

Traffic Impact Study Report

S. Pope Lick Residential

Louisville, Jefferson Co., KY

Prepared For:

Ball Homes, LLC

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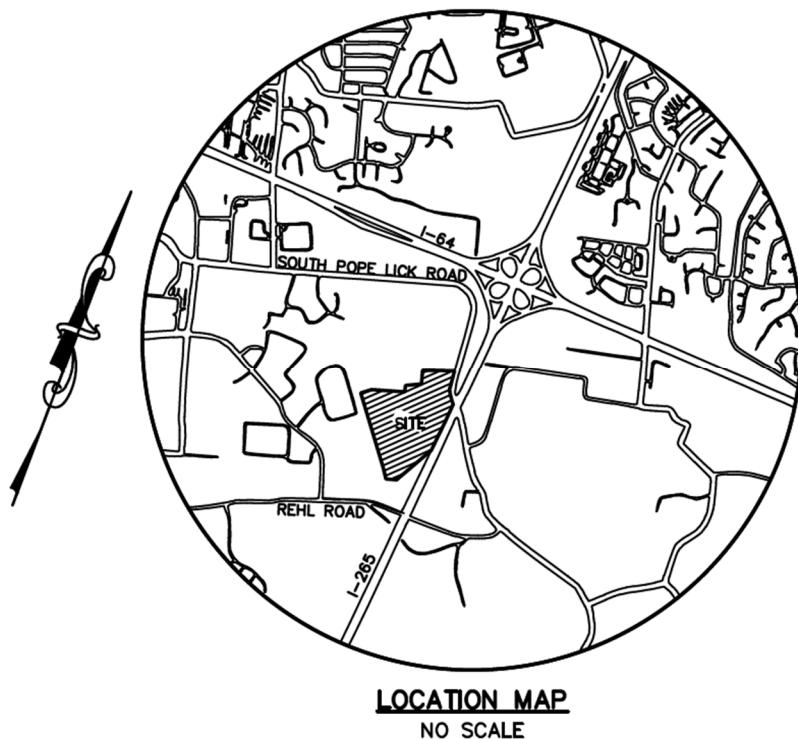
INTRODUCTION

This traffic study analyzes the potential traffic impact of a proposed residential development in Louisville, Jefferson County, KY. The development is to consist of 148 single family homes and 364 3-4 story multi-family units. The development is to be located on S. Pope Lick Road west of I-265 (**Figure 1**). Two access points are to be located on S. Pope Lick Road, north of the I-265 overpass. A proposed site plan is provided in **Appendix A**. The study will evaluate traffic operations at the proposed access points on South Pope Lick Road, and the following intersections:

- S. Pope Lick Road at Turner Station Road
- S. Pope Lick Road at Poplar Lane

The scope of this study is based on a review of existing travel patterns in the area and discussions with Louisville Metro Planning and Design Services.

Figure 1 Study Area

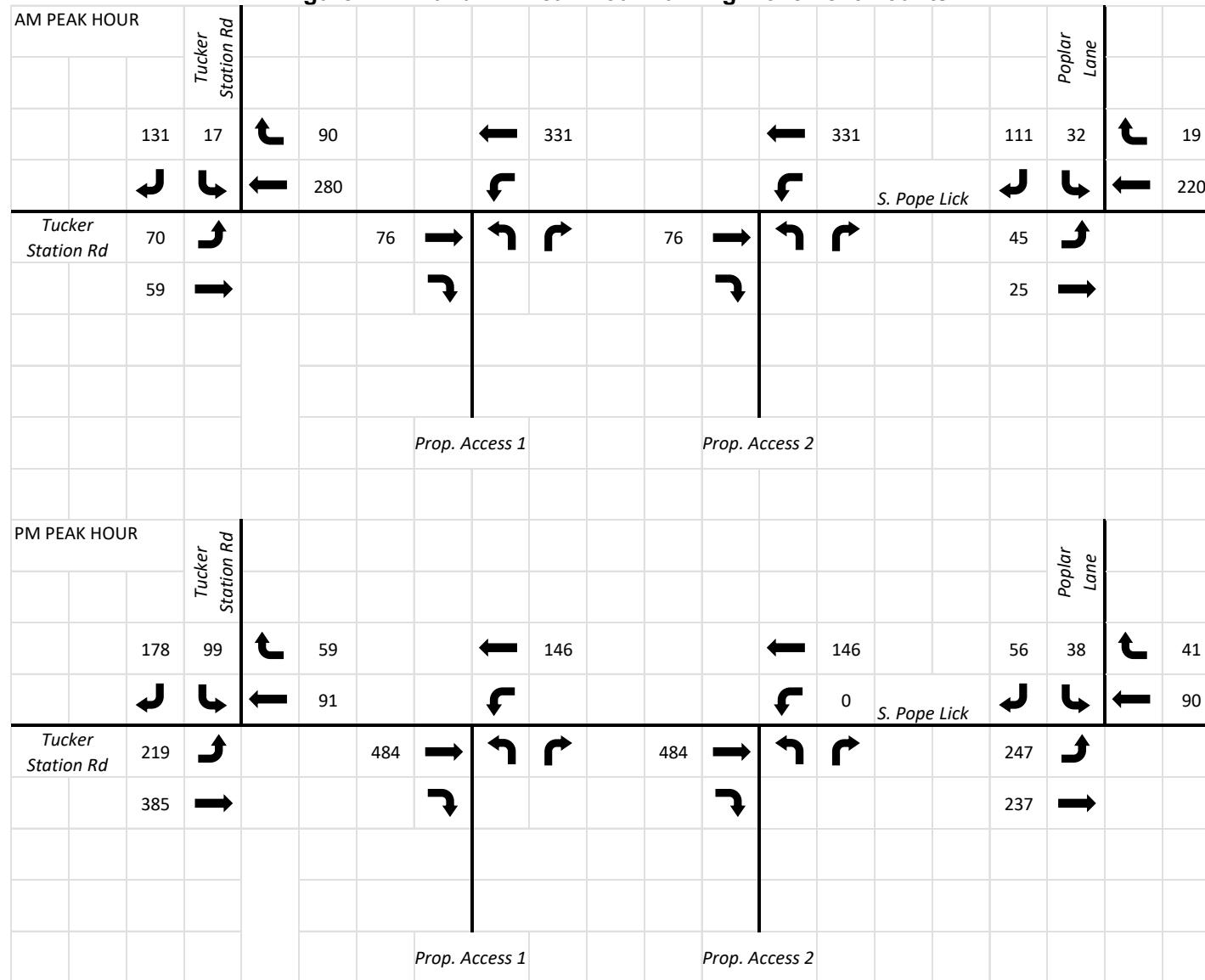


EXISTING CONDITIONS

S. Pope Lick Road is a two-lane roadway with a posted speed of 35 mph. The intersections of S. Pope Lick Road at Tucker Station Road and at Poplar Lane are both 'T' intersections. The Tucker Station Road is all-way stop controlled, while the intersection at Poplar Lane only has stop control on the Poplar Lane approach. No Auxiliary turn lanes are present at either intersection.

AM and PM turning movement counts were collected on Thursday May 19, 2022 between 7-9 a.m. and 4-6 p.m. at the study intersections. Full turn movement count data is provided in **Appendix B**. AM and PM peak hour traffic volumes are summarized in **Figure 2**.

Figure 2: AM and PM Peak Hour Turning Movement Counts



TRIP GENERATION

Trip Generation was conducted in accordance with the ITE Trip Generation Web Based App, 11th edition. Trip Generation utilized **ITE Land Use Code 210 Single Family Homes Detached and Land Use Code 221 Multi-family Housing (mid rise)**. Based on this land use and the proposed 148 single family homes and 364 multi-family homes, the development is expected to generate 255 and 2286 trips per hour during the AM and PM peak hour of the adjacent street traffic, respectively. **Table 1** summarizes the trip generation and **Appendix C** contains output from the ITE Trip Generation Manual. No reductions for pass-by trips or internal trip capture trips were made.

Land Use	ITE Code	Ind. Var.	Units	AM Peak			Saturday		
				Total	Entering	Exiting	Total	Entering	Exiting
Total				255	61	194	286	177	109
Single Family Residential	210	148	units	106	27	79	144	90	54
Multifamily Residential	221	364	units	149	34	115	142	87	55

TRAFFIC FORECASTING

Historic traffic counts were not available for S. Pope Lick Road or Tucker Station Road; however, counts were available for Bluegrass Parkway at station 056L91, which is immediately west of the study area. Based on this data, historic traffic patterns indicate a growth rate of 0.43 percent per year. An average growth rate of 0.5% was used for projecting traffic volumes to the year of opening, 2023 and the design year of 2033. **Appendix D** contains the historic traffic data and output from the KYTC Traffic forecasting spreadsheet. 2023 No Build and 2033 No Build traffic volumes are summarized in **Figures 3 and 4**.

Figure 3: AM and PM 2023 No Build Traffic

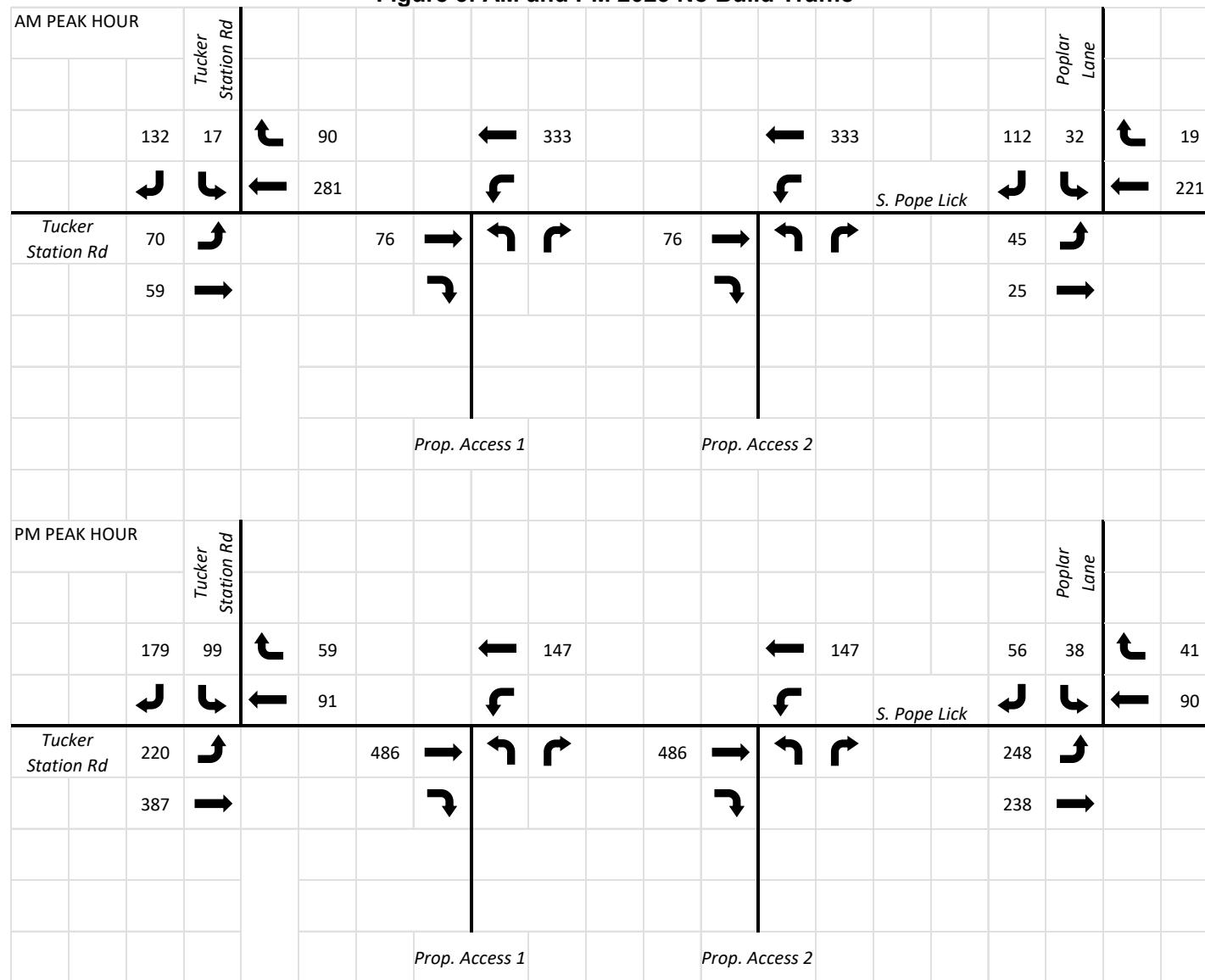
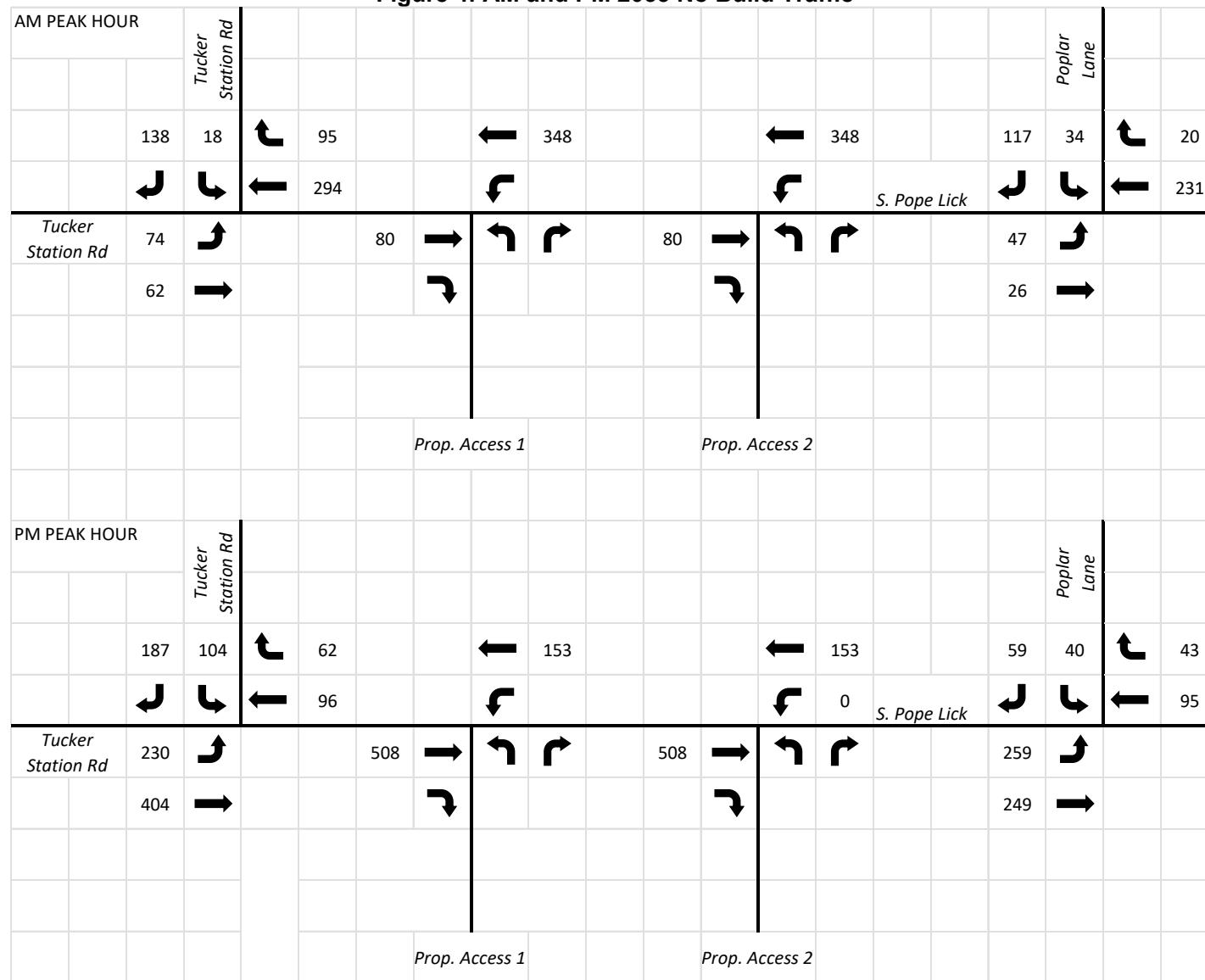


Figure 4: AM and PM 2033 No Build Traffic



TRIP DISTRIBUTION METHODOLOGY

Generated trips were distributed onto the roadway network based on recorded travel patterns on Commerce Parkway as identified through the traffic data collection detailed above. Existing traffic patterns indicated 80% of traffic was to/from the west during both the AM and PM peak periods. Ten percent of total trips generated were assigned to Access Point 1, and 90 percent of generated trips assigned to Access Point 2. This distribution among access points is consistent with the total number of trips generated along Access Point 1. Trip distribution is shown in **Figure 5**. **Figures 6 and 7** show the final build traffic volumes for 2025 and 2035.

Figure 5: AM and PM Trip Distribution

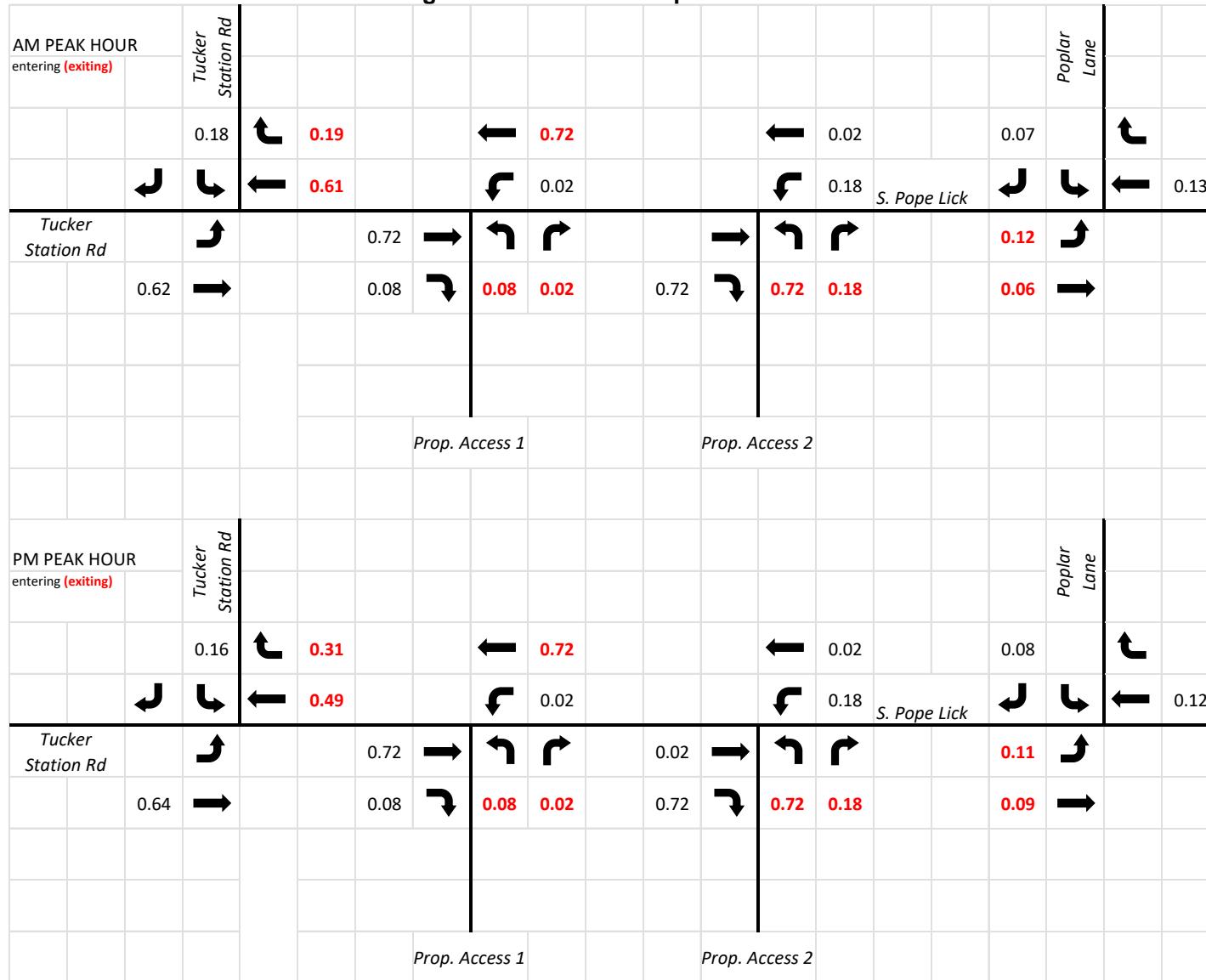


Figure 6: AM and PM 2023 Build Traffic

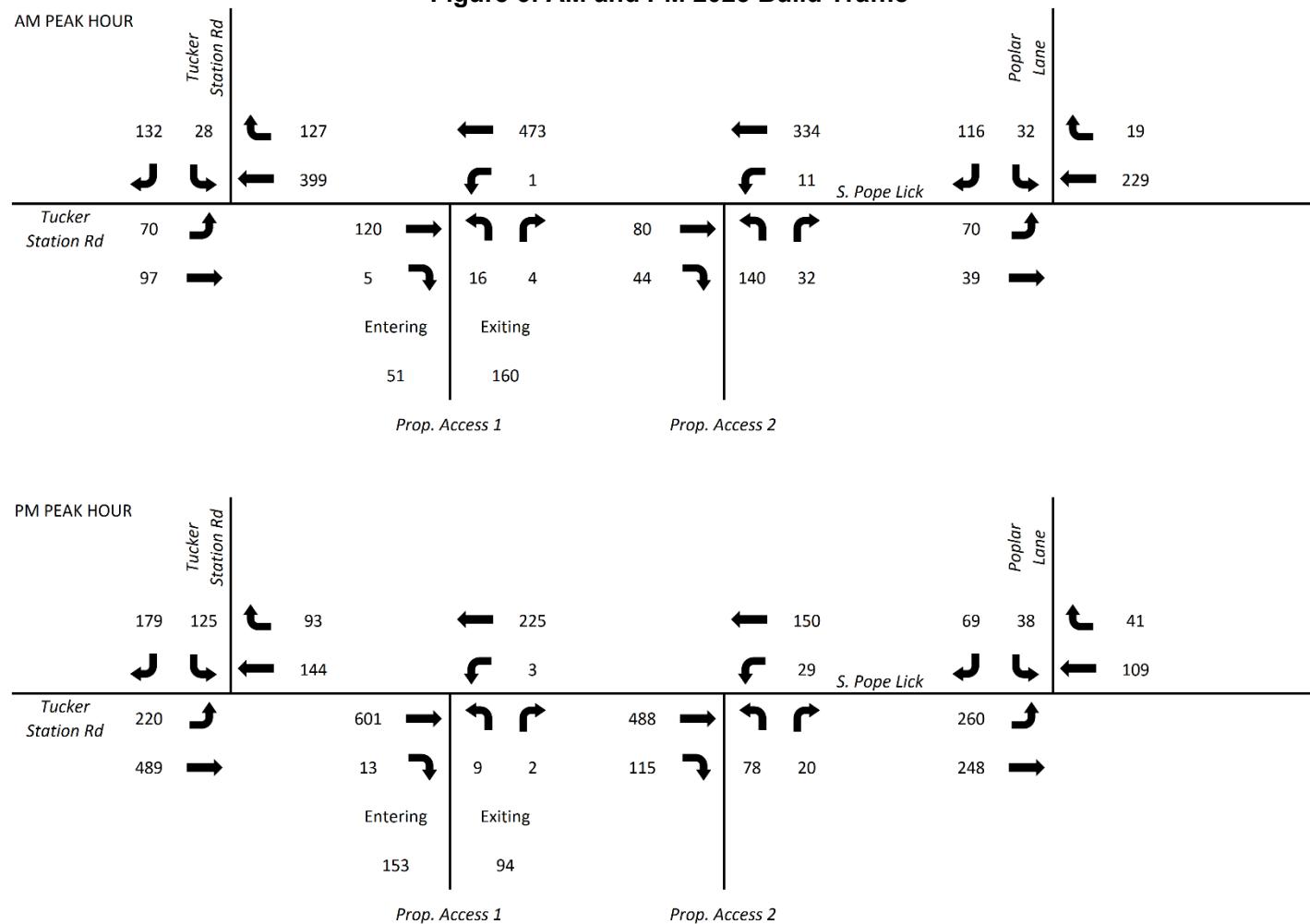
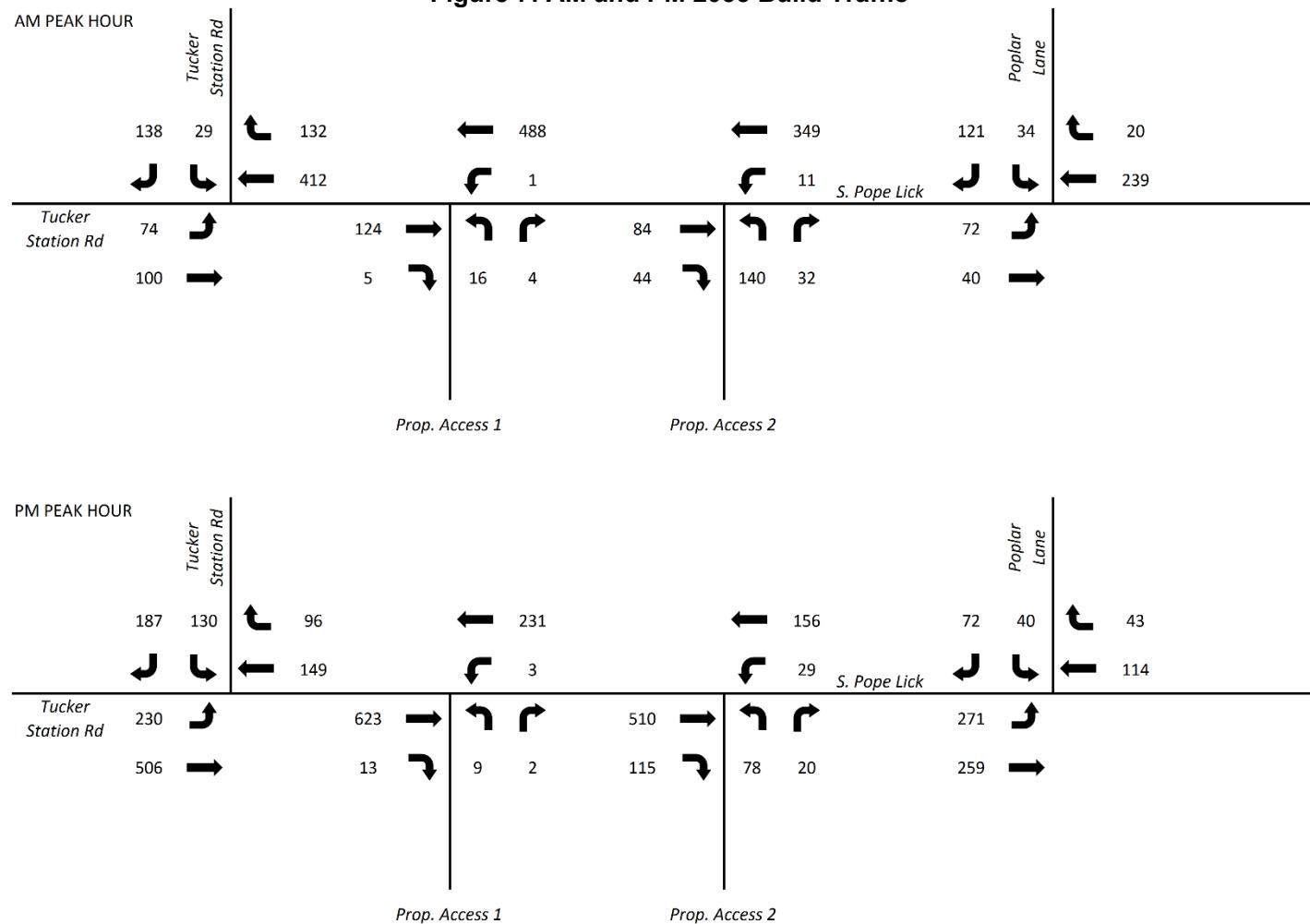


Figure 7: AM and PM 2033 Build Traffic



CAPACITY ANALYSIS

Capacity analysis for the existing, no build and build scenarios was completed for the study intersection during the AM and PM peak hours using HCM methodologies as applied Synchro Capacity Software version 10. **Table 1** summarizes the LOS, and delay for the Existing and Build scenarios. Full capacity analysis output is provided in **Appendix E**.

Table 1: Capacity Analysis Summary

AM PEAK HOUR		Existing		2023 No Build		2023 Build		2033 No Build		2033 Build	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
S. Pope Lick Road at Tucker Station Road	Intersection	B	10.4	B	10.4	B	13.8	B	10.8	B	14.7
	eastbound (Tucker Station)	A	9.0	A	9.0	A	9.8	A	9.2	B	10.0
	westbound (S. Pope Lick)	B	11.4	B	11.5	C	16.3	B	12.0	C	17.7
	southbound (Tucker Station)	A	8.9	A	8.9	A	9.7	A	9.1	A	10.0
S. Pope Lick Rd at Access Point 1	Intersection	-	-	-	-	-	-	-	-	-	-
	westbound (left turn)	-	-	-	-	A	0.0	-	-	A	0.0
	northbound (Access 1)	-	-	-	-	B	12.5	-	-	B	12.7
S. Pope Lick Rd at Access Point 2	Intersection	-	-	-	-	-	-	-	-	-	-
	westbound (left turn)	-	-	-	-	A	0.3	-	-	A	0.3
	northbound (Access 1)	-	-	-	-	B	13.0	-	-	B	13.3
S. Pope Lick Road at Poplar Lane	Intersection	-	-	-	-	-	-	-	-	-	-
	eastbound (left turn)	A	5.2	A	5.2	A	5.3	A	5.2	A	5.3
	southbound (Poplar Ln)	B	11.2	B	11.2	B	11.5	B	11.4	B	11.8
PM PEAK HOUR		Existing		2023 No Build		2023 Build		2033 No Build		2033 Build	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
S. Pope Lick Road at Tucker Station Road	Intersection	D	31.8	D	32.7	F	70.5	E	41.2	F	84.4
	eastbound (Tucker Station)	E	45.2	E	46.8	F	112.4	F	60.8	F	136.2
	westbound (S. Pope Lick)	B	10.5	B	10.5	B	12.4	B	10.8	B	12.8
	southbound (Tucker Station)	B	14.0	B	14.1	C	16.1	B	14.8	C	16.8
S. Pope Lick Rd at Access Point 1	Intersection	-	-	-	-	-	-	-	-	-	-
	westbound (left turn)	-	-	-	-	A	0.1	-	-	A	0.1
	northbound (Access 1)	-	-	-	-	C	16.3	-	-	C	16.7
S. Pope Lick Rd at Access Point 2	Intersection	-	-	-	-	-	-	-	-	-	-
	westbound (left turn)	-	-	-	-	A	1.7	-	-	A	1.6
	northbound (Access 1)	-	-	-	-	C	18.3	-	-	C	19.1
S. Pope Lick Road at Poplar Lane	Intersection	-	-	-	-	-	-	-	-	-	-
	eastbound (left turn)	A	5.0	A	5.0	A	5.9	A	5.1	A	5.2
	southbound (Poplar Ln)	C	15.6	C	15.7	B	14.7	C	16.7	C	17.2

As can be seen from the capacity analysis, eastbound Tucker Station Road is anticipated to operate at or near capacity in the 2033 design year during the PM peak period. The additional traffic through the intersection will push this intersection over capacity, with the eastbound approach operating at LOS F under the No Build Condition. No improvements have been identified for the intersection, as it lies beyond available frontage of the development and any improvements would require right of way acquisition. Additionally, signal warrants may be evaluated to determine if signalization is an option at the intersection.,

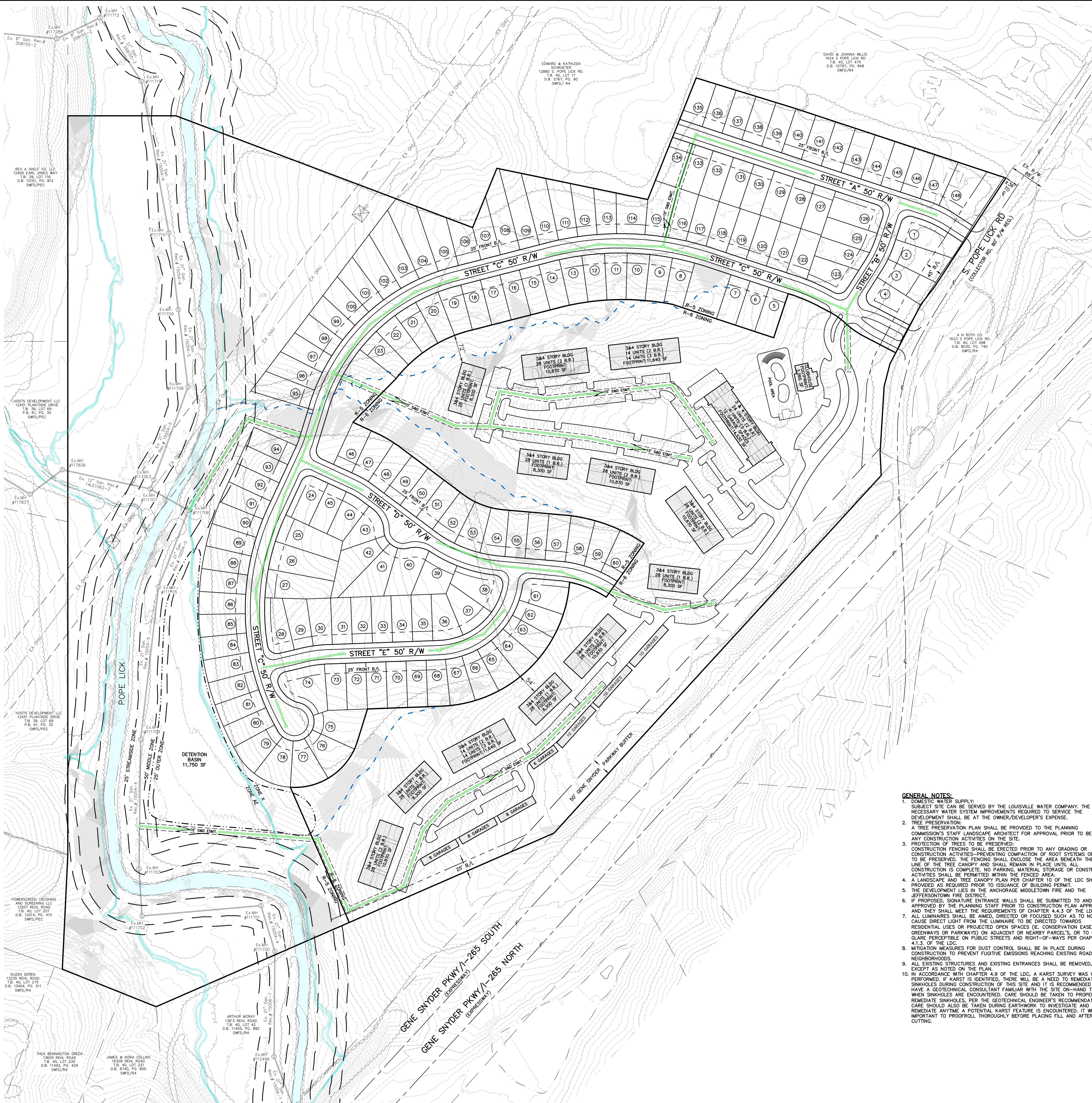
TURN LANE WARRANT ANALYSIS

Auxiliary turn lane warrant analysis was conducted in accordance with KYTC Auxiliary Turn Lane policy, as applied by the Warrant Calcs Interactive excel spreadsheet provided on the KYTC Division of Design website. Based on this analysis, a right turn lane is warranted at Access Point No. 2 during the 2033 design year. Output from the warrant analysis is provided in **Appendix F**.

RECOMMENDATIONS

No additional improvements beyond the proposed access improvements have been identified at this time.

APPENDIX A: DEVELOPMENT PLAN



SITE DATA:
FORM DISTRICT: R-4
DRAFT ZONING: R-5 & R-6
EXISTING LAND USE: RESIDENTIAL/VACANT
PROPOSED LAND USE: SINGLE FAMILY & MULTI-FAMILY RESIDENTIAL
GROSS LAND AREA: 85.83± AC. (3,739,019 ±SF)
85.13± AC.
1,719,825± SF* (46%)
1,495,607± SF (40%)
1,495,607± SF (40%**)

TREE CANOPY DATA:
GROSS LAND AREA: 59.13± AC.
NET LAND AREA: 52,73± AC.
BUILDABLE LOTS: 148
GROSS DENSITY: 2.5 D.U./AC.
NET DENSITY (7.26 D.U./AC MAX): 2.0 D.U./AC.
R-5 DIMENSIONAL STANDARDS:
FRONT/STREET SIDE YARDS: 15' / 25' IF GARAGE
SIDE YARDS: 5'
REAR YARD MIN.: 25'
MINIMUM LOT WIDTH: 50'
MAXIMUM BUILDING HEIGHT: 35'

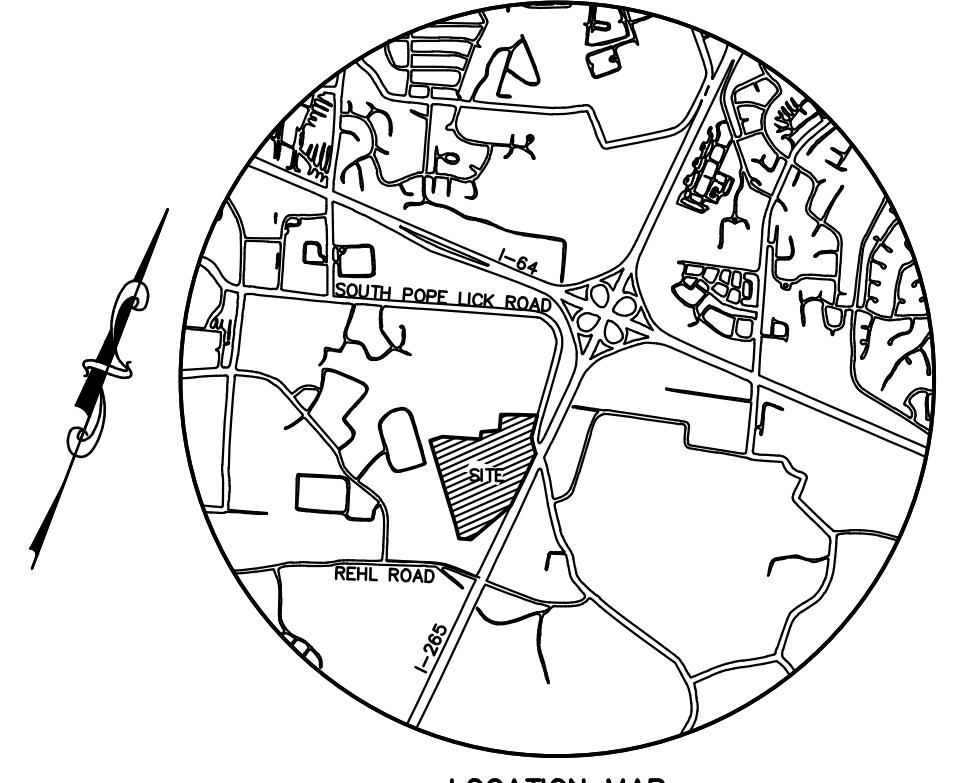
R-6 SITE DATA:
GROSS LAND AREA: 26.71± AC.
NET LAND AREA: 26,71± AC.
OF DWELLING UNITS: 364
BUILDING HEIGHT (35' MAX ALLOWED): 3 & 4 STORIES
DEVELOPMENT AREA ALLOWED: 1.3 AC./DU.
GROSS FLOOR AREA: 467,815 SF
OPEN SPACE REQUIRED: 4 AC. (15%)
OPEN SPACE PROVIDED: 4.4 AC.
REC. OPEN SPACE REQUIRED: 2 AC. (50% REQ. OPEN SPACE)
PARKING PROVIDED: 2 AC.
MIN. SP/MAX. 2 SP
PARKING PROVIDED: 519 UNCOVERED SP
519 TOTAL SP (12 ADA SP REQUIRED)
1.6 SF/JUNT

PARKING AREA RATIO: 1.6 SF/JUNT
R-6 LANDSCAPE DATA:
V.U.A.: 198.5 SF
I.L.A. REQUIRED (7.5% X V.U.A.): 14,889 SF
I.L.A. TO BE PROVIDED: 14,889 SF

*TREE CANOPY DEPICTED ON PLAN PER MSD LOJC MAPPING, AERIAL PHOTO OR FIELD SURVEY.
TREE CANOPY CALCULATIONS BASED UPON TREE AREAS SHOWN.

**CREDIT DOUBLED FOR GROUND CHECKING EXISTING TREES PER LDC 10.1.5.A.2, SEE "TREE CANOPY DOCUMENTATION".

DETENTION CALCULATIONS:
2.9/12 ("POST C"-PRE C) ("ACRES") = XX AC-FT



- GENERAL NOTES:**
- DOMESTIC WATER SUPPLY:
WATER WILL BE SERVED BY THE LOUISVILLE WATER COMPANY. THE NECESSARY WATER SYSTEM IMPROVEMENTS REQUIRED TO SERVICE THE DEVELOPMENT SHALL BE AT THE OWNER/DEVELOPER'S EXPENSE.
 - TREE PRESERVATION:
A TREE PRESERVATION PLAN SHALL BE PROVIDED TO THE PLANNING COMMISSION'S STAFF LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES ON THE SITE.
 - CONSTRUCTION FENCING:
CONSTRUCTION FENCING SHALL BE ERECTED PRIOR TO ANY GRADING OR CONSTRUCTION ACTIVITIES—PREVENTING COMPACTION OF ROOT SYSTEMS OF TREES AND SHRUBS. FENCE SHALL BE PLACED IN ACCORDANCE WITH THE Drip LINE OF THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETE. NO PARKING, MATERIAL STORAGE OR CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN THE Drip LINE OF THE TREE CANOPY.
 - LANDSCAPE AND TREE CANOPY PLAN:
A LANDSCAPE AND TREE CANOPY PLAN PER CHAPTER 10 OF THE LDC SHALL BE PROVIDED AS REQUIRED PRIOR TO ISSUANCE OF BUILDING PERMIT.
 - EMERGENCY SERVICES:
ANHOMME, MIDDLETON FIRE AND THE JEFFERSON TOWNSHIP FIRE DISTRICT.
 - EROSION AND SILT CONTROL:
A SITE-SPECIFIC EROSION AND SILT CONTROL PLAN SHALL BE DEVELOPED AND IMPLEMENTED IN ACCORDANCE WITH MSD AND THE USDA NATURAL RESOURCES CONSERVATION SERVICE RECOMMENDATIONS.
 - FLOODPLAIN:
FLOODPLAIN PRESENT ON SITE. FLOODPLAIN LOCATED WITHIN A FLOOD HAZARD AREA PER FEMA'S FIRM MAP (2111100 06SF).
 - FINAL DESIGN:
THE FINAL DESIGN OF THIS PROJECT MUST MEET ALL MS4 WATER QUALITY REQUIREMENTS AND FLOODPLAIN MANAGEMENT REQUIREMENTS AS PART OF THE CONSTRUCTION PHASE DUE TO PROPER SIZING OF GREEN BEST MANAGEMENT PRACTICES.
 - GEOTECHNICAL EVALUATION:
A GEOTECHNICAL EVALUATION SHALL BE PERFORMED BY A GEOTECHNICAL ENGINEER PRIOR TO FILLING OF ANY EXISTING PONDS. THE APPROPRIATE DETAILS FOR REMEDIATION SHALL BE NOTED ON THE CONSTRUCTION PLANS.

- PUBLIC WORKS AND KTC NOTES:**
- RIGHT-OF-WAY DEDICATION BY DEED OR MINOR PLAT MUST BE RECORDED PRIOR TO COMMENCEMENT OF PUBLIC WORKS OR WITH ASSOCIATED RECORD PLAT AS REQUIRED BY METRO PUBLIC WORKS.
 - COMPATIBLE UTILITY LINES (ELECTRIC, PHONE, CABLE) SHALL BE PLACED IN A COMMON TRENCH WHERE POSSIBLE. TRENCHES TO BE APPROVED BY A GENERAL CONTRACTOR.
 - ALL TREES SHALL BE PLANTED IN A MANNER THAT DOES NOT AFFECT PUBLIC SAFETY AND MAINTAINS PROPER SIGHT DISTANCE. FINAL LOCATION WILL BE DETERMINED DURING CONSTRUCTION APPROVAL PROCESS.
 - AN ENCLAVE ATTACHMENT PERMANENTLY BY RECORD BY METRO PUBLIC WORKS FOR ROADWAY REPAIRS ON ALL SURROUNDING ACCESS ROADS TO THE SITE DUE TO DAMAGE CAUSED BY CONSTRUCTION TRAFFIC ACTIVITY.
 - THE DEVELOPER IS RESPONSIBLE FOR ALL UTILITY CONNECTIONS ON THE PROPERTY.
 - ALL SIDEWALK RAMPS SHALL CONFORM TO ADA STANDARD SPECIFICATION, THE SPECIAL NOTE FOR DETECTABLE WARNING FOR SIDEWALK RAMPS: PER KTC STANDARD DRAWING FOR SIDEWALKS AND PER "KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - LATEST EDITION".
 - ALL SIDEWALK BONDING AND PROTECTION REQUIREMENT WILL BE REQUIRED FOR ALL WORK DONE WITHIN THE PUBLIC RIGHT-OF-WAY.

APPENDIX B: TRAFFIC DATA



[Click here for Map](#)

Peak Hour Turning Movement Count

Louisville, KY



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All vehicles

Time	Northbound				Southbound				Eastbound				Westbound				Int Total				
	Tucker Station Rd (South)				Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd								
				App Total	Left 1.1	Right 1.2	U-Turn 1.3	App Total	Left 1.4	Thru 1.5		U-Turn 1.6	App Total	Thru 1.7	Right 1.8	U-Turn 1.9	App Total				
0700 - 0715	-	-	-	-	0	2	-	47	0	49	16	23	-	0	39	-	108	34	0	142	230
0715 - 0730	-	-	-	-	0	2	-	37	0	39	19	13	-	0	32	-	75	26	0	101	172
0730 - 0745	-	-	-	-	0	6	-	30	0	36	22	14	-	0	36	-	51	18	0	69	141
0745 - 0800	-	-	-	-	0	7	-	17	0	24	13	9	-	0	22	-	47	12	0	59	105
Total	0	0	0	0	0	17	0	131	0	148	70	59	0	0	129	0	281	90	0	371	648
Approach %	0.00	0.00	0.00	0.00	-	11.49	0.00	88.51	0.00	-	54.26	45.74	0.00	0.00	-	0.00	75.74	24.26	0.00	-	
PHF	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.70	0.00	0.76	0.80	0.64	0.00	0.00	0.83	0.00	0.65	0.66	0.00	0.65	0.70

Passenger Vehicles (1-3)

Time	Northbound				Southbound				Eastbound				Westbound				Int Total				
	Tucker Station Rd (South)				Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd								
				App Total	Left 1.1	Right 1.2	U-Turn 1.3	App Total	Left 1.4	Thru 1.5		U-Turn 1.6	App Total	Thru 1.7	Right 1.8	U-Turn 1.9	App Total				
0700 - 0715	-	-	-	-	0	2	-	47	0	49	16	23	-	0	39	-	108	34	0	142	230
0715 - 0730	-	-	-	-	0	2	-	37	0	39	19	13	-	0	32	-	74	26	0	100	171
0730 - 0745	-	-	-	-	0	6	-	30	0	36	21	14	-	0	35	-	47	17	0	64	135
0745 - 0800	-	-	-	-	0	7	-	17	0	24	13	9	-	0	22	-	45	12	0	57	103
Total	0	0	0	0	0	17	0	131	0	148	69	59	0	0	128	0	274	89	0	363	639
Approach %	0.00	0.00	0.00	0.00	-	11.49	0.00	88.51	0.00	-	53.91	46.09	0.00	0.00	-	0.00	75.48	24.52	0.00	-	
PHF	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.70	0.00	0.76	0.82	0.64	0.00	0.00	0.82	0.00	0.63	0.65	0.00	0.64	0.69

Single Unit Trucks (4-7)

Time	Northbound				Southbound				Eastbound				Westbound				Int Total				
	Tucker Station Rd (South)				Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd								
				App Total	Left 1.1	Right 1.2	U-Turn 1.3	App Total	Left 1.4	Thru 1.5		U-Turn 1.6	App Total	Thru 1.7	Right 1.8	U-Turn 1.9	App Total				
0700 - 0715	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0				
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	1				
0730 - 0745	-	-	-	-	0	0	-	0	0	0	1	0	-	0	1	0	4				
0745 - 0800	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	2				
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	7				
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	100.00	0.00	0.00	0.00	-	0.00	85.71	14.29	0.00	-	
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25	0.00	0.50	0.25	0.00	0.44	0.40

Combination Trucks (8-13)

Time	Northbound				Southbound				Eastbound				Westbound				Int Total			
	Tucker Station Rd (South)				Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd							
				App Total	Left 1.1	Right 1.2	U-Turn 1.3	App Total	Left 1.4	Thru 1.5		U-Turn 1.6	App Total	Thru 1.7	Right 1.8	U-Turn 1.9	App Total			
0700 - 0715	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0			
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0			
0730 - 0745	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0			
0745 - 0800	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0			
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Bikes

Time	Northbound				Southbound				Eastbound				Westbound				Int Total			
	Tucker Station Rd (South)				Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd							
				App Total	Left 1.1	Right 1.2	U-Turn 1.3	App Total	Left 1.4	Thru 1.5		U-Turn 1.6	App Total	Thru 1.7	Right 1.8	U-Turn 1.9	App Total			
0700 - 0715	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0			
0715 - 0730	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0			
0730 - 0745	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	1			
0745 - 0800	-	-	-	-	0	0	-	0	0	0	0	0	-	0	0	0	0			
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1			
Approach %	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	100.00	0.00	0.00	-
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25



[Click here for Map](#)

Peak Hour Turning Movement Count

Louisville, KY



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All vehicles	Northbound				Southbound				Eastbound				Westbound								
	Tucker Station Rd (South)				Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd								
				App Total	Left	Right	U-Turn	App Total	Left	Thru		U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total			
Time																					
1600 - 1615	-	-	-	-	0	28	-	46	0	74	63	114	-	0	177	-	25	13	0	38	289
1615 - 1630	-	-	-	-	0	25	-	43	0	68	59	110	-	0	169	-	16	25	0	41	278
1630 - 1645	-	-	-	-	0	22	-	50	0	72	51	81	-	0	132	-	31	13	0	44	248
1645 - 1700	-	-	-	-	0	24	-	39	0	63	46	80	-	0	126	-	19	8	0	27	216
Total	0	0	0	0	0	99	0	178	0	277	219	385	0	0	604	0	91	59	0	150	1031
Approach %	0.00	0.00	0.00	0.00	-	35.74	0.00	64.26	0.00	-	36.26	63.74	0.00	0.00	-	0.00	60.67	39.33	0.00	-	
PHF	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.89	0.00	0.94	0.87	0.84	0.00	0.00	0.85	0.00	0.73	0.59	0.00	0.85	0.89

Passenger Vehicles (1-3)	Northbound												Southbound												Eastbound												Westbound											
	Tucker Station Rd (South)						Tucker Station Rd (North)						Tucker Station Rd (West)						S Pope Lick Rd																													
					App Total	Left	Right	U-Turn	App Total	Left	Thru		U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total																													
Time	-	-	-	-	0	28	-	44	0	72	63	114	-	0	177	-	22	13	0	35	284																											
1600 - 1615	-	-	-	-	0	25	-	42	0	67	59	110	-	0	169	-	16	25	0	41	277																											
1615 - 1630	-	-	-	-	0	22	-	47	0	69	51	80	-	0	131	-	29	12	0	41	241																											
1630 - 1645	-	-	-	-	0	24	-	39	0	63	46	78	-	0	124	-	19	8	0	27	214																											
1645 - 1700	-	-	-	-	0	24	-	39	0	63	46	78	-	0	124	-	19	8	0	27	214																											
Total	0	0	0	0	0	99	0	172	0	271	219	382	0	0	601	0	86	58	0	144	1016																											
Approach %	0.00	0.00	0.00	0.00	-	36.53	0.00	63.47	0.00	-	36.44	63.56	0.00	0.00	-	0.00	59.72	40.28	0.00	-																												
PHF	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.91	0.00	0.94	0.87	0.84	0.00	0.00	0.85	0.00	0.74	0.58	0.00	0.88	0.89																											

Single Unit Trucks (4-7)		Northbound				Southbound				Eastbound				Westbound							
		Tucker Station Rd (South)				Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd							
				App Total	Left		Right	U-Turn	App Total		Thru		U-Turn	App Total		Thru	Right	U-Turn	App Total	Int Total	
Time				App Total	Left		Right	U-Turn	App Total		Thru		U-Turn	App Total		Thru	Right	U-Turn	App Total	Int Total	
1600 - 1615	-	-	-	-	0	0	-	2	0	2	0	0	-	0	0	-	3	0	0	3	5
1615 - 1630	-	-	-	-	0	0	-	1	0	1	0	0	-	0	0	-	0	0	0	0	1
1630 - 1645	-	-	-	-	0	0	-	3	0	3	0	1	-	0	1	-	2	1	0	3	7
1645 - 1700	-	-	-	-	0	0	-	0	0	0	0	2	-	0	2	-	0	0	0	0	2
Total		0	0	0	0	0	0	6	0	6	0	3	0	0	3	0	5	1	0	6	15
Approach %		0.00	0.00	0.00	0.00	-	0.00	0.00	100.00	0.00	-	0.00	100.00	0.00	0.00	-	0.00	83.33	16.67	0.00	-
PHF		0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.50	0.00	0.38	0.00	0.00	0.38	0.00	0.42	0.25	0.00	0.50	0.54

Classified Turn Movement Count | All vehicles

Louisville, KY



www.marrtraffic.com

Site 1 of 2
 Tucker Station Rd (South)
 Tucker Station Rd (North)
 Tucker Station Rd (West)
 S Pope Lick Rd

Date
 Thursday, May 19, 2022
Lat/Long
 38.217905°, -85.524814°

Weather
 Fair
 73°F

0700 - 0900 (Weekday 2h Session) (05-19-2022)

All vehicles

Northbound		Southbound				Eastbound				Westbound				
		Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd				
TIME	Tucker Station Rd (South)	Left	Right	U-Turn	App Total	Left	Thru	U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total
0700 - 0715		1.1	1.2	1.3	49	1.4	1.5	1.6	39	1.7	1.8	1.9	142	230
0715 - 0730		2	47	0	49	16	23	0	39	75	26	0	101	172
0730 - 0745		2	37	0	39	19	13	0	32	51	18	0	69	141
0745 - 0800		6	30	0	36	22	14	0	36	47	12	0	59	105
Hourly Total		7	17	0	24	13	9	0	22	281	90	0	371	648
0800 - 0815		17	131	0	148	70	59	0	129	31	10	0	41	112
0815 - 0830		8	25	0	33	20	18	0	38	20	10	0	30	81
0830 - 0845		5	24	0	29	15	7	0	22	19	3	0	22	63
0845 - 0900		5	17	0	22	10	9	0	19	23	3	0	26	77
Hourly Total		4	20	0	24	16	11	0	27	93	26	0	119	333
		22	86	0	108	61	45	0	106					
Grand Total		39	217	0	256	131	104	0	235	374	116	0	490	981
Approach %		15.23	84.77	0.00	-	55.74	44.26	0.00	-	76.33	23.67	0.00	-	
Intersection %		3.98	22.12	0.00	26.10	13.35	10.60	0.00	23.96	38.12	11.82	0.00	49.95	
PHF		0.61	0.70	0.00	0.76	0.80	0.64	0.00	0.83	0.65	0.66	0.00	0.65	0.70

1600 - 1800 (Weekday 2h Session) (05-19-2022)

All vehicles

Northbound		Southbound				Eastbound				Westbound				
		Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd				
TIME	Tucker Station Rd (South)	Left	Right	U-Turn	App Total	Left	Thru	U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total
1600 - 1615		1.1	1.2	1.3	74	63	114	0	177	25	13	0	38	289
1615 - 1630		28	46	0	74	63	114	0	169	16	25	0	41	278
1630 - 1645		25	43	0	68	59	110	0	132	31	13	0	44	248
1645 - 1700		22	50	0	72	51	81	0	126	19	8	0	27	216
Hourly Total		24	39	0	63	46	80	0	604	91	59	0	150	1031
1700 - 1715		99	178	0	277	219	385	0	97	19	15	0	34	179
1715 - 1730		14	34	0	48	35	62	0	38	16	14	0	30	95
1730 - 1745		8	19	0	27	17	21	0	35	9	5	0	14	72
1745 - 1800		7	16	0	23	19	16	0	37	9	7	0	16	70
Hourly Total		4	13	0	17	21	16	0	207	53	41	0	94	416
		33	82	0	115	92	115	0	811	144	100	0	244	1447
Grand Total		132	260	0	392	311	500	0	811	59.02	40.98	0.00	-	
Approach %		33.67	66.33	0.00	-	38.35	61.65	0.00	-	9.95	6.91	0.00	16.86	
Intersection %		9.12	17.97	0.00	27.09	21.49	34.55	0.00	56.05	0.73	0.59	0.00	0.85	0.89
PHF		0.88	0.89	0.00	0.94	0.87	0.84	0.00	0.85					

Classified Turn Movement Count || Passenger Vehicles (1-3)

Louisville, KY



www.marrtraffic.com

Site 1 of 2
 Tucker Station Rd (South)
 Tucker Station Rd (North)
 Tucker Station Rd (West)
 S Pope Lick Rd

Date
 Thursday, May 19, 2022
Lat/Long
 38.217905°, -85.524814°

Weather
 Fair
 73°F

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Passenger Vehicles (1-3)

Northbound		Southbound				Eastbound				Westbound				
Tucker Station Rd (South)		Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd				
TIME		Left	Right	U-Turn	App Total	Left	Thru	U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total
0700 - 0715		1.1	1.2	1.3	1.5	1.4	1.5	1.6	1.7	1.7	1.8	1.9	1.8	230
0715 - 0730		2	47	0	49	16	23	0	39	74	26	0	100	171
0730 - 0745		2	37	0	39	19	13	0	32	47	17	0	64	135
0745 - 0800		6	30	0	36	21	14	0	35	45	12	0	57	103
Hourly Total		7	17	0	24	13	9	0	22	274	89	0	363	639
0800 - 0815		17	131	0	148	69	59	0	128	31	10	0	41	108
0815 - 0830		8	25	0	33	17	17	0	34	19	10	0	29	78
0830 - 0845		5	23	0	28	14	7	0	21	19	3	0	22	63
0845 - 0900		5	17	0	22	10	9	0	19	23	3	0	26	75
Hourly Total		4	19	0	23	15	11	0	26	92	26	0	118	324
		22	84	0	106	56	44	0	100					
Grand Total			39	0	254	125	103	0	228	366	115	0	481	963
Approach %			15.35		84.65	0.00	-	54.82	45.18	76.09	23.91	0.00	-	
Intersection %			4.05		22.33	0.00	26.38	12.98	10.70	0.00	23.68			49.95

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Passenger Vehicles (1-3)

Northbound		Southbound				Eastbound				Westbound				
Tucker Station Rd (South)		Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd				
TIME		Left	Right	U-Turn	App Total	Left	Thru	U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total
1600 - 1615		1.1	1.2	1.3	1.5	1.4	1.5	1.6	1.7	22	13	0	35	284
1615 - 1630		28	44	0	72	63	114	0	177	16	25	0	41	277
1630 - 1645		25	42	0	67	59	110	0	169	29	12	0	41	241
1645 - 1700		22	47	0	69	51	80	0	131	19	8	0	27	214
Hourly Total		24	39	0	63	46	78	0	124	86	58	0	144	1016
1700 - 1715		99	172	0	271	219	382	0	601	18	15	0	33	177
1715 - 1730		14	33	0	47	35	62	0	97	15	14	0	29	93
1730 - 1745		8	18	0	26	17	21	0	38	8	5	0	13	71
1745 - 1800		7	16	0	23	19	16	0	35	9	7	0	16	70
Hourly Total		4	13	0	17	21	16	0	37	50	41	0	91	411
		33	80	0	113	92	115	0	207					
Grand Total			132	0	384	311	497	0	808	136	99	0	235	1427
Approach %			34.38		65.63	0.00	-	38.49	61.51	57.87	42.13	0.00	-	
Intersection %			9.25		17.66	0.00	26.91	21.79	34.83	0.00	56.62			16.47



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Classified Turn Movement Count || Single Unit Trucks (4-7)

Louisville, KY

Site 1 of 2

Tucker Station Rd (South)
Tucker Station Rd (North)
Tucker Station Rd (West)
S Pope Lick Rd

Date

Thursday, May 19, 2022

Weather

Fair
73°F

Lat/Long

38.217905°, -85.524814°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Single Unit Trucks (4-7)

Northbound		Southbound				Eastbound				Westbound				
		Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd				
TIME	Tucker Station Rd (South)	Left	Right	U-Turn	App Total	Left	Thru	U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total
0700 - 0715		1.1	1.2	1.3	1.5	1.4	1.5	1.6	1.7	1.8	1.9	1.0	0.0	0
0715 - 0730		0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745		0	0	0	0	0	0	0	0	1	0	0	1	1
0745 - 0800		0	0	0	0	1	0	0	0	0	0	0	4	5
Hourly Total		0	0	0	0	1	0	0	1	1	0	0	2	2
0800 - 0815		0	0	0	0	3	1	0	4	1	0	7	8	8
0815 - 0830		0	1	0	1	1	0	0	1	0	0	0	0	2
0830 - 0845		0	0	0	0	0	0	0	0	0	0	0	0	0
0845 - 0900		0	1	0	1	1	0	0	1	0	0	0	0	2
Hourly Total		0	2	0	2	5	1	0	6	0	0	0	0	8
Grand Total		0	2	0	2	6	1	0	7	1	0	7	16	16
Approach %		0.00	100.00	0.00	-	85.71	14.29	0.00	-	85.71	14.29	0.00	-	
Intersection %		0.00	12.50	0.00	12.50	37.50	6.25	0.00	43.75	37.50	6.25	0.00	43.75	

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Single Unit Trucks (4-7)

Northbound		Southbound				Eastbound				Westbound				
		Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd				
TIME	Tucker Station Rd (South)	Left	Right	U-Turn	App Total	Left	Thru	U-Turn	App Total	Thru	Right	U-Turn	App Total	Int Total
1600 - 1615		1.1	2	0	2	0	0	0	0	3	0	0	3	5
1615 - 1630		0	1	0	1	0	0	0	0	0	0	0	0	1
1630 - 1645		0	3	0	3	0	1	0	1	2	1	0	3	7
1645 - 1700		0	0	0	0	0	2	0	2	0	0	0	0	2
Hourly Total		0	6	0	6	0	3	0	3	5	1	0	6	15
1700 - 1715		0	1	0	1	0	0	0	0	1	0	0	1	2
1715 - 1730		0	1	0	1	0	0	0	0	1	0	0	1	2
1730 - 1745		0	0	0	0	0	0	0	0	1	0	0	1	1
1745 - 1800		0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total		0	2	0	2	0	0	0	0	3	0	0	3	5
Grand Total		0	8	0	8	0	3	0	3	8	1	0	9	20
Approach %		0.00	100.00	0.00	-	0.00	100.00	0.00	-	88.89	11.11	0.00	-	
Intersection %		0.00	40.00	0.00	40.00	0.00	15.00	0.00	15.00	40.00	5.00	0.00	45.00	

Classified Turn Movement Count | Combination Trucks (8-13)



Marr Traffic
DATA COLLECTION

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Louisville, KY

Date

Thursday, May 19, 2022

Weather
Fair
73°F

Site 1 of 2

- Tucker Station Rd (South)
- Tucker Station Rd (North)
- Tucker Station Rd (West)
- S Pope Lick Rd

Lat/Long
38.217905°, -85.524814°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Combination Trucks (8-13)

Northbound		Southbound				Eastbound				Westbound						
Tucker Station Rd (South)		Tucker Station Rd (North)				Tucker Station Rd (West)				S Pope Lick Rd						
TIME		Left 1.1		Right 1.2	U-Turn 1.3	App Total	Left 1.4	Thru 1.5		U-Turn 1.6	App Total	Thru 1.7	Right 1.8	U-Turn 1.9	App Total	Int Total
0700 - 0715		0		0	0	0	0	0		0	0	0	0	0	0	
0715 - 0730		0		0	0	0	0	0		0	0	0	0	0	0	
0730 - 0745		0		0	0	0	0	0		0	0	0	0	0	0	
0745 - 0800		0		0	0	0	0	0		0	0	0	0	0	0	
Hourly Total		0		0	0	0	0	0		0	0	0	0	0	0	
0800 - 0815		0		0	0	0	0	0		0	0	0	0	0	0	
0815 - 0830		0		0	0	0	0	0		0	0	1	0	0	1	
0830 - 0845		0		0	0	0	0	0		0	0	0	0	0	0	
0845 - 0900		0		0	0	0	0	0		0	0	0	0	0	0	
Hourly Total		0		0	0	0	0	0		0	0	1	0	0	1	
Grand Total		0		0	0	0	0	0		0	0	1	0	0	1	
Approach %		0.00		0.00	-	0.00	0.00			0.00	-	100.00	0.00	0.00	-	
Intersection %		0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00	100.00	0.00	0.00	100.00	

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Combination Trucks (8-13)

Pedestrian Count || All vehicles

Louisville, KY



www.marrtraffic.com

Site 1 of 2

Tucker Station Rd (South)
Tucker Station Rd (North)
Tucker Station Rd (West)
S Pope Lick Rd

Date

Thursday, May 19, 2022

Weather

Fair
73°F

Lat/Long

38.217905°, -85.524814°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Pedestrians

Northbound		Southbound			Eastbound			Westbound						
Tucker Station Rd (South)		Tucker Station Rd (North)			Tucker Station Rd (West)			S Pope Lick Rd						
TIME		EB 1c	WB 1d		App Total	NB 1e	SB 1f		App Total	NB 1g	SB 1h		App Total	Int Total
0700 - 0715		0	0		0	0	0		0	0	0		0	0
0715 - 0730		0	0		0	0	0		0	0	0		0	0
0730 - 0745		0	0		0	0	0		0	0	0		0	0
0745 - 0800		0	0		0	0	0		0	0	0		0	0
Hourly Total		0	0		0	0	0		0	0	0		0	0
0800 - 0815		0	0		0	0	0		0	0	0		0	0
0815 - 0830		0	0		0	0	0		0	0	0		0	0
0830 - 0845		0	0		0	0	0		0	0	0		0	0
0845 - 0900		0	0		0	0	0		0	0	0		0	0
Hourly Total		0	0		0	0	0		0	0	0		0	0
Grand Total		0	0		0	0	0		0	0	0		0	0
Approach %		0.00	0.00		-	0.00	0.00		-	0.00	0.00		-	
Intersection %		0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Pedestrians

Northbound		Southbound			Eastbound			Westbound						
Tucker Station Rd (South)		Tucker Station Rd (North)			Tucker Station Rd (West)			S Pope Lick Rd						
TIME		EB 1c	WB 1d		App Total	NB 1e	SB 1f		App Total	NB 1g	SB 1h		App Total	Int Total
1600 - 1615		0	0		0	0	0		0	0	0		0	0
1615 - 1630		0	0		0	0	0		0	0	0		0	0
1630 - 1645		0	0		0	0	0		0	0	0		0	0
1645 - 1700		0	0		0	0	0		0	0	0		0	0
Hourly Total		0	0		0	0	0		0	0	0		0	0
1700 - 1715		0	0		0	0	0		0	0	0		0	0
1715 - 1730		0	0		0	0	0		0	0	0		0	0
1730 - 1745		0	0		0	0	0		0	0	0		0	0
1745 - 1800		0	0		0	0	0		0	0	0		0	0
Hourly Total		0	0		0	0	0		0	0	0		0	0
Grand Total		0	0		0	0	0		0	0	0		0	0
Approach %		0.00	0.00		-	0.00	0.00		-	0.00	0.00		-	
Intersection %		0.00	0.00		0.00	0.00	0.00		0.00	0.00	0.00		0.00	



[Click here for Map](#)

Peak Hour Turning Movement Count

Louisville, KY



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All vehicles	Northbound					Southbound					Eastbound					Westbound					
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Total
0700 - 0715	0	81	8	0	89	13	7	0	0	20	0	0	0	0	0	17	0	45	0	62	171
0715 - 0730	0	64	6	0	70	11	8	0	1	20	0	0	0	0	0	7	0	25	0	32	122
0730 - 0745	0	43	1	0	44	11	8	0	0	19	0	0	0	0	0	6	0	22	0	28	91
0745 - 0800	0	33	4	0	37	10	2	0	0	12	0	0	0	0	0	2	0	19	0	21	70
Total	0	221	19	0	240	45	25	0	1	71	0	0	0	0	0	32	0	111	0	143	454
Approach %	0.00	92.08	7.92	0.00	-	63.38	35.21	0.00	1.41	-	0.00	0.00	0.00	0.00	-	23.38	0.00	77.62	0.00	-	
PHF	0.00	0.68	0.59	0.00	0.67	0.87	0.78	0.00	0.25	0.89	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.62	0.00	0.58	0.66

Passenger Vehicles (1-3)	Northbound										Southbound					Eastbound					Westbound				
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln									
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total				
Time	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Left	Thru	Right	U-Turn	App Total	Int Total				
0700 - 0715	0	79	8	0	87	13	7	0	0	20	0	0	0	0	0	17	0	45	0	62	169				
0715 - 0730	0	63	6	0	69	11	8	0	1	20	0	0	0	0	0	6	0	25	0	31	120				
0730 - 0745	0	42	1	0	43	11	8	0	0	19	0	0	0	0	0	6	0	20	0	26	88				
0745 - 0800	0	32	4	0	36	10	2	0	0	12	0	0	0	0	0	2	0	19	0	21	69				
Total	0	216	19	0	235	45	25	0	1	71	0	0	0	0	0	31	0	109	0	140	446				
Approach %	0.00	91.91	8.09	0.00	-	63.38	35.21	0.00	1.41	-	0.00	0.00	0.00	0.00	0.00	22.14	0.00	77.86	0.00	-					
PHF	0.00	0.68	0.59	0.00	0.68	0.87	0.78	0.00	0.25	0.89	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.61	0.00	0.56	0.66				

Single Unit Trucks (4-7)	Northbound										Southbound					Eastbound					Westbound	
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln						
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total	
0700 - 0715	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
0715 - 0730	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	
0730 - 0745	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3	
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	7	
Approach %	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	33.33	0.00	66.67	0.00	-		
PHF	0.00	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.38	0.58	



[Click here for Map](#)

Peak Hour Turning Movement Count

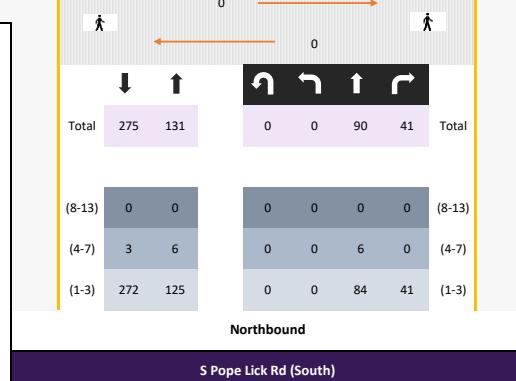
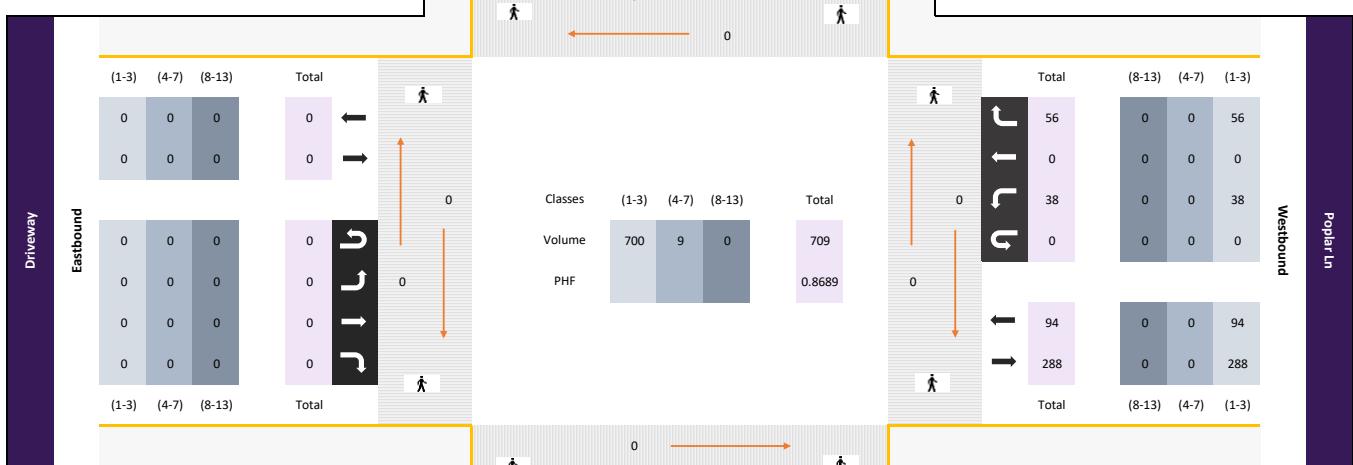
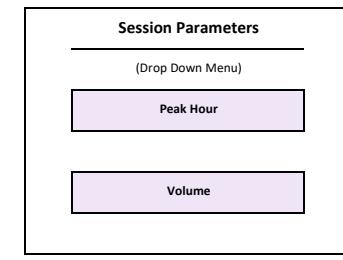
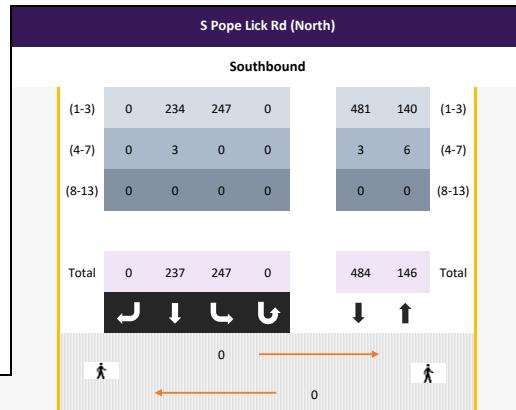
Louisville, KY



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Thursday, May 19, 2022	
Period	1600 - 1800
Peak Hour	1600 - 1700

* the Peak Hour Diagram does not include Bikes



All vehicles	Northbound					Southbound					Eastbound					Westbound					
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
Time	2.1	2.2	2.3	2.4	Total	2.5	2.6	2.7	2.8	Total	2.9	2.10	2.11	2.12	Total	2.13	2.14	2.15	2.16	Total	Total
1600 - 1615	0	16	10	0	26	84	58	0	0	142	0	0	0	0	0	8	0	18	0	26	194
1615 - 1630	0	30	17	0	47	65	69	0	0	134	0	0	0	0	0	10	0	13	0	23	204
1630 - 1645	0	26	9	0	35	47	59	0	0	106	0	0	0	0	0	11	0	17	0	28	169
1645 - 1700	0	18	5	0	23	51	51	0	0	102	0	0	0	0	0	9	0	8	0	17	142
Total	0	90	41	0	131	247	237	0	0	484	0	0	0	0	0	38	0	56	0	94	709
Approach %	0.00	68.70	31.30	0.00	-	51.03	48.97	0.00	0.00	-	0.00	0.00	0.00	0.00	-	40.43	0.00	59.57	0.00	-	
PHF	0.00	0.75	0.60	0.00	0.70	0.74	0.86	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.78	0.00	0.84	0.87



www.marrtraffic.com

Classified Turn Movement Count | All vehicles

Louisville, KY

Site 2 of 2

S Pope Lick Rd (South)

S Pope Lick Rd (North)

Driveway

Poplar Ln

Date

Thursday, May 19, 2022

Weather

Fair

73°F

Lat/Long

38.211547°, -85.504546°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

All vehicles

TIME	Northbound					Southbound					Eastbound					Westbound					
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total
0700 - 0715	0	81	8	0	89	13	7	0	0	20	0	0	0	0	0	17	0	45	0	62	171
0715 - 0730	0	64	6	0	70	11	8	0	1	20	0	0	0	0	0	7	0	25	0	32	122
0730 - 0745	0	43	1	0	44	11	8	0	0	19	0	0	0	0	0	6	0	22	0	28	91
0745 - 0800	0	33	4	0	37	10	2	0	0	12	0	0	0	0	0	2	0	19	0	21	70
Hourly Total	0	221	19	0	240	45	25	0	1	71	0	0	0	0	0	32	0	111	0	143	454
0800 - 0815	0	26	4	0	30	15	8	0	0	23	0	0	0	0	0	5	0	17	0	22	75
0815 - 0830	0	17	2	0	19	6	5	0	0	11	0	0	0	0	0	1	0	11	0	12	42
0830 - 0845	0	10	3	0	13	7	7	0	0	14	0	0	0	0	0	2	0	11	0	13	40
0845 - 0900	0	10	6	0	16	8	7	0	0	15	0	0	0	0	0	1	0	9	0	10	41
Hourly Total	0	63	15	0	78	36	27	0	0	63	0	0	0	0	0	9	0	48	0	57	198
Grand Total	0	284	34	0	318	81	52	0	1	134	0	0	0	0	0	41	0	159	0	200	652
Approach %	0.00	89.31	10.69	0.00	-	60.45	38.81	0.00	0.75	-	0.00	0.00	0.00	0.00	-	20.50	0.00	79.50	0.00	-	
Intersection %	0.00	43.56	5.21	0.00	48.77	12.42	7.98	0.00	0.15	20.55	0.00	0.00	0.00	0.00	0.00	6.29	0.00	24.39	0.00	30.67	
PHF	0.00	0.68	0.59	0.00	0.67	0.87	0.78	0.00	0.25	0.89	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.62	0.00	0.58	0.66

1600 - 1800 (Weekday 2h Session) (05-19-2022)

All vehicles

TIME	Northbound					Southbound					Eastbound					Westbound					
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total
1600 - 1615	0	16	10	0	26	84	58	0	0	142	0	0	0	0	0	8	0	18	0	26	194
1615 - 1630	0	30	17	0	47	65	69	0	0	134	0	0	0	0	0	10	0	13	0	23	204
1630 - 1645	0	26	9	0	35	47	59	0	0	106	0	0	0	0	0	11	0	17	0	28	169
1645 - 1700	0	18	5	0	23	51	51	0	0	102	0	0	0	0	0	9	0	8	0	17	142
Hourly Total	0	90	41	0	131	247	237	0	0	484	0	0	0	0	0	38	0	56	0	94	709
1700 - 1715	0	18	14	0	32	45	41	0	0	86	0	0	0	0	0	7	0	13	0	20	138
1715 - 1730	0	13	2	0	15	13	15	0	0	28	0	0	0	0	0	7	0	15	0	22	65
1730 - 1745	0	8	2	0	10	11	13	0	0	24	0	0	0	0	0	2	0	6	0	8	42
1745 - 1800	0	8	6	0	14	10	10	0	0	20	0	0	0	0	0	2	0	5	0	7	41
Hourly Total	0	47	24	0	71	79	79	0	0	158	0	0	0	0	0	18	0	39	0	57	286
Grand Total	0	137	65	0	202	326	316	0	0	642	0	0	0	0	0	56	0	95	0	151	995
Approach %	0.00	67.82	32.18	0.00	-	50.78	49.22	0.00	0.00	-	0.00	0.00	0.00	0.00	-	37.09	0.00	62.91	0.00	-	
Intersection %	0.00	13.77	6.53	0.00	20.30	32.76	31.76	0.00	0.00	64.52	0.00	0.00	0.00	0.00	0.00	5.63	0.00	9.55	0.00	15.18	
PHF	0.00	0.75	0.60	0.00	0.70	0.74	0.86	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.78	0.00	0.84	0.87

Classified Turn Movement Count || Passenger Vehicles (1-3)



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Louisville, KY

Site 2 of 2

S Pope Lick Rd (South)

S Pope Lick Rd (North)

Driveway

Poplar Ln

Date

Thursday, May 19, 2022

Weather

Fair

73°F

Lat/Long

38.211547°, -85.504546°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Passenger Vehicles (1-3)

TIME	Northbound					Southbound					Eastbound					Westbound					
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total
0700 - 0715	0	79	8	0	87	13	7	0	0	20	0	0	0	0	0	17	0	45	0	62	169
0715 - 0730	0	63	6	0	69	11	8	0	1	20	0	0	0	0	0	6	0	25	0	31	120
0730 - 0745	0	42	1	0	43	11	8	0	0	19	0	0	0	0	0	6	0	20	0	26	88
0745 - 0800	0	32	4	0	36	10	2	0	0	12	0	0	0	0	0	2	0	19	0	21	69
Hourly Total	0	216	19	0	235	45	25	0	1	71	0	0	0	0	0	31	0	109	0	140	446
0800 - 0815	0	25	4	0	29	15	8	0	0	23	0	0	0	0	0	5	0	17	0	22	74
0815 - 0830	0	17	2	0	19	6	5	0	0	11	0	0	0	0	0	1	0	11	0	12	42
0830 - 0845	0	10	1	0	11	7	7	0	0	14	0	0	0	0	0	2	0	11	0	13	38
0845 - 0900	0	10	6	0	16	8	6	0	0	14	0	0	0	0	0	1	0	9	0	10	40
Hourly Total	0	62	13	0	75	36	26	0	0	62	0	0	0	0	0	9	0	48	0	57	194
Grand Total	0	278	32	0	310	81	51	0	1	133	0	0	0	0	0	40	0	157	0	197	640
Approach %	0.00	89.68	10.32	0.00	-	60.90	38.35	0.00	0.75	-	0.00	0.00	0.00	0.00	-	20.30	0.00	79.70	0.00	-	
Intersection %	0.00	43.44	5.00	0.00	48.44	12.66	7.97	0.00	0.16	20.78	0.00	0.00	0.00	0.00	0.00	6.25	0.00	24.53	0.00	30.78	

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Passenger Vehicles (1-3)

TIME	Northbound					Southbound					Eastbound					Westbound					
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total
1600 - 1615	0	14	10	0	24	84	58	0	0	142	0	0	0	0	0	8	0	18	0	26	192
1615 - 1630	0	30	17	0	47	65	68	0	0	133	0	0	0	0	0	10	0	13	0	23	203
1630 - 1645	0	23	9	0	32	47	58	0	0	105	0	0	0	0	0	11	0	17	0	28	165
1645 - 1700	0	17	5	0	22	51	50	0	0	101	0	0	0	0	0	9	0	8	0	17	140
Hourly Total	0	84	41	0	125	247	234	0	0	481	0	0	0	0	0	38	0	56	0	94	700
1700 - 1715	0	18	14	0	32	45	41	0	0	86	0	0	0	0	0	7	0	13	0	20	138
1715 - 1730	0	12	2	0	14	13	15	0	0	28	0	0	0	0	0	7	0	15	0	22	64
1730 - 1745	0	8	2	0	10	11	13	0	0	24	0	0	0	0	0	2	0	6	0	8	42
1745 - 1800	0	6	6	0	12	10	10	0	0	20	0	0	0	0	0	2	0	5	0	7	39
Hourly Total	0	44	24	0	68	79	79	0	0	158	0	0	0	0	0	18	0	39	0	57	283
Grand Total	0	128	65	0	193	326	313	0	0	639	0	0	0	0	0	56	0	95	0	151	983
Approach %	0.00	66.32	33.68	0.00	-	51.02	48.98	0.00	0.00	-	0.00	0.00	0.00	0.00	-	37.09	0.00	62.91	0.00	-	
Intersection %	0.00	13.02	6.61	0.00	19.63	33.16	31.84	0.00	0.00	65.01	0.00	0.00	0.00	0.00	0.00	5.70	0.00	9.66	0.00	15.36	

Classified Turn Movement Count || Single Unit Trucks (4-7)



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Louisville, KY

Date

Thursday, May 19, 2022

Weather
Fair
73°F

Site 2 of 2

S Pope Lick Rd (South)
S Pope Lick Rd (North)
Driveway
Poplar Ln

Lat/Long

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Single Unit Trucks (4-7)

TIME	Northbound					Southbound					Eastbound					Westbound					
	S Pope Lick Rd (South)					S Pope Lick Rd (North)					Driveway					Poplar Ln					
	Left 2.1	Thru 2.2	Right 2.3	U-Turn 2.4	App Total	Left 2.5	Thru 2.6	Right 2.7	U-Turn 2.8	App Total	Left 2.9	Thru 2.10	Right 2.11	U-Turn 2.12	App Total	Left 2.13	Thru 2.14	Right 2.15	U-Turn 2.16	App Total	Int Total
0700 - 0715	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0715 - 0730	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
0730 - 0745	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3
0745 - 0800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	7
0800 - 0815	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0815 - 0830	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0830 - 0845	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
0845 - 0900	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Hourly Total	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	4	2	0	6	0	1	0	0	1	0	0	0	0	0	1	0	2	0	3	10
Approach %	0.00	66.67	33.33	0.00	-	0.00	100.00	0.00	0.00	-	0.00	0.00	0.00	0.00	-	33.33	0.00	66.67	0.00	-	
Intersection %	0.00	40.00	20.00	0.00	60.00	0.00	10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	20.00	0.00	30.00	

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Single Unit Trucks (4-7)

Classified Turn Movement Count | Combination Trucks (8-13)



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Louisville, KY

Date

Thursday, May 19, 2022

Weather
Fair
73°F

Site 2 of 2
S Pope Lick Rd (South)
S Pope Lick Rd (North)
Driveway
Poplar Ln

Lat/Long
38.211547°, -85.504546°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Combination Trucks (8-13)

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Combination Trucks (8-13)

Classified Turn Movement Count || Bikes

Louisville, KY



Marr Traffic
DATA COLLECTION

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Site 2 of 2	Date
S Pope Lick Rd (South)	Thursday, May 19, 2022
S Pope Lick Rd (North)	
Driveway	
Poplar Ln	
	Lat/Long
	38.211547°, -85.504546°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

Bikes

1600 - 1800 (Weekday 2h Session) (05-19-2022)

Bikes

Pedestrian Count || All vehicles

Louisville, KY



Marr Traffic
DATA COLLECTION

www.marrtraffic.com

Site 2 of 2	Date
S Pope Lick Rd (South)	Thursday, May 19, 2022
S Pope Lick Rd (North)	
Driveway	Lat/Long
Poplar Ln	38.211547°, -85.504546°

0700 - 0900 (Weekday 2h Session) (05-19-2022)

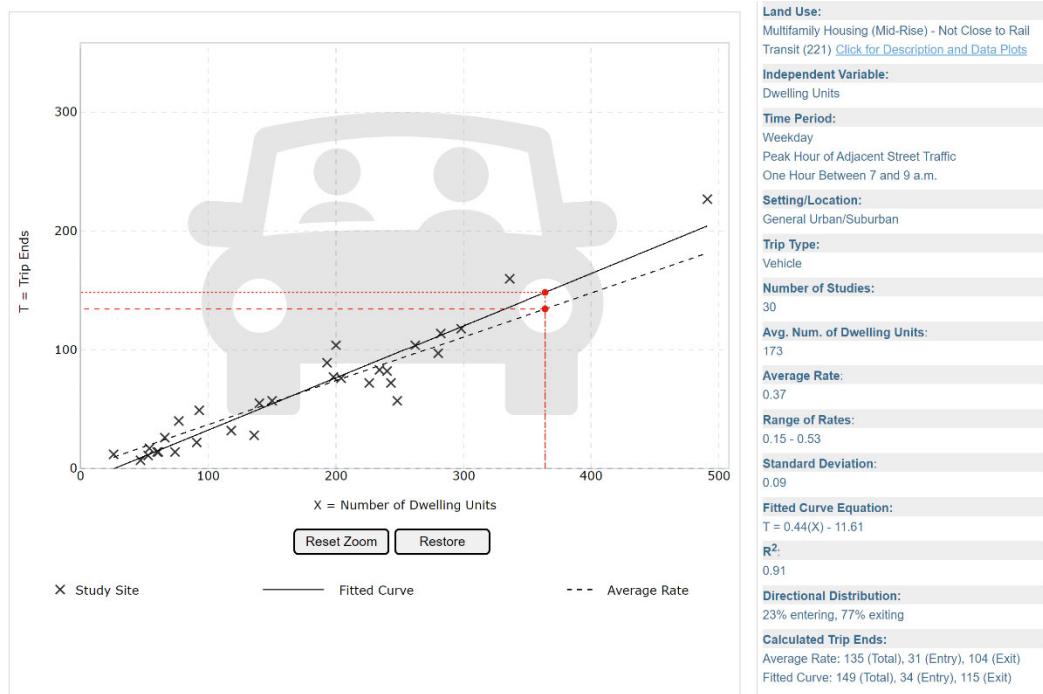
Pedestrians

1600 - 1800 (Weekday 2h Session) (05-19-2022)

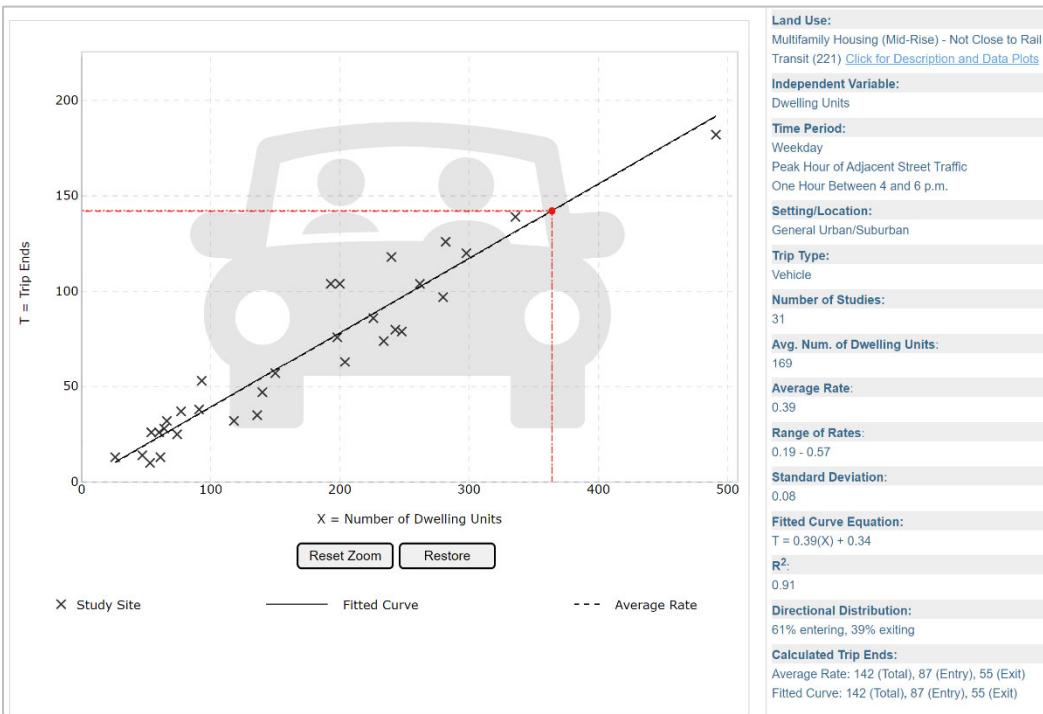
Pedestrians

APPENDIX C: TRIP GENERATION DATA

ITE Land Use Code 210 Single Family Residential (AM Peak)

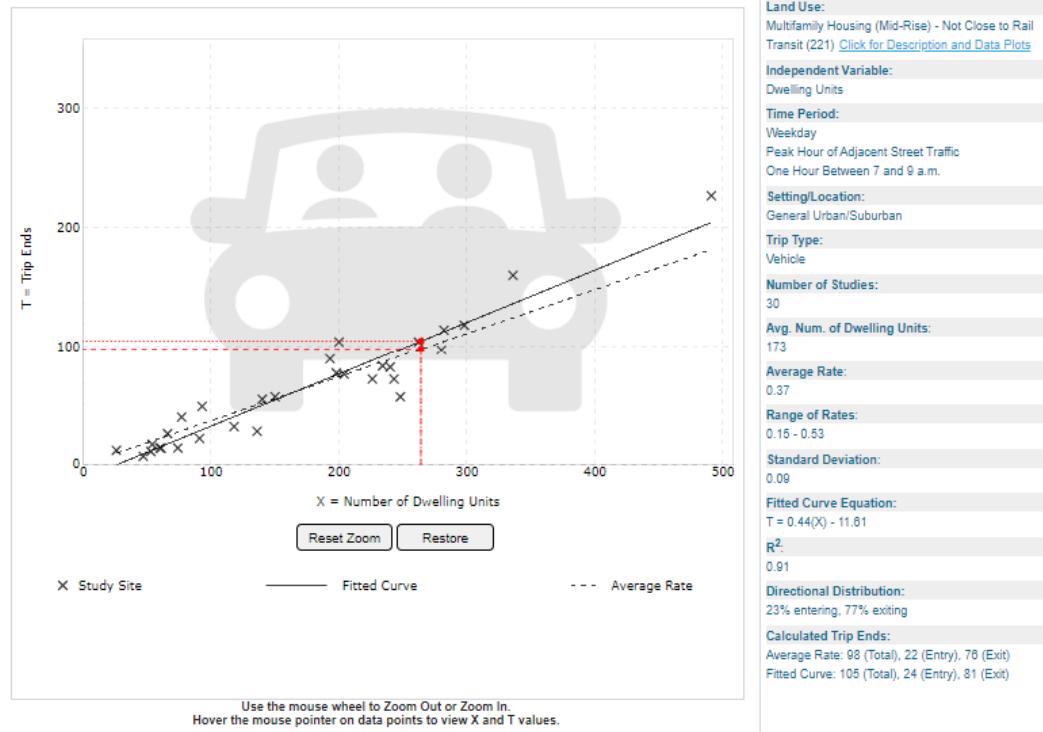


ITE Land Use Code 210 Single Family Residential (PM Peak)



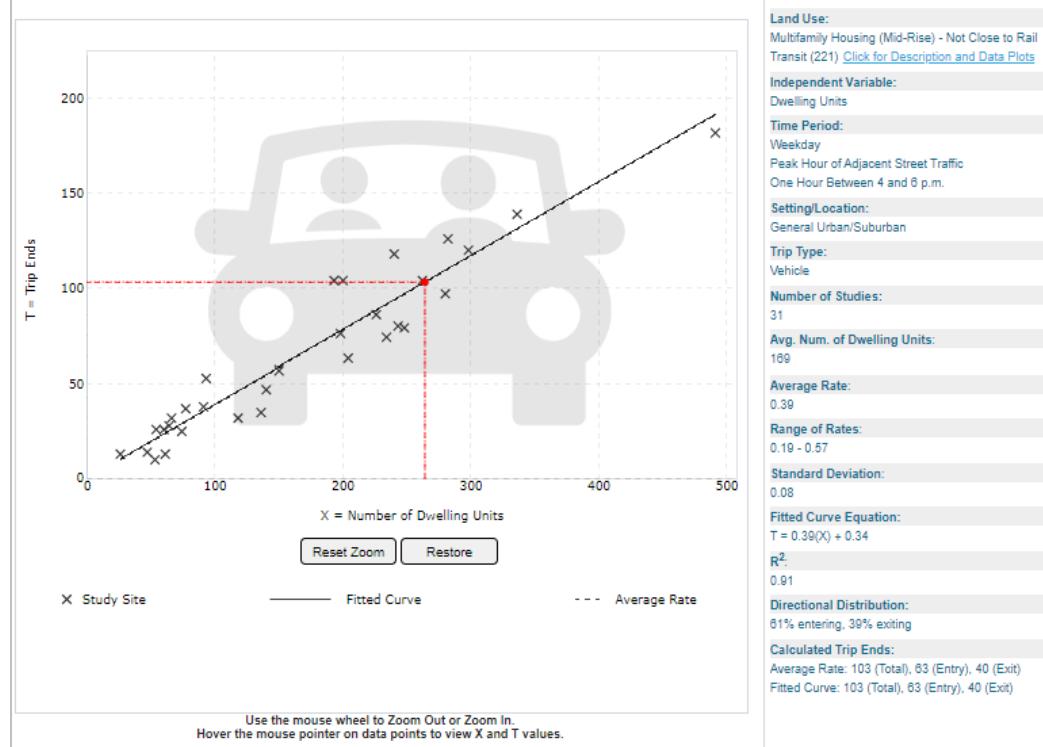
ITE Land Use Code 221 Multi Family Housing (AM Peak)

Data Plot and Equation



ITE Land Use Code 221 Multi Family Housing (PM Peak)

Data Plot and Equation



APPENDIX D: TRAFFIC FORECASTING REPORT (EXCERPT)

Count Year	2022	Number of Counts	4
Opening Year	2023		
Design Year	2043	Growth Rate	0.43%
Years Back	15		

KYTC Traffic Count Station #1		KYTC Traffic Count Station #2		KYTC Traffic Count Station #3	
STA ID	056L91	STA ID	XXXXXX	STA ID	XXXXXX
Year	AADT	Paste Count Data Here		Paste Count Data Here	
2022					
2021					
2020					
2019					
2018	7155				
2017					
2016					
2015	6939				
2014	7634				
2013	6701				

Historical Traffic Volume Summary

Station Details:

Sta ID:	056L91
Sta Type:	Full Coverage
Map:	MapIt
District:	5
County:	Jefferson
Route:	056-CS-1002H -000
Route Desc:	BLUEGRASS PKWY

Begin MP:	2.4740
Begin Desc:	KY 913 (BLANKENBAKER PKWY)
End Mp:	2.9270
End Desc:	TUCKER STATION ROAD
Impact Year:	
Year Added:	2012

Newest Count:	
AADT:	7155
Year:	2018
% Single:	
% Combo:	
K Factor:	13
D Factor:	66

Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

Impact Year – year of significant change to traffic pattern within station segment

AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway

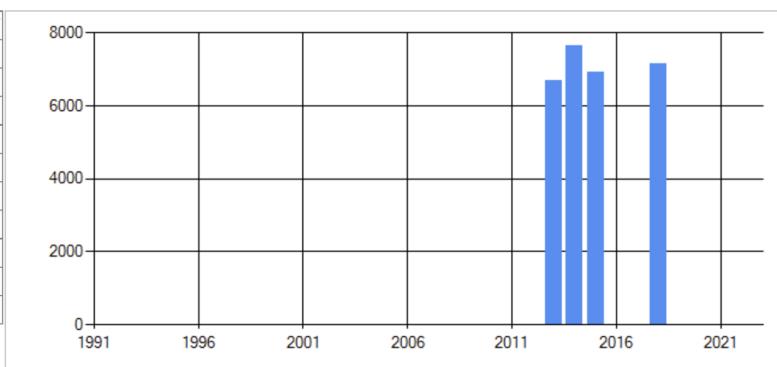
% Single – single unit truck volume as a percentage of the AADT

% Combo – combination truck volume as a percentage of the AADT

K Factor – peak hour volume as a percentage of the AADT

D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012		2002	
2021		2011		2001	
2020		2010		2000	
2019		2009		1999	
2018	7155	2008		1998	
2017		2007		1997	
2016		2006		1996	
2015	6939	2005		1995	
2014	7634	2004		1994	
2013	6701	2003		1993	



APPENDIX E: CAPACITY ANALYSIS OUTPUT

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	70	59	280	90	17	131
Future Volume (vph)	70	59	280	90	17	131
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	64	304	98	18	142
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	140	402	160			
Volume Left (vph)	76	0	18			
Volume Right (vph)	0	98	142			
Hadj (s)	0.14	-0.11	-0.48			
Departure Headway (s)	4.9	4.4	4.7			
Degree Utilization, x	0.19	0.49	0.21			
Capacity (veh/h)	691	797	693			
Control Delay (s)	9.0	11.4	8.9			
Approach Delay (s)	9.0	11.4	8.9			
Approach LOS	A	B	A			
Intersection Summary						
Delay			10.4			
Level of Service			B			
Intersection Capacity Utilization		46.2%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	45	25	220	19	32	111
Future Volume (Veh/h)	45	25	220	19	32	111
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	27	239	21	35	121
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	260			374	250	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	260			374	250	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	96			94	85	
cM capacity (veh/h)	1304			603	789	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	76	260	156			
Volume Left	49	0	35			
Volume Right	0	21	121			
cSH	1304	1700	738			
Volume to Capacity	0.04	0.15	0.21			
Queue Length 95th (ft)	3	0	20			
Control Delay (s)	5.2	0.0	11.2			
Lane LOS	A		B			
Approach Delay (s)	5.2	0.0	11.2			
Approach LOS			B			
Intersection Summary						
Average Delay		4.3				
Intersection Capacity Utilization		35.2%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	219	385	91	59	99	178
Future Volume (vph)	219	385	91	59	99	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	238	418	99	64	108	193
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	656	163	301			
Volume Left (vph)	238	0	108			
Volume Right (vph)	0	64	193			
Hadj (s)	0.11	-0.20	-0.28			
Departure Headway (s)	5.2	5.6	5.8			
Degree Utilization, x	0.95	0.25	0.48			
Capacity (veh/h)	685	617	610			
Control Delay (s)	45.2	10.5	14.0			
Approach Delay (s)	45.2	10.5	14.0			
Approach LOS	E	B	B			
Intersection Summary						
Delay			31.8			
Level of Service			D			
Intersection Capacity Utilization		67.2%		ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	247	237	90	41	38	56
Future Volume (Veh/h)	247	237	90	41	38	56
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	268	258	98	45	41	61
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	143			914	120	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	143			914	120	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	81			83	93	
cM capacity (veh/h)	1440			247	931	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	526	143	102			
Volume Left	268	0	41			
Volume Right	0	45	61			
cSH	1440	1700	440			
Volume to Capacity	0.19	0.08	0.23			
Queue Length 95th (ft)	17	0	22			
Control Delay (s)	5.0	0.0	15.6			
Lane LOS	A		C			
Approach Delay (s)	5.0	0.0	15.6			
Approach LOS			C			
Intersection Summary						
Average Delay		5.5				
Intersection Capacity Utilization		48.9%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/11/2022

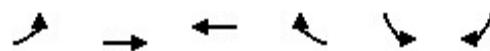


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	70	59	281	90	17	132
Future Volume (vph)	70	59	281	90	17	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	64	305	98	18	143
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	140	403	161			
Volume Left (vph)	76	0	18			
Volume Right (vph)	0	98	143			
Hadj (s)	0.14	-0.11	-0.48			
Departure Headway (s)	4.9	4.4	4.7			
Degree Utilization, x	0.19	0.49	0.21			
Capacity (veh/h)	691	796	692			
Control Delay (s)	9.0	11.5	8.9			
Approach Delay (s)	9.0	11.5	8.9			
Approach LOS	A	B	A			
Intersection Summary						
Delay			10.4			
Level of Service			B			
Intersection Capacity Utilization		46.3%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	45	25	221	19	32	112
Future Volume (Veh/h)	45	25	221	19	32	112
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	27	240	21	35	122
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	261			376	250	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	261			376	250	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	96			94	85	
cM capacity (veh/h)	1303			602	788	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	76	261	157			
Volume Left	49	0	35			
Volume Right	0	21	122			
cSH	1303	1700	737			
Volume to Capacity	0.04	0.15	0.21			
Queue Length 95th (ft)	3	0	20			
Control Delay (s)	5.2	0.0	11.2			
Lane LOS	A		B			
Approach Delay (s)	5.2	0.0	11.2			
Approach LOS			B			
Intersection Summary						
Average Delay		4.4				
Intersection Capacity Utilization		35.3%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	220	387	91	59	99	179
Future Volume (vph)	220	387	91	59	99	179
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	239	421	99	64	108	195
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	660	163	303			
Volume Left (vph)	239	0	108			
Volume Right (vph)	0	64	195			
Hadj (s)	0.11	-0.20	-0.28			
Departure Headway (s)	5.2	5.6	5.8			
Degree Utilization, x	0.96	0.25	0.49			
Capacity (veh/h)	684	617	610			
Control Delay (s)	46.8	10.5	14.1			
Approach Delay (s)	46.8	10.5	14.1			
Approach LOS	E	B	B			
Intersection Summary						
Delay	32.7					
Level of Service	D					
Intersection Capacity Utilization	67.4%		ICU Level of Service		C	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/11/2022

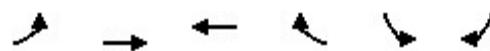


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	74	62	294	95	18	138
Future Volume (vph)	74	62	294	95	18	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	80	67	320	103	20	150
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	147	423	170			
Volume Left (vph)	80	0	20			
Volume Right (vph)	0	103	150			
Hadj (s)	0.14	-0.11	-0.47			
Departure Headway (s)	5.0	4.4	4.7			
Degree Utilization, x	0.20	0.52	0.22			
Capacity (veh/h)	682	789	681			
Control Delay (s)	9.2	12.0	9.1			
Approach Delay (s)	9.2	12.0	9.1			
Approach LOS	A	B	A			
Intersection Summary						
Delay			10.8			
Level of Service			B			
Intersection Capacity Utilization		48.1%		ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	47	26	231	20	34	117
Future Volume (Veh/h)	47	26	231	20	34	117
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	28	251	22	37	127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	273			392	262	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	273			392	262	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	96			94	84	
cM capacity (veh/h)	1290			588	777	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	79	273	164			
Volume Left	51	0	37			
Volume Right	0	22	127			
cSH	1290	1700	724			
Volume to Capacity	0.04	0.16	0.23			
Queue Length 95th (ft)	3	0	22			
Control Delay (s)	5.2	0.0	11.4			
Lane LOS	A		B			
Approach Delay (s)	5.2	0.0	11.4			
Approach LOS			B			
Intersection Summary						
Average Delay		4.4				
Intersection Capacity Utilization		36.4%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	248	238	90	41	38	56
Future Volume (Veh/h)	248	238	90	41	38	56
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	270	259	98	45	41	61
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	143			920	120	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	143			920	120	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	81			83	93	
cM capacity (veh/h)	1440			244	931	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	529	143	102			
Volume Left	270	0	41			
Volume Right	0	45	61			
cSH	1440	1700	437			
Volume to Capacity	0.19	0.08	0.23			
Queue Length 95th (ft)	17	0	22			
Control Delay (s)	5.0	0.0	15.7			
Lane LOS	A		C			
Approach Delay (s)	5.0	0.0	15.7			
Approach LOS			C			
Intersection Summary						
Average Delay		5.5				
Intersection Capacity Utilization		49.0%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	230	404	96	62	104	187
Future Volume (vph)	230	404	96	62	104	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	250	439	104	67	113	203
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	689	171	316			
Volume Left (vph)	250	0	113			
Volume Right (vph)	0	67	203			
Hadj (s)	0.11	-0.20	-0.28			
Departure Headway (s)	5.3	5.7	5.8			
Degree Utilization, x	1.01	0.27	0.51			
Capacity (veh/h)	677	611	608			
Control Delay (s)	60.8	10.8	14.8			
Approach Delay (s)	60.8	10.8	14.8			
Approach LOS	F	B	B			
Intersection Summary						
Delay			41.2			
Level of Service			E			
Intersection Capacity Utilization		70.1%		ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/11/2022

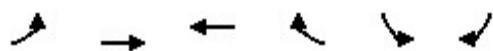


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	259	249	95	43	40	59
Future Volume (Veh/h)	259	249	95	43	40	59
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	282	271	103	47	43	64
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	150			962	126	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	150			962	126	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	80			81	93	
cM capacity (veh/h)	1431			228	924	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	553	150	107			
Volume Left	282	0	43			
Volume Right	0	47	64			
cSH	1431	1700	415			
Volume to Capacity	0.20	0.09	0.26			
Queue Length 95th (ft)	18	0	25			
Control Delay (s)	5.1	0.0	16.7			
Lane LOS	A		C			
Approach Delay (s)	5.1	0.0	16.7			
Approach LOS			C			
Intersection Summary						
Average Delay		5.7				
Intersection Capacity Utilization		50.9%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	70	91	379	120	26	132
Future Volume (vph)	70	91	379	120	26	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	99	412	130	28	143
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	175	542	171			
Volume Left (vph)	76	0	28			
Volume Right (vph)	0	130	143			
Hadj (s)	0.12	-0.11	-0.44			
Departure Headway (s)	5.1	4.5	5.1			
Degree Utilization, x	0.25	0.68	0.24			
Capacity (veh/h)	660	782	624			
Control Delay (s)	9.8	16.3	9.7			
Approach Delay (s)	9.8	16.3	9.7			
Approach LOS	A	C	A			
Intersection Summary						
Delay			13.8			
Level of Service			B			
Intersection Capacity Utilization		55.5%		ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/11/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	64	35	228	19	32	116
Future Volume (Veh/h)	64	35	228	19	32	116
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	38	248	21	35	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	269			436	258	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	269			436	258	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	95			94	84	
cM capacity (veh/h)	1295			546	780	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	108	269	161			
Volume Left	70	0	35			
Volume Right	0	21	126			
cSH	1295	1700	714			
Volume to Capacity	0.05	0.16	0.23			
Queue Length 95th (ft)	4	0	22			
Control Delay (s)	5.3	0.0	11.5			
Lane LOS	A		B			
Approach Delay (s)	5.3	0.0	11.5			
Approach LOS			B			
Intersection Summary						
Average Delay		4.5				
Intersection Capacity Utilization		37.5%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/21/2022

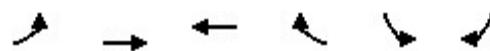


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	70	91	399	127	28	132
Future Volume (vph)	70	91	399	127	28	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	99	434	138	30	143
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	175	572	173			
Volume Left (vph)	76	0	30			
Volume Right (vph)	0	138	143			
Hadj (s)	0.12	-0.11	-0.43			
Departure Headway (s)	5.2	4.5	5.2			
Degree Utilization, x	0.25	0.72	0.25			
Capacity (veh/h)	653	781	613			
Control Delay (s)	9.9	18.0	9.9			
Approach Delay (s)	9.9	18.0	9.9			
Approach LOS	A	C	A			
Intersection Summary						
Delay			14.9			
Level of Service			B			
Intersection Capacity Utilization		57.1%		ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/21/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	39	229	19	32	116
Future Volume (Veh/h)	70	39	229	19	32	116
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	42	249	21	35	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	270			454	260	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	270			454	260	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	94			93	84	
cM capacity (veh/h)	1293			531	779	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	118	270	161			
Volume Left	76	0	35			
Volume Right	0	21	126			
cSH	1293	1700	707			
Volume to Capacity	0.06	0.16	0.23			
Queue Length 95th (ft)	5	0	22			
Control Delay (s)	5.3	0.0	11.6			
Lane LOS	A		B			
Approach Delay (s)	5.3	0.0	11.6			
Approach LOS			B			
Intersection Summary						
Average Delay		4.5				
Intersection Capacity Utilization		38.1%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

7: Prop Access 1 & S. Pope Lick

06/21/2022

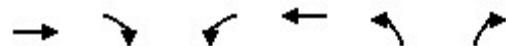


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	120	5	1	473	16	4
Future Volume (Veh/h)	120	5	1	473	16	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	130	5	1	514	17	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		135		648	132	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		135		648	132	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		100		96	100	
cM capacity (veh/h)		1449		434	917	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	135	515	21			
Volume Left	0	1	17			
Volume Right	5	0	4			
cSH	1700	1449	483			
Volume to Capacity	0.08	0.00	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.0	12.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.0	12.8			
Approach LOS			B			
Intersection Summary						
Average Delay		0.4				
Intersection Capacity Utilization		35.7%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

9: Prop Access 2 & S. Pope Lick

06/21/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑ ↗			↗ ↙	↖ ↗	
Traffic Volume (veh/h)	80	44	11	334	140	32
Future Volume (Veh/h)	80	44	11	334	140	32
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	87	48	12	363	152	35
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		135		498	111	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		135		498	111	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		99		71	96	
cM capacity (veh/h)		1449		527	942	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	135	375	187			
Volume Left	0	12	152			
Volume Right	48	0	35			
cSH	1700	1449	575			
Volume to Capacity	0.08	0.01	0.33			
Queue Length 95th (ft)	0	1	35			
Control Delay (s)	0.0	0.3	14.3			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.3	14.3			
Approach LOS			B			
Intersection Summary						
Average Delay		4.0				
Intersection Capacity Utilization		42.8%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/21/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	220	489	144	93	125	179
Future Volume (vph)	220	489	144	93	125	179
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	239	532	157	101	136	195
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	771	258	331			
Volume Left (vph)	239	0	136			
Volume Right (vph)	0	101	195			
Hadj (s)	0.10	-0.20	-0.24			
Departure Headway (s)	5.5	5.8	6.0			
Degree Utilization, x	1.18	0.41	0.56			
Capacity (veh/h)	642	604	585			
Control Delay (s)	118.4	12.8	16.3			
Approach Delay (s)	118.4	12.8	16.3			
Approach LOS	F	B	C			
Intersection Summary						
Delay			73.5			
Level of Service			F			
Intersection Capacity Utilization		79.1%		ICU Level of Service		D
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/21/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	260	248	109	41	38	69
Future Volume (Veh/h)	260	248	109	41	38	69
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	283	270	118	45	41	75
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	163			976	140	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	163			976	140	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	80			82	92	
cM capacity (veh/h)	1416			223	907	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	553	163	116			
Volume Left	283	0	41			
Volume Right	0	45	75			
cSH	1416	1700	435			
Volume to Capacity	0.20	0.10	0.27			
Queue Length 95th (ft)	19	0	27			
Control Delay (s)	5.1	0.0	16.3			
Lane LOS	A	C				
Approach Delay (s)	5.1	0.0	16.3			
Approach LOS		C				
Intersection Summary						
Average Delay		5.7				
Intersection Capacity Utilization		52.0%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

7: Prop Access 1 & S. Pope Lick

06/21/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↓	↖	↙	↗	↘
Traffic Volume (veh/h)	601	13	3	225	9	2
Future Volume (Veh/h)	601	13	3	225	9	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	653	14	3	245	10	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		667		911	660	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		667		911	660	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		100		97	100	
cM capacity (veh/h)		923		303	463	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	667	248	12			
Volume Left	0	3	10			
Volume Right	14	0	2			
cSH	1700	923	322			
Volume to Capacity	0.39	0.00	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.1	16.6			
Lane LOS		A	C			
Approach Delay (s)	0.0	0.1	16.6			
Approach LOS			C			
Intersection Summary						
Average Delay		0.3				
Intersection Capacity Utilization		42.4%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

9: Prop Access 2 & S. Pope Lick

06/21/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1	1	1	1	1	1
Traffic Volume (veh/h)	488	115	29	150	78	20
Future Volume (Veh/h)	488	115	29	150	78	20
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	530	125	32	163	85	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		655		820	592	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		655		820	592	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		97		74	96	
cM capacity (veh/h)		932		333	506	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	655	195	107			
Volume Left	0	32	85			
Volume Right	125	0	22			
cSH	1700	932	358			
Volume to Capacity	0.39	0.03	0.30			
Queue Length 95th (ft)	0	3	31			
Control Delay (s)	0.0	1.8	19.3			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.8	19.3			
Approach LOS			C			
Intersection Summary						
Average Delay		2.5				
Intersection Capacity Utilization		44.9%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/21/2022

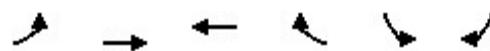


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	74	100	412	132	29	138
Future Volume (vph)	74	100	412	132	29	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	80	109	448	143	32	150
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	189	591	182			
Volume Left (vph)	80	0	32			
Volume Right (vph)	0	143	150			
Hadj (s)	0.12	-0.11	-0.43			
Departure Headway (s)	5.2	4.6	5.3			
Degree Utilization, x	0.27	0.75	0.27			
Capacity (veh/h)	645	772	616			
Control Delay (s)	10.2	19.8	10.2			
Approach Delay (s)	10.2	19.8	10.2			
Approach LOS	B	C	B			
Intersection Summary						
Delay			16.1			
Level of Service			C			
Intersection Capacity Utilization		59.2%		ICU Level of Service		B
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/21/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	40	239	20	34	121
Future Volume (Veh/h)	72	40	239	20	34	121
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	78	43	260	22	37	132
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	282			470	271	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	282			470	271	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	94			93	83	
cM capacity (veh/h)	1280			518	768	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	121	282	169			
Volume Left	78	0	37			
Volume Right	0	22	132			
cSH	1280	1700	695			
Volume to Capacity	0.06	0.17	0.24			
Queue Length 95th (ft)	5	0	24			
Control Delay (s)	5.3	0.0	11.8			
Lane LOS	A		B			
Approach Delay (s)	5.3	0.0	11.8			
Approach LOS			B			
Intersection Summary						
Average Delay		4.6				
Intersection Capacity Utilization		39.2%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

7: Prop Access 1 & S. Pope Lick

06/21/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↓	↖	↙	↗	↘
Traffic Volume (veh/h)	124	5	1	488	16	4
Future Volume (Veh/h)	124	5	1	488	16	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	135	5	1	530	17	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		140		670	138	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		140		670	138	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		100		96	100	
cM capacity (veh/h)		1443		422	911	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	140	531	21			
Volume Left	0	1	17			
Volume Right	5	0	4			
cSH	1700	1443	470			
Volume to Capacity	0.08	0.00	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.0	13.0			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.0	13.0			
Approach LOS			B			
Intersection Summary						
Average Delay		0.4				
Intersection Capacity Utilization		36.5%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

9: Prop Access 2 & S. Pope Lick

06/21/2022



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↓	↖	↙	↗	↘
Traffic Volume (veh/h)	84	44	11	349	140	32
Future Volume (Veh/h)	84	44	11	349	140	32
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	91	48	12	379	152	35
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		139		518	115	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		139		518	115	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		99		70	96	
cM capacity (veh/h)		1445		513	937	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	139	391	187			
Volume Left	0	12	152			
Volume Right	48	0	35			
cSH	1700	1445	561			
Volume to Capacity	0.08	0.01	0.33			
Queue Length 95th (ft)	0	1	36			
Control Delay (s)	0.0	0.3	14.6			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.3	14.6			
Approach LOS			B			
Intersection Summary						
Average Delay		4.0				
Intersection Capacity Utilization		43.6%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Tucker Station Rd & S. Pope Lick

06/21/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Traffic Volume (vph)	230	506	149	96	130	187
Future Volume (vph)	230	506	149	96	130	187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	250	550	162	104	141	203
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total (vph)	800	266	344			
Volume Left (vph)	250	0	141			
Volume Right (vph)	0	104	203			
Hadj (s)	0.10	-0.20	-0.24			
Departure Headway (s)	5.6	5.8	6.1			
Degree Utilization, x	1.24	0.43	0.58			
Capacity (veh/h)	638	598	574			
Control Delay (s)	142.1	13.2	17.1			
Approach Delay (s)	142.1	13.2	17.1			
Approach LOS	F	B	C			
Intersection Summary						
Delay			87.3			
Level of Service			F			
Intersection Capacity Utilization		81.7%		ICU Level of Service		D
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

5: S. Pope Lick & Poplar Lane

06/21/2022



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	271	259	114	43	40	72
Future Volume (Veh/h)	271	259	114	43	40	72
Sign Control	Free	Free		Stop		
Grade	0%	0%		0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	295	282	124	47	43	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	171			1020	148	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	171			1020	148	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	79			79	91	
cM capacity (veh/h)	1406			207	899	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	577	171	121			
Volume Left	295	0	43			
Volume Right	0	47	78			
cSH	1406	1700	411			
Volume to Capacity	0.21	0.10	0.29			
Queue Length 95th (ft)	20	0	30			
Control Delay (s)	5.2	0.0	17.4			
Lane LOS	A		C			
Approach Delay (s)	5.2	0.0	17.4			
Approach LOS			C			
Intersection Summary						
Average Delay		5.9				
Intersection Capacity Utilization		53.9%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

7: Prop Access 1 & S. Pope Lick

06/21/2022

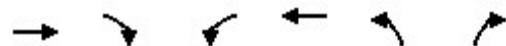


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↓	↖	↙	↗	↘
Traffic Volume (veh/h)	623	13	3	231	9	2
Future Volume (Veh/h)	623	13	3	231	9	2
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	677	14	3	251	10	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		691		941	684	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		691		941	684	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		100		97	100	
cM capacity (veh/h)		904		291	449	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	691	254	12			
Volume Left	0	3	10			
Volume Right	14	0	2			
cSH	1700	904	309			
Volume to Capacity	0.41	0.00	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.1	17.1			
Lane LOS		A	C			
Approach Delay (s)	0.0	0.1	17.1			
Approach LOS			C			
Intersection Summary						
Average Delay		0.3				
Intersection Capacity Utilization		43.6%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

9: Prop Access 2 & S. Pope Lick

06/21/2022



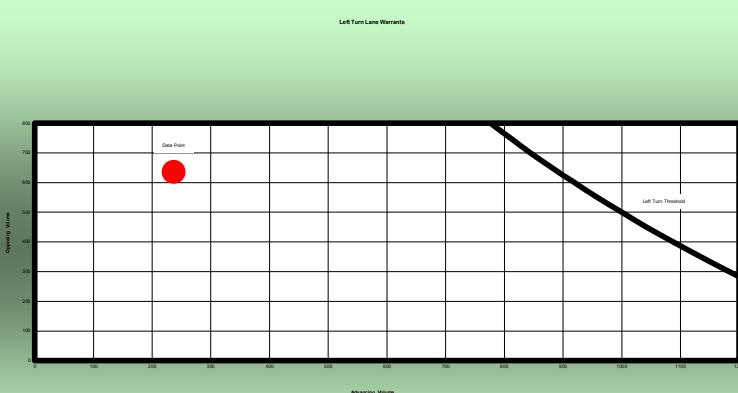
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑ ↗	↙ ↗	↖ ↗	↖ ↙	↖ ↗	↖ ↙
Traffic Volume (veh/h)	510	115	29	156	78	20
Future Volume (Veh/h)	510	115	29	156	78	20
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	554	125	32	170	85	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume		679		850	616	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol		679		850	616	
tC, single (s)		4.1		6.4	6.2	
tC, 2 stage (s)						
tF (s)		2.2		3.5	3.3	
p0 queue free %		96		73	96	
cM capacity (veh/h)		913		319	490	
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	679	202	107			
Volume Left	0	32	85			
Volume Right	125	0	22			
cSH	1700	913	344			
Volume to Capacity	0.40	0.04	0.31			
Queue Length 95th (ft)	0	3	32			
Control Delay (s)	0.0	1.7	20.1			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.7	20.1			
Approach LOS			C			
Intersection Summary						
Average Delay		2.5				
Intersection Capacity Utilization		46.0%		ICU Level of Service		A
Analysis Period (min)		15				

APPENDIX F: AUXILLIARY TURN LANE WARRANTS

Proposed Access 1 at S. Pope Lick (PM Peak) Westbound Left Turn Lane Warrants

Input Fields

Left Turn Volume (vph)	3	Speed Limit (mph)	35
Advancing Volume (vph)	234	No. of through lanes	2
Opposing Volume (vph)	636	Percent Heavy Vehicles (decimal percent)	0.05



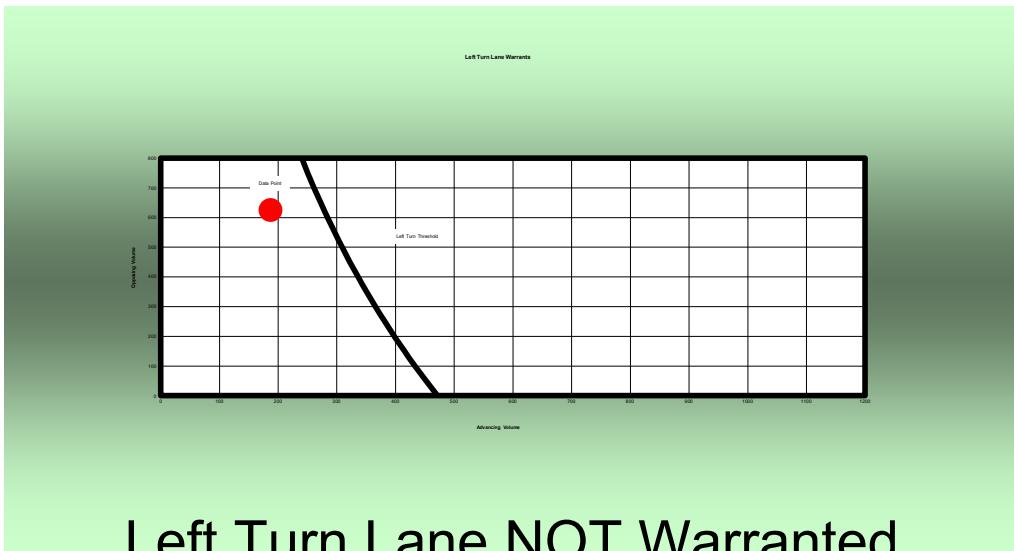
Left Turn Lane NOT Warranted

Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Proposed Access 2 at S. Pope Lick (PM Peak) Westbound Left Turn Lane Warrants

Input Fields

Left Turn Volume (vph)	29	Speed Limit (mph)	35
Advancing Volume (vph)	185	No. of through lanes	2
Opposing Volume (vph)	625	Percent Heavy Vehicles (decimal percent)	0.05



Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Proposed Access 1 at S. Pope Lick (PM Peak) Eastbound Right Turn Lane Warrants

Input Fields

Right Turn Volume (vph)	13	Speed Limit (mph)	35
Advancing Volume (vph)	636		

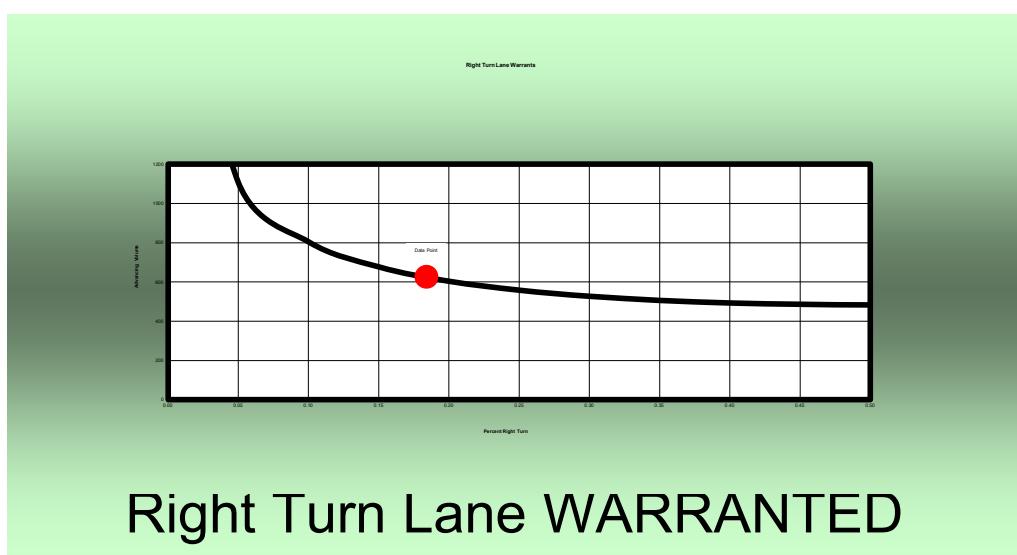


Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

Proposed Access 2 at S. Pope Lick (PM Peak) Eastbound Right Turn Lane Warrants

Input Fields

Right Turn Volume (vph)	115	Speed Limit (mph)	35
Advancing Volume (vph)	625		



Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.