3	0	0	223	0	301	2	0	0	303	541
8:00 AM	2	0	1	0	0	3	0	0	0	0	0	0	1	30	0	0	0	31	1	43	0	0	0	44	78
8:15 AM	2	0	3	0	0	5	0	0	0	0	0	0	0	42	0	0	0	42	0	56	0	0	0	56	103
8:30 AM	0	0	2	0	0	2	0	0	1	0	0	1	0	28	1	0	0	29	0	45	2	0	0	47	79
8:45 AM	1	0	0	0	0	1	1	0	2	0	0	3	1	31	0	0	0	32	0	37	2	0	0	39	75
Hourly Total	5	0	6	0	0	11	1	0	3	0	0	4	2	131	1	0	0	134	1	181	4	0	0	186	335
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	2	1	2	0	0	5	0	0	1	0	0	1	0	19	0	0	0	19	0	54	0	0	0	54	79
2:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	4	89	0	0	0	93	0	38	1	0	0	39	133
2:30 PM	1	0	1	0	0	2	0	0	0	0	0	0	2	46	0	0	0	48	0	43	0	0	0	43	93
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	45	0	0	0	47	0	39	0	0	0	39	86
Hourly Total	4	1	3	0	0	8	0	0	1	0	0	1	8	199	0	0	0	207	0	174	1	0	0	175	391
3:00 PM	1	0	2	0	0	3	0	0	0	0	0	0	2	52	0	0	0	54	0	37	2	0	0	39	96
3:15 PM	2	0	1	0	0	3	0	0	0	0	0	0	1	62	1	0	0	64	0	40	1	0	0	41	108
3:30 PM	3	0	0	0	0	3	3	1	0	0	0	4	4	22	0	0	2	26	0	58	2	0	0	60	93
3:45 PM	1	0	1	0	0	2	0	0	1	0	0	1	2	39	0	0	0	41	0	49	0	0	0	49	93
Hourly Total	7	0	4	0	0	11	3	1	1	0	0	5	9	175	1	0	2	185	0	184	5	0	0	189	390
4:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	1	39	1	0	0	41	0	59	1	0	0	60	103
4:15 PM	0	0	2	0	0	2	0	0	0	0	0	0	1	38	0	0	0	39	0	70	0	0	0	70	111
4:30 PM	3	0	1	0	0	4	0	0	0	0	0	0	1	42	1	0	0	44	1	71	2	0	0	74	122
4:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	4	45	0	0	0	49	0	75	0	0	0	75	125
Hourly Total	5	0	4	0	0	9	0	0	0	0	0	0	7	164	2	0	0	173	1	275	3	0	0	279	461
5:00 PM	1	0	3	0	0	4	0	0	1	0	0	1	4	67	0	0	0	71	1	71	0	0	2	72	148
5:15 PM	1	0	1	0	0	2	1	0	0	0	0	1	1	68	0	0	0	69	0	84	1	0	0	85	157
5:30 PM	1	0	2	0	0	3	0	0	0	0	0	0	4	72	0	0	0	76	0	84	4	0	0	88	167
5:45 PM	1	0	1	0	0	2	0	0	0	0	0	0	4	53	0	0	0	57	0	54	0	0	0	54	113
Hourly Total	4	0	7	0	0	11	1	0	1	0	0	2	13	260	0	0	0	273	1	293	5	0	2	299	585
Grand Total	33	2	34	0	0	69	7	1	6	0	0	14	46	1194	11	0	2	1251	3	1475	21	0	4	1499	2833
Approach %	47.8	2.9	49.3	0.0	-	-	50.0	7.1	42.9	0.0	-	-	3.7	95.4	0.9	0.0	-	-	0.2	98.4	1.4	0.0	-	-	-
Total %	1.2	0.1	1.2	0.0	-	2.4	0.2	0.0	0.2	0.0	-	0.5	1.6	42.1	0.4	0.0	-	44.2	0.1	52.1	0.7	0.0	-	52.9	-
Lights	33	2	30	0	-	65	5	1	6	0	-	12	42	1163	10	0	-	1215	3	1424	19	0	-	1446	2738
% Lights	100.0	100.0	88.2	-	-	94.2	71.4	100.0	100.0	-	-	85.7	91.3	97.4	90.9	-	-	97.1	100.0	96.5	90.5	-	-	96.5	96.6
Buses	0	0	4	0	-	4	2	0	0	0	-	2	2	23	1	0	-	26	0	31	1	0	-	32	64
% Buses	0.0	0.0	11.8	-	-	5.8	28.6	0.0	0.0	-	-	14.3	4.3	1.9	9.1	-	-	2.1	0.0	2.1	4.8	-	-	2.1	2.3
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	2	8	0	0	-	10	0	20	1	0	-	21	31
% Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	4.3	0.7	0.0	-	-	0.8	0.0	1.4	4.8	-	-	1.4	1.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Chester County, PA
Shiloh Rd & Hunt Dr
Tuesday, October 5, 2021
Location: 39.946701, -75.554599

Count Name: Shiloh Rd & Hunt Drive
Site Code:
Start Date: 10/05/2021



Turning Movement Data Plot

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Chester County, PA
Shiloh Rd & Hunt Dr
Tuesday, October 5, 2021
Location: 39.946701, -75.554599

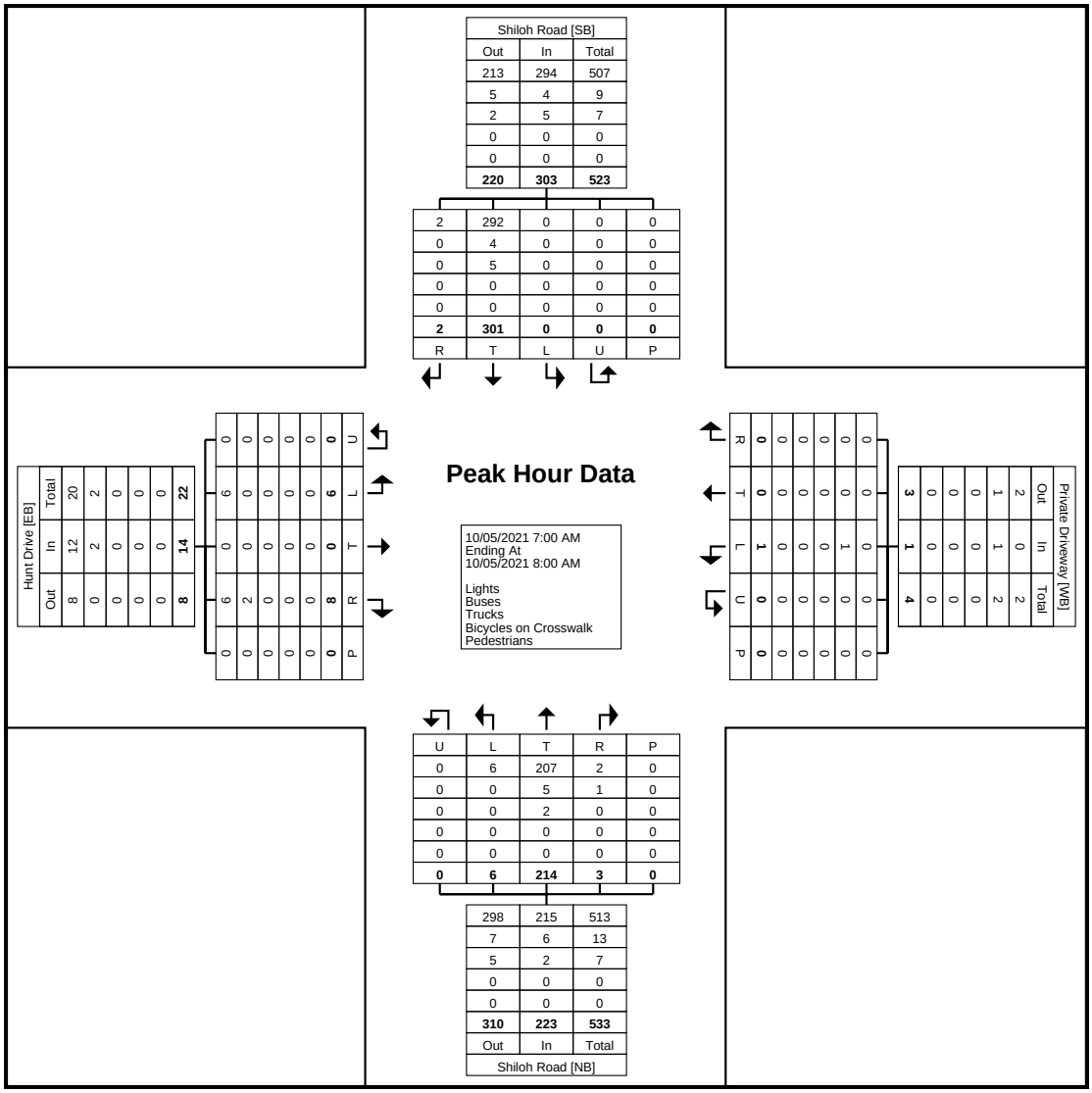
Count Name: Shiloh Rd & Hunt Drive
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Hunt Drive Eastbound						Private Driveway Westbound						Shiloh Road Northbound						Shiloh Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	0	0	2	0	0	2	1	0	0	0	0	1	2	25	0	0	0	27	0	97	0	0	0	97	127
7:15 AM	3	0	5	0	0	8	0	0	0	0	0	0	2	87	2	0	0	91	0	125	1	0	0	126	225
7:30 AM	2	0	1	0	0	3	0	0	0	0	0	0	1	56	1	0	0	58	0	38	0	0	0	38	99
7:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	46	0	0	0	47	0	41	1	0	0	42	90
Total	6	0	8	0	0	14	1	0	0	0	0	1	6	214	3	0	0	223	0	301	2	0	0	303	541
Approach %	42.9	0.0	57.1	0.0	-	-	100.0	0.0	0.0	0.0	-	-	2.7	96.0	1.3	0.0	-	-	0.0	99.3	0.7	0.0	-	-	-
Total %	1.1	0.0	1.5	0.0	-	2.6	0.2	0.0	0.0	0.0	-	0.2	1.1	39.6	0.6	0.0	-	41.2	0.0	55.6	0.4	0.0	-	56.0	-
PHF	0.500	0.000	0.400	0.000	-	0.438	0.250	0.000	0.000	0.000	-	0.250	0.750	0.615	0.375	0.000	-	0.613	0.000	0.602	0.500	0.000	-	0.601	0.601
Lights	6	0	6	0	-	12	0	0	0	0	-	0	6	207	2	0	-	215	0	292	2	0	-	294	521
% Lights	100.0	-	75.0	-	-	85.7	0.0	-	-	-	-	0.0	100.0	96.7	66.7	-	-	96.4	-	97.0	100.0	-	-	97.0	96.3
Buses	0	0	2	0	-	2	1	0	0	0	-	1	0	5	1	0	-	6	0	4	0	0	-	4	13
% Buses	0.0	-	25.0	-	-	14.3	100.0	-	-	-	-	100.0	0.0	2.3	33.3	-	-	2.7	-	1.3	0.0	-	-	1.3	2.4
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	2	0	0	-	2	0	5	0	0	-	5	7
% Trucks	0.0	-	0.0	-	-	0.0	0.0	-	-	-	-	0.0	0.0	0.9	0.0	-	-	0.9	-	1.7	0.0	-	-	1.7	1.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Shiloh Rd & Hunt Dr
Tuesday, October 5, 2021
Location: 39.946701, -75.554599

Count Name: Shiloh Rd & Hunt Drive
Site Code:
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (7:00 AM)

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Chester County, PA
Shiloh Rd & Hunt Dr
Tuesday, October 5, 2021
Location: 39.946701, -75.554599

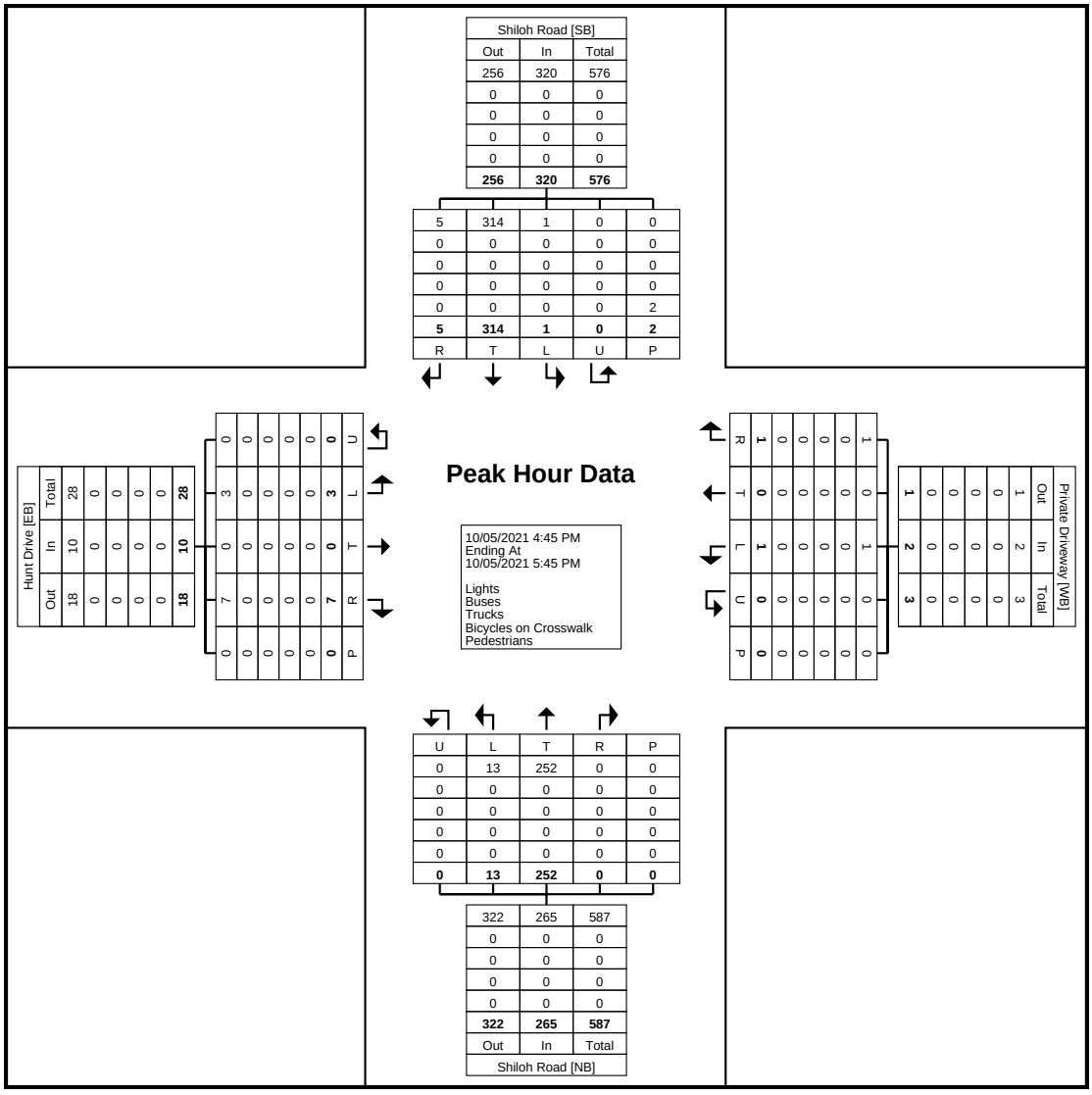
Count Name: Shiloh Rd & Hunt Drive
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Hunt Drive Eastbound						Private Driveway Westbound						Shiloh Road Northbound						Shiloh Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
4:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	4	45	0	0	0	49	0	75	0	0	0	75	125
5:00 PM	1	0	3	0	0	4	0	0	1	0	0	1	4	67	0	0	0	71	1	71	0	0	2	72	148
5:15 PM	1	0	1	0	0	2	1	0	0	0	0	1	1	68	0	0	0	69	0	84	1	0	0	85	157
5:30 PM	1	0	2	0	0	3	0	0	0	0	0	0	4	72	0	0	0	76	0	84	4	0	0	88	167
Total	3	0	7	0	0	10	1	0	1	0	0	2	13	252	0	0	0	265	1	314	5	0	2	320	597
Approach %	30.0	0.0	70.0	0.0	-	-	50.0	0.0	50.0	0.0	-	-	4.9	95.1	0.0	0.0	-	-	0.3	98.1	1.6	0.0	-	-	-
Total %	0.5	0.0	1.2	0.0	-	1.7	0.2	0.0	0.2	0.0	-	0.3	2.2	42.2	0.0	0.0	-	44.4	0.2	52.6	0.8	0.0	-	53.6	-
PHF	0.750	0.000	0.583	0.000	-	0.625	0.250	0.000	0.250	0.000	-	0.500	0.813	0.875	0.000	0.000	-	0.872	0.250	0.935	0.313	0.000	-	0.909	0.894
Lights	3	0	7	0	-	10	1	0	1	0	-	2	13	252	0	0	-	265	1	314	5	0	-	320	597
% Lights	100.0	-	100.0	-	-	100.0	100.0	-	100.0	-	-	100.0	100.0	100.0	-	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Trucks	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Chester County, PA
Shiloh Rd & Hunt Dr
Tuesday, October 5, 2021
Location: 39.946701, -75.554599

Count Name: Shiloh Rd & Hunt Drive
Site Code:
Start Date: 10/05/2021



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Chester County, PA
Shiloh Rd & Oakbourne Rd
Tuesday, October 5, 2021
Location: 39.94812, -75.55575

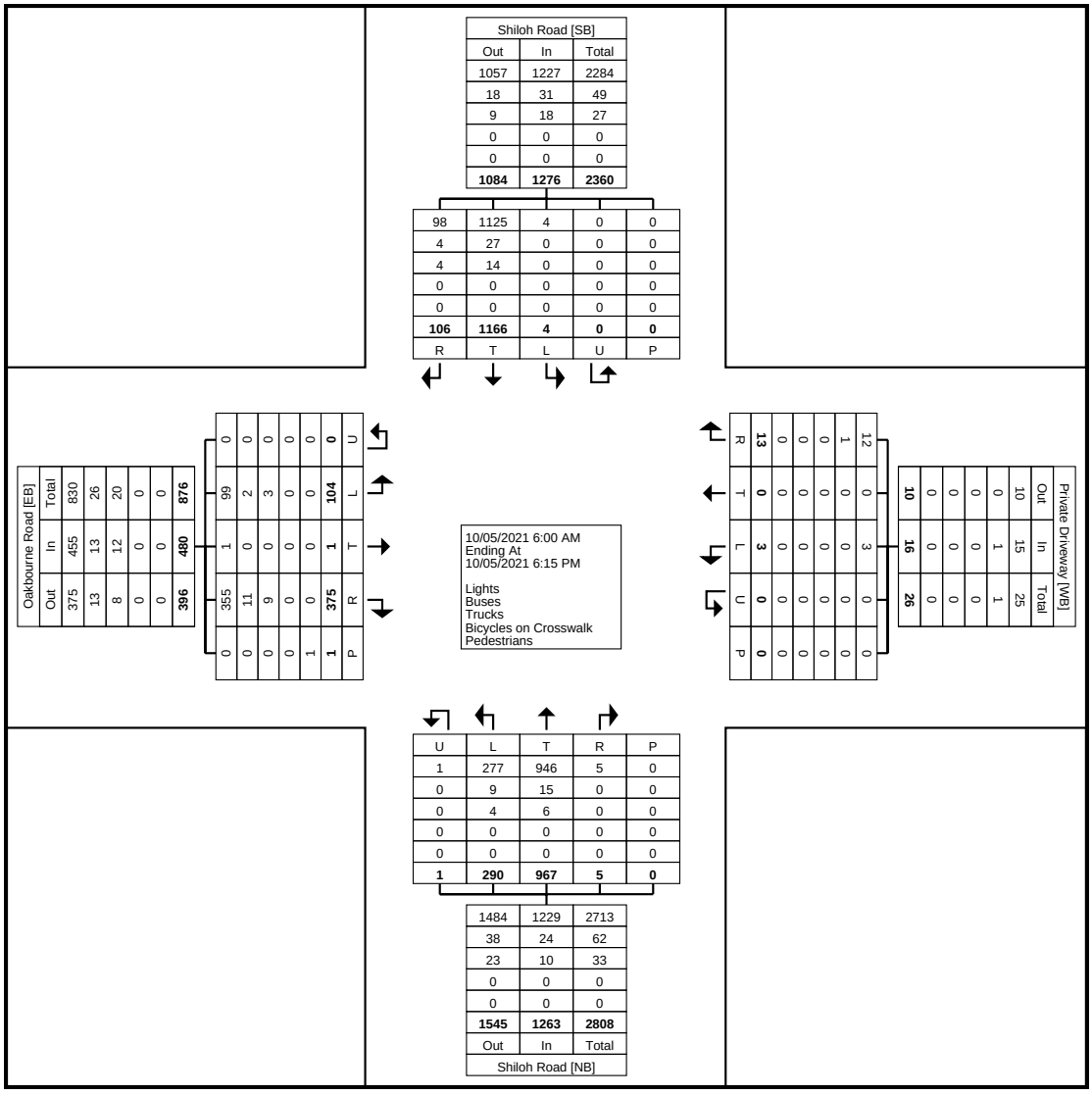
Count Name: Shiloh Rd & Oakbourne Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Data

Start Time	Oakbourne Road Eastbound						Private Driveway Westbound						Shiloh Road Northbound						Shiloh Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	2	0	2	0	0	4	0	0	0	0	0	0	1	3	0	0	0	4	0	5	2	0	0	7	15
6:15 AM	1	0	2	0	0	3	0	0	0	0	0	0	0	7	0	0	0	7	0	13	0	0	0	13	23
6:30 AM	1	0	8	0	0	9	0	0	0	0	0	0	2	20	0	0	0	22	0	19	1	0	0	20	51
6:45 AM	2	0	11	0	0	13	0	0	0	0	0	0	8	15	0	0	0	23	2	28	3	0	0	33	69
Hourly Total	6	0	23	0	0	29	0	0	0	0	0	0	11	45	0	0	0	56	2	65	6	0	0	73	158
7:00 AM	1	0	21	0	0	22	0	0	2	0	0	2	4	23	0	0	0	27	1	77	5	0	0	83	134
7:15 AM	1	0	39	0	0	40	0	0	1	0	0	1	18	70	1	0	0	89	0	90	3	0	0	93	223
7:30 AM	5	0	8	0	0	13	0	0	1	0	0	1	19	44	0	0	0	63	0	28	7	0	0	35	112
7:45 AM	6	0	16	0	0	22	0	0	0	0	0	0	11	36	0	0	0	47	0	29	4	0	0	33	102
Hourly Total	13	0	84	0	0	97	0	0	4	0	0	4	52	173	1	0	0	226	1	224	19	0	0	244	571
8:00 AM	5	0	14	0	0	19	0	0	1	0	0	1	7	26	1	0	0	34	0	28	1	0	0	29	83
8:15 AM	2	0	20	0	0	22	0	0	1	0	0	1	12	36	0	0	0	48	0	40	5	0	0	45	116
8:30 AM	4	0	15	0	0	19	0	0	0	0	0	0	8	23	0	0	0	31	0	33	2	0	0	35	85
8:45 AM	4	1	6	0	0	11	0	0	0	0	0	0	5	30	0	0	0	35	0	35	3	0	0	38	84
Hourly Total	15	1	55	0	0	71	0	0	2	0	0	2	32	115	1	0	0	148	0	136	11	0	0	147	368
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	2	0	8	0	0	10	0	0	0	0	0	0	7	17	0	0	0	24	0	48	0	0	0	48	82
2:15 PM	4	0	7	0	0	11	0	0	0	0	0	0	21	66	0	1	0	88	0	32	4	0	0	36	135
2:30 PM	5	0	9	0	0	14	0	0	0	0	0	0	9	42	0	0	0	51	0	36	7	0	0	43	108
2:45 PM	4	0	10	0	0	14	0	0	0	0	0	0	10	35	0	0	0	45	0	29	5	0	0	34	93
Hourly Total	15	0	34	0	0	49	0	0	0	0	0	0	47	160	0	1	0	208	0	145	16	0	0	161	418
3:00 PM	5	0	13	0	0	18	0	0	0	0	0	0	10	45	0	0	0	55	0	25	1	0	0	26	99
3:15 PM	3	0	10	0	0	13	0	0	0	0	0	0	12	50	0	0	0	62	0	33	2	0	0	35	110
3:30 PM	2	0	9	0	0	11	0	0	0	0	0	0	9	19	0	0	0	28	0	57	3	0	0	60	99
3:45 PM	6	0	13	0	0	19	0	0	0	0	0	0	8	34	0	0	0	42	0	37	6	0	0	43	104
Hourly Total	16	0	45	0	0	61	0	0	0	0	0	0	39	148	0	0	0	187	0	152	12	0	0	164	412
4:00 PM	5	0	13	0	0	18	0	0	0	0	0	0	9	33	0	0	0	42	0	50	6	0	0	56	116
4:15 PM	3	0	13	0	0	16	0	0	0	0	0	0	10	25	1	0	0	36	0	55	6	0	0	61	113
4:30 PM	4	0	22	0	0	26	0	0	2	0	0	2	11	38	0	0	0	49	0	52	5	0	0	57	134
4:45 PM	5	0	13	0	1	18	1	0	1	0	0	2	10	36	0	0	0	46	0	63	7	0	0	70	136
Hourly Total	17	0	61	0	1	78	1	0	3	0	0	4	40	132	1	0	0	173	0	220	24	0	0	244	499
5:00 PM	6	0	23	0	0	29	2	0	0	0	0	2	16	49	1	0	0	66	0	48	4	0	0	52	149
5:15 PM	4	0	26	0	0	30	0	0	1	0	0	1	20	51	0	0	0	71	1	58	7	0	0	66	168
5:30 PM	7	0	16	0	0	23	0	0	1	0	0	1	20	51	0	0	0	71	0	72	4	0	0	76	171
5:45 PM	5	0	8	0	0	13	0	0	2	0	0	2	13	43	1	0	0	57	0	46	3	0	0	49	121
Hourly Total	22	0	73	0	0	95	2	0	4	0	0	6	69	194	2	0	0	265	1	224	18	0	0	243	609
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	104	1	375	0	1	480	3	0	13	0	0	16	290	967	5	1	0	1263	4	1166	106	0	0	1276	3035
Approach %	21.7	0.2	78.1	0.0	-	-	18.8	0.0	81.3	0.0	-	-	23.0	76.6	0.4	0.1	-	-	0.3	91.4	8.3	0.0	-	-	-
Total %	3.4	0.0	12.4	0.0	-	15.8	0.1	0.0	0.4	0.0	-	0.5	9.6	31.9	0.2	0.0	-	41.6	0.1	38.4	3.5	0.0	-	42.0	-
Lights	99	1	355	0	-	455	3	0	12	0	-	15	277	946	5	1	-	1229	4	1125	98	0	-	1227	2926
% Lights	95.2	100.0	94.7	-	-	94.8	100.0	-	92.3	-	-	93.8	95.5	97.8	100.0	100.0	-	97.3	100.0	96.5	92.5	-	-	96.2	96.4
Buses	2	0	11	0	-	13	0	0	1	0	-	1	9	15	0	0	-	24	0	27	4	0	-	31	69
% Buses	1.9	0.0	2.9	-	-	2.7	0.0	-	7.7	-	-	6.3	3.1	1.6	0.0	0.0	-	1.9	0.0	2.3	3.8	-	-	2.4	2.3
Trucks	3	0	9	0	-	12	0	0	0	0	-	0	4	6	0	0	-	10	0	14	4	0	-	18	40
% Trucks	2.9	0.0	2.4	-	-	2.5	0.0	-	0.0	-	-	0.0	1.4	0.6	0.0	0.0	-	0.8	0.0	1.2	3.8	-	-	1.4	1.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Shiloh Rd & Oakbourne Rd
Tuesday, October 5, 2021
Location: 39.94812, -75.55575

Count Name: Shiloh Rd & Oakbourne Rd
Site Code:
Start Date: 10/05/2021



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Tuesday, October 5, 2021
Location: 39.94812, -75.55575

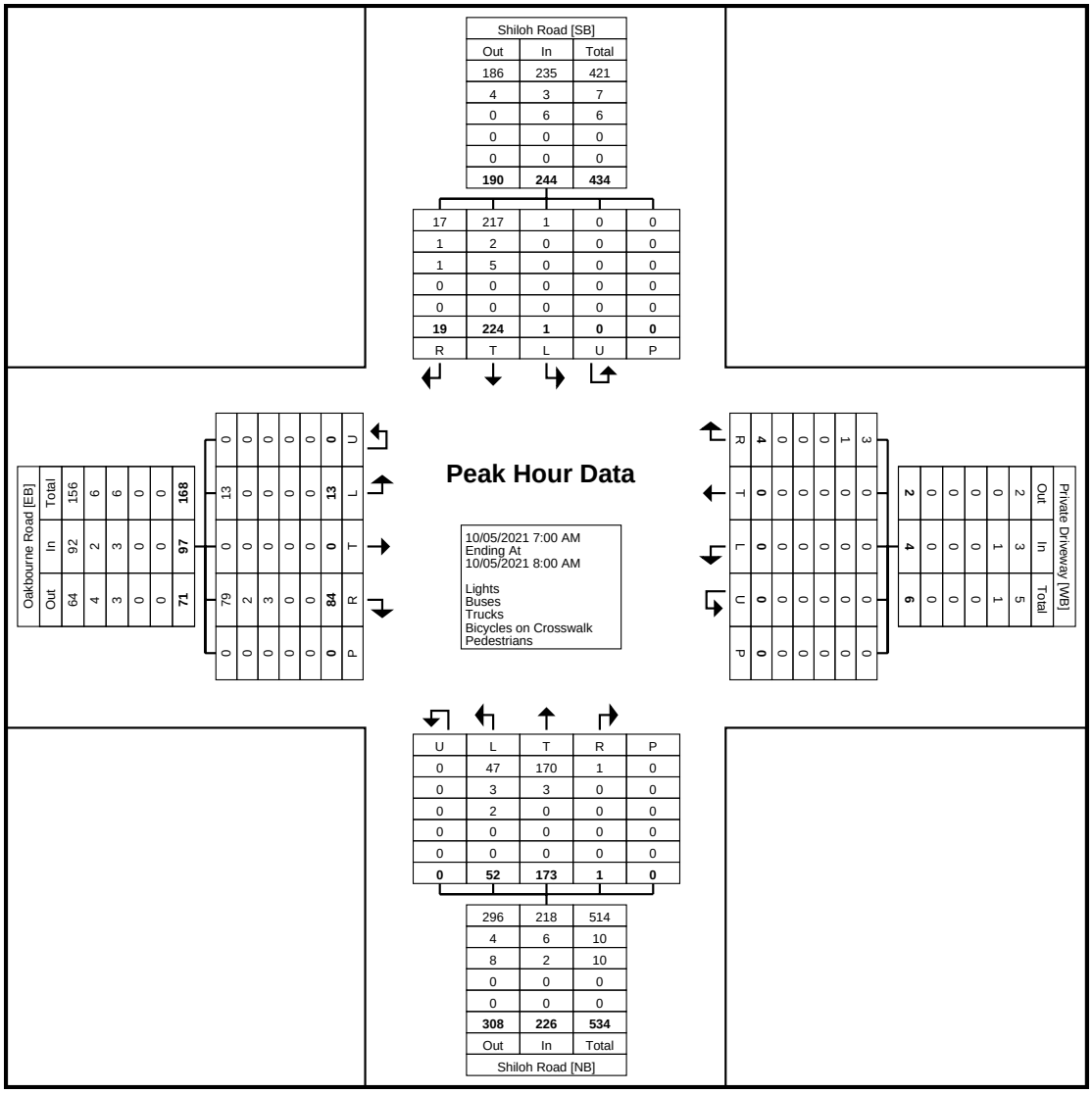
Count Name: Shiloh Rd & Oakbourne Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Oakbourne Road Eastbound						Private Driveway Westbound						Shiloh Road Northbound						Shiloh Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
7:00 AM	1	0	21	0	0	22	0	0	2	0	0	2	4	23	0	0	0	27	1	77	5	0	0	83	134
7:15 AM	1	0	39	0	0	40	0	0	1	0	0	1	18	70	1	0	0	89	0	90	3	0	0	93	223
7:30 AM	5	0	8	0	0	13	0	0	1	0	0	1	19	44	0	0	0	63	0	28	7	0	0	35	112
7:45 AM	6	0	16	0	0	22	0	0	0	0	0	0	11	36	0	0	0	47	0	29	4	0	0	33	102
Total	13	0	84	0	0	97	0	0	4	0	0	4	52	173	1	0	0	226	1	224	19	0	0	244	571
Approach %	13.4	0.0	86.6	0.0	-	-	0.0	0.0	100.0	0.0	-	-	23.0	76.5	0.4	0.0	-	-	0.4	91.8	7.8	0.0	-	-	-
Total %	2.3	0.0	14.7	0.0	-	17.0	0.0	0.0	0.7	0.0	-	0.7	9.1	30.3	0.2	0.0	-	39.6	0.2	39.2	3.3	0.0	-	42.7	-
PHF	0.542	0.000	0.538	0.000	-	0.606	0.000	0.000	0.500	0.000	-	0.500	0.684	0.618	0.250	0.000	-	0.635	0.250	0.622	0.679	0.000	-	0.656	0.640
Lights	13	0	79	0	-	92	0	0	3	0	-	3	47	170	1	0	-	218	1	217	17	0	-	235	548
% Lights	100.0	-	94.0	-	-	94.8	-	-	75.0	-	-	75.0	90.4	98.3	100.0	-	-	96.5	100.0	96.9	89.5	-	-	96.3	96.0
Buses	0	0	2	0	-	2	0	0	1	0	-	1	3	3	0	0	-	6	0	2	1	0	-	3	12
% Buses	0.0	-	2.4	-	-	2.1	-	-	25.0	-	-	25.0	5.8	1.7	0.0	-	-	2.7	0.0	0.9	5.3	-	-	1.2	2.1
Trucks	0	0	3	0	-	3	0	0	0	0	-	0	2	0	0	0	-	2	0	5	1	0	-	6	11
% Trucks	0.0	-	3.6	-	-	3.1	-	-	0.0	-	-	0.0	3.8	0.0	0.0	-	-	0.9	0.0	2.2	5.3	-	-	2.5	1.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Shiloh Rd & Oakbourne Rd
Tuesday, October 5, 2021
Location: 39.94812, -75.55575

Count Name: Shiloh Rd & Oakbourne Rd
Site Code:
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (7:00 AM)

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Chester County, PA
Shiloh Rd & Oakbourne Rd
Tuesday, October 5, 2021
Location: 39.94812, -75.55575

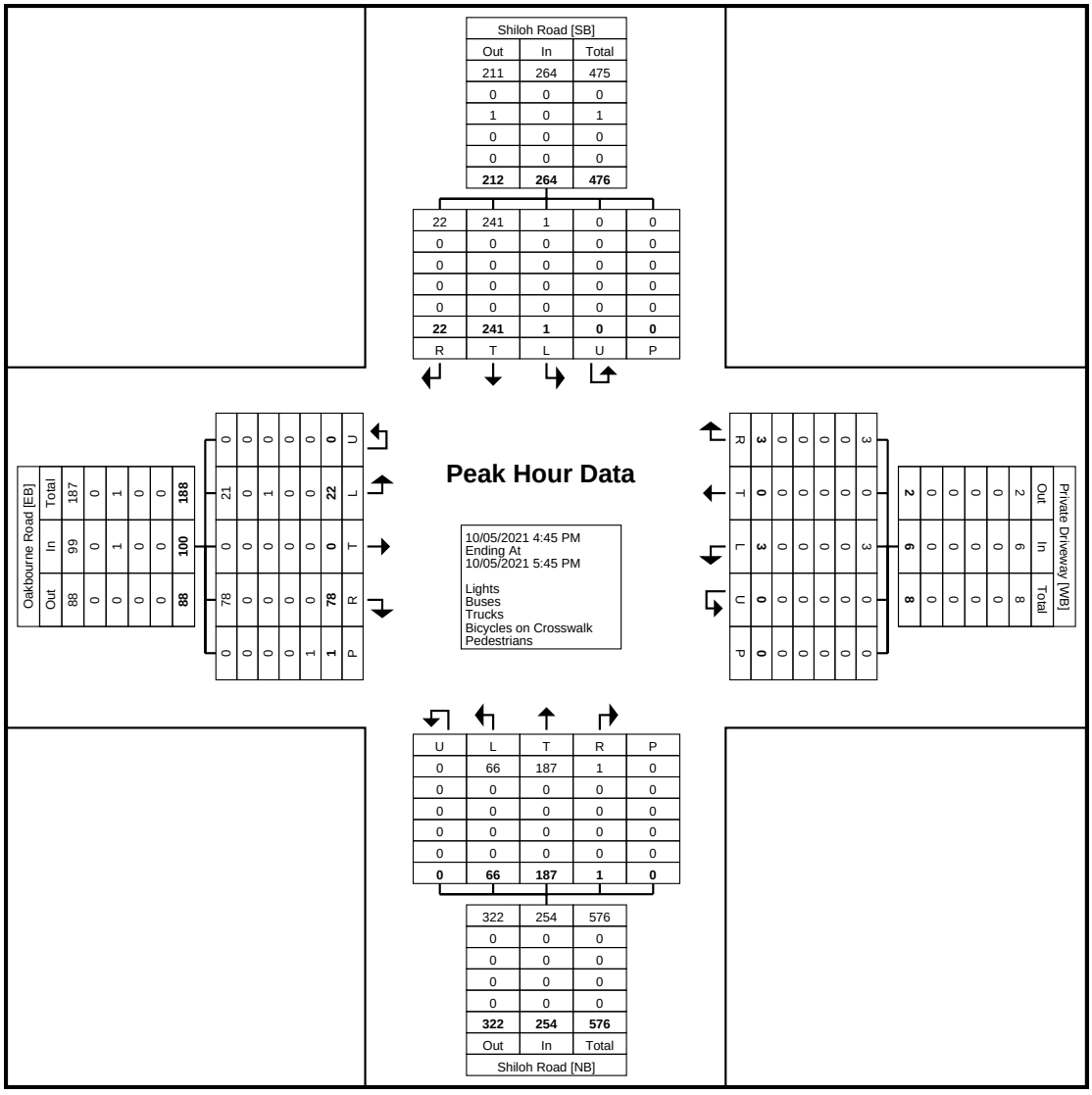
Count Name: Shiloh Rd & Oakbourne Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Oakbourne Road Eastbound						Private Driveway Westbound						Shiloh Road Northbound						Shiloh Road Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
4:45 PM	5	0	13	0	1	18	1	0	1	0	0	2	10	36	0	0	0	46	0	63	7	0	0	70	136
5:00 PM	6	0	23	0	0	29	2	0	0	0	0	2	16	49	1	0	0	66	0	48	4	0	0	52	149
5:15 PM	4	0	26	0	0	30	0	0	1	0	0	1	20	51	0	0	0	71	1	58	7	0	0	66	168
5:30 PM	7	0	16	0	0	23	0	0	1	0	0	1	20	51	0	0	0	71	0	72	4	0	0	76	171
Total	22	0	78	0	1	100	3	0	3	0	0	6	66	187	1	0	0	254	1	241	22	0	0	264	624
Approach %	22.0	0.0	78.0	0.0	-	-	50.0	0.0	50.0	0.0	-	-	26.0	73.6	0.4	0.0	-	-	0.4	91.3	8.3	0.0	-	-	-
Total %	3.5	0.0	12.5	0.0	-	16.0	0.5	0.0	0.5	0.0	-	1.0	10.6	30.0	0.2	0.0	-	40.7	0.2	38.6	3.5	0.0	-	42.3	-
PHF	0.786	0.000	0.750	0.000	-	0.833	0.375	0.000	0.750	0.000	-	0.750	0.825	0.917	0.250	0.000	-	0.894	0.250	0.837	0.786	0.000	-	0.868	0.912
Lights	21	0	78	0	-	99	3	0	3	0	-	6	66	187	1	0	-	254	1	241	22	0	-	264	623
% Lights	95.5	-	100.0	-	-	99.0	100.0	-	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	99.8
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Trucks	4.5	-	0.0	-	-	1.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Shiloh Rd & Oakbourne Rd
Tuesday, October 5, 2021
Location: 39.94812, -75.55575

Count Name: Shiloh Rd & Oakbourne Rd
Site Code:
Start Date: 10/05/2021



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Chester County, PA
Shiloh Rd & Little Shiloh Rd
Tuesday, October 5, 2021
Location: 39.952875, -75.559402

Count Name: Shiloh Rd & Little Shiloh Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Data

Start Time	Private Driveway / Little Shiloh Road / Eastbound / Southbound						Shiloh Road / Little Shiloh Road / Westbound / Northbound						Little Shiloh Road / Shiloh Road / Northbound / Eastbound						Little Shiloh Road / Private Driveway / Southbound / Westbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	0	0	0	0	0	0	3	0	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
6:15 AM	0	0	0	0	0	0	7	0	2	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
6:30 AM	0	0	0	0	0	0	17	0	6	0	0	23	0	4	6	0	0	10	7	0	0	0	0	7	40
6:45 AM	0	0	0	0	0	0	12	0	6	0	0	18	0	4	19	0	0	23	11	1	0	0	0	12	53
Hourly Total	0	0	0	0	0	0	39	0	16	0	0	55	0	8	25	0	0	33	18	1	0	0	0	19	107
7:00 AM	0	0	1	0	0	1	23	1	5	0	0	29	0	9	70	0	0	79	19	2	0	0	0	21	130
7:15 AM	0	0	0	0	1	0	51	0	23	0	0	74	0	9	65	0	0	74	28	9	0	0	0	37	185
7:30 AM	0	0	0	0	0	0	38	1	14	0	0	53	0	3	20	0	0	23	10	6	0	0	0	16	92
7:45 AM	0	0	0	0	0	0	34	0	8	0	0	42	2	4	21	0	0	27	14	10	0	0	0	24	93
Hourly Total	0	0	1	0	1	1	146	2	50	0	0	198	2	25	176	0	0	203	71	27	0	0	0	98	500
8:00 AM	0	0	0	0	0	0	21	0	11	0	0	32	0	7	31	0	0	38	10	4	0	0	0	14	84
8:15 AM	0	0	0	0	0	0	27	1	11	0	0	39	0	4	29	0	0	33	11	2	0	0	0	13	85
8:30 AM	0	0	0	0	0	0	17	0	9	0	0	26	0	7	33	1	0	41	5	7	0	0	0	12	79
8:45 AM	0	0	0	0	0	0	21	0	14	0	0	35	1	9	28	0	0	38	10	2	0	0	0	12	85
Hourly Total	0	0	0	0	0	0	86	1	45	0	0	132	1	27	121	1	0	150	36	15	0	0	0	51	333
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	14	0	5	0	0	19	0	4	47	0	0	51	5	3	0	0	0	8	78
2:15 PM	0	0	0	0	0	0	48	0	21	0	0	69	0	7	27	1	0	35	13	5	0	0	0	18	122
2:30 PM	0	0	0	0	0	0	32	0	15	0	0	47	0	5	29	0	0	34	20	6	0	0	0	26	107
2:45 PM	0	0	0	0	0	0	25	0	12	0	0	37	0	4	22	0	0	26	8	5	0	0	0	13	76
Hourly Total	0	0	0	0	0	0	119	0	53	0	0	172	0	20	125	1	0	146	46	19	0	0	0	65	383
3:00 PM	0	0	1	0	0	1	32	0	17	0	0	49	1	6	22	0	0	29	11	12	0	0	0	23	102
3:15 PM	0	1	0	0	0	1	35	0	20	0	0	55	3	3	31	0	0	37	9	5	0	0	0	14	107
3:30 PM	0	0	0	0	0	0	16	0	4	0	0	20	0	3	41	0	0	44	19	12	0	0	0	31	95
3:45 PM	0	0	0	0	0	0	28	0	13	0	0	41	0	6	25	0	0	31	19	5	0	0	0	24	96
Hourly Total	0	1	1	0	0	2	111	0	54	0	0	165	4	18	119	0	0	141	58	34	0	0	0	92	400
4:00 PM	0	0	0	0	0	0	23	0	18	0	0	41	0	10	38	0	0	48	15	7	0	0	0	22	111
4:15 PM	0	0	0	0	0	0	19	0	9	0	0	28	3	4	49	0	0	56	15	10	0	0	0	25	109
4:30 PM	0	0	0	0	0	0	31	0	12	0	0	43	0	9	37	0	0	46	21	9	0	0	0	30	119
4:45 PM	0	0	0	0	0	0	30	0	9	0	0	39	1	2	61	0	0	64	19	5	0	0	0	24	127
Hourly Total	0	0	0	0	0	0	103	0	48	0	0	151	4	25	185	0	0	214	70	31	0	0	0	101	466
5:00 PM	0	0	0	0	0	0	39	0	14	0	0	53	0	8	40	0	0	48	17	6	0	0	0	23	124
5:15 PM	0	0	1	0	0	1	44	0	15	0	0	59	1	14	58	0	0	73	23	12	0	0	0	35	168
5:30 PM	0	0	0	0	0	0	39	0	18	0	0	57	0	6	67	0	0	73	19	9	0	0	0	28	158
5:45 PM	0	1	0	0	0	1	23	0	27	0	0	50	1	10	30	0	0	41	15	5	0	0	0	20	112
Hourly Total	0	1	1	0	0	2	145	0	74	0	0	219	2	38	195	0	0	235	74	32	0	0	0	106	562
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	2	3	0	1	5	749	3	340	0	0	1092	13	161	946	2	0	1122	373	159	0	0	0	532	2751
Approach %	0.0	40.0	60.0	0.0	-	-	68.6	0.3	31.1	0.0	-	-	1.2	14.3	84.3	0.2	-	-	70.1	29.9	0.0	0.0	-	-	-
Total %	0.0	0.1	0.1	0.0	-	0.2	27.2	0.1	12.4	0.0	-	39.7	0.5	5.9	34.4	0.1	-	40.8	13.6	5.8	0.0	0.0	-	19.3	-
Lights	0	2	3	0	-	5	731	2	330	0	-	1063	13	153	915	0	-	1081	358	148	0	0	-	506	2655
% Lights	-	100.0	100.0	-	-	100.0	97.6	66.7	97.1	-	-	97.3	100.0	95.0	96.7	0.0	-	96.3	96.0	93.1	-	-	-	95.1	96.5
Buses	0	0	0	0	-	0	12	0	6	0	-	18	0	6	19	0	-	25	11	9	0	0	-	20	63
% Buses	-	0.0	0.0	-	-	0.0	1.6	0.0	1.8	-	-	1.6	0.0	3.7	2.0	0.0	-	2.2	2.9	5.7	-	-	-	3.8	2.3
Trucks	0	0	0	0	-	0	6	1	4	0	-	11	0	2	12	2	-	16	4	2	0	0	-	6	33
% Trucks	-	0.0	0.0	-	-	0.0	0.8	33.3	1.2	-	-	1.0	0.0	1.2	1.3	100.0	-	1.4	1.1	1.3	-	-	-	1.1	1.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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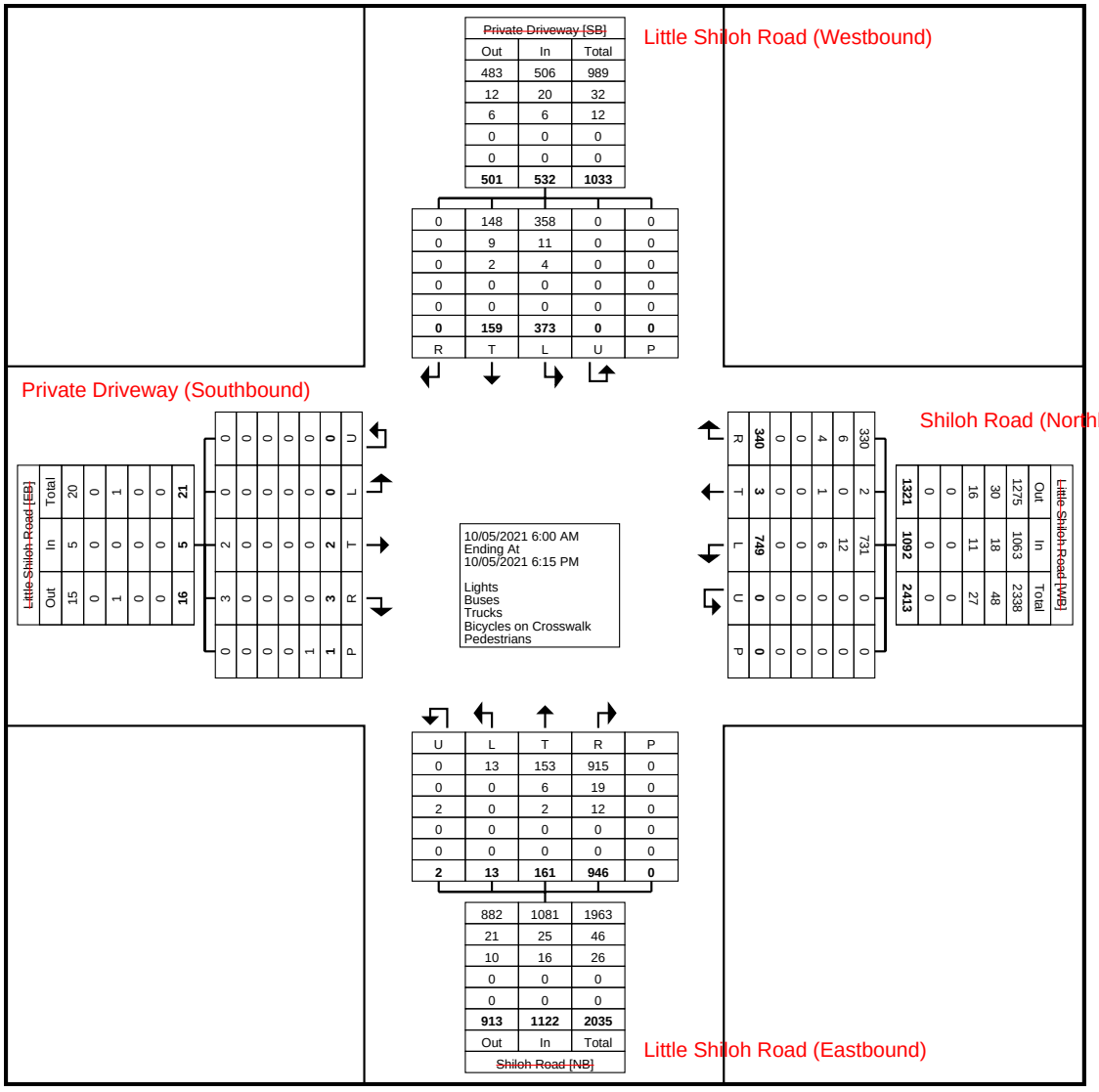

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Chester County, PA
Shiloh Rd & Little Shiloh Rd
Tuesday, October 5, 2021
Location: 39.952875, -75.559402

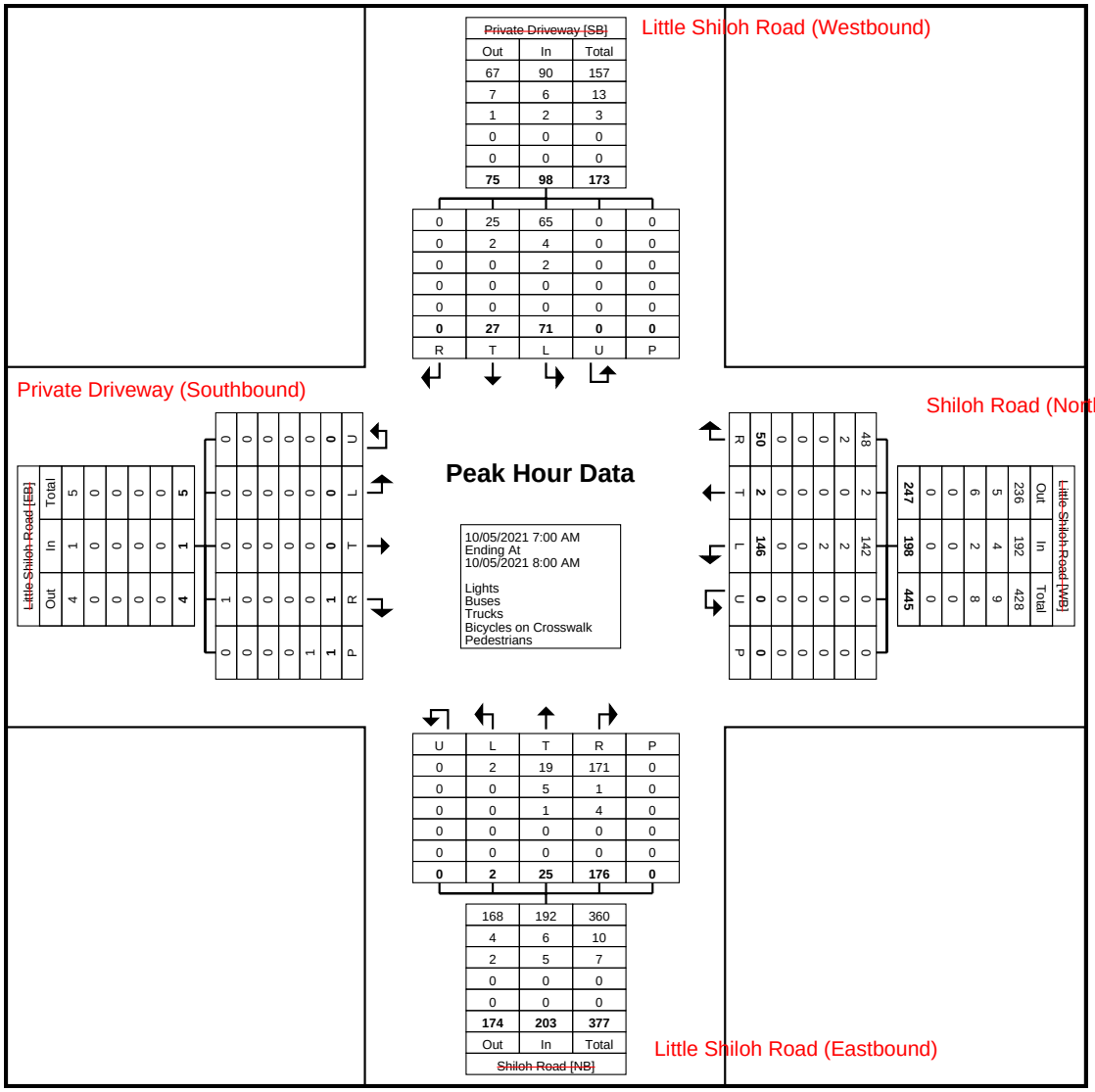
Count Name: Shiloh Rd & Little Shiloh Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (7:00 AM)

Start Time	Private Driveway (Little Shiloh Road) Southbound						Shiloh Road (Little Shiloh Road) Northbound						Little Shiloh Road (Shiloh Road) Eastbound						Little Shiloh Road (Private Driveway) Westbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	0	0	1	0	0	1	23	1	5	0	0	29	0	9	70	0	0	79	19	2	0	0	0	21	130
7:15 AM	0	0	0	0	1	0	51	0	23	0	0	74	0	9	65	0	0	74	28	9	0	0	0	37	185
7:30 AM	0	0	0	0	0	0	38	1	14	0	0	53	0	3	20	0	0	23	10	6	0	0	0	16	92
7:45 AM	0	0	0	0	0	0	34	0	8	0	0	42	2	4	21	0	0	27	14	10	0	0	0	24	93
Total	0	0	1	0	1	1	146	2	50	0	0	198	2	25	176	0	0	203	71	27	0	0	0	98	500
Approach %	0.0	0.0	100.0	0.0	-	-	73.7	1.0	25.3	0.0	-	-	1.0	12.3	86.7	0.0	-	-	72.4	27.6	0.0	0.0	-	-	-
Total %	0.0	0.0	0.2	0.0	-	0.2	29.2	0.4	10.0	0.0	-	39.6	0.4	5.0	35.2	0.0	-	40.6	14.2	5.4	0.0	0.0	-	19.6	-
PHF	0.000	0.000	0.250	0.000	-	0.250	0.716	0.500	0.543	0.000	-	0.669	0.250	0.694	0.629	0.000	-	0.642	0.634	0.675	0.000	0.000	-	0.662	0.676
Lights	0	0	1	0	-	1	142	2	48	0	-	192	2	19	171	0	-	192	65	25	0	0	-	90	475
% Lights	-	-	100.0	-	-	100.0	97.3	100.0	96.0	-	-	97.0	100.0	76.0	97.2	-	-	94.6	91.5	92.6	-	-	-	91.8	95.0
Buses	0	0	0	0	-	0	2	0	2	0	-	4	0	5	1	0	-	6	4	2	0	0	-	6	16
% Buses	-	-	0.0	-	-	0.0	1.4	0.0	4.0	-	-	2.0	0.0	20.0	0.6	-	-	3.0	5.6	7.4	-	-	-	6.1	3.2
Trucks	0	0	0	0	-	0	2	0	0	0	-	2	0	1	4	0	-	5	2	0	0	0	-	2	9
% Trucks	-	-	0.0	-	-	0.0	1.4	0.0	0.0	-	-	1.0	0.0	4.0	2.3	-	-	2.5	2.8	0.0	-	-	-	2.0	1.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Shiloh Rd & Little Shiloh Rd
Tuesday, October 5, 2021
Location: 39.952875, -75.559402

Count Name: Shiloh Rd & Little Shiloh Rd
Site Code:
Start Date: 10/05/2021
Page No: 4



Turning Movement Peak Hour Data Plot (7:00 AM)

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Chester County, PA
Shiloh Rd & Little Shiloh Rd
Tuesday, October 5, 2021
Location: 39.952875, -75.559402

Count Name: Shiloh Rd & Little Shiloh Rd
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Private Driveway (Little Shiloh Road) Eastbound Southbound						Shiloh Road (Little Shiloh Road) Westbound Northbound						Little Shiloh Road (Shiloh Road) Northbound Eastbound						Little Shiloh Road (Private Driveway) Southbound Westbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:45 PM	0	0	0	0	0	0	30	0	9	0	0	39	1	2	61	0	0	64	19	5	0	0	0	24	127
5:00 PM	0	0	0	0	0	0	39	0	14	0	0	53	0	8	40	0	0	48	17	6	0	0	0	23	124
5:15 PM	0	0	1	0	0	1	44	0	15	0	0	59	1	14	58	0	0	73	23	12	0	0	0	35	168
5:30 PM	0	0	0	0	0	0	39	0	18	0	0	57	0	6	67	0	0	73	19	9	0	0	0	28	158
Total	0	0	1	0	0	1	152	0	56	0	0	208	2	30	226	0	0	258	78	32	0	0	0	110	577
Approach %	0.0	0.0	100.0	0.0	-	-	73.1	0.0	26.9	0.0	-	-	0.8	11.6	87.6	0.0	-	-	70.9	29.1	0.0	0.0	-	-	-
Total %	0.0	0.0	0.2	0.0	-	0.2	26.3	0.0	9.7	0.0	-	36.0	0.3	5.2	39.2	0.0	-	44.7	13.5	5.5	0.0	0.0	-	19.1	-
PHF	0.000	0.000	0.250	0.000	-	0.250	0.864	0.000	0.778	0.000	-	0.881	0.500	0.536	0.843	0.000	-	0.884	0.848	0.667	0.000	0.000	-	0.786	0.859
Lights	0	0	1	0	-	1	151	0	56	0	-	207	2	30	225	0	-	257	78	31	0	0	-	109	574
% Lights	-	-	100.0	-	-	100.0	99.3	-	100.0	-	-	99.5	100.0	100.0	99.6	-	-	99.6	100.0	96.9	-	-	-	99.1	99.5
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0
Trucks	0	0	0	0	-	0	1	0	0	0	-	1	0	0	1	0	-	1	0	1	0	0	-	1	3
% Trucks	-	-	0.0	-	-	0.0	0.7	-	0.0	-	-	0.5	0.0	0.0	0.4	-	-	0.4	0.0	3.1	-	-	-	0.9	0.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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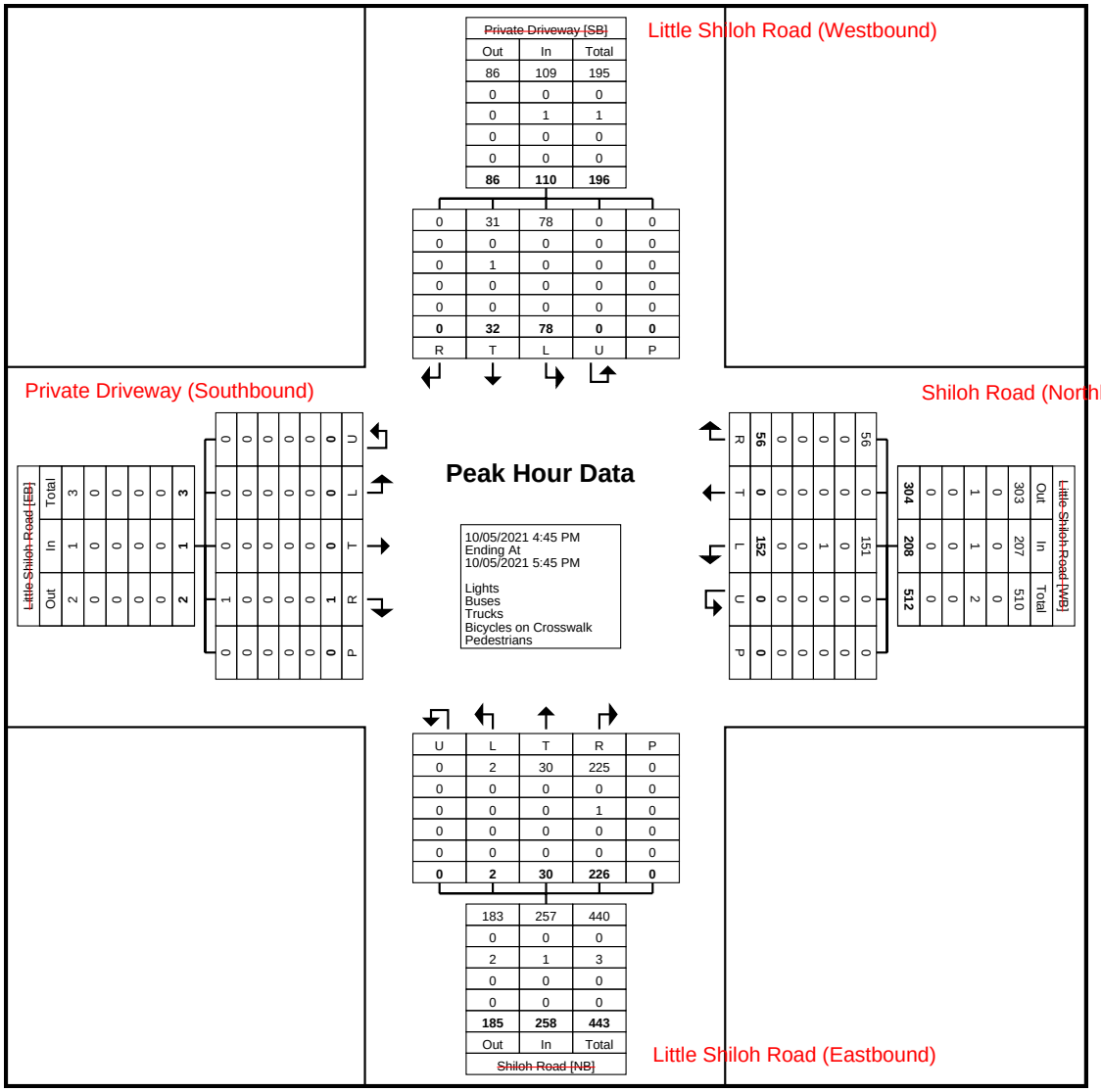
Chester County, PA
Shiloh Rd & Little Shiloh Rd
Tuesday, October 5, 2021
Location: 39.952875, -75.559402

Count Name: Shiloh Rd & Little Shiloh Rd
Site Code:
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (4:45 PM)

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Chester County, PA
Little Shiloh Rd & Shiloh Hill Dr
Tuesday, October 5, 2021
Location: 39.954384, -75.556061

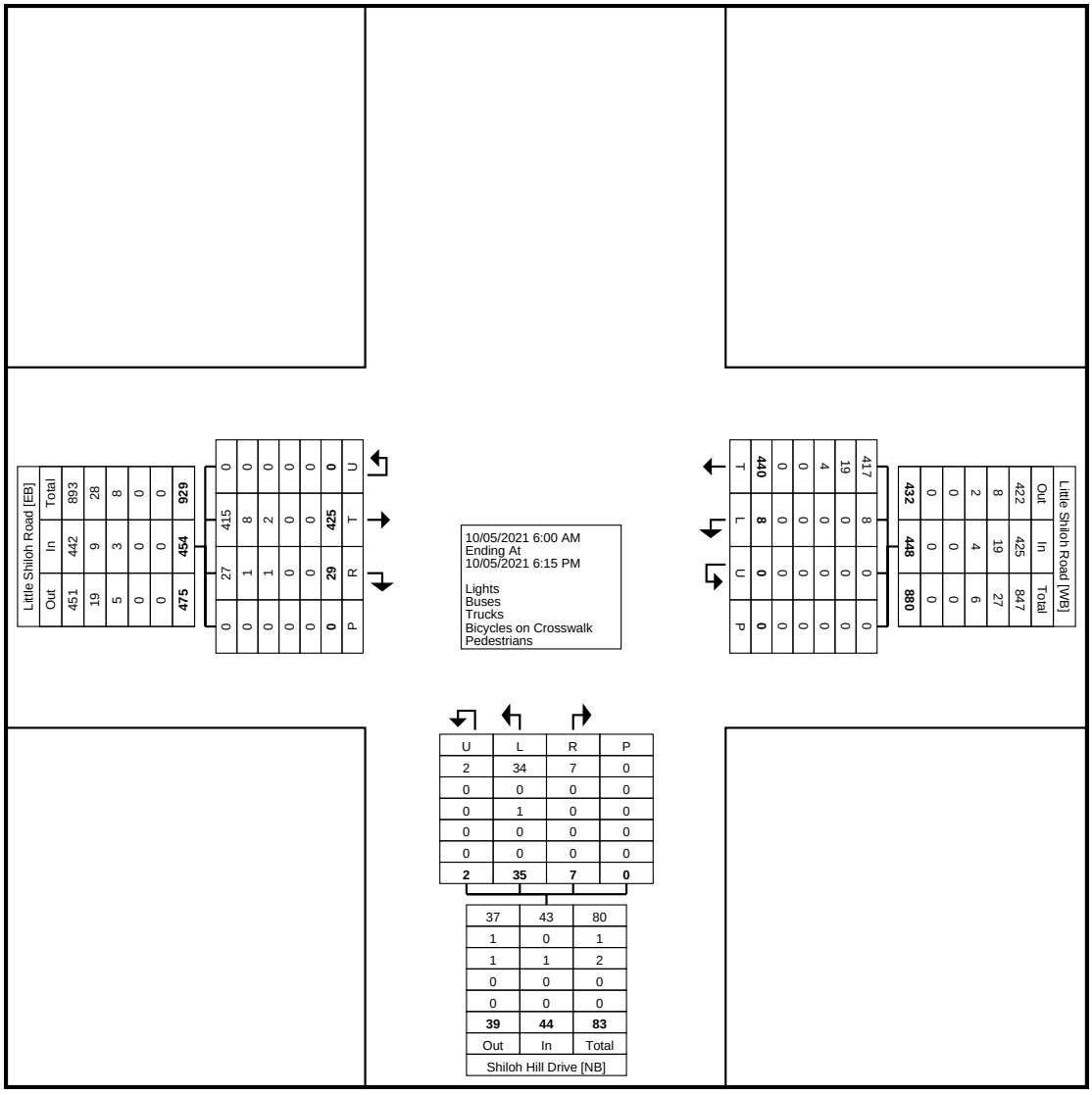
Count Name: Little Shiloh Rd & Shiloh Hill Dr
Site Code:
Start Date: 10/05/2021

Turning Movement Data

Start Time	Little Shiloh Road Eastbound					Little Shiloh Road Westbound					Shiloh Hill Drive Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
6:00 AM	4	0	0	0	4	0	5	0	0	5	0	0	0	0	0	9
6:15 AM	2	0	0	0	2	1	2	0	0	3	2	0	0	0	2	7
6:30 AM	13	0	0	0	13	0	9	0	0	9	0	0	0	0	0	22
6:45 AM	13	0	0	0	13	0	12	0	0	12	1	0	0	0	1	26
Hourly Total	32	0	0	0	32	1	28	0	0	29	3	0	0	0	3	64
7:00 AM	15	0	0	0	15	0	14	0	0	14	2	0	0	0	2	31
7:15 AM	23	2	0	0	25	0	28	0	0	28	2	0	0	0	2	55
7:30 AM	17	1	0	0	18	0	11	0	0	11	4	1	0	0	5	34
7:45 AM	14	0	0	0	14	0	18	0	0	18	1	0	0	0	1	33
Hourly Total	69	3	0	0	72	0	71	0	0	71	9	1	0	0	10	153
8:00 AM	19	0	0	0	19	0	12	0	0	12	0	1	0	0	1	32
8:15 AM	11	1	0	0	12	0	13	0	0	13	0	0	0	0	0	25
8:30 AM	14	0	0	0	14	0	9	0	0	9	1	0	1	0	2	25
8:45 AM	22	1	0	0	23	0	6	0	0	6	0	0	0	0	0	29
Hourly Total	66	2	0	0	68	0	40	0	0	40	1	1	1	0	3	111
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	7	0	0	0	7	0	8	0	0	8	0	0	0	0	0	15
2:15 PM	19	1	0	0	20	0	12	0	0	12	2	0	0	0	2	34
2:30 PM	20	2	0	0	22	1	17	0	0	18	2	1	0	0	3	43
2:45 PM	15	2	0	0	17	0	11	0	0	11	0	0	0	0	0	28
Hourly Total	61	5	0	0	66	1	48	0	0	49	4	1	0	0	5	120
3:00 PM	15	2	0	0	17	2	16	0	0	18	2	1	0	0	3	38
3:15 PM	20	1	0	0	21	0	12	0	0	12	1	0	0	0	1	34
3:30 PM	6	2	0	0	8	0	24	0	0	24	1	0	0	0	1	33
3:45 PM	16	1	0	0	17	2	23	0	0	25	1	1	0	0	2	44
Hourly Total	57	6	0	0	63	4	75	0	0	79	5	2	0	0	7	149
4:00 PM	25	0	0	0	25	1	16	0	0	17	1	0	1	0	2	44
4:15 PM	7	1	0	0	8	0	20	0	0	20	3	1	0	0	4	32
4:30 PM	19	1	0	0	20	0	24	0	0	24	2	0	0	0	2	46
4:45 PM	5	3	0	0	8	0	24	0	0	24	1	0	0	0	1	33
Hourly Total	56	5	0	0	61	1	84	0	0	85	7	1	1	0	9	155
5:00 PM	17	2	0	0	19	0	23	0	0	23	0	1	0	0	1	43
5:15 PM	18	4	0	0	22	1	28	0	0	29	3	0	0	0	3	54
5:30 PM	21	0	0	0	21	0	23	0	0	23	1	0	0	0	1	45
5:45 PM	28	2	0	0	30	0	20	0	0	20	2	0	0	0	2	52
Hourly Total	84	8	0	0	92	1	94	0	0	95	6	1	0	0	7	194
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	425	29	0	0	454	8	440	0	0	448	35	7	2	0	44	946
Approach %	93.6	6.4	0.0	-	-	1.8	98.2	0.0	-	-	79.5	15.9	4.5	-	-	-
Total %	44.9	3.1	0.0	-	48.0	0.8	46.5	0.0	-	47.4	3.7	0.7	0.2	-	4.7	-
Lights	415	27	0	-	442	8	417	0	-	425	34	7	2	-	43	910
% Lights	97.6	93.1	-	-	97.4	100.0	94.8	-	-	94.9	97.1	100.0	100.0	-	97.7	96.2
Buses	8	1	0	-	9	0	19	0	-	19	0	0	0	-	0	28
% Buses	1.9	3.4	-	-	2.0	0.0	4.3	-	-	4.2	0.0	0.0	0.0	-	0.0	3.0
Trucks	2	1	0	-	3	0	4	0	-	4	1	0	0	-	1	8
% Trucks	0.5	3.4	-	-	0.7	0.0	0.9	-	-	0.9	2.9	0.0	0.0	-	2.3	0.8
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Little Shiloh Rd & Shiloh Hill Dr
Tuesday, October 5, 2021
Location: 39.954384, -75.556061

Count Name: Little Shiloh Rd & Shiloh Hill Dr
Site Code:
Start Date: 10/05/2021



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Chester County, PA
Little Shiloh Rd & Shiloh Hill Dr
Tuesday, October 5, 2021
Location: 39.954384, -75.556061

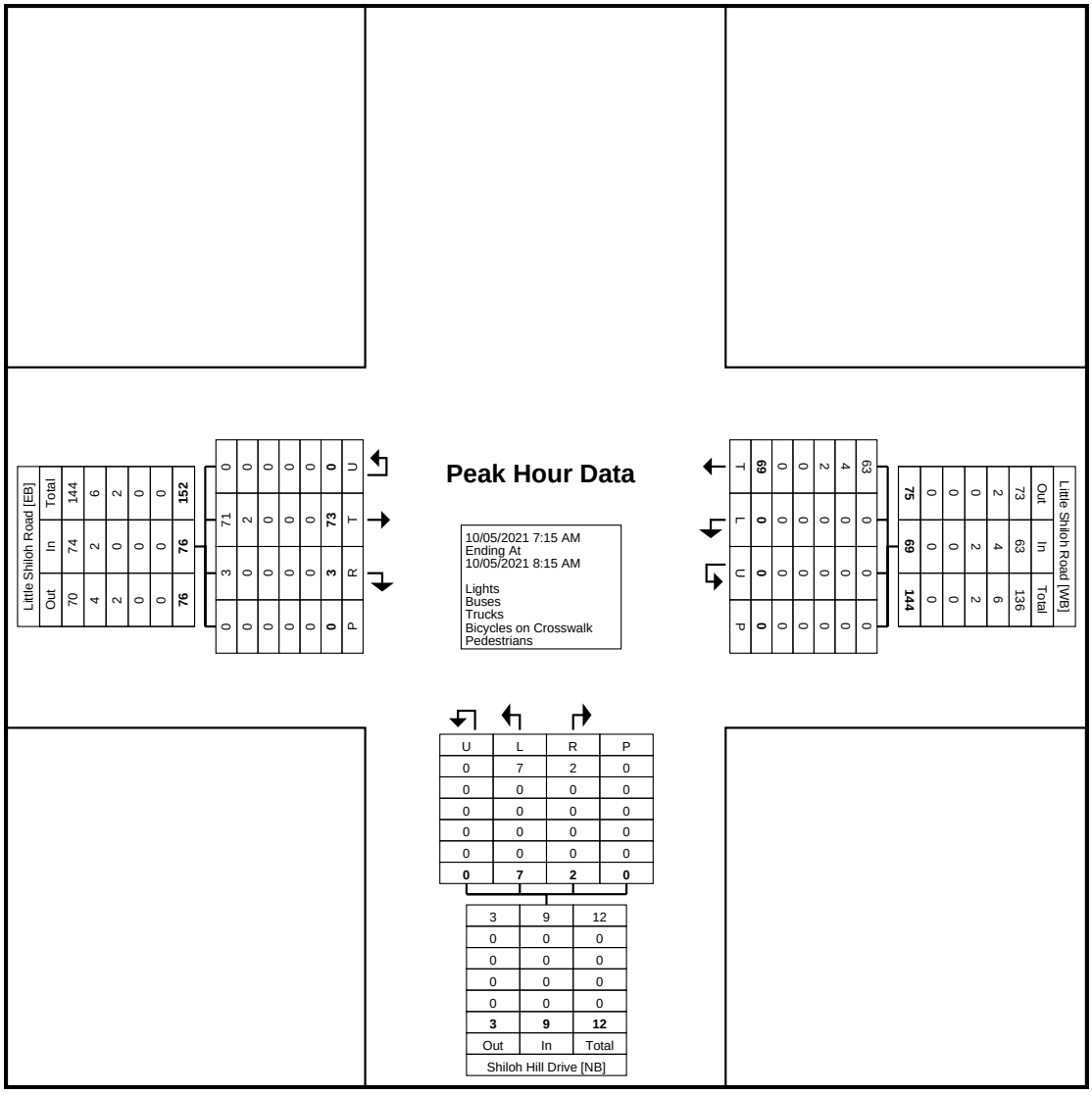
Count Name: Little Shiloh Rd & Shiloh Hill Dr
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Little Shiloh Road Eastbound					Little Shiloh Road Westbound					Shiloh Hill Drive Northbound					Int. Total
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
7:15 AM	23	2	0	0	25	0	28	0	0	28	2	0	0	0	2	55
7:30 AM	17	1	0	0	18	0	11	0	0	11	4	1	0	0	5	34
7:45 AM	14	0	0	0	14	0	18	0	0	18	1	0	0	0	1	33
8:00 AM	19	0	0	0	19	0	12	0	0	12	0	1	0	0	1	32
Total	73	3	0	0	76	0	69	0	0	69	7	2	0	0	9	154
Approach %	96.1	3.9	0.0	-	-	0.0	100.0	0.0	-	-	77.8	22.2	0.0	-	-	-
Total %	47.4	1.9	0.0	-	49.4	0.0	44.8	0.0	-	44.8	4.5	1.3	0.0	-	5.8	-
PHF	0.793	0.375	0.000	-	0.760	0.000	0.616	0.000	-	0.616	0.438	0.500	0.000	-	0.450	0.700
Lights	71	3	0	-	74	0	63	0	-	63	7	2	0	-	9	146
% Lights	97.3	100.0	-	-	97.4	-	91.3	-	-	91.3	100.0	100.0	-	-	100.0	94.8
Buses	2	0	0	-	2	0	4	0	-	4	0	0	0	-	0	6
% Buses	2.7	0.0	-	-	2.6	-	5.8	-	-	5.8	0.0	0.0	-	-	0.0	3.9
Trucks	0	0	0	-	0	0	2	0	-	2	0	0	0	-	0	2
% Trucks	0.0	0.0	-	-	0.0	-	2.9	-	-	2.9	0.0	0.0	-	-	0.0	1.3
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Little Shiloh Rd & Shiloh Hill Dr
Tuesday, October 5, 2021
Location: 39.954384, -75.556061

Count Name: Little Shiloh Rd & Shiloh Hill Dr
Site Code:
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (7:15 AM)

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Chester County, PA
Little Shiloh Rd & Shiloh Hill Dr
Tuesday, October 5, 2021
Location: 39.954384, -75.556061

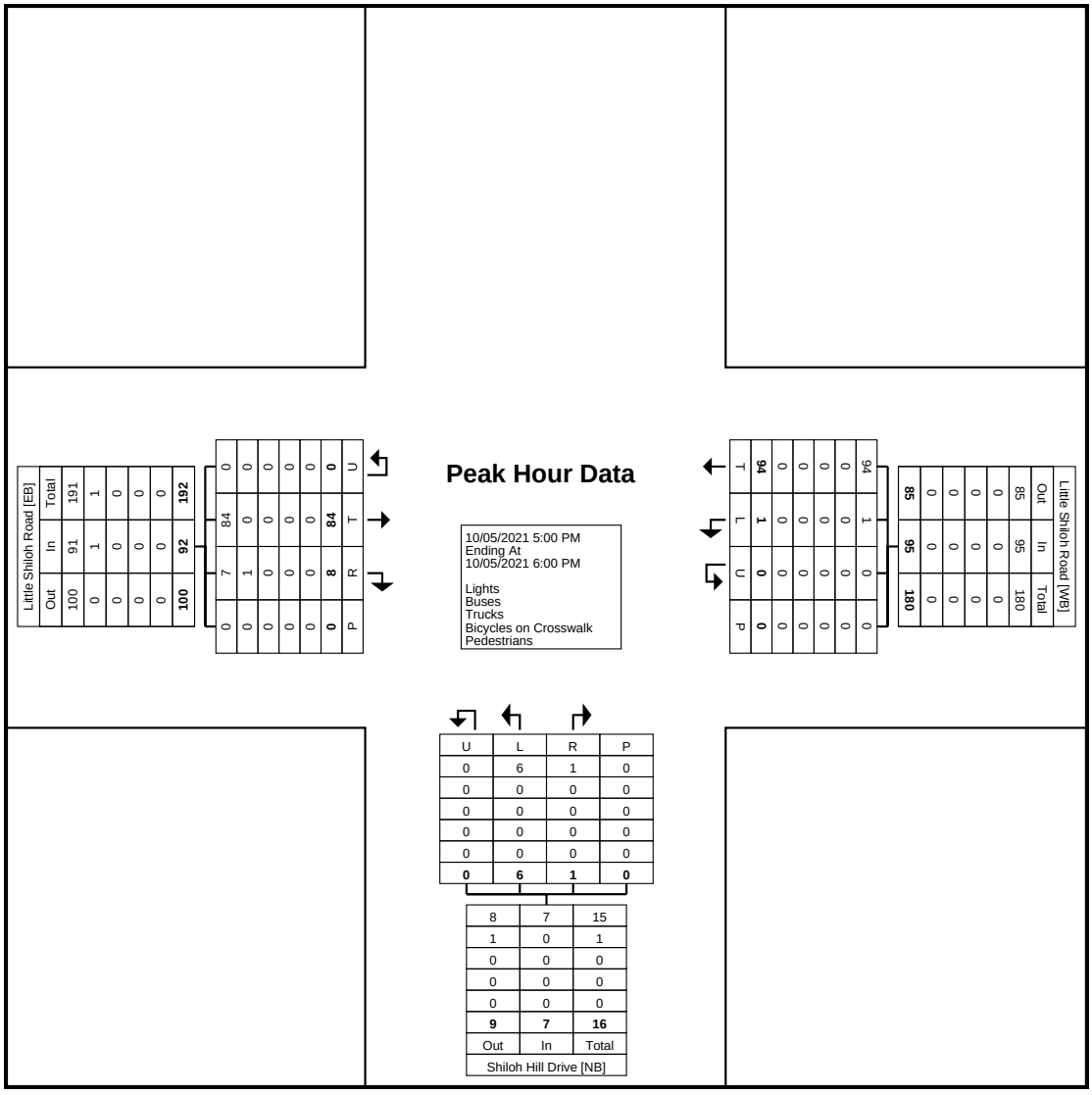
Count Name: Little Shiloh Rd & Shiloh Hill Dr
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Little Shiloh Road Eastbound					Little Shiloh Road Westbound					Shiloh Hill Drive Northbound					
	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	Int. Total
5:00 PM	17	2	0	0	19	0	23	0	0	23	0	1	0	0	1	43
5:15 PM	18	4	0	0	22	1	28	0	0	29	3	0	0	0	3	54
5:30 PM	21	0	0	0	21	0	23	0	0	23	1	0	0	0	1	45
5:45 PM	28	2	0	0	30	0	20	0	0	20	2	0	0	0	2	52
Total	84	8	0	0	92	1	94	0	0	95	6	1	0	0	7	194
Approach %	91.3	8.7	0.0	-	-	1.1	98.9	0.0	-	-	85.7	14.3	0.0	-	-	-
Total %	43.3	4.1	0.0	-	47.4	0.5	48.5	0.0	-	49.0	3.1	0.5	0.0	-	3.6	-
PHF	0.750	0.500	0.000	-	0.767	0.250	0.839	0.000	-	0.819	0.500	0.250	0.000	-	0.583	0.898
Lights	84	7	0	-	91	1	94	0	-	95	6	1	0	-	7	193
% Lights	100.0	87.5	-	-	98.9	100.0	100.0	-	-	100.0	100.0	100.0	-	-	100.0	99.5
Buses	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Buses	0.0	12.5	-	-	1.1	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.5
Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Trucks	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Little Shiloh Rd & Shiloh Hill Dr
Tuesday, October 5, 2021
Location: 39.954384, -75.556061

Count Name: Little Shiloh Rd & Shiloh Hill Dr
Site Code:
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (5:00 PM)

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Chester County, PA
Westtown Rd & Little Shiloh Rd/Falcon Lane
Tuesday, October 5, 2021
Location: 39.95684, -75.552712

Count Name: Westtown Rd & Little Shiloh Rd-Falcon Ln
Site Code:
Start Date: 10/05/2021

Turning Movement Data

Start Time	Little Shiloh Road Eastbound						Falcon Lane Westbound						Westtown Road Northbound						Westtown Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
6:00 AM	1	0	4	0	0	5	0	2	0	0	0	2	1	2	0	0	0	3	2	11	2	0	0	15	25
6:15 AM	0	0	4	0	0	4	2	0	0	0	0	2	1	4	1	0	0	6	2	18	1	0	0	21	33
6:30 AM	3	2	10	0	0	15	3	2	1	0	0	6	2	23	0	0	0	25	2	38	1	0	0	41	87
6:45 AM	2	2	10	0	0	14	0	6	2	0	0	8	6	34	2	0	0	42	1	22	1	0	0	24	88
Hourly Total	6	4	28	0	0	38	5	10	3	0	0	18	10	63	3	0	0	76	7	89	5	0	0	101	233
7:00 AM	0	3	13	0	0	16	3	6	4	0	0	13	7	42	4	0	0	53	1	22	0	0	0	23	105
7:15 AM	1	2	25	0	0	28	2	3	2	0	0	7	24	44	7	0	0	75	1	43	2	0	0	46	156
7:30 AM	1	1	20	0	0	22	5	3	5	0	0	13	4	62	3	0	0	69	1	53	1	0	0	55	159
7:45 AM	1	4	12	0	0	17	2	6	2	0	0	10	14	82	2	0	0	98	2	74	0	0	0	76	201
Hourly Total	3	10	70	0	0	83	12	18	13	0	0	43	49	230	16	0	0	295	5	192	3	0	0	200	621
8:00 AM	1	6	18	0	0	25	4	6	3	0	0	13	6	82	9	0	0	97	1	64	0	0	0	65	200
8:15 AM	1	4	10	0	0	15	5	4	2	0	0	11	9	68	3	0	0	80	5	57	0	0	0	62	168
8:30 AM	3	7	10	0	0	20	5	5	4	0	0	14	3	51	2	0	0	56	5	51	1	0	0	57	147
8:45 AM	0	4	20	0	0	24	2	2	4	0	0	8	4	61	5	0	0	70	3	36	0	0	0	39	141
Hourly Total	5	21	58	0	0	84	16	17	13	0	0	46	22	262	19	0	0	303	14	208	1	0	0	223	656
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	2	5	0	0	7	2	2	0	0	0	4	6	21	3	0	0	30	2	28	0	0	0	30	71
2:15 PM	2	4	18	0	0	24	0	4	1	0	0	5	9	30	5	0	0	44	4	33	0	0	0	37	110
2:30 PM	1	5	11	0	0	17	2	5	6	0	0	13	10	38	0	0	0	48	1	51	4	0	0	56	134
2:45 PM	1	4	12	0	0	17	1	5	3	0	0	9	3	42	4	0	0	49	3	43	1	0	0	47	122
Hourly Total	4	15	46	0	0	65	5	16	10	0	0	31	28	131	12	0	0	171	10	155	5	0	0	170	437
3:00 PM	0	11	9	0	0	20	4	4	4	0	0	12	14	41	6	0	0	61	2	51	1	0	0	54	147
3:15 PM	1	10	10	0	0	21	2	6	6	0	0	14	7	52	8	0	0	67	8	64	0	0	0	72	174
3:30 PM	0	1	7	0	0	8	5	9	3	0	0	17	12	69	4	0	0	85	4	56	1	0	0	61	171
3:45 PM	2	6	11	0	0	19	9	8	6	0	0	23	15	56	7	0	0	78	4	69	0	0	0	73	193
Hourly Total	3	28	37	0	0	68	20	27	19	0	0	66	48	218	25	0	0	291	18	240	2	0	0	260	685
4:00 PM	3	5	20	0	0	28	1	9	1	0	0	11	11	71	5	0	0	87	5	51	0	0	0	56	182
4:15 PM	0	3	10	0	0	13	1	9	3	0	0	13	12	52	5	0	0	69	2	78	1	0	0	81	176
4:30 PM	0	3	19	0	0	22	3	7	2	0	0	12	13	62	8	0	0	83	4	71	1	0	0	76	193
4:45 PM	0	1	7	0	0	8	1	8	3	0	0	12	16	68	5	0	0	89	6	68	2	0	0	76	185
Hourly Total	3	12	56	0	0	71	6	33	9	0	0	48	52	253	23	0	0	328	17	268	4	0	0	289	736
5:00 PM	1	5	14	0	0	20	8	10	4	0	0	22	15	60	5	0	0	80	6	80	0	0	0	86	208
5:15 PM	0	8	14	0	0	22	5	14	3	0	0	22	14	78	2	0	0	94	5	82	0	0	0	87	225
5:30 PM	4	9	14	0	0	27	2	13	1	0	0	16	11	81	6	0	0	98	10	65	1	0	0	76	217
5:45 PM	1	7	20	0	0	28	4	7	5	0	0	16	7	62	8	1	0	78	6	62	0	0	0	68	190
Hourly Total	6	29	62	0	0	97	19	44	13	0	0	76	47	281	21	1	0	350	27	289	1	0	0	317	840
Grand Total	30	119	357	0	0	506	83	165	80	0	0	328	256	1438	119	1	0	1814	98	1441	21	0	0	1560	4208
Approach %	5.9	23.5	70.6	0.0	-	-	25.3	50.3	24.4	0.0	-	-	14.1	79.3	6.6	0.1	-	-	6.3	92.4	1.3	0.0	-	-	-
Total %	0.7	2.8	8.5	0.0	-	12.0	2.0	3.9	1.9	0.0	-	7.8	6.1	34.2	2.8	0.0	-	43.1	2.3	34.2	0.5	0.0	-	37.1	-
Lights	27	112	351	0	-	490	81	155	70	0	-	306	251	1396	115	1	-	1763	90	1387	14	0	-	1491	4050
% Lights	90.0	94.1	98.3	-	-	96.8	97.6	93.9	87.5	-	-	93.3	98.0	97.1	96.6	100.0	-	97.2	91.8	96.3	66.7	-	-	95.6	96.2
Buses	3	4	2	0	-	9	0	7	8	0	-	15	4	20	2	0	-	26	5	17	7	0	-	29	79
% Buses	10.0	3.4	0.6	-	-	1.8	0.0	4.2	10.0	-	-	4.6	1.6	1.4	1.7	0.0	-	1.4	5.1	1.2	33.3	-	-	1.9	1.9
Trucks	0	3	4	0	-	7	2	3	2	0	-	7	1	22	2	0	-	25	3	37	0	0	-	40	79
% Trucks	0.0	2.5	1.1	-	-	1.4	2.4	1.8	2.5	-	-	2.1	0.4	1.5	1.7	0.0	-	1.4	3.1	2.6	0.0	-	-	2.6	1.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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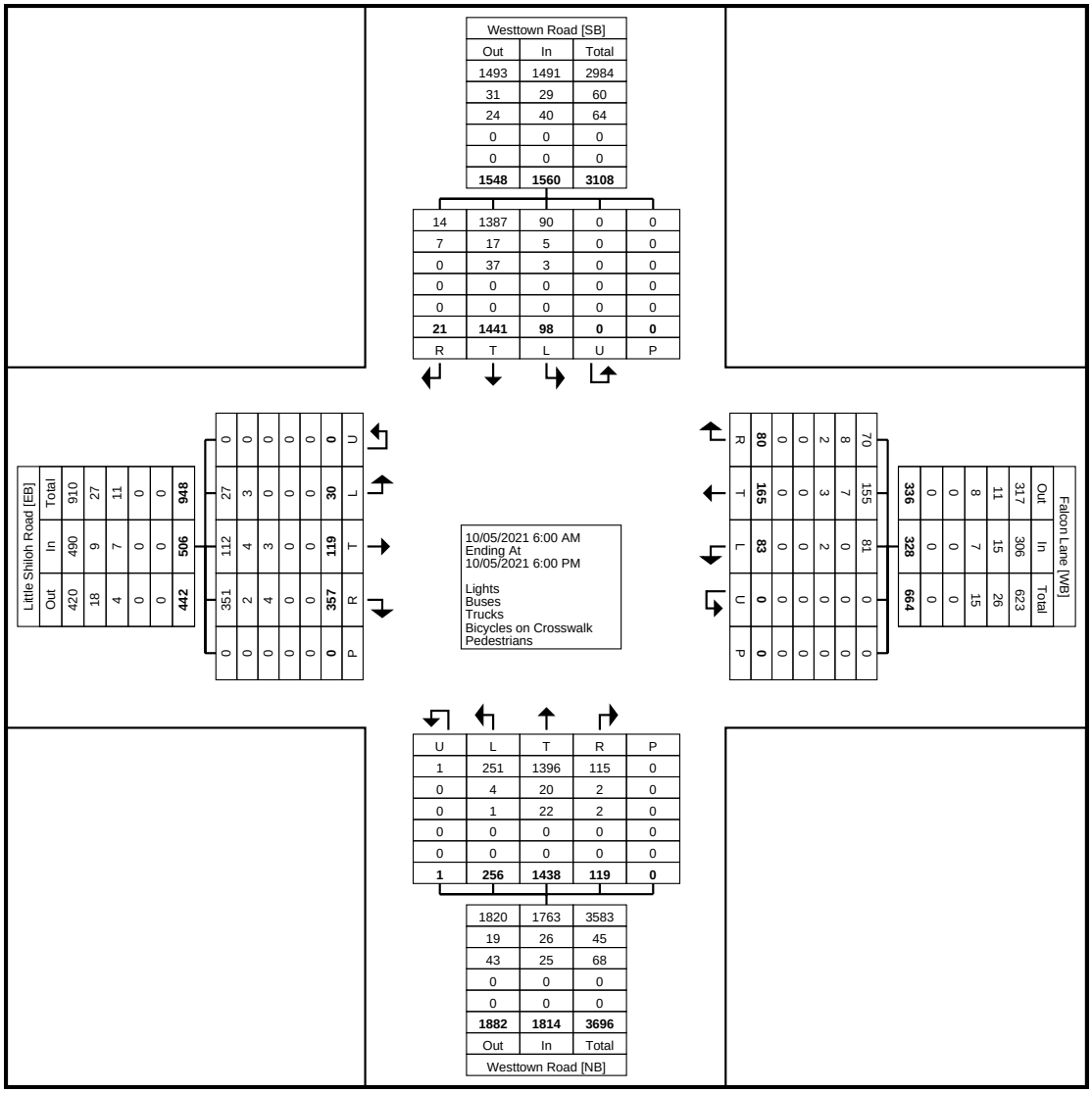
Chester County, PA
Westtown Rd & Little Shiloh Rd/Falcon Lane
Tuesday, October 5, 2021
Location: 39.95684, -75.552712

Count Name: Westtown Rd & Little Shiloh Rd-Falcon Ln
Site Code:
Start Date: 10/05/2021



Turning Movement Data Plot

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Tuesday, October 5, 2021
Location: 39.95684, -75.552712

Count Name: Westtown Rd & Little Shiloh Rd-Falcon Ln
Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Little Shiloh Road Eastbound						Falcon Lane Westbound						Westtown Road Northbound						Westtown Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	1	1	20	0	0	22	5	3	5	0	0	13	4	62	3	0	0	69	1	53	1	0	0	55	159
7:45 AM	1	4	12	0	0	17	2	6	2	0	0	10	14	82	2	0	0	98	2	74	0	0	0	76	201
8:00 AM	1	6	18	0	0	25	4	6	3	0	0	13	6	82	9	0	0	97	1	64	0	0	0	65	200
8:15 AM	1	4	10	0	0	15	5	4	2	0	0	11	9	68	3	0	0	80	5	57	0	0	0	62	168
Total	4	15	60	0	0	79	16	19	12	0	0	47	33	294	17	0	0	344	9	248	1	0	0	258	728
Approach %	5.1	19.0	75.9	0.0	-	-	34.0	40.4	25.5	0.0	-	-	9.6	85.5	4.9	0.0	-	-	3.5	96.1	0.4	0.0	-	-	-
Total %	0.5	2.1	8.2	0.0	-	10.9	2.2	2.6	1.6	0.0	-	6.5	4.5	40.4	2.3	0.0	-	47.3	1.2	34.1	0.1	0.0	-	35.4	-
PHF	1.000	0.625	0.750	0.000	-	0.790	0.800	0.792	0.600	0.000	-	0.904	0.589	0.896	0.472	0.000	-	0.878	0.450	0.838	0.250	0.000	-	0.849	0.905
Lights	3	15	60	0	-	78	16	16	10	0	-	42	32	286	17	0	-	335	8	237	0	0	-	245	700
% Lights	75.0	100.0	100.0	-	-	98.7	100.0	84.2	83.3	-	-	89.4	97.0	97.3	100.0	-	-	97.4	88.9	95.6	0.0	-	-	95.0	96.2
Buses	1	0	0	0	-	1	0	1	1	0	-	2	1	4	0	0	-	5	1	1	1	0	-	3	11
% Buses	25.0	0.0	0.0	-	-	1.3	0.0	5.3	8.3	-	-	4.3	3.0	1.4	0.0	-	-	1.5	11.1	0.4	100.0	-	-	1.2	1.5
Trucks	0	0	0	0	-	0	0	2	1	0	-	3	0	4	0	0	-	4	0	10	0	0	-	10	17
% Trucks	0.0	0.0	0.0	-	-	0.0	0.0	10.5	8.3	-	-	6.4	0.0	1.4	0.0	-	-	1.2	0.0	4.0	0.0	-	-	3.9	2.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
Westtown Rd & Little Shiloh Rd/Falcon Lane
Tuesday, October 5, 2021
Location: 39.95684, -75.552712

Count Name: Westtown Rd & Little Shiloh Rd-Falcon Ln
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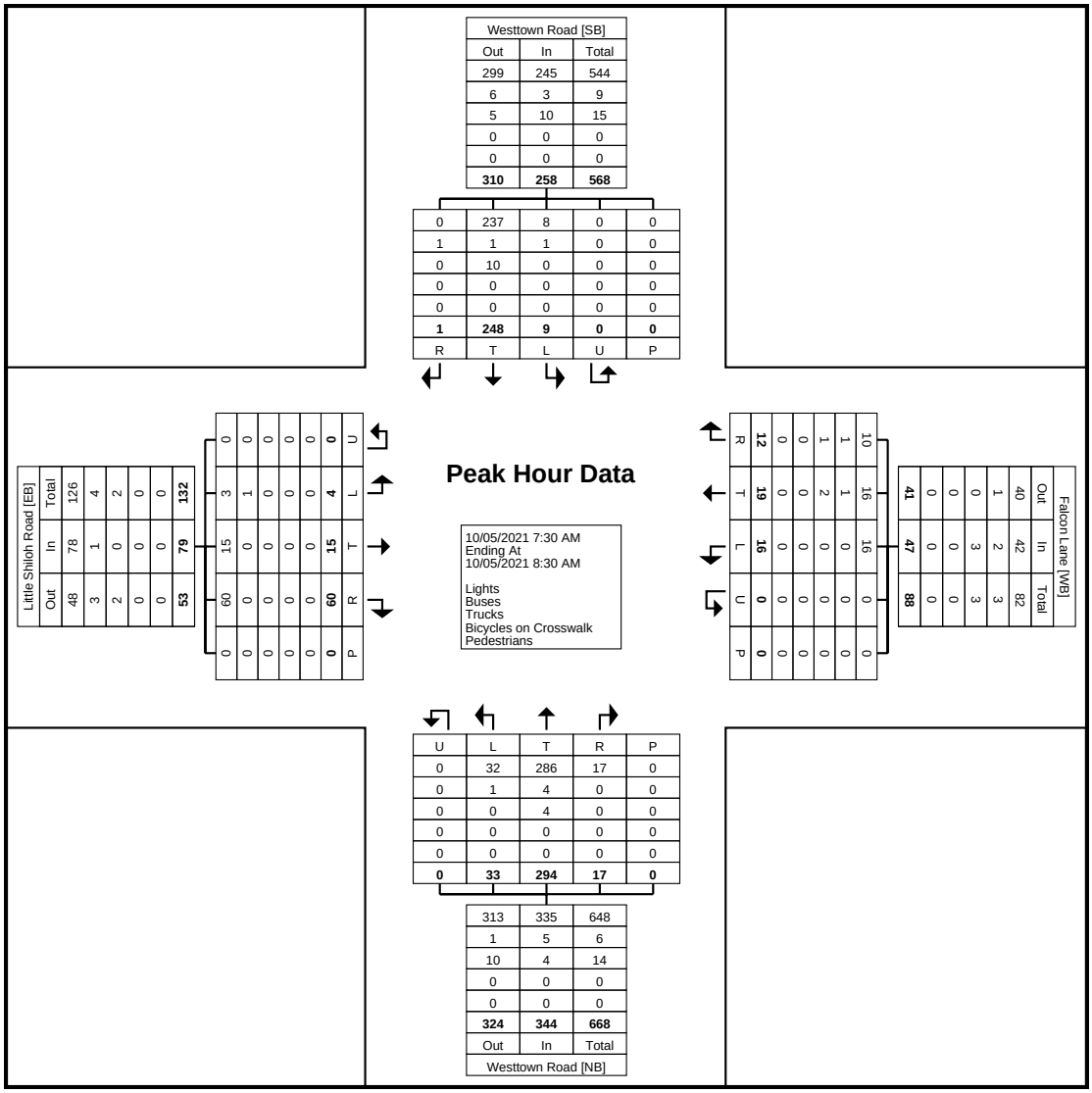
Start Date: 10/05/2021



Turning Movement Peak Hour Data Plot (7:30 AM)

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Location: 39.95684, -75.552712

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Site Code:
Start Date: 10/05/2021

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Little Shiloh Road Eastbound						Falcon Lane Westbound						Westtown Road Northbound						Westtown Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
5:00 PM	1	5	14	0	0	20	8	10	4	0	0	22	15	60	5	0	0	80	6	80	0	0	0	86	208
5:15 PM	0	8	14	0	0	22	5	14	3	0	0	22	14	78	2	0	0	94	5	82	0	0	0	87	225
5:30 PM	4	9	14	0	0	27	2	13	1	0	0	16	11	81	6	0	0	98	10	65	1	0	0	76	217
5:45 PM	1	7	20	0	0	28	4	7	5	0	0	16	7	62	8	1	0	78	6	62	0	0	0	68	190
Total	6	29	62	0	0	97	19	44	13	0	0	76	47	281	21	1	0	350	27	289	1	0	0	317	840
Approach %	6.2	29.9	63.9	0.0	-	-	25.0	57.9	17.1	0.0	-	-	13.4	80.3	6.0	0.3	-	-	8.5	91.2	0.3	0.0	-	-	-
Total %	0.7	3.5	7.4	0.0	-	11.5	2.3	5.2	1.5	0.0	-	9.0	5.6	33.5	2.5	0.1	-	41.7	3.2	34.4	0.1	0.0	-	37.7	-
PHF	0.375	0.806	0.775	0.000	-	0.866	0.594	0.786	0.650	0.000	-	0.864	0.783	0.867	0.656	0.250	-	0.893	0.675	0.881	0.250	0.000	-	0.911	0.933
Lights	6	29	62	0	-	97	18	44	13	0	-	75	47	279	21	1	-	348	27	285	1	0	-	313	833
% Lights	100.0	100.0	100.0	-	-	100.0	94.7	100.0	100.0	-	-	98.7	100.0	99.3	100.0	100.0	-	99.4	100.0	98.6	100.0	-	-	98.7	99.2
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	0	0	0	-	0	1	0	0	0	-	1	0	2	0	0	-	2	0	4	0	0	-	4	7
% Trucks	0.0	0.0	0.0	-	-	0.0	5.3	0.0	0.0	-	-	1.3	0.0	0.7	0.0	0.0	-	0.6	0.0	1.4	0.0	-	-	1.3	0.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Chester County, PA
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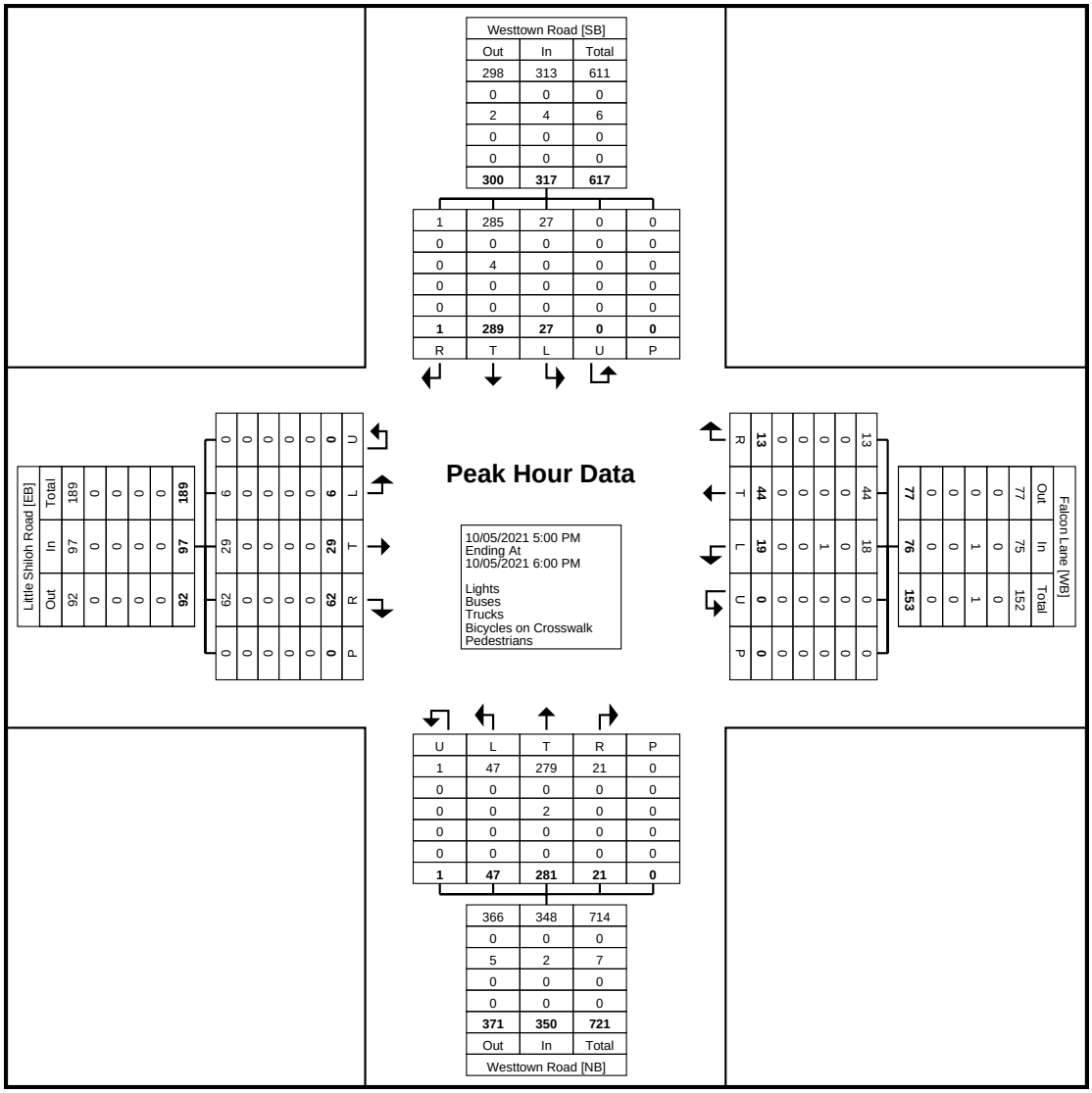


Turning Movement Peak Hour Data Plot (5:00 PM)

TRIP GENERATION WORKSHEETS

Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

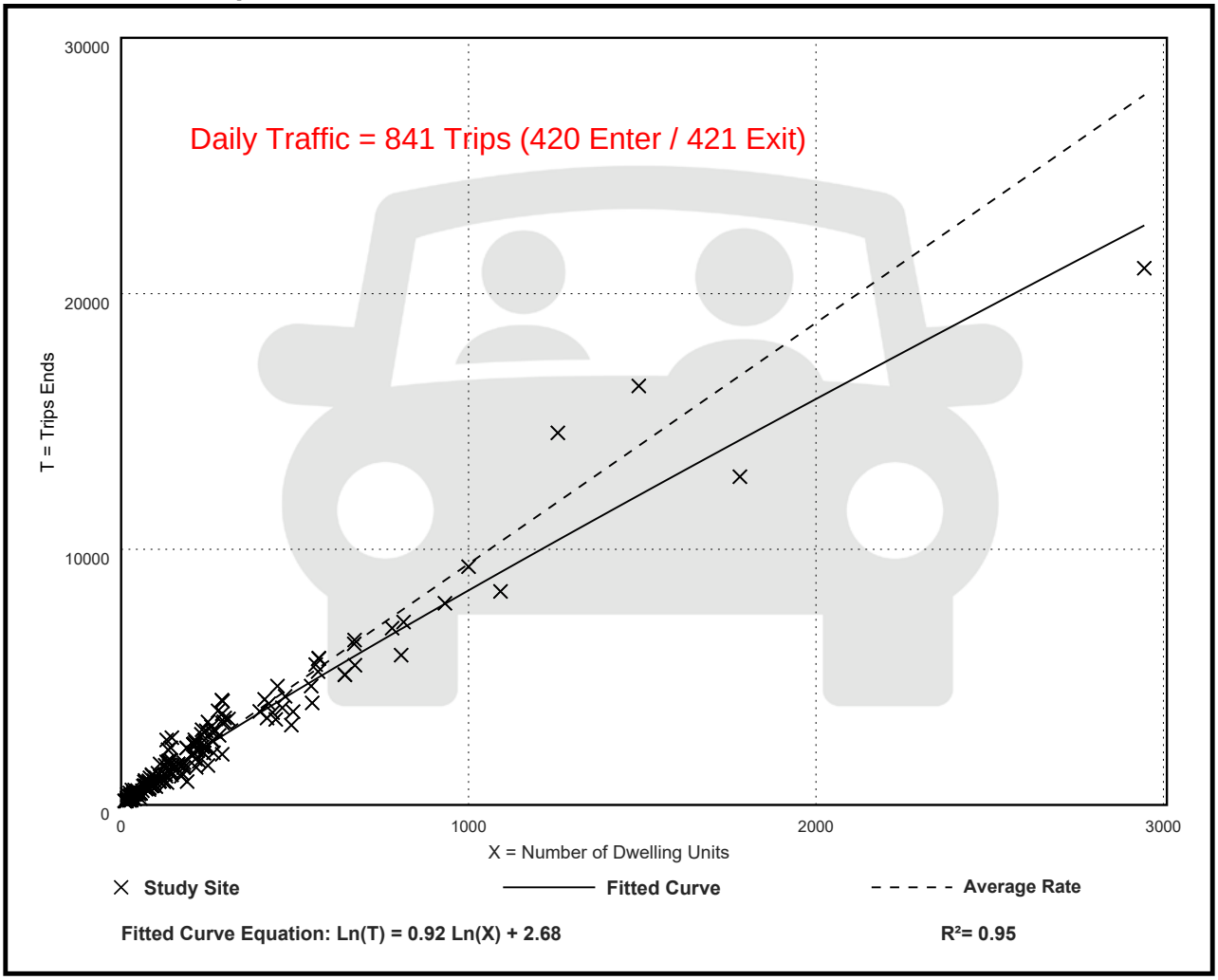
Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation

82 Units



Fitted Curve Equation: Ln(T) = 0.92 Ln(X) + 2.68

R^2= 0.95

Single-Family Detached Housing
(210)

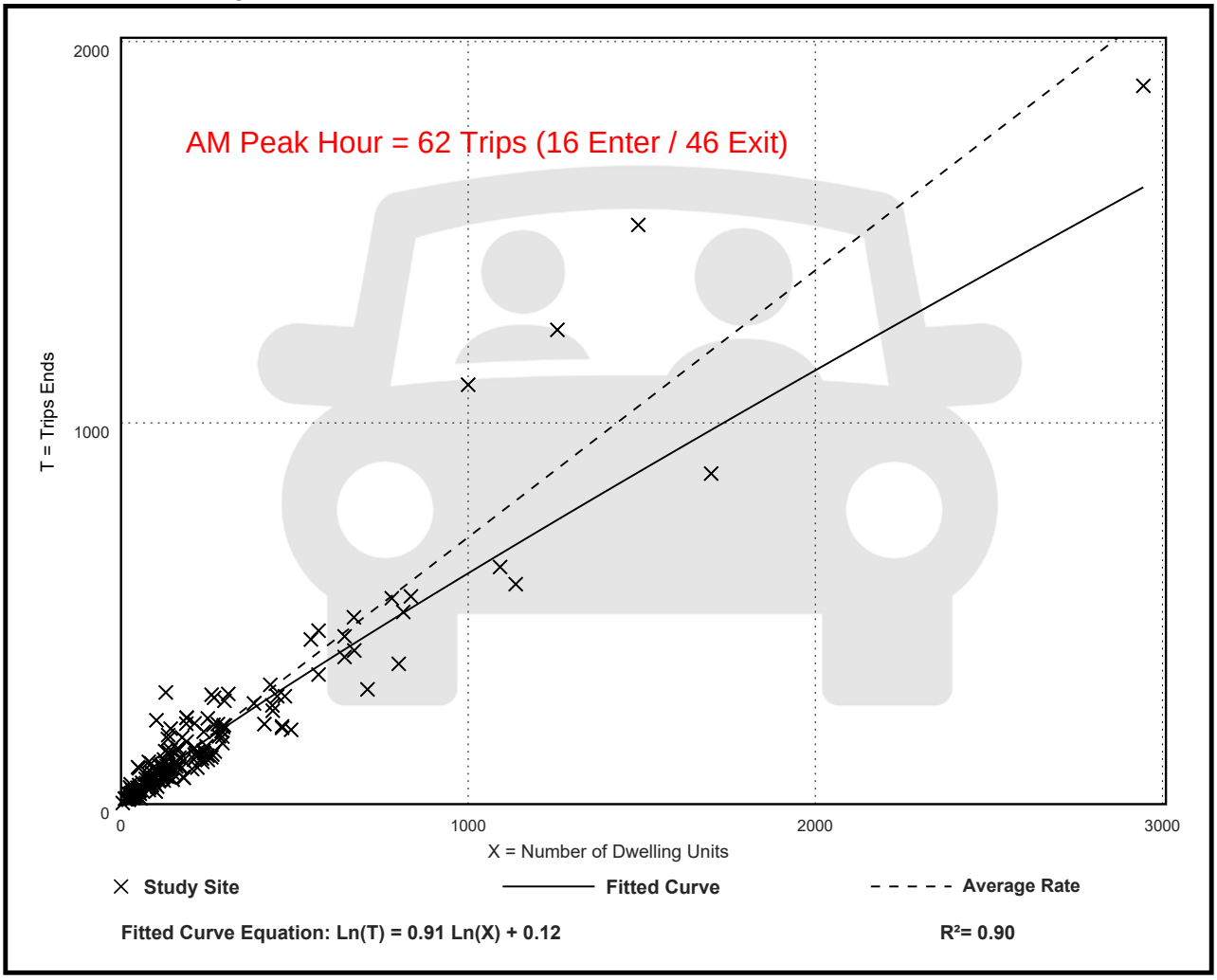
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation

82 Units



Single-Family Detached Housing
(210)

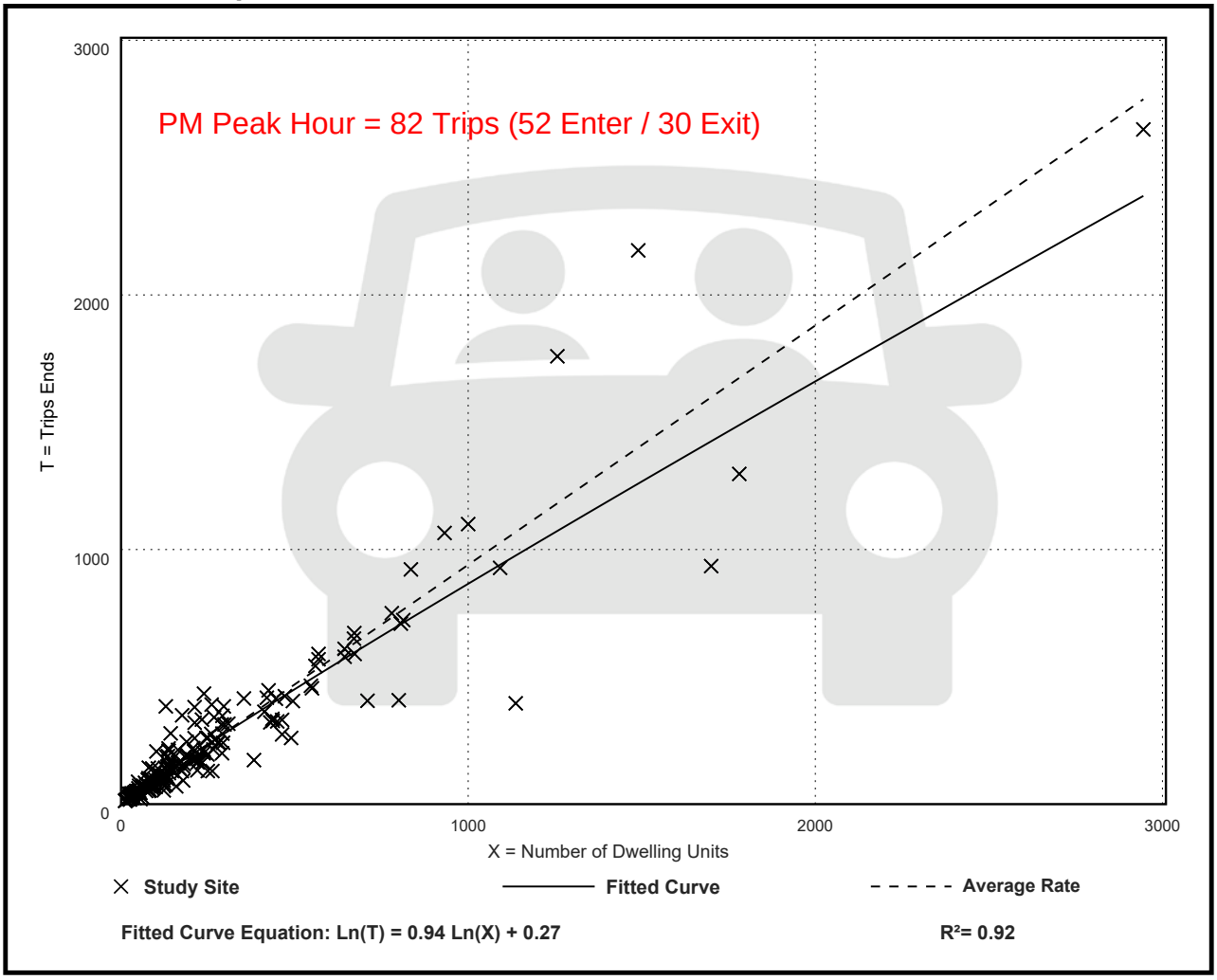
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation

82 Units



TRIP DISTRIBUTION

Trip Distribution Methodology
Cordon Line

Project: Stokes Estate Residential
Project #: 278.012.21
Computed by: JAS

Using the Cordon Line Methodology, the volume entering and exiting the the study area was used to determine the trip distribution.

	AM Peak Trips	% AM Peak Hr Trips	PM Peak Trips	% PM Peak Hr Trips	Comb. Peak Trips	% Combined Peak Trips	% Assumed for Analysis
TOTAL TRAFFIC ENTERING/EXITING STUDY AREA	3,520	100%	3,748	100%	7,268	100%	100%
Little Shiloh Road to the West	377	10.7%	443	11.8%	820	11.3%	15%
Westtown Road to the North	568	16.1%	617	16.5%	1,185	16.3%	20%
Street Road to the East	1,116	31.7%	1,064	28.4%	2,180	30.0%	25%
Westtown Thornton Road to the South	228	6.5%	340	9.1%	568	7.8%	5%
Street Road to the West	1,063	30.2%	1,096	29.2%	2,159	29.7%	25%
Oakbourne Road to the West	168	4.8%	188	5.0%	356	4.9%	10%

INTERSECTION TRAFFIC VOLUME WORKSHEETS

SITE IMPACT TRAFFIC EVALUATION

---------- GENERAL INFORMATION FOR SITETRIP WORKSHEET ----------

Title:	Stokes Estate Residential Development TRANSPORTATION IMPACT STUDY		
Location:	Westtown Township, Chester County		
Performed By:	LJS	Date:	03/04/22
Intersection 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.F	Site A:	Residential
Intersection 2:	Shiloh Road / Hunt Drive	Site B:	(Site)
Intersection 3:	Shiloh Road / Oakbourne Road	Site C:	(Site)
Intersection 4:	Shiloh Road / Little Shiloh Road (S.R.2005)	Site D:	(Site)
Intersection 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)	Site E:	(Site)
Intersection 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.20	Site F:	(Site)
Intersection 7:	(STREET NAMES)	Design Hour:	AM Peak
Intersection 8:	(STREET NAMES)	Design Year:	2028
Intersection 9:	(STREET NAMES)	Background Factor:	1.04
Intersection 10:	(STREET NAMES)	Background Growth Rate	0.54
Intersection 11:	(STREET NAMES)		
Intersection 12:	(STREET NAMES)		

--------- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT ---------

APPROACH	EXISTING TRAFFIC	FUTURE TRAFFIC W/O COM DEV W/O PRO DEV	FUTURE TRAFFIC W/ COM DEV W/O PRO DEV	Committed Developments			PHF	RTOR	Trucks	Truck Percentage
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)									
EB LEFT	121	126	126						3	2%
THROUGH	398	413	413						15	4%
RIGHT	10	10	10					0	0	0%
WB LEFT	15	16	16						0	0%
THROUGH	425	441	441						18	4%
RIGHT	148	154	154					1	1	1%
NB LEFT	21	22	22						1	5%
THROUGH	85	88	88						0	0%
RIGHT	11	11	11					1	0	0%
SB LEFT	119	124	124						4	3%
THROUGH	86	89	89						2	2%
RIGHT	88	91	91					0	7	8%
TOTAL	1527	1585	1585				0.72		51	
INTERSECTION 2:	Shiloh Road / Hunt Drive									
EB LEFT	6	6	6						0	0%
THROUGH	0	0	0						0	0%
RIGHT	8	8	8					0	2	25%
WB LEFT	1	1	1						1	100%
THROUGH	0	0	0						0	0%
RIGHT	0	0	0					0	0	0%
NB LEFT	6	6	6						0	0%
THROUGH	214	222	222						7	3%
RIGHT	3	3	3					0	1	33%
SB LEFT	0	0	0						0	0%
THROUGH	301	313	313						9	3%
RIGHT	2	2	2					0	0	0%
TOTAL	541	561	561				0.60		20	
INTERSECTION 3:	Shiloh Road / Oakbourne Road									
EB LEFT	13	13	13						0	0%
THROUGH	0	0	0						0	0%
RIGHT	84	87	87					0	5	6%
WB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	4	4	4					0	1	25%
NB LEFT	52	54	54						5	10%
THROUGH	173	180	180						3	2%
RIGHT	1	1	1					0	0	0%
SB LEFT	1	1	1						0	0%
THROUGH	224	233	233						7	3%
RIGHT	19	20	20					0	2	11%
TOTAL	571	593	593				0.64		23	
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)									
EB LEFT	2	2	2						0	0%
THROUGH	25	26	26						6	24%
RIGHT	176	183	183					0	5	3%
WB LEFT	71	74	74						6	8%
THROUGH	27	28	28						2	7%
RIGHT	0	0	0					0	0	0%
NB LEFT	146	152	152						4	3%
THROUGH	2	2	2						0	0%
RIGHT	50	52	52					0	2	4%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
TOTAL	500	520	520				0.68		25	
INTERSECTION 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)									
EB LEFT	0	0	0						0	0%
THROUGH	73	76	76						2	3%
RIGHT	3	3	3					0	0	0%
WB LEFT	0	0	0						0	0%
THROUGH	69	72	72						6	9%
RIGHT	0	0	0					0	0	0%
NB LEFT	7	7	7						0	0%
THROUGH	0	0	0						0	0%
RIGHT	2	2	2					0	0	0%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	0	0	0					0	0	0%
TOTAL	154	160	160				0.70		8	
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane									
EB LEFT	4	4	4						1	25%
THROUGH	15	16	16						0	0%
RIGHT	60	62	62					0	0	0%
WB LEFT	16	17	17						0	0%
THROUGH	19	20	20						3	16%
RIGHT	12	12	12					0	2	17%
NB LEFT	33	34	34						1	3%
THROUGH	294	305	305						8	3%
RIGHT	17	18	18					0	0	0%
SB LEFT	9	9	9						1	11%
THROUGH	248	258	258						11	4%
RIGHT	1	1	1					0	1	100%
TOTAL	728	756	756				0.91		28	

---------- DATA INPUT/RESULTS FOR TRIP GENERATION ----------

SITE A	Residential						
DESIGN HOUR	AM Peak					TOTAL	
Land Use Type	(210)	(type)	(type)	(type)	(type)	(type)	
Trips Per Unit:							
Inbound	0.00	0.00	0.00	0.00	0.00	0.00	
Outbound	0.00	0.00	0.00	0.00	0.00	0.00	
Number of Units	82.00	0.00	0.00	0.00	0.00	0.00	
Buildout	100%	0%	0%	0%	0%	0%	
Pass-By Trips	0%	0%	0%	0%	0%	0%	
New Site Trips:							
Inbound	16	0	0	0	0	0	16
Outbound	46	0	0	0	0	0	46
Pass-By Trips:							
Inbound	0	0	0	0	0	0	0
Outbound	0	0	0	0	0	0	0
Total Site Trips:							
Inbound	16	0	0	0	0	0	16
Outbound	46	0	0	0	0	0	46
Total	62	0	0	0	0	0	62

---------- SINGLE SITE TRAFFIC ASSIGNMENT ----------

SITE A ..... Residential
DESIGN HOUR .... AM Peak

APPROACH	FUTURE TRAFFIC W/O COM DEV W/O	FUTURE TRAFFIC W/ COM DEV W/O PRO	% NEW SITE TRIPS INBOUND	% NEW SITE TRIPS OUTBOUND	% PASS-BY TRIPS INBOUND	% PASS-BY TRIPS OUTBOUND	NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	FUTURE TRAFFIC W/O COM DEV W/ PRO	FUTURE TRAFFC W/ COM DEV W/ PRO DEV
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)											
EB LEFT	126	126	25%	0%	0%	0%	4	0		4	130	130
THROUGH	413	413	0%	0%	0%	0%	0	0		0	413	413
RIGHT	10	10	0%	0%	0%	0%	0	0		0	10	10
WB LEFT	16	16	0%	0%	0%	0%	0	0		0	16	16
THROUGH	441	441	0%	0%	0%	0%	0	0		0	441	441
RIGHT	154	154	25%	0%	0%	0%	4	0		4	158	158
NB LEFT	22	22	0%	0%	0%	0%	0	0		0	22	22
THROUGH	88	88	5%	0%	0%	0%	1	0		1	89	89
RIGHT	11	11	0%	0%	0%	0%	0	0		0	11	11
SB LEFT	124	124	0%	25%	0%	0%	12	0		12	136	136
THROUGH	89	89	0%	5%	0%	0%	2	0		2	91	91
RIGHT	91	91	0%	25%	0%	0%	11	0		11	102	102
TOTAL	1585	1585	55%	55%	0%	0%	34	0	0	34	1619	1619
INTERSECTION 2:	Shiloh Road / Hunt Drive											
EB LEFT	6	6	0%	0%	0%	0%	0	0		0	6	6
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	8	8	0%	0%	0%	0%	0	0		0	8	8
WB LEFT	1	1	0%	40%	0%	0%	18	0		18	19	19
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	0	0	0%	12%	0%	0%	6	0		6	6	6
NB LEFT	6	6	0%	0%	0%	0%	0	0		0	6	6
THROUGH	222	222	15%	0%	0%	0%	2	0		2	224	224
RIGHT	3	3	40%	0%	0%	0%	7	0		7	10	10
SB LEFT	0	0	12%	0%	0%	0%	2	0		2	2	2
THROUGH	313	313	0%	15%	0%	0%	7	0		7	320	320
RIGHT	2	2	0%	0%	0%	0%	0	0		0	2	2
TOTAL	561	561	67%	67%	0%	0%	42	0	0	42	603	603
INTERSECTION 3:	Shiloh Road / Oakbourne Road											
EB LEFT	13	13	0%	0%	0%	0%	0	0		0	13	13
THROUGH	0	0	8%	0%	0%	0%	1	0		1	1	1
RIGHT	87	87	2%	0%	0%	0%	0	0		0	87	87
WB LEFT	0	0	0%	15%	0%	0%	7	0		7	7	7
THROUGH	0	0	0%	8%	0%	0%	4	0		4	4	4
RIGHT	4	4	0%	25%	0%	0%	11	0		11	15	15
NB LEFT	54	54	0%	2%	0%	0%	1	0		1	55	55
THROUGH	180	180	0%	10%	0%	0%	5	0		5	185	185
RIGHT	1	1	15%	0%	0%	0%	2	0		2	3	3
SB LEFT	1	1	25%	0%	0%	0%	4	0		4	5	5
THROUGH	233	233	10%	0%	0%	0%	2	0		2	235	235
RIGHT	20	20	0%	0%	0%	0%	0	0		0	20	20
TOTAL	593	593	60%	60%	0%	0%	37	0	0	37	630	630
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)											
EB LEFT	2	2	0%	0%	0%	0%	0	0		0	2	2
THROUGH	26	26	0%	0%	0%	0%	0	0		0	26	26
RIGHT	183	183	15%	0%	0%	0%	3	0		3	186	186
WB LEFT	74	74	20%	0%	0%	0%	3	0		3	77	77
THROUGH	28	28	0%	0%	0%	0%	0	0		0	28	28
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
NB LEFT	152	152	0%	15%	0%	0%	7	0		7	159	159
THROUGH	2	2	0%	0%	0%	0%	0	0		0	2	2
RIGHT	52	52	0%	20%	0%	0%	9	0		9	61	61
SB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	1	1	0%	0%	0%	0%	0	0		0	1	1
TOTAL	520	520	35%	35%	0%	0%	22	0	0	22	542	542
INTERSECTION 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)											
EB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	76	76	0%	20%	0%	0%	9	0		9	85	85
RIGHT	3	3	0%	0%	0%	0%	0	0		0	3	3
WB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	72	72	20%	0%	0%	0%	3	0		3	75	75
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
NB LEFT	7	7	0%	0%	0%	0%	0	0		0	7	7
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	2	2	0%	0%	0%	0%	0	0		0	2	2
SB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
TOTAL	160	160	20%	20%	0%	0%	12	0	0	12	172	172
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane											
EB LEFT	4	4	0%	20%	0%	0%	9	0		9	13	13
THROUGH	16	16	0%	0%	0%	0%	0	0		0	16	16
RIGHT	62	62	0%	0%	0%	0%	0	0		0	62	62
WB LEFT	17	17	0%	0%	0%	0%	0	0		0	17	17
THROUGH	20	20	0%	0%	0%	0%	0	0		0	20	20
RIGHT	12	12	0%	0%	0%	0%	0	0		0	12	12
NB LEFT	34	34	0%	0%	0%	0%	0	0		0	34	34
THROUGH	305	305	0%	0%	0%	0%	0	0		0	305	305
RIGHT	18	18	0%	0%	0%	0%	0	0		0	18	18
SB LEFT	9	9	0%	0%	0%	0%	0	0		0	9	9
THROUGH	258	258	0%	0%	0%	0%	0	0		0	258	258
RIGHT	1	1	20%	0%	0%	0%	3	0		3	4	4
TOTAL	756	756	20%	20%	0%	0%	12	0	0	12	768	768

SITE IMPACT TRAFFIC EVALUATION

---------- GENERAL INFORMATION FOR SITETRIP WORKSHEET ----------

Title:	Stokes Estate Residential Development TRANSPORTATION IMPACT STUDY		
Location:	Westtown Township, Chester County		
Performed By:	LJS	Date:	03/04/22
Intersection 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.F	Site A:	Residential
Intersection 2:	Shiloh Road / Hunt Drive	Site B:	(Site)
Intersection 3:	Shiloh Road / Oakbourne Road	Site C:	(Site)
Intersection 4:	Shiloh Road / Little Shiloh Road (S.R.2005)	Site D:	(Site)
Intersection 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)	Site E:	(Site)
Intersection 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.20	Site F:	(Site)
Intersection 7:	(STREET NAMES)	Design Hour:	PM Peak
Intersection 8:	(STREET NAMES)	Design Year:	2028
Intersection 9:	(STREET NAMES)	Background Factor:	1.04
Intersection 10:	(STREET NAMES)	Background Growth Rate	0.54
Intersection 11:	(STREET NAMES)		
Intersection 12:	(STREET NAMES)		

--------- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT ---------

APPROACH	EXISTING TRAFFIC	FUTURE TRAFFIC W/O COM DEV W/O PRO DEV	FUTURE TRAFFIC W/ COM DEV W/O PRO DEV	Committed Developments			PHF	RTOR	Trucks	Truck Percentage
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)									
EB LEFT	135	140	140						3	2%
THROUGH	403	418	418						2	0%
RIGHT	22	23	23					0	0	0%
WB LEFT	9	9	9						0	0%
THROUGH	424	440	440						3	1%
RIGHT	118	123	123					2	0	0%
NB LEFT	9	9	9						0	0%
THROUGH	115	119	119						0	0%
RIGHT	19	20	20					0	0	0%
SB LEFT	91	94	94						0	0%
THROUGH	166	172	172						0	0%
RIGHT	103	107	107					1	0	0%
TOTAL	1614	1674	1674				0.88		8	
INTERSECTION 2:	Shiloh Road / Hunt Drive									
EB LEFT	3	3	3						0	0%
THROUGH	0	0	0						0	0%
RIGHT	7	7	7					0	0	0%
WB LEFT	1	1	1						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
NB LEFT	13	13	13						0	0%
THROUGH	252	262	262						0	0%
RIGHT	0	0	0					0	0	0%
SB LEFT	1	1	1						0	0%
THROUGH	314	326	326						0	0%
RIGHT	5	5	5					0	0	0%
TOTAL	597	619	619				0.89		0	
INTERSECTION 3:	Shiloh Road / Oakbourne Road									
EB LEFT	22	23	23						1	5%
THROUGH	0	0	0						0	0%
RIGHT	78	81	81					0	0	0%
WB LEFT	3	3	3						0	0%
THROUGH	0	0	0						0	0%
RIGHT	3	3	3					0	0	0%
NB LEFT	66	69	69						0	0%
THROUGH	187	194	194						0	0%
RIGHT	1	1	1					0	0	0%
SB LEFT	1	1	1						0	0%
THROUGH	241	250	250						0	0%
RIGHT	22	23	23					0	0	0%
TOTAL	624	648	648				0.91		1	
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)									
EB LEFT	2	2	2						0	0%
THROUGH	30	31	31						0	0%
RIGHT	226	235	235					0	1	0%
WB LEFT	78	81	81						0	0%
THROUGH	32	33	33						1	3%
RIGHT	0	0	0					0	0	0%
NB LEFT	152	158	158						1	1%
THROUGH	0	0	0						0	0%
RIGHT	56	58	58					0	0	0%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
TOTAL	577	599	599				0.86		3	
INTERSECTION 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)									
EB LEFT	0	0	0						0	0%
THROUGH	84	87	87						0	0%
RIGHT	8	8	8					0	1	13%
WB LEFT	1	1	1						0	0%
THROUGH	94	98	98						0	0%
RIGHT	0	0	0					0	0	0%
NB LEFT	6	6	6						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	0	0	0					0	0	0%
TOTAL	194	201	201				0.90		1	
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane									
EB LEFT	6	6	6						0	0%
THROUGH	29	30	30						0	0%
RIGHT	62	64	64					0	0	0%
WB LEFT	19	20	20						1	5%
THROUGH	44	46	46						0	0%
RIGHT	13	13	13					0	0	0%
NB LEFT	48	50	50						0	0%
THROUGH	281	292	292						2	1%
RIGHT	21	22	22					0	0	0%
SB LEFT	27	28	28						0	0%
THROUGH	289	300	300						4	1%
RIGHT	1	1	1					0	0	0%
TOTAL	840	872	872				0.93		7	

---------- DATA INPUT/RESULTS FOR TRIP GENERATION ----------

SITE A	Residential						
DESIGN HOUR	PM Peak					TOTAL	
Land Use Type	(210)	(type)	(type)	(type)	(type)	(type)	
Trips Per Unit:							
Inbound	0.00	0.00	0.00	0.00	0.00	0.00	
Outbound	0.00	0.00	0.00	0.00	0.00	0.00	
Number of Units	82.00	0.00	0.00	0.00	0.00	0.00	
Buildout	100%	0%	0%	0%	0%	0%	
Pass-By Trips	0%	0%	0%	0%	0%	0%	
New Site Trips:							
Inbound	52	0	0	0	0	0	52
Outbound	30	0	0	0	0	0	30
Pass-By Trips:							
Inbound	0	0	0	0	0	0	0
Outbound	0	0	0	0	0	0	0
Total Site Trips:							
Inbound	52	0	0	0	0	0	52
Outbound	30	0	0	0	0	0	30
Total	82	0	0	0	0	0	82

---------- SINGLE SITE TRAFFIC ASSIGNMENT ----------

SITE A ..... Residential
DESIGN HOUR .... PM Peak

APPROACH	FUTURE TRAFFIC W/O COM DEV W/O	FUTURE TRAFFIC W/ COM DEV W/O PRO	% NEW SITE TRIPS INBOUND	% NEW SITE TRIPS OUTBOUND	% PASS-BY TRIPS INBOUND	% PASS-BY TRIPS OUTBOUND	NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	FUTURE TRAFFIC W/O COM DEV W/ PRO	FUTURE TRAFFC W/ COM DEV W/ PRO DEV
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)											
EB LEFT	140	140	25%	0%	0%	0%	13	0		13	153	153
THROUGH	418	418	0%	0%	0%	0%	0	0		0	418	418
RIGHT	23	23	0%	0%	0%	0%	0	0		0	23	23
WB LEFT	9	9	0%	0%	0%	0%	0	0		0	9	9
THROUGH	440	440	0%	0%	0%	0%	0	0		0	440	440
RIGHT	123	123	25%	0%	0%	0%	13	0		13	136	136
NB LEFT	9	9	0%	0%	0%	0%	0	0		0	9	9
THROUGH	119	119	5%	0%	0%	0%	3	0		3	122	122
RIGHT	20	20	0%	0%	0%	0%	0	0		0	20	20
SB LEFT	94	94	0%	25%	0%	0%	7	0		7	101	101
THROUGH	172	172	0%	5%	0%	0%	2	0		2	174	174
RIGHT	107	107	0%	25%	0%	0%	8	0		8	115	115
TOTAL	1674	1674	55%	55%	0%	0%	46	0	0	46	1720	1720
INTERSECTION 2:	Shiloh Road / Hunt Drive											
EB LEFT	3	3	0%	0%	0%	0%	0	0		0	3	3
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	7	7	0%	0%	0%	0%	0	0		0	7	7
WB LEFT	1	1	0%	40%	0%	0%	12	0		12	13	13
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	1	1	0%	12%	0%	0%	4	0		4	5	5
NB LEFT	13	13	0%	0%	0%	0%	0	0		0	13	13
THROUGH	262	262	15%	0%	0%	0%	8	0		8	270	270
RIGHT	0	0	40%	0%	0%	0%	21	0		21	21	21
SB LEFT	1	1	12%	0%	0%	0%	6	0		6	7	7
THROUGH	326	326	0%	15%	0%	0%	5	0		5	331	331
RIGHT	5	5	0%	0%	0%	0%	0	0		0	5	5
TOTAL	619	619	67%	67%	0%	0%	56	0	0	56	675	675
INTERSECTION 3:	Shiloh Road / Oakbourne Road											
EB LEFT	23	23	0%	0%	0%	0%	0	0		0	23	23
THROUGH	0	0	8%	0%	0%	0%	4	0		4	4	4
RIGHT	81	81	2%	0%	0%	0%	1	0		1	82	82
WB LEFT	3	3	0%	15%	0%	0%	5	0		5	8	8
THROUGH	0	0	0%	8%	0%	0%	2	0		2	2	2
RIGHT	3	3	0%	25%	0%	0%	7	0		7	10	10
NB LEFT	69	69	0%	2%	0%	0%	1	0		1	70	70
THROUGH	194	194	0%	10%	0%	0%	3	0		3	197	197
RIGHT	1	1	15%	0%	0%	0%	8	0		8	9	9
SB LEFT	1	1	25%	0%	0%	0%	13	0		13	14	14
THROUGH	250	250	10%	0%	0%	0%	5	0		5	255	255
RIGHT	23	23	0%	0%	0%	0%	0	0		0	23	23
TOTAL	648	648	60%	60%	0%	0%	49	0	0	49	697	697
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)											
EB LEFT	2	2	0%	0%	0%	0%	0	0		0	2	2
THROUGH	31	31	0%	0%	0%	0%	0	0		0	31	31
RIGHT	235	235	15%	0%	0%	0%	8	0		8	243	243
WB LEFT	81	81	20%	0%	0%	0%	10	0		10	91	91
THROUGH	33	33	0%	0%	0%	0%	0	0		0	33	33
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
NB LEFT	158	158	0%	15%	0%	0%	4	0		4	162	162
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	58	58	0%	20%	0%	0%	6	0		6	64	64
SB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	1	1	0%	0%	0%	0%	0	0		0	1	1
TOTAL	599	599	35%	35%	0%	0%	28	0	0	28	627	627
INTERSECTION 5:	Shiloh Hill D Shiloh Hill Drive / Little Shiloh Road (S.R.2005)											
EB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	87	87	0%	20%	0%	0%	6	0		6	93	93
RIGHT	8	8	0%	0%	0%	0%	0	0		0	8	8
WB LEFT	1	1	0%	0%	0%	0%	0	0		0	1	1
THROUGH	98	98	20%	0%	0%	0%	10	0		10	108	108
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
NB LEFT	6	6	0%	0%	0%	0%	0	0		0	6	6
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	1	1	0%	0%	0%	0%	0	0		0	1	1
SB LEFT	0	0	0%	0%	0%	0%	0	0		0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0		0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0		0	0	0
TOTAL	201	201	20%	20%	0%	0%	16	0	0	16	217	217
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane											
EB LEFT	6	6	0%	20%	0%	0%	6	0		6	12	12
THROUGH	30	30	0%	0%	0%	0%	0	0		0	30	30
RIGHT	64	64	0%	0%	0%	0%	0	0		0	64	64
WB LEFT	20	20	0%	0%	0%	0%	0	0		0	20	20
THROUGH	46	46	0%	0%	0%	0%	0	0		0	46	46
RIGHT	13	13	0%	0%	0%	0%	0	0		0	13	13
NB LEFT	50	50	0%	0%	0%	0%	0	0		0	50	50
THROUGH	292	292	0%	0%	0%	0%	0	0		0	292	292
RIGHT	22	22	0%	0%	0%	0%	0	0		0	22	22
SB LEFT	28	28	0%	0%	0%	0%	0	0		0	28	28
THROUGH	300	300	0%	0%	0%	0%	0	0		0	300	300
RIGHT	1	1	20%	0%	0%	0%	10	0		10	11	11
TOTAL	872	872	20%	20%	0%	0%	16	0	0	16	888	888

SITE IMPACT TRAFFIC EVALUATION

---------- GENERAL INFORMATION FOR SITETRIP WORKSHEET ----------

Title:	Stokes Estate Residential Development TRANSPORTATION IMPACT STUDY		
Location:	Westtown Township, Chester County		
Performed By:	LJS	Date:	03/04/22
Intersection 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.F	Site A:	Residential
Intersection 2:	Shiloh Road / Hunt Drive	Site B:	(Site)
Intersection 3:	Shiloh Road / Oakbourne Road	Site C:	(Site)
Intersection 4:	Shiloh Road / Little Shiloh Road (S.R.2005)	Site D:	(Site)
Intersection 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)	Site E:	(Site)
Intersection 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.20	Site F:	(Site)
Intersection 7:	(STREET NAMES)	Design Hour:	AM Peak
Intersection 8:	(STREET NAMES)	Design Year:	2033
Intersection 9:	(STREET NAMES)	Background Factor:	1.07
Intersection 10:	(STREET NAMES)	Background Growth Rate	0.54
Intersection 11:	(STREET NAMES)		
Intersection 12:	(STREET NAMES)		

--------- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT ---------

APPROACH	EXISTING TRAFFIC	FUTURE TRAFFIC W/O COM DEV W/O PRO DEV	FUTURE TRAFFIC W/ COM DEV W/O PRO DEV	Committed Developments			PHF	RTOR	Trucks	Truck Percentage
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)									
EB LEFT	121	129	129						3	2%
THROUGH	398	425	425						15	4%
RIGHT	10	11	11					0	0	0%
WB LEFT	15	16	16						0	0%
THROUGH	425	453	453						18	4%
RIGHT	148	158	158					1	1	1%
NB LEFT	21	22	22						1	5%
THROUGH	85	91	91						0	0%
RIGHT	11	12	12					1	0	0%
SB LEFT	119	127	127						4	3%
THROUGH	86	92	92						2	2%
RIGHT	88	94	94					0	7	8%
TOTAL	1527	1630	1630				0.72			
INTERSECTION 2:	Shiloh Road / Hunt Drive									
EB LEFT	6	6	6						0	0%
THROUGH	0	0	0						0	0%
RIGHT	8	9	9					0	2	25%
WB LEFT	1	1	1						1	100%
THROUGH	0	0	0						0	0%
RIGHT	0	0	0					0	0	0%
NB LEFT	6	6	6						0	0%
THROUGH	214	228	228						7	3%
RIGHT	3	3	3					0	1	33%
SB LEFT	0	0	0						0	0%
THROUGH	301	321	321						9	3%
RIGHT	2	2	2					0	0	0%
TOTAL	541	576	576				0.60			
INTERSECTION 3:	Shiloh Road / Oakbourne Road									
EB LEFT	13	14	14						0	0%
THROUGH	0	0	0						0	0%
RIGHT	84	90	90					0	5	6%
WB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	4	4	4					0	0	0%
NB LEFT	52	55	55						5	10%
THROUGH	173	185	185						3	2%
RIGHT	1	1	1					0	0	0%
SB LEFT	1	1	1						0	0%
THROUGH	224	239	239						7	3%
RIGHT	19	20	20					0	2	11%
TOTAL	571	609	609				0.64			
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)									
EB LEFT	2	2	2						0	0%
THROUGH	25	27	27						6	24%
RIGHT	176	188	188					0	5	3%
WB LEFT	71	76	76						6	8%
THROUGH	27	29	29						2	7%
RIGHT	0	0	0					0	0	0%
NB LEFT	146	156	156						4	3%
THROUGH	2	2	2						0	0%
RIGHT	50	53	53					0	2	4%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
TOTAL	500	534	534				0.68			
INTERSECTION 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)									
EB LEFT	0	0	0						0	0%
THROUGH	73	78	78						2	3%
RIGHT	3	3	3					0	0	0%
WB LEFT	0	0	0						0	0%
THROUGH	69	74	74						6	9%
RIGHT	0	0	0					0	0	0%
NB LEFT	7	7	7						0	0%
THROUGH	0	0	0						0	0%
RIGHT	2	2	2					0	0	0%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	0	0	0					0	0	0%
TOTAL	154	164	164				0.70			
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane									
EB LEFT	4	4	4						1	25%
THROUGH	15	16	16						0	0%
RIGHT	60	64	64					0	0	0%
WB LEFT	16	17	17						0	0%
THROUGH	19	20	20						3	16%
RIGHT	12	13	13					0	2	17%
NB LEFT	33	35	35						1	3%
THROUGH	294	314	314						8	3%
RIGHT	17	18	18					0	0	0%
SB LEFT	9	10	10						1	11%
THROUGH	248	265	265						11	4%
RIGHT	1	1	1					0	1	100%
TOTAL	728	777	777				0.91			

---------- DATA INPUT/RESULTS FOR TRIP GENERATION ----------

SITE A ..... Residential
DESIGN HOUR .... AM Peak

							TOTAL
Land Use Type	(210)	(type)	(type)	(type)	(type)	(type)	
Trips Per Unit:							
Inbound	0.00	0.00	0.00	0.00	0.00	0.00	
Outbound	0.00	0.00	0.00	0.00	0.00	0.00	
Number of Units	82.00	0.00	0.00	0.00	0.00	0.00	
Buildout	100%	0%	0%	0%	0%	0%	
Pass-By Trips	0%	0%	0%	0%	0%	0%	
New Site Trips:							
Inbound	16	0	0	0	0	0	16
Outbound	46	0	0	0	0	0	46
Pass-By Trips:							
Inbound	0	0	0	0	0	0	0
Outbound	0	0	0	0	0	0	0
Total Site Trips:							
Inbound	16	0	0	0	0	0	16
Outbound	46	0	0	0	0	0	46
Total	62	0	0	0	0	0	62

---------- SINGLE SITE TRAFFIC ASSIGNMENT ----------

SITE A ..... Residential
DESIGN HOUR .... AM Peak

APPROACH	FUTURE TRAFFIC W/O COM DEV W/O	FUTURE TRAFFIC W/ COM DEV W/O PRO	% NEW SITE TRIPS INBOUND	% NEW SITE TRIPS OUTBOUND	% PASS-BY TRIPS INBOUND	% PASS-BY TRIPS OUTBOUND	NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	FUTURE TRAFFIC W/O COM DEV W/ PRO	FUTURE TRAFFC W/ COM DEV W/ PRO DEV
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)											
EB LEFT	129	129	25%	0%	0%	0%	4	0	0	4	133	133
THROUGH	425	425	0%	0%	0%	0%	0	0	0	0	425	425
RIGHT	11	11	0%	0%	0%	0%	0	0	0	0	11	11
WB LEFT	16	16	0%	0%	0%	0%	0	0	0	0	16	16
THROUGH	453	453	0%	0%	0%	0%	0	0	0	0	453	453
RIGHT	158	158	25%	0%	0%	0%	4	0	0	4	162	162
NB LEFT	22	22	0%	0%	0%	0%	0	0	0	0	22	22
THROUGH	91	91	5%	0%	0%	0%	1	0	0	1	92	92
RIGHT	12	12	0%	0%	0%	0%	0	0	0	0	12	12
SB LEFT	127	127	0%	25%	0%	0%	12	0	0	12	139	139
THROUGH	92	92	0%	5%	0%	0%	2	0	0	2	94	94
RIGHT	94	94	0%	25%	0%	0%	11	0	0	11	105	105
TOTAL	1630	1630	55%	55%	0%	0%	34	0	0	34	1664	1664
INTERSECTION 2:	Shiloh Road / Hunt Drive											
EB LEFT	6	6	0%	0%	0%	0%	0	0	0	0	6	6
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	9	9	0%	0%	0%	0%	0	0	0	0	9	9
WB LEFT	1	1	0%	40%	0%	0%	18	0	0	18	19	19
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	12%	0%	0%	6	0	0	6	6	6
NB LEFT	6	6	0%	0%	0%	0%	0	0	0	0	6	6
THROUGH	228	228	15%	0%	0%	0%	2	0	0	2	230	230
RIGHT	3	3	40%	0%	0%	0%	7	0	0	7	10	10
SB LEFT	0	0	12%	0%	0%	0%	2	0	0	2	2	2
THROUGH	321	321	0%	15%	0%	0%	7	0	0	7	328	328
RIGHT	2	2	0%	0%	0%	0%	0	0	0	0	2	2
TOTAL	576	576	67%	67%	0%	0%	42	0	0	42	618	618
INTERSECTION 3:	Shiloh Road / Oakbourne Road											
EB LEFT	14	14	0%	0%	0%	0%	0	0	0	0	14	14
THROUGH	0	0	8%	0%	0%	0%	1	0	0	1	1	1
RIGHT	90	90	2%	0%	0%	0%	0	0	0	0	90	90
WB LEFT	0	0	0%	15%	0%	0%	7	0	0	7	7	7
THROUGH	0	0	0%	8%	0%	0%	4	0	0	4	4	4
RIGHT	4	4	0%	25%	0%	0%	11	0	0	11	15	15
NB LEFT	55	55	0%	2%	0%	0%	1	0	0	1	56	56
THROUGH	185	185	0%	10%	0%	0%	5	0	0	5	190	190
RIGHT	1	1	15%	0%	0%	0%	2	0	0	2	3	3
SB LEFT	1	1	25%	0%	0%	0%	4	0	0	4	5	5
THROUGH	239	239	10%	0%	0%	0%	2	0	0	2	241	241
RIGHT	20	20	0%	0%	0%	0%	0	0	0	0	20	20
TOTAL	609	609	60%	60%	0%	0%	37	0	0	37	646	646
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)											
EB LEFT	2	2	0%	0%	0%	0%	0	0	0	0	2	2
THROUGH	27	27	0%	0%	0%	0%	0	0	0	0	27	27
RIGHT	188	188	15%	0%	0%	0%	3	0	0	3	191	191
WB LEFT	76	76	20%	0%	0%	0%	3	0	0	3	79	79
THROUGH	29	29	0%	0%	0%	0%	0	0	0	0	29	29
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	156	156	0%	15%	0%	0%	7	0	0	7	163	163
THROUGH	2	2	0%	0%	0%	0%	0	0	0	0	2	2
RIGHT	53	53	0%	20%	0%	0%	9	0	0	9	62	62
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
TOTAL	534	534	35%	35%	0%	0%	22	0	0	22	556	556
INTERSECTION 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)											
EB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	78	78	0%	20%	0%	0%	9	0	0	9	87	87
RIGHT	3	3	0%	0%	0%	0%	0	0	0	0	3	3
WB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	74	74	20%	0%	0%	0%	3	0	0	3	77	77
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	7	7	0%	0%	0%	0%	0	0	0	0	7	7
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	2	2	0%	0%	0%	0%	0	0	0	0	2	2
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
TOTAL	164	164	20%	20%	0%	0%	12	0	0	12	176	176
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane											
EB LEFT	4	4	0%	20%	0%	0%	9	0	0	9	13	13
THROUGH	16	16	0%	0%	0%	0%	0	0	0	0	16	16
RIGHT	64	64	0%	0%	0%	0%	0	0	0	0	64	64
WB LEFT	17	17	0%	0%	0%	0%	0	0	0	0	17	17
THROUGH	20	20	0%	0%	0%	0%	0	0	0	0	20	20
RIGHT	13	13	0%	0%	0%	0%	0	0	0	0	13	13
NB LEFT	35	35	0%	0%	0%	0%	0	0	0	0	35	35
THROUGH	314	314	0%	0%	0%	0%	0	0	0	0	314	314
RIGHT	18	18	0%	0%	0%	0%	0	0	0	0	18	18
SB LEFT	10	10	0%	0%	0%	0%	0	0	0	0	10	10
THROUGH	265	265	0%	0%	0%	0%	0	0	0	0	265	265
RIGHT	1	1	20%	0%	0%	0%	3	0	0	3	4	4
TOTAL	777	777	20%	20%	0%	0%	12	0	0	12	789	789

SITE IMPACT TRAFFIC EVALUATION

---------- GENERAL INFORMATION FOR SITETRIP WORKSHEET ----------

Title:	Stokes Estate Residential Development TRANSPORTATION IMPACT STUDY		
Location:	Westtown Township, Chester County		
Performed By:	LJS	Date:	03/04/22
Intersection 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.F	Site A:	Residential
Intersection 2:	Shiloh Road / Hunt Drive	Site B:	(Site)
Intersection 3:	Shiloh Road / Oakbourne Road	Site C:	(Site)
Intersection 4:	Shiloh Road / Little Shiloh Road (S.R.2005)	Site D:	(Site)
Intersection 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)	Site E:	(Site)
Intersection 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.20	Site F:	(Site)
Intersection 7:	(STREET NAMES)	Design Hour:	PM Peak
Intersection 8:	(STREET NAMES)	Design Year:	2033
Intersection 9:	(STREET NAMES)	Background Factor:	1.07
Intersection 10:	(STREET NAMES)	Background Growth Rate	0.54
Intersection 11:	(STREET NAMES)		
Intersection 12:	(STREET NAMES)		

--------- EXISTING AND FUTURE TRAFFIC WITHOUT DEVELOPMENT ---------

APPROACH	EXISTING TRAFFIC	FUTURE TRAFFIC W/O COM DEV W/O PRO DEV	FUTURE TRAFFIC W/ COM DEV W/O PRO DEV	Committed Developments			PHF	RTOR	Trucks	Truck Percentage
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)									
EB LEFT	135	144	144						3	2%
THROUGH	403	430	430						2	0%
RIGHT	22	23	23					0	0	0%
WB LEFT	9	10	10						0	0%
THROUGH	424	452	452						3	1%
RIGHT	118	126	126					2	0	0%
NB LEFT	9	10	10						0	0%
THROUGH	115	123	123						0	0%
RIGHT	19	20	20					0	0	0%
SB LEFT	91	97	97						0	0%
THROUGH	166	177	177						0	0%
RIGHT	103	110	110					1	0	0%
TOTAL	1614	1722	1722				0.88			
INTERSECTION 2:	Shiloh Road / Hunt Drive									
EB LEFT	3	3	3						0	0%
THROUGH	0	0	0						0	0%
RIGHT	7	7	7					0	0	0%
WB LEFT	1	1	1						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
NB LEFT	13	14	14						0	0%
THROUGH	252	269	269						0	0%
RIGHT	0	0	0					0	0	0%
SB LEFT	1	1	1						0	0%
THROUGH	314	335	335						0	0%
RIGHT	5	5	5					0	0	0%
TOTAL	597	636	636				0.89			
INTERSECTION 3:	Shiloh Road / Oakbourne Road									
EB LEFT	22	23	23						1	5%
THROUGH	0	0	0						0	0%
RIGHT	78	83	83					0	0	0%
WB LEFT	3	3	3						0	0%
THROUGH	0	0	0						0	0%
RIGHT	3	3	3					0	0	0%
NB LEFT	66	70	70						0	0%
THROUGH	187	200	200						0	0%
RIGHT	1	1	1					0	0	0%
SB LEFT	1	1	1						0	0%
THROUGH	241	257	257						0	0%
RIGHT	22	23	23					0	0	0%
TOTAL	624	664	664				0.91			
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)									
EB LEFT	2	2	2						0	0%
THROUGH	30	32	32						0	0%
RIGHT	226	241	241					0	1	0%
WB LEFT	78	83	83						0	0%
THROUGH	32	34	34						1	3%
RIGHT	0	0	0					0	0	0%
NB LEFT	152	162	162						1	1%
THROUGH	0	0	0						0	0%
RIGHT	56	60	60					0	0	0%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
TOTAL	577	615	615				0.86			
INTERSECTION 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)									
EB LEFT	0	0	0						0	0%
THROUGH	84	90	90						0	0%
RIGHT	8	9	9					0	1	13%
WB LEFT	1	1	1						0	0%
THROUGH	94	100	100						0	0%
RIGHT	0	0	0					0	0	0%
NB LEFT	6	6	6						0	0%
THROUGH	0	0	0						0	0%
RIGHT	1	1	1					0	0	0%
SB LEFT	0	0	0						0	0%
THROUGH	0	0	0						0	0%
RIGHT	0	0	0					0	0	0%
TOTAL	194	207	207				0.90			
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane									
EB LEFT	6	6	6						0	0%
THROUGH	29	31	31						0	0%
RIGHT	62	66	66					0	0	0%
WB LEFT	19	20	20						1	5%
THROUGH	44	47	47						0	0%
RIGHT	13	14	14					0	0	0%
NB LEFT	48	51	51						0	0%
THROUGH	281	300	300						2	1%
RIGHT	21	22	22					0	0	0%
SB LEFT	27	29	29						0	0%
THROUGH	289	308	308						4	1%
RIGHT	1	1	1					0	0	0%
TOTAL	840	895	895				0.93			

---------- DATA INPUT/RESULTS FOR TRIP GENERATION ----------

SITE A	Residential						
DESIGN HOUR	PM Peak						TOTAL
Land Use Type	(210)	(type)	(type)	(type)	(type)	(type)	
Trips Per Unit:							
Inbound	0.00	0.00	0.00	0.00	0.00	0.00	
Outbound	0.00	0.00	0.00	0.00	0.00	0.00	
Number of Units	82.00	0.00	0.00	0.00	0.00	0.00	
Buildout	100%	0%	0%	0%	0%	0%	
Pass-By Trips	0%	0%	0%	0%	0%	0%	
New Site Trips:							
Inbound	52	0	0	0	0	0	52
Outbound	30	0	0	0	0	0	30
Pass-By Trips:							
Inbound	0	0	0	0	0	0	0
Outbound	0	0	0	0	0	0	0
Total Site Trips:							
Inbound	52	0	0	0	0	0	52
Outbound	30	0	0	0	0	0	30
Total	82	0	0	0	0	0	82

---------- SINGLE SITE TRAFFIC ASSIGNMENT ----------

SITE A ..... Residential
DESIGN HOUR .... PM Peak

APPROACH	FUTURE TRAFFIC W/O COM DEV W/O	FUTURE TRAFFIC W/ COM DEV W/O PRO	% NEW SITE TRIPS INBOUND	% NEW SITE TRIPS OUTBOUND	% PASS-BY TRIPS INBOUND	% PASS-BY TRIPS OUTBOUND	NEW SITE TRIPS	PASS-BY	PASS-BY ADJUSTMENT	TOTAL SITE TRIPS	FUTURE TRAFFIC W/O COM DEV W/ PRO	FUTURE TRAFFC W/ COM DEV W/ PRO DEV
INTERSECTION 1:	Shiloh Road - Westtown Thornton Rd /Street Road (S.R.0926)											
EB LEFT	144	144	25%	0%	0%	0%	13	0	0	13	157	157
THROUGH	430	430	0%	0%	0%	0%	0	0	0	0	430	430
RIGHT	23	23	0%	0%	0%	0%	0	0	0	0	23	23
WB LEFT	10	10	0%	0%	0%	0%	0	0	0	0	10	10
THROUGH	452	452	0%	0%	0%	0%	0	0	0	0	452	452
RIGHT	126	126	25%	0%	0%	0%	13	0	0	13	139	139
NB LEFT	10	10	0%	0%	0%	0%	0	0	0	0	10	10
THROUGH	123	123	5%	0%	0%	0%	3	0	0	3	126	126
RIGHT	20	20	0%	0%	0%	0%	0	0	0	0	20	20
SB LEFT	97	97	0%	25%	0%	0%	7	0	0	7	104	104
THROUGH	177	177	0%	5%	0%	0%	2	0	0	2	179	179
RIGHT	110	110	0%	25%	0%	0%	8	0	0	8	118	118
TOTAL	1722	1722	55%	55%	0%	0%	46	0	0	46	1768	1768
INTERSECTION 2:	Shiloh Road / Hunt Drive											
EB LEFT	3	3	0%	0%	0%	0%	0	0	0	0	3	3
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	7	7	0%	0%	0%	0%	0	0	0	0	7	7
WB LEFT	1	1	0%	40%	0%	0%	12	0	0	12	13	13
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	1	1	0%	12%	0%	0%	4	0	0	4	5	5
NB LEFT	14	14	0%	0%	0%	0%	0	0	0	0	14	14
THROUGH	269	269	15%	0%	0%	0%	8	0	0	8	277	277
RIGHT	0	0	40%	0%	0%	0%	21	0	0	21	21	21
SB LEFT	1	1	12%	0%	0%	0%	6	0	0	6	7	7
THROUGH	335	335	0%	15%	0%	0%	5	0	0	5	340	340
RIGHT	5	5	0%	0%	0%	0%	0	0	0	0	5	5
TOTAL	636	636	67%	67%	0%	0%	56	0	0	56	692	692
INTERSECTION 3:	Shiloh Road / Oakbourne Road											
EB LEFT	23	23	0%	0%	0%	0%	0	0	0	0	23	23
THROUGH	0	0	8%	0%	0%	0%	4	0	0	4	4	4
RIGHT	83	83	2%	0%	0%	0%	1	0	0	1	84	84
WB LEFT	3	3	0%	15%	0%	0%	5	0	0	5	8	8
THROUGH	0	0	0%	8%	0%	0%	2	0	0	2	2	2
RIGHT	3	3	0%	25%	0%	0%	7	0	0	7	10	10
NB LEFT	70	70	0%	2%	0%	0%	1	0	0	1	71	71
THROUGH	200	200	0%	10%	0%	0%	3	0	0	3	203	203
RIGHT	1	1	15%	0%	0%	0%	8	0	0	8	9	9
SB LEFT	1	1	25%	0%	0%	0%	13	0	0	13	14	14
THROUGH	257	257	10%	0%	0%	0%	5	0	0	5	262	262
RIGHT	23	23	0%	0%	0%	0%	0	0	0	0	23	23
TOTAL	664	664	60%	60%	0%	0%	49	0	0	49	713	713
INTERSECTION 4:	Shiloh Road / Little Shiloh Road (S.R.2005)											
EB LEFT	2	2	0%	0%	0%	0%	0	0	0	0	2	2
THROUGH	32	32	0%	0%	0%	0%	0	0	0	0	32	32
RIGHT	241	241	15%	0%	0%	0%	8	0	0	8	249	249
WB LEFT	83	83	20%	0%	0%	0%	10	0	0	10	93	93
THROUGH	34	34	0%	0%	0%	0%	0	0	0	0	34	34
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	162	162	0%	15%	0%	0%	4	0	0	4	166	166
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	60	60	0%	20%	0%	0%	6	0	0	6	66	66
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
TOTAL	615	615	35%	35%	0%	0%	28	0	0	28	643	643
INTERSECTION 5:	Shiloh Hill Drive / Little Shiloh Road (S.R.2005)											
EB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	90	90	0%	20%	0%	0%	6	0	0	6	96	96
RIGHT	9	9	0%	0%	0%	0%	0	0	0	0	9	9
WB LEFT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
THROUGH	100	100	20%	0%	0%	0%	10	0	0	10	110	110
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
NB LEFT	6	6	0%	0%	0%	0%	0	0	0	0	6	6
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	1	1	0%	0%	0%	0%	0	0	0	0	1	1
SB LEFT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
THROUGH	0	0	0%	0%	0%	0%	0	0	0	0	0	0
RIGHT	0	0	0%	0%	0%	0%	0	0	0	0	0	0
TOTAL	207	207	20%	20%	0%	0%	16	0	0	16	223	223
INTERSECTION 6:	Westtown Road (S.R.2007) / Little Shiloh Road (S.R.2005) - Falcon Lane											
EB LEFT	6	6	0%	20%	0%	0%	6	0	0	6	12	12
THROUGH	31	31	0%	0%	0%	0%	0	0	0	0	31	31
RIGHT	66	66	0%	0%	0%	0%	0	0	0	0	66	66
WB LEFT	20	20	0%	0%	0%	0%	0	0	0	0	20	20
THROUGH	47	47	0%	0%	0%	0%	0	0	0	0	47	47
RIGHT	14	14	0%	0%	0%	0%	0	0	0	0	14	14
NB LEFT	51	51	0%	0%	0%	0%	0	0	0	0	51	51
THROUGH	300	300	0%	0%	0%	0%	0	0	0	0	300	300
RIGHT	22	22	0%	0%	0%	0%	0	0	0	0	22	22
SB LEFT	29	29	0%	0%	0%	0%	0	0	0	0	29	29
THROUGH	308	308	0%	0%	0%	0%	0	0	0	0	308	308
RIGHT	1	1	20%	0%	0%	0%	10	0	0	10	11	11
TOTAL	895	895	20%	20%	0%	0%	16	0	0	16	911	911

GROWTH RATE INFORMATION

Growth Factors for August 2022 to July 2023				
County	Urban Interstate	Rural Interstate	Urban Non-Interstate	Rural Non-Interstate
ADAMS	*	*	0.50	0.60
ALLEGHENY	0.98	*	0.00	0.43
ARMSTRONG	0.80	*	0.00	0.37
BEAVER	0.64	2.05	0.00	0.30
BEDFORD	*	2.20	0.00	0.39
BERKS	1.34	2.53	0.32	0.58
BLAIR	0.86	2.34	0.00	0.40
BRADFORD	1.06	*	0.00	0.48
BUCKS	1.35	2.63	0.22	0.58
BUTLER	1.66	2.88	0.29	0.71
CAMBRIA	0.35	*	0.00	0.19
CAMERON	*	*	*	0.12
CARBON	1.42	2.68	0.28	0.60
CENTRE	1.79	2.75	0.79	0.74
CHESTER	1.77	2.92	0.54	0.77
CLARION	0.79	2.23	0.00	0.37
CLEARFIELD	0.61	1.94	0.00	0.31
CLINTON	1.10	2.36	0.02	0.48
COLUMBIA	1.10	2.32	0.06	0.48
CRAWFORD	0.74	2.12	0.00	0.36
CUMBERLAND	1.63	2.79	0.59	0.69
DAUPHIN	1.54	*	0.35	0.66
DELAWARE	1.27	*	0.00	*
ELK	*	*	0.00	0.30
ERIE	0.96	2.31	0.00	0.43
FAYETTE	0.86	*	0.00	0.39
FOREST	*	*	*	0.96
FRANKLIN	1.71	2.81	0.73	0.72
FULTON	*	2.33	*	0.50
GREENE	0.73	2.28	0.00	0.36
HUNTINGDON	*	2.49	0.00	0.49
INDIANA	0.94	*	0.00	0.44
JEFFERSON	*	2.32	0.00	0.46
JUNIATA	*	*	*	0.53
LACKAWANNA	0.99	2.36	0.00	0.44
LANCASTER	1.66	2.84	0.60	0.70
LAWRENCE	0.69	2.18	0.00	0.33
LEBANON	*	2.55	0.48	0.62
LEHIGH	1.75	3.09	0.53	0.75
LUZERNE	1.04	2.41	0.00	0.47
LYCOMING	0.99	2.37	0.00	0.44
MCKEAN	0.60	*	0.00	0.30
MERCER	0.92	2.52	0.00	0.43
MIFFLIN	1.17	*	0.00	0.51
MONROE	1.77	2.88	0.79	0.75
MONTGOMERY	1.29	*	0.27	0.55
MONTOUR	1.30	2.68	0.00	0.57
NORTHAMPTON	1.80	3.16	0.47	0.78
NORTHUMBERLAND	1.00	2.28	0.00	0.43
PERRY	*	*	0.24	0.54
PHILADELPHIA	1.18	*	0.05	*
PIKE	1.72	2.72	0.86	0.73
POTTER	*	*	*	0.35
SCHUYLKILL	1.00	2.45	0.00	0.45
SNYDER	1.23	*	0.21	0.54
SOMERSET	0.60	2.06	0.00	0.34
SULLIVAN	*	*	*	0.37
SUSQUEHANNA	1.09	2.43	0.00	0.47
TIOGA	*	*	*	0.42
UNION	1.54	2.68	0.44	0.63
VENANGO	*	1.91	0.00	0.27
WARREN	*	*	0.00	0.35
WASHINGTON	1.22	2.74	0.00	0.55
WAYNE	*	2.53	0.31	0.58
WESTMORELAND	0.89	2.18	0.00	0.40
WYOMING	*	*	0.00	0.44
YORK	1.57	2.89	0.47	0.69

* = Functional Class Doesn't Exist in County

Questions? Please contact Andrew O'Neill at the Bureau of Planning and Research, 717-346-3250 or andoneill@pa.gov

NOTE: The projected growth factors are derived using historical VMT (Vehicle Miles Traveled) data (1994 to 2021), as well as Woods and Poole demographic and economic data. The factors should be compounded when calculating future values. The factors should not be used to project traffic beyond a 20-year period. Please be aware that these factors are estimates, and unforeseen events (opening of shopping centers, fast food franchises, gas stations, etc) could cause growth to change over time.

pennsylvania
DEPARTMENT OF TRANSPORTATION

CAPACITY AND QUEUE ANALYSIS WORKSHEETS

Critical Headway and Follow-up Headway Calculations

Equation 19-30 $t_{c,x} = t_{c,base} + t_{c,hv}P_{hv} + t_{c,g}G - t_{3,lt}$

Equation 19-31 $t_{f,x} = t_{f,base} + t_{f,hv}P_{hv}$

from HCM 6 Manual

Shiloh Road / Hunt Drive - Driveway		$t_{c,base}$	$t_{c,hv}$	P_{hv}	$t_{c,g}$	G	$t_{3,lt}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	P_{hv}	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0	0.2	-2	0	**6.7**	3	0.9	0	**3.0**
	EBT	6.5	1	0	0.2	-2	0	**6.1**	4	0.9	0	**4.0**
	EBR	6.2	1	0.25	0.1	-2	0	**6.3**	3.1	0.9	0.25	**3.3**
	WBL	7.1	1	1	0.2	-1	0	**7.9**	3	0.9	1	**3.9**
	WBT	6.5	1	0	0.2	-1	0	**6.3**	4	0.9	0	**4.0**
	WBR	6.2	1	0	0.1	-1	0	**6.1**	3.1	0.9	0	**3.1**
	NBL	4.3	1	0	0	4	0	**4.3**	3	0.9	0	**3.0**
	SBL	4.3	1	0	0	-2	0	**4.3**	3	0.9	0	**3.0**
PM Peak	EBL	7.1	1	0	0.2	-2	0	**6.7**	3	0.9	0	**3.0**
	EBT	6.5	1	0	0.2	-2	0	**6.1**	4	0.9	0	**4.0**
	EBR	6.2	1	0	0.1	-2	0	**6.0**	3.1	0.9	0	**3.1**
	WBL	7.1	1	0	0.2	-1	0	**6.9**	3	0.9	0	**3.0**
	WBT	6.5	1	0	0.2	-1	0	**6.3**	4	0.9	0	**4.0**
	WBR	6.2	1	0	0.1	-1	0	**6.1**	3.1	0.9	0	**3.1**
	NBL	4.3	1	0	0	4	0	**4.3**	3	0.9	0	**3.0**
	SBL	4.3	1	0	0	-2	0	**4.3**	3	0.9	0	**3.0**

Shiloh Road / Hunt Drive - Proposed Access		$t_{c,base}$	$t_{c,hv}$	P_{hv}	$t_{c,g}$	G	$t_{3,lt}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	P_{hv}	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0	0.2	-2	0	**6.7**	3	0.9	0	**3.0**
	EBT	6.5	1	0.02	0.2	-2	0	**6.1**	4	0.9	0.02	**4.0**
	EBR	6.2	1	0.25	0.1	-2	0	**6.3**	3.1	0.9	0.25	**3.3**
	WBL	7.1	1	0.02	0.2	-1	0	**6.9**	3	0.9	0.02	**3.0**
	WBT	6.5	1	0.02	0.2	-1	0	**6.3**	4	0.9	0.02	**4.0**
	WBR	6.2	1	0.02	0.1	-1	0	**6.1**	3.1	0.9	0.02	**3.1**
	NBL	4.3	1	0	0	4	0	**4.3**	3	0.9	0	**3.0**
	SBL	4.3	1	0.02	0	-2	0	**4.3**	3	0.9	0.02	**3.0**
PM Peak	EBL	7.1	1	0	0.2	-2	0	**6.7**	3	0.9	0	**3.0**
	EBT	6.5	1	0.02	0.2	-2	0	**6.1**	4	0.9	0.02	**4.0**
	EBR	6.2	1	0	0.1	-2	0	**6.0**	3.1	0.9	0	**3.1**
	WBL	7.1	1	0.02	0.2	-1	0	**6.9**	3	0.9	0.02	**3.0**
	WBT	6.5	1	0.02	0.2	-1	0	**6.3**	4	0.9	0.02	**4.0**
	WBR	6.2	1	0.02	0.1	-1	0	**6.1**	3.1	0.9	0.02	**3.1**
	NBL	4.3	1	0	0	4	0	**4.3**	3	0.9	0	**3.0**
	SBL	4.3	1	0.02	0	-2	0	**4.3**	3	0.9	0.02	**3.0**

Shiloh Road / Oakbourne Road - Driveway		$t_{c,base}$	$t_{c,hv}$	P_{hv}	$t_{c,g}$	G	$t_{3,lt}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	P_{hv}	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0	0.2	-1	0	**6.9**	3	0.9	0	**3.0**
	EBT	6.5	1	0	0.2	-1	0	**6.3**	4	0.9	0	**4.0**
	EBR	6.2	1	0.06	0.1	-1	0	**6.2**	3.1	0.9	0.06	**3.2**
	WBL	7.1	1	0	0.2	1	0	**7.3**	3	0.9	0	**3.0**
	WBT	6.5	1	0	0.2	1	0	**6.7**	4	0.9	0	**4.0**
	WBR	6.2	1	0.25	0.1	1	0	**6.6**	3.1	0.9	0.25	**3.3**
	NBL	4.3	1	0.1	0	1	0	**4.4**	3	0.9	0.1	**3.1**
	SBL	4.3	1	0	0	-2	0	**4.3**	3	0.9	0	**3.0**
PM Peak	EBL	7.1	1	0.05	0.2	-1	0	**7.0**	3	0.9	0.05	**3.0**
	EBT	6.5	1	0	0.2	-1	0	**6.3**	4	0.9	0	**4.0**
	EBR	6.2	1	0	0.1	-1	0	**6.1**	3.1	0.9	0	**3.1**
	WBL	7.1	1	0	0.2	1	0	**7.3**	3	0.9	0	**3.0**
	WBT	6.5	1	0	0.2	1	0	**6.7**	4	0.9	0	**4.0**
	WBR	6.2	1	0	0.1	1	0	**6.3**	3.1	0.9	0	**3.1**
	NBL	4.3	1	0	0	1	0	**4.3**	3	0.9	0	**3.0**
	SBL	4.3	1	0	0	-2	0	**4.3**	3	0.9	0	**3.0**

Shiloh Road / Oakbourne Road - Proposed Access		$t_{c,base}$	$t_{c,hv}$	P_{hv}	$t_{c,g}$	G	$t_{3,lt}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	P_{hv}	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0	0.2	-1	0	**6.9**	3	0.9	0	**3.0**
	EBT	6.5	1	0.02	0.2	-1	0	**6.3**	4	0.9	0.02	**4.0**
	EBR	6.2	1	0.06	0.1	-1	0	**6.2**	3.1	0.9	0.06	**3.2**
	WBL	7.1	1	0.02	0.2	1	0	**7.3**	3	0.9	0.02	**3.0**
	WBT	6.5	1	0.02	0.2	1	0	**6.7**	4	0.9	0.02	**4.0**
	WBR	6.2	1	0.25	0.1	1	0	**6.6**	3.1	0.9	0.25	**3.3**
	NBL	4.3	1	0.1	0	1	0	**4.4**	3	0.9	0.1	**3.1**
	SBL	4.3	1	0.02	0	-2	0	**4.3**	3	0.9	0.02	**3.0**
PM Peak	EBL	7.1	1	0.05	0.2	-1	0	**7.0**	3	0.9	0.05	**3.0**
	EBT	6.5	1	0.02	0.2	-1	0	**6.3**	4	0.9	0.02	**4.0**
	EBR	6.2	1	0	0.1	-1	0	**6.1**	3.1	0.9	0	**3.1**
	WBL	7.1	1	0.02	0.2	1	0	**7.3**	3	0.9	0.02	**3.0**
	WBT	6.5	1	0.02	0.2	1	0	**6.7**	4	0.9	0.02	**4.0**
	WBR	6.2	1	0.02	0.1	1	0	**6.3**	3.1	0.9	0.02	**3.1**
	NBL	4.3	1	0	0	1	0	**4.3**	3	0.9	0	**3.0**
	SBL	4.3	1	0.02	0	-2	0	**4.3**	3	0.9	0.02	**3.0**

Little Shiloh Road / Shiloh Hill Drive		$t_{c,base}$	$t_{c,hv}$	P_{hv}	$t_{c,g}$	G	$t_{3,lt}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	P_{hv}	Follow-up Headway $t_{f,x}$
AM Peak	NBL	7.1	1	0	0.2	4	0.7	**7.2**	3	0.9	0	**3.0**
	NBR	6.2	1	0	0.1	4	0	**6.6**	3.1	0.9	0	**3.1**
	WBL	4.3	1	0	0	-2	0	**4.3**	3	0.9	0	**3.0**
PM Peak	NBL	7.1	1	0	0.2	4	0.7	**7.2**	3	0.9	0	**3.0**
	NBR	6.2	1	0	0.1	4	0	**6.6**	3.1	0.9	0	**3.1**
	WBL	4.3	1	0	0	-2	0	**4.3**	3	0.9	0	**3.0**

Little Shiloh Road - Falcon Lane / Westtown Road		$t_{c,base}$	$t_{c,hv}$	P_{hv}	$t_{c,g}$	G	$t_{3,lt}$	Critical Headway $t_{c,x}$	$t_{f,base}$	$t_{f,hv}$	P_{hv}	Follow-up Headway $t_{f,x}$
AM Peak	EBL	7.1	1	0.25	0.2	-4	0	**6.6**	3	0.9	0.25	**3.2**
	EBT	6.5	1	0	0.2	-4	0	**5.7**	4	0.9	0	**4.0**
	EBR	6.2	1	0	0.1	-4	0	**5.8**	3.1	0.9	0	**3.1**
	WBL	7.1	1	0	0.2	4	0	**7.9**	3	0.9	0	**3.0**
	WBT	6.5	1	0.16	0.2	4	0	**7.5**	4	0.9	0.16	**4.1**
	WBR	6.2	1	0.17	0.1	4	0	**6.8**	3.1	0.9	0.17	**3.3**
	NBL	4.3	1	0.03	0	2	0	**4.3**	3	0.9	0.03	**3.0**
	SBL	4.3	1	0.11	0	-1	0	**4.4**	3	0.9	0.11	**3.1**
PM Peak	EBL	7.1	1	0	0.2	-4	0	**6.3**	3	0.9	0	**3.0**
	EBT	6.5	1	0	0.2	-4	0	**5.7**	4	0.9	0	**4.0**
	EBR	6.2	1	0	0.1	-4	0	**5.8**	3.1	0.9	0	**3.1**
	WBL	7.1	1	0.05	0.2	4	0	**8.0**	3	0.9	0.05	**3.0**
	WBT	6.5	1	0	0.2	4	0	**7.3**	4	0.9	0	**4.0**
	WBR	6.2	1	0	0.1	4	0	**6.6**	3.1	0.9	0	**3.1**
	NBL	4.3	1	0	0	2	0	**4.3**	3	0.9	0	**3.0**
	SBL	4.3	1	0	0	-1	0	**4.3**	3	0.9	0	**3.0**

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
Existing Traffic Volumes - AM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	398	10	15	425	148	21	85	11	119	86	88
Future Volume (veh/h)	121	398	10	15	425	148	21	85	11	119	86	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1780	1837	1875	1818	1860	926	996	996	1906	1921	1835
Adj Flow Rate, veh/h	168	553	14	21	590	206	29	118	15	165	119	122
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	4	0	0	4	1	5	0	0	3	2	8
Cap, veh/h	313	979	25	387	763	661	15	59	8	197	142	283
Arrive On Green	0.08	0.57	0.56	0.42	0.42	0.42	0.07	0.08	0.07	0.17	0.18	0.18
Sat Flow, veh/h	1723	1729	44	846	1818	1577	174	708	90	1084	782	1555
Grp Volume(v), veh/h	168	0	567	21	590	206	162	0	0	284	0	122
Grp Sat Flow(s),veh/h/ln	1723	0	1773	846	1818	1577	972	0	0	1866	0	1555
Q Serve(g_s), s	4.8	0.0	19.4	1.5	26.6	8.3	8.0	0.0	0.0	14.0	0.0	6.6
Cycle Q Clear(g_c), s	4.8	0.0	19.4	6.5	26.6	8.3	8.0	0.0	0.0	14.0	0.0	6.6
Prop In Lane	1.00		0.02	1.00		1.00	0.18		0.09	0.58		1.00
Lane Grp Cap(c), veh/h	313	0	1004	387	763	661	82	0	0	339	0	283
V/C Ratio(X)	0.54	0.00	0.56	0.05	0.77	0.31	1.99	0.00	0.00	0.84	0.00	0.43
Avail Cap(c_a), veh/h	313	0	1153	458	915	794	82	0	0	372	0	310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	13.2	19.5	23.8	18.5	43.8	0.0	0.0	37.9	0.0	34.6
Incr Delay (d2), s/veh	1.8	0.0	1.1	0.1	4.8	0.6	484.7	0.0	0.0	14.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.3	0.0	11.2	0.5	16.8	5.2	21.9	0.0	0.0	12.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	0.0	14.3	19.7	28.5	19.0	528.5	0.0	0.0	52.2	0.0	35.7
LnGrp LOS	B	A	B	B	C	B	F	A	A	D	A	D
Approach Vol, veh/h		735			817			162			406	
Approach Delay, s/veh		15.4			25.9			528.5			47.3	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		60.0		22.3	14.0	46.0		13.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		61.0		18.0	7.0	47.0		7.0				
Max Q Clear Time (g_c+I1), s		21.4		16.0	7.3	29.1		10.0				
Green Ext Time (p_c), s		18.0		0.3	0.0	9.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			64.8									
HCM 6th LOS			E									

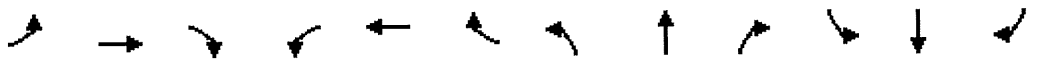
Notes

User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
Existing Traffic Volumes - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	398	10	15	425	148	21	85	11	119	86	88
Future Volume (vph)	121	398	10	15	425	148	21	85	11	119	86	88
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.991			0.972	
Satd. Flow (prot)	1629	1734	0	1670	1748	1530	0	1586	0	0	1740	1445
Flt Permitted	0.152			0.451				0.991			0.972	
Satd. Flow (perm)	261	1734	0	793	1748	1530	0	1586	0	0	1740	1445
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	4%	0%	0%	4%	1%	5%	0%	0%	3%	2%	8%
Adj. Flow (vph)	168	553	14	21	590	206	29	118	15	165	119	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	567	0	21	590	206	0	162	0	0	284	122
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
Existing Traffic Volumes - AM Peak

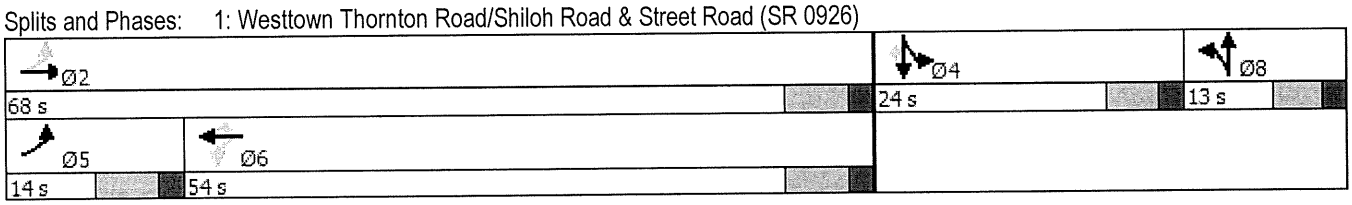


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	68.0		54.0	54.0	54.0	13.0	13.0		24.0	24.0	24.0
Total Split (%)	13.3%	64.8%		51.4%	51.4%	51.4%	12.4%	12.4%		22.9%	22.9%	22.9%
Maximum Green (s)	7.0	61.0		47.0	47.0	47.0	7.0	7.0		18.0	18.0	18.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	50.2	50.2		36.0	36.0	36.0		8.1			18.5	18.5
Actuated g/C Ratio	0.54	0.54		0.39	0.39	0.39		0.09			0.20	0.20
v/c Ratio	0.65	0.61		0.07	0.87	0.35		1.18			0.82	0.43
Control Delay	23.0	17.5		17.4	40.6	21.3		173.9			58.3	40.5
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	23.0	17.5		17.4	40.6	21.3		173.9			58.3	40.5
LOS	C	B		B	D	C		F			E	D
Approach Delay		18.8			35.1			173.9			53.0	
Approach LOS		B			D			F			D	
90th %ile Green (s)	7.0	61.0		47.0	47.0	47.0	7.0	7.0		18.0	18.0	18.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	57.6		43.6	43.6	43.6	7.0	7.0		18.0	18.0	18.0
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	50.3		36.3	36.3	36.3	7.0	7.0		18.0	18.0	18.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	43.7		29.7	29.7	29.7	7.0	7.0		18.0	18.0	18.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
10th %ile Green (s)	7.0	35.7		21.7	21.7	21.7	7.0	7.0		14.9	14.9	14.9
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Gap	Gap	Gap
Stops (vph)	55	258		9	370	96		84			172	75
Fuel Used(gal)	3	9		0	15	4		6			12	5
CO Emissions (g/hr)	184	653		28	1046	295		415			836	339
NOx Emissions (g/hr)	36	127		6	204	57		81			163	66
VOC Emissions (g/hr)	43	151		7	242	68		96			194	79
Dilemma Vehicles (#)	0	6		0	10	0		4			10	0
Queue Length 50th (ft)	48	216		8	316	84		~119			163	64
Queue Length 95th (ft)	62	220		18	318	105		#203			#224	103
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	260	1170		414	913	799		137			359	299

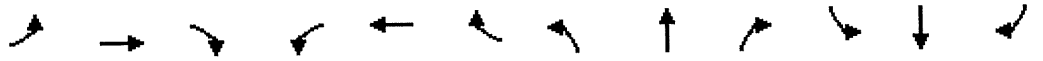
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.65	0.48		0.05	0.65	0.26		1.18			0.79	0.41

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 93			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.18			
Intersection Signal Delay: 43.5		Intersection LOS: D	
Intersection Capacity Utilization 69.5%		ICU Level of Service C	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 105			
70th %ile Actuated Cycle: 101.6			
50th %ile Actuated Cycle: 94.3			
30th %ile Actuated Cycle: 87.7			
10th %ile Actuated Cycle: 76.6			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2028 Traffic Volumes without Development - AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	413	10	16	441	154	22	88	11	124	89	91
Future Volume (veh/h)	126	413	10	16	441	154	22	88	11	124	89	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1780	1837	1875	1818	1860	926	996	996	1906	1921	1835
Adj Flow Rate, veh/h	175	574	14	22	612	214	31	122	15	172	124	126
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	4	0	0	4	1	5	0	0	3	2	8
Cap, veh/h	239	883	22	294	682	592	28	108	13	198	143	284
Arrive On Green	0.08	0.51	0.50	0.38	0.38	0.38	0.14	0.15	0.14	0.17	0.18	0.18
Sat Flow, veh/h	1723	1731	42	830	1818	1577	179	706	87	1085	782	1555
Grp Volume(v), veh/h	175	0	588	22	612	214	168	0	0	296	0	126
Grp Sat Flow(s),veh/h/ln	1723	0	1773	830	1818	1577	972	0	0	1866	0	1555
Q Serve(g_s), s	6.2	0.0	25.3	2.1	33.0	10.2	16.0	0.0	0.0	16.1	0.0	7.5
Cycle Q Clear(g_c), s	6.2	0.0	25.3	12.9	33.0	10.2	16.0	0.0	0.0	16.1	0.0	7.5
Prop In Lane	1.00		0.02	1.00		1.00	0.18		0.09	0.58		1.00
Lane Grp Cap(c), veh/h	239	0	904	294	682	592	149	0	0	341	0	284
V/C Ratio(X)	0.73	0.00	0.65	0.07	0.90	0.36	1.12	0.00	0.00	0.87	0.00	0.44
Avail Cap(c_a), veh/h	239	0	920	302	699	606	149	0	0	341	0	284
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	18.7	28.4	30.6	23.5	44.2	0.0	0.0	41.6	0.0	37.8
Incr Delay (d2), s/veh	10.9	0.0	2.2	0.2	15.0	0.8	110.9	0.0	0.0	20.6	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.4	0.0	15.0	0.7	22.8	6.7	13.8	0.0	0.0	14.2	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	0.0	20.9	28.6	45.6	24.3	155.1	0.0	0.0	62.2	0.0	38.9
LnGrp LOS	C	A	C	C	D	C	F	A	A	E	A	D
Approach Vol, veh/h		763			848			168			422	
Approach Delay, s/veh		24.0			39.8			155.1			55.3	
Approach LOS		C			D			F			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	59.1	24.0	14.0	45.1	21.0
Change Period (Y+Rc), s	7.0	6.0	7.0	7.0	6.0
Max Green Setting (Gmax), s	53.0	18.0	7.0	39.0	15.0
Max Q Clear Time (g_c+I1), s	27.3	18.1	8.7	35.5	18.0
Green Ext Time (p_c), s	14.4	0.0	0.0	2.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D

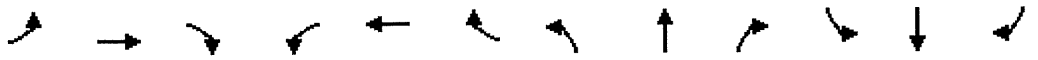
Notes

User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2028 Traffic Volumes without Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	413	10	16	441	154	22	88	11	124	89	91
Future Volume (vph)	126	413	10	16	441	154	22	88	11	124	89	91
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.988				0.850
Flt Protected	0.950			0.950				0.991			0.972	
Satd. Flow (prot)	1629	1734	0	1670	1748	1530	0	1587	0	0	1740	1445
Flt Permitted	0.107			0.393				0.991			0.972	
Satd. Flow (perm)	183	1734	0	691	1748	1530	0	1587	0	0	1740	1445
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	4%	0%	0%	4%	1%	5%	0%	0%	3%	2%	8%
Adj. Flow (vph)	175	574	14	22	613	214	31	122	15	172	124	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	588	0	22	613	214	0	168	0	0	296	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2028 Traffic Volumes without Development - AM Peak

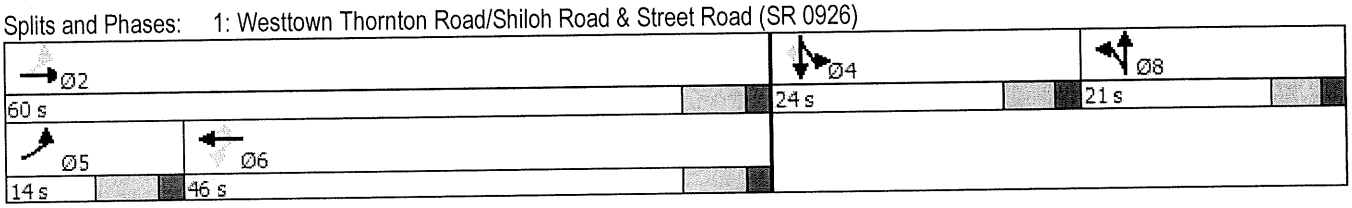


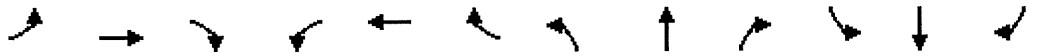
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	60.0		46.0	46.0	46.0	21.0	21.0		24.0	24.0	24.0
Total Split (%)	13.3%	57.1%		43.8%	43.8%	43.8%	20.0%	20.0%		22.9%	22.9%	22.9%
Maximum Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	51.8	51.8		37.7	37.7	37.7		14.8			19.1	19.1
Actuated g/C Ratio	0.51	0.51		0.37	0.37	0.37		0.15			0.19	0.19
v/c Ratio	0.85	0.67		0.09	0.95	0.38		0.73			0.91	0.47
Control Delay	52.3	23.2		22.1	56.4	25.8		61.5			74.2	44.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	52.3	23.2		22.1	56.4	25.8		61.5			74.2	44.6
LOS	D	C		C	E	C		E			E	D
Approach Delay		29.9			47.8			61.5			65.4	
Approach LOS		C			D			E			E	
90th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	14.2	14.2		18.0	18.0	18.0
30th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
10th %ile Green (s)	7.0	42.3		28.3	28.3	28.3	10.0	10.0		17.9	17.9	17.9
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	63	304		11	383	108		109			182	79
Fuel Used(gal)	4	11		0	17	5		4			13	5
CO Emissions (g/hr)	250	743		33	1184	324		247			922	356
NOx Emissions (g/hr)	49	145		6	230	63		48			179	69
VOC Emissions (g/hr)	58	172		8	274	75		57			214	83
Dilemma Vehicles (#)	0	6		0	18	0		6			9	0
Queue Length 50th (ft)	61	278		9	387	102		108			198	77
Queue Length 95th (ft)	#103	281		21	387	126		140			#246	106
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	207	924		273	690	604		250			326	271

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.85	0.64		0.08	0.89	0.35		0.67			0.91	0.46

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 101.7			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 46.0		Intersection LOS: D	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 105			
70th %ile Actuated Cycle: 105			
50th %ile Actuated Cycle: 105			
30th %ile Actuated Cycle: 104.2			
10th %ile Actuated Cycle: 89.2			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	413	10	16	441	158	22	89	11	136	91	102
Future Volume (veh/h)	130	413	10	16	441	158	22	89	11	136	91	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1780	1837	1875	1818	1860	926	996	996	1906	1921	1835
Adj Flow Rate, veh/h	181	574	14	22	612	219	31	124	15	189	126	142
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	4	0	0	4	1	5	0	0	3	2	8
Cap, veh/h	239	883	22	294	682	592	27	109	13	204	136	284
Arrive On Green	0.08	0.51	0.50	0.38	0.38	0.38	0.14	0.15	0.14	0.17	0.18	0.18
Sat Flow, veh/h	1723	1731	42	830	1818	1577	177	709	86	1119	746	1555
Grp Volume(v), veh/h	181	0	588	22	612	219	170	0	0	315	0	142
Grp Sat Flow(s),veh/h/ln	1723	0	1773	830	1818	1577	972	0	0	1865	0	1555
Q Serve(g_s), s	6.4	0.0	25.3	2.1	33.0	10.5	16.0	0.0	0.0	17.3	0.0	8.5
Cycle Q Clear(g_c), s	6.4	0.0	25.3	12.9	33.0	10.5	16.0	0.0	0.0	17.3	0.0	8.5
Prop In Lane	1.00		0.02	1.00		1.00	0.18		0.09	0.60		1.00
Lane Grp Cap(c), veh/h	239	0	904	294	682	592	149	0	0	340	0	284
V/C Ratio(X)	0.76	0.00	0.65	0.07	0.90	0.37	1.14	0.00	0.00	0.93	0.00	0.50
Avail Cap(c_a), veh/h	239	0	920	302	699	606	149	0	0	340	0	284
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	18.7	28.4	30.6	23.6	44.2	0.0	0.0	42.1	0.0	38.3
Incr Delay (d2), s/veh	13.0	0.0	2.2	0.2	15.0	0.8	115.3	0.0	0.0	30.4	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.8	0.0	15.0	0.7	22.8	6.9	14.1	0.0	0.0	16.1	0.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	0.0	20.9	28.6	45.6	24.4	159.5	0.0	0.0	72.5	0.0	39.6
LnGrp LOS	D	A	C	C	D	C	F	A	A	E	A	D
Approach Vol, veh/h		769			853			170			457	
Approach Delay, s/veh		24.6			39.7			159.5			62.3	
Approach LOS		C			D			F			E	

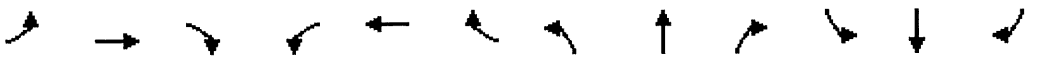
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.1		24.0	14.0	45.1		21.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		53.0		18.0	7.0	39.0		15.0				
Max Q Clear Time (g_c+I1), s		27.3		19.3	8.9	35.5		18.0				
Green Ext Time (p_c), s		14.4		0.0	0.0	2.6		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	413	10	16	441	158	22	89	11	136	91	102
Future Volume (vph)	130	413	10	16	441	158	22	89	11	136	91	102
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.988				0.850
Flt Protected	0.950			0.950				0.991			0.971	
Satd. Flow (prot)	1629	1734	0	1670	1748	1530	0	1587	0	0	1738	1445
Flt Permitted	0.107			0.393				0.991			0.971	
Satd. Flow (perm)	183	1734	0	691	1748	1530	0	1587	0	0	1738	1445
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	4%	0%	0%	4%	1%	5%	0%	0%	3%	2%	8%
Adj. Flow (vph)	181	574	14	22	613	219	31	124	15	189	126	142
Shared Lane Traffic (%)												
Lane Group Flow (vph)	181	588	0	22	613	219	0	170	0	0	315	142
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	60.0		46.0	46.0	46.0	21.0	21.0		24.0	24.0	24.0
Total Split (%)	13.3%	57.1%		43.8%	43.8%	43.8%	20.0%	20.0%		22.9%	22.9%	22.9%
Maximum Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	51.8	51.8		37.8	37.8	37.8		14.8			19.1	19.1
Actuated g/C Ratio	0.51	0.51		0.37	0.37	0.37		0.15			0.19	0.19
v/c Ratio	0.87	0.67		0.09	0.95	0.39		0.74			0.97	0.53
Control Delay	57.3	23.2		22.1	56.5	26.0		62.0			86.0	46.5
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	57.3	23.2		22.1	56.5	26.0		62.0			86.0	46.5
LOS	E	C		C	E	C		E			F	D
Approach Delay		31.2			47.8			62.0			73.7	
Approach LOS		C			D			E			E	
90th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	14.4	14.4		18.0	18.0	18.0
30th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
10th %ile Green (s)	7.0	42.4		28.4	28.4	28.4	10.1	10.1		18.0	18.0	18.0
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
Stops (vph)	65	304		11	383	112		110			192	90
Fuel Used(gal)	4	11		0	17	5		4			15	6
CO Emissions (g/hr)	267	743		33	1185	334		250			1020	403
NOx Emissions (g/hr)	52	145		6	231	65		49			198	78
VOC Emissions (g/hr)	62	172		8	275	77		58			236	93
Dilemma Vehicles (#)	0	6		0	18	0		6			10	0
Queue Length 50th (ft)	64	278		9	387	105		110			~214	88
Queue Length 95th (ft)	#113	281		21	387	129		142			#271	118
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	207	923		272	689	603		250			325	270

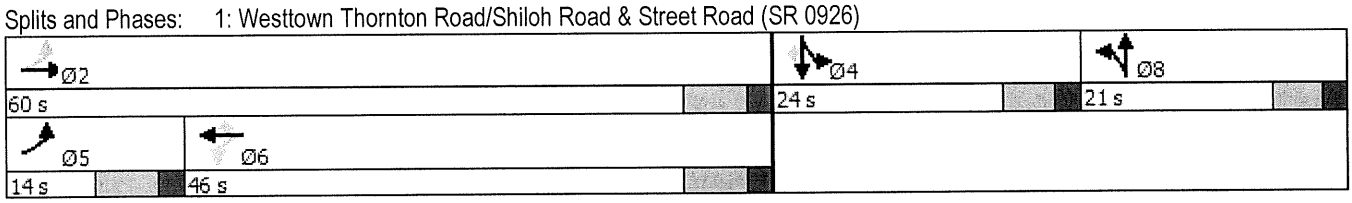
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.87	0.64		0.08	0.89	0.36		0.68			0.97	0.53

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 101.8			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 48.5		Intersection LOS: D	
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 105			
70th %ile Actuated Cycle: 105			
50th %ile Actuated Cycle: 105			
30th %ile Actuated Cycle: 104.4			
10th %ile Actuated Cycle: 89.5			

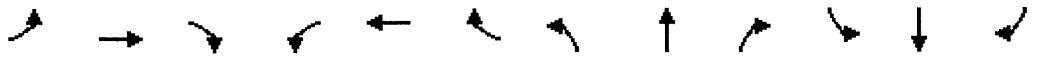
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2033 Traffic Volumes without Development - AM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	425	11	16	453	158	22	91	12	127	92	94
Future Volume (veh/h)	129	425	11	16	453	158	22	91	12	127	92	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1780	1837	1875	1818	1860	926	996	996	1906	1921	1835
Adj Flow Rate, veh/h	179	590	15	22	629	219	31	126	17	176	128	131
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	4	0	0	4	1	5	0	0	3	2	8
Cap, veh/h	232	885	23	284	687	596	26	108	15	196	143	283
Arrive On Green	0.08	0.51	0.50	0.38	0.38	0.38	0.14	0.15	0.14	0.17	0.18	0.18
Sat Flow, veh/h	1723	1729	44	817	1818	1577	173	703	95	1081	786	1555
Grp Volume(v), veh/h	179	0	605	22	629	219	174	0	0	304	0	131
Grp Sat Flow(s),veh/h/ln	1723	0	1772	817	1818	1577	971	0	0	1867	0	1555
Q Serve(g_s), s	6.3	0.0	26.4	2.1	34.4	10.5	16.0	0.0	0.0	16.7	0.0	7.9
Cycle Q Clear(g_c), s	6.3	0.0	26.4	14.1	34.4	10.5	16.0	0.0	0.0	16.7	0.0	7.9
Prop In Lane	1.00		0.02	1.00		1.00	0.18		0.10	0.58		1.00
Lane Grp Cap(c), veh/h	232	0	908	284	687	596	149	0	0	339	0	283
V/C Ratio(X)	0.77	0.00	0.67	0.08	0.92	0.37	1.17	0.00	0.00	0.90	0.00	0.46
Avail Cap(c_a), veh/h	232	0	916	288	696	603	149	0	0	339	0	283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	18.9	29.1	30.9	23.5	44.4	0.0	0.0	42.1	0.0	38.2
Incr Delay (d2), s/veh	14.9	0.0	2.5	0.2	17.4	0.8	127.1	0.0	0.0	24.9	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	0.0	15.6	0.8	24.1	6.9	14.9	0.0	0.0	15.1	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	0.0	21.4	29.3	48.3	24.3	171.5	0.0	0.0	67.0	0.0	39.4
LnGrp LOS	D	A	C	C	D	C	F	A	A	E	A	D
Approach Vol, veh/h		784			870			174			435	
Approach Delay, s/veh		25.3			41.8			171.5			58.7	
Approach LOS		C			D			F			E	

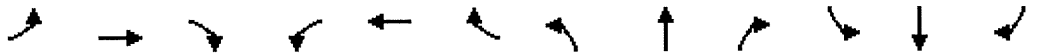
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.5		24.0	14.0	45.5		21.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		53.0		18.0	7.0	39.0		15.0				
Max Q Clear Time (g_c+I1), s		28.4		18.7	8.8	36.9		18.0				
Green Ext Time (p_c), s		14.3		0.0	0.0	1.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			49.3									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	425	11	16	453	158	22	91	12	127	92	94
Future Volume (vph)	129	425	11	16	453	158	22	91	12	127	92	94
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.991			0.972	
Satd. Flow (prot)	1629	1734	0	1670	1748	1530	0	1586	0	0	1740	1445
Flt Permitted	0.097			0.376				0.991			0.972	
Satd. Flow (perm)	166	1734	0	661	1748	1530	0	1586	0	0	1740	1445
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	4%	0%	0%	4%	1%	5%	0%	0%	3%	2%	8%
Adj. Flow (vph)	179	590	15	22	629	219	31	126	17	176	128	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	605	0	22	629	219	0	174	0	0	304	131
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

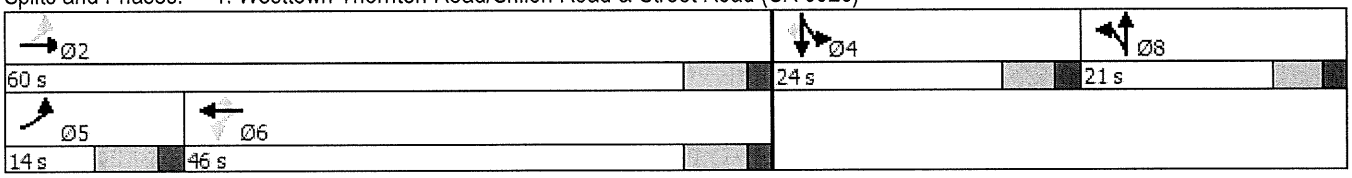


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	60.0		46.0	46.0	46.0	21.0	21.0		24.0	24.0	24.0
Total Split (%)	13.3%	57.1%		43.8%	43.8%	43.8%	20.0%	20.0%		22.9%	22.9%	22.9%
Maximum Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	52.5	52.5		38.4	38.4	38.4		15.0			19.0	19.0
Actuated g/C Ratio	0.51	0.51		0.37	0.37	0.37		0.15			0.19	0.19
v/c Ratio	0.90	0.68		0.09	0.96	0.38		0.75			0.94	0.49
Control Delay	64.6	23.8		22.2	59.3	25.9		63.4			80.8	45.4
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	64.6	23.8		22.2	59.3	25.9		63.4			80.8	45.4
LOS	E	C		C	E	C		E			F	D
Approach Delay		33.1			50.0			63.4			70.1	
Approach LOS		C			D			E			E	
90th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	14.7	14.7		18.0	18.0	18.0
30th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
10th %ile Green (s)	7.0	45.5		31.5	31.5	31.5	10.5	10.5		18.0	18.0	18.0
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
Stops (vph)	66	318		11	390	111		114			187	83
Fuel Used(gal)	4	11		0	18	5		4			14	5
CO Emissions (g/hr)	279	774		33	1232	333		259			969	370
NOx Emissions (g/hr)	54	151		6	240	65		50			188	72
VOC Emissions (g/hr)	65	179		8	286	77		60			224	86
Dilemma Vehicles (#)	0	6		0	18	0		6			9	0
Queue Length 50th (ft)	68	291		9	403	105		113			205	80
Queue Length 95th (ft)	#121	291		21	401	129		145			#256	110
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	199	915		258	683	598		247			322	268

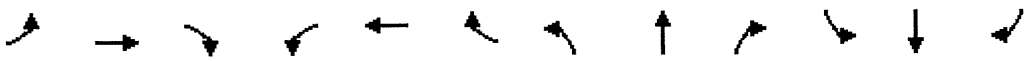
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.90	0.66		0.09	0.92	0.37		0.70			0.94	0.49

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 102.5			
Natural Cycle: 95			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 49.0		Intersection LOS: D	
Intersection Capacity Utilization 71.8%		ICU Level of Service C	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 105			
70th %ile Actuated Cycle: 105			
50th %ile Actuated Cycle: 105			
30th %ile Actuated Cycle: 104.7			
10th %ile Actuated Cycle: 93			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2033 Traffic Volumes with Development - AM Peak



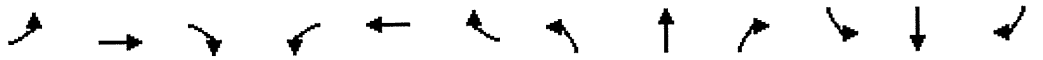
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	425	11	16	453	162	22	92	12	139	94	105
Future Volume (veh/h)	133	425	11	16	453	162	22	92	12	139	94	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1780	1837	1875	1818	1860	926	996	996	1906	1921	1835
Adj Flow Rate, veh/h	185	590	15	22	629	225	31	128	17	193	131	146
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	4	0	0	4	1	5	0	0	3	2	8
Cap, veh/h	231	885	23	284	687	596	26	108	14	202	137	283
Arrive On Green	0.08	0.51	0.50	0.38	0.38	0.38	0.14	0.15	0.14	0.17	0.18	0.18
Sat Flow, veh/h	1723	1729	44	817	1818	1577	171	706	94	1111	754	1555
Grp Volume(v), veh/h	185	0	605	22	629	225	176	0	0	324	0	146
Grp Sat Flow(s),veh/h/ln	1723	0	1772	817	1818	1577	971	0	0	1865	0	1555
Q Serve(g_s), s	6.6	0.0	26.4	2.1	34.4	10.8	16.0	0.0	0.0	18.0	0.0	8.9
Cycle Q Clear(g_c), s	6.6	0.0	26.4	14.1	34.4	10.8	16.0	0.0	0.0	18.0	0.0	8.9
Prop In Lane	1.00		0.02	1.00		1.00	0.18		0.10	0.60		1.00
Lane Grp Cap(c), veh/h	231	0	908	284	687	596	149	0	0	339	0	283
V/C Ratio(X)	0.80	0.00	0.67	0.08	0.92	0.38	1.18	0.00	0.00	0.96	0.00	0.52
Avail Cap(c_a), veh/h	231	0	916	288	696	603	149	0	0	339	0	283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	18.9	29.1	30.9	23.6	44.4	0.0	0.0	42.6	0.0	38.6
Incr Delay (d2), s/veh	17.8	0.0	2.5	0.2	17.4	0.8	131.7	0.0	0.0	37.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	15.6	0.8	24.1	7.1	15.2	0.0	0.0	17.2	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.0	21.4	29.3	48.3	24.4	176.1	0.0	0.0	79.8	0.0	40.2
LnGrp LOS	D	A	C	C	D	C	F	A	A	E	A	D
Approach Vol, veh/h		790			876			176			470	
Approach Delay, s/veh		26.1			41.7			176.1			67.5	
Approach LOS		C			D			F			E	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		59.5		24.0	14.0	45.5		21.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		53.0		18.0	7.0	39.0		15.0				
Max Q Clear Time (g_c+I1), s		28.4		20.0	9.1	36.9		18.0				
Green Ext Time (p_c), s		14.3		0.0	0.0	1.6		0.0				

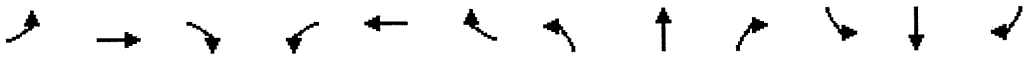
Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	425	11	16	453	162	22	92	12	139	94	105
Future Volume (vph)	133	425	11	16	453	162	22	92	12	139	94	105
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996				0.850		0.987				0.850
Flt Protected	0.950			0.950				0.991			0.971	
Satd. Flow (prot)	1629	1734	0	1670	1748	1530	0	1586	0	0	1738	1445
Flt Permitted	0.097			0.376				0.991			0.971	
Satd. Flow (perm)	166	1734	0	661	1748	1530	0	1586	0	0	1738	1445
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	4%	0%	0%	4%	1%	5%	0%	0%	3%	2%	8%
Adj. Flow (vph)	185	590	15	22	629	225	31	128	17	193	131	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	185	605	0	22	629	225	0	176	0	0	324	146
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												



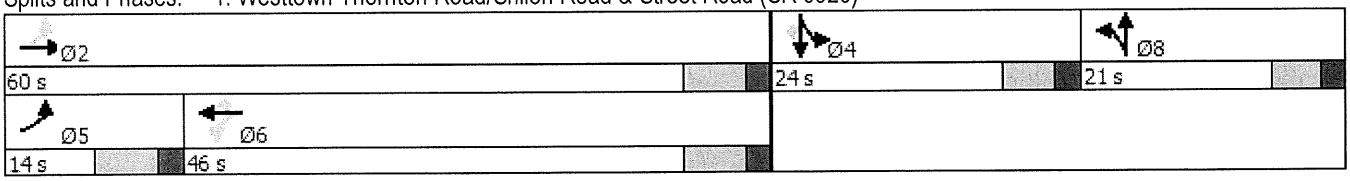
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	60.0		46.0	46.0	46.0	21.0	21.0		24.0	24.0	24.0
Total Split (%)	13.3%	57.1%		43.8%	43.8%	43.8%	20.0%	20.0%		22.9%	22.9%	22.9%
Maximum Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	52.5	52.5		38.4	38.4	38.4		15.0			19.0	19.0
Actuated g/C Ratio	0.51	0.51		0.37	0.37	0.37		0.15			0.19	0.19
v/c Ratio	0.93	0.68		0.09	0.96	0.39		0.76			1.01	0.54
Control Delay	71.1	23.8		22.2	59.4	26.1		63.9			95.4	47.4
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	71.1	23.8		22.2	59.4	26.1		63.9			95.4	47.4
LOS	E	C		C	E	C		E			F	D
Approach Delay		34.9			49.9			63.9			80.5	
Approach LOS		C			D			E			F	
90th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	15.0	15.0		18.0	18.0	18.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	53.0		39.0	39.0	39.0	14.9	14.9		18.0	18.0	18.0
30th %ile Term Code	Max	Hold		Max	Max	Max	Gap	Gap		Max	Max	Max
10th %ile Green (s)	7.0	45.5		31.5	31.5	31.5	10.6	10.6		18.0	18.0	18.0
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
Stops (vph)	68	319		11	390	114		114			195	94
Fuel Used(gal)	4	11		0	18	5		4			15	6
CO Emissions (g/hr)	300	775		33	1233	342		263			1077	417
NOx Emissions (g/hr)	58	151		6	240	67		51			210	81
VOC Emissions (g/hr)	70	180		8	286	79		61			250	97
Dilemma Vehicles (#)	0	6		0	18	0		6			10	0
Queue Length 50th (ft)	72	291		9	403	108		114			~234	90
Queue Length 95th (ft)	#130	291		21	401	132		147			#282	121
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	199	914		258	682	597		247			322	268

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.93	0.66		0.09	0.92	0.38		0.71			1.01	0.54

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 102.6
Natural Cycle: 95
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 52.1 Intersection LOS: D
Intersection Capacity Utilization 72.7% ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 105
70th %ile Actuated Cycle: 105
50th %ile Actuated Cycle: 105
30th %ile Actuated Cycle: 104.9
10th %ile Actuated Cycle: 93.1
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
Existing Traffic Volumes - PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	403	22	9	424	118	9	115	19	91	166	103
Future Volume (veh/h)	135	403	22	9	424	118	9	115	19	91	166	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1837	1837	1875	1860	1875	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	153	458	25	10	482	134	10	131	22	103	189	117
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	1	0	0	0	0	0	0	0
Cap, veh/h	369	937	51	436	711	607	6	75	13	114	209	278
Arrive On Green	0.09	0.54	0.53	0.38	0.38	0.38	0.08	0.10	0.08	0.16	0.17	0.17
Sat Flow, veh/h	1723	1726	94	914	1860	1589	60	780	131	676	1240	1652
Grp Volume(v), veh/h	153	0	483	10	482	134	163	0	0	292	0	117
Grp Sat Flow(s),veh/h/ln	1723	0	1820	914	1860	1589	970	0	0	1915	0	1652
Q Serve(g_s), s	4.0	0.0	13.7	0.6	18.0	4.7	8.0	0.0	0.0	12.5	0.0	5.3
Cycle Q Clear(g_c), s	4.0	0.0	13.7	0.6	18.0	4.7	8.0	0.0	0.0	12.5	0.0	5.3
Prop In Lane	1.00		0.05	1.00		1.00	0.06		0.13	0.35		1.00
Lane Grp Cap(c), veh/h	369	0	989	436	711	607	93	0	0	322	0	278
V/C Ratio(X)	0.41	0.00	0.49	0.02	0.68	0.22	1.75	0.00	0.00	0.91	0.00	0.42
Avail Cap(c_a), veh/h	382	0	1357	614	1074	917	93	0	0	322	0	278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	11.8	16.0	21.4	17.3	37.7	0.0	0.0	34.1	0.0	31.0
Incr Delay (d2), s/veh	0.7	0.0	0.8	0.0	2.4	0.4	376.5	0.0	0.0	27.7	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	8.4	0.2	11.9	2.9	19.9	0.0	0.0	12.7	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	12.6	16.1	23.8	17.7	414.2	0.0	0.0	61.8	0.0	32.0
LnGrp LOS	B	A	B	B	C	B	F	A	A	E	A	C
Approach Vol, veh/h		636			626			163			409	
Approach Delay, s/veh		13.3			22.4			414.2			53.3	
Approach LOS		B			C			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		51.2		19.0	13.4	37.8		13.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		61.0		13.0	7.0	47.0		7.0				
Max Q Clear Time (g_c+I1), s		15.7		14.5	6.5	20.5		10.0				
Green Ext Time (p_c), s		15.7		0.0	0.0	10.3		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	60.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
Existing Traffic Volumes - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	403	22	9	424	118	9	115	19	91	166	103
Future Volume (vph)	135	403	22	9	424	118	9	115	19	91	166	103
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992				0.850		0.982				0.850
Flt Protected	0.950			0.950				0.997			0.983	
Satd. Flow (prot)	1629	1795	0	1670	1800	1545	0	1601	0	0	1805	1561
Flt Permitted	0.195			0.488				0.997			0.983	
Satd. Flow (perm)	334	1795	0	858	1800	1545	0	1601	0	0	1805	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	153	458	25	10	482	134	10	131	22	103	189	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	483	0	10	482	134	0	163	0	0	292	117
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
Existing Traffic Volumes - PM Peak

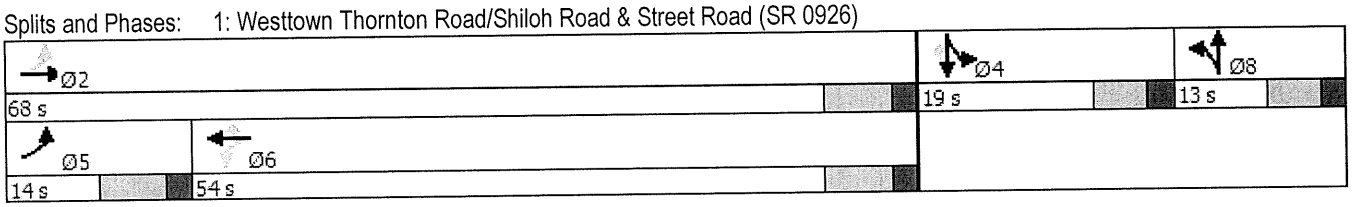
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	68.0		54.0	54.0	54.0	13.0	13.0		19.0	19.0	19.0
Total Split (%)	14.0%	68.0%		54.0%	54.0%	54.0%	13.0%	13.0%		19.0%	19.0%	19.0%
Maximum Green (s)	7.0	61.0		47.0	47.0	47.0	7.0	7.0		13.0	13.0	13.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	40.0	40.0		25.9	25.9	25.9		8.1			14.1	14.1
Actuated g/C Ratio	0.51	0.51		0.33	0.33	0.33		0.10			0.18	0.18
v/c Ratio	0.50	0.53		0.04	0.81	0.26		0.99			0.90	0.42
Control Delay	15.9	14.9		16.6	35.2	19.8		109.2			65.2	35.9
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	15.9	14.9		16.6	35.2	19.8		109.2			65.2	35.9
LOS	B	B		B	D	B		F			E	D
Approach Delay		15.1			31.6			109.2			56.9	
Approach LOS		B			C			F			E	
90th %ile Green (s)	7.0	50.9		36.9	36.9	36.9	7.0	7.0		13.0	13.0	13.0
90th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	42.9		28.9	28.9	28.9	7.0	7.0		13.0	13.0	13.0
70th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	37.7		23.7	23.7	23.7	7.0	7.0		13.0	13.0	13.0
50th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	34.0		20.0	20.0	20.0	7.0	7.0		13.0	13.0	13.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Max	Max		Max	Max	Max
10th %ile Green (s)	7.0	31.0		17.0	17.0	17.0	7.0	7.0		13.0	13.0	13.0
10th %ile Term Code	Max	Hold		Min	Min	Min	Max	Max		Max	Max	Max
Stops (vph)	64	260		7	363	77		109			206	88
Fuel Used(gal)	3	9		0	14	3		5			15	6
CO Emissions (g/hr)	194	657		18	1006	233		378			1073	390
NOx Emissions (g/hr)	38	128		4	196	45		74			209	76
VOC Emissions (g/hr)	45	152		4	233	54		88			249	90
Dilemma Vehicles (#)	0	8		0	8	0		7			14	0
Queue Length 50th (ft)	38	147		3	210	47		79			137	50
Queue Length 95th (ft)	65	214		13	307	84		#225			#326	113
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	304	1432		530	1112	954		164			325	281

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
Existing Traffic Volumes - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.50	0.34		0.02	0.43	0.14		0.99			0.90	0.42

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 78.3			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 38.4		Intersection LOS: D	
Intersection Capacity Utilization 79.0%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 89.9			
70th %ile Actuated Cycle: 81.9			
50th %ile Actuated Cycle: 76.7			
30th %ile Actuated Cycle: 73			
10th %ile Actuated Cycle: 70			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2028 Traffic Volumes without Development - PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	418	23	9	440	123	9	119	20	94	172	107
Future Volume (veh/h)	140	418	23	9	440	123	9	119	20	94	172	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1837	1837	1875	1860	1875	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	159	475	26	10	500	140	10	135	23	107	195	122
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	1	0	0	0	0	0	0	0
Cap, veh/h	280	815	45	325	603	515	10	132	22	129	234	313
Arrive On Green	0.08	0.47	0.46	0.32	0.32	0.32	0.16	0.17	0.16	0.18	0.19	0.19
Sat Flow, veh/h	1723	1726	94	899	1860	1589	58	779	133	679	1237	1652
Grp Volume(v), veh/h	159	0	501	10	500	140	168	0	0	302	0	122
Grp Sat Flow(s),veh/h/ln	1723	0	1820	899	1860	1589	970	0	0	1915	0	1652
Q Serve(g_s), s	5.4	0.0	19.0	0.8	23.5	6.2	16.0	0.0	0.0	14.4	0.0	6.1
Cycle Q Clear(g_c), s	5.4	0.0	19.0	5.2	23.5	6.2	16.0	0.0	0.0	14.4	0.0	6.1
Prop In Lane	1.00		0.05	1.00		1.00	0.06		0.14	0.35		1.00
Lane Grp Cap(c), veh/h	280	0	859	325	603	515	164	0	0	363	0	313
V/C Ratio(X)	0.57	0.00	0.58	0.03	0.83	0.27	1.02	0.00	0.00	0.83	0.00	0.39
Avail Cap(c_a), veh/h	280	0	905	348	649	554	164	0	0	425	0	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	18.2	25.0	29.5	23.7	39.4	0.0	0.0	37.1	0.0	33.5
Incr Delay (d2), s/veh	2.7	0.0	1.5	0.1	9.7	0.6	76.6	0.0	0.0	11.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	12.0	0.3	16.9	4.1	11.7	0.0	0.0	12.3	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	19.7	25.1	39.2	24.3	116.0	0.0	0.0	48.7	0.0	34.3
LnGrp LOS	C	A	B	C	D	C	F	A	A	D	A	C
Approach Vol, veh/h		660			650			168			424	
Approach Delay, s/veh		20.7			35.8			116.0			44.6	
Approach LOS		C			D			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		50.6		22.9	14.0	36.6		21.0				
Change Period (Y+Rc), s		7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s		46.0		20.0	7.0	32.0		15.0				
Max Q Clear Time (g_c+I1), s		21.0		16.4	7.9	26.0		18.0				
Green Ext Time (p_c), s		11.9		0.5	0.0	3.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			39.6									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

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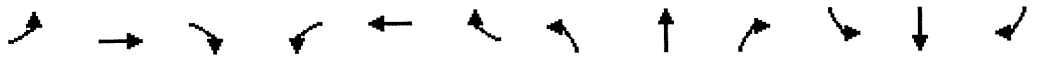
2028 Traffic Volumes without Development - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	418	23	9	440	123	9	119	20	94	172	107
Future Volume (vph)	140	418	23	9	440	123	9	119	20	94	172	107
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992				0.850		0.982				0.850
Flt Protected	0.950			0.950				0.997			0.983	
Satd. Flow (prot)	1629	1795	0	1670	1800	1545	0	1601	0	0	1805	1561
Flt Permitted	0.142			0.480				0.997			0.983	
Satd. Flow (perm)	243	1795	0	844	1800	1545	0	1601	0	0	1805	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	159	475	26	10	500	140	10	135	23	107	195	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	159	501	0	10	500	140	0	168	0	0	302	122
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

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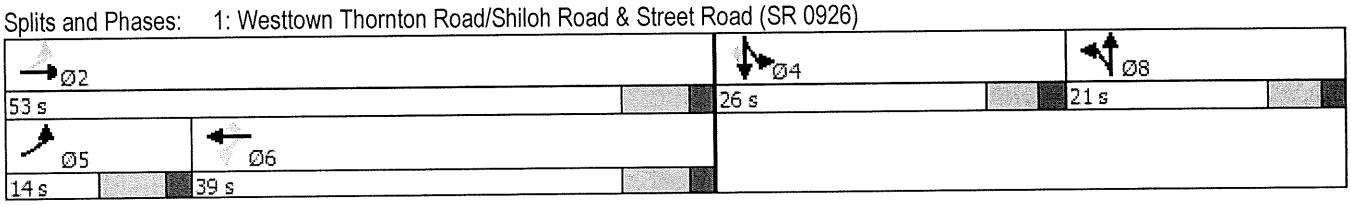
2028 Traffic Volumes without Development - PM Peak

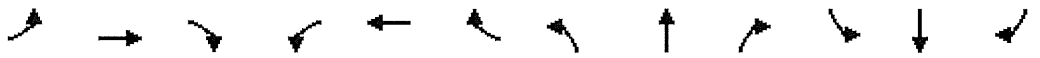
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	53.0		39.0	39.0	39.0	21.0	21.0		26.0	26.0	26.0
Total Split (%)	14.0%	53.0%		39.0%	39.0%	39.0%	21.0%	21.0%		26.0%	26.0%	26.0%
Maximum Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	42.8	42.8		28.6	28.6	28.6		14.3			19.3	19.3
Actuated g/C Ratio	0.46	0.46		0.31	0.31	0.31		0.15			0.21	0.21
v/c Ratio	0.68	0.60		0.04	0.90	0.29		0.68			0.81	0.38
Control Delay	32.3	22.7		23.4	52.0	26.6		53.7			53.7	37.1
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	32.3	22.7		23.4	52.0	26.6		53.7			53.7	37.1
LOS	C	C		C	D	C		D			D	D
Approach Delay		25.0			46.1			53.7			49.0	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	40.3		26.3	26.3	26.3	12.9	12.9		18.5	18.5	18.5
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
10th %ile Green (s)	7.0	31.2		17.2	17.2	17.2	8.9	8.9		13.1	13.1	13.1
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	76	314		8	387	88		132			233	88
Fuel Used(gal)	3	11		0	17	4		4			15	6
CO Emissions (g/hr)	243	769		20	1158	262		285			1077	405
NOx Emissions (g/hr)	47	150		4	225	51		55			210	79
VOC Emissions (g/hr)	56	178		5	268	61		66			250	94
Dilemma Vehicles (#)	0	7		0	17	0		8			14	0
Queue Length 50th (ft)	58	227		4	293	65		102			184	67
Queue Length 95th (ft)	#117	321		16	#450	112		#171			#304	118
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	234	925		305	652	559		281			416	359

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.68	0.54		0.03	0.77	0.25		0.60			0.73	0.34

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 92.6			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 40.1		Intersection LOS: D	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 100			
50th %ile Actuated Cycle: 100			
30th %ile Actuated Cycle: 90.7			
10th %ile Actuated Cycle: 72.2			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	418	23	9	440	136	9	122	20	101	174	115
Future Volume (veh/h)	153	418	23	9	440	136	9	122	20	101	174	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1837	1837	1875	1860	1875	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	174	475	26	10	500	155	10	139	23	115	198	131
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	1	0	0	0	0	0	0	0
Cap, veh/h	276	810	44	321	600	512	9	132	22	137	235	321
Arrive On Green	0.08	0.47	0.46	0.32	0.32	0.32	0.16	0.17	0.16	0.18	0.19	0.19
Sat Flow, veh/h	1723	1726	94	899	1860	1589	56	784	130	703	1211	1652
Grp Volume(v), veh/h	174	0	501	10	500	155	172	0	0	313	0	131
Grp Sat Flow(s),veh/h/ln	1723	0	1820	899	1860	1589	970	0	0	1914	0	1652
Q Serve(g_s), s	6.1	0.0	19.2	0.8	23.7	7.0	16.0	0.0	0.0	15.0	0.0	6.6
Cycle Q Clear(g_c), s	6.1	0.0	19.2	5.5	23.7	7.0	16.0	0.0	0.0	15.0	0.0	6.6
Prop In Lane	1.00		0.05	1.00		1.00	0.06		0.13	0.37		1.00
Lane Grp Cap(c), veh/h	276	0	855	321	600	512	163	0	0	372	0	321
V/C Ratio(X)	0.63	0.00	0.59	0.03	0.83	0.30	1.06	0.00	0.00	0.84	0.00	0.41
Avail Cap(c_a), veh/h	276	0	898	343	645	550	163	0	0	422	0	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	18.5	25.4	29.9	24.2	39.7	0.0	0.0	37.1	0.0	33.6
Incr Delay (d2), s/veh	4.6	0.0	1.6	0.1	10.0	0.7	85.9	0.0	0.0	12.9	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.0	12.1	0.3	17.0	4.6	12.4	0.0	0.0	12.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	20.1	25.5	39.9	24.9	125.6	0.0	0.0	50.1	0.0	34.4
LnGrp LOS	C	A	C	C	D	C	F	A	A	D	A	C
Approach Vol, veh/h		675			665			172			444	
Approach Delay, s/veh		21.7			36.2			125.6			45.4	
Approach LOS		C			D			F			D	

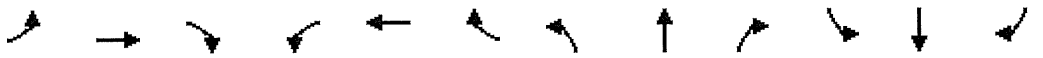
Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	50.7	23.5	14.0	36.7	21.0
Change Period (Y+Rc), s	7.0	6.0	7.0	7.0	6.0
Max Green Setting (Gmax), s	46.0	20.0	7.0	32.0	15.0
Max Q Clear Time (g_c+I1), s	21.2	17.0	8.6	26.2	18.0
Green Ext Time (p_c), s	11.9	0.5	0.0	3.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	418	23	9	440	136	9	122	20	101	174	115
Future Volume (vph)	153	418	23	9	440	136	9	122	20	101	174	115
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992				0.850		0.982				0.850
Flt Protected	0.950			0.950				0.997			0.982	
Satd. Flow (prot)	1629	1795	0	1670	1800	1545	0	1601	0	0	1803	1561
Flt Permitted	0.139			0.480				0.997			0.982	
Satd. Flow (perm)	238	1795	0	844	1800	1545	0	1601	0	0	1803	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	174	475	26	10	500	155	10	139	23	115	198	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	174	501	0	10	500	155	0	172	0	0	313	131
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

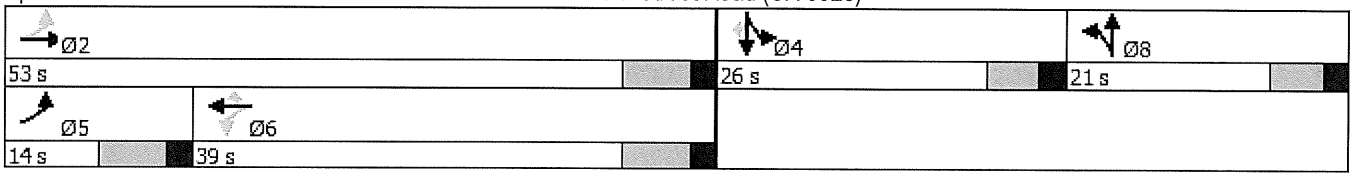


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	53.0		39.0	39.0	39.0	21.0	21.0		26.0	26.0	26.0
Total Split (%)	14.0%	53.0%		39.0%	39.0%	39.0%	21.0%	21.0%		26.0%	26.0%	26.0%
Maximum Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	42.9	42.9		28.7	28.7	28.7		14.4			19.7	19.7
Actuated g/C Ratio	0.46	0.46		0.31	0.31	0.31		0.15			0.21	0.21
v/c Ratio	0.76	0.61		0.04	0.90	0.33		0.70			0.82	0.40
Control Delay	38.8	23.0		23.4	52.5	27.3		54.6			55.5	37.5
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	38.8	23.0		23.4	52.5	27.3		54.6			55.5	37.5
LOS	D	C		C	D	C		D			E	D
Approach Delay		27.1			46.2			54.6			50.2	
Approach LOS		C			D			D			D	
90th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	46.0		32.0	32.0	32.0	15.0	15.0		20.0	20.0	20.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	40.6		26.6	26.6	26.6	13.3	13.3		19.6	19.6	19.6
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
10th %ile Green (s)	7.0	31.4		17.4	17.4	17.4	9.2	9.2		13.9	13.9	13.9
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	83	315		8	388	97		134			241	95
Fuel Used(gal)	4	11		0	17	4		4			16	6
CO Emissions (g/hr)	279	772		20	1162	290		292			1121	436
NOx Emissions (g/hr)	54	150		4	226	57		57			218	85
VOC Emissions (g/hr)	65	179		5	269	67		68			260	101
Dilemma Vehicles (#)	0	6		0	17	0		8			14	0
Queue Length 50th (ft)	64	227		4	293	73		104			192	73
Queue Length 95th (ft)	#146	321		16	#450	123		#183			#320	127
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	230	918		303	646	554		278			412	356

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.76	0.55		0.03	0.77	0.28		0.62			0.76	0.37

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 93.2			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 41.2		Intersection LOS: D	
Intersection Capacity Utilization 81.3%		ICU Level of Service D	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 100			
50th %ile Actuated Cycle: 100			
30th %ile Actuated Cycle: 92.5			
10th %ile Actuated Cycle: 73.5			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2033 Traffic Volumes without Development - PM Peak

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	430	23	10	452	126	10	123	20	97	177	110
Future Volume (veh/h)	144	430	23	10	452	126	10	123	20	97	177	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1837	1837	1875	1860	1875	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	164	489	26	11	514	143	11	140	23	110	201	125
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	1	0	0	0	0	0	0	0
Cap, veh/h	274	823	44	318	614	525	10	130	21	130	237	316
Arrive On Green	0.08	0.48	0.47	0.33	0.33	0.33	0.16	0.17	0.16	0.18	0.19	0.19
Sat Flow, veh/h	1723	1729	92	888	1860	1589	61	781	128	677	1238	1652
Grp Volume(v), veh/h	164	0	515	11	514	143	174	0	0	311	0	125
Grp Sat Flow(s),veh/h/ln	1723	0	1821	888	1860	1589	970	0	0	1915	0	1652
Q Serve(g_s), s	5.7	0.0	19.9	0.9	24.6	6.4	16.0	0.0	0.0	15.1	0.0	6.4
Cycle Q Clear(g_c), s	5.7	0.0	19.9	6.3	24.6	6.4	16.0	0.0	0.0	15.1	0.0	6.4
Prop In Lane	1.00		0.05	1.00		1.00	0.06		0.13	0.35		1.00
Lane Grp Cap(c), veh/h	274	0	866	318	614	525	161	0	0	367	0	316
V/C Ratio(X)	0.60	0.00	0.59	0.03	0.84	0.27	1.08	0.00	0.00	0.85	0.00	0.40
Avail Cap(c_a), veh/h	274	0	909	339	658	562	161	0	0	398	0	343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	18.4	25.7	29.8	23.7	40.2	0.0	0.0	37.7	0.0	34.0
Incr Delay (d2), s/veh	3.5	0.0	1.6	0.1	10.1	0.6	93.2	0.0	0.0	14.8	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	0.0	12.5	0.3	17.6	4.2	12.9	0.0	0.0	13.2	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	20.1	25.7	39.9	24.3	133.4	0.0	0.0	52.5	0.0	34.8
LnGrp LOS	C	A	C	C	D	C	F	A	A	D	A	C
Approach Vol, veh/h		679			668			174			436	
Approach Delay, s/veh		21.3			36.3			133.4			47.4	
Approach LOS		C			D			F			D	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	51.8	23.4	14.0	37.8	21.0
Change Period (Y+Rc), s	7.0	6.0	7.0	7.0	6.0
Max Green Setting (Gmax), s	47.0	19.0	7.0	33.0	15.0
Max Q Clear Time (g_c+I1), s	21.9	17.1	8.2	27.1	18.0
Green Ext Time (p_c), s	12.3	0.3	0.0	3.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2033 Traffic Volumes without Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	430	23	10	452	126	10	123	20	97	177	110
Future Volume (vph)	144	430	23	10	452	126	10	123	20	97	177	110
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992				0.850		0.982				0.850
Flt Protected	0.950			0.950				0.997			0.983	
Satd. Flow (prot)	1629	1795	0	1670	1800	1545	0	1601	0	0	1805	1561
Flt Permitted	0.136			0.474				0.997			0.983	
Satd. Flow (perm)	233	1795	0	833	1800	1545	0	1601	0	0	1805	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	164	489	26	11	514	143	11	140	23	110	201	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	164	515	0	11	514	143	0	174	0	0	311	125
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

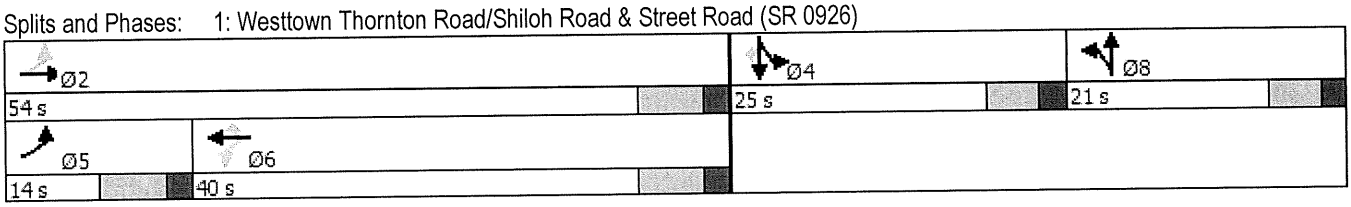
1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)
2033 Traffic Volumes without Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	54.0		40.0	40.0	40.0	21.0	21.0		25.0	25.0	25.0
Total Split (%)	14.0%	54.0%		40.0%	40.0%	40.0%	21.0%	21.0%		25.0%	25.0%	25.0%
Maximum Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	43.7	43.7		29.5	29.5	29.5		14.5			19.1	19.1
Actuated g/C Ratio	0.47	0.47		0.32	0.32	0.32		0.16			0.20	0.20
v/c Ratio	0.72	0.61		0.04	0.90	0.29		0.70			0.84	0.39
Control Delay	34.7	22.6		22.8	51.8	26.1		55.3			58.7	38.2
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	34.7	22.6		22.8	51.8	26.1		55.3			58.7	38.2
LOS	C	C		C	D	C		E			E	D
Approach Delay		25.6			45.9			55.3			52.8	
Approach LOS		C			D			E			D	
90th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	41.1		27.1	27.1	27.1	13.3	13.3		19.0	19.0	19.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
10th %ile Green (s)	7.0	32.2		18.2	18.2	18.2	9.4	9.4		14.5	14.5	14.5
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	76	322		8	397	89		137			238	92
Fuel Used(gal)	4	11		0	17	4		4			16	6
CO Emissions (g/hr)	253	789		21	1188	266		298			1128	419
NOx Emissions (g/hr)	49	154		4	231	52		58			219	81
VOC Emissions (g/hr)	59	183		5	275	62		69			261	97
Dilemma Vehicles (#)	0	7		0	18	0		8			14	0
Queue Length 50th (ft)	58	231		5	300	66		106			193	70
Queue Length 95th (ft)	#127	326		17	#458	113		#187			#329	123
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	229	932		306	662	568		277			391	338

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.72	0.55		0.04	0.78	0.25		0.63			0.80	0.37

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 93.5			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 41.2		Intersection LOS: D	
Intersection Capacity Utilization 82.1%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 100			
50th %ile Actuated Cycle: 100			
30th %ile Actuated Cycle: 92.4			
10th %ile Actuated Cycle: 75.1			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	430	23	10	452	139	10	126	20	104	179	118
Future Volume (veh/h)	157	430	23	10	452	139	10	126	20	104	179	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1809	1837	1837	1875	1860	1875	996	996	996	1949	1949	1949
Adj Flow Rate, veh/h	178	489	26	11	514	158	11	143	23	118	203	134
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	0	0	0	1	0	0	0	0	0	0	0
Cap, veh/h	271	819	44	315	612	523	10	130	21	138	237	323
Arrive On Green	0.08	0.47	0.46	0.33	0.33	0.33	0.15	0.17	0.15	0.19	0.20	0.20
Sat Flow, veh/h	1723	1729	92	888	1860	1589	60	784	126	704	1210	1652
Grp Volume(v), veh/h	178	0	515	11	514	158	177	0	0	321	0	134
Grp Sat Flow(s),veh/h/ln	1723	0	1821	888	1860	1589	971	0	0	1914	0	1652
Q Serve(g_s), s	6.3	0.0	20.1	0.9	24.8	7.2	16.0	0.0	0.0	15.7	0.0	6.9
Cycle Q Clear(g_c), s	6.3	0.0	20.1	6.5	24.8	7.2	16.0	0.0	0.0	15.7	0.0	6.9
Prop In Lane	1.00		0.05	1.00		1.00	0.06		0.13	0.37		1.00
Lane Grp Cap(c), veh/h	271	0	862	315	612	523	160	0	0	375	0	323
V/C Ratio(X)	0.66	0.00	0.60	0.03	0.84	0.30	1.10	0.00	0.00	0.86	0.00	0.41
Avail Cap(c_a), veh/h	271	0	903	335	653	558	160	0	0	395	0	341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	18.7	26.0	30.1	24.2	40.5	0.0	0.0	37.8	0.0	34.1
Incr Delay (d2), s/veh	5.7	0.0	1.7	0.1	10.4	0.7	101.3	0.0	0.0	16.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	0.0	12.7	0.3	17.8	4.8	13.5	0.0	0.0	13.7	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	20.4	26.1	40.5	24.9	141.8	0.0	0.0	54.0	0.0	34.9
LnGrp LOS	C	A	C	C	D	C	F	A	A	D	A	C
Approach Vol, veh/h		693			683			177			455	
Approach Delay, s/veh		22.3			36.7			141.8			48.4	
Approach LOS		C			D			F			D	

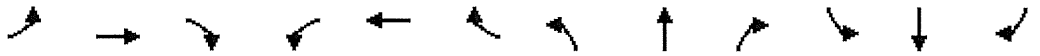
Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	51.8	23.9	14.0	37.8	21.0
Change Period (Y+Rc), s	7.0	6.0	7.0	7.0	6.0
Max Green Setting (Gmax), s	47.0	19.0	7.0	33.0	15.0
Max Q Clear Time (g_c+I1), s	22.1	17.7	8.8	27.3	18.0
Green Ext Time (p_c), s	12.3	0.2	0.0	3.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	157	430	23	10	452	139	10	126	20	104	179	118
Future Volume (vph)	157	430	23	10	452	139	10	126	20	104	179	118
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	12	11	12	12	11	11	11	12	12	12
Grade (%)		-1%			-2%			12%			-4%	
Storage Length (ft)	125		0	100		175	0		0	0		150
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992				0.850		0.982				0.850
Flt Protected	0.950			0.950				0.997			0.982	
Satd. Flow (prot)	1629	1795	0	1670	1800	1545	0	1601	0	0	1803	1561
Flt Permitted	0.134			0.474				0.997			0.982	
Satd. Flow (perm)	230	1795	0	833	1800	1545	0	1601	0	0	1803	1561
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			35	
Link Distance (ft)		1768			2485			1371			5597	
Travel Time (s)		26.8			37.7			26.7			109.0	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	178	489	26	11	514	158	11	143	23	118	203	134
Shared Lane Traffic (%)												
Lane Group Flow (vph)	178	515	0	11	514	158	0	177	0	0	321	134
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.11	1.07	1.07	1.11	1.06	1.06	1.21	1.21	1.21	1.05	1.05	1.05
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		0	1	0	1	1		1	1	1
Detector Template							Left			Left		
Leading Detector (ft)	35	336		0	336	0	20	30		20	30	35
Trailing Detector (ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Position(ft)	-5	330		0	330	0	0	-10		0	-10	-5
Detector 1 Size(ft)	40	6		6	6	6	20	40		20	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Turn Type	pm+pt	NA		Perm	NA	Perm	Split	NA		Split	NA	Perm
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases	2			6		6						4
Detector Phase	5	2		6	6	6	8	8		4	4	4
Switch Phase												

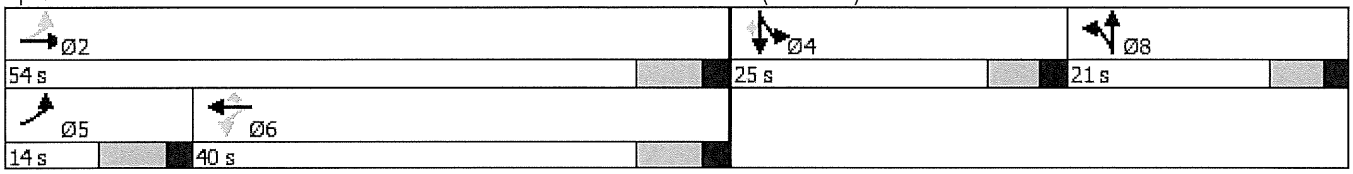


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	3.0	17.0		17.0	17.0	17.0	3.0	3.0		3.0	3.0	3.0
Minimum Split (s)	14.0	25.0		25.0	25.0	25.0	21.0	21.0		21.0	21.0	21.0
Total Split (s)	14.0	54.0		40.0	40.0	40.0	21.0	21.0		25.0	25.0	25.0
Total Split (%)	14.0%	54.0%		40.0%	40.0%	40.0%	21.0%	21.0%		25.0%	25.0%	25.0%
Maximum Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0		-1.0			-1.0	-1.0
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	5.0		5.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Minimum Gap (s)	3.0	2.7		2.7	2.7	2.7	3.0	3.0		3.0	3.0	3.0
Time Before Reduce (s)	0.0	35.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Recall Mode	None	Min		Min	Min	Min	None	None		None	None	None
Walk Time (s)		7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	8.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0		0	0	0
Act Effct Green (s)	43.8	43.8		29.6	29.6	29.6		14.6			19.3	19.3
Actuated g/C Ratio	0.47	0.47		0.32	0.32	0.32		0.16			0.21	0.21
v/c Ratio	0.78	0.62		0.04	0.90	0.32		0.71			0.87	0.42
Control Delay	41.3	22.7		22.8	52.1	26.7		56.0			61.4	38.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay	41.3	22.7		22.8	52.1	26.7		56.0			61.4	38.8
LOS	D	C		C	D	C		E			E	D
Approach Delay		27.5			45.7			56.0			54.7	
Approach LOS		C			D			E			D	
90th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
90th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
70th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
70th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
50th %ile Green (s)	7.0	47.0		33.0	33.0	33.0	15.0	15.0		19.0	19.0	19.0
50th %ile Term Code	Max	Hold		Max	Max	Max	Max	Max		Max	Max	Max
30th %ile Green (s)	7.0	41.2		27.2	27.2	27.2	13.6	13.6		19.0	19.0	19.0
30th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Max	Max	Max
10th %ile Green (s)	7.0	32.5		18.5	18.5	18.5	9.6	9.6		15.4	15.4	15.4
10th %ile Term Code	Max	Hold		Gap	Gap	Gap	Gap	Gap		Gap	Gap	Gap
Stops (vph)	83	323		8	398	100		138			242	99
Fuel Used(gal)	4	11		0	17	4		4			17	6
CO Emissions (g/hr)	290	791		21	1191	296		305			1170	450
NOx Emissions (g/hr)	56	154		4	232	58		59			228	88
VOC Emissions (g/hr)	67	183		5	276	69		71			271	104
Dilemma Vehicles (#)	0	7		0	18	0		8			14	0
Queue Length 50th (ft)	64	231		5	300	73		108			201	75
Queue Length 95th (ft)	#153	326		17	#458	123		#191			#344	130
Internal Link Dist (ft)		1688			2405			1291			5517	
Turn Bay Length (ft)	125			100		175						150
Base Capacity (vph)	228	927		305	659	565		276			388	336

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.78	0.56		0.04	0.78	0.28		0.64			0.83	0.40

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 93.9			
Natural Cycle: 85			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 42.4		Intersection LOS: D	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 100			
70th %ile Actuated Cycle: 100			
50th %ile Actuated Cycle: 100			
30th %ile Actuated Cycle: 92.8			
10th %ile Actuated Cycle: 76.5			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 1: Westtown Thornton Road/Shiloh Road & Street Road (SR 0926)



Intersection												
Int Delay, s/veh	0.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	8	1	0	0	6	214	3	0	301	2
Future Vol, veh/h	6	0	8	1	0	0	6	214	3	0	301	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	0	25	100	0	0	0	3	33	0	3	0
Mvmt Flow	10	0	13	2	0	0	10	357	5	0	502	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	884	886	504	890	885	360	505	0	0	362	0	0
Stage 1	504	504	-	380	380	-	-	-	-	-	-	-
Stage 2	380	382	-	510	505	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6.3	7.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	6.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	6.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.3	3.9	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	327	315	564	204	300	734	804	-	-	902	-	-
Stage 1	662	576	-	544	631	-	-	-	-	-	-	-
Stage 2	767	643	-	452	559	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	323	310	564	197	295	734	804	-	-	902	-	-
Mov Cap-2 Maneuver	323	310	-	197	295	-	-	-	-	-	-	-
Stage 1	651	576	-	535	621	-	-	-	-	-	-	-
Stage 2	755	633	-	441	559	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	23.4	0.3	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	804	-	-	427	197	902	-	-
HCM Lane V/C Ratio	0.012	-	-	0.055	0.008	-	-	-
HCM Control Delay (s)	9.5	0	-	13.9	23.4	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-

2: Shiloh Road & Hunt Drive/Driveway
Existing Traffic Volumes - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	0	8	1	0	0	6	214	3	0	301	2
Future Volume (vph)	6	0	8	1	0	0	6	214	3	0	301	2
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.924						0.998			0.999	
Flt Protected		0.979			0.950			0.999				
Satd. Flow (prot)	0	1521	0	0	847	0	0	1589	0	0	1646	0
Flt Permitted		0.979			0.950			0.999				
Satd. Flow (perm)	0	1521	0	0	847	0	0	1589	0	0	1646	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	0%	0%	25%	100%	0%	0%	0%	3%	33%	0%	3%	0%
Adj. Flow (vph)	10	0	13	2	0	0	10	357	5	0	502	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	2	0	0	372	0	0	505	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.2%		ICU Level of Service A	
Analysis Period (min) 15			

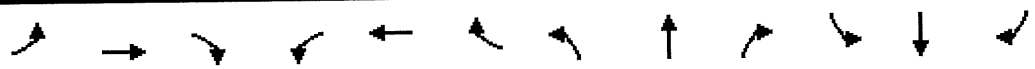
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	8	1	0	0	6	222	3	0	313	2
Future Vol, veh/h	6	0	8	1	0	0	6	222	3	0	313	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	0	25	100	0	0	0	3	33	0	3	0
Mvmt Flow	10	0	13	2	0	0	10	370	5	0	522	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	917	919	524	923	918	373	525	0	0	375	0	0
Stage 1	524	524	-	393	393	-	-	-	-	-	-	-
Stage 2	393	395	-	530	525	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6.3	7.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	6.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	6.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.3	3.9	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	311	303	549	193	288	722	791	-	-	893	-	-
Stage 1	646	565	-	534	623	-	-	-	-	-	-	-
Stage 2	755	635	-	439	548	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	307	298	549	186	283	722	791	-	-	893	-	-
Mov Cap-2 Maneuver	307	298	-	186	283	-	-	-	-	-	-	-
Stage 1	636	565	-	525	613	-	-	-	-	-	-	-
Stage 2	743	625	-	428	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.3	24.5	0.2	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	791	-	-	410	186	893	-	-
HCM Lane V/C Ratio	0.013	-	-	0.057	0.009	-	-	-
HCM Control Delay (s)	9.6	0	-	14.3	24.5	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	0	8	1	0	0	6	222	3	0	313	2
Future Volume (vph)	6	0	8	1	0	0	6	222	3	0	313	2
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.924						0.998			0.999	
Flt Protected		0.979			0.950			0.999				
Satd. Flow (prot)	0	1521	0	0	847	0	0	1589	0	0	1646	0
Flt Permitted		0.979			0.950			0.999				
Satd. Flow (perm)	0	1521	0	0	847	0	0	1589	0	0	1646	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	0%	0%	25%	100%	0%	0%	0%	3%	33%	0%	3%	0%
Adj. Flow (vph)	10	0	13	2	0	0	10	370	5	0	522	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	2	0	0	385	0	0	525	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	8	19	0	6	6	224	10	2	320	2
Future Vol, veh/h	6	0	8	19	0	6	6	224	10	2	320	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	2	25	2	2	2	0	3	2	2	3	0
Mvmt Flow	10	0	13	32	0	10	10	373	17	3	533	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	948	951	535	949	944	382	536	0	0	390	0	0
Stage 1	541	541	-	402	402	-	-	-	-	-	-	-
Stage 2	407	410	-	547	542	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.12	6.3	6.92	6.32	6.12	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.3	3	4.018	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	297	289	541	280	276	712	784	-	-	882	-	-
Stage 1	633	553	-	729	614	-	-	-	-	-	-	-
Stage 2	743	623	-	608	536	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	288	283	541	269	270	712	784	-	-	882	-	-
Mov Cap-2 Maneuver	288	283	-	269	270	-	-	-	-	-	-	-
Stage 1	623	550	-	717	604	-	-	-	-	-	-	-
Stage 2	721	613	-	590	533	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	18.1	0.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	784	-	-	393	316	882	-	-
HCM Lane V/C Ratio	0.013	-	-	0.059	0.132	0.004	-	-
HCM Control Delay (s)	9.7	0	-	14.7	18.1	9.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0	-	-

2: Shiloh Road & Hunt Drive/Driveway
2028 Traffic Volumes with Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	0	8	19	0	6	6	224	10	2	320	2
Future Volume (vph)	6	0	8	19	0	6	6	224	10	2	320	2
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.924			0.968			0.994			0.999	
Flt Protected		0.979			0.963			0.999				
Satd. Flow (prot)	0	1521	0	0	1629	0	0	1589	0	0	1646	0
Flt Permitted		0.979			0.963			0.999				
Satd. Flow (perm)	0	1521	0	0	1629	0	0	1589	0	0	1646	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	0%	2%	25%	2%	2%	2%	0%	3%	2%	2%	3%	0%
Adj. Flow (vph)	10	0	13	32	0	10	10	373	17	3	533	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	42	0	0	400	0	0	539	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	9	1	0	0	6	228	3	0	321	2
Future Vol, veh/h	6	0	9	1	0	0	6	228	3	0	321	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	0	25	100	0	0	0	3	33	0	3	0
Mvmt Flow	10	0	15	2	0	0	10	380	5	0	535	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	940	942	537	947	941	383	538	0	0	385	0	0
Stage 1	537	537	-	403	403	-	-	-	-	-	-	-
Stage 2	403	405	-	544	538	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6.3	7.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	6.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	6.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.3	3.9	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	301	294	540	185	280	712	783	-	-	886	-	-
Stage 1	636	558	-	526	617	-	-	-	-	-	-	-
Stage 2	746	630	-	431	542	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	297	289	540	178	276	712	783	-	-	886	-	-
Mov Cap-2 Maneuver	297	289	-	178	276	-	-	-	-	-	-	-
Stage 1	626	558	-	518	607	-	-	-	-	-	-	-
Stage 2	734	620	-	419	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	25.4	0.2	0
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	783	-	-	407	178	886	-	-
HCM Lane V/C Ratio	0.013	-	-	0.061	0.009	-	-	-
HCM Control Delay (s)	9.7	0	-	14.4	25.4	0	-	-
HCM Lane LOS	A	A	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-

2: Shiloh Road & Hunt Drive/Driveway
2033 Traffic Volumes without Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	0	9	1	0	0	6	228	3	0	321	2
Future Volume (vph)	6	0	9	1	0	0	6	228	3	0	321	2
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919						0.998			0.999	
Flt Protected		0.980			0.950			0.999				
Satd. Flow (prot)	0	1503	0	0	847	0	0	1589	0	0	1646	0
Flt Permitted		0.980			0.950			0.999				
Satd. Flow (perm)	0	1503	0	0	847	0	0	1589	0	0	1646	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	0%	0%	25%	100%	0%	0%	0%	3%	33%	0%	3%	0%
Adj. Flow (vph)	10	0	15	2	0	0	10	380	5	0	535	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	2	0	0	395	0	0	538	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

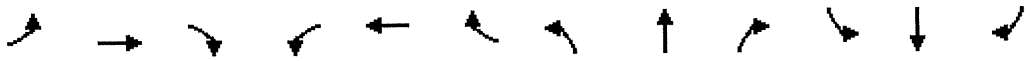
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	9	19	0	6	6	230	10	2	328	2
Future Vol, veh/h	6	0	9	19	0	6	6	230	10	2	328	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	0	2	25	2	2	2	0	3	2	2	3	0
Mvmt Flow	10	0	15	32	0	10	10	383	17	3	547	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	972	975	549	974	968	392	550	0	0	400	0	0
Stage 1	555	555	-	412	412	-	-	-	-	-	-	-
Stage 2	417	420	-	562	556	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.12	6.3	6.92	6.32	6.12	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.12	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.3	3	4.018	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	287	280	531	269	268	703	776	-	-	875	-	-
Stage 1	622	546	-	720	608	-	-	-	-	-	-	-
Stage 2	734	618	-	596	529	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	278	274	531	257	262	703	776	-	-	875	-	-
Mov Cap-2 Maneuver	278	274	-	257	262	-	-	-	-	-	-	-
Stage 1	611	543	-	708	598	-	-	-	-	-	-	-
Stage 2	711	607	-	576	526	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	18.8	0.2	0.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	776	-	-	389	303	875	-	-
HCM Lane V/C Ratio	0.013	-	-	0.064	0.138	0.004	-	-
HCM Control Delay (s)	9.7	0	-	14.9	18.8	9.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.5	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	0	9	19	0	6	6	230	10	2	328	2
Future Volume (vph)	6	0	9	19	0	6	6	230	10	2	328	2
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.968			0.994			0.999	
Flt Protected		0.980			0.963			0.999				
Satd. Flow (prot)	0	1503	0	0	1629	0	0	1589	0	0	1646	0
Flt Permitted		0.980			0.963			0.999				
Satd. Flow (perm)	0	1503	0	0	1629	0	0	1589	0	0	1646	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	0%	2%	25%	2%	2%	2%	0%	3%	2%	2%	3%	0%
Adj. Flow (vph)	10	0	15	32	0	10	10	383	17	3	547	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	42	0	0	410	0	0	553	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection												
Int Delay, s/veh	0.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	7	1	0	1	13	252	0	1	314	5
Future Vol, veh/h	3	0	7	1	0	1	13	252	0	1	314	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	8	1	0	1	15	283	0	1	353	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	672	671	356	675	674	283	359	0	0	283	0	0
Stage 1	358	358	-	313	313	-	-	-	-	-	-	-
Stage 2	314	313	-	362	361	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	449	410	745	430	393	810	904	-	-	961	-	-
Stage 1	787	657	-	816	672	-	-	-	-	-	-	-
Stage 2	830	684	-	768	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	441	401	745	419	385	810	904	-	-	961	-	-
Mov Cap-2 Maneuver	441	401	-	419	385	-	-	-	-	-	-	-
Stage 1	771	656	-	800	659	-	-	-	-	-	-	-
Stage 2	812	670	-	759	641	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	11.5	0.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	904	-	-	617	552	961	-	-
HCM Lane V/C Ratio	0.016	-	-	0.018	0.004	0.001	-	-
HCM Control Delay (s)	9	0	-	10.9	11.5	8.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

2: Shiloh Road & Hunt Drive/Driveway
Existing Traffic Volumes - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	3	0	7	1	0	1	13	252	0	1	314	5
Future Volume (vph)	3	0	7	1	0	1	13	252	0	1	314	5
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.902			0.932						0.998	
Flt Protected		0.987			0.976			0.997				
Satd. Flow (prot)	0	1708	0	0	1621	0	0	1641	0	0	1693	0
Flt Permitted		0.987			0.976			0.997				
Satd. Flow (perm)	0	1708	0	0	1621	0	0	1641	0	0	1693	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	0	8	1	0	1	15	283	0	1	353	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	2	0	0	298	0	0	360	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	7	1	0	1	13	262	0	1	326	5
Future Vol, veh/h	3	0	7	1	0	1	13	262	0	1	326	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	8	1	0	1	15	294	0	1	366	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	696	695	369	699	698	294	372	0	0	294	0	0
Stage 1	371	371	-	324	324	-	-	-	-	-	-	-
Stage 2	325	324	-	375	374	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	433	398	733	415	381	799	895	-	-	952	-	-
Stage 1	775	649	-	805	665	-	-	-	-	-	-	-
Stage 2	819	677	-	756	634	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	426	390	733	404	373	799	895	-	-	952	-	-
Mov Cap-2 Maneuver	426	390	-	404	373	-	-	-	-	-	-	-
Stage 1	760	648	-	789	652	-	-	-	-	-	-	-
Stage 2	801	663	-	747	633	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	11.7	0.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	895	-	-	603	537	952	-	-
HCM Lane V/C Ratio	0.016	-	-	0.019	0.004	0.001	-	-
HCM Control Delay (s)	9.1	0	-	11.1	11.7	8.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

2: Shiloh Road & Hunt Drive/Driveway
2028 Traffic Volumes without Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	3	0	7	1	0	1	13	262	0	1	326	5
Future Volume (vph)	3	0	7	1	0	1	13	262	0	1	326	5
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.902			0.932						0.998	
Flt Protected		0.987			0.976			0.998				
Satd. Flow (prot)	0	1708	0	0	1621	0	0	1643	0	0	1693	0
Flt Permitted		0.987			0.976			0.998				
Satd. Flow (perm)	0	1708	0	0	1621	0	0	1643	0	0	1693	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	0	8	1	0	1	15	294	0	1	366	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	2	0	0	309	0	0	373	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.8%		ICU Level of Service A	
Analysis Period (min) 15			

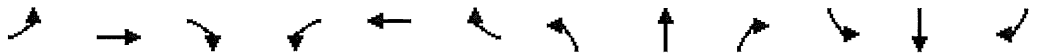
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	7	13	0	5	13	270	21	7	331	5
Future Vol, veh/h	3	0	7	13	0	5	13	270	21	7	331	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	8	15	0	6	15	303	24	8	372	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	739	748	375	740	739	315	378	0	0	327	0	0
Stage 1	391	391	-	345	345	-	-	-	-	-	-	-
Stage 2	348	357	-	395	394	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	406	373	727	389	362	778	891	-	-	928	-	-
Stage 1	757	638	-	784	652	-	-	-	-	-	-	-
Stage 2	797	657	-	737	622	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	393	361	727	375	350	778	891	-	-	928	-	-
Mov Cap-2 Maneuver	393	361	-	375	350	-	-	-	-	-	-	-
Stage 1	741	631	-	768	638	-	-	-	-	-	-	-
Stage 2	775	643	-	721	615	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	13.6	0.4	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	891	-	-	579	438	928	-	-
HCM Lane V/C Ratio	0.016	-	-	0.019	0.046	0.008	-	-
HCM Control Delay (s)	9.1	0	-	11.3	13.6	8.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	3	0	7	13	0	5	13	270	21	7	331	5
Future Volume (vph)	3	0	7	13	0	5	13	270	21	7	331	5
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.902			0.961			0.991			0.998	
Flt Protected		0.987			0.966			0.998			0.999	
Satd. Flow (prot)	0	1708	0	0	1654	0	0	1628	0	0	1692	0
Flt Permitted		0.987			0.966			0.998			0.999	
Satd. Flow (perm)	0	1708	0	0	1654	0	0	1628	0	0	1692	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	0	8	15	0	6	15	303	24	8	372	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	21	0	0	342	0	0	386	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	7	1	0	1	14	269	0	1	335	5
Future Vol, veh/h	3	0	7	1	0	1	14	269	0	1	335	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	8	1	0	1	16	302	0	1	376	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	716	715	379	719	718	302	382	0	0	302	0	0
Stage 1	381	381	-	334	334	-	-	-	-	-	-	-
Stage 2	335	334	-	385	384	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	420	388	724	402	372	791	888	-	-	946	-	-
Stage 1	766	643	-	795	659	-	-	-	-	-	-	-
Stage 2	809	671	-	746	628	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	412	379	724	391	363	791	888	-	-	946	-	-
Mov Cap-2 Maneuver	412	379	-	391	363	-	-	-	-	-	-	-
Stage 1	749	642	-	778	645	-	-	-	-	-	-	-
Stage 2	790	656	-	737	627	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	11.9	0.5	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	590	523	946	-	-
HCM Lane V/C Ratio	0.018	-	-	0.019	0.004	0.001	-	-
HCM Control Delay (s)	9.1	0	-	11.2	11.9	8.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	3	0	7	1	0	1	14	269	0	1	335	5
Future Volume (vph)	3	0	7	1	0	1	14	269	0	1	335	5
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.902			0.932						0.998	
Flt Protected		0.987			0.976			0.997				
Satd. Flow (prot)	0	1708	0	0	1621	0	0	1641	0	0	1693	0
Flt Permitted		0.987			0.976			0.997				
Satd. Flow (perm)	0	1708	0	0	1621	0	0	1641	0	0	1693	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	0	8	1	0	1	16	302	0	1	376	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	2	0	0	318	0	0	383	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.1%		ICU Level of Service A	
Analysis Period (min) 15			

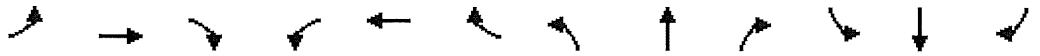
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	7	13	0	5	14	277	21	7	340	5
Future Vol, veh/h	3	0	7	13	0	5	14	277	21	7	340	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	4	-	-	-2	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	8	15	0	6	16	311	24	8	382	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	759	768	385	760	759	323	388	0	0	335	0	0
Stage 1	401	401	-	355	355	-	-	-	-	-	-	-
Stage 2	358	367	-	405	404	-	-	-	-	-	-	-
Critical Hdwy	6.7	6.1	6	6.9	6.3	6.1	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.7	5.1	-	5.9	5.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	394	364	718	377	353	770	884	-	-	922	-	-
Stage 1	748	632	-	775	646	-	-	-	-	-	-	-
Stage 2	787	652	-	728	616	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	381	352	718	363	341	770	884	-	-	922	-	-
Mov Cap-2 Maneuver	381	352	-	363	341	-	-	-	-	-	-	-
Stage 1	732	625	-	758	632	-	-	-	-	-	-	-
Stage 2	764	638	-	712	609	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	13.9	0.4	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	884	-	-	567	425	922	-	-
HCM Lane V/C Ratio	0.018	-	-	0.02	0.048	0.009	-	-
HCM Control Delay (s)	9.1	0	-	11.5	13.9	8.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (vph)	3	0	7	13	0	5	14	277	21	7	340	5
Future Volume (vph)	3	0	7	13	0	5	14	277	21	7	340	5
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-2%			-1%			4%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.902			0.961			0.991			0.998	
Flt Protected		0.987			0.966			0.998			0.999	
Satd. Flow (prot)	0	1708	0	0	1654	0	0	1628	0	0	1692	0
Flt Permitted		0.987			0.966			0.998			0.999	
Satd. Flow (perm)	0	1708	0	0	1654	0	0	1628	0	0	1692	0
Link Speed (mph)		25			25			30			30	
Link Distance (ft)		1089			451			5597			607	
Travel Time (s)		29.7			12.3			127.2			13.8	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	3	0	8	15	0	6	16	311	24	8	382	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	0	0	21	0	0	351	0	0	396	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	0.99	1.09	0.99	1.20	1.20	1.03	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	0	84	0	0	4	52	173	1	1	224	19
Future Vol, veh/h	13	0	84	0	0	4	52	173	1	1	224	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	0	6	0	0	25	10	2	0	0	3	11
Mvmt Flow	20	0	131	0	0	6	81	270	2	2	350	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	805	803	365	868	817	271	380	0	0	272	0	0
Stage 1	369	369	-	433	433	-	-	-	-	-	-	-
Stage 2	436	434	-	435	384	-	-	-	-	-	-	-
Critical Hdwy	6.9	6.3	6.16	7.3	6.7	6.6	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	5.9	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.9	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.2	3	4	3.3	3.1	-	-	3	-	-
Pot Cap-1 Maneuver	352	334	705	290	299	750	856	-	-	969	-	-
Stage 1	761	637	-	670	571	-	-	-	-	-	-	-
Stage 2	700	599	-	668	602	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	319	296	705	215	265	750	856	-	-	969	-	-
Mov Cap-2 Maneuver	319	296	-	215	265	-	-	-	-	-	-	-
Stage 1	677	635	-	596	508	-	-	-	-	-	-	-
Stage 2	617	533	-	542	600	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	9.8	2.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	856	-	-	607	750	969	-	-
HCM Lane V/C Ratio	0.095	-	-	0.25	0.008	0.002	-	-
HCM Control Delay (s)	9.6	0	-	12.9	9.8	8.7	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1	0	0	-	-

3: Shiloh Road & Oakbourne Road/Driveway
Existing Traffic Volumes - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	13	0	84	0	0	4	52	173	1	1	224	19
Future Volume (vph)	13	0	84	0	0	4	52	173	1	1	224	19
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883			0.865			0.999			0.989	
Flt Protected		0.993						0.989				
Satd. Flow (prot)	0	1591	0	0	1221	0	0	1591	0	0	1620	0
Flt Permitted		0.993						0.989				
Satd. Flow (perm)	0	1591	0	0	1221	0	0	1591	0	0	1620	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	0%	6%	0%	0%	25%	10%	2%	0%	0%	3%	11%
Adj. Flow (vph)	20	0	131	0	0	6	81	270	2	2	350	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	151	0	0	6	0	0	353	0	0	382	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	0	87	0	0	4	54	180	1	1	233	20
Future Vol, veh/h	13	0	87	0	0	4	54	180	1	1	233	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	0	6	0	0	25	10	2	0	0	3	11
Mvmt Flow	20	0	136	0	0	6	84	281	2	2	364	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	837	835	380	902	849	282	395	0	0	283	0	0
Stage 1	384	384	-	450	450	-	-	-	-	-	-	-
Stage 2	453	451	-	452	399	-	-	-	-	-	-	-
Critical Hdwy	6.9	6.3	6.16	7.3	6.7	6.6	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	5.9	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.9	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.2	3	4	3.3	3.1	-	-	3	-	-
Pot Cap-1 Maneuver	335	320	692	274	286	738	845	-	-	961	-	-
Stage 1	747	628	-	655	561	-	-	-	-	-	-	-
Stage 2	686	589	-	653	592	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	302	281	692	200	251	738	845	-	-	961	-	-
Mov Cap-2 Maneuver	302	281	-	200	251	-	-	-	-	-	-	-
Stage 1	659	626	-	578	495	-	-	-	-	-	-	-
Stage 2	600	519	-	523	590	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	9.9	2.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	845	-	-	593	738	961	-	-
HCM Lane V/C Ratio	0.1	-	-	0.263	0.008	0.002	-	-
HCM Control Delay (s)	9.7	0	-	13.2	9.9	8.8	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.1	0	0	-	-

3: Shiloh Road & Oakbourne Road/Driveway
2028 Traffic Volumes without Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	13	0	87	0	0	4	54	180	1	1	233	20
Future Volume (vph)	13	0	87	0	0	4	54	180	1	1	233	20
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.882			0.865			0.999			0.989	
Flt Protected		0.994						0.989				
Satd. Flow (prot)	0	1591	0	0	1221	0	0	1591	0	0	1620	0
Flt Permitted		0.994						0.989				
Satd. Flow (perm)	0	1591	0	0	1221	0	0	1591	0	0	1620	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	0%	6%	0%	0%	25%	10%	2%	0%	0%	3%	11%
Adj. Flow (vph)	20	0	136	0	0	6	84	281	2	2	364	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	156	0	0	6	0	0	367	0	0	397	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	1	87	7	4	15	55	185	3	5	235	20
Future Vol, veh/h	13	1	87	7	4	15	55	185	3	5	235	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	2	6	2	2	25	10	2	2	2	3	11
Mvmt Flow	20	2	136	11	6	23	86	289	5	8	367	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	877	865	383	932	878	292	398	0	0	294	0	0
Stage 1	399	399	-	464	464	-	-	-	-	-	-	-
Stage 2	478	466	-	468	414	-	-	-	-	-	-	-
Critical Hdwy	6.9	6.32	6.16	7.32	6.72	6.6	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	5.9	5.32	-	6.32	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.9	5.32	-	6.32	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.2	3	4.018	3.3	3.1	-	-	3	-	-
Pot Cap-1 Maneuver	315	306	689	259	273	728	843	-	-	952	-	-
Stage 1	733	616	-	641	549	-	-	-	-	-	-	-
Stage 2	665	577	-	637	580	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	269	266	689	186	237	728	843	-	-	952	-	-
Mov Cap-2 Maneuver	269	266	-	186	237	-	-	-	-	-	-	-
Stage 1	644	609	-	563	482	-	-	-	-	-	-	-
Stage 2	558	507	-	504	574	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	16.8	2.2	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	843	-	-	566	346	952	-	-
HCM Lane V/C Ratio	0.102	-	-	0.279	0.117	0.008	-	-
HCM Control Delay (s)	9.8	0	-	13.8	16.8	8.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.1	0.4	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	13	1	87	7	4	15	55	185	3	5	235	20
Future Volume (vph)	13	1	87	7	4	15	55	185	3	5	235	20
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.884			0.922			0.998			0.990	
Flt Protected		0.994			0.986			0.989			0.999	
Satd. Flow (prot)	0	1595	0	0	1392	0	0	1589	0	0	1620	0
Flt Permitted		0.994			0.986			0.989			0.999	
Satd. Flow (perm)	0	1595	0	0	1392	0	0	1589	0	0	1620	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	2%	6%	2%	2%	25%	10%	2%	2%	2%	3%	11%
Adj. Flow (vph)	20	2	136	11	6	23	86	289	5	8	367	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	0	0	40	0	0	380	0	0	406	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection												
Int Delay, s/veh	3.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	0	90	0	0	4	55	185	1	1	239	20
Future Vol, veh/h	14	0	90	0	0	4	55	185	1	1	239	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	0	6	0	0	25	10	2	0	0	3	11
Mvmt Flow	22	0	141	0	0	6	86	289	2	2	373	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	858	856	389	925	870	290	404	0	0	291	0	0
Stage 1	393	393	-	462	462	-	-	-	-	-	-	-
Stage 2	465	463	-	463	408	-	-	-	-	-	-	-
Critical Hdwy	6.9	6.3	6.16	7.3	6.7	6.6	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	5.9	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.9	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.2	3	4	3.3	3.1	-	-	3	-	-
Pot Cap-1 Maneuver	324	312	684	264	278	730	839	-	-	955	-	-
Stage 1	739	623	-	644	554	-	-	-	-	-	-	-
Stage 2	676	582	-	643	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	291	273	684	190	243	730	839	-	-	955	-	-
Mov Cap-2 Maneuver	291	273	-	190	243	-	-	-	-	-	-	-
Stage 1	649	621	-	565	486	-	-	-	-	-	-	-
Stage 2	588	511	-	509	585	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	10	2.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	839	-	-	579	730	955	-	-
HCM Lane V/C Ratio	0.102	-	-	0.281	0.009	0.002	-	-
HCM Control Delay (s)	9.8	0	-	13.6	10	8.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.1	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	14	0	90	0	0	4	55	185	1	1	239	20
Future Volume (vph)	14	0	90	0	0	4	55	185	1	1	239	20
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883			0.865			0.999			0.990	
Flt Protected		0.993						0.989				
Satd. Flow (prot)	0	1592	0	0	1221	0	0	1591	0	0	1622	0
Flt Permitted		0.993						0.989				
Satd. Flow (perm)	0	1592	0	0	1221	0	0	1591	0	0	1622	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	0%	6%	0%	0%	25%	10%	2%	0%	0%	3%	11%
Adj. Flow (vph)	22	0	141	0	0	6	86	289	2	2	373	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	163	0	0	6	0	0	377	0	0	406	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	1	90	7	4	15	56	190	3	5	241	20
Future Vol, veh/h	14	1	90	7	4	15	56	190	3	5	241	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	2	6	2	2	25	10	2	2	2	3	11
Mvmt Flow	22	2	141	11	6	23	88	297	5	8	377	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	899	887	393	956	900	300	408	0	0	302	0	0
Stage 1	409	409	-	476	476	-	-	-	-	-	-	-
Stage 2	490	478	-	480	424	-	-	-	-	-	-	-
Critical Hdwy	6.9	6.32	6.16	7.32	6.72	6.6	4.4	-	-	4.3	-	-
Critical Hdwy Stg 1	5.9	5.32	-	6.32	5.72	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.9	5.32	-	6.32	5.72	-	-	-	-	-	-	-
Follow-up Hdwy	3	4.018	3.2	3	4.018	3.3	3.1	-	-	3	-	-
Pot Cap-1 Maneuver	304	297	680	249	265	720	836	-	-	946	-	-
Stage 1	724	610	-	630	542	-	-	-	-	-	-	-
Stage 2	655	570	-	627	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	258	256	680	176	229	720	836	-	-	946	-	-
Mov Cap-2 Maneuver	258	256	-	176	229	-	-	-	-	-	-	-
Stage 1	632	603	-	550	473	-	-	-	-	-	-	-
Stage 2	546	498	-	491	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.3	17.3	2.2	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	836	-	-	551	333	946	-	-
HCM Lane V/C Ratio	0.105	-	-	0.298	0.122	0.008	-	-
HCM Control Delay (s)	9.8	0	-	14.3	17.3	8.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.2	0.4	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	14	1	90	7	4	15	56	190	3	5	241	20
Future Volume (vph)	14	1	90	7	4	15	56	190	3	5	241	20
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.885			0.922			0.998			0.990	
Flt Protected		0.993			0.986			0.989			0.999	
Satd. Flow (prot)	0	1596	0	0	1392	0	0	1589	0	0	1620	0
Flt Permitted		0.993			0.986			0.989			0.999	
Satd. Flow (perm)	0	1596	0	0	1392	0	0	1589	0	0	1620	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	0%	2%	6%	2%	2%	25%	10%	2%	2%	2%	3%	11%
Adj. Flow (vph)	22	2	141	11	6	23	88	297	5	8	377	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	165	0	0	40	0	0	390	0	0	416	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	0	78	3	0	3	66	187	1	1	241	22
Future Vol, veh/h	22	0	78	3	0	3	66	187	1	1	241	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	0	86	3	0	3	73	205	1	1	265	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	632	631	277	674	643	206	289	0	0	206	0	0
Stage 1	279	279	-	352	352	-	-	-	-	-	-	-
Stage 2	353	352	-	322	291	-	-	-	-	-	-	-
Critical Hdwy	7	6.3	6.1	7.3	6.7	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	452	415	816	400	381	884	956	-	-	1021	-	-
Stage 1	848	694	-	748	623	-	-	-	-	-	-	-
Stage 2	773	648	-	779	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	420	379	816	334	348	884	956	-	-	1021	-	-
Mov Cap-2 Maneuver	420	379	-	334	348	-	-	-	-	-	-	-
Stage 1	775	693	-	684	569	-	-	-	-	-	-	-
Stage 2	704	592	-	696	663	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	12.5	2.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	956	-	-	676	485	1021	-	-
HCM Lane V/C Ratio	0.076	-	-	0.163	0.014	0.001	-	-
HCM Control Delay (s)	9.1	0	-	11.4	12.5	8.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0	0	-	-

3: Shiloh Road & Oakbourne Road/Driveway
Existing Traffic Volumes - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	22	0	78	3	0	3	66	187	1	1	241	22
Future Volume (vph)	22	0	78	3	0	3	66	187	1	1	241	22
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.894			0.932						0.989	
Flt Protected		0.989			0.976			0.987				
Satd. Flow (prot)	0	1670	0	0	1605	0	0	1650	0	0	1678	0
Flt Permitted		0.989			0.976			0.987				
Satd. Flow (perm)	0	1670	0	0	1605	0	0	1650	0	0	1678	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	24	0	86	3	0	3	73	205	1	1	265	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	6	0	0	279	0	0	290	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	0	81	3	0	3	69	194	1	1	250	23
Future Vol, veh/h	23	0	81	3	0	3	69	194	1	1	250	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	0	89	3	0	3	76	213	1	1	275	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	657	656	288	700	668	214	300	0	0	214	0	0
Stage 1	290	290	-	366	366	-	-	-	-	-	-	-
Stage 2	367	366	-	334	302	-	-	-	-	-	-	-
Critical Hdwy	7	6.3	6.1	7.3	6.7	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	434	402	805	383	368	874	948	-	-	1015	-	-
Stage 1	836	687	-	734	614	-	-	-	-	-	-	-
Stage 2	759	639	-	766	657	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	402	365	805	317	334	874	948	-	-	1015	-	-
Mov Cap-2 Maneuver	402	365	-	317	334	-	-	-	-	-	-	-
Stage 1	760	686	-	667	558	-	-	-	-	-	-	-
Stage 2	687	581	-	681	656	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	12.9	2.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	948	-	-	659	465	1015	-	-
HCM Lane V/C Ratio	0.08	-	-	0.173	0.014	0.001	-	-
HCM Control Delay (s)	9.1	0	-	11.6	12.9	8.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	23	0	81	3	0	3	69	194	1	1	250	23
Future Volume (vph)	23	0	81	3	0	3	69	194	1	1	250	23
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.895			0.932						0.989	
Flt Protected		0.989			0.976			0.987				
Satd. Flow (prot)	0	1672	0	0	1605	0	0	1650	0	0	1678	0
Flt Permitted		0.989			0.976			0.987				
Satd. Flow (perm)	0	1672	0	0	1605	0	0	1650	0	0	1678	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	25	0	89	3	0	3	76	213	1	1	275	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	6	0	0	290	0	0	301	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection												
Int Delay, s/veh	3.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	4	82	8	2	10	70	197	9	14	255	23
Future Vol, veh/h	23	4	82	8	2	10	70	197	9	14	255	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	4	90	9	2	11	77	216	10	15	280	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	705	703	293	745	710	221	305	0	0	226	0	0
Stage 1	323	323	-	375	375	-	-	-	-	-	-	-
Stage 2	382	380	-	370	335	-	-	-	-	-	-	-
Critical Hdwy	7	6.3	6.1	7.3	6.7	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	403	379	800	356	347	866	944	-	-	1005	-	-
Stage 1	803	666	-	725	608	-	-	-	-	-	-	-
Stage 2	745	631	-	730	634	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	363	338	800	287	309	866	944	-	-	1005	-	-
Mov Cap-2 Maneuver	363	338	-	287	309	-	-	-	-	-	-	-
Stage 1	728	654	-	658	551	-	-	-	-	-	-	-
Stage 2	664	572	-	632	623	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	13.7	2.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	944	-	-	613	436	1005	-	-
HCM Lane V/C Ratio	0.081	-	-	0.195	0.05	0.015	-	-
HCM Control Delay (s)	9.2	0	-	12.3	13.7	8.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.7	0.2	0	-	-

3: Shiloh Road & Oakbourne Road/Driveway
2028 Traffic Volumes with Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	23	4	82	8	2	10	70	197	9	14	255	23
Future Volume (vph)	23	4	82	8	2	10	70	197	9	14	255	23
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898			0.932			0.996			0.989	
Flt Protected		0.990			0.980			0.987			0.998	
Satd. Flow (prot)	0	1680	0	0	1612	0	0	1643	0	0	1675	0
Flt Permitted		0.990			0.980			0.987			0.998	
Satd. Flow (perm)	0	1680	0	0	1612	0	0	1643	0	0	1675	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	25	4	90	9	2	11	77	216	10	15	280	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	119	0	0	22	0	0	303	0	0	320	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	0	83	3	0	3	70	200	1	1	257	23
Future Vol, veh/h	23	0	83	3	0	3	70	200	1	1	257	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	0	91	3	0	3	77	220	1	1	282	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	673	672	295	717	684	221	307	0	0	221	0	0
Stage 1	297	297	-	375	375	-	-	-	-	-	-	-
Stage 2	376	375	-	342	309	-	-	-	-	-	-	-
Critical Hdwy	7	6.3	6.1	7.3	6.7	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	424	394	798	372	360	866	943	-	-	1009	-	-
Stage 1	829	682	-	725	608	-	-	-	-	-	-	-
Stage 2	751	634	-	758	652	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	392	357	798	306	326	866	943	-	-	1009	-	-
Mov Cap-2 Maneuver	392	357	-	306	326	-	-	-	-	-	-	-
Stage 1	752	681	-	658	551	-	-	-	-	-	-	-
Stage 2	679	575	-	671	651	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	13.1	2.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	943	-	-	652	452	1009	-	-
HCM Lane V/C Ratio	0.082	-	-	0.179	0.015	0.001	-	-
HCM Control Delay (s)	9.2	0	-	11.7	13.1	8.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	23	0	83	3	0	3	70	200	1	1	257	23
Future Volume (vph)	23	0	83	3	0	3	70	200	1	1	257	23
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.894			0.932						0.989	
Flt Protected		0.989			0.976			0.987				
Satd. Flow (prot)	0	1670	0	0	1605	0	0	1650	0	0	1678	0
Flt Permitted		0.989			0.976			0.987				
Satd. Flow (perm)	0	1670	0	0	1605	0	0	1650	0	0	1678	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	25	0	91	3	0	3	77	220	1	1	282	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	116	0	0	6	0	0	298	0	0	308	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection												
Int Delay, s/veh	3.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	4	84	8	2	10	71	203	9	14	262	23
Future Vol, veh/h	23	4	84	8	2	10	71	203	9	14	262	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	1	-	-	1	-	-	-2	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	4	92	9	2	11	78	223	10	15	288	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	722	720	301	763	727	228	313	0	0	233	0	0
Stage 1	331	331	-	384	384	-	-	-	-	-	-	-
Stage 2	391	389	-	379	343	-	-	-	-	-	-	-
Critical Hdwy	7	6.3	6.1	7.3	6.7	6.3	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.95	5.3	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	392	371	792	345	339	858	938	-	-	1000	-	-
Stage 1	795	661	-	716	602	-	-	-	-	-	-	-
Stage 2	737	625	-	721	629	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	352	329	792	276	301	858	938	-	-	1000	-	-
Mov Cap-2 Maneuver	352	329	-	276	301	-	-	-	-	-	-	-
Stage 1	719	649	-	647	544	-	-	-	-	-	-	-
Stage 2	655	565	-	621	618	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	14	2.3	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	938	-	-	605	423	1000	-	-
HCM Lane V/C Ratio	0.083	-	-	0.202	0.052	0.015	-	-
HCM Control Delay (s)	9.2	0	-	12.4	14	8.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.7	0.2	0	-	-

3: Shiloh Road & Oakbourne Road/Driveway
2033 Traffic Volumes with Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	23	4	84	8	2	10	71	203	9	14	262	23
Future Volume (vph)	23	4	84	8	2	10	71	203	9	14	262	23
Ideal Flow (vphpl)	1800	1900	1800	1900	1900	1900	1800	1800	1900	1900	1800	1800
Lane Width (ft)	10	12	10	12	10	12	10	10	12	12	10	10
Grade (%)		-1%			1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897			0.932			0.996			0.990	
Flt Protected		0.990			0.980			0.988			0.998	
Satd. Flow (prot)	0	1678	0	0	1612	0	0	1645	0	0	1676	0
Flt Permitted		0.990			0.980			0.988			0.998	
Satd. Flow (perm)	0	1678	0	0	1612	0	0	1645	0	0	1676	0
Link Speed (mph)		35			25			30			30	
Link Distance (ft)		1059			481			607			2010	
Travel Time (s)		20.6			13.1			13.8			45.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	25	4	92	9	2	11	78	223	10	15	288	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	121	0	0	22	0	0	311	0	0	328	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.16	0.99	1.16	1.01	1.10	1.01	1.18	1.18	1.01	0.99	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	25	176	71	27	0	146	2	50	0	0	1
Future Vol, veh/h	2	25	176	71	27	0	146	2	50	0	0	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	0	24	3	8	7	0	3	0	4	0	0	0
Mvmt Flow	3	37	259	104	40	0	215	3	74	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	9.8	11.3	7.8
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	74%	1%	72%	0%
Vol Thru, %	1%	12%	28%	0%
Vol Right, %	25%	87%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	198	203	98	1
LT Vol	146	2	71	0
Through Vol	2	25	27	0
RT Vol	50	176	0	1
Lane Flow Rate	291	299	144	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.4	0.358	0.211	0.002
Departure Headway (Hd)	4.943	4.323	5.264	4.816
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	827	677	748
Service Time	3.013	2.377	3.333	2.816
HCM Lane V/C Ratio	0.403	0.362	0.213	0.001
HCM Control Delay	11.3	9.8	9.8	7.8
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.9	1.6	0.8	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
Existing Traffic Volumes - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	25	176	71	27	0	146	2	50	0	0	1
Future Volume (vph)	2	25	176	71	27	0	146	2	50	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883						0.966			0.865	
Flt Protected		0.999			0.965			0.964				
Satd. Flow (prot)	0	1333	0	0	1458	0	0	1523	0	0	1505	0
Flt Permitted		0.999			0.965			0.964				
Satd. Flow (perm)	0	1333	0	0	1458	0	0	1523	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles (%)	0%	24%	3%	8%	7%	0%	3%	0%	4%	0%	0%	0%
Adj. Flow (vph)	3	37	259	104	40	0	215	3	74	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	299	0	0	144	0	0	292	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	26	183	74	28	0	152	2	52	0	0	1
Future Vol, veh/h	2	26	183	74	28	0	152	2	52	0	0	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	0	24	3	8	7	0	3	0	4	0	0	0
Mvmt Flow	3	38	269	109	41	0	224	3	76	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	9.9	11.7	7.9
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	74%	1%	73%	0%
Vol Thru, %	1%	12%	27%	0%
Vol Right, %	25%	87%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	206	211	102	1
LT Vol	152	2	74	0
Through Vol	2	26	28	0
RT Vol	52	183	0	1
Lane Flow Rate	303	310	150	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.42	0.377	0.222	0.002
Departure Headway (Hd)	4.988	4.369	5.318	4.9
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	715	816	669	735
Service Time	3.066	2.429	3.395	2.9
HCM Lane V/C Ratio	0.424	0.38	0.224	0.001
HCM Control Delay	11.7	10.1	9.9	7.9
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	2.1	1.8	0.8	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
2028 Traffic Volumes without Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	26	183	74	28	0	152	2	52	0	0	1
Future Volume (vph)	2	26	183	74	28	0	152	2	52	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883						0.966			0.865	
Flt Protected					0.965			0.964				
Satd. Flow (prot)	0	1335	0	0	1458	0	0	1523	0	0	1505	0
Flt Permitted					0.965			0.964				
Satd. Flow (perm)	0	1335	0	0	1458	0	0	1523	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles (%)	0%	24%	3%	8%	7%	0%	3%	0%	4%	0%	0%	0%
Adj. Flow (vph)	3	38	269	109	41	0	224	3	76	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	310	0	0	150	0	0	303	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	26	186	77	28	0	159	2	61	0	0	1
Future Vol, veh/h	2	26	186	77	28	0	159	2	61	0	0	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	0	24	3	8	7	0	3	0	4	0	0	0
Mvmt Flow	3	38	274	113	41	0	234	3	90	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	10.1	12.2	8
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	72%	1%	73%	0%
Vol Thru, %	1%	12%	27%	0%
Vol Right, %	27%	87%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	214	105	1
LT Vol	159	2	77	0
Through Vol	2	26	28	0
RT Vol	61	186	0	1
Lane Flow Rate	326	315	154	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.453	0.388	0.231	0.002
Departure Headway (Hd)	5	4.437	5.393	4.98
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	712	802	659	723
Service Time	3.083	2.504	3.478	2.98
HCM Lane V/C Ratio	0.458	0.393	0.234	0.001
HCM Control Delay	12.2	10.3	10.1	8
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	2.4	1.8	0.9	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	26	186	77	28	0	159	2	61	0	0	1
Future Volume (vph)	2	26	186	77	28	0	159	2	61	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883						0.963			0.865	
Flt Protected					0.965			0.965				
Satd. Flow (prot)	0	1335	0	0	1458	0	0	1520	0	0	1505	0
Flt Permitted					0.965			0.965				
Satd. Flow (perm)	0	1335	0	0	1458	0	0	1520	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles (%)	0%	24%	3%	8%	7%	0%	3%	0%	4%	0%	0%	0%
Adj. Flow (vph)	3	38	274	113	41	0	234	3	90	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	315	0	0	154	0	0	327	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	27	188	76	29	0	156	2	53	0	0	1
Future Vol, veh/h	2	27	188	76	29	0	156	2	53	0	0	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	0	24	3	8	7	0	3	0	4	0	0	0
Mvmt Flow	3	40	276	112	43	0	229	3	78	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	10.1	11.9	8
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	74%	1%	72%	0%
Vol Thru, %	1%	12%	28%	0%
Vol Right, %	25%	87%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	211	217	105	1
LT Vol	156	2	76	0
Through Vol	2	27	29	0
RT Vol	53	188	0	1
Lane Flow Rate	310	319	154	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.433	0.39	0.23	0.002
Departure Headway (Hd)	5.021	4.399	5.353	4.959
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	711	811	664	726
Service Time	3.104	2.464	3.435	2.959
HCM Lane V/C Ratio	0.436	0.393	0.232	0.001
HCM Control Delay	11.9	10.3	10.1	8
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	2.2	1.9	0.9	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
2033 Traffic Volumes without Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	27	188	76	29	0	156	2	53	0	0	1
Future Volume (vph)	2	27	188	76	29	0	156	2	53	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883						0.966			0.865	
Flt Protected					0.965			0.964				
Satd. Flow (prot)	0	1334	0	0	1458	0	0	1523	0	0	1505	0
Flt Permitted					0.965			0.964				
Satd. Flow (perm)	0	1334	0	0	1458	0	0	1523	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles (%)	0%	24%	3%	8%	7%	0%	3%	0%	4%	0%	0%	0%
Adj. Flow (vph)	3	40	276	112	43	0	229	3	78	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	155	0	0	310	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	27	191	79	29	0	163	2	62	0	0	1
Future Vol, veh/h	2	27	191	79	29	0	163	2	62	0	0	1
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	0	24	3	8	7	0	3	0	4	0	0	0
Mvmt Flow	3	40	281	116	43	0	240	3	91	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.6	10.3	12.5	8.1
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	72%	1%	73%	0%
Vol Thru, %	1%	12%	27%	0%
Vol Right, %	27%	87%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	227	220	108	1
LT Vol	163	2	79	0
Through Vol	2	27	29	0
RT Vol	62	191	0	1
Lane Flow Rate	334	324	159	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.467	0.402	0.24	0.002
Departure Headway (Hd)	5.035	4.47	5.429	5.045
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	708	796	654	714
Service Time	3.125	2.543	3.522	3.045
HCM Lane V/C Ratio	0.472	0.407	0.243	0.001
HCM Control Delay	12.5	10.6	10.3	8.1
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	2.5	2	0.9	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	27	191	79	29	0	163	2	62	0	0	1
Future Volume (vph)	2	27	191	79	29	0	163	2	62	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.883						0.963			0.865	
Flt Protected					0.965			0.965				
Satd. Flow (prot)	0	1335	0	0	1458	0	0	1520	0	0	1505	0
Flt Permitted					0.965			0.965				
Satd. Flow (perm)	0	1335	0	0	1458	0	0	1520	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles (%)	0%	24%	3%	8%	7%	0%	3%	0%	4%	0%	0%	0%
Adj. Flow (vph)	3	40	281	116	43	0	240	3	91	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	324	0	0	159	0	0	334	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	30	226	78	32	0	152	0	56	0	0	1
Future Vol, veh/h	2	30	226	78	32	0	152	0	56	0	0	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	3	0	1	0	0	0	0	0
Mvmt Flow	2	35	263	91	37	0	177	0	65	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	9.1	10.2	7.6
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	1%	71%	0%
Vol Thru, %	0%	12%	29%	0%
Vol Right, %	27%	88%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	258	110	1
LT Vol	152	2	78	0
Through Vol	0	30	32	0
RT Vol	56	226	0	1
Lane Flow Rate	242	300	128	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.324	0.345	0.177	0.001
Departure Headway (Hd)	4.83	4.145	4.969	4.562
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	740	867	720	777
Service Time	2.884	2.181	3.016	2.636
HCM Lane V/C Ratio	0.327	0.346	0.178	0.001
HCM Control Delay	10.2	9.4	9.1	7.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.4	1.5	0.6	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
Existing Traffic Volumes - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	30	226	78	32	0	152	0	56	0	0	1
Future Volume (vph)	2	30	226	78	32	0	152	0	56	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.882						0.964			0.865	
Flt Protected					0.966			0.965				
Satd. Flow (prot)	0	1407	0	0	1559	0	0	1559	0	0	1505	0
Flt Permitted					0.966			0.965				
Satd. Flow (perm)	0	1407	0	0	1559	0	0	1559	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	1%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	35	263	91	37	0	177	0	65	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	300	0	0	128	0	0	242	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	31	235	81	33	0	158	0	58	0	0	1
Future Vol, veh/h	2	31	235	81	33	0	158	0	58	0	0	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	3	0	1	0	0	0	0	0
Mvmt Flow	2	36	273	94	38	0	184	0	67	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	9.2	10.4	7.7
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	1%	71%	0%
Vol Thru, %	0%	12%	29%	0%
Vol Right, %	27%	88%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	216	268	114	1
LT Vol	158	2	81	0
Through Vol	0	31	33	0
RT Vol	58	235	0	1
Lane Flow Rate	251	312	133	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.34	0.362	0.185	0.001
Departure Headway (Hd)	4.87	4.181	5.013	4.621
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	733	857	712	765
Service Time	2.929	2.221	3.067	2.704
HCM Lane V/C Ratio	0.342	0.364	0.187	0.001
HCM Control Delay	10.4	9.6	9.2	7.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.5	1.7	0.7	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
2028 Traffic Volumes without Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	31	235	81	33	0	158	0	58	0	0	1
Future Volume (vph)	2	31	235	81	33	0	158	0	58	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.881						0.964			0.865	
Flt Protected					0.966			0.965				
Satd. Flow (prot)	0	1406	0	0	1559	0	0	1559	0	0	1505	0
Flt Permitted					0.966			0.965				
Satd. Flow (perm)	0	1406	0	0	1559	0	0	1559	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	1%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	36	273	94	38	0	184	0	67	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	311	0	0	132	0	0	251	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	31	243	91	33	0	162	0	64	0	0	1
Future Vol, veh/h	2	31	243	91	33	0	162	0	64	0	0	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	3	0	1	0	0	0	0	0
Mvmt Flow	2	36	283	106	38	0	188	0	74	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	9.4	10.7	7.8
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	72%	1%	73%	0%
Vol Thru, %	0%	11%	27%	0%
Vol Right, %	28%	88%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	226	276	124	1
LT Vol	162	2	91	0
Through Vol	0	31	33	0
RT Vol	64	243	0	1
Lane Flow Rate	263	321	144	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.358	0.377	0.203	0.002
Departure Headway (Hd)	4.909	4.227	5.064	4.697
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	728	847	704	752
Service Time	2.977	2.275	3.127	2.79
HCM Lane V/C Ratio	0.361	0.379	0.205	0.001
HCM Control Delay	10.7	9.8	9.4	7.8
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.6	1.8	0.8	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
2028 Traffic Volumes with Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	31	243	91	33	0	162	0	64	0	0	1
Future Volume (vph)	2	31	243	91	33	0	162	0	64	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.881						0.962			0.865	
Flt Protected					0.965			0.965				
Satd. Flow (prot)	0	1406	0	0	1559	0	0	1556	0	0	1505	0
Flt Permitted					0.965			0.965				
Satd. Flow (perm)	0	1406	0	0	1559	0	0	1556	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	1%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	36	283	106	38	0	188	0	74	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	0	0	144	0	0	262	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.1%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	32	241	83	34	0	162	0	60	0	0	1
Future Vol, veh/h	2	32	241	83	34	0	162	0	60	0	0	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	3	0	1	0	0	0	0	0
Mvmt Flow	2	37	280	97	40	0	188	0	70	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.8	9.3	10.6	7.8
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	73%	1%	71%	0%
Vol Thru, %	0%	12%	29%	0%
Vol Right, %	27%	88%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	275	117	1
LT Vol	162	2	83	0
Through Vol	0	32	34	0
RT Vol	60	241	0	1
Lane Flow Rate	258	320	136	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.351	0.374	0.191	0.002
Departure Headway (Hd)	4.897	4.206	5.044	4.664
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	731	851	707	757
Service Time	2.961	2.251	3.104	2.753
HCM Lane V/C Ratio	0.353	0.376	0.192	0.001
HCM Control Delay	10.6	9.8	9.3	7.8
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.6	1.7	0.7	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
2033 Traffic Volumes without Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	32	241	83	34	0	162	0	60	0	0	1
Future Volume (vph)	2	32	241	83	34	0	162	0	60	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.882						0.963			0.865	
Flt Protected					0.966			0.965				
Satd. Flow (prot)	0	1407	0	0	1559	0	0	1558	0	0	1505	0
Flt Permitted					0.966			0.965				
Satd. Flow (perm)	0	1407	0	0	1559	0	0	1558	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	1%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	37	280	97	40	0	188	0	70	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	319	0	0	137	0	0	258	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	32	249	93	34	0	166	0	66	0	0	1
Future Vol, veh/h	2	32	249	93	34	0	166	0	66	0	0	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	3	0	1	0	0	0	0	0
Mvmt Flow	2	37	290	108	40	0	193	0	77	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	9.5	10.9	7.9
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	72%	1%	73%	0%
Vol Thru, %	0%	11%	27%	0%
Vol Right, %	28%	88%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	232	283	127	1
LT Vol	166	2	93	0
Through Vol	0	32	34	0
RT Vol	66	249	0	1
Lane Flow Rate	270	329	148	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.37	0.389	0.209	0.002
Departure Headway (Hd)	4.939	4.255	5.098	4.743
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	723	842	700	744
Service Time	3.008	2.306	3.164	2.841
HCM Lane V/C Ratio	0.373	0.391	0.211	0.001
HCM Control Delay	10.9	10	9.5	7.9
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.7	1.9	0.8	0

4: Shiloh Road/Private Driveway & Little Shiloh Road
2033 Traffic Volumes with Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	32	249	93	34	0	166	0	66	0	0	1
Future Volume (vph)	2	32	249	93	34	0	166	0	66	0	0	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	9	9	9	9	12	10	10	10	12	11	12
Grade (%)		3%			-1%			-1%			0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.881						0.961			0.865	
Flt Protected					0.965			0.965				
Satd. Flow (prot)	0	1406	0	0	1558	0	0	1555	0	0	1505	0
Flt Permitted					0.965			0.965				
Satd. Flow (perm)	0	1406	0	0	1558	0	0	1555	0	0	1505	0
Link Speed (mph)		25			25			30			25	
Link Distance (ft)		1782			1077			2010			249	
Travel Time (s)		48.6			29.4			45.7			6.8	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	0%	3%	0%	1%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	37	290	108	40	0	193	0	77	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	329	0	0	148	0	0	270	0	0	1	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.25	1.25	1.22	1.22	1.07	1.16	1.16	1.16	1.07	1.12	1.07
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.1%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	73	3	0	69	7	2
Future Vol, veh/h	73	3	0	69	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	0	0	9	0	0
Mvmt Flow	104	4	0	99	10	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	205	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	99	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1103	-	866	1000
Stage 1	-	-	-	-	1045	-
Stage 2	-	-	-	-	1054	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1103	-	866	1000
Mov Cap-2 Maneuver	-	-	-	-	866	-
Stage 1	-	-	-	-	1045	-
Stage 2	-	-	-	-	1054	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	893	-	-	1103	-
HCM Lane V/C Ratio	0.014	-	-	-	-
HCM Control Delay (s)	9.1	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road
Existing Traffic Volumes - AM Peak

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	73	3	0	69	7	2
Future Volume (vph)	73	3	0	69	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.969	
Flt Protected					0.963	
Satd. Flow (prot)	1582	0	0	1501	1536	0
Flt Permitted					0.963	
Satd. Flow (perm)	1582	0	0	1501	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles (%)	3%	0%	0%	9%	0%	0%
Adj. Flow (vph)	104	4	0	99	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	99	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	14.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	3	0	72	7	2
Future Vol, veh/h	76	3	0	72	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	0	0	9	0	0
Mvmt Flow	109	4	0	103	10	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	113	0	214	111
Stage 1	-	-	-	-	111	-
Stage 2	-	-	-	-	103	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1099	-	854	993
Stage 1	-	-	-	-	1038	-
Stage 2	-	-	-	-	1049	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1099	-	854	993
Mov Cap-2 Maneuver	-	-	-	-	854	-
Stage 1	-	-	-	-	1038	-
Stage 2	-	-	-	-	1049	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	881	-	-	1099	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	9.1	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road
2028 Traffic Volumes without Development - AM Peak

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	76	3	0	72	7	2
Future Volume (vph)	76	3	0	72	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.969	
Flt Protected					0.963	
Satd. Flow (prot)	1582	0	0	1501	1536	0
Flt Permitted					0.963	
Satd. Flow (perm)	1582	0	0	1501	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles (%)	3%	0%	0%	9%	0%	0%
Adj. Flow (vph)	109	4	0	103	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	0	103	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	85	3	0	75	7	2
Future Vol, veh/h	85	3	0	75	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	0	0	9	0	0
Mvmt Flow	121	4	0	107	10	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	125	0	230	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	107	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1088	-	832	977
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1043	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1088	-	832	977
Mov Cap-2 Maneuver	-	-	-	-	832	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	1043	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	860	-	-	1088	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	9.3	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	85	3	0	75	7	2
Future Volume (vph)	85	3	0	75	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.969	
Flt Protected					0.963	
Satd. Flow (prot)	1584	0	0	1501	1536	0
Flt Permitted					0.963	
Satd. Flow (perm)	1584	0	0	1501	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles (%)	3%	0%	0%	9%	0%	0%
Adj. Flow (vph)	121	4	0	107	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	125	0	0	107	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	78	3	0	74	7	2
Future Vol, veh/h	78	3	0	74	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	0	0	9	0	0
Mvmt Flow	111	4	0	106	10	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	115	0	219	113
Stage 1	-	-	-	-	113	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1097	-	847	991
Stage 1	-	-	-	-	1035	-
Stage 2	-	-	-	-	1045	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1097	-	847	991
Mov Cap-2 Maneuver	-	-	-	-	847	-
Stage 1	-	-	-	-	1035	-
Stage 2	-	-	-	-	1045	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	875	-	-	1097	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	9.2	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road
2033 Traffic Volumes without Development - AM Peak

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	78	3	0	74	7	2
Future Volume (vph)	78	3	0	74	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.969	
Flt Protected					0.963	
Satd. Flow (prot)	1582	0	0	1501	1536	0
Flt Permitted					0.963	
Satd. Flow (perm)	1582	0	0	1501	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles (%)	3%	0%	0%	9%	0%	0%
Adj. Flow (vph)	111	4	0	106	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	115	0	0	106	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	14.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	87	3	0	77	7	2
Future Vol, veh/h	87	3	0	77	7	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	3	0	0	9	0	0
Mvmt Flow	124	4	0	110	10	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	128	0	236	126
Stage 1	-	-	-	-	126	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1086	-	825	973
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1039	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1086	-	825	973
Mov Cap-2 Maneuver	-	-	-	-	825	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1039	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	854	-	-	1086	-
HCM Lane V/C Ratio	0.015	-	-	-	-
HCM Control Delay (s)	9.3	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	87	3	0	77	7	2
Future Volume (vph)	87	3	0	77	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.969	
Flt Protected					0.963	
Satd. Flow (prot)	1584	0	0	1501	1536	0
Flt Permitted					0.963	
Satd. Flow (perm)	1584	0	0	1501	1536	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles (%)	3%	0%	0%	9%	0%	0%
Adj. Flow (vph)	124	4	0	110	10	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	128	0	0	110	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	84	8	1	94	6	1
Future Vol, veh/h	84	8	1	94	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	13	0	0	0	0
Mvmt Flow	93	9	1	104	7	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	102	0	204	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	106	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1108	-	868	1012
Stage 1	-	-	-	-	1056	-
Stage 2	-	-	-	-	1045	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1108	-	867	1012
Mov Cap-2 Maneuver	-	-	-	-	867	-
Stage 1	-	-	-	-	1056	-
Stage 2	-	-	-	-	1044	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	885	-	-	1108	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	9.1	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

5: Shiloh Hill Drive & Little Shiloh Road
Existing Traffic Volumes - PM Peak

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	84	8	1	94	6	1
Future Volume (vph)	84	8	1	94	6	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.983	
Flt Protected					0.958	
Satd. Flow (prot)	1598	0	0	1636	1550	0
Flt Permitted					0.958	
Satd. Flow (perm)	1598	0	0	1636	1550	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	13%	0%	0%	0%	0%
Adj. Flow (vph)	93	9	1	104	7	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	105	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	87	8	1	98	6	1
Future Vol, veh/h	87	8	1	98	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	13	0	0	0	0
Mvmt Flow	97	9	1	109	7	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	106	0	213	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1105	-	855	1006
Stage 1	-	-	-	-	1050	-
Stage 2	-	-	-	-	1038	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1105	-	854	1006
Mov Cap-2 Maneuver	-	-	-	-	854	-
Stage 1	-	-	-	-	1050	-
Stage 2	-	-	-	-	1037	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	873	-	-	1105	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	87	8	1	98	6	1
Future Volume (vph)	87	8	1	98	6	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.989				0.983	
Flt Protected					0.958	
Satd. Flow (prot)	1601	0	0	1636	1550	0
Flt Permitted					0.958	
Satd. Flow (perm)	1601	0	0	1636	1550	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	13%	0%	0%	0%	0%
Adj. Flow (vph)	97	9	1	109	7	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	110	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	93	8	1	108	6	1
Future Vol, veh/h	93	8	1	108	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	13	0	0	0	0
Mvmt Flow	103	9	1	120	7	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	112	0	230	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1099	-	832	998
Stage 1	-	-	-	-	1042	-
Stage 2	-	-	-	-	1023	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1099	-	831	998
Mov Cap-2 Maneuver	-	-	-	-	831	-
Stage 1	-	-	-	-	1042	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	851	-	-	1099	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	9.3	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	93	8	1	108	6	1
Future Volume (vph)	93	8	1	108	6	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.989				0.983	
Flt Protected					0.958	
Satd. Flow (prot)	1601	0	0	1636	1550	0
Flt Permitted					0.958	
Satd. Flow (perm)	1601	0	0	1636	1550	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	13%	0%	0%	0%	0%
Adj. Flow (vph)	103	9	1	120	7	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	0	121	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	90	9	1	100	6	1
Future Vol, veh/h	90	9	1	100	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	13	0	0	0	0
Mvmt Flow	100	10	1	111	7	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	110	0	218	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	113	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1101	-	849	1002
Stage 1	-	-	-	-	1046	-
Stage 2	-	-	-	-	1035	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1101	-	848	1002
Mov Cap-2 Maneuver	-	-	-	-	848	-
Stage 1	-	-	-	-	1046	-
Stage 2	-	-	-	-	1034	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	867	-	-	1101	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	9.2	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	90	9	1	100	6	1
Future Volume (vph)	90	9	1	100	6	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.983	
Flt Protected					0.958	
Satd. Flow (prot)	1598	0	0	1636	1550	0
Flt Permitted					0.958	
Satd. Flow (perm)	1598	0	0	1636	1550	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	13%	0%	0%	0%	0%
Adj. Flow (vph)	100	10	1	111	7	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	110	0	0	112	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	9	1	110	6	1
Future Vol, veh/h	96	9	1	110	6	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	4	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	13	0	0	0	0
Mvmt Flow	107	10	1	122	7	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	117	0	236	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	124	-
Critical Hdwy	-	-	4.3	-	7.2	6.6
Critical Hdwy Stg 1	-	-	-	-	6.2	-
Critical Hdwy Stg 2	-	-	-	-	6.2	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1095	-	825	992
Stage 1	-	-	-	-	1036	-
Stage 2	-	-	-	-	1020	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1095	-	824	992
Mov Cap-2 Maneuver	-	-	-	-	824	-
Stage 1	-	-	-	-	1036	-
Stage 2	-	-	-	-	1019	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	844	-	-	1095	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	9.3	-	-	8.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	96	9	1	110	6	1
Future Volume (vph)	96	9	1	110	6	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	9	9	9	9	10	10
Grade (%)	-2%			-2%	4%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.983	
Flt Protected					0.958	
Satd. Flow (prot)	1599	0	0	1636	1550	0
Flt Permitted					0.958	
Satd. Flow (perm)	1599	0	0	1636	1550	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	1077			1334	597	
Travel Time (s)	29.4			36.4	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	13%	0%	0%	0%	0%
Adj. Flow (vph)	107	10	1	122	7	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	117	0	0	123	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.21	1.21	1.21	1.21	1.20	1.20
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

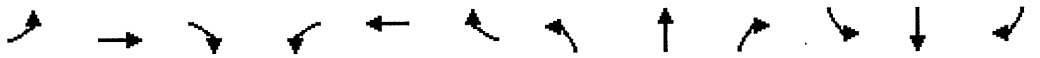
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	15	60	16	19	12	33	294	17	9	248	1
Future Vol, veh/h	4	15	60	16	19	12	33	294	17	9	248	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	0	0	16	17	3	3	0	11	4	100
Mvmt Flow	4	16	66	18	21	13	36	323	19	10	273	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	716	708	274	740	699	333	274	0	0	342	0	0
Stage 1	294	294	-	405	405	-	-	-	-	-	-	-
Stage 2	422	414	-	335	294	-	-	-	-	-	-	-
Critical Hdwy	6.6	5.7	5.8	7.9	7.46	6.77	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	4	3.1	3	4.144	3.3	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	409	424	838	317	297	677	968	-	-	883	-	-
Stage 1	812	719	-	651	525	-	-	-	-	-	-	-
Stage 2	704	654	-	724	604	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	362	399	838	270	280	677	968	-	-	883	-	-
Mov Cap-2 Maneuver	362	399	-	270	280	-	-	-	-	-	-	-
Stage 1	775	710	-	621	501	-	-	-	-	-	-	-
Stage 2	631	624	-	643	596	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	18.2	0.9	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	968	-	-	657	324	883	-	-
HCM Lane V/C Ratio	0.037	-	-	0.132	0.159	0.011	-	-
HCM Control Delay (s)	8.9	0	-	11.3	18.2	9.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.6	0	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
Existing Traffic Volumes - AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	4	15	60	16	19	12	33	294	17	9	248	1
Future Volume (vph)	4	15	60	16	19	12	33	294	17	9	248	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.896			0.966			0.993				
Flt Protected		0.998			0.983			0.995			0.998	
Satd. Flow (prot)	0	1515	0	0	1513	0	0	1598	0	0	1611	0
Flt Permitted		0.998			0.983			0.995			0.998	
Satd. Flow (perm)	0	1515	0	0	1513	0	0	1598	0	0	1611	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	25%	0%	0%	0%	16%	17%	3%	3%	0%	11%	4%	100%
Adj. Flow (vph)	4	16	66	18	21	13	36	323	19	10	273	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	52	0	0	378	0	0	284	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	16	62	17	20	12	34	305	18	9	258	1
Future Vol, veh/h	4	16	62	17	20	12	34	305	18	9	258	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	0	0	16	17	3	3	0	11	4	100
Mvmt Flow	4	18	68	19	22	13	37	335	20	10	284	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	742	734	285	767	724	345	285	0	0	355	0	0
Stage 1	305	305	-	419	419	-	-	-	-	-	-	-
Stage 2	437	429	-	348	305	-	-	-	-	-	-	-
Critical Hdwy	6.6	5.7	5.8	7.9	7.46	6.77	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	4	3.1	3	4.144	3.3	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	394	412	827	302	286	665	959	-	-	873	-	-
Stage 1	803	713	-	637	516	-	-	-	-	-	-	-
Stage 2	692	646	-	710	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	345	387	827	255	269	665	959	-	-	873	-	-
Mov Cap-2 Maneuver	345	387	-	255	269	-	-	-	-	-	-	-
Stage 1	764	703	-	606	491	-	-	-	-	-	-	-
Stage 2	617	615	-	626	588	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	19.1	0.8	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	959	-	-	641	308	873	-	-
HCM Lane V/C Ratio	0.039	-	-	0.141	0.175	0.011	-	-
HCM Control Delay (s)	8.9	0	-	11.5	19.1	9.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.6	0	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
2028 Traffic Volumes without Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	4	16	62	17	20	12	34	305	18	9	258	1
Future Volume (vph)	4	16	62	17	20	12	34	305	18	9	258	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898			0.967			0.993				
Flt Protected		0.998			0.983			0.995			0.998	
Satd. Flow (prot)	0	1519	0	0	1516	0	0	1598	0	0	1611	0
Flt Permitted		0.998			0.983			0.995			0.998	
Satd. Flow (perm)	0	1519	0	0	1516	0	0	1598	0	0	1611	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	25%	0%	0%	0%	16%	17%	3%	3%	0%	11%	4%	100%
Adj. Flow (vph)	4	18	68	19	22	13	37	335	20	10	284	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	54	0	0	392	0	0	295	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.0%		ICU Level of Service A	
Analysis Period (min) 15			

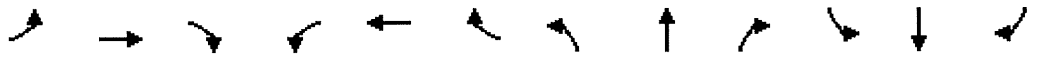
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	16	62	17	20	12	34	305	18	9	258	4
Future Vol, veh/h	13	16	62	17	20	12	34	305	18	9	258	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	0	0	16	17	3	3	0	11	4	100
Mvmt Flow	14	18	68	19	22	13	37	335	20	10	284	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	743	735	286	768	727	345	288	0	0	355	0	0
Stage 1	306	306	-	419	419	-	-	-	-	-	-	-
Stage 2	437	429	-	349	308	-	-	-	-	-	-	-
Critical Hdwy	6.6	5.7	5.8	7.9	7.46	6.77	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	4	3.1	3	4.144	3.3	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	394	411	826	301	284	665	957	-	-	873	-	-
Stage 1	802	712	-	637	516	-	-	-	-	-	-	-
Stage 2	692	646	-	708	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	345	386	826	254	267	665	957	-	-	873	-	-
Mov Cap-2 Maneuver	345	386	-	254	267	-	-	-	-	-	-	-
Stage 1	764	702	-	606	491	-	-	-	-	-	-	-
Stage 2	617	615	-	624	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	19.3	0.8	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	957	-	-	590	306	873	-	-
HCM Lane V/C Ratio	0.039	-	-	0.169	0.176	0.011	-	-
HCM Control Delay (s)	8.9	0	-	12.3	19.3	9.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.6	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	13	16	62	17	20	12	34	305	18	9	258	4
Future Volume (vph)	13	16	62	17	20	12	34	305	18	9	258	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.908			0.967			0.993			0.998	
Flt Protected		0.993			0.983			0.995			0.998	
Satd. Flow (prot)	0	1493	0	0	1516	0	0	1598	0	0	1594	0
Flt Permitted		0.993			0.983			0.995			0.998	
Satd. Flow (perm)	0	1493	0	0	1516	0	0	1598	0	0	1594	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	25%	0%	0%	0%	16%	17%	3%	3%	0%	11%	4%	100%
Adj. Flow (vph)	14	18	68	19	22	13	37	335	20	10	284	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	54	0	0	392	0	0	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	16	64	17	20	13	35	314	18	10	265	1
Future Vol, veh/h	4	16	64	17	20	13	35	314	18	10	265	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	0	0	16	17	3	3	0	11	4	100
Mvmt Flow	4	18	70	19	22	14	38	345	20	11	291	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	763	755	292	789	745	355	292	0	0	365	0	0
Stage 1	314	314	-	431	431	-	-	-	-	-	-	-
Stage 2	449	441	-	358	314	-	-	-	-	-	-	-
Critical Hdwy	6.6	5.7	5.8	7.9	7.46	6.77	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	4	3.1	3	4.144	3.3	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	382	402	821	290	276	656	954	-	-	866	-	-
Stage 1	795	708	-	625	508	-	-	-	-	-	-	-
Stage 2	683	640	-	699	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	332	376	821	243	258	656	954	-	-	866	-	-
Mov Cap-2 Maneuver	332	376	-	243	258	-	-	-	-	-	-	-
Stage 1	755	697	-	594	483	-	-	-	-	-	-	-
Stage 2	606	608	-	614	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	19.7	0.9	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	954	-	-	634	299	866	-	-
HCM Lane V/C Ratio	0.04	-	-	0.146	0.184	0.013	-	-
HCM Control Delay (s)	8.9	0	-	11.6	19.7	9.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.7	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	4	16	64	17	20	13	35	314	18	10	265	1
Future Volume (vph)	4	16	64	17	20	13	35	314	18	10	265	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897			0.966			0.993				
Flt Protected		0.998			0.983			0.995			0.998	
Satd. Flow (prot)	0	1518	0	0	1513	0	0	1598	0	0	1611	0
Flt Permitted		0.998			0.983			0.995			0.998	
Satd. Flow (perm)	0	1518	0	0	1513	0	0	1598	0	0	1611	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	25%	0%	0%	0%	16%	17%	3%	3%	0%	11%	4%	100%
Adj. Flow (vph)	4	18	70	19	22	14	38	345	20	11	291	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	55	0	0	403	0	0	303	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	16	64	17	20	13	35	314	18	10	265	4
Future Vol, veh/h	13	16	64	17	20	13	35	314	18	10	265	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	0	0	16	17	3	3	0	11	4	100
Mvmt Flow	14	18	70	19	22	14	38	345	20	11	291	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	764	756	293	790	748	355	295	0	0	365	0	0
Stage 1	315	315	-	431	431	-	-	-	-	-	-	-
Stage 2	449	441	-	359	317	-	-	-	-	-	-	-
Critical Hdwy	6.6	5.7	5.8	7.9	7.46	6.77	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.55	4.7	-	6.9	6.46	-	-	-	-	-	-	-
Follow-up Hdwy	3.2	4	3.1	3	4.144	3.3	3	-	-	3.1	-	-
Pot Cap-1 Maneuver	382	402	820	289	275	656	952	-	-	866	-	-
Stage 1	794	707	-	625	508	-	-	-	-	-	-	-
Stage 2	683	640	-	698	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	332	376	820	242	257	656	952	-	-	866	-	-
Mov Cap-2 Maneuver	332	376	-	242	257	-	-	-	-	-	-	-
Stage 1	754	696	-	594	483	-	-	-	-	-	-	-
Stage 2	606	608	-	613	578	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	19.8	0.9	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	952	-	-	582	298	866	-	-
HCM Lane V/C Ratio	0.04	-	-	0.176	0.184	0.013	-	-
HCM Control Delay (s)	8.9	0	-	12.5	19.8	9.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.7	0	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
2033 Traffic Volumes with Development - AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	13	16	64	17	20	13	35	314	18	10	265	4
Future Volume (vph)	13	16	64	17	20	13	35	314	18	10	265	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.907			0.966			0.993			0.998	
Flt Protected		0.993			0.983			0.995			0.998	
Satd. Flow (prot)	0	1492	0	0	1513	0	0	1598	0	0	1594	0
Flt Permitted		0.993			0.983			0.995			0.998	
Satd. Flow (perm)	0	1492	0	0	1513	0	0	1598	0	0	1594	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	25%	0%	0%	0%	16%	17%	3%	3%	0%	11%	4%	100%
Adj. Flow (vph)	14	18	70	19	22	14	38	345	20	11	291	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	0	0	55	0	0	403	0	0	306	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.6

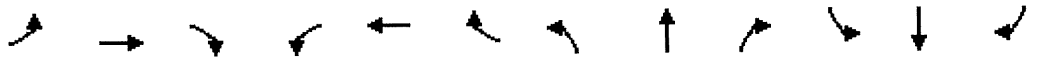
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	29	62	19	44	13	48	281	21	27	289	1
Future Vol, veh/h	6	29	62	19	44	13	48	281	21	27	289	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	5	0	0	0	1	0	0	1	0
Mvmt Flow	6	31	67	20	47	14	52	302	23	29	311	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	818	799	312	837	788	314	312	0	0	325	0	0
Stage 1	370	370	-	418	418	-	-	-	-	-	-	-
Stage 2	448	429	-	419	370	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.7	5.8	8	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	395	383	801	259	273	745	939	-	-	921	-	-
Stage 1	809	677	-	634	541	-	-	-	-	-	-	-
Stage 2	744	646	-	633	574	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	305	344	801	204	245	745	939	-	-	921	-	-
Mov Cap-2 Maneuver	305	344	-	204	245	-	-	-	-	-	-	-
Stage 1	754	651	-	591	504	-	-	-	-	-	-	-
Stage 2	617	602	-	532	552	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	24.8	1.2	0.8
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	939	-	-	535	262	921	-	-
HCM Lane V/C Ratio	0.055	-	-	0.195	0.312	0.032	-	-
HCM Control Delay (s)	9.1	0	-	13.4	24.8	9	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	1.3	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
Existing Traffic Volumes - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	29	62	19	44	13	48	281	21	27	289	1
Future Volume (vph)	6	29	62	19	44	13	48	281	21	27	289	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.913			0.977			0.992				
Flt Protected		0.997			0.988			0.993			0.996	
Satd. Flow (prot)	0	1560	0	0	1682	0	0	1625	0	0	1666	0
Flt Permitted		0.997			0.988			0.993			0.996	
Satd. Flow (perm)	0	1560	0	0	1682	0	0	1625	0	0	1666	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	6	31	67	20	47	14	52	302	23	29	311	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	104	0	0	81	0	0	377	0	0	341	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	30	64	20	46	13	50	292	22	28	300	1
Future Vol, veh/h	6	30	64	20	46	13	50	292	22	28	300	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	5	0	0	0	1	0	0	1	0
Mvmt Flow	6	32	69	22	49	14	54	314	24	30	323	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	850	830	324	868	818	326	324	0	0	338	0	0
Stage 1	384	384	-	434	434	-	-	-	-	-	-	-
Stage 2	466	446	-	434	384	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.7	5.8	8	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	378	370	790	245	261	733	930	-	-	911	-	-
Stage 1	797	670	-	619	531	-	-	-	-	-	-	-
Stage 2	729	638	-	619	565	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	285	330	790	190	233	733	930	-	-	911	-	-
Mov Cap-2 Maneuver	285	330	-	190	233	-	-	-	-	-	-	-
Stage 1	740	643	-	574	493	-	-	-	-	-	-	-
Stage 2	597	592	-	515	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	27	1.3	0.8
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	930	-	-	518	247	911	-	-
HCM Lane V/C Ratio	0.058	-	-	0.208	0.344	0.033	-	-
HCM Control Delay (s)	9.1	0	-	13.8	27	9.1	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	1.5	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
2028 Traffic Volumes without Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	30	64	20	46	13	50	292	22	28	300	1
Future Volume (vph)	6	30	64	20	46	13	50	292	22	28	300	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.913			0.978			0.992				
Flt Protected		0.997			0.987			0.993			0.996	
Satd. Flow (prot)	0	1560	0	0	1681	0	0	1625	0	0	1666	0
Flt Permitted		0.997			0.987			0.993			0.996	
Satd. Flow (perm)	0	1560	0	0	1681	0	0	1625	0	0	1666	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	6	32	69	22	49	14	54	314	24	30	323	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	0	0	85	0	0	392	0	0	354	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	30	64	20	46	13	50	292	22	28	300	11
Future Vol, veh/h	12	30	64	20	46	13	50	292	22	28	300	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	5	0	0	0	1	0	0	1	0
Mvmt Flow	13	32	69	22	49	14	54	314	24	30	323	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	855	835	329	874	829	326	335	0	0	338	0	0
Stage 1	389	389	-	434	434	-	-	-	-	-	-	-
Stage 2	466	446	-	440	395	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.7	5.8	8	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	376	368	785	242	256	733	922	-	-	911	-	-
Stage 1	792	667	-	619	531	-	-	-	-	-	-	-
Stage 2	729	638	-	613	557	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	282	328	785	187	228	733	922	-	-	911	-	-
Mov Cap-2 Maneuver	282	328	-	187	228	-	-	-	-	-	-	-
Stage 1	735	640	-	574	493	-	-	-	-	-	-	-
Stage 2	597	592	-	509	534	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	27.7	1.3	0.8
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	922	-	-	492	242	911	-	-
HCM Lane V/C Ratio	0.058	-	-	0.232	0.351	0.033	-	-
HCM Control Delay (s)	9.1	0	-	14.5	27.7	9.1	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	1.5	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
2028 Traffic Volumes with Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	12	30	64	20	46	13	50	292	22	28	300	11
Future Volume (vph)	12	30	64	20	46	13	50	292	22	28	300	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.918			0.978			0.992			0.996	
Flt Protected		0.994			0.987			0.993			0.996	
Satd. Flow (prot)	0	1564	0	0	1681	0	0	1625	0	0	1660	0
Flt Permitted		0.994			0.987			0.993			0.996	
Satd. Flow (perm)	0	1564	0	0	1681	0	0	1625	0	0	1660	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	13	32	69	22	49	14	54	314	24	30	323	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	85	0	0	392	0	0	365	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	31	66	20	47	14	51	300	22	29	308	1
Future Vol, veh/h	6	31	66	20	47	14	51	300	22	29	308	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	5	0	0	0	1	0	0	1	0
Mvmt Flow	6	33	71	22	51	15	55	323	24	31	331	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	872	851	332	891	839	335	332	0	0	347	0	0
Stage 1	394	394	-	445	445	-	-	-	-	-	-	-
Stage 2	478	457	-	446	394	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.7	5.8	8	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	367	362	782	235	252	723	924	-	-	904	-	-
Stage 1	788	664	-	608	524	-	-	-	-	-	-	-
Stage 2	720	632	-	607	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	272	321	782	180	224	723	924	-	-	904	-	-
Mov Cap-2 Maneuver	272	321	-	180	224	-	-	-	-	-	-	-
Stage 1	730	636	-	563	485	-	-	-	-	-	-	-
Stage 2	585	585	-	501	535	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	28.6	1.2	0.8
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	924	-	-	507	238	904	-	-
HCM Lane V/C Ratio	0.059	-	-	0.218	0.366	0.034	-	-
HCM Control Delay (s)	9.1	0	-	14.1	28.6	9.1	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	1.6	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
2033 Traffic Volumes without Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	6	31	66	20	47	14	51	300	22	29	308	1
Future Volume (vph)	6	31	66	20	47	14	51	300	22	29	308	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.913			0.977			0.992				
Flt Protected		0.997			0.988			0.993			0.996	
Satd. Flow (prot)	0	1560	0	0	1682	0	0	1625	0	0	1666	0
Flt Permitted		0.997			0.988			0.993			0.996	
Satd. Flow (perm)	0	1560	0	0	1682	0	0	1625	0	0	1666	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	6	33	71	22	51	15	55	323	24	31	331	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	110	0	0	88	0	0	402	0	0	363	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	31	66	20	47	14	51	300	22	29	308	11
Future Vol, veh/h	12	31	66	20	47	14	51	300	22	29	308	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	4	-	-	2	-	-	-1	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	5	0	0	0	1	0	0	1	0
Mvmt Flow	13	33	71	22	51	15	55	323	24	31	331	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	877	856	337	896	850	335	343	0	0	347	0	0
Stage 1	399	399	-	445	445	-	-	-	-	-	-	-
Stage 2	478	457	-	451	405	-	-	-	-	-	-	-
Critical Hdwy	6.3	5.7	5.8	8	7.3	6.6	4.3	-	-	4.4	-	-
Critical Hdwy Stg 1	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.3	4.7	-	6.95	6.3	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	365	360	777	233	248	723	916	-	-	904	-	-
Stage 1	784	662	-	608	524	-	-	-	-	-	-	-
Stage 2	720	632	-	603	550	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	269	319	777	178	220	723	916	-	-	904	-	-
Mov Cap-2 Maneuver	269	319	-	178	220	-	-	-	-	-	-	-
Stage 1	725	634	-	562	485	-	-	-	-	-	-	-
Stage 2	584	585	-	497	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.9	29.1	1.3	0.8
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	916	-	-	481	235	904	-	-
HCM Lane V/C Ratio	0.06	-	-	0.244	0.371	0.034	-	-
HCM Control Delay (s)	9.2	0	-	14.9	29.1	9.1	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	1.6	0.1	-	-

6: Westtown Road & Little Shiloh Road/Falcoln Lane
2033 Traffic Volumes with Development - PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	12	31	66	20	47	14	51	300	22	29	308	11
Future Volume (vph)	12	31	66	20	47	14	51	300	22	29	308	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	10	10	10	10	10
Grade (%)		-4%			4%			2%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.918			0.977			0.992			0.996	
Flt Protected		0.994			0.988			0.993			0.996	
Satd. Flow (prot)	0	1564	0	0	1682	0	0	1625	0	0	1660	0
Flt Permitted		0.994			0.988			0.993			0.996	
Satd. Flow (perm)	0	1564	0	0	1682	0	0	1625	0	0	1660	0
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		1334			1906			874			1028	
Travel Time (s)		36.4			52.0			17.0			20.0	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	5%	0%	0%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	13	33	71	22	51	15	55	323	24	31	331	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	88	0	0	402	0	0	374	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.10	1.10	1.10	1.19	1.19	1.19	1.16	1.16	1.16
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

TURN LANE ANALYSIS WORKSHEETS

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	6	0.0%	6
	Through	-	230	3.0%	241
	Right	Yes	10	33.0%	15
Opposing	Left	Yes	2	2.0%	3
	Through	-	328	3.0%	343
	Right	Yes	2	0.0%	2

Advancing Volume:	262
Opposing Volume:	348
Left Turn Volume:	6
% Left Turns in Advancing Volume:	2.29%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	6	0.0%	N/A
	Through	-	230	3.0%	N/A
	Right	-	10	33.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	6
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

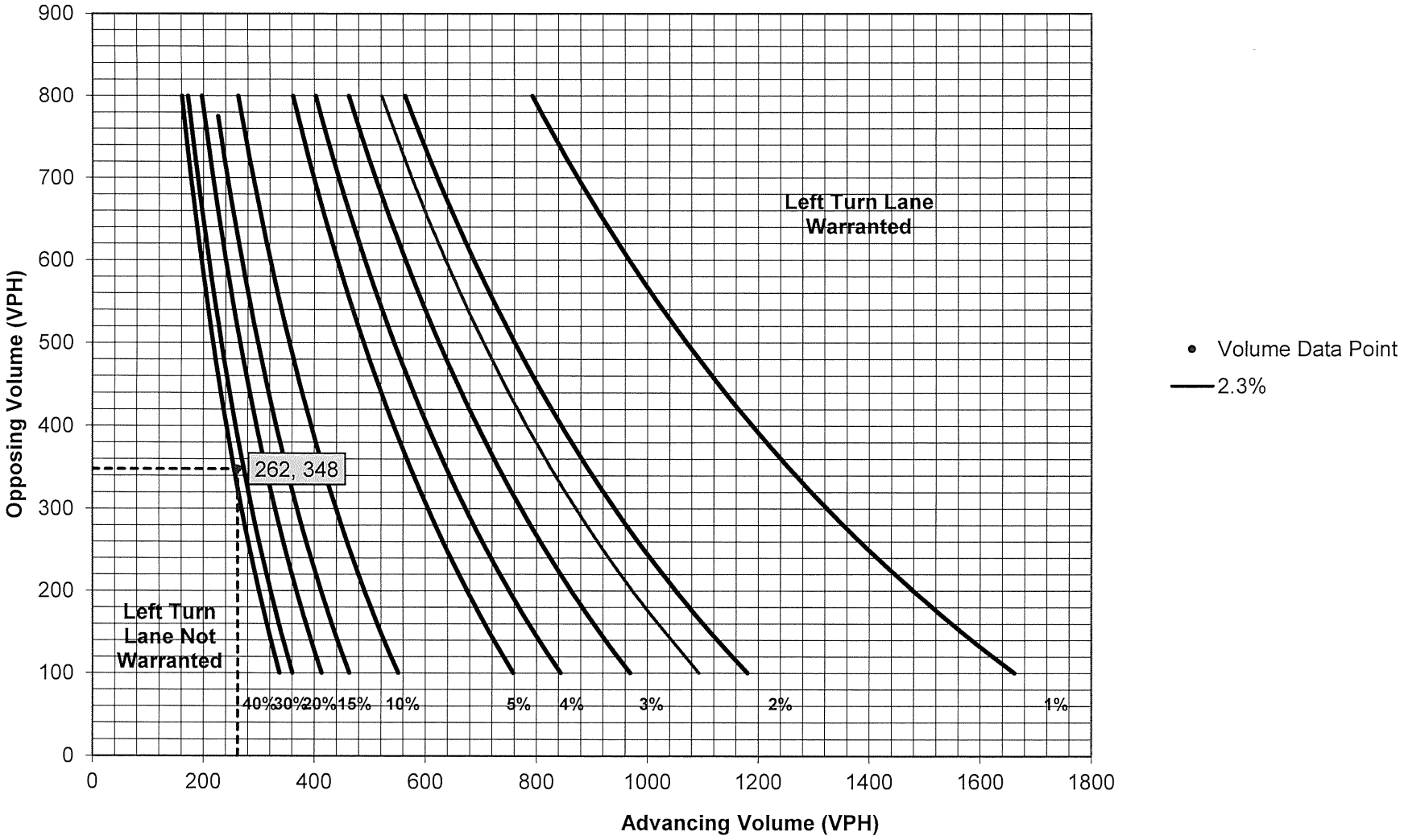
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	2	2.0%	3
	Through	-	328	3.0%	343
	Right	Yes	2	0.0%	2
Opposing	Left	Yes	6	0.0%	6
	Through	-	230	3.0%	241
	Right	Yes	10	33.0%	15

Advancing Volume:	348
Opposing Volume:	262
Left Turn Volume:	3
% Left Turns in Advancing Volume:	0.86%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	2	2.0%	N/A
	Through	-	328	3.0%	N/A
	Right	-	2	0.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	3
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

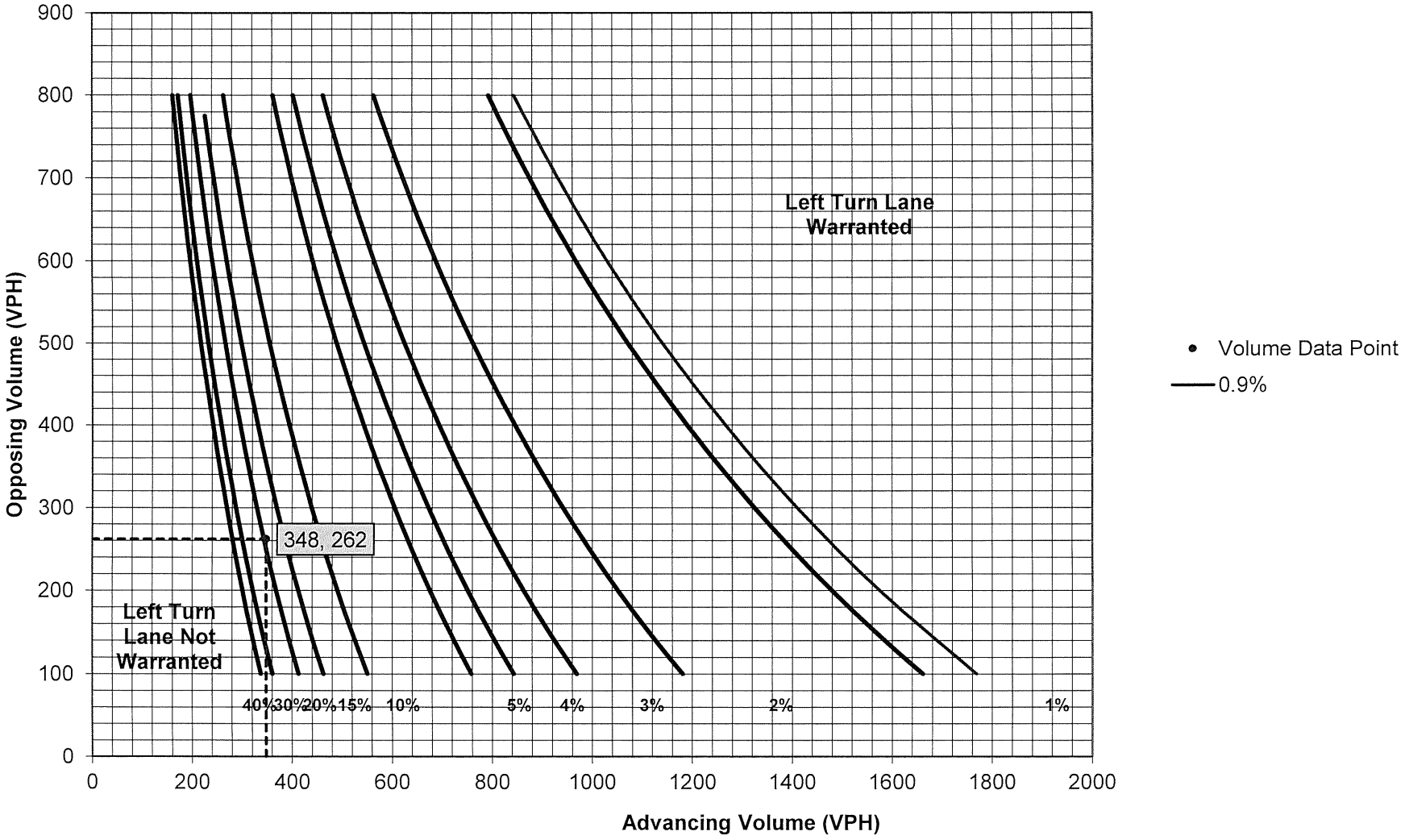
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	0.0%	14
	Through	-	277	0.0%	277
	Right	Yes	21	2.0%	22
Opposing	Left	Yes	7	2.0%	8
	Through	-	340	0.0%	340
	Right	Yes	5	0.0%	5

Advancing Volume:	313
Opposing Volume:	353
Left Turn Volume:	14
% Left Turns in Advancing Volume:	4.47%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	0.0%	N/A
	Through	-	277	0.0%	N/A
	Right	-	21	2.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	14
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

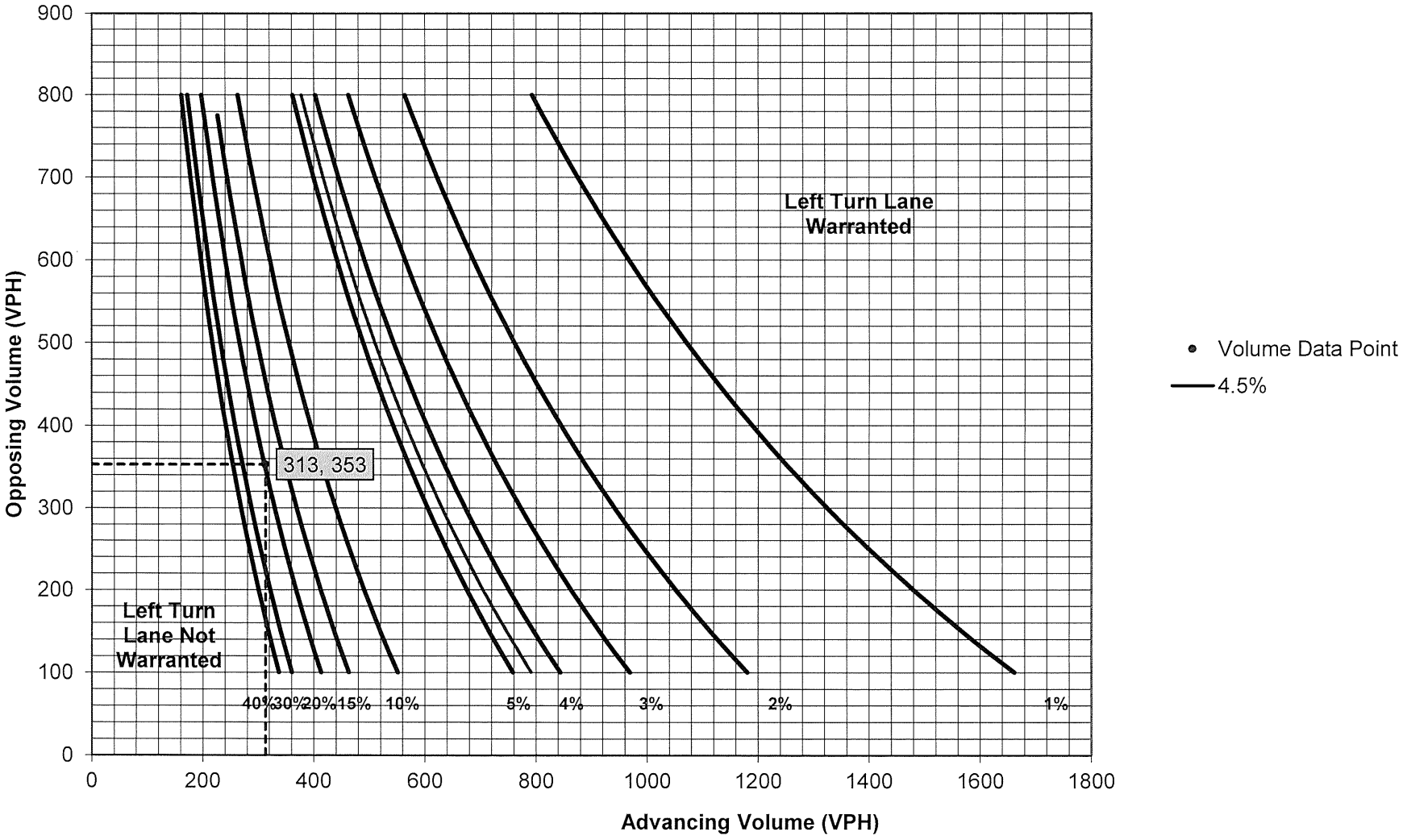
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30	Type of Analysis	
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	7	2.0%	8
	Through	-	340	0.0%	340
	Right	Yes	5	0.0%	5
Opposing	Left	Yes	14	0.0%	14
	Through	-	277	0.0%	277
	Right	Yes	21	2.0%	22

Advancing Volume:	353
Opposing Volume:	313
Left Turn Volume:	8
% Left Turns in Advancing Volume:	2.27%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	7	2.0%	N/A
	Through	-	340	0.0%	N/A
	Right	-	5	0.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	8
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

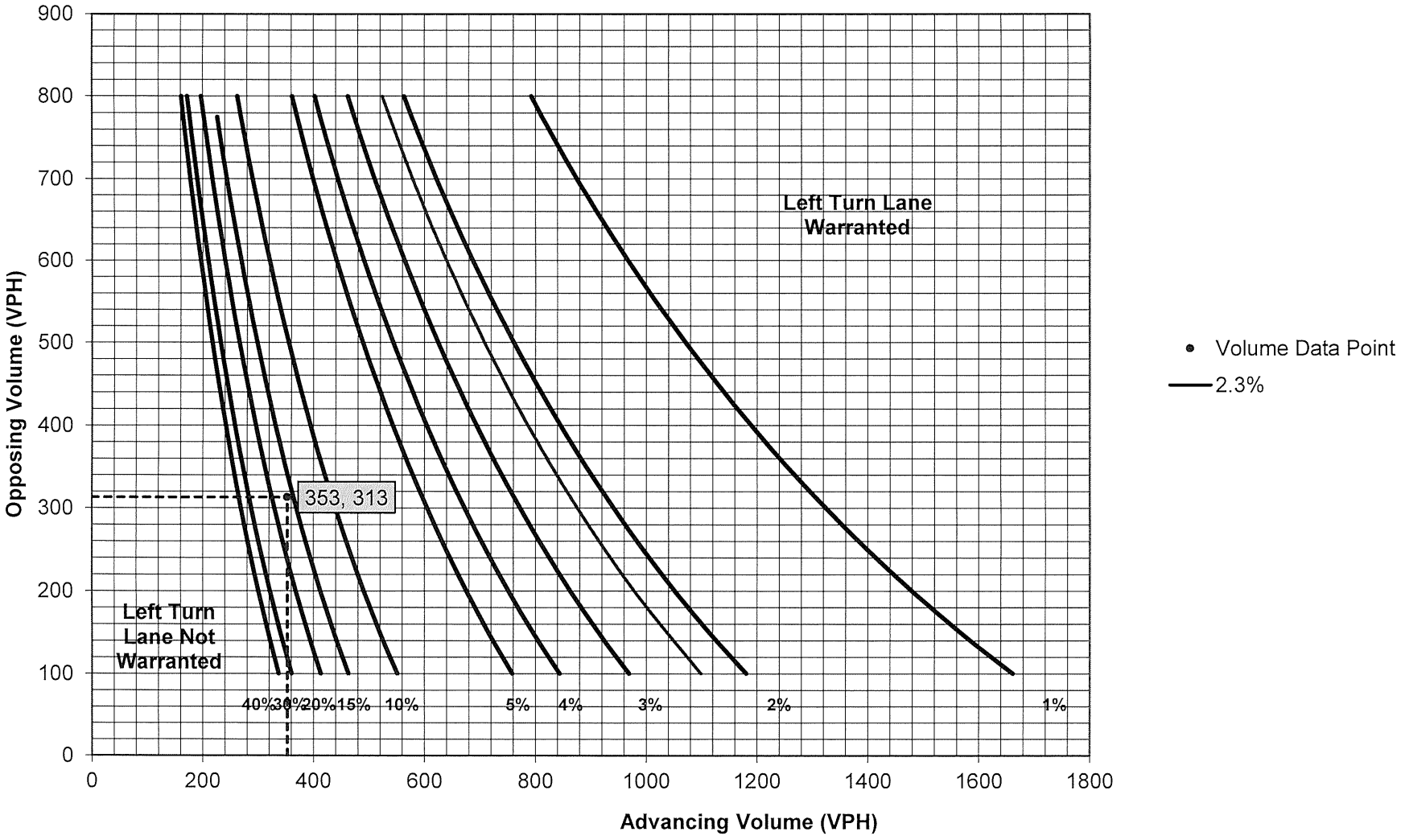
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	56	10.0%	65
	Through	-	190	2.0%	196
	Right	Yes	3	2.0%	4
Opposing	Left	Yes	5	2.0%	6
	Through	-	241	3.0%	252
	Right	Yes	20	11.0%	24

Advancing Volume:	265
Opposing Volume:	282
Left Turn Volume:	65
% Left Turns in Advancing Volume:	24.53%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	56	10.0%	N/A
	Through	-	190	2.0%	N/A
	Right	-	3	2.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	65
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

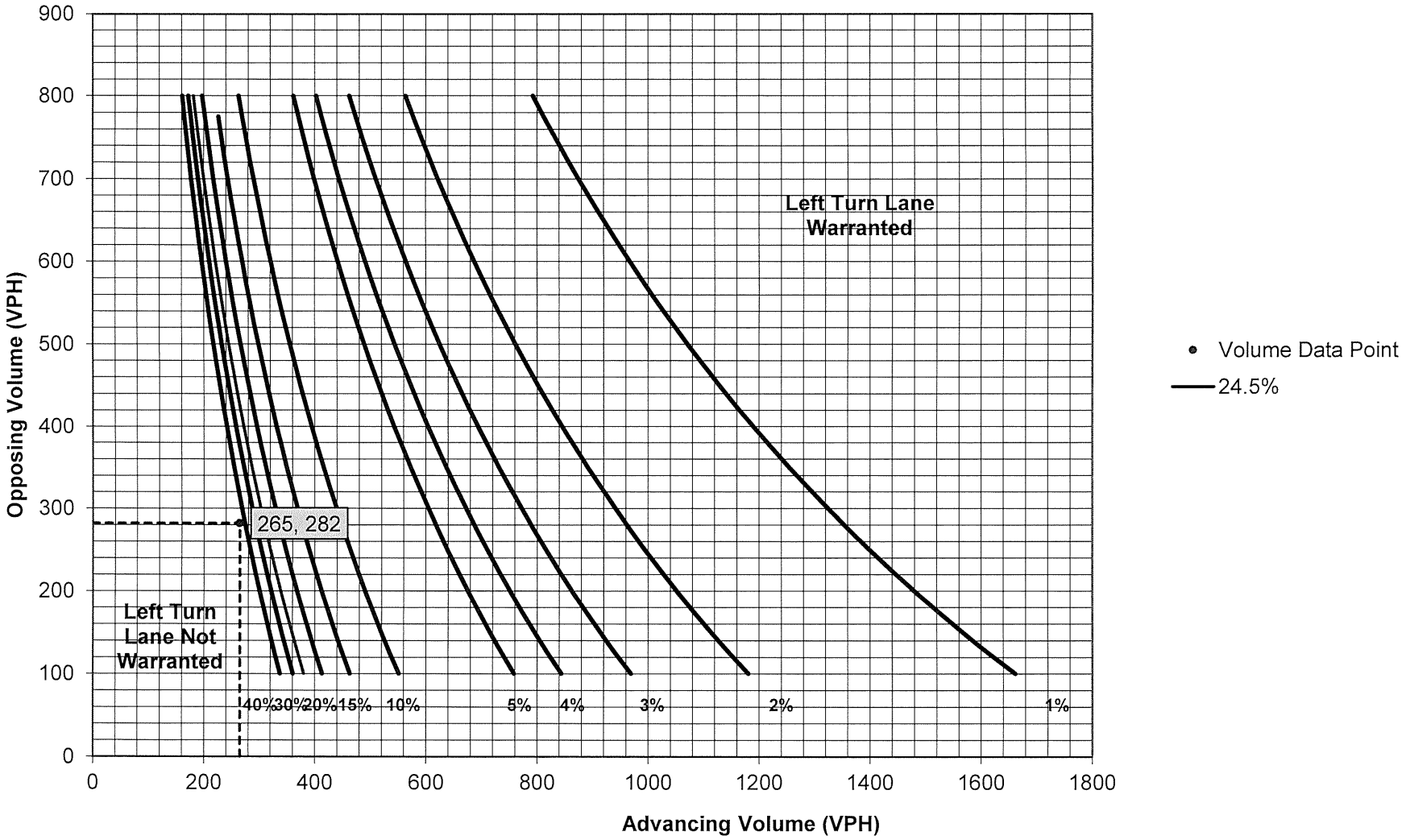
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30	Type of Analysis	
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	5	2.0%	6
	Through	-	241	3.0%	252
	Right	Yes	20	11.0%	24
Opposing	Left	Yes	56	10.0%	65
	Through	-	190	2.0%	196
	Right	Yes	3	2.0%	4

Advancing Volume:	282
Opposing Volume:	265
Left Turn Volume:	6
% Left Turns in Advancing Volume:	2.13%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	5	2.0%	N/A
	Through	-	241	3.0%	N/A
	Right	-	20	11.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	6
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

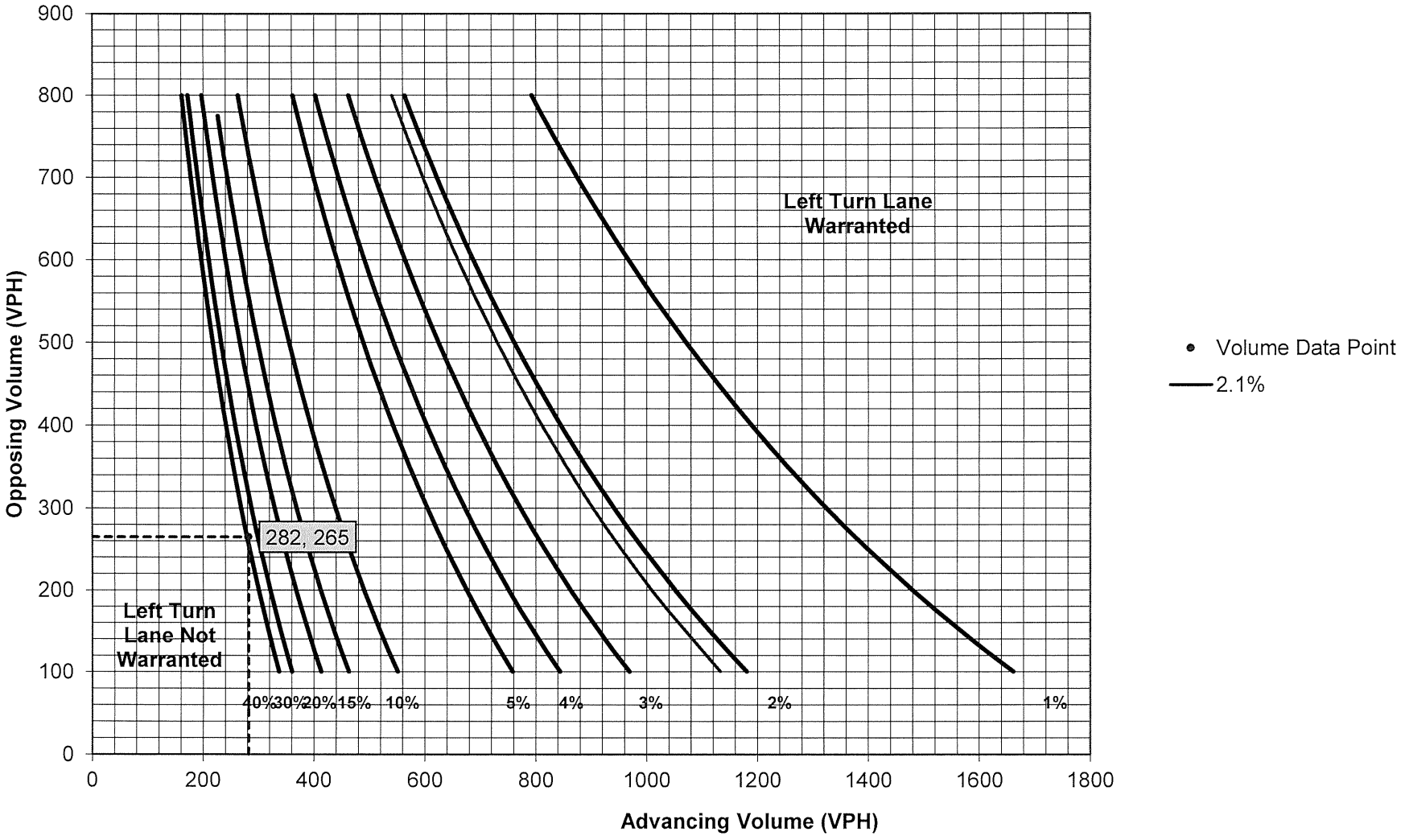
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30	Type of Analysis	
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	71	0.0%	71
	Through	-	203	2.0%	210
	Right	Yes	9	2.0%	10
Opposing	Left	Yes	14	2.0%	15
	Through	-	262	2.0%	270
	Right	Yes	23	0.0%	23

Advancing Volume:	291
Opposing Volume:	308
Left Turn Volume:	71
% Left Turns in Advancing Volume:	24.40%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	71	0.0%	N/A
	Through	-	203	2.0%	N/A
	Right	-	9	2.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	71
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

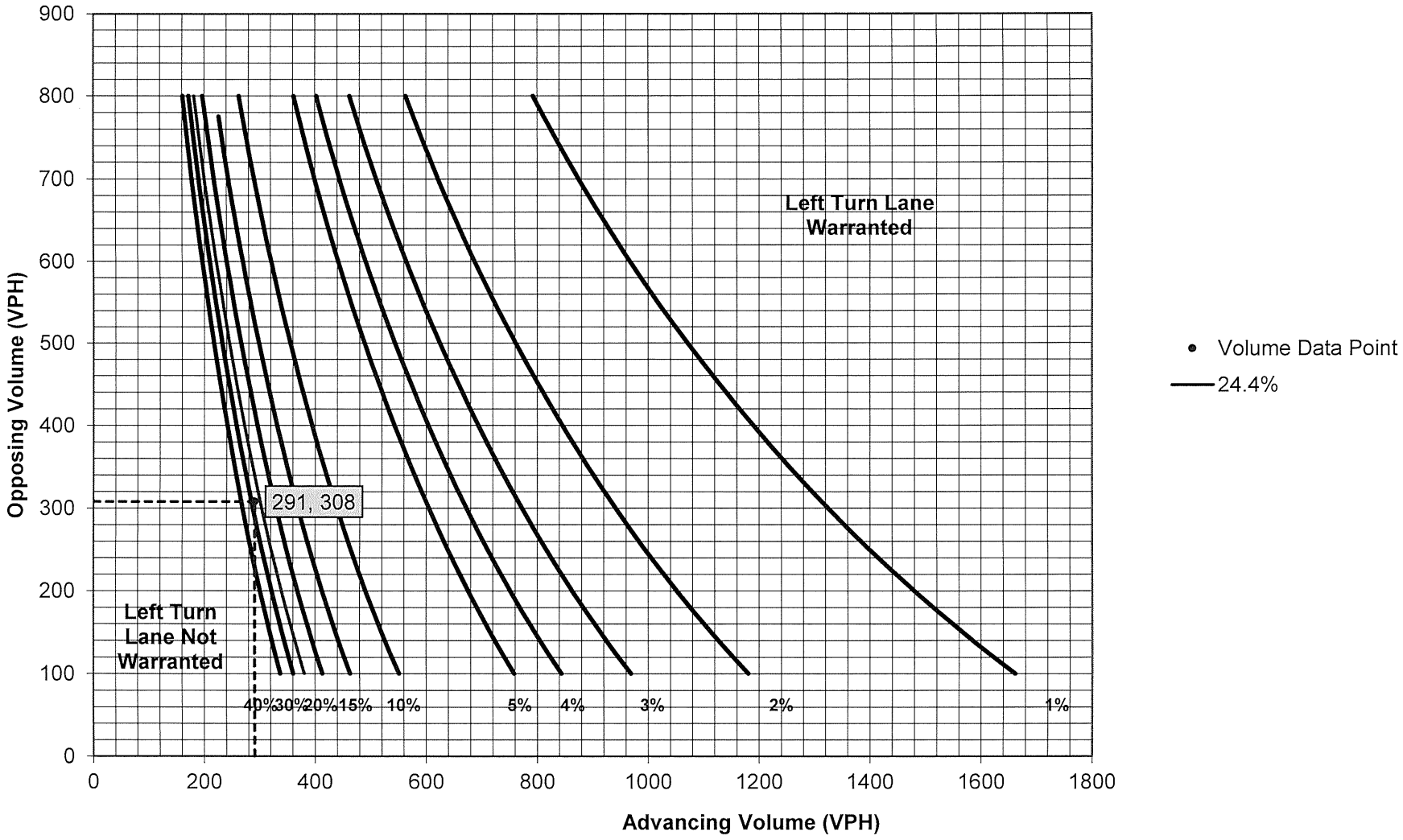
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



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PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	2.0%	15
	Through	-	262	2.0%	270
	Right	Yes	23	0.0%	23
Opposing	Left	Yes	71	0.0%	71
	Through	-	203	2.0%	210
	Right	Yes	9	2.0%	10

Advancing Volume:	308
Opposing Volume:	291
Left Turn Volume:	15
% Left Turns in Advancing Volume:	4.87%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	2.0%	N/A
	Through	-	262	2.0%	N/A
	Right	-	23	0.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	15
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

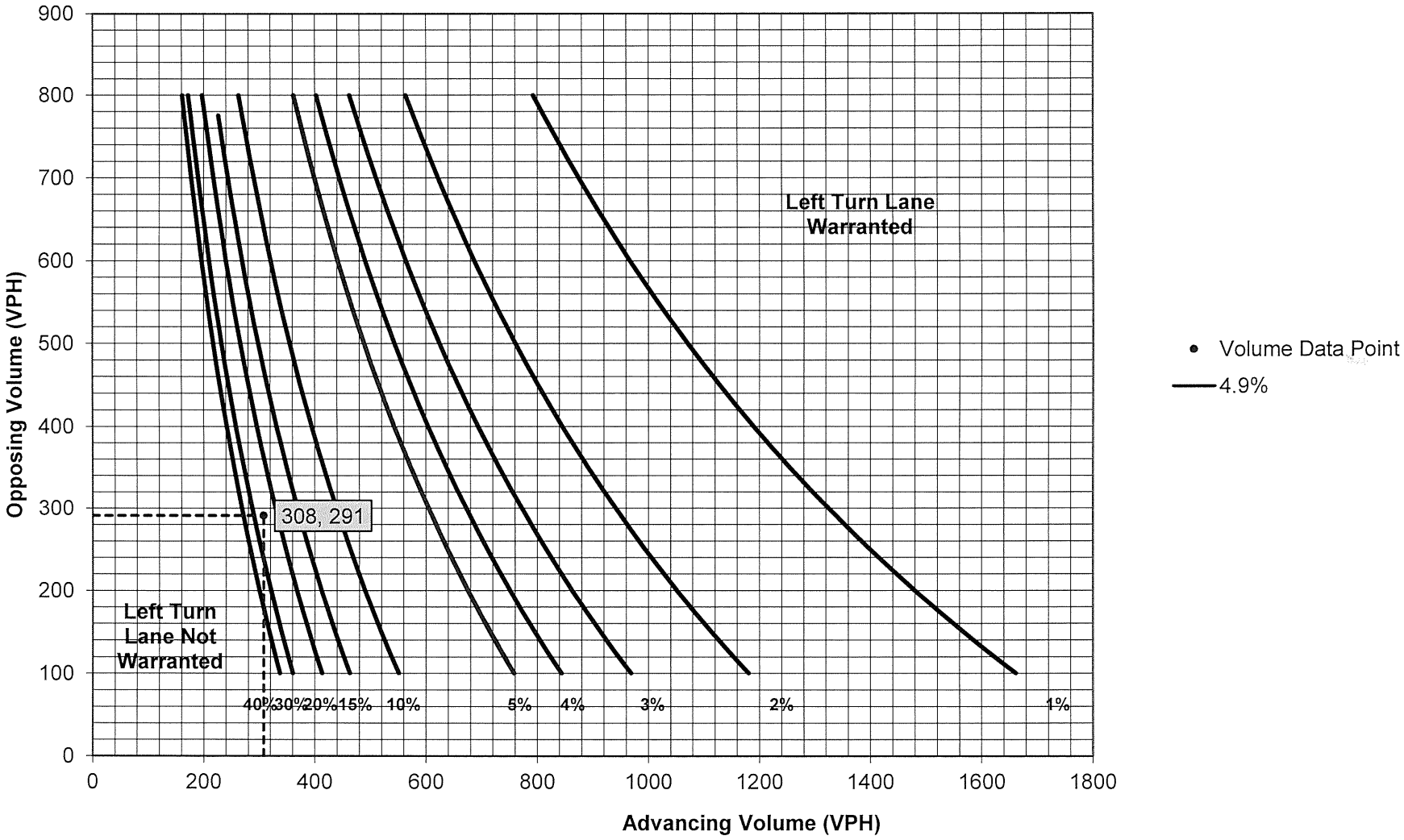
Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 1. Warrant for left turn lanes on two-lane roadways (speeds to 35 mph, unsignalized and signalized intersections)

(L = % Left Turns in Advancing Volume)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30	Type of Analysis	
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	6	0.0%	N/A
	Through	-	230	3.0%	N/A
	Right	Yes	10	33.0%	N/A
Opposing	Left	Yes	2	2.0%	N/A
	Through	-	328	3.0%	N/A
	Right	Yes	2	0.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	6	0.0%	6
	Through	-	230	3.0%	241
	Right	-	10	33.0%	15

Advancing Volume:	262
Right Turn Volume:	15

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	15
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

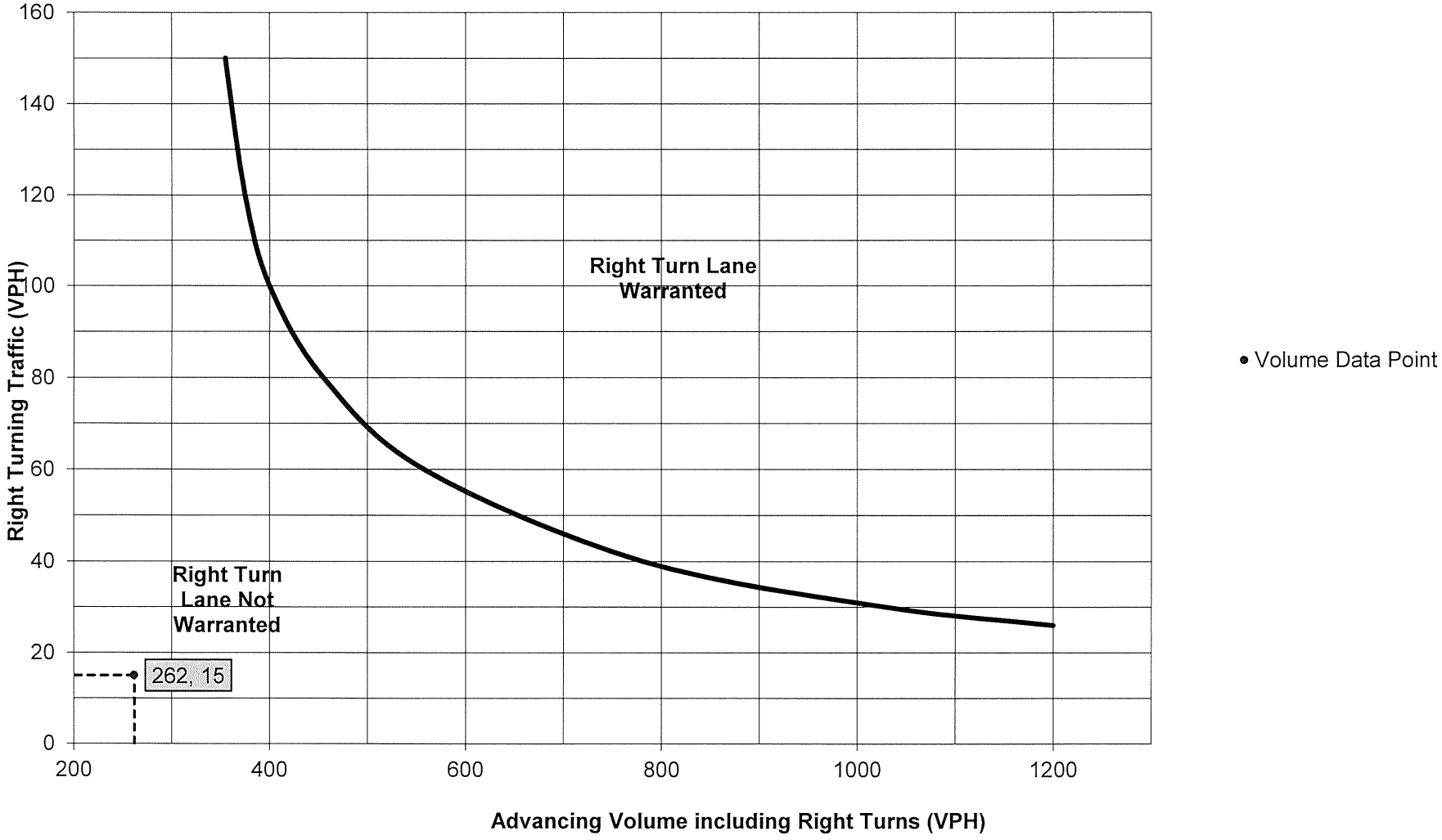
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	**N/A**	Feet
Condition B:	**N/A**	Feet
Condition C:	**N/A**	Feet
Required Right Turn Lane Storage Length:	**N/A**	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30	Type of Analysis	
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	2	2.0%	N/A
	Through	-	328	3.0%	N/A
	Right	Yes	2	0.0%	N/A
Opposing	Left	Yes	6	0.0%	N/A
	Through	-	230	3.0%	N/A
	Right	Yes	10	33.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	2	2.0%	3
	Through	-	328	3.0%	343
	Right	-	2	0.0%	2

Advancing Volume:	348
Right Turn Volume:	2

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	2
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

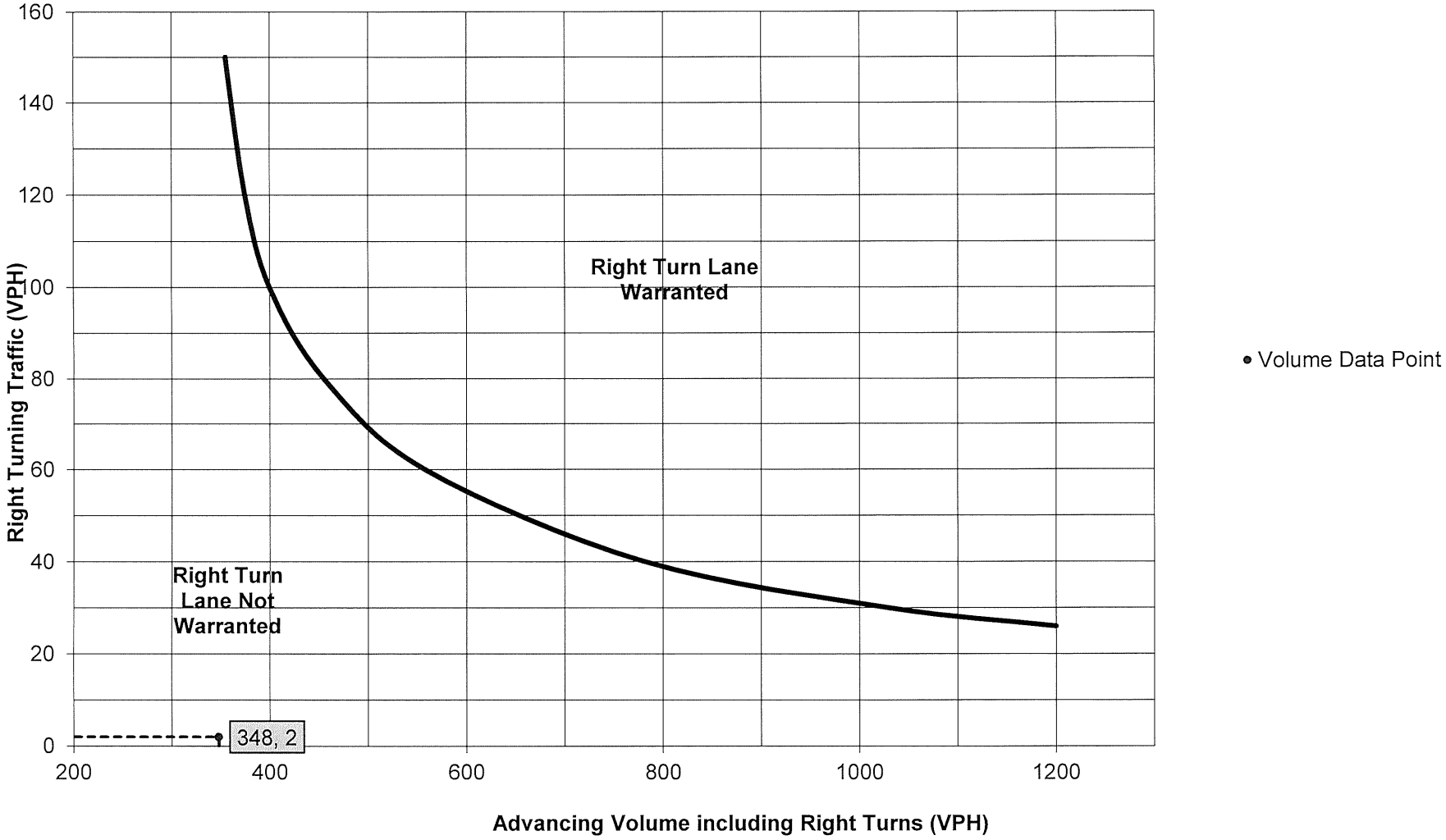
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	**N/A**	Feet
Condition B:	**N/A**	Feet
Condition C:	**N/A**	Feet
Required Right Turn Lane Storage Length:	**N/A**	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30	Type of Analysis	
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	0.0%	N/A
	Through	-	277	0.0%	N/A
	Right	Yes	21	2.0%	N/A
Opposing	Left	Yes	7	2.0%	N/A
	Through	-	340	0.0%	N/A
	Right	Yes	5	0.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	0.0%	14
	Through	-	277	0.0%	277
	Right	-	21	2.0%	22

Advancing Volume:	313
Right Turn Volume:	22

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	22
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

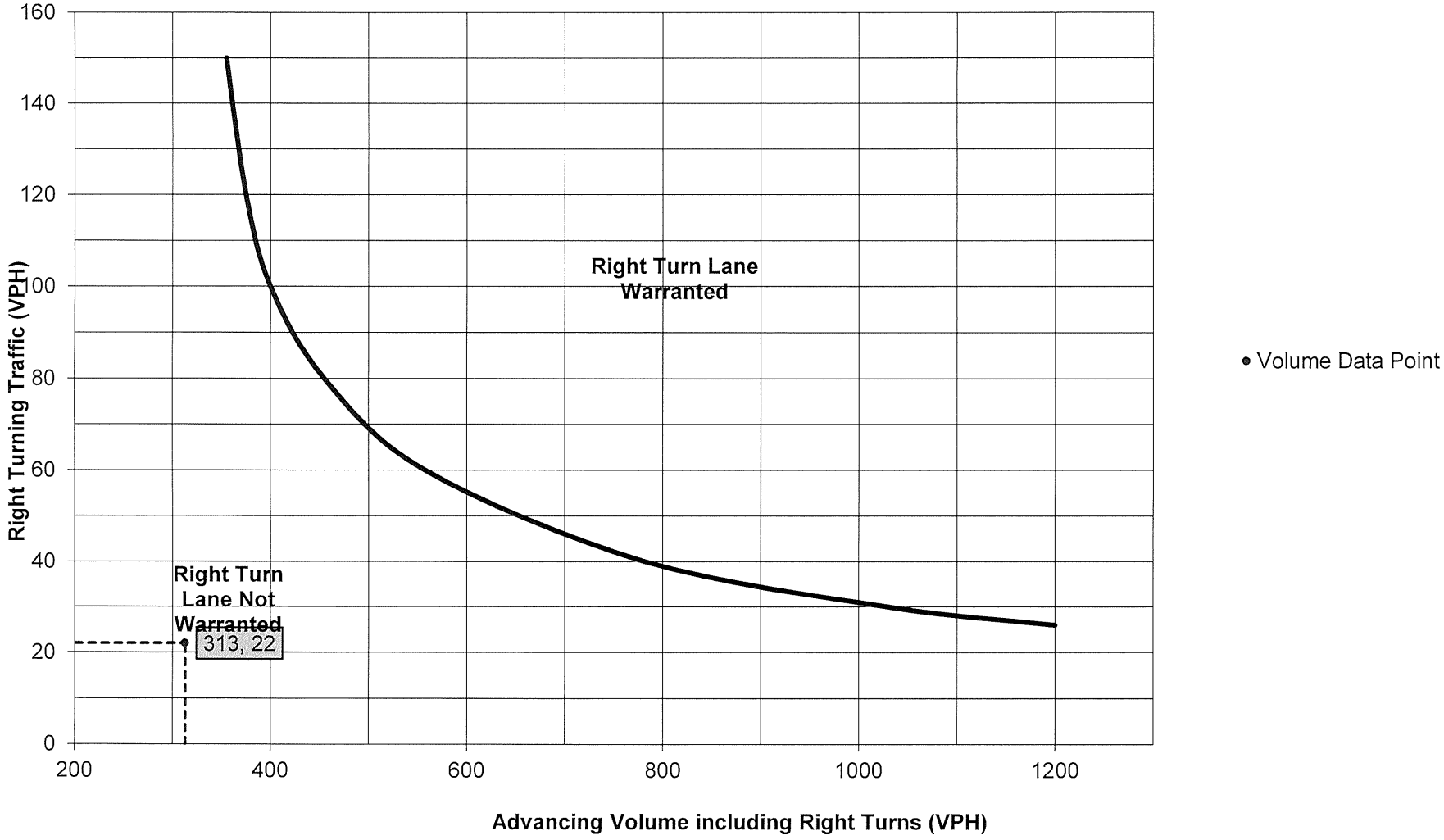
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	**N/A**	Feet
Condition B:	**N/A**	Feet
Condition C:	**N/A**	Feet
Required Right Turn Lane Storage Length:	**N/A**	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways (40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Hunt Drive - Proposed Road A SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30	Type of Analysis	
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	7	2.0%	N/A
	Through	-	340	0.0%	N/A
	Right	Yes	5	0.0%	N/A
Opposing	Left	Yes	14	0.0%	N/A
	Through	-	277	0.0%	N/A
	Right	Yes	21	2.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	7	2.0%	8
	Through	-	340	0.0%	340
	Right	-	5	0.0%	5

Advancing Volume:	353
Right Turn Volume:	5

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	5
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

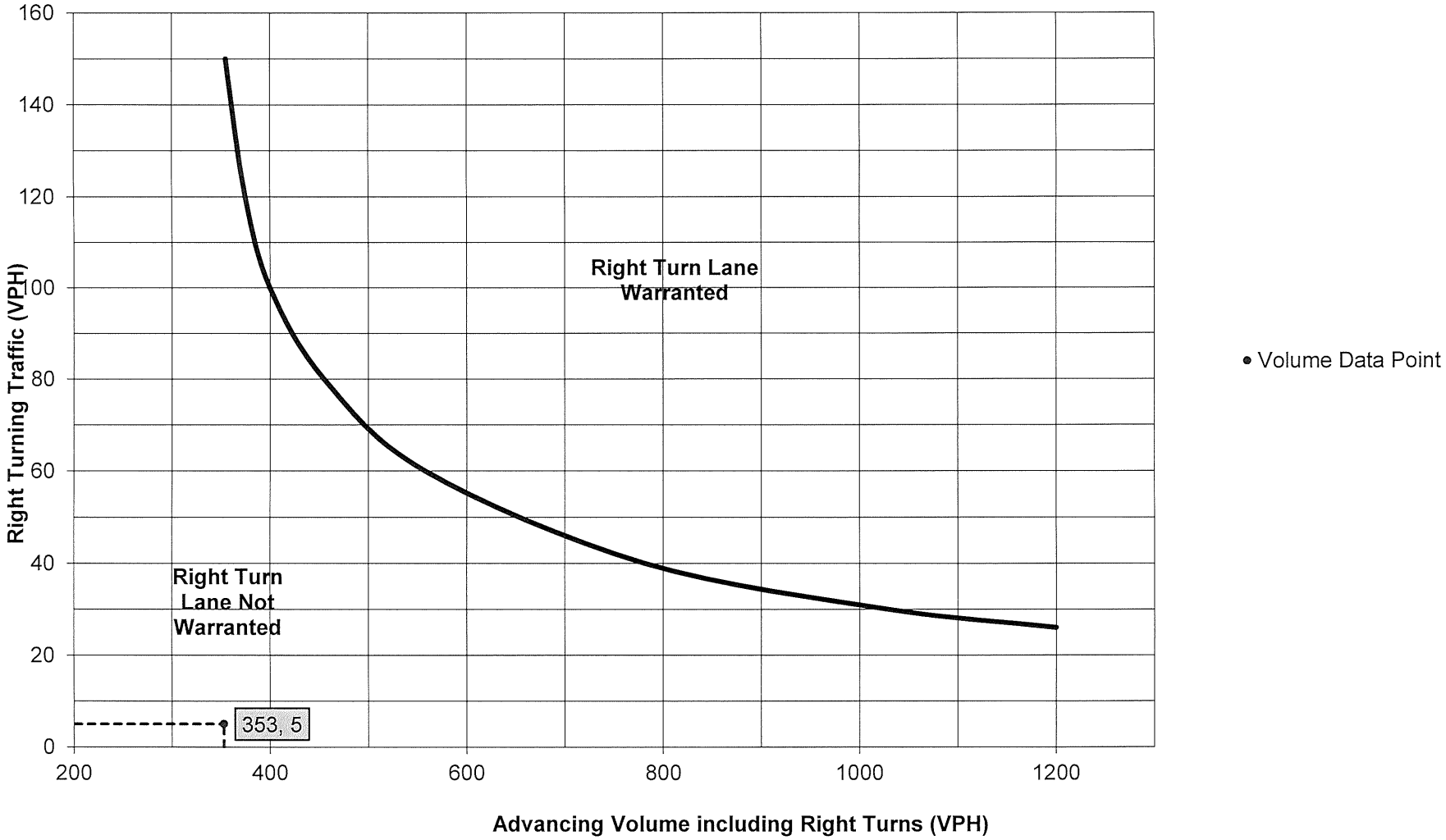
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Right Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways (40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	56	10.0%	N/A
	Through	-	190	2.0%	N/A
	Right	Yes	3	2.0%	N/A
Opposing	Left	Yes	5	2.0%	N/A
	Through	-	241	3.0%	N/A
	Right	Yes	20	11.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	56	10.0%	65
	Through	-	190	2.0%	196
	Right	-	3	2.0%	4

Advancing Volume:	265
Right Turn Volume:	4

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	4
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

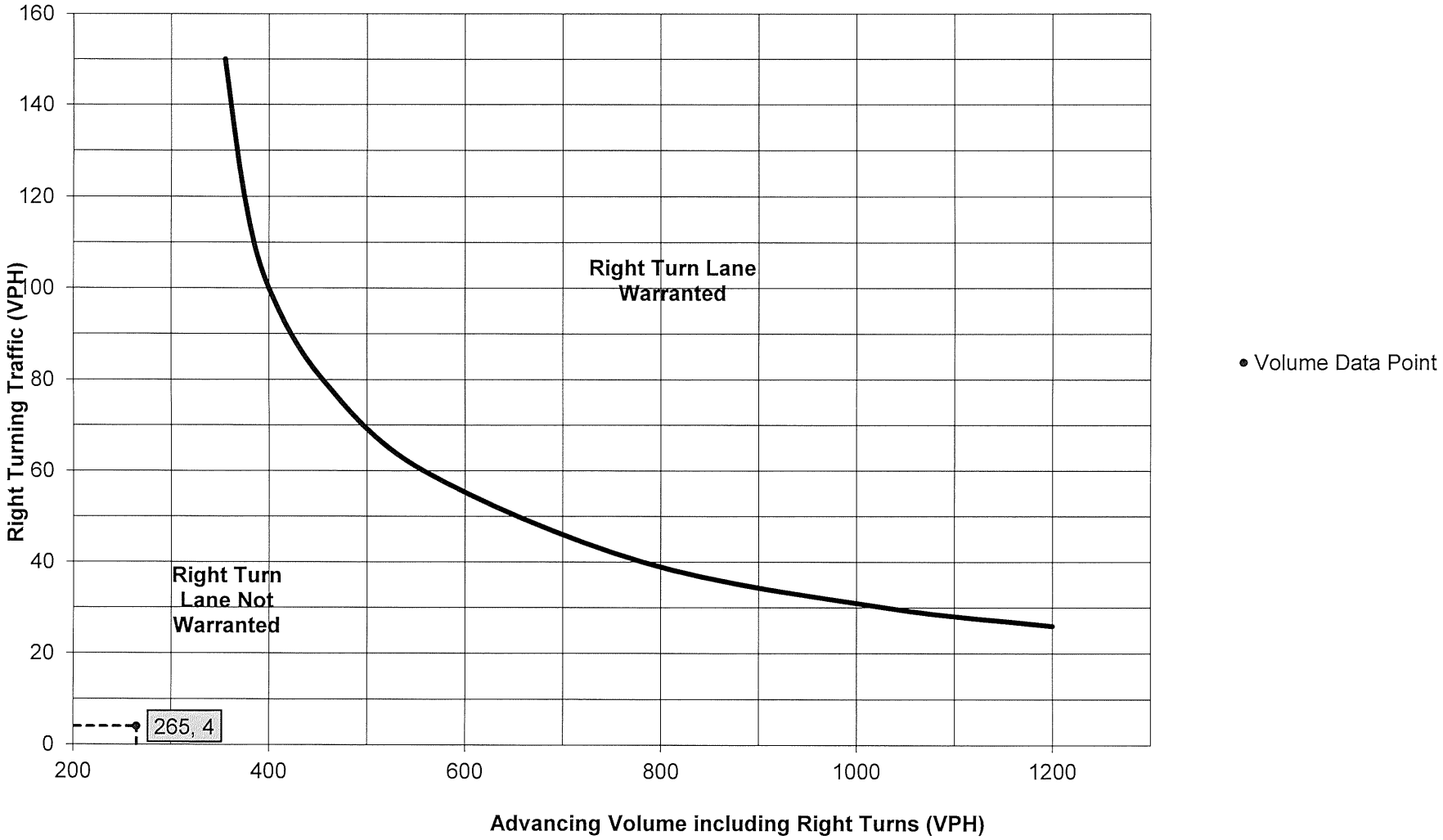
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	**N/A**	Feet
Condition B:	**N/A**	Feet
Condition C:	**N/A**	Feet
Required Right Turn Lane Storage Length:	**N/A**	Feet

Additional Findings: **N/A**

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	5	2.0%	N/A
	Through	-	241	3.0%	N/A
	Right	Yes	20	11.0%	N/A
Opposing	Left	Yes	56	10.0%	N/A
	Through	-	190	2.0%	N/A
	Right	Yes	3	2.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	5	2.0%	6
	Through	-	241	3.0%	252
	Right	-	20	11.0%	24

Advancing Volume:	282
Right Turn Volume:	24

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	24
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

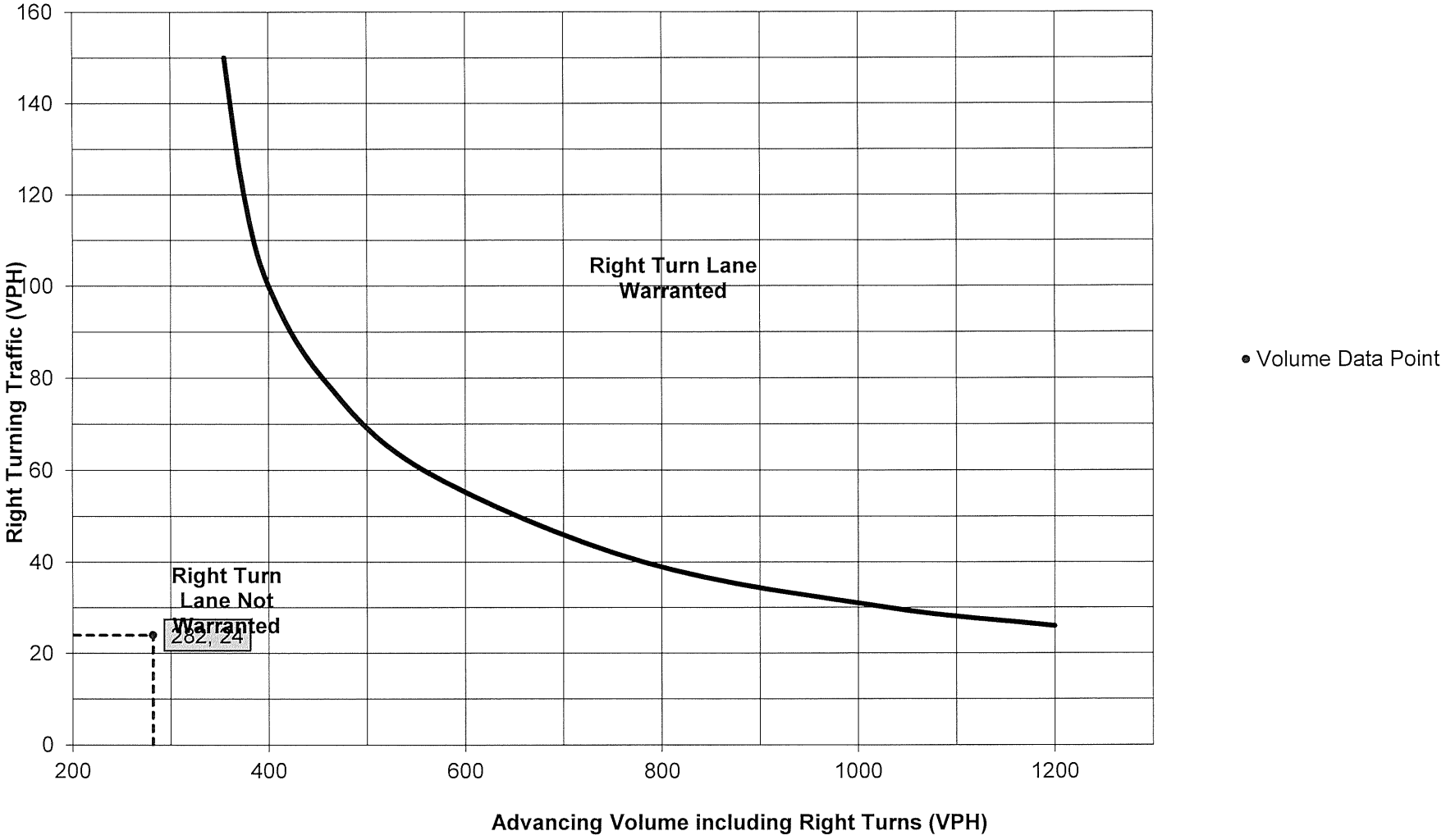
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Right Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways (40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D NORTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	71	0.0%	N/A
	Through	-	203	2.0%	N/A
	Right	Yes	9	2.0%	N/A
Opposing	Left	Yes	14	2.0%	N/A
	Through	-	262	2.0%	N/A
	Right	Yes	23	0.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	71	0.0%	71
	Through	-	203	2.0%	210
	Right	-	9	2.0%	10

Advancing Volume:	291
Right Turn Volume:	10

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	10
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

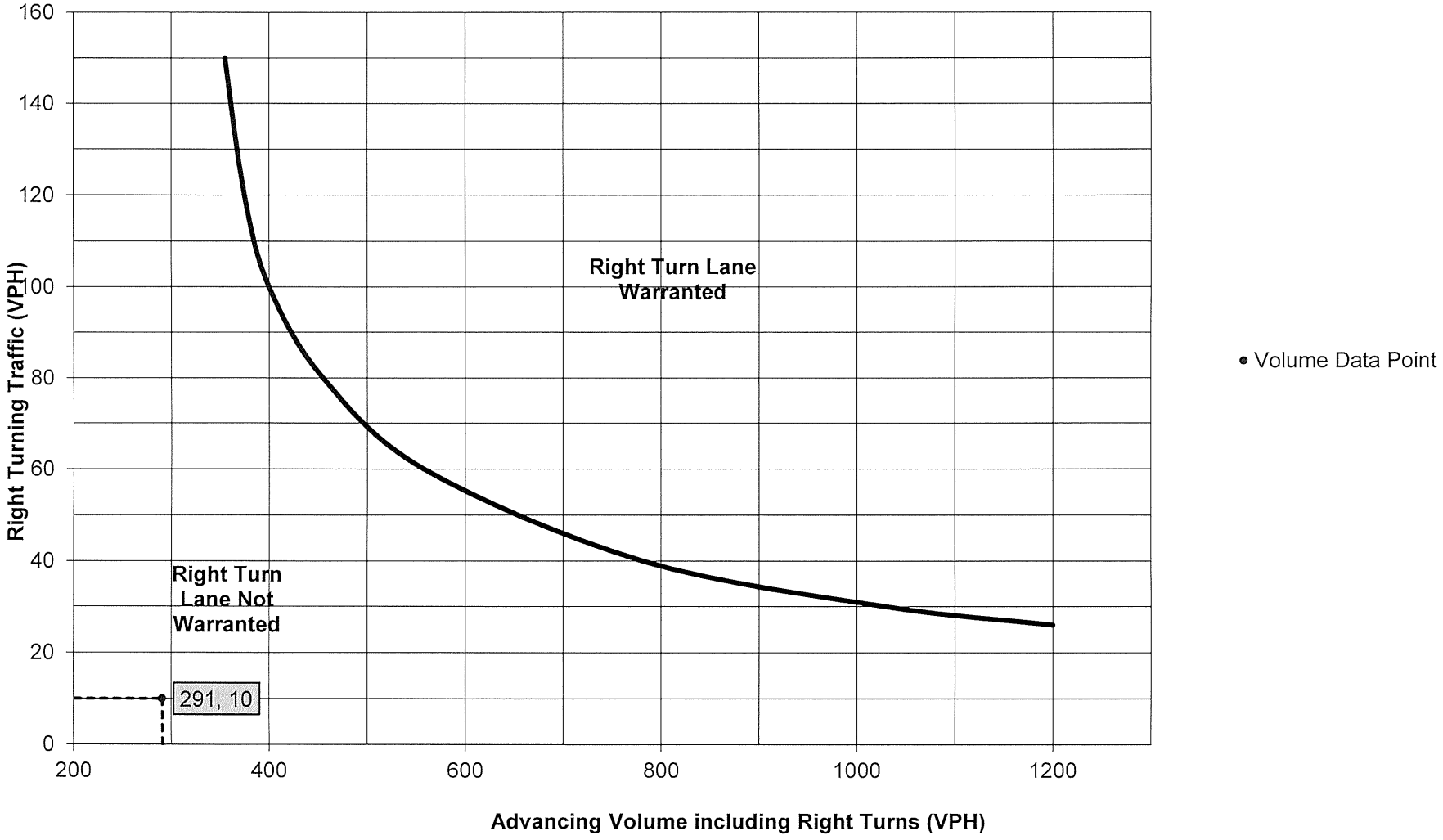
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	**N/A**	Feet
Condition B:	**N/A**	Feet
Condition C:	**N/A**	Feet
Required Right Turn Lane Storage Length:	**N/A**	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways (40 mph or lower speeds, unsignalized and signalized intersections)



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Westtown Township	Analysis Date:	4/18/2023
County:	Chester County	Conducted By:	LJS
PennDOT Engineering District:	6	Checked By:	JAS
		Agency/Company Name:	TRG, Inc.

Intersection & Approach Description: Shiloh Road (T-626) / Oakboune Rd - Proposed Road D SOUTHBOUND

Analysis Period:	2033 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Unsignalized		
Posted Speed Limit (MPH):	30		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	2.0%	N/A
	Through	-	262	2.0%	N/A
	Right	Yes	23	0.0%	N/A
Opposing	Left	Yes	71	0.0%	N/A
	Through	-	203	2.0%	N/A
	Right	Yes	9	2.0%	N/A

Advancing Volume:	N/A
Opposing Volume:	N/A
Left Turn Volume:	N/A
% Left Turns in Advancing Volume:	N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	14	2.0%	15
	Through	-	262	2.0%	270
	Right	-	23	0.0%	23

Advancing Volume:	308
Right Turn Volume:	23

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 9**

Warrant Met?: **No**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Unsignalized
Design Hour Volume of Turning Lane:	23
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

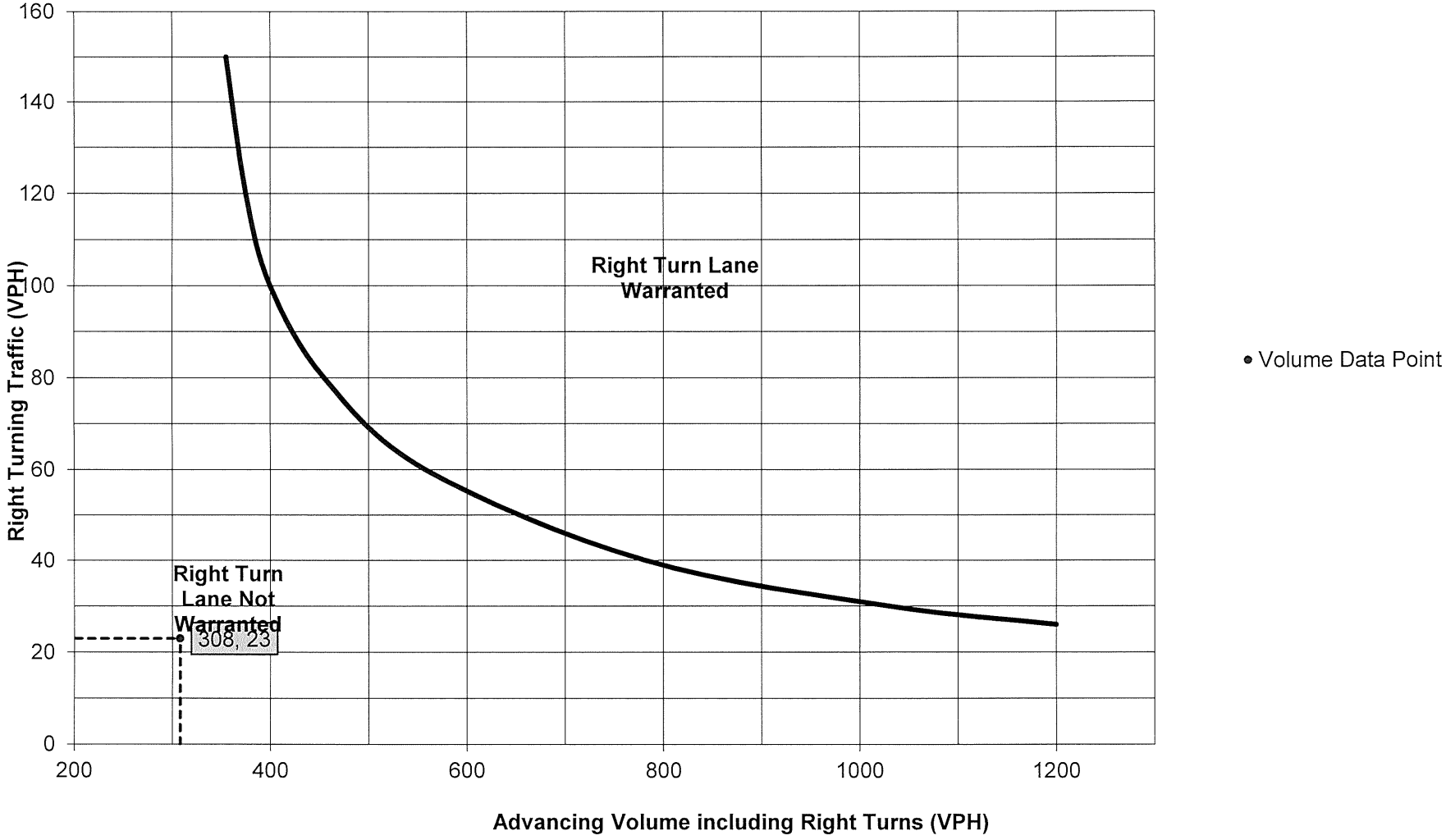
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Right Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Figure 9. Warrant for right turn lanes on two-lane roadways (40 mph or lower speeds, unsignalized and signalized intersections)



CORRESPONDENCE

ALBERT FEDERICO CONSULTING, LLC
Traffic Engineering and Mobility Solutions

133 Rutgers Avenue
Swarthmore, PA 19081

September 16, 2021 ***via email only***

Maggie Dobbs, AICP
Director of Planning & Zoning
1039 Wilmington Pike
West Chester, PA 19382

Re: Stokes Estate (Fox Clearing, LLC)
Conditional Use - Traffic Review
Westtown Township, Chester County

Ms. Dobbs:

As requested, a technical review of the following materials has been completed relative to the Westtown Township Zoning Ordinance as well as reasonable and customary standards of Traffic Engineering practice:

- Comment Response Letter, prepared by DL Howell, dated August 27, 2021
- Conditional Use Plan for Stokes Estate, prepared by DL Howell, revised August 31, 2021

The applicant is proposing to develop sixty-eight residential dwelling units immediately south of Shiloh Hill Drive (TR 559) and east of Shiloh Road (TR 626). Vehicular access is proposed via a new street connection to Shiloh Road and an extension of Little Shiloh Road (TR 367). On-site circulation is proposed via new internal streets and sidewalks. The plan also includes four cul-de-sacs.

Please note that this review should be considered preliminary and subject to change based on the submission of revised materials to address the comments presented herein.

The following comments are offered for the Township's consideration:

1. Conditional Use Plan
   a. Additional information should be submitted to demonstrate that:
      i. PennDOT stopping sight distances are provided at the intersections of Shiloh Road at Road "A", and Shiloh Hill Drive at Little Shiloh Road. This should include design assumptions, consideration of vehicles turning left into the site and vertical profiles of Shiloh Road and Little Shiloh Road. *{§149-908C}*

      The comment remains outstanding. The submitted Sight Distance exhibits should be revised to:

      1) Clearly indicate the source of the survey.

      2) Ensure stationing is consistent between the plan and profiles.

3) **Amend the table to include sight distances from PA 67 §441.8(h)(1).**
4) **Provide additional information regarding the obstruction to the right of Road A (approximate STA 5+30).**

The applicant must meet this code requirement or request a waiver. Based on the submitted materials a waiver would not be supported.

ii. Code compliant access can be provided from the Vanscovich property (Parcel 67-20-20.6) to the proposed Shiloh Hill Drive extension. *{§170-513E}*

The comment remains outstanding. The Applicant has requested to address this at Land Development. The Applicant must provide a driveway to Shiloh Hill Drive for the Vanscovich property that complies all applicable codes.

iii. The Applicant must provide an access to the Galilea property (Parcel 67-2-8) that complies all applicable codes. *{§170-513E}*

b. A continuous collector street and trails shall be developed as part of the development to provide internal through connection as required by the Board of Supervisors. *{§170-503C(3)}*

i. As submitted, Road "A", "B" and "C" (aka Shiloh Hill Drive extension) do not provide a continuous collector street.

The comment has been resolved.

ii. The site is proximate to several proposed trails and a recommended bike route. Consideration should be given to future connectivity.

The comment remains outstanding. The Applicant has stated a willingness to discuss the issue further. It is recommended that the Board considers requiring easements to provide a future connection to proposed trails to the east and south of the property as illustrated in the Trails and Bikeways Map of the Township Comprehensive Plan.

c. The following issues may be addressed at Land Development but are noted here as the resolution could impact the overall number of proposed dwellings:

i. The Applicant should confirm that Road B is the same or greater width than Shiloh Hill Drive. *{§149-901B}*

The comment has been resolved.

ii. Cul-de-sac's "A" and "C" do not meet the required minimum length. *{§149-901F}*

The comment has been resolved.

iii. The internal streets are designed to Minor Road standards. *{§149-903A.3}*

The comment has been resolved.

iv. The cul-de-sac right-of-way and turnaround cartway paving do not meet the required minimum radii. *{§149-903A.4}*

The comment has been resolved.

v. Shiloh Road is classified as a Collector; the Board may require dedication of an additional five feet of right way along the site frontage. *{§149-903C.1}*

The comment remains outstanding. It is recommended that the Board considers requiring a perpetual offer of dedication of Right-of-Way along the Shiloh Road frontage.

vi. A number of the vertical curves along the proposed internal streets do not provide the required minimum sight distance. *{§149-906A}*

The comment remains outstanding. The minimum Rate of Vertical Curvature for sag curves along Minor Roads is 37.0. The applicant must meet this code requirement or request a waiver. Based on the submitted materials a waiver would not be supported.

vii. The internal streets do not appear to provide the required level areas approaching intersections. *{§149-907E}*

The comment remains outstanding. The grade of Road "C" exceeds 2% approaching Road "A". The applicant must meet this code requirement or request a waiver. Based on the submitted materials a waiver would not be supported.

viii. Road "B" does not meet the minimum block length between "C" and "D". *{§149-913B}*

The comment remains outstanding. The block of Road "A" between Roads "B" and "C" is less than 500 feet. The applicant must meet this code requirement or request a waiver. Based on the submitted materials a waiver would not be supported.

ix. The Applicant should confirm that adequate sight distance can be provided for the driveway accessing Lot 68. *{§149-915.K5}*

The comment has been resolved.

x. The Applicant should provide confirmation that the proposed grading of the internal streets will permit the construction of crosswalks in accordance with applicable accessibility standards. *{§149-916B}*

The comment remains outstanding. The centerline grade of Road "C" at Road "A" exceeds the permitted cross-slope for an accessible crossing. The applicant must meet this code requirement or request a waiver. Based on the submitted materials a waiver would not be supported.

xi. The centerline grade of Road "A" exceeds 7% in several locations. Grades between 7% and 10% require the recommendation of the Township Engineer and Board approval. Based on the submitted materials the steeper grades are not recommended. {§149-904B}

xii. Road "A" is proposed to be constructed with a minimum (150') horizontal radius and significant sag vertical curve, including approach grades at or exceeding 7%. Sharp horizontal curvature should not be introduced near the bottom of a steep grade approaching or near the low point of a pronounced sag vertical curve.

xiii. The block of Road "A" between Roads "B" and "C" does not provide sufficient depth for two tiers of lots. Layouts with a single tier of lots is subject to Board approval. The Applicant should provide additional information supporting the proposed block layout. {§149-913G}

xiv. The Applicant should confirm that compliant driveways can be provided for Lots 14, 15, 47 and 50. {§149-915C}

xv. The Applicant should confirm that providing adequate sight distance does not unduly impact the building envelope of Lot 67.

2. Traffic Impact Study
   a. The study should address sight distance at the intersection of Shiloh Hill Drive at Little Shiloh Road. *{§149-804A(2)d}*

      The comment remains outstanding. The applicant must meet this code requirement or request a waiver. Based on the submitted materials a waiver would not be supported.

   b. The future condition analyses assume the traffic signal at Shiloh Road/Westtown-Thornton Road and Street Road is re-timed, reducing green times along Street Road (a PennDOT designated Critical Corridor) in favor of the minor approaches.

      The comment remains outstanding. It is recommended that the Board consider a condition requiring the Applicant to contribute to the re-timing of the signal as assumed in the Study.

   c. The following issues may be addressed at Land Development:
      i. Traffic counts must be completed between April and November. *{§149-804A(3)g} There is no objection to the Applicant requesting a Waiver.*

         The comment remains outstanding. The Applicant has indicated that a waiver will be requested during Land Development. Consistent with PennDOT SOL 494-20-04, projects analyzed using adjusted traffic volumes should be reevaluated after all of the Governor's restrictions are lifted. New traffic counts should be completed at the intersections of Shiloh Road/Westtown-Thorton Road and Shiloh Road/Hunt Drive while school is in session.

      ii. Additional information should be provided regarding the distribution of project traffic, specifically the significant skew towards the Shiloh Road access and lack of traffic assigned to Oakbourne Road and north Westtown Road. *{§149-804A(6)}*

         This comment has been resolved.

3. Additional items
   a. The number of accesses was discussed at length during the September 8th Planning Commission meeting. From a transportation perspective two accesses are preferred due to improved resident mobility, community connectivity and emergency service response. If a determination were made to limit the property to a single public access, then the extension of an existing public road (Shiloh Hill Drive) would be preferred over a new connection to a more heavily traveled road (Shiloh Road).

With respect to the subject Conditional Use Application, the burden of proof shall be upon the applicant to prove to the satisfaction of the Board of Supervisors, by credible evidence, that the use will not result in or substantially add to a significant traffic hazard or significant traffic congestion. The peak traffic generated by the development shall be accommodated in a safe and efficient manner. Such analysis shall consider any improvements to streets that the applicant is committed to complete or fund. *{§170-2009.D(1)(h)}*

Based on the preceding, the Applicant has not demonstrated compliance with the conditional use criteria in §170-2009.D(1)(h).

Please do not hesitate to contact me at 610.608.4336 or albert@federico-consulting.com should you have any questions or require additional information.

Sincerely,

Albert Federico, P.E., PTOE