final report

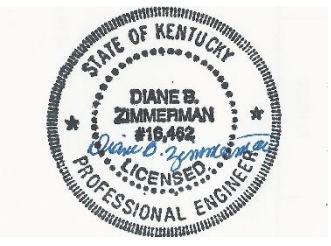
August 17, 2022

Traffic Impact Study

Apartments
5127 Terry Road (KY 1727)
Louisville, KY

Prepared for

Louisville Metro Planning Commission
Kentucky Transportation Cabinet



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INTRODUCTION

The site plan for the proposed apartment community shows 216 apartments on Terry Road (KY 1727) near Murray Lane in Louisville, KY. **Figure 1** displays a map of the site. Access to the site will be from two entrances on Terry Road. The northern entrance will a right in/right out and will connect to Joy Drive. The purpose of this study is to examine the traffic impacts of the development upon the adjacent highway system. For this study, the impact area was defined to be the intersections of Terry Road with Lemmah Drive, Raggard Road, Murray Lane, and Lower Hunters Trace, and the proposed entrances on Terry Road.

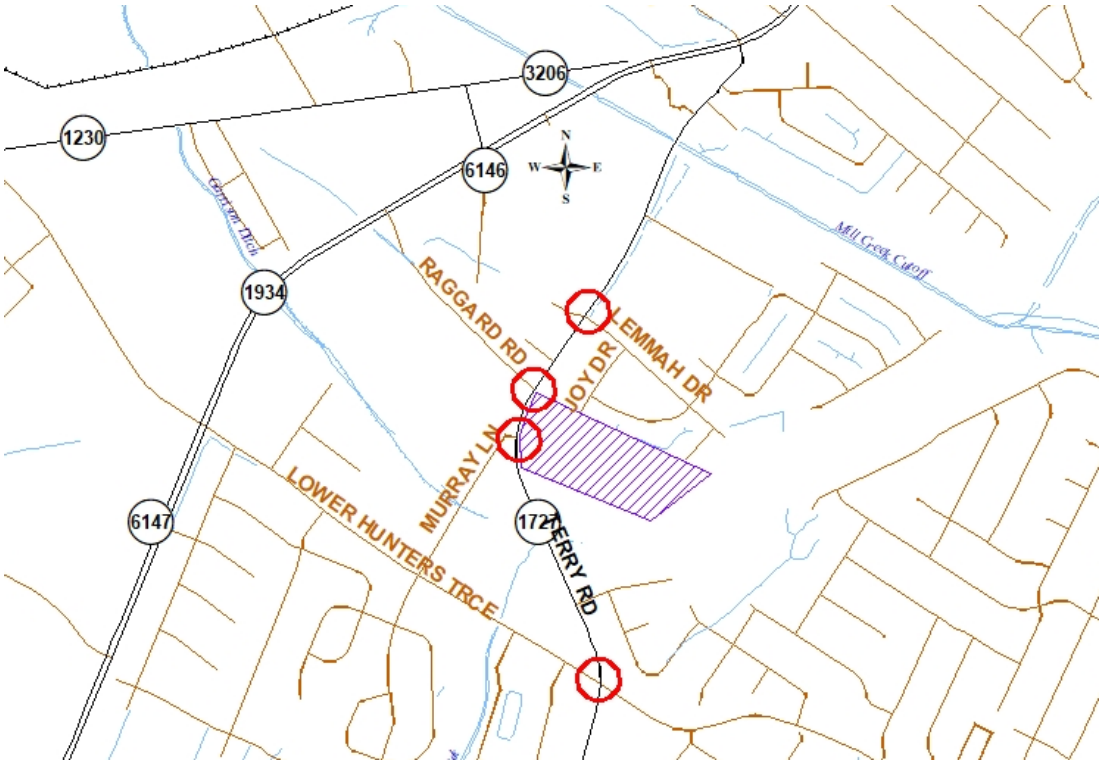


Figure 1. Site Map

EXISTING CONDITIONS

Terry Road, KY 1727, is a state-maintained road with an estimated 2022 ADT of 11,400 vehicles per day between Lower Hunters Trace and Cane Run Road (KY 1934) as estimated from the Kentucky Transportation Cabinet count at station G05. The road is a two-lane highway with eleven-foot lanes with five-foot shoulders through the study area (provided by the Kentucky Transportation Cabinet). The speed limit is 45 mph. There are no sidewalks. The intersections at Lemmah Drive, Raggard Road and Murray Lane are controlled with a stop sign. There is a left turn lane at Raggard Road. The intersection with Lower Hunters Trace is controlled with a traffic signal. There are left turn lanes on each approach and all but the eastbound approach has a right turn lane.

Peak hour traffic count for the intersections were obtained on Thursday, May 19, 2022. The peak hours varied between the intersections. **Figure 2** illustrates the existing a.m. and p.m. peak hour traffic volumes. The Appendix contains the full count data.

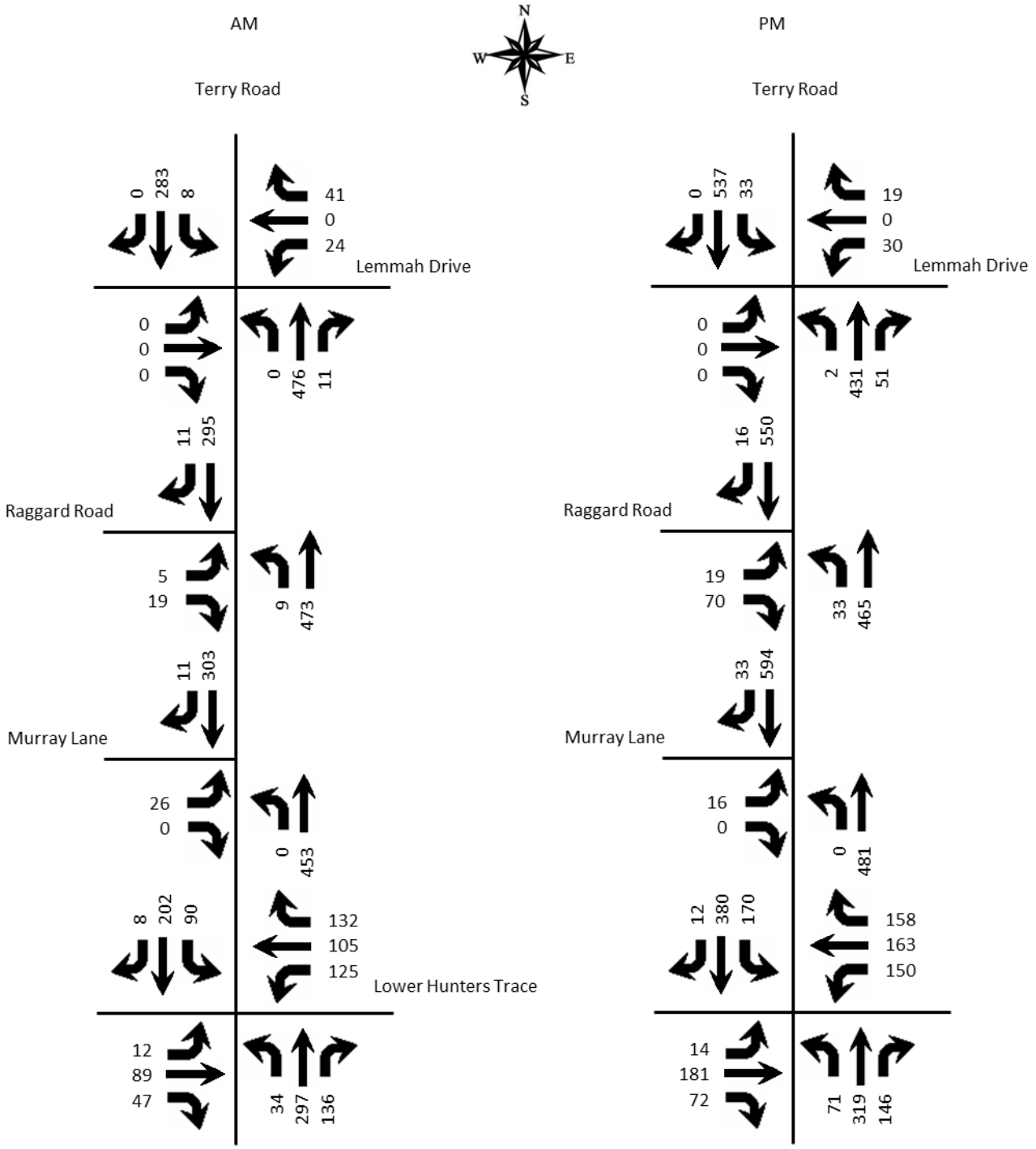


Figure 2. Existing Peak Hour Volumes

FUTURE CONDITIONS

The project completion date is 2025. An annual growth rate of 0.5 percent was applied to the 2022 thru volumes. **Figure 3** displays the 2025 No Build peak hour volumes.

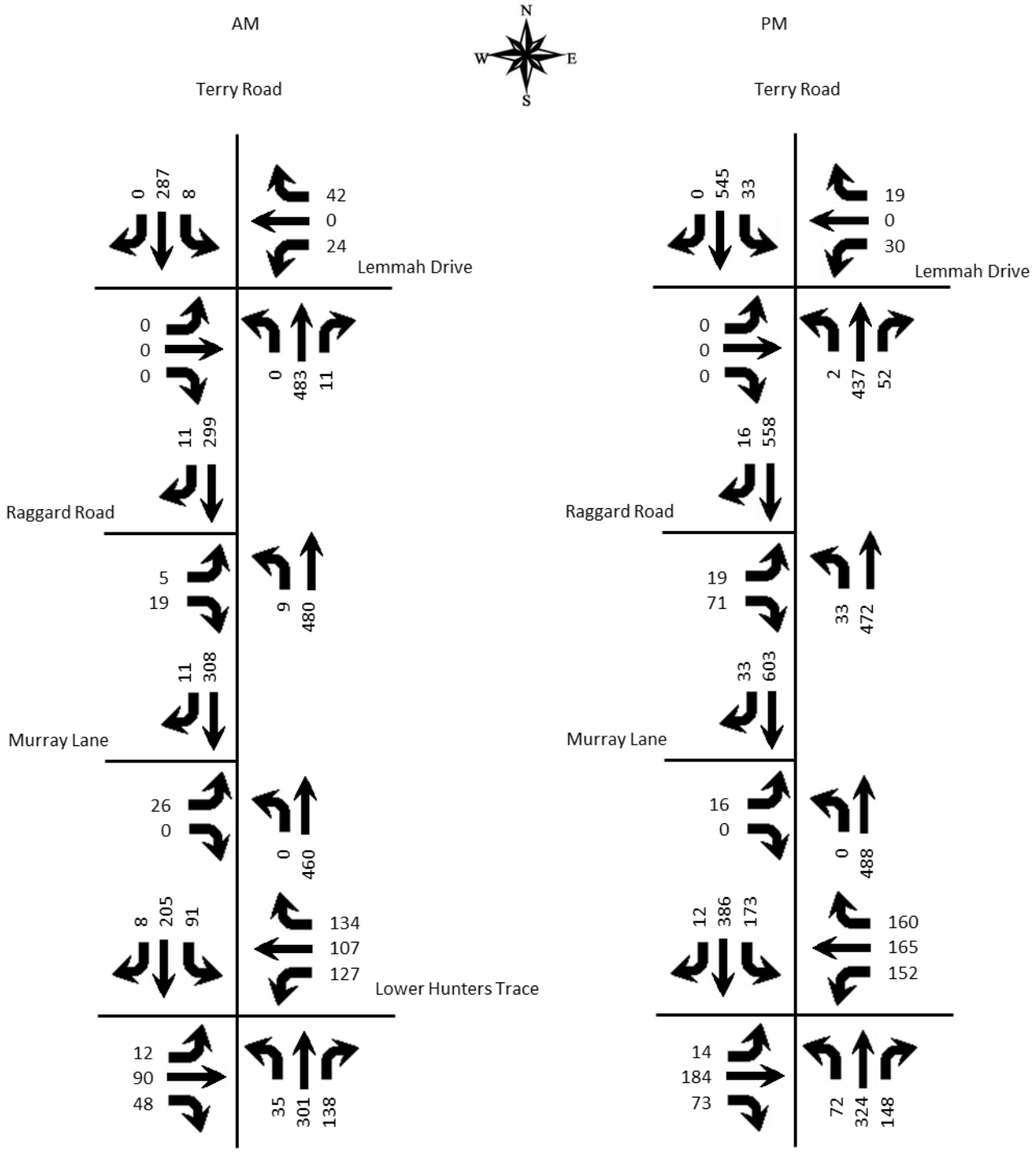


Figure 3. 2025 No Build Peak Hour Volumes

TRIP GENERATION

The Institute of Transportation Engineers Trip Generation Manual, 11th Edition contains trip generation rates for a wide range of developments. The land uses of "Multifamily Housing (Low-Rise) (220)" was reviewed and determined

to be the best match. The trip generation results are listed in **Table 1**. The trips were assigned to the highway network with the percentages shown in **Figure 4**. **Figure 5** shows the trips generated by this development and distributed throughout the road network during the peak hours. **Figure 6** displays the individual turning movements for the peak hours when the development is completed.

Table 1. Peak Hour Trips Generated by Site

	A.M. Peak Hour			P.M. Peak Hour		
Land Use	**Trips**	**In**	**Out**	**Trips**	**In**	**Out**
Multifamily (216 units)	90	22	68	113	71	42

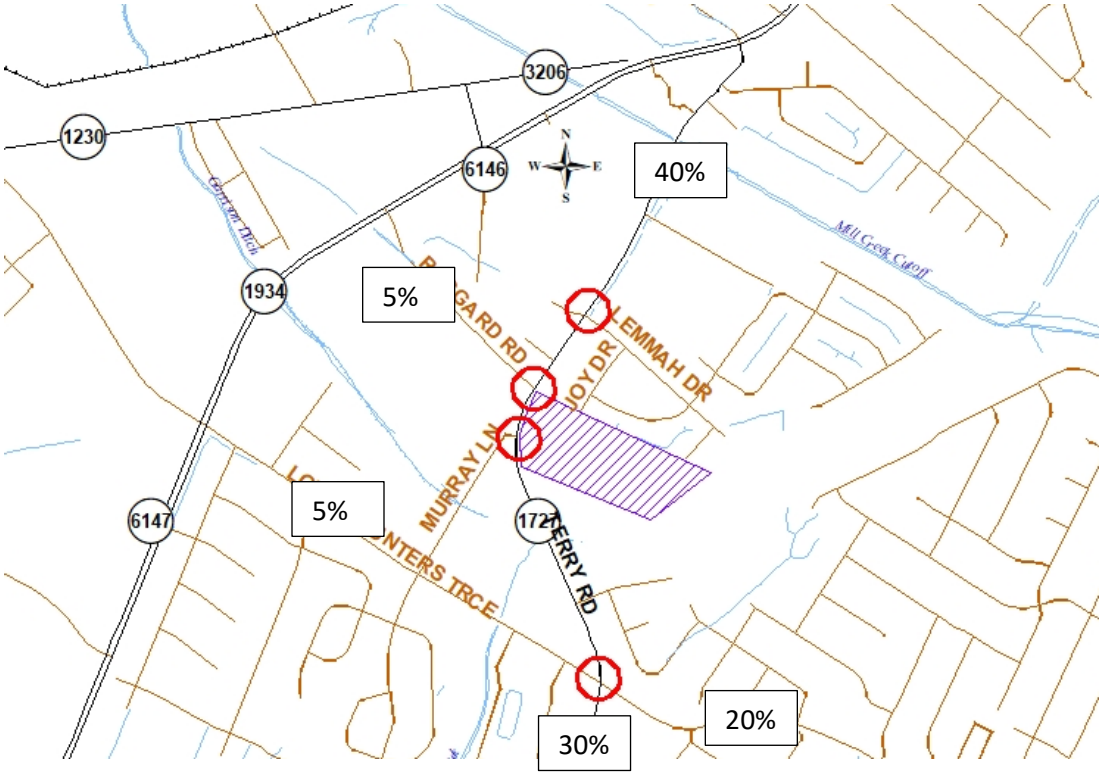


Figure 4. Trip Distribution Percentages

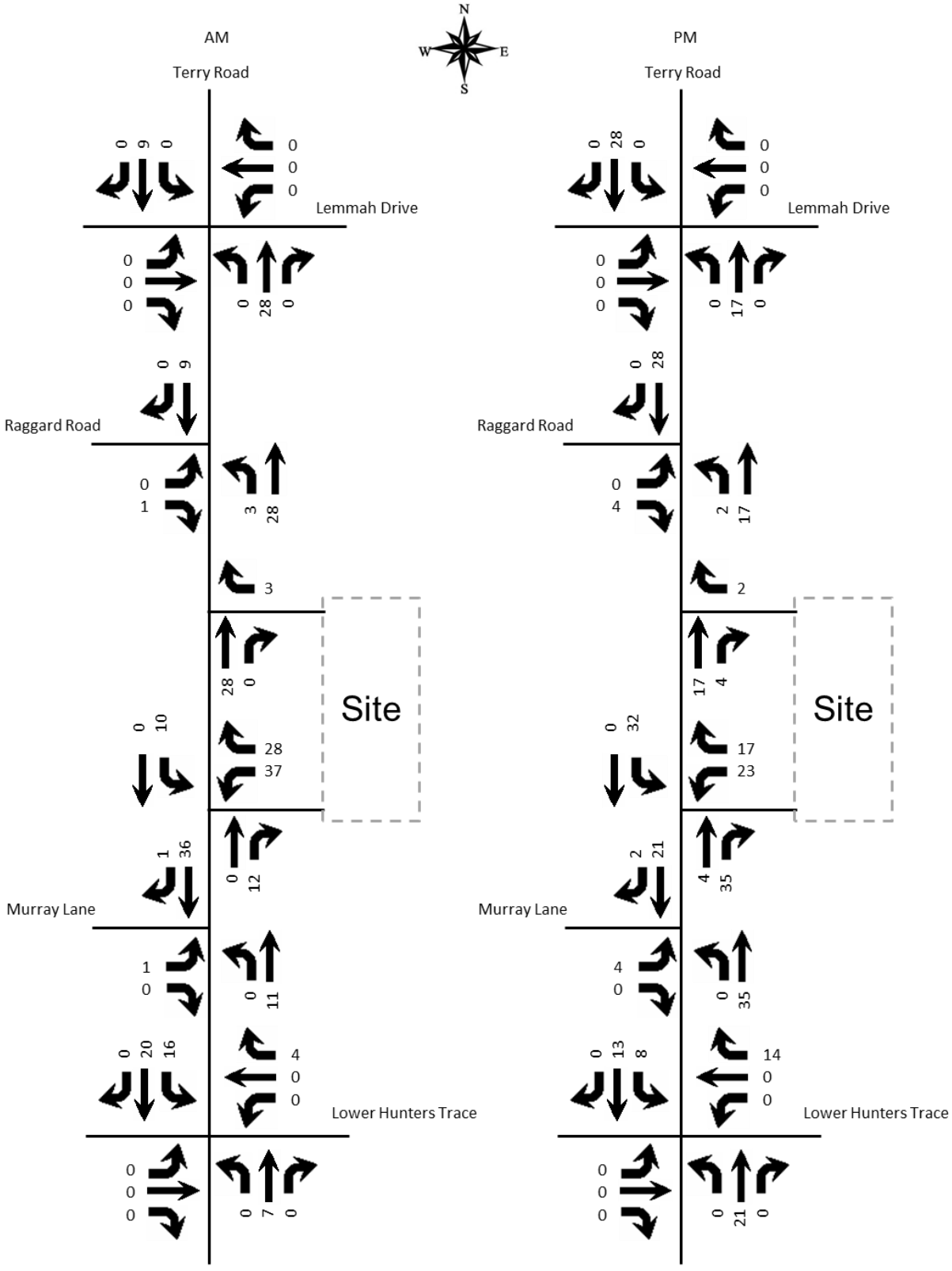


Figure 5. Peak Hour Trips Generated by Site

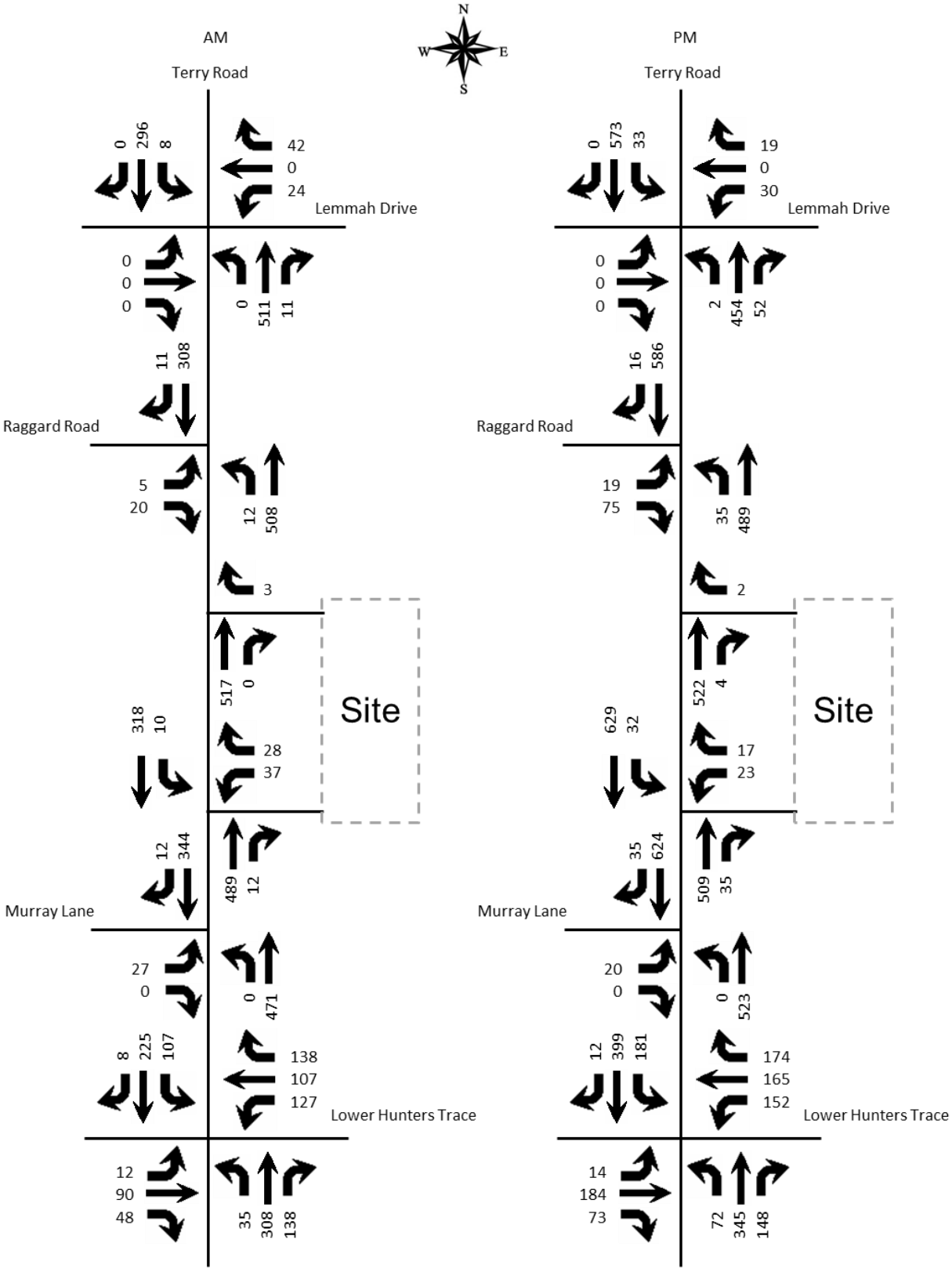


Figure 6. 2025 Build Peak Hour Volumes

ANALYSIS

The qualitative measure of operation for a roadway facility or intersection is evaluated by assigning a "Level of Service". Level of Service is a ranking scale from A through F, "A" is the best operating condition and "F" is the worst. Level of Service results depend upon the facility that is analyzed. In this case, the Level of Service is based upon the total delay experienced for lanes at stop-controlled intersections.

To evaluate the impact of the proposed development, the vehicle delays at the intersections were determined using procedures detailed in the Highway Capacity Manual, 7th edition. Future delays and Level of Service were determined for the intersections using the HCS Streets and Two-Way Stop Controlled (version 2022) software. The delays and Level of Service are summarized in **Table 2**.

Table 2. Peak Hour Level of Service

	A.M.			P.M.		
Approach	2022 Existing	2025 No Build	2025 Build	2022 Existing	2025 No Build	2025 Build
Terry Road at Lemmah Drive						
Tatum Lane Eastbound	NA	NA	NA	NA	NA	NA
Lemmah Drive Westbound	C 16.5	C 16.7	C 17.5	C 23.4	C 23.9	D 25.6
Terry Road Northbound (left)	A 7.9	A 7.9	A 7.9	A 8.5	A 8.5	A 8.6
Terry Road Southbound (left)	A 9.0	A 9.0	A 9.1	A 8.6	A 8.6	A 8.7
Terry Road at Raggard Road						
Raggard Road Eastbound	B 11.3	B 11.4	B 11.5	B 14.3	B 14.4	B 14.9
Terry Road Northbound (left)	A 7.9	A 8.0	A 8.0	A 8.9	A 8.9	A 9.0
Terry Road at Entrance						
Entrance Westbound			B 14.1			C 16.0
Terry Road Southbound (left)			A 8.6			A 8.8
Terry Road at Murray Lane						
Murray Lane Eastbound	C 16.9	C 17.2	C 18.2	C 23.7	C 24.1	D 26.6
Terry Road Northbound (left)	A 8.0	A 8.0	A 8.1	A 8.9	A 8.9	A 9.0
Terry Road at Lower Hunters Trace	**C 20.1**	**C 20.2**	**C 20.3**	**C 22.9**	**C 23.1**	**C 23.4**
Lower Hunters Trace Eastbound	C 30.1	C 30.1	C 30.2	C 31.1	C 31.2	C 31.3
Lower Hunters Trace Westbound	C 25.2	C 25.2	C 25.4	C 24.7	C 24.7	C 25.0

	A.M.			P.M.		
Approach	2022 Existing	2025 No Build	2025 Build	2022 Existing	2025 No Build	2025 Build
Terry Road Northbound	B 16.8	B 17.0	B 17.2	C 20.6	C 21.0	C 21.6
Terry Road Southbound	B 14.3	B 14.4	B 14.7	B 19.6	B 19.9	C 20.2

Key: Level of Service, Delay in seconds per vehicle

The entrances were evaluated for turn lanes using the Kentucky Transportation Cabinet Highway Design Guidance Manual dated July, 2020. The traffic impact policy requires using volumes for ten years beyond opening date, or 2035. The 2035 volumes were determined by using 0.5% annual growth from the 2025 volumes. **Figure 7** is the 2035 No Build and **Figure 8** is the Build. The volumes in Figure 8 were utilized to determine turn lane requirements. The primary entrance meets the volume warrants for installing a left turn lane. **Table 3** displays the level of service results for 2035.

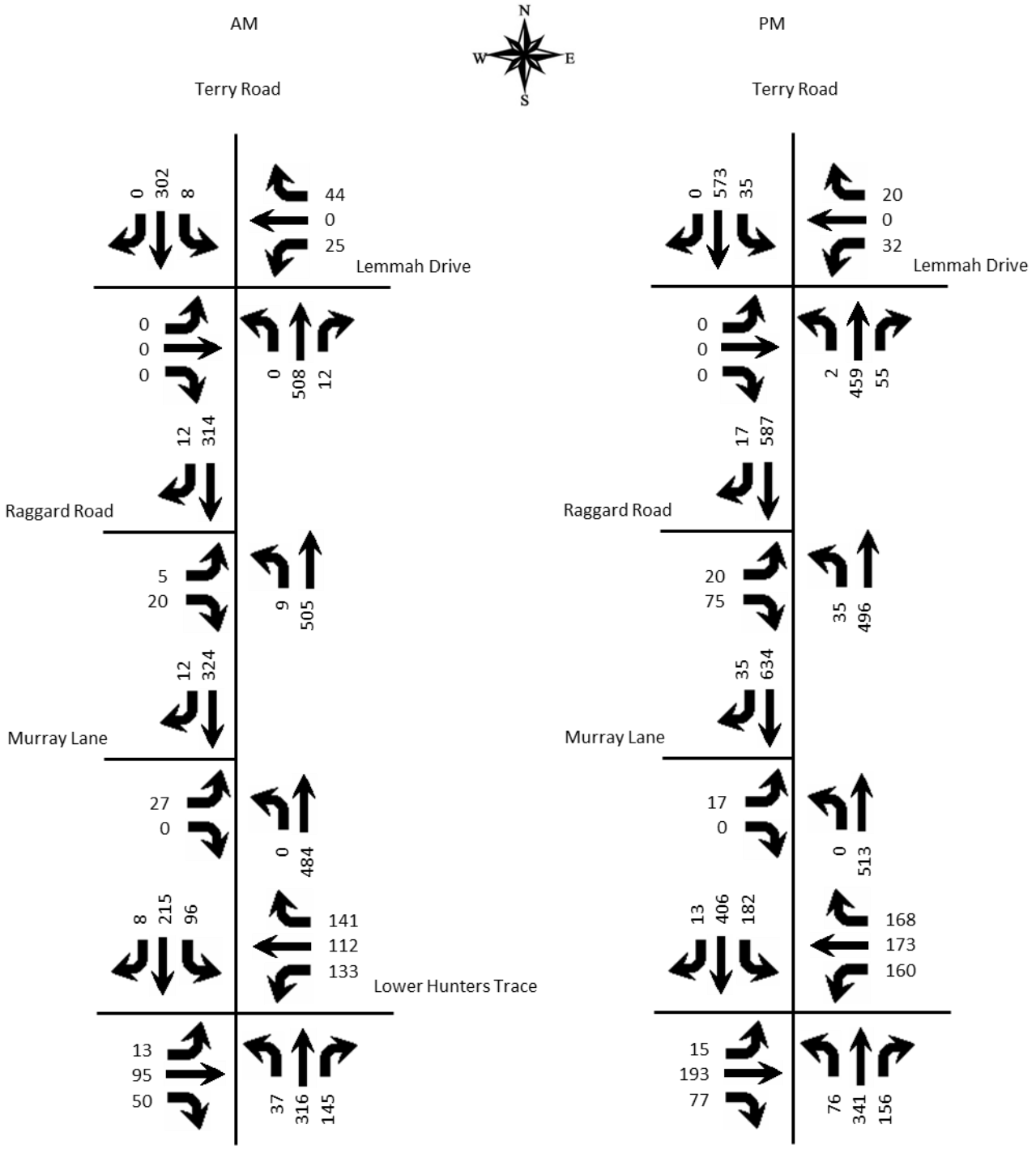


Figure 7. 2035 No Build Peak Hour Volumes

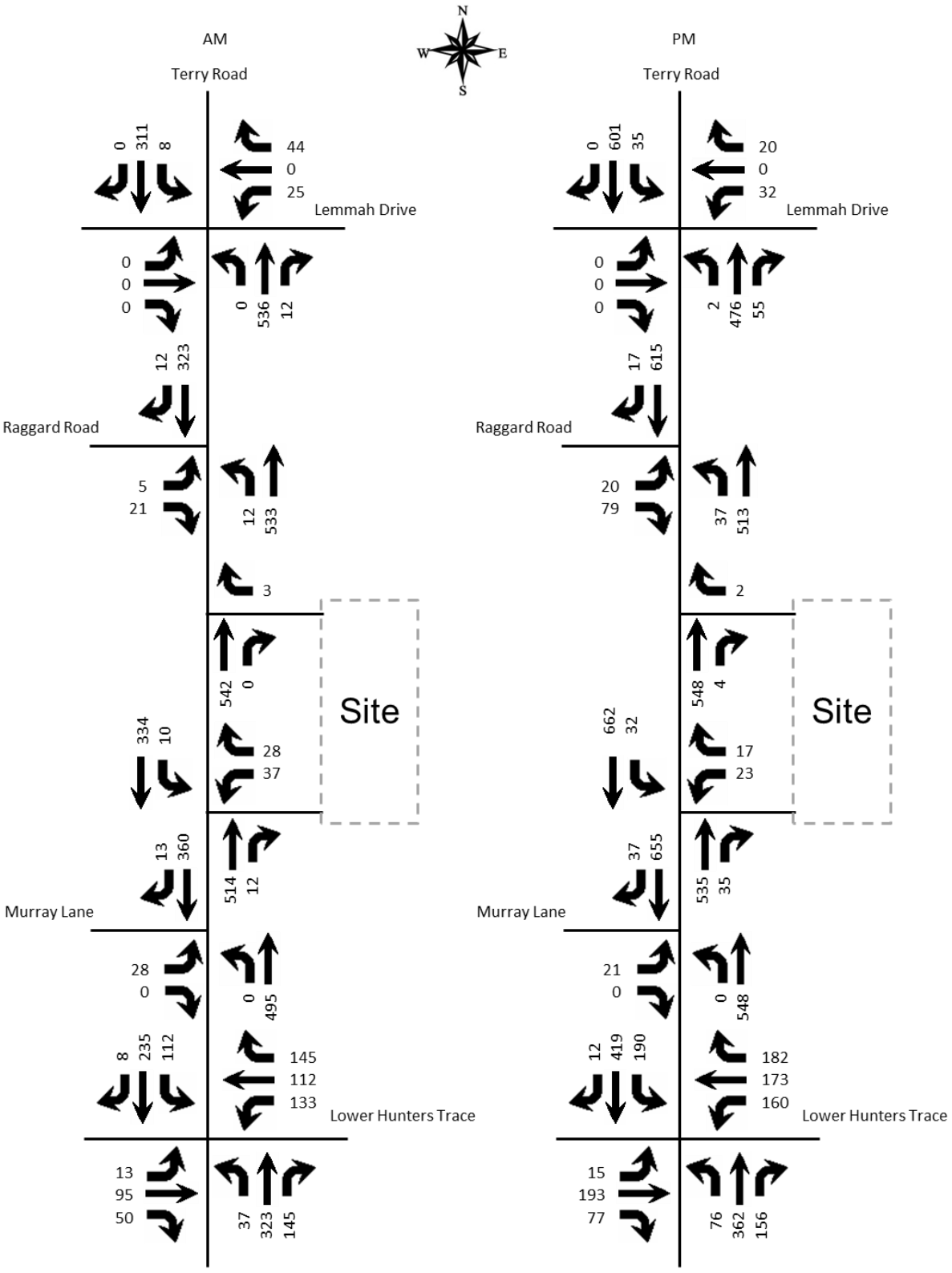


Figure 8. 2035 Build Peak Hour Volumes

Table 3. Peak Hour Level of Service 2035

	A.M.			P.M.		
Approach	2022 Existing	2035 No Build	2035 Build	2022 Existing	2035 No Build	2035 Build
Terry Road at Lemmah Drive						
Tatum Lane Eastbound	NA	NA	NA	NA	NA	NA
Lemmah Drive Westbound	C 16.5	C 17.7	C 18.6	C 23.4	D 26.6	D 28.6
Terry Road Northbound (left)	A 7.9	A 7.9	A 7.9	A 8.5	A 8.6	A 8.7
Terry Road Southbound (left)	A 9.0	A 9.1	A 9.2	A 8.6	A 8.7	A 8.8
Terry Road at Raggard Road						
Raggard Road Eastbound	B 11.3	B 11.5	B 11.7	B 14.3	B 15.0	C 15.5
Terry Road Northbound (left)	A 7.9	A 8.0	A 8.0	A 8.9	A 9.1	A 9.2
Terry Road at Entrance						
Entrance Westbound			B 14.5			C 16.7
Terry Road Southbound (left)			A 8.6			A 8.9
Terry Road at Murray Lane						
Murray Lane Eastbound	C 16.9	C 18.1	C 19.2	C 23.7	D 26.2	D 29.0
Terry Road Northbound (left)	A 8.0	A 8.0	A 8.1	A 8.9	A 9.1	A 9.2
Terry Road at Lower Hunters Trace	**C 20.1**	**C 20.6**	**C 20.7**	**C 22.9**	**C 23.8**	**C 24.2**
Lower Hunters Trace Eastbound	C 30.1	C 30.2	C 30.3	C 31.1	C 31.5	C 31.6
Lower Hunters Trace Westbound	C 25.2	C 25.2	C 25.4	C 24.7	C 24.8	C 25.1
Terry Road Northbound	B 16.8	B 17.6	B 17.8	C 20.6	C 22.1	C 22.8
Terry Road Southbound	B 14.3	B 15.0	B 15.2	B 19.6	C 20.9	C 21.3

Key: Level of Service, Delay in seconds per vehicle

CONCLUSIONS

Based upon the volume of traffic generated by the development and the amount of traffic forecasted for the year 2025 and 2035, there will be a slight impact to the existing highway network. A left turn lane will be installed at the entrance on Terry Road.

APPENDIX

Traffic Counts

Classified Turn Movement Count || All vehicles

Marr Traffic DATA COLLECTION
www.marrtraffic.com

Louisville KY (Terry Rd)

Site 4 of 4
Terry Rd (South)
Terry Rd (North)
Tatum Ln
Lemmah Dr

Date
Thursday, May 19, 2022

Lat/Long
38.172408°, -85.865950°

Weather
Fair
73°F

0700 - 0900 (Thursday 2h Session) (05-19-2022)
All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Terry Rd (South)					Terry Rd (North)					Tatum Ln					Lemmah Dr					
	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	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
0700 - 0715	0	113	1	0	114	0	60	0	0	60	0	0	0	0	0	5	0	9	0	14	188
0715 - 0730	0	130	1	0	131	4	72	0	0	76	0	0	0	0	0	10	0	13	0	23	230
0730 - 0745	0	135	3	0	138	1	81	0	0	82	0	0	0	0	0	5	0	11	0	16	236
0745 - 0800	0	98	6	0	104	3	70	0	0	73	0	0	0	0	0	4	0	8	0	12	189
Hourly Total	0	476	11	0	**487**	8	283	0	0	**291**	0	0	0	0	**0**	24	0	41	0	**65**	**843**
0800 - 0815	0	101	6	0	107	2	49	0	0	51	0	0	2	0	2	7	0	3	0	10	170
0815 - 0830	0	94	1	0	95	5	72	0	0	77	0	0	0	0	0	5	0	4	0	9	181
0830 - 0845	0	117	6	0	123	3	64	0	0	67	0	0	0	0	0	7	0	13	0	20	210
0845 - 0900	0	104	8	0	112	6	75	0	0	81	0	0	0	0	0	8	0	4	0	12	205
Hourly Total	0	416	21	0	**437**	16	260	0	0	**276**	0	0	2	0	**2**	27	0	24	0	**51**	**766**
Grand Total	0	892	32	0	**924**	24	543	0	0	**567**	0	0	2	0	**2**	51	0	65	0	**116**	**1609**
Approach %	0.00	96.54	3.46	0.00	-	4.23	95.77	0.00	0.00	-	0.00	0.00	100.00	0.00	-	43.97	0.00	56.03	0.00	-	
Intersection %	0.00	55.44	1.99	0.00	57.43	1.49	33.75	0.00	0.00	35.24	0.00	0.00	0.12	0.00	0.12	3.17	0.00	4.04	0.00	7.21	
PHF	0.00	0.88	0.46	0.00	**0.88**	0.50	0.87	0.00	0.00	**0.89**	0.00	0.00	0.00	0.00	**0.00**	0.60	0.00	0.79	0.00	**0.71**	**0.89**

1600 - 1800 (Thursday 2h Session) (05-19-2022)
All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Terry Rd (South)					Terry Rd (North)					Tatum Ln					Lemmah Dr					
	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	4.1	4.2	4.3	4.4	Total	4.5	4.6	4.7	4.8	Total	4.9	4.10	4.11	4.12	Total	4.13	4.14	4.15	4.16	Total	Total
1600 - 1615	1	104	16	0	121	9	133	0	0	142	0	0	0	0	0	12	0	4	0	16	279
1615 - 1630	1	107	10	0	118	7	130	0	0	137	0	0	0	0	0	2	0	4	0	6	261
1630 - 1645	0	116	15	0	131	6	130	0	0	136	0	0	0	0	0	9	0	3	0	12	279
1645 - 1700	0	104	10	0	114	11	144	0	0	155	0	0	0	0	0	7	0	8	0	15	284
Hourly Total	2	431	51	0	**484**	33	537	0	0	**570**	0	0	0	0	**0**	30	0	19	0	**49**	**1103**
1700 - 1715	0	106	14	0	120	7	124	0	0	131	0	0	0	0	0	4	0	6	0	10	261
1715 - 1730	0	109	5	0	114	9	134	0	0	143	0	0	0	0	0	9	0	5	0	14	271
1730 - 1745	0	114	9	0	123	8	148	0	0	156	0	0	0	0	0	2	0	3	0	5	284
1745 - 1800	0	95	13	0	108	12	128	0	0	140	0	0	0	0	0	9	0	4	0	13	261
Hourly Total	0	424	41	0	**465**	36	534	0	0	**570**	0	0	0	0	**0**	24	0	18	0	**42**	**1077**
Grand Total	2	855	92	0	**949**	69	1071	0	0	**1140**	0	0	0	0	**0**	54	0	37	0	**91**	**2180**
Approach %	0.21	90.09	9.69	0.00	-	6.05	93.95	0.00	0.00	-	0.00	0.00	0.00	0.00	-	59.34	0.00	40.66	0.00	-	
Intersection %	0.09	39.22	4.22	0.00	43.53	3.17	49.13	0.00	0.00	52.29	0.00	0.00	0.00	0.00	0.00	2.48	0.00	1.70	0.00	4.17	
PHF	0.50	0.93	0.80	0.00	**0.92**	0.75	0.93	0.00	0.00	**0.92**	0.00	0.00	0.00	0.00	**0.00**	0.63	0.00	0.59	0.00	**0.77**	**0.97**

Classified Turn Movement Count || All vehicles

Marr Traffic DATA COLLECTION
www.marrtraffic.com

Louisville KY (Terry Rd)

Site 3 of 4
Terry Rd (South)
Terry Rd (North)
Raggard Rd
Driveway

Date
Thursday, May 19, 2022

Weather
Fair
73°F

Lat/Long
38.170913°, -85.867293°

0700 - 0900 (Thursday 2h Session) (05-19-2022)
All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Terry Rd (South)					Terry Rd (North)					Raggard Rd					Driveway					
	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	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
0700 - 0715	0	114	0	0	114	0	59	6	0	65	1	0	2	0	3	0	0	0	0	0	182
0715 - 0730	2	127	0	0	129	0	82	0	0	82	0	0	10	0	10	0	0	0	0	0	221
0730 - 0745	1	133	0	0	134	0	82	5	0	87	1	0	4	0	5	0	0	0	0	0	226
0745 - 0800	6	99	0	0	105	0	72	0	0	72	3	0	3	0	6	0	0	0	0	0	183
Hourly Total	9	473	0	0	**482**	0	295	11	0	**306**	5	0	19	0	**24**	0	0	0	0	**0**	**812**
0800 - 0815	1	105	0	0	106	0	57	3	0	60	2	0	1	0	3	0	1	0	0	1	170
0815 - 0830	1	92	0	0	93	0	71	1	0	72	1	0	2	0	3	0	0	0	0	0	168
0830 - 0845	3	121	0	0	124	0	74	2	0	76	3	0	2	0	5	0	0	0	0	0	205
0845 - 0900	1	111	0	0	112	0	83	2	0	85	5	0	7	0	12	0	0	0	0	0	209
Hourly Total	6	429	0	0	**435**	0	285	8	0	**293**	11	0	12	0	**23**	0	1	0	0	**1**	**752**
Grand Total	15	902	0	0	**917**	0	580	19	0	**599**	16	0	31	0	**47**	0	1	0	0	**1**	**1564**
Approach %	1.64	98.36	0.00	0.00	-	0.00	96.83	3.17	0.00	-	34.04	0.00	65.96	0.00	-	0.00	100.00	0.00	0.00	-	
Intersection %	0.96	57.67	0.00	0.00	58.63	0.00	37.08	1.21	0.00	38.30	1.02	0.00	1.98	0.00	3.01	0.00	0.06	0.00	0.00	0.06	
PHF	0.38	0.89	0.00	0.00	**0.90**	0.00	0.90	0.46	0.00	**0.88**	0.42	0.00	0.48	0.00	**0.60**	0.00	0.00	0.00	0.00	**0.00**	**0.90**

1600 - 1800 (Thursday 2h Session) (05-19-2022)
All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Terry Rd (South)					Terry Rd (North)					Raggard Rd					Driveway					
	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	3.1	3.2	3.3	3.4	Total	3.5	3.6	3.7	3.8	Total	3.9	3.10	3.11	3.12	Total	3.13	3.14	3.15	3.16	Total	Total
1600 - 1615	4	118	0	0	122	0	141	3	0	144	8	0	13	0	21	0	0	0	0	0	287
1615 - 1630	12	114	0	0	126	0	128	4	0	132	5	0	11	0	16	0	0	0	0	0	274
1630 - 1645	12	127	0	0	139	0	133	5	0	138	4	0	33	0	37	0	0	0	0	0	314
1645 - 1700	5	106	0	0	111	0	148	4	0	152	2	0	13	0	15	0	0	0	0	0	278
Hourly Total	33	465	0	0	**498**	0	550	16	0	**566**	19	0	70	0	**89**	0	0	0	0	**0**	**1153**
1700 - 1715	7	125	0	0	132	0	130	2	0	132	1	0	11	0	12	0	0	0	0	0	276
1715 - 1730	4	110	0	0	114	0	142	1	0	143	0	0	18	0	18	0	1	0	0	1	276
1730 - 1745	5	120	0	0	125	0	146	2	0	148	3	0	17	0	20	0	0	0	0	0	293
1745 - 1800	8	101	0	0	109	0	136	1	0	137	6	0	10	0	16	0	0	0	0	0	262
Hourly Total	24	456	0	0	**480**	0	554	6	0	**560**	10	0	56	0	**66**	0	1	0	0	**1**	**1107**
Grand Total	57	921	0	0	**978**	0	1104	22	0	**1126**	29	0	126	0	**155**	0	1	0	0	**1**	**2260**
Approach %	5.83	94.17	0.00	0.00	-	0.00	98.05	1.95	0.00	-	18.71	0.00	81.29	0.00	-	0.00	100.00	0.00	0.00	-	
Intersection %	2.52	40.75	0.00	0.00	43.27	0.00	48.85	0.97	0.00	49.82	1.28	0.00	5.58	0.00	6.86	0.00	0.04	0.00	0.00	0.04	
PHF	0.69	0.92	0.00	0.00	**0.90**	0.00	0.93	0.80	0.00	**0.93**	0.59	0.00	0.53	0.00	**0.60**	0.00	0.00	0.00	0.00	**0.00**	**0.92**

Classified Turn Movement Count || All vehicles

Marr Traffic DATA COLLECTION
www.marrtraffic.com

Louisville KY (Terry Rd)

Site 2 of 4
Terry Rd (South)
Terry Rd (North)
Murray Ln

Date
Thursday, May 19, 2022

Weather
Fair
73°F

Lat/Long
38.169952°, -85.867805°

0700 - 0900 (Thursday 2h Session) (05-19-2022)
All vehicles

	Northbound				Southbound				Eastbound				
	Terry Rd (South)				Terry Rd (North)				Murray Ln				
TIME	Left 2.1	Thru 2.2	U-Turn 2.3	App Total	Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
0700 - 0715	0	118	0	118	58	2	0	60	9	0	0	9	187
0715 - 0730	0	107	0	107	91	1	0	92	8	0	0	8	207
0730 - 0745	0	132	0	132	85	2	0	87	4	0	0	4	223
0745 - 0800	0	96	0	96	69	6	0	75	5	0	0	5	176
Hourly Total	0	453	0	**453**	303	11	0	**314**	26	0	0	**26**	**793**
0800 - 0815	0	104	0	104	53	5	0	58	5	0	0	5	167
0815 - 0830	0	86	0	86	73	3	0	76	5	0	0	5	167
0830 - 0845	0	116	0	116	68	5	0	73	6	0	0	6	195
0845 - 0900	0	110	0	110	86	3	0	89	5	1	0	6	205
Hourly Total	0	416	0	**416**	280	16	0	**296**	21	1	0	**22**	**734**
Grand Total	0	869	0	**869**	583	27	0	**610**	47	1	0	**48**	**1527**
Approach %	0.00	100.00	0.00	-	95.57	4.43	0.00	-	97.92	2.08	0.00	-	
Intersection %	0.00	56.91	0.00	56.91	38.18	1.77	0.00	39.95	3.08	0.07	0.00	3.14	
PHF	0.00	0.86	0.00	**0.86**	0.83	0.46	0.00	**0.85**	0.72	0.00	0.00	**0.72**	**0.89**

1600 - 1800 (Thursday 2h Session) (05-19-2022)
All vehicles

	Northbound				Southbound				Eastbound				
	Terry Rd (South)				Terry Rd (North)				Murray Ln				
TIME	Left 2.1	Thru 2.2	U-Turn 2.3	App Total	Thru 2.4	Right 2.5	U-Turn 2.6	App Total	Left 2.7	Right 2.8	U-Turn 2.9	App Total	Int Total
1600 - 1615	0	120	0	120	150	5	0	155	3	0	0	3	278
1615 - 1630	0	121	0	121	134	5	0	139	4	0	0	4	264
1630 - 1645	0	135	0	135	158	7	0	165	4	0	0	4	304
1645 - 1700	0	107	0	107	148	12	0	160	5	0	0	5	272
Hourly Total	0	483	0	**483**	590	29	0	**619**	16	0	0	**16**	**1118**
1700 - 1715	0	128	0	128	138	4	0	142	5	1	0	6	276
1715 - 1730	0	111	0	111	150	10	0	160	2	0	0	2	273
1730 - 1745	0	121	0	121	155	10	0	165	3	0	0	3	289
1745 - 1800	0	107	0	107	142	3	0	145	3	0	0	3	255
Hourly Total	0	467	0	**467**	585	27	0	**612**	13	1	0	**14**	**1093**
Grand Total	0	950	0	**950**	1175	56	0	**1231**	29	1	0	**30**	**2211**
Approach %	0.00	100.00	0.00	-	95.45	4.55	0.00	-	96.67	3.33	0.00	-	
Intersection %	0.00	42.97	0.00	42.97	53.14	2.53	0.00	55.68	1.31	0.05	0.00	1.36	
PHF	0.00	0.89	0.00	**0.89**	0.94	0.69	0.00	**0.95**	0.80	0.25	0.00	**0.71**	**0.93**

Classified Turn Movement Count || All vehicles

Louisville KY (Terry Rd)

Marr Traffic DATA COLLECTION
www.marrtraffic.com

Site 1 of 4
Terry Rd (South)
Terry Rd (North)
Lower Hunters Trace (West)
Lower Hunters Trace (East)

Date
Thursday, May 19, 2022

Weather
Fair
73°F

Lat/Long
38.164826°, -85.865571°

0700 - 0900 (Thursday 2h Session) (05-19-2022)
All vehicles

	Northbound					Southbound					Eastbound					Westbound					
	Terry Rd (South)					Terry Rd (North)					Lower Hunters Trace (West)					Lower Hunters Trace (East)					
	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	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
0700 - 0715	4	76	28	0	108	12	38	3	0	53	4	15	9	0	28	24	31	27	0	82	271
0715 - 0730	5	73	40	0	118	30	65	1	0	96	1	23	14	0	38	41	20	38	0	99	351
0730 - 0745	12	90	42	0	144	24	53	3	0	80	4	28	11	0	43	40	27	31	0	98	365
0745 - 0800	13	58	26	0	97	24	46	1	0	71	3	23	13	0	39	20	27	36	0	83	290
Hourly Total	34	297	136	0	**467**	90	202	8	0	**300**	12	89	47	0	**148**	125	105	132	0	**362**	**1277**
0800 - 0815	6	64	29	0	99	16	35	1	0	52	3	19	17	0	39	16	23	27	0	66	256
0815 - 0830	4	62	30	0	96	28	37	3	0	68	2	21	7	0	30	10	10	20	0	40	234
0830 - 0845	7	58	27	0	92	17	60	2	0	79	4	33	11	0	48	19	19	45	0	83	302
0845 - 0900	11	79	30	0	120	37	49	1	0	87	1	25	10	0	36	18	18	28	0	64	307
Hourly Total	28	263	116	0	**407**	98	181	7	0	**286**	10	98	45	0	**153**	63	70	120	0	**253**	**1099**
Grand Total	62	560	252	0	**874**	188	383	15	0	**586**	22	187	92	0	**301**	188	175	252	0	**615**	**2376**
Approach %	7.09	64.07	28.83	0.00	-	32.08	65.36	2.56	0.00	-	7.31	62.13	30.56	0.00	-	30.57	28.46	40.98	0.00	-	
Intersection %	2.61	23.57	10.61	0.00	36.78	7.91	16.12	0.63	0.00	24.66	0.93	7.87	3.87	0.00	12.67	7.91	7.37	10.61	0.00	25.88	
PHF	0.65	0.83	0.81	0.00	**0.81**	0.75	0.78	0.67	0.00	**0.78**	0.75	0.79	0.84	0.00	**0.86**	0.76	0.85	0.87	0.00	**0.91**	**0.87**

1600 - 1800 (Thursday 2h Session) (05-19-2022)
All vehicles

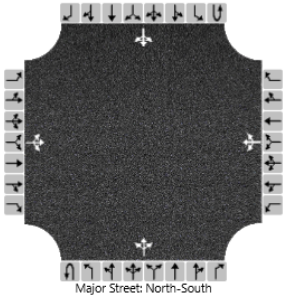
	Northbound					Southbound					Eastbound					Westbound					
	Terry Rd (South)					Terry Rd (North)					Lower Hunters Trace (West)					Lower Hunters Trace (East)					
	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Left	Thru	Right	U-Turn	App	Int
TIME	1.1	1.2	1.3	1.4	Total	1.5	1.6	1.7	1.8	Total	1.9	1.10	1.11	1.12	Total	1.13	1.14	1.15	1.16	Total	Total
1600 - 1615	17	75	26	0	118	41	89	4	0	134	2	49	19	0	70	35	47	41	0	123	445
1615 - 1630	18	73	39	0	130	39	93	1	0	133	1	45	14	0	60	51	39	37	0	127	450
1630 - 1645	15	81	34	0	130	51	89	3	0	143	4	46	18	0	68	26	41	54	0	121	462
1645 - 1700	16	78	26	0	120	43	99	3	0	145	3	44	22	0	69	36	48	27	0	111	445
Hourly Total	66	307	125	0	**498**	174	370	11	0	**555**	10	184	73	0	**267**	148	175	159	0	**482**	**1802**
1700 - 1715	22	87	47	0	156	37	99	5	0	141	6	46	18	0	70	37	35	40	0	112	479
1715 - 1730	21	76	30	0	127	37	95	5	0	137	5	43	18	0	66	31	46	29	0	106	436
1730 - 1745	14	82	25	0	121	47	107	2	0	156	1	36	12	0	49	29	40	37	0	106	432
1745 - 1800	15	74	27	0	116	46	90	1	0	137	2	33	17	0	52	38	35	27	0	100	405
Hourly Total	72	319	129	0	**520**	167	391	13	0	**571**	14	158	65	0	**237**	135	156	133	0	**424**	**1752**
Grand Total	138	626	254	0	**1018**	341	761	24	0	**1126**	24	342	138	0	**504**	283	331	292	0	**906**	**3554**
Approach %	13.56	61.49	24.95	0.00	-	30.28	67.58	2.13	0.00	-	4.76	67.86	27.38	0.00	-	31.24	36.53	32.23	0.00	-	
Intersection %	3.88	17.61	7.15	0.00	28.64	9.59	21.41	0.68	0.00	31.68	0.68	9.62	3.88	0.00	14.18	7.96	9.31	8.22	0.00	25.49	
PHF	0.81	0.92	0.78	0.00	**0.86**	0.83	0.96	0.60	0.00	**0.97**	0.58	0.98	0.82	0.00	**0.95**	0.74	0.85	0.73	0.00	**0.93**	**0.96**

HCS Reports

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2022	North/South Street	Terry Road
Time Analyzed	AM Peak	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		24	0	41		0	476	11		8	283	0
Percent Heavy Vehicles (%)		3	3	3		8	0	2		0				25		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.18	6.50	6.22		4.10				4.35		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.57	4.00	3.32		2.20				2.43		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				73			0				9		
Capacity, c (veh/h)			0				386			1253				916		
v/c Ratio							0.19			0.00				0.01		
95% Queue Length, Q_{95} (veh)							0.7			0.0				0.0		
Control Delay (s/veh)							16.5			7.9	0.0	0.0		9.0	0.1	0.1
Level of Service (LOS)							C			A	A	A		A	A	A
Approach Delay (s/veh)						16.5				0.0				0.4		
Approach LOS						C				A				A		

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Lemmah AM 22.xtw

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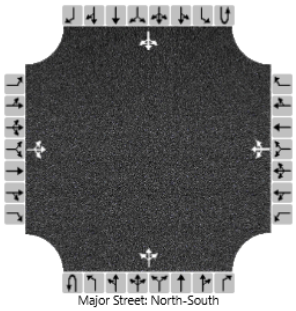
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	AM Peak No Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		24	0	42		0	483	11		8	287	0
Percent Heavy Vehicles (%)		3	3	3		8	0	2		0				25		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.18	6.50	6.22		4.10				4.35		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.57	4.00	3.32		2.20				2.43		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				74			0				9		
Capacity, c (veh/h)			0				382			1249				910		
v/c Ratio							0.19			0.00				0.01		
95% Queue Length, Q_{95} (veh)							0.7			0.0				0.0		
Control Delay (s/veh)							16.7			7.9	0.0	0.0		9.0	0.1	0.1
Level of Service (LOS)							C			A	A	A		A	A	A
Approach Delay (s/veh)						16.7				0.0				0.3		
Approach LOS						C				A				A		

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Lemmah AM 25 NB.xtw

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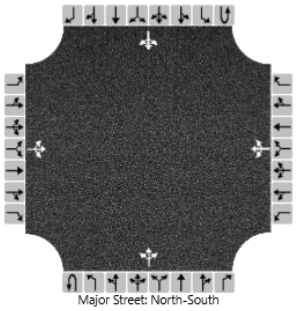
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	AM Peak Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		24	0	42		0	511	11		8	296	0
Percent Heavy Vehicles (%)		3	3	3		8	0	2		0				25		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.18	6.50	6.22		4.10				4.35		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.57	4.00	3.32		2.20				2.43		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				74			0				9		
Capacity, c (veh/h)			0				362			1238				885		
v/c Ratio							0.21			0.00				0.01		
95% Queue Length, Q_{95} (veh)							0.8			0.0				0.0		
Control Delay (s/veh)							17.5			7.9	0.0	0.0		9.1	0.1	0.1
Level of Service (LOS)							C			A	A	A		A	A	A
Approach Delay (s/veh)						17.5				0.0				0.4		
Approach LOS						C				A				A		

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Lemmah AM 25 B.xtw

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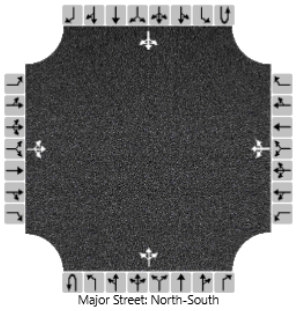
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	AM Peak No Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		25	0	44		0	508	12		8	302	0
Percent Heavy Vehicles (%)		3	3	3		8	0	2		0				25		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.18	6.50	6.22		4.10				4.35		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.57	4.00	3.32		2.20				2.43		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				78			0				9		
Capacity, c (veh/h)			0				361			1231				886		
v/c Ratio							0.21			0.00				0.01		
95% Queue Length, Q_{95} (veh)							0.8			0.0				0.0		
Control Delay (s/veh)							17.7			7.9	0.0	0.0		9.1	0.1	0.1
Level of Service (LOS)							C			A	A	A		A	A	A
Approach Delay (s/veh)						17.7				0.0				0.3		
Approach LOS						C				A				A		

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Lemmah AM 35 NB.xtw

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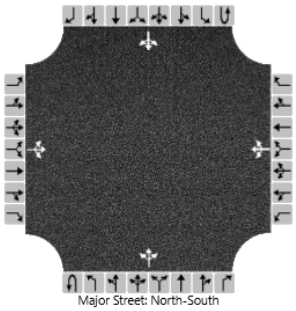
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	AM Peak Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		25	0	44		0	536	12		8	311	0
Percent Heavy Vehicles (%)		3	3	3		8	0	2		0				25		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.18	6.50	6.22		4.10				4.35		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.57	4.00	3.32		2.20				2.43		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				78			0				9		
Capacity, c (veh/h)			0				342			1221				862		
v/c Ratio							0.23			0.00				0.01		
95% Queue Length, Q_{95} (veh)							0.9			0.0				0.0		
Control Delay (s/veh)							18.6			7.9	0.0	0.0		9.2	0.1	0.1
Level of Service (LOS)							C			A	A	A		A	A	A
Approach Delay (s/veh)						18.6				0.0				0.3		
Approach LOS						C				A				A		

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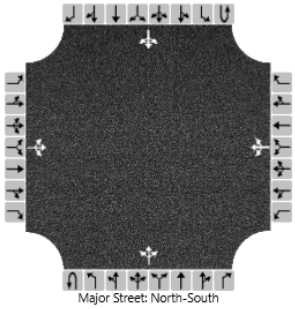
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2022	North/South Street	Terry Road
Time Analyzed	PM Peak	Peak Hour Factor	0.97
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		30	0	19		2	431	51		33	537	0
Percent Heavy Vehicles (%)		3	3	3		3	0	10		0				10		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.50	6.30		4.10				4.20		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.00	3.39		2.20				2.29		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				51			2				34		
Capacity, c (veh/h)			0				246			1027				1027		
v/c Ratio							0.21			0.00				0.03		
95% Queue Length, Q_{95} (veh)							0.8			0.0				0.1		
Control Delay (s/veh)							23.4			8.5	0.0	0.0		8.6	0.4	0.4
Level of Service (LOS)							C			A	A	A		A	A	A
Approach Delay (s/veh)						23.4				0.1				0.9		
Approach LOS						C				A				A		

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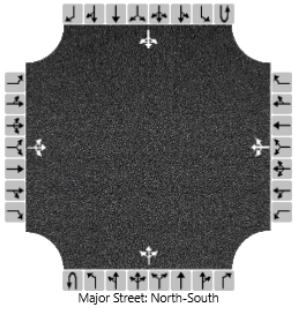
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	PM Peak No Build	Peak Hour Factor	0.97
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		30	0	19		2	437	52		33	545	0
Percent Heavy Vehicles (%)		3	3	3		3	0	10		0				10		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.50	6.30		4.10				4.20		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.00	3.39		2.20				2.29		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				51			2				34		
Capacity, c (veh/h)			0				241			1020				1021		
v/c Ratio							0.21			0.00				0.03		
95% Queue Length, Q_{95} (veh)							0.8			0.0				0.1		
Control Delay (s/veh)							23.9			8.5	0.0	0.0		8.6	0.4	0.4
Level of Service (LOS)							C			A	A	A		A	A	A
Approach Delay (s/veh)						23.9				0.1				0.9		
Approach LOS						C				A				A		

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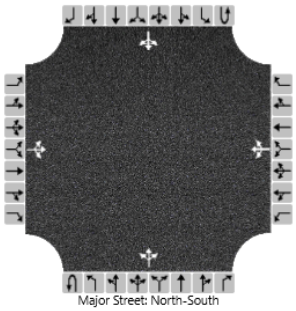
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	PM Peak Build	Peak Hour Factor	0.97
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		30	0	19		2	454	52		33	573	0
Percent Heavy Vehicles (%)		3	3	3		3	0	10		0				10		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.50	6.30		4.10				4.20		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.00	3.39		2.20				2.29		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				51			2				34		
Capacity, c (veh/h)			0				225			995				1005		
v/c Ratio							0.22			0.00				0.03		
95% Queue Length, Q_{95} (veh)							0.8			0.0				0.1		
Control Delay (s/veh)							25.6			8.6	0.0	0.0		8.7	0.4	0.4
Level of Service (LOS)							D			A	A	A		A	A	A
Approach Delay (s/veh)						25.6				0.1				0.9		
Approach LOS						D				A				A		

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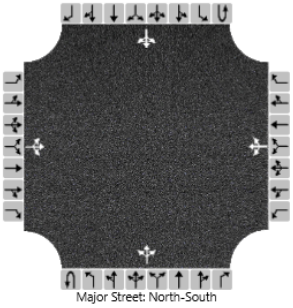
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	PM Peak No Build	Peak Hour Factor	0.97
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		32	0	20		2	459	55		35	573	0
Percent Heavy Vehicles (%)		3	3	3		3	0	10		0				10		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.50	6.30		4.10				4.20		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.00	3.39		2.20				2.29		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				54			2				36		
Capacity, c (veh/h)			0				220			995				998		
v/c Ratio							0.24			0.00				0.04		
95% Queue Length, Q_{95} (veh)							0.9			0.0				0.1		
Control Delay (s/veh)							26.6			8.6	0.0	0.0		8.7	0.5	0.5
Level of Service (LOS)							D			A	A	A		A	A	A
Approach Delay (s/veh)						26.6				0.1				0.9		
Approach LOS						D				A				A		

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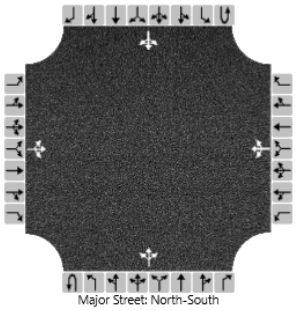
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Lemmah Dr
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Lemmah Dr
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	PM Peak Build	Peak Hour Factor	0.97
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0	0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		0	0	0		32	0	20		2	476	55		35	601	0
Percent Heavy Vehicles (%)		3	3	3		3	0	10		0				10		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.50	6.30		4.10				4.20		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.00	3.39		2.20				2.29		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			0				54			2				36		
Capacity, c (veh/h)			0				206			971				983		
v/c Ratio							0.26			0.00				0.04		
95% Queue Length, Q_{95} (veh)							1.0			0.0				0.1		
Control Delay (s/veh)							28.6			8.7	0.0	0.0		8.8	0.5	0.5
Level of Service (LOS)							D			A	A	A		A	A	A
Approach Delay (s/veh)						28.6				0.1				0.9		
Approach LOS						D				A				A		

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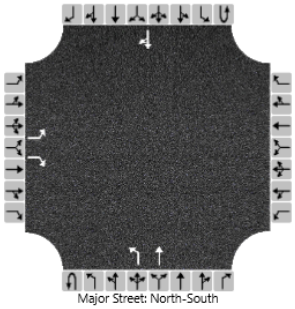
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2022	North/South Street	Terry Road
Time Analyzed	AM Peak	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		5		19						9	473				295	11
Percent Heavy Vehicles (%)		60		5						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		7.00		6.25						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		4.04		3.35						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		21						10						
Capacity, c (veh/h)		356		701						1230						
v/c Ratio		0.02		0.03						0.01						
95% Queue Length, Q_{95} (veh)		0.0		0.1						0.0						
Control Delay (s/veh)		15.3		10.3						7.9						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		11.3								0.1						
Approach LOS		B								A						

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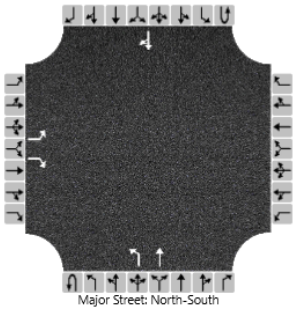
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	AM Peak No Build	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		5		19						9	480				299	11
Percent Heavy Vehicles (%)		60		5						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		7.00		6.25						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		4.04		3.35						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		21						10						
Capacity, c (veh/h)		352		697						1226						
v/c Ratio		0.02		0.03						0.01						
95% Queue Length, Q_{95} (veh)		0.0		0.1						0.0						
Control Delay (s/veh)		15.4		10.3						8.0						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		11.4								0.1						
Approach LOS		B								A						

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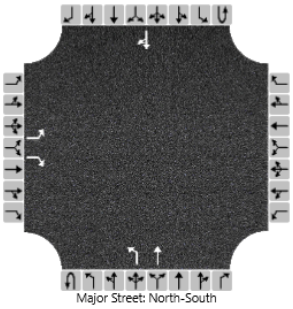
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	AM Peak Build	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		5		20						12	508				308	11
Percent Heavy Vehicles (%)		60		5						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		7.00		6.25						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		4.04		3.35						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		22						13						
Capacity, c (veh/h)		336		688						1215						
v/c Ratio		0.02		0.03						0.01						
95% Queue Length, Q_{95} (veh)		0.1		0.1						0.0						
Control Delay (s/veh)		15.9		10.4						8.0						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		11.5								0.2						
Approach LOS		B								A						

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Raggard AM 25 B.xtw
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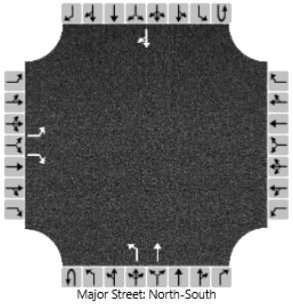
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	AM Peak No Build	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		5		20						9	505				314	12
Percent Heavy Vehicles (%)		60		5						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		7.00		6.25						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		4.04		3.35						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		22						10						
Capacity, c (veh/h)		338		682						1208						
v/c Ratio		0.02		0.03						0.01						
95% Queue Length, Q_{95} (veh)		0.1		0.1						0.0						
Control Delay (s/veh)		15.8		10.5						8.0						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		11.5								0.1						
Approach LOS		B								A						

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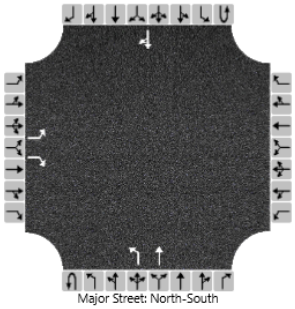
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	AM Peak Build	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		5		21						12	533				323	12
Percent Heavy Vehicles (%)		60		5						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		7.00		6.25						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		4.04		3.35						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		23						13						
Capacity, c (veh/h)		323		673						1197						
v/c Ratio		0.02		0.03						0.01						
95% Queue Length, Q_{95} (veh)		0.1		0.1						0.0						
Control Delay (s/veh)		16.3		10.5						8.0						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		11.7								0.2						
Approach LOS		B								A						

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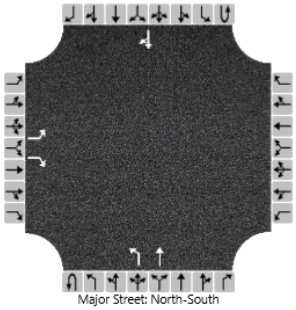
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2022	North/South Street	Terry Road
Time Analyzed	PM Peak	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		19		70						33	465				550	16
Percent Heavy Vehicles (%)		16		1						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.56		6.21						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.64		3.31						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		21		76						36						
Capacity, c (veh/h)		322		499						960						
v/c Ratio		0.06		0.15						0.04						
95% Queue Length, Q_{95} (veh)		0.2		0.5						0.1						
Control Delay (s/veh)		16.9		13.5						8.9						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		14.3								0.6						
Approach LOS		B								A						

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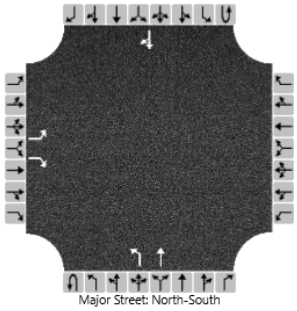
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	PM Peak No Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		19		71						33	472				558	16
Percent Heavy Vehicles (%)		16		1						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.56		6.21						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.64		3.31						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		21		77						36						
Capacity, c (veh/h)		318		493						952						
v/c Ratio		0.06		0.16						0.04						
95% Queue Length, Q_{95} (veh)		0.2		0.6						0.1						
Control Delay (s/veh)		17.1		13.7						8.9						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		14.4								0.6						
Approach LOS		B								A						

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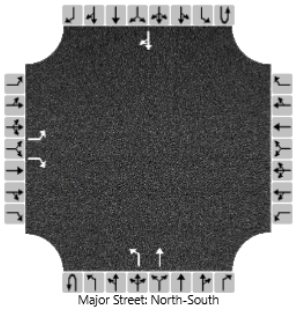
Generated: 8/17/2022 7:48:13 PM

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	PM Peak Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		19		75						35	489				586	16
Percent Heavy Vehicles (%)		16		1						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.56		6.21						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.64		3.31						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		21		82						38						
Capacity, c (veh/h)		304		474						928						
v/c Ratio		0.07		0.17						0.04						
95% Queue Length, Q_{95} (veh)		0.2		0.6						0.1						
Control Delay (s/veh)		17.7		14.2						9.0						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		14.9								0.6						
Approach LOS		B								A						

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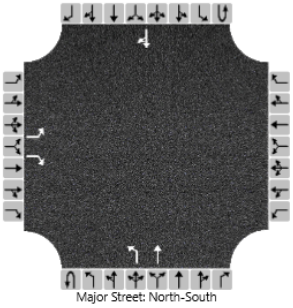
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	PM Peak No Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		20		75						35	496				587	17
Percent Heavy Vehicles (%)		16		1						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.56		6.21						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.64		3.31						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		22		82						38						
Capacity, c (veh/h)		302		473						926						
v/c Ratio		0.07		0.17						0.04						
95% Queue Length, Q_{95} (veh)		0.2		0.6						0.1						
Control Delay (s/veh)		17.8		14.2						9.1						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		15.0								0.6						
Approach LOS		B								A						

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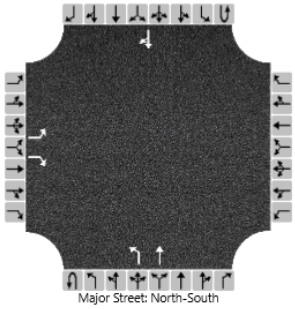
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Raggard Rd
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Raggard Road
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	PM Peak Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	1	1	0	0	0	1	0
Configuration		L		R						L	T					TR
Volume (veh/h)		20		79						37	513				615	17
Percent Heavy Vehicles (%)		16		1						3						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized		No														
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.56		6.21						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.64		3.31						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		22		86						40						
Capacity, c (veh/h)		289		454						902						
v/c Ratio		0.08		0.19						0.04						
95% Queue Length, Q_{95} (veh)		0.2		0.7						0.1						
Control Delay (s/veh)		18.4		14.8						9.2						
Level of Service (LOS)		C		B						A						
Approach Delay (s/veh)		15.5								0.6						
Approach LOS		C								A						

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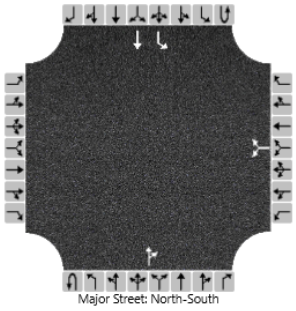
Generated: 8/17/2022 7:50:27 PM

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Entrance
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Entrance
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	AM Peak	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						37		28			489	12		10	318	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							72							11		
Capacity, c (veh/h)							466							1024		
v/c Ratio							0.16							0.01		
95% Queue Length, Q_{95} (veh)							0.5							0.0		
Control Delay (s/veh)							14.1							8.6		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)						14.1							0.3			
Approach LOS						B							A			

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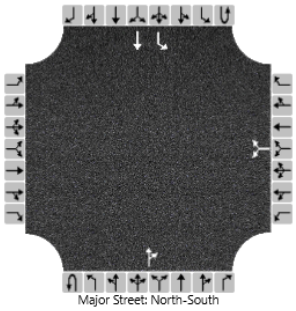
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Entrance
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Entrance
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	AM Peak	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						37		28			514	12		10	334	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							72							11		
Capacity, c (veh/h)							449							1000		
v/c Ratio							0.16							0.01		
95% Queue Length, Q_{95} (veh)							0.6							0.0		
Control Delay (s/veh)							14.5							8.6		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)					14.5								0.3			
Approach LOS					B								A			

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Ent AM 35.xtw

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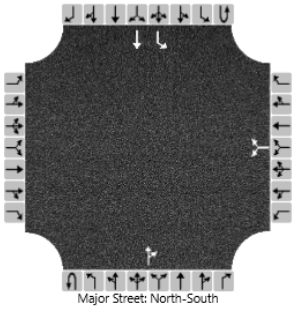
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Entrance
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Entrance
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	PM Peak	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						23		17			509	35		32	629	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							43							35		
Capacity, c (veh/h)							371							994		
v/c Ratio							0.12							0.03		
95% Queue Length, Q_{95} (veh)							0.4							0.1		
Control Delay (s/veh)							16.0							8.8		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)					16.0								0.4			
Approach LOS					C								A			

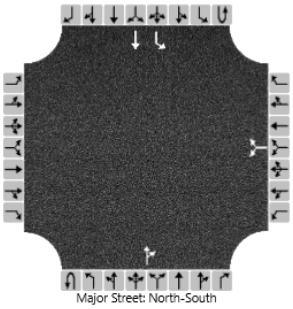
HCS™ TWSC Version 2022
Ent PM 25.xtw

Generated: 8/17/2022 7:40:47 PM

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Road at Entrance
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Entrance
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	PM Peak	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						23		17			548	35		32	662	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							43							35		
Capacity, c (veh/h)							350							959		
v/c Ratio							0.12							0.04		
95% Queue Length, Q_{95} (veh)							0.4							0.1		
Control Delay (s/veh)							16.7							8.9		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)						16.7							0.4			
Approach LOS						C							A			

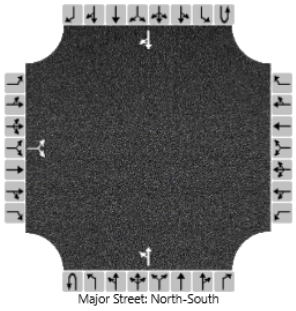
HCS™ TWSC Version 2022
Ent PM 35.xtw

Generated: 8/17/2022 7:41:37 PM

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2022	North/South Street	Terry Road
Time Analyzed	AM Peak	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		26		0						0	453				303	11
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			29							0						
Capacity, c (veh/h)			331							1217						
v/c Ratio			0.09							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			16.9							8.0	0.0					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		16.9								0.0						
Approach LOS		C								A						

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Murray AM 22.xtw

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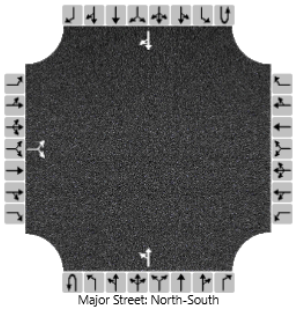
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	AM Peak No Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		26		0						0	460				308	11
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			29							0						
Capacity, c (veh/h)			325							1211						
v/c Ratio			0.09							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			17.2							8.0	0.0					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		17.2								0.0						
Approach LOS		C								A						

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Murray AM 25 NB.xtw

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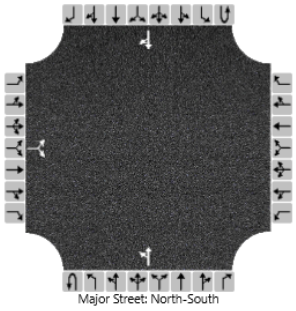
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	AM Peak Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		27		0						0	471				344	12
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			30							0						
Capacity, c (veh/h)			302							1170						
v/c Ratio			0.10							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			18.2							8.1	0.0					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		18.2								0.0						
Approach LOS		C								A						

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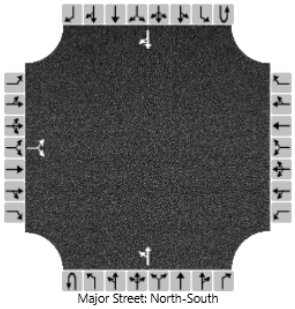
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	AM Peak No Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		27		0						0	484				324	12
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			30							0						
Capacity, c (veh/h)			305							1192						
v/c Ratio			0.10							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			18.1							8.0	0.0					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		18.1								0.0						
Approach LOS		C								A						

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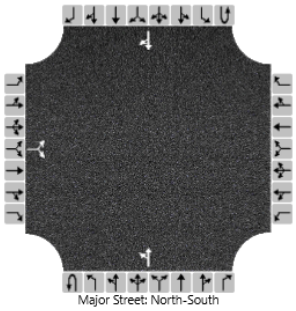
Murray AM 35 NB.xtw

Generated: 8/17/2022 5:15:12 PM

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	AM Peak Build	Peak Hour Factor	0.89
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		28		0						0	495				360	13
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			31							0						
Capacity, c (veh/h)			284							1151						
v/c Ratio			0.11							0.00						
95% Queue Length, Q_{95} (veh)			0.4							0.0						
Control Delay (s/veh)			19.2							8.1	0.0					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		19.2								0.0						
Approach LOS		C								A						

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Murray AM 35 B.xtw

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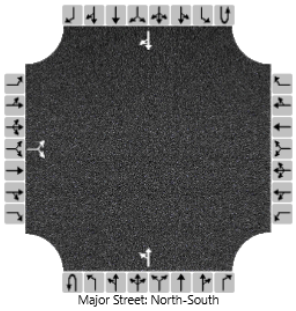
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2022	North/South Street	Terry Road
Time Analyzed	PM Peak	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		16		0						0	481				594	33
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			17							0						
Capacity, c (veh/h)			210							921						
v/c Ratio			0.08							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			23.7							8.9	0.0					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)		23.7								0.0						
Approach LOS		C								A						

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Murray PM 22.xtw

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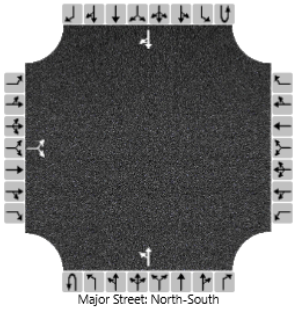
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	PM Peak No Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		16		0						0	488				603	33
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			17							0						
Capacity, c (veh/h)			205							913						
v/c Ratio			0.08							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			24.1							8.9	0.0					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)	24.1								0.0							
Approach LOS	C								A							

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Murray PM 25 NB.xtw

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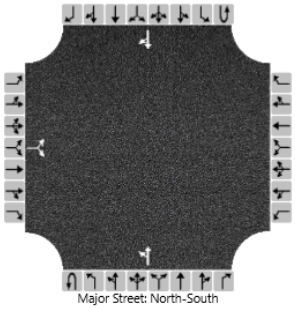
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2025	North/South Street	Terry Road
Time Analyzed	PM Peak Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		20		0						0	523				624	35
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			22							0						
Capacity, c (veh/h)			188							894						
v/c Ratio			0.12							0.00						
95% Queue Length, Q_{95} (veh)			0.4							0.0						
Control Delay (s/veh)			26.6							9.0	0.0					
Level of Service (LOS)			D							A	A					
Approach Delay (s/veh)		26.6								0.0						
Approach LOS		D								A						

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Murray PM 25 B.xtw

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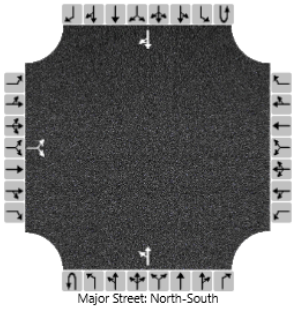
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	PM Peak No Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		17		0						0	513				634	35
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			18							0						
Capacity, c (veh/h)			188							885						
v/c Ratio			0.10							0.00						
95% Queue Length, Q_{95} (veh)			0.3							0.0						
Control Delay (s/veh)			26.2							9.1	0.0					
Level of Service (LOS)			D							A	A					
Approach Delay (s/veh)		26.2								0.0						
Approach LOS		D								A						

HCS™ TWSC Version 2022
Murray PM 35 NB.xtw

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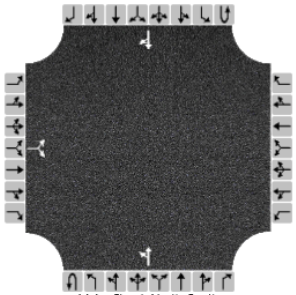
HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	Diane Zimmerman	Intersection	Terry Rd at Murray Ln
Agency/Co.	Diane B. Zimmerman Traffic Engineering	Jurisdiction	
Date Performed	8/17/2022	East/West Street	Murray Lane
Analysis Year	2035	North/South Street	Terry Road
Time Analyzed	PM Peak Build	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Terry Road		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		21		0						0	548				655	37
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)		0														
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

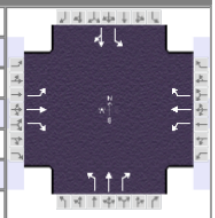
Flow Rate, v (veh/h)			23							0						
Capacity, c (veh/h)			173							867						
v/c Ratio			0.13							0.00						
95% Queue Length, Q_{95} (veh)			0.4							0.0						
Control Delay (s/veh)			29.0							9.2	0.0					
Level of Service (LOS)			D							A	A					
Approach Delay (s/veh)		29.0								0.0						
Approach LOS		D								A						

HCS™ TWSC Version 2022
Murray PM 35 B.xtw

Generated: 8/17/2022 7:35:40 PM

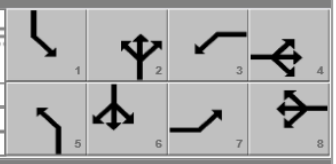
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	AM Peak	PHF	0.88
Urban Street	Terry Road	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Lower Hunters Trace	File Name	Terry AM 22.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	12	89	47	125	105	132	34	297	136	90	202	8

Signal Information													
Cycle, s	69.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
				Green	3.1	2.0	25.0	1.4	5.1	7.9			
				Yellow	3.5	0.0	4.3	3.5	0.0	3.6			
				Red	3.0	0.0	1.6	2.6	0.0	2.4			



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.5	13.9	12.5	19.0	9.6	30.9	11.7	32.9
Change Period, (*Y+R* $_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	2.5	5.5	6.7	7.8	3.0	11.8	4.4	8.4
Green Extension Time (g_e), s	0.0	2.4	0.2	2.4	0.0	2.6	0.2	2.6
Phase Call Probability	0.23	1.00	0.93	1.00	0.52	1.00	0.86	1.00
Max Out Probability	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	14	101	53	142	119	150	39	338	155	102	239	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1885	1447	1781	1885	1598	1598	1856	1572	1725	1813	
Queue Service Time (g_s), s	0.5	3.5	2.3	4.7	3.8	5.8	1.0	9.8	4.8	2.4	6.4	
Cycle Queue Clearance Time (g_c), s	0.5	3.5	2.3	4.7	3.8	5.8	1.0	9.8	4.8	2.4	6.4	
Green Ratio (*g/C*)	0.13	0.11	0.11	0.22	0.19	0.19	0.41	0.36	0.36	0.44	0.39	
Capacity (*c*), veh/h	276	216	166	354	354	300	454	672	570	456	710	
Volume-to-Capacity Ratio (*X*)	0.049	0.468	0.322	0.401	0.337	0.500	0.085	0.502	0.271	0.224	0.336	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.3	2.8	1.5	3.3	2.9	3.8	0.6	6.6	2.7	1.5	4.1	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	26.0	28.6	28.1	22.9	24.3	25.1	12.7	17.2	15.6	12.4	14.7	
Incremental Delay (d_2), s/veh	0.1	2.2	1.6	0.7	0.8	1.8	0.1	0.6	0.3	0.2	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	26.1	30.8	29.7	23.6	25.1	26.9	12.8	17.7	15.8	12.6	15.0	
Level of Service (LOS)	C	C	C	C	C	C	B	B	B	B	B	
Approach Delay, s/veh / LOS	30.1	C		25.2	C		16.8	B		14.3	B	
Intersection Delay, s/veh / LOS	20.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.09	B	2.09	B
Bicycle LOS Score / LOS	0.77	A	1.17	A	1.36	A	1.05	A

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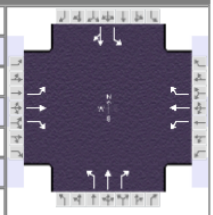
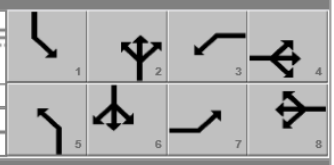
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	AM Peak	PHF	0.88
Urban Street	Terry Road	Analysis Year	2025 No Build	Analysis Period	1> 7:00
Intersection	Lower Hunters Trace	File Name	Terry AM 25 NB.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	12	90	48	127	107	134	35	301	138	91	205	8

Signal Information					EB			WB			NB			SB		
Cycle, s	69.2	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	3.2	2.0		25.0	1.4	5.2	8.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	3.5	0.0		4.3	3.5	0.0	3.6					
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	0.0		1.6	2.6	0.0	2.4					



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.5	14.0	12.6	19.1	9.7	30.9	11.7	32.9
Change Period, (*Y+R* $_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	2.5	5.5	6.7	7.9	3.0	12.0	4.5	8.5
Green Extension Time (g_e), s	0.0	2.5	0.2	2.5	0.0	2.7	0.2	2.7
Phase Call Probability	0.23	1.00	0.94	1.00	0.53	1.00	0.86	1.00
Max Out Probability	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	14	102	55	144	122	152	40	342	157	103	242	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1885	1447	1781	1885	1598	1598	1856	1572	1725	1814	
Queue Service Time (g_s), s	0.5	3.5	2.4	4.7	3.9	5.9	1.0	10.0	4.9	2.5	6.5	
Cycle Queue Clearance Time (g_c), s	0.5	3.5	2.4	4.7	3.9	5.9	1.0	10.0	4.9	2.5	6.5	
Green Ratio (*g/C*)	0.14	0.12	0.12	0.23	0.19	0.19	0.41	0.36	0.36	0.44	0.39	
Capacity (*c*), veh/h	276	218	167	356	358	304	450	670	568	451	707	
Volume-to-Capacity Ratio (*X*)	0.049	0.469	0.326	0.405	0.339	0.502	0.088	0.510	0.276	0.229	0.343	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.3	2.9	1.5	3.3	2.9	3.9	0.6	6.8	2.8	1.5	4.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	26.1	28.6	28.1	22.8	24.3	25.1	12.8	17.3	15.7	12.5	14.9	
Incremental Delay (d_2), s/veh	0.1	2.2	1.6	0.7	0.8	1.8	0.1	0.6	0.3	0.3	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	26.1	30.9	29.7	23.5	25.1	26.9	12.9	17.9	15.9	12.8	15.2	
Level of Service (LOS)	C	C	C	C	C	C	B	B	B	B	B	
Approach Delay, s/veh / LOS	30.1	C		25.2	C		17.0	B		14.4	B	
Intersection Delay, s/veh / LOS	20.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.09	B	2.09	B
Bicycle LOS Score / LOS	0.77	A	1.18	A	1.38	A	1.06	A

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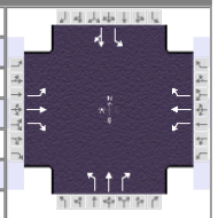
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	AM Peak	PHF	0.88
Urban Street	Terry Road	Analysis Year	2025 Build	Analysis Period	1> 7:00
Intersection	Lower Hunters Trace	File Name	Terry AM 25 B.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	12	90	48	127	107	138	35	308	138	107	225	8

Signal Information			
Cycle, s	69.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	3.2	2.2	25.0	1.4	5.2	8.0						
Yellow	3.5	0.0	4.3	3.5	0.0	3.6						
Red	3.0	0.0	1.6	2.6	0.0	2.4						
							5	6	7	8		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.5	14.0	12.7	19.2	9.7	30.9	11.9	33.1
Change Period, ($Y+R_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	2.5	5.5	6.7	8.1	3.1	12.4	5.0	9.2
Green Extension Time (g_e), s	0.0	2.5	0.2	2.5	0.0	2.8	0.2	2.8
Phase Call Probability	0.23	1.00	0.94	1.00	0.54	1.00	0.90	1.00
Max Out Probability	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	14	102	55	144	122	157	40	350	157	122	265	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1885	1447	1781	1885	1598	1598	1856	1572	1725	1815	
Queue Service Time (g_s), s	0.5	3.5	2.4	4.7	3.9	6.1	1.1	10.4	4.9	3.0	7.2	
Cycle Queue Clearance Time (g_c), s	0.5	3.5	2.4	4.7	3.9	6.1	1.1	10.4	4.9	3.0	7.2	
Green Ratio (*g/C*)	0.14	0.12	0.12	0.23	0.19	0.19	0.41	0.36	0.36	0.44	0.39	
Capacity (*c*), veh/h	276	218	167	356	358	304	436	667	565	448	710	
Volume-to-Capacity Ratio (*X*)	0.049	0.469	0.326	0.405	0.339	0.516	0.091	0.525	0.277	0.271	0.373	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.3	2.9	1.5	3.3	3.0	4.1	0.6	7.0	2.8	1.8	4.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	26.2	28.7	28.3	22.9	24.4	25.3	13.0	17.6	15.8	12.7	15.1	
Incremental Delay (d_2), s/veh	0.1	2.2	1.6	0.7	0.8	1.9	0.1	0.6	0.3	0.3	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	26.2	31.0	29.8	23.6	25.2	27.2	13.0	18.2	16.1	13.0	15.4	
Level of Service (LOS)	C	C	C	C	C	C	B	B	B	B	B	
Approach Delay, s/veh / LOS	30.2	C		25.4	C		17.2	B		14.7	B	
Intersection Delay, s/veh / LOS	20.3						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.09	B	2.09	B
Bicycle LOS Score / LOS	0.77	A	1.19	A	1.39	A	1.13	A

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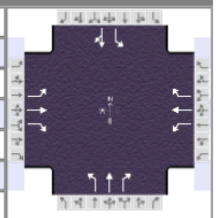
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	AM Peak	PHF	0.88
Urban Street	Terry Road	Analysis Year	2035 No Build	Analysis Period	1> 7:00
Intersection	Lower Hunters Trace	File Name	Terry AM 35 NB.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	95	50	133	112	141	37	316	145	96	215	8

Signal Information			
Cycle, s	70.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	3.4	1.9	25.0	1.5	5.3	8.4	1	2	3	4		
Yellow	3.5	0.0	4.3	3.5	0.0	3.6						
Red	3.0	0.0	1.6	2.6	0.0	2.4	5	6	7	8		

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.6	14.4	12.9	19.7	9.9	30.9	11.8	32.8
Change Period, ($Y+R_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	2.5	5.7	7.0	8.3	3.1	12.8	4.7	9.0
Green Extension Time (g_e), s	0.0	2.6	0.3	2.6	0.0	2.8	0.2	2.8
Phase Call Probability	0.25	1.00	0.95	1.00	0.56	1.00	0.88	1.00
Max Out Probability	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	15	108	57	151	127	160	42	359	165	109	253	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1885	1447	1781	1885	1598	1598	1856	1572	1725	1814	
Queue Service Time (g_s), s	0.5	3.7	2.5	5.0	4.1	6.3	1.1	10.8	5.3	2.7	7.0	
Cycle Queue Clearance Time (g_c), s	0.5	3.7	2.5	5.0	4.1	6.3	1.1	10.8	5.3	2.7	7.0	
Green Ratio (*g/C*)	0.14	0.12	0.12	0.23	0.20	0.20	0.41	0.36	0.36	0.43	0.38	
Capacity (*c*), veh/h	282	225	173	362	369	313	438	663	562	434	698	
Volume-to-Capacity Ratio (*X*)	0.052	0.479	0.328	0.417	0.345	0.512	0.096	0.542	0.293	0.251	0.363	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	3.0	1.6	3.5	3.1	4.2	0.6	7.4	3.0	1.6	4.6	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	26.0	28.8	28.2	22.6	24.3	25.2	13.1	17.9	16.2	13.0	15.4	
Incremental Delay (d_2), s/veh	0.1	2.2	1.6	0.8	0.8	1.8	0.1	0.7	0.3	0.3	0.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	26.1	31.0	29.8	23.3	25.1	27.0	13.2	18.6	16.4	13.3	15.7	
Level of Service (LOS)	C	C	C	C	C	C	B	B	B	B	B	
Approach Delay, s/veh / LOS	30.2	C		25.2	C		17.6	B		15.0	B	
Intersection Delay, s/veh / LOS	20.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.10	B	2.09	B
Bicycle LOS Score / LOS	0.78	A	1.21	A	1.42	A	1.09	A

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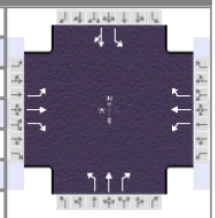
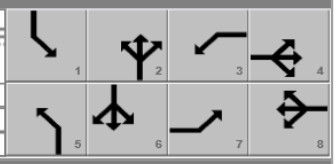
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	AM Peak	PHF	0.88
Urban Street	Terry Road	Analysis Year	2035 Build	Analysis Period	1> 7:00
Intersection	Lower Hunters Trace	File Name	Terry AM 35 B.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	13	95	50	133	112	145	37	323	145	112	235	8

Signal Information					EB			WB			NB		
Cycle, s	70.3	Reference Phase	2		L	T	R	L	T	R	L	T	R
Offset, s	0	Reference Point	End	Green	3.4	2.1		25.0	1.5		5.4		8.4
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	3.5	0.0		4.3	3.5		0.0		3.6
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	0.0		1.6	2.6		0.0		2.4



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.6	14.4	13.0	19.8	9.9	30.9	12.0	33.0
Change Period, ($Y+R_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	2.5	5.8	7.0	8.5	3.1	13.2	5.2	9.7
Green Extension Time (g_e), s	0.0	2.7	0.3	2.6	0.0	3.0	0.2	3.0
Phase Call Probability	0.25	1.00	0.95	1.00	0.56	1.00	0.92	1.00
Max Out Probability	0.00	0.00	0.04	0.00	0.00	0.00	0.01	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	15	108	57	151	127	165	42	367	165	127	276	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1885	1447	1781	1885	1598	1598	1856	1572	1725	1815	
Queue Service Time (g_s), s	0.5	3.8	2.5	5.0	4.1	6.5	1.1	11.2	5.3	3.2	7.7	
Cycle Queue Clearance Time (g_c), s	0.5	3.8	2.5	5.0	4.1	6.5	1.1	11.2	5.3	3.2	7.7	
Green Ratio (*g/C*)	0.14	0.12	0.12	0.24	0.20	0.20	0.40	0.36	0.36	0.43	0.39	
Capacity (*c*), veh/h	282	226	173	362	369	313	424	660	559	431	701	
Volume-to-Capacity Ratio (*X*)	0.052	0.478	0.328	0.418	0.345	0.526	0.099	0.556	0.295	0.295	0.394	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	3.1	1.6	3.5	3.1	4.3	0.6	7.6	3.1	1.9	5.1	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	26.1	28.9	28.3	22.7	24.4	25.3	13.3	18.2	16.3	13.2	15.6	
Incremental Delay (d_2), s/veh	0.1	2.2	1.6	0.8	0.8	2.0	0.1	0.7	0.3	0.4	0.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	26.2	31.1	29.9	23.4	25.2	27.3	13.4	18.9	16.6	13.6	16.0	
Level of Service (LOS)	C	C	C	C	C	C	B	B	B	B	B	
Approach Delay, s/veh / LOS	30.3	C		25.4	C		17.8	B		15.2	B	
Intersection Delay, s/veh / LOS	20.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.10	B	2.09	B
Bicycle LOS Score / LOS	0.78	A	1.22	A	1.43	A	1.15	A

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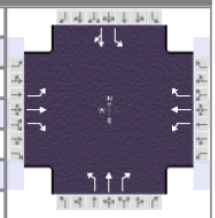
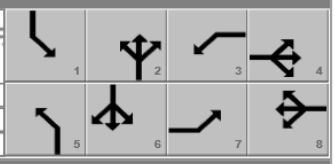
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	PM Peak	PHF	0.96
Urban Street	Terry Road	Analysis Year	2022	Analysis Period	1> 4:15
Intersection	Lower Hunters Trace	File Name	Terry PM 22.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	14	181	72	150	163	158	71	319	146	170	380	12

Signal Information					EB			WB			NB		
Cycle, s	76.6	Reference Phase	2										
Offset, s	0	Reference Point	End	Green	4.8	2.3		25.0	1.6	5.6	12.8		
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	3.5	0.0		4.3	3.5	0.0	3.6		
Force Mode	Fixed	Simult. Gap N/S	On	Red	3.0	0.0		1.6	2.6	0.0	2.4		



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.7	18.8	13.3	24.4	11.3	30.9	13.6	33.2
Change Period, (*Y+R c*), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (*g s*), s	2.5	9.3	7.2	8.9	4.2	13.4	6.9	15.7
Green Extension Time (*g e*), s	0.0	3.5	0.3	3.5	0.1	3.3	0.3	3.3
Phase Call Probability	0.27	1.00	0.96	1.00	0.79	1.00	0.98	1.00
Max Out Probability	0.00	0.00	0.05	0.00	0.00	0.00	0.04	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	15	189	75	156	170	165	74	332	152	177	408	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1711	1826	1560	1810	1841	1547	1668	1841	1598	1781	1875	
Queue Service Time (*g s*), s	0.5	7.3	3.2	5.2	5.9	6.9	2.2	11.4	5.4	4.9	13.7	
Cycle Queue Clearance Time (*g c*), s	0.5	7.3	3.2	5.2	5.9	6.9	2.2	11.4	5.4	4.9	13.7	
Green Ratio (*g/C*)	0.19	0.17	0.17	0.28	0.24	0.24	0.39	0.33	0.33	0.42	0.36	
Capacity (*c*), veh/h	291	306	261	352	443	372	336	601	521	445	668	
Volume-to-Capacity Ratio (*X*)	0.050	0.616	0.287	0.445	0.383	0.442	0.220	0.553	0.292	0.398	0.611	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	5.8	2.1	3.8	4.4	4.4	1.4	8.0	3.3	3.2	9.3	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (*d 1*), s/veh	25.5	29.6	27.9	22.3	24.3	24.7	16.3	21.2	19.2	15.4	20.3	
Incremental Delay (*d 2*), s/veh	0.1	2.9	0.9	0.9	0.8	1.2	0.3	0.8	0.3	0.6	0.9	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	25.5	32.5	28.7	23.1	25.1	25.9	16.6	22.0	19.5	16.0	21.2	
Level of Service (LOS)	C	C	C	C	C	C	B	C	B	B	C	
Approach Delay, s/veh / LOS	31.1	C		24.7	C		20.6	C		19.6	B	
Intersection Delay, s/veh / LOS	22.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.10	B	2.10	B
Bicycle LOS Score / LOS	0.95	A	1.30	A	1.41	A	1.45	A

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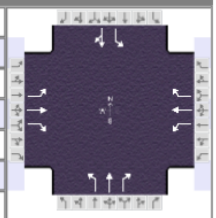
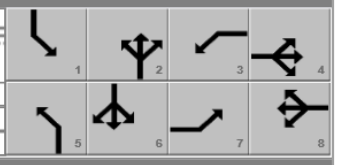
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	PM Peak	PHF	0.96
Urban Street	Terry Road	Analysis Year	2025 No Build	Analysis Period	1> 4:15
Intersection	Lower Hunters Trace	File Name	Terry PM 25 NB.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	14	184	73	152	165	160	72	324	148	173	386	12

Signal Information												
Cycle, s	77.1	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	4.8	2.4	25.0	1.6	5.7	13.1		
				Yellow	3.5	0.0	4.3	3.5	0.0	3.6		
				Red	3.0	0.0	1.6	2.6	0.0	2.4		



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.7	19.1	13.4	24.7	11.3	30.9	13.7	33.3
Change Period, (*Y+R* $_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (*g* $_s$), s	2.5	9.5	7.3	9.0	4.2	13.7	7.0	16.1
Green Extension Time (*g* $_e$), s	0.0	3.5	0.3	3.5	0.1	3.4	0.3	3.4
Phase Call Probability	0.27	1.00	0.97	1.00	0.80	1.00	0.98	1.00
Max Out Probability	0.00	0.00	0.05	0.00	0.00	0.00	0.05	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	15	192	76	158	172	167	75	338	154	180	415	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1711	1826	1560	1810	1841	1547	1668	1841	1598	1781	1875	
Queue Service Time (*g* $_s$), s	0.5	7.5	3.3	5.3	6.0	7.0	2.2	11.7	5.6	5.0	14.1	
Cycle Queue Clearance Time (*g* $_c$), s	0.5	7.5	3.3	5.3	6.0	7.0	2.2	11.7	5.6	5.0	14.1	
Green Ratio (*g/C*)	0.19	0.17	0.17	0.28	0.24	0.24	0.39	0.32	0.32	0.42	0.36	
Capacity (*c*), veh/h	292	309	264	352	448	376	331	597	518	440	667	
Volume-to-Capacity Ratio (*X*)	0.050	0.619	0.288	0.449	0.384	0.443	0.227	0.565	0.298	0.410	0.621	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	5.9	2.2	3.8	4.5	4.5	1.4	8.2	3.4	3.3	9.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (*d* $_1$), s/veh	25.5	29.7	28.0	22.2	24.3	24.7	16.5	21.5	19.5	15.6	20.5	
Incremental Delay (*d* $_2$), s/veh	0.1	2.9	0.8	0.9	0.8	1.2	0.3	0.8	0.3	0.6	1.0	
Initial Queue Delay (*d* $_3$), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	25.6	32.6	28.8	23.1	25.1	25.9	16.9	22.4	19.8	16.2	21.5	
Level of Service (LOS)	C	C	C	C	C	C	B	C	B	B	C	
Approach Delay, s/veh / LOS	31.2	C		24.7	C		21.0	C		19.9	B	
Intersection Delay, s/veh / LOS	23.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.10	B	2.10	B
Bicycle LOS Score / LOS	0.95	A	1.31	A	1.42	A	1.47	A

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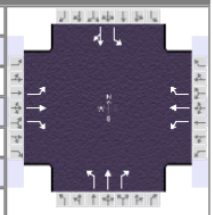
HCS Signalized Intersection Results Summary

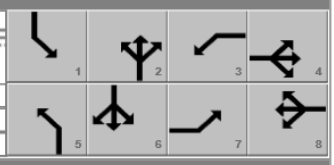
General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	PM Peak	PHF	0.96
Urban Street	Terry Road	Analysis Year	2025 Build	Analysis Period	1> 4:15
Intersection	Lower Hunters Trace	File Name	Terry PM 25 B.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	14	184	73	152	165	174	72	345	148	181	399	12

Signal Information			
Cycle, s	77.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	4.8	2.7	25.0	1.6	5.7	13.2	
Yellow	3.5	0.0	4.3	3.5	0.0	3.6	
Red	3.0	0.0	1.6	2.6	0.0	2.4	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.7	19.2	13.4	24.9	11.3	30.9	14.0	33.6
Change Period, ($Y+R_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	2.5	9.6	7.3	9.8	4.2	14.8	7.3	16.7
Green Extension Time (g_e), s	0.0	3.6	0.3	3.6	0.1	3.5	0.3	3.5
Phase Call Probability	0.27	1.00	0.97	1.00	0.80	1.00	0.98	1.00
Max Out Probability	0.00	0.00	0.05	0.00	0.00	0.00	0.07	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	15	192	76	158	172	181	75	359	154	189	428	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1711	1826	1560	1810	1841	1547	1668	1841	1598	1781	1875	
Queue Service Time (g_s), s	0.5	7.6	3.3	5.3	6.0	7.8	2.2	12.8	5.6	5.3	14.7	
Cycle Queue Clearance Time (g_c), s	0.5	7.6	3.3	5.3	6.0	7.8	2.2	12.8	5.6	5.3	14.7	
Green Ratio (*g/C*)	0.19	0.17	0.17	0.29	0.24	0.24	0.38	0.32	0.32	0.42	0.36	
Capacity (*c*), veh/h	292	311	266	352	449	377	323	593	515	427	670	
Volume-to-Capacity Ratio (*X*)	0.050	0.617	0.286	0.449	0.383	0.480	0.232	0.606	0.299	0.442	0.639	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	6.0	2.2	3.8	4.5	4.9	1.4	8.8	3.5	3.5	9.9	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	25.6	29.8	28.1	22.3	24.5	25.1	16.8	22.1	19.7	15.9	20.8	
Incremental Delay (d_2), s/veh	0.1	2.8	0.8	0.9	0.8	1.3	0.4	1.0	0.3	0.7	1.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	25.7	32.7	28.9	23.2	25.2	26.5	17.1	23.1	20.0	16.6	21.8	
Level of Service (LOS)	C	C	C	C	C	C	B	C	C	B	C	
Approach Delay, s/veh / LOS	31.3	C		25.0	C		21.6	C		20.2	C	
Intersection Delay, s/veh / LOS	23.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.10	B	2.10	B
Bicycle LOS Score / LOS	0.95	A	1.33	A	1.46	A	1.51	B

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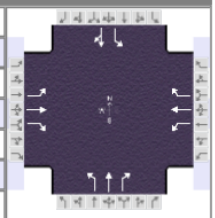
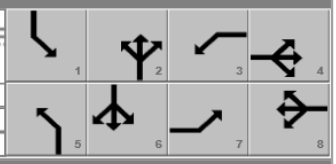
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	PM Peak	PHF	0.96
Urban Street	Terry Road	Analysis Year	2035 No Build	Analysis Period	1> 4:15
Intersection	Lower Hunters Trace	File Name	Terry PM 35 NB.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	15	193	77	160	173	168	76	341	156	182	406	13

Signal Information												
Cycle, s	78.6	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	4.9	2.7	25.0	1.7	5.9	13.8		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	3.5	0.0	4.3	3.5	0.0	3.6		
				Red	3.0	0.0	1.6	2.6	0.0	2.4		



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.8	19.8	13.8	25.7	11.4	30.9	14.2	33.6
Change Period, (*Y+R c*), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (*g s*), s	2.6	10.0	7.6	9.5	4.4	14.8	7.5	17.4
Green Extension Time (*g e*), s	0.0	3.7	0.3	3.7	0.1	3.6	0.3	3.6
Phase Call Probability	0.29	1.00	0.97	1.00	0.82	1.00	0.98	1.00
Max Out Probability	0.00	0.00	0.07	0.00	0.00	0.00	0.07	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	16	201	80	167	180	175	79	355	163	190	436	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1711	1826	1560	1810	1841	1547	1668	1841	1598	1781	1875	
Queue Service Time (*g s*), s	0.6	8.0	3.5	5.6	6.4	7.5	2.4	12.8	6.1	5.5	15.4	
Cycle Queue Clearance Time (*g c*), s	0.6	8.0	3.5	5.6	6.4	7.5	2.4	12.8	6.1	5.5	15.4	
Green Ratio (*g/C*)	0.20	0.18	0.18	0.30	0.25	0.25	0.38	0.32	0.32	0.42	0.35	
Capacity (*c*), veh/h	296	320	273	356	462	388	313	585	508	424	661	
Volume-to-Capacity Ratio (*X*)	0.053	0.629	0.294	0.468	0.390	0.451	0.253	0.607	0.320	0.447	0.660	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	6.3	2.3	4.1	4.8	4.8	1.6	8.9	3.8	3.7	10.3	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (*d 1*), s/veh	25.6	30.1	28.2	22.2	24.5	24.9	17.3	22.7	20.4	16.3	21.5	
Incremental Delay (*d 2*), s/veh	0.1	2.9	0.8	1.0	0.8	1.2	0.4	1.0	0.4	0.7	1.1	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	25.7	33.0	29.1	23.1	25.2	26.1	17.8	23.7	20.7	17.1	22.6	
Level of Service (LOS)	C	C	C	C	C	C	B	C	C	B	C	
Approach Delay, s/veh / LOS	31.5	C		24.8	C		22.1	C		20.9	C	
Intersection Delay, s/veh / LOS	23.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.10	B	2.10	B
Bicycle LOS Score / LOS	0.98	A	1.35	A	1.47	A	1.52	B

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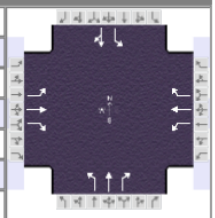
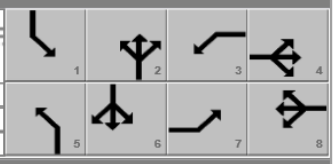
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250
Analyst	Diane Zimmerman	Analysis Date	8/17/2022	Area Type	Other
Jurisdiction		Time Period	PM Peak	PHF	0.96
Urban Street	Terry Road	Analysis Year	2035 Build	Analysis Period	1> 4:15
Intersection	Lower Hunters Trace	File Name	Terry PM 35 B.xus		
Project Description	Terry Road Apartments				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	15	193	77	160	173	182	76	362	156	190	419	13

Signal Information			
Cycle, s	79.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On



Green	5.0	3.1	25.0	1.7	6.0	13.9	
Yellow	3.5	0.0	4.3	3.5	0.0	3.6	
Red	3.0	0.0	1.6	2.6	0.0	2.4	

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	1.1	3.0	1.1	3.0	1.1	3.0	1.1	4.0
Phase Duration, s	7.8	19.9	13.8	25.9	11.5	30.9	14.5	34.0
Change Period, ($Y+R_c$), s	6.1	6.0	6.1	6.0	6.5	5.9	6.5	5.9
Max Allow Headway (*MAH*), s	4.0	5.1	4.0	5.1	4.0	4.0	4.0	4.0
Queue Clearance Time (g_s), s	2.6	10.1	7.6	10.3	4.5	16.0	7.8	18.1
Green Extension Time (g_e), s	0.0	3.8	0.3	3.8	0.1	3.8	0.3	3.8
Phase Call Probability	0.29	1.00	0.97	1.00	0.82	1.00	0.99	1.00
Max Out Probability	0.00	0.00	0.07	0.00	0.00	0.00	0.10	0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	16	201	80	167	180	190	79	377	163	198	450	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1711	1826	1560	1810	1841	1547	1668	1841	1598	1781	1875	
Queue Service Time (g_s), s	0.6	8.1	3.5	5.6	6.4	8.3	2.5	14.0	6.1	5.8	16.1	
Cycle Queue Clearance Time (g_c), s	0.6	8.1	3.5	5.6	6.4	8.3	2.5	14.0	6.1	5.8	16.1	
Green Ratio (*g/C*)	0.20	0.18	0.18	0.30	0.25	0.25	0.38	0.32	0.32	0.42	0.35	
Capacity (*c*), veh/h	297	321	274	357	463	389	306	581	505	411	665	
Volume-to-Capacity Ratio (*X*)	0.053	0.626	0.292	0.467	0.389	0.487	0.259	0.649	0.322	0.481	0.677	
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.4	6.4	2.3	4.1	4.8	0.3	1.6	9.5	3.8	3.9	10.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	25.7	30.2	28.3	22.3	24.6	25.3	17.6	23.3	20.6	16.7	21.7	
Incremental Delay (d_2), s/veh	0.1	2.8	0.8	1.0	0.8	1.3	0.4	1.2	0.4	0.9	1.2	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	25.8	33.0	29.2	23.2	25.4	26.6	18.1	24.5	21.0	17.5	22.9	
Level of Service (LOS)	C	C	C	C	C	C	B	C	C	B	C	
Approach Delay, s/veh / LOS	31.6	C		25.1	C		22.8	C		21.3	C	
Intersection Delay, s/veh / LOS	24.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.12	B	1.92	B	2.11	B	2.10	B
Bicycle LOS Score / LOS	0.98	A	1.37	A	1.51	B	1.56	B

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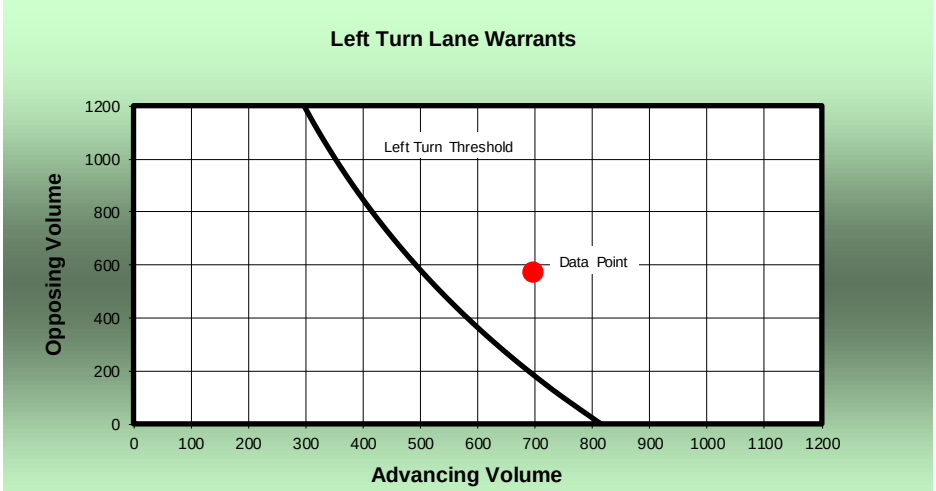
Left Turn Lane Warrants

Input Fields

Left Turn Volume (vph)	32	Speed Limit (mph)	45
Advancing Volume (vph)	694	No. of through lanes	1
Opposing Volume (vph)	570	Percent Heavy Vehicles (decimal percent)	0.01



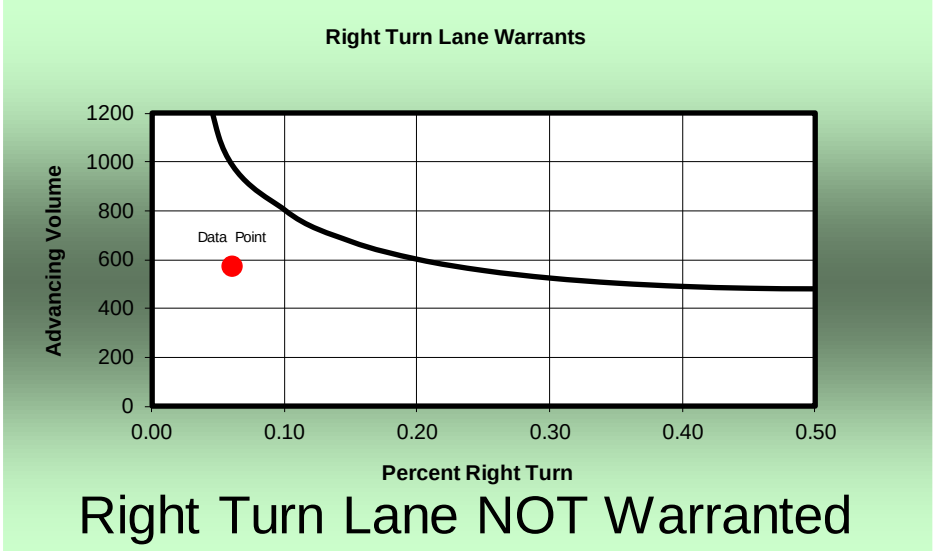
Left Turn Lane WARRANTED

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.

Right Turn Lane Warrants

Input Fields

Right Turn Volume (vph)	35	Speed Limit (mph)	45
Advancing Volume (vph)	570		



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.