

final report

October 1, 2020

## Traffic Impact Study

1231 Durrett Lane  
Louisville, KY

Prepared for

Louisville Metro Planning Commission



**DIANE B. ZIMMERMAN**  
Traffic Engineering, LLC

12803 High Meadows Pike  
Prospect, KY 40059  
502.648.1858  
diane zim@att.net

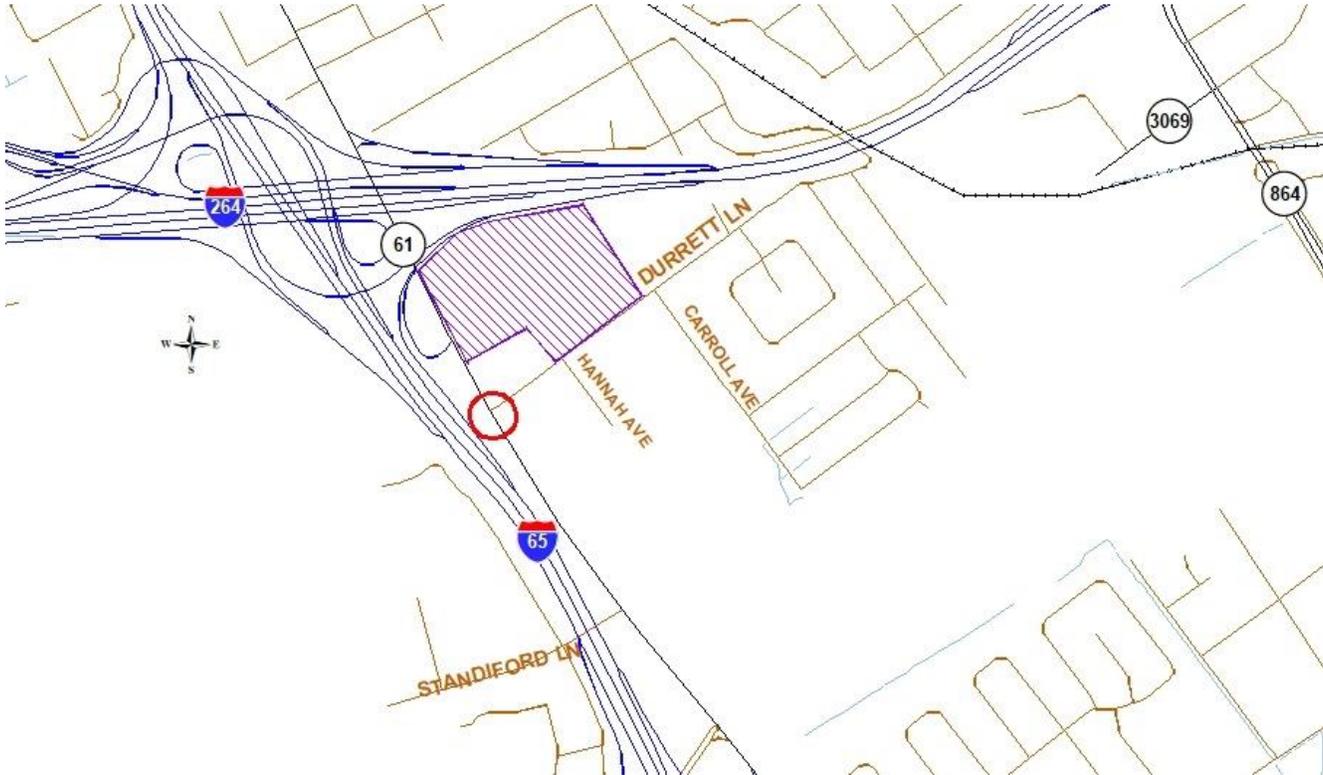


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## INTRODUCTION

The development plan for 1231 Durrett Lane in Louisville, KY shows a single building with 142,438 square feet. **Figure 1** displays a map of the site. Access to the development will be from an entrance on Preston Highway and two on Durrett Lane. 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 intersection of Preston Highway at Durrett Lane and the proposed entrances.



**Figure 1. Site Map**

## EXISTING CONDITIONS

Preston Highway, KY 61, is maintained by the Kentucky Transportation Cabinet with an estimated 2020 ADT of 26,000 vehicles per day between KY 1747 and I 264 Ramps, as provided by a 2018 Kentucky Transportation Cabinet count at station 607. The road is a four-lane highway with twelve-foot lanes, a two-way left turn lane and curb and gutter. The speed limit is 45 mph. There are sidewalks on both sides. The intersection with Durrett Lane is controlled with a traffic signal. At the intersection there is a dedicated left turn lane on Preston Highway and a dedicated right turn lane on Durrett Lane. The left turn lane on Durrett Lane is 175 feet in length.

Peak hour traffic counts for the intersection were obtained from the traffic impact study for 1201 Durrett Lane a convenience/gas station, dated May 15, 2018. The a.m. peak hour occurred between 7:15 and 8:15 a.m. The p.m. peak occurred between 4:30 and 5:30 p.m. **Figure 2** illustrates the existing a.m. and p.m. peak hour traffic volumes.

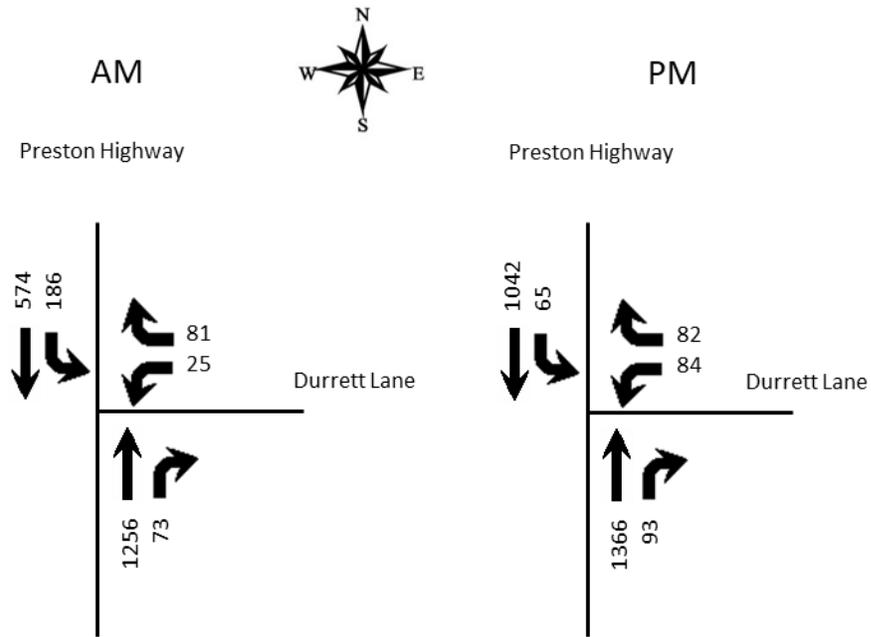
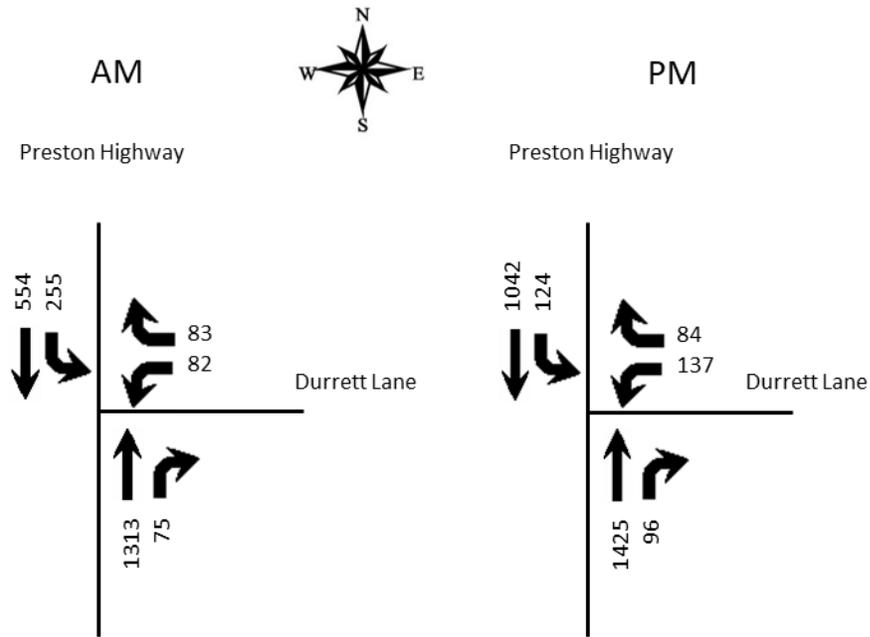


Figure 2. Existing (2018) Peak Hour Volumes

## FUTURE CONDITIONS

The project completion date is 2021. An annual growth rate of 1.0 percent was applied to 2018 traffic volumes. This is based upon a review of historical traffic counts at station 607. The trip generation for the gas/convenience store under construction on the corner of Preston Highway and Durrett Lane was included. The trip generation for that site has been included in the appendix. **Figure 3** displays the 2021 No Build peak hour volumes.



**Figure 3. No Build Peak Hour Volumes**

## TRIP GENERATION

The Institute of Transportation Engineers Trip Generation Manual, 10<sup>th</sup> Edition contains trip generation rates for a wide range of developments. However, none of the published uses reflected the proposed operation. The user has provided trip generation for a typical 24-hour period. The full trip generation for the site is included in the appendix. The trip generation for the peak hours of the adjacent road are listed in **Table 1**. The new 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**

Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Trips	In	Out	Trips	In	Out
Distribution Facility	1	0	1	91	61	30



**Figure 4. Trip Distribution Percentages**

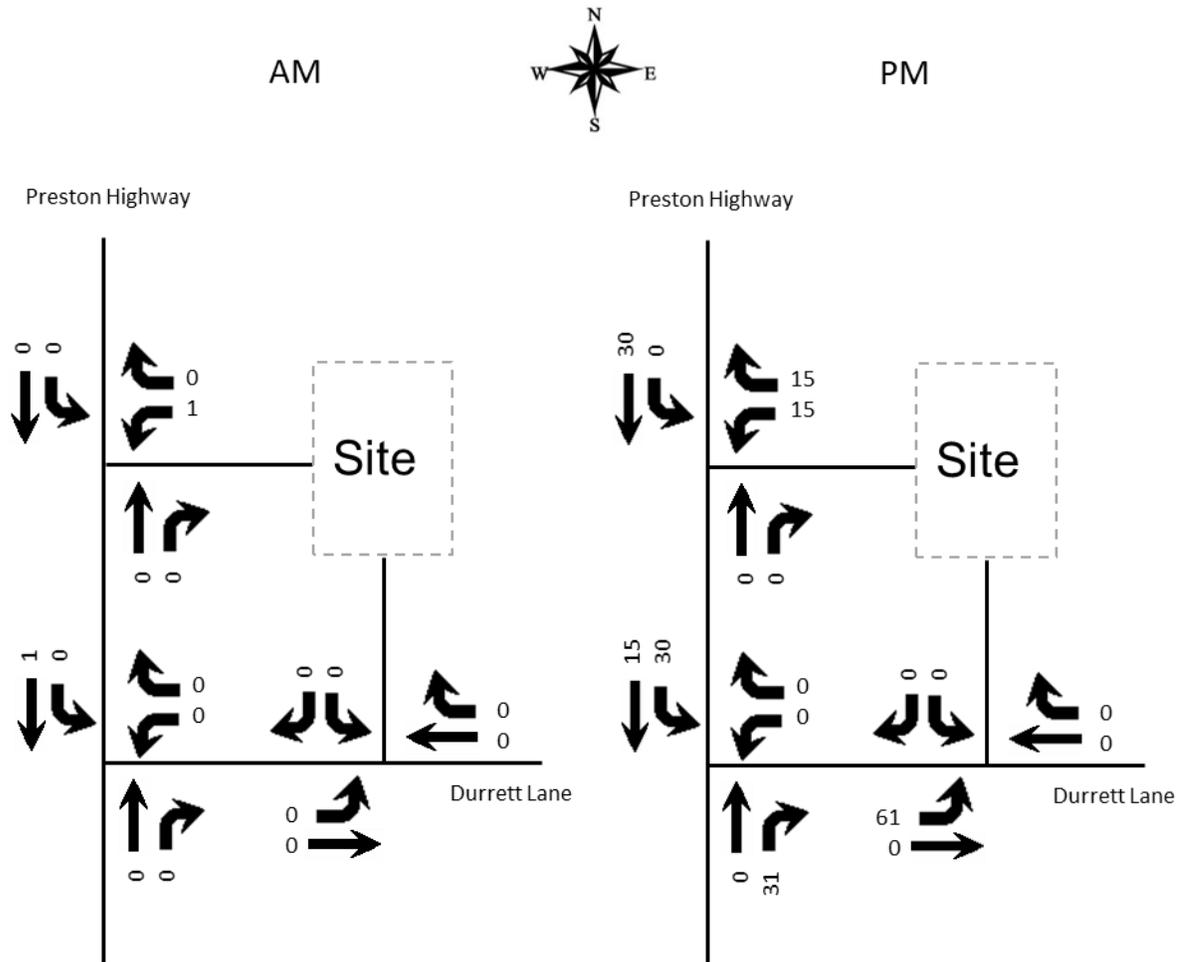


Figure 5. Peak Hour Trips Generated by Site

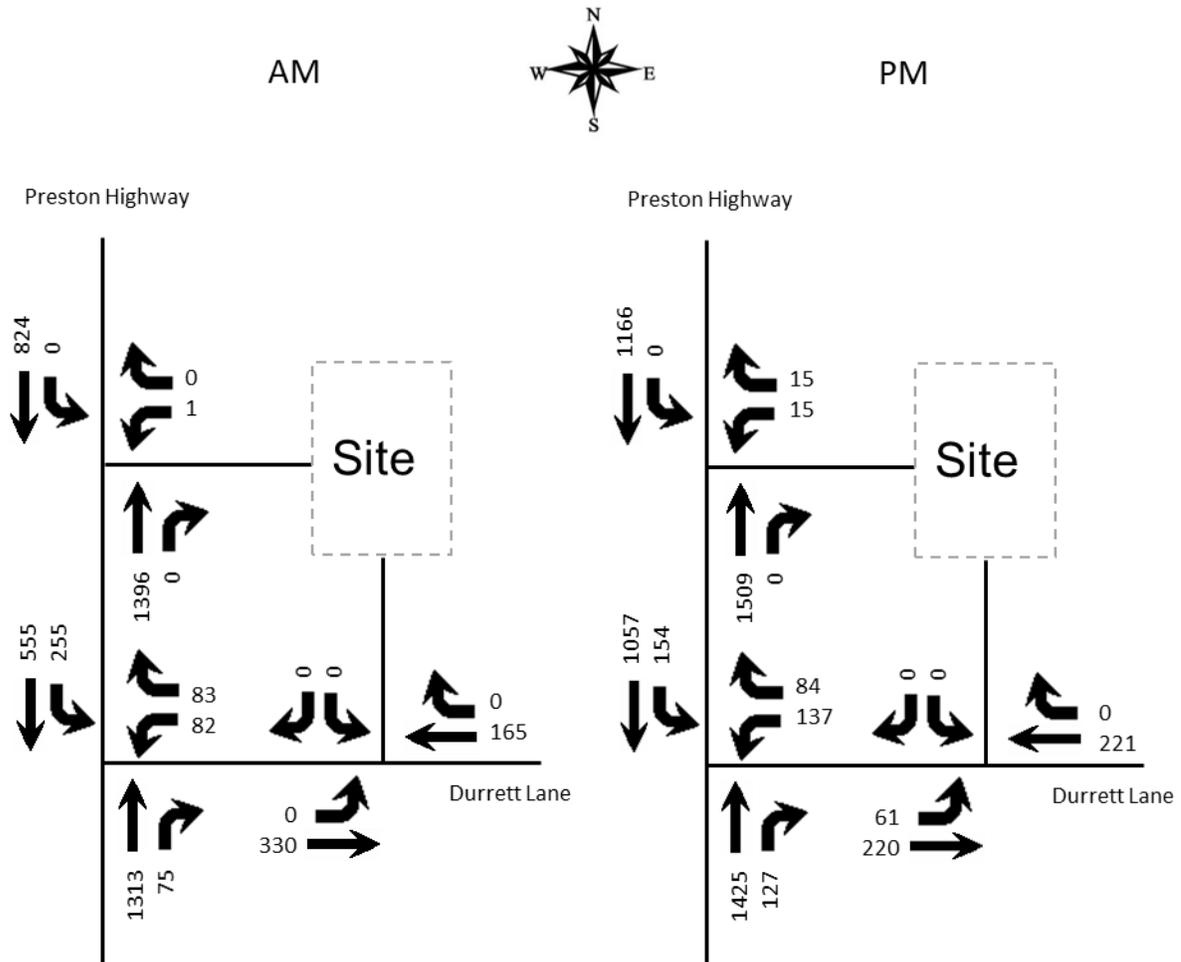


Figure 6. Build Peak Hour Volumes

## 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 at an intersection.

To evaluate the impact of the proposed development, the vehicle delays at the intersections were determined using procedures detailed in the Highway Capacity Manual, 6<sup>th</sup> edition. Future delays and Level of Service were determined for the intersections using the HCS Streets (version 7.9) software. The delays and Level of Service are summarized in **Table 2**. Note that the Durrett Lane entrances have been analyzed as a single entrance, due to light traffic from the site in the peak hours.

**Table 2. Peak Hour Level of Service**

Approach	A.M.			P.M.		
	2018 Existing	2021 No Build	2021 Build	2018 Existing	2021 No Build	2021 Build
<b>Preston Highway at Entrance</b>						
Entrance Westbound			F 74.8			D 30.1
Preston Highway Southbound (left)			B 14.3			B 14.6
<b>Preston Highway at Durrett Lane</b>	<b>B 15.3</b>	<b>B 18.6</b>	<b>B 18.6</b>	<b>B 12.5</b>	<b>B 17.4</b>	<b>B 17.8</b>
Durrett Lane Westbound	E 67.1	E 67.0	E 67.0	E 74.6	E 70.6	E 73.6
Preston Highway Northbound	B 16.1	B 17.0	B 17.0	B 12.4	B 18.4	B 18.5
Preston Highway Southbound	A 6.6	B 10.5	B 10.5	A 3.3	A 5.5	A 6.3
<b>Durrett Lane at Entrance</b>						
Durrett Lane Eastbound			A 7.6			A 7.8
Entrance Southbound			NA			NA

*Key: Level of Service, Delay in seconds per vehicle*

The entrance was evaluated for turn lanes using the Kentucky Transportation Cabinet [Highway Design Guidance Manual](#) dated March, 2017. No turn lanes are required at the entrances.

## CONCLUSIONS

Based upon the volume of traffic generated by the development and the amount of traffic forecasted for the year 2021, there will be a manageable impact to the existing highway network, with Levels of Service remaining within acceptable limits. The delays experienced in the area will increase within acceptable limits.

## **APPENDIX**

Traffic Counts

Qk4

Qk4

File Name : Preston Hwy & Durrett Ln  
Site Code :  
Start Date : 3/10/2016  
Page No : 1

Groups Printed- cars - trucks - pedak bikes

Start Time	Preston Hwy From North					Durrett From East					Preston Hwy From South					From West					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
07:00 AM	42	147	0	0	189	5	0	10	0	15	0	162	11	0	173	0	0	0	0	0	377
07:15 AM	106	199	0	0	305	4	0	20	0	24	0	223	14	0	237	0	0	0	0	0	566
07:30 AM	38	123	0	0	161	7	0	24	0	31	0	294	17	0	311	0	0	0	0	0	503
07:45 AM	21	143	0	0	164	8	0	16	0	24	0	343	23	0	366	0	0	0	0	0	554
Total	207	612	0	0	819	24	0	70	0	94	0	1022	65	0	1087	0	0	0	0	0	2000
08:00 AM	21	109	0	0	130	6	0	21	0	27	0	237	19	0	256	0	0	0	0	0	413
08:15 AM	8	91	0	0	99	10	0	19	0	29	0	230	21	0	251	0	0	0	0	0	379
08:30 AM	17	130	0	0	147	8	0	11	0	19	0	188	19	0	207	0	0	0	0	0	373
08:45 AM	13	115	0	0	128	10	0	14	0	24	0	174	19	0	193	0	0	0	0	0	345
Total	59	445	0	0	504	34	0	65	0	99	0	829	78	0	907	0	0	0	0	0	1510
Grand Total	266	1057	0	0	1323	58	0	135	0	193	0	1851	143	0	1994	0	0	0	0	0	3510
Apprch %	20.1	79.9	0	0		30.1	0	69.9	0		0	92.8	7.2	0		0	0	0	0	0	
Total %	7.6	30.1	0	0	37.7	1.7	0	3.8	0	5.5	0	52.7	4.1	0	56.8	0	0	0	0	0	
cars	260	1002										1763									
% cars	97.7	94.8	0	0	95.4	89.7	0	97.8	0	95.3	0	95.2	95.8	0	95.3	0	0	0	0	0	95.3
trucks	6	55	0	0	61	6	0	3	0	9	0	88	6	0	94	0	0	0	0	0	164
% trucks	2.3	5.2	0	0	4.6	10.3	0	2.2	0	4.7	0	4.8	4.2	0	4.7	0	0	0	0	0	4.7
pedak bikes																					
% pedak bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Preston Hwy From North					Durrett From East					Preston Hwy From South					From West					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	106	199	0	0	305	4	0	20	0	24	0	223	14	0	237	0	0	0	0	0	566
07:30 AM	38	123	0	0	161	7	0	24	0	31	0	294	17	0	311	0	0	0	0	0	503
07:45 AM	21	143	0	0	164	8	0	16	0	24	0	343	23	0	366	0	0	0	0	0	554
08:00 AM	21	109	0	0	130	6	0	21	0	27	0	237	19	0	256	0	0	0	0	0	413
Total Volume	186	574	0	0	760	25	0	81	0	106	0	1097	73	0	1170	0	0	0	0	0	2036
% App. Total	24.5	75.5	0	0		23.6	0	76.4	0		0	93.8	6.2	0		0	0	0	0	0	
PHF	.439	.721	.000	.000	.623	.781	.000	.844	.000	.855	.000	.800	.793	.000	.799	.000	.000	.000	.000	.000	.899

# Qk4

Qk4

File Name : Preston Hwy & Durrett Ln  
Site Code :  
Start Date : 3/10/2016  
Page No : 1

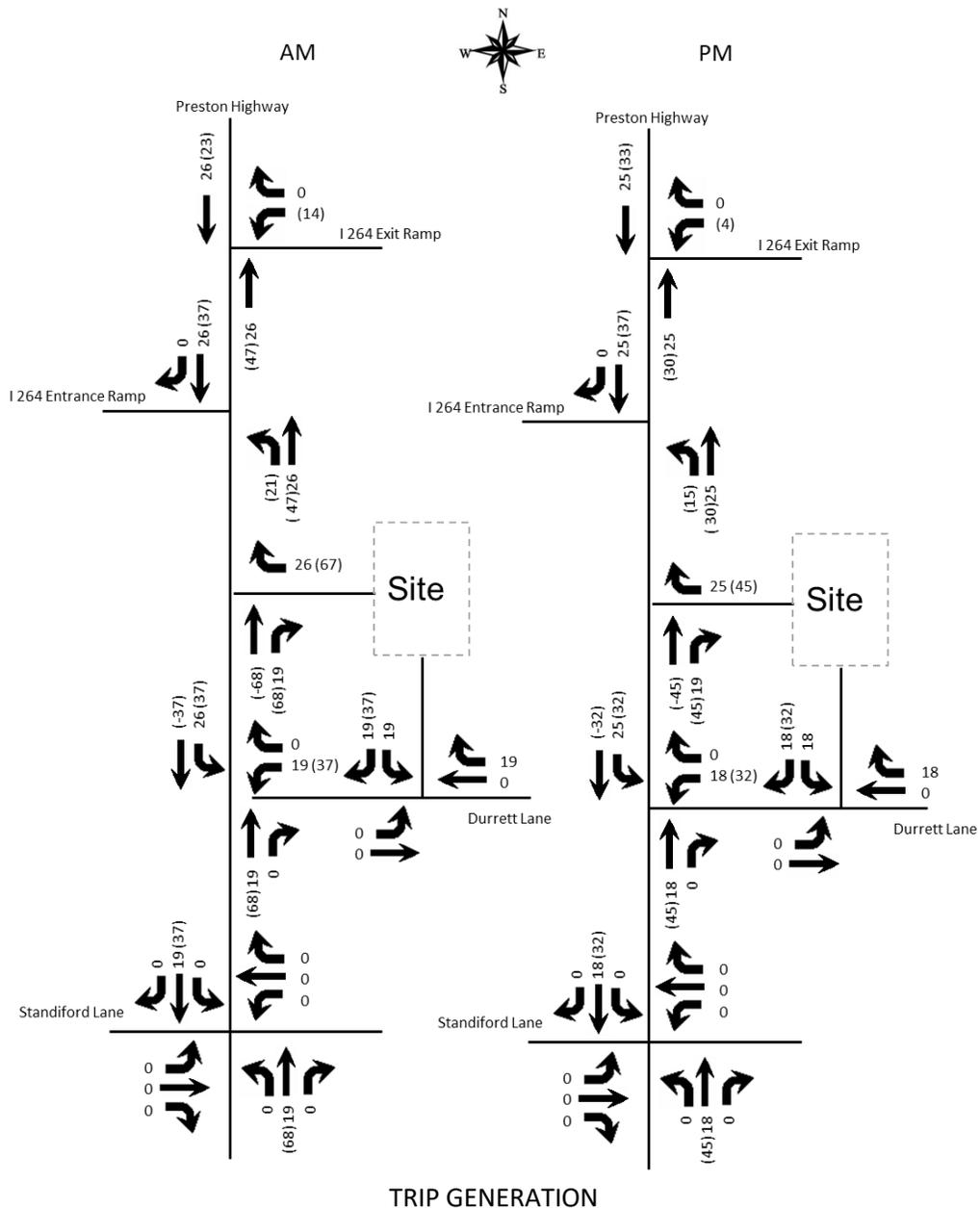
Groups Printed- cars - trucks - pedak bikes

Start Time	Preston Hwy From North					Durrett From East					Preston Hwy From South					From West					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
04:00 PM	13	249	0	0	262	15	0	31	0	46	0	293	12	0	305	0	0	0	0	0	613
04:15 PM	13	250	0	0	263	12	0	16	0	28	0	325	15	0	340	0	0	0	0	0	631
04:30 PM	12	210	0	0	222	16	0	12	0	28	0	386	19	0	405	0	0	0	0	0	655
04:45 PM	20	272	0	0	292	20	0	21	0	41	0	331	24	0	355	0	0	0	0	0	688
Total	58	981	0	0	1039	63	0	80	0	143	0	1335	70	0	1405	0	0	0	0	0	2587
05:00 PM	15	302	0	0	317	27	0	30	0	57	0	314	25	0	339	0	0	0	0	0	713
05:15 PM	18	258	0	0	276	21	0	19	0	40	0	304	25	0	329	0	0	0	0	0	645
05:30 PM	13	216	0	0	229	12	0	13	0	25	0	294	21	0	315	0	0	0	0	0	569
05:45 PM	8	214	0	0	222	20	0	10	0	30	0	249	9	0	258	0	0	0	0	0	510
Total	54	990	0	0	1044	80	0	72	0	152	0	1161	80	0	1241	0	0	0	0	0	2437
Grand Total	112	1971	0	0	2083	143	0	152	0	295	0	2496	150	0	2646	0	0	0	0	0	5024
Apprch %	5.4	94.6	0	0		48.5	0	51.5	0		0	94.3	5.7	0		0	0	0	0		
Total %	2.2	39.2	0	0	41.5	2.8	0	3	0	5.9	0	49.7	3	0	52.7	0	0	0	0	0	
cars	108	1933										2453									
% cars	96.4	98.1	0	0	98	99.3	0	99.3	0	99.3	0	98.3	97.3	0	98.2	0	0	0	0	0	98.2
trucks	4	38	0	0	42	1	0	1	0	2	0	43	4	0	47	0	0	0	0	0	91
% trucks	3.6	1.9	0	0	2	0.7	0	0.7	0	0.7	0	1.7	2.7	0	1.8	0	0	0	0	0	1.8
pedak bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% pedak bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Preston Hwy From North					Durrett From East					Preston Hwy From South					From West					Int. Total
	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	12	210	0	0	222	16	0	12	0	28	0	<b>386</b>	19	0	<b>405</b>	0	0	0	0	0	655
04:45 PM	20	272	0	0	292	20	0	21	0	41	0	331	24	0	355	0	0	0	0	0	688
05:00 PM	15	<b>302</b>	0	0	<b>317</b>	<b>27</b>	0	<b>30</b>	0	<b>57</b>	0	314	<b>25</b>	0	339	0	0	0	0	0	<b>713</b>
05:15 PM	18	258	0	0	276	21	0	19	0	40	0	304	25	0	329	0	0	0	0	0	645
Total Volume	65	1042	0	0	1107	84	0	82	0	166	0	1335	93	0	1428	0	0	0	0	0	2701
% App. Total	5.9	94.1	0	0		50.6	0	49.4	0		0	93.5	6.5	0		0	0	0	0		
PHF	.813	.863	.000	.000	.873	.778	.000	.683	.000	.728	.000	.865	.930	.000	.881	.000	.000	.000	.000	.000	.947

Trip Generation from Durrett Lane Gas/Convenience dated May 15, 2018.

Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Trips	In	Out	Trips	In	Out
Convenience Market with Gas (12 pumps)	337	169	168	276	138	138
Pass-by Trips	209	105	104	154	77	77
<b>TOTAL New Trips</b>	<b>128</b>	<b>64</b>	<b>64</b>	<b>122</b>	<b>61</b>	<b>61</b>



Provided by Occupant  
Half Hour Increments

DKY6 in Louisville, KY - Site Specific																		
Time	Associates			Trucks			DSP Drivers			DSP Vans			Flex			Total		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
00:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1	2
00:30	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
01:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
01:30	91	0	91	1	1	2	0	0	0	0	0	0	0	0	0	92	1	93
02:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
02:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
03:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
03:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
04:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1	2
04:30	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
05:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
05:30	29	0	29	0	1	1	0	0	0	0	0	0	0	0	0	29	1	30
06:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
06:30	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	1	1	2
07:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
09:00	0	0	0	0	1	1	22	0	22	0	0	0	0	0	0	22	1	23
09:30	0	0	0	1	0	1	87	0	87	0	0	0	0	0	0	88	0	88
10:00	0	0	0	0	1	1	90	0	90	0	72	72	0	0	0	90	73	163
10:30	0	0	0	0	0	0	8	0	8	0	144	144	0	0	0	8	144	152
11:00	0	0	0	1	0	1	0	0	0	0	13	13	0	0	0	1	13	14
11:30	5	0	5	0	1	1	0	0	0	0	0	0	0	0	0	5	1	6
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	91	91	0	0	0	0	0	0	0	0	0	0	0	0	0	91	91
13:00	29	0	29	0	0	0	0	0	0	0	0	0	0	0	0	29	0	29
13:30	23	0	23	0	0	0	0	0	0	0	0	0	0	0	0	23	0	23
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	29	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29	29
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	60	0	60	60	0	60
16:30	0	0	0	1	0	1	0	0	0	0	0	0	0	30	30	1	30	31
17:00	0	0	0	0	1	1	0	0	0	0	0	0	0	30	30	0	31	31
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	23	23	1	0	1	0	0	0	0	0	0	0	0	0	1	23	24
18:30	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
19:00	0	0	0	1	0	1	0	17	17	18	0	18	0	0	0	19	17	36
19:30	0	0	0	1	1	2	0	34	34	90	0	90	0	0	0	91	35	126
20:00	0	0	0	0	1	1	0	102	102	58	0	58	0	0	0	58	103	161
20:30	0	0	0	1	0	1	0	34	34	62	0	62	0	0	0	63	34	97
21:00	0	0	0	1	1	2	0	20	20	1	0	1	0	0	0	2	21	23
21:30	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
22:00	0	29	29	1	0	1	0	0	0	0	0	0	0	0	0	1	29	30
22:30	0	5	5	1	1	2	0	0	0	0	0	0	0	0	0	1	6	7
23:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
23:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
<b>Total</b>	<b>177</b>	<b>177</b>	<b>354</b>	<b>21</b>	<b>21</b>	<b>42</b>	<b>207</b>	<b>207</b>	<b>414</b>	<b>229</b>	<b>229</b>	<b>458</b>	<b>60</b>	<b>60</b>	<b>120</b>	<b>694</b>	<b>694</b>	<b>1,388</b>

HCS Reports

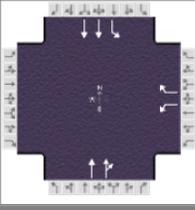
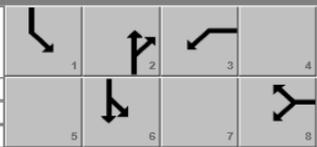
HCS7 Two-Way Stop-Control Report																
General Information								Site Information								
Analyst	DBZ							Intersection	Preston Entrance							
Agency/Co.	Diane B Zimmerman Traffic Engineering							Jurisdiction								
Date Performed	10/1/20							East/West Street	Entrance							
Analysis Year	2021							North/South Street	Preston							
Time Analyzed	AM Peak							Peak Hour Factor	0.90							
Intersection Orientation	North-South							Analysis Time Period (hrs)	0.25							
Project Description	1231 Durrett Lane															
Lanes																
<p style="text-align: center;">Major Street: North-South</p>																
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		1	0	1	0	0	2	0	0	1	2	0
Configuration						L		R			T	TR		L	T	
Volume (veh/h)						1		0			1396	0	0	0	824	
Percent Heavy Vehicles (%)						100		10					3	10		
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)						7.5		6.9						4.1		
Critical Headway (sec)						8.80		7.10						4.30		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						4.50		3.40						2.30		
Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)						1		0						0		
Capacity, c (veh/h)						53		324						387		
v/c Ratio						0.02		0.00						0.00		
95% Queue Length, Q <sub>95</sub> (veh)						0.1		0.0						0.0		
Control Delay (s/veh)						74.8		16.1						14.3		
Level of Service (LOS)						F		C						B		
Approach Delay (s/veh)						74.8								0.0		
Approach LOS						F										

HCS7 Two-Way Stop-Control Report																
General Information								Site Information								
Analyst	DBZ							Intersection	Preston Entrance							
Agency/Co.	Diane B Zimmerman Traffic Engineering							Jurisdiction								
Date Performed	10/1/20							East/West Street	Entrance							
Analysis Year	2021							North/South Street	Preston							
Time Analyzed	PM Peak							Peak Hour Factor	0.95							
Intersection Orientation	North-South							Analysis Time Period (hrs)	0.25							
Project Description	1231 Durrett Lane															
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		1	0	1	0	0	2	0	0	1	2	0
Configuration						L		R			T	TR		L	T	
Volume (veh/h)						15		15			1509	0	0	0	1166	
Percent Heavy Vehicles (%)						10		10					3	10		
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)						7.5		6.9							4.1	
Critical Headway (sec)						7.00		7.10							4.30	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.60		3.40							2.30	
Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)						16		16							0	
Capacity, c (veh/h)						110		314							374	
v/c Ratio						0.14		0.05							0.00	
95% Queue Length, Q <sub>95</sub> (veh)						0.5		0.2							0.0	
Control Delay (s/veh)						43.1		17.1							14.6	
Level of Service (LOS)						E		C							B	
Approach Delay (s/veh)					30.1								0.0			
Approach LOS					D											

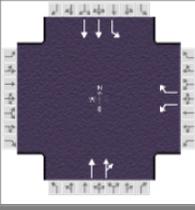
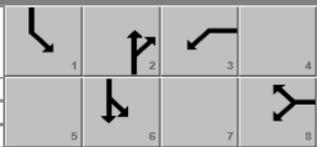
### HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250										
Analyst	DBZ	Analysis Date	5/15/2018	Area Type	Other										
Jurisdiction		Time Period	AM Peak	PHF	0.90										
Urban Street	Preston Highway	Analysis Year	2018	Analysis Period	1> 7:15										
Intersection	Durrett Lane	File Name	Preston AM 18.xus												
Project Description	1231 Durrett														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand ( v ), veh/h				25		81	1256	73	186	574					
Signal Information															
Cycle, s	130.0	Reference Phase	2	Green	25.0	79.8	9.5	0.0	0.0	0.0	0.0	0.0			
Offset, s	0	Reference Point	End	Yellow	3.6	3.6	3.6	0.0	0.0	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On	Red	1.6	1.6	1.8	0.0	0.0	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase							8		2	1	6				
Case Number							9.0		8.3	1.0	4.0				
Phase Duration, s							14.9		85.0	30.2	115.1				
Change Period, ( Y+R c ), s							5.4		5.2	5.2	5.2				
Max Allow Headway ( MAH ), s							4.2		0.0	4.0	0.0				
Queue Clearance Time ( g s ), s							9.3			5.0					
Green Extension Time ( g e ), s							0.3		0.0	0.7	0.0				
Phase Call Probability							0.99			1.00					
Max Out Probability							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				3		18			2	12	1	6			
Adjusted Flow Rate ( v ), veh/h				28		90			732	721	200	618			
Adjusted Saturation Flow Rate ( s ), veh/h/ln				1668		1585			1826	1790	1781	1738			
Queue Service Time ( g s ), s				2.0		7.3			49.8	30.9	3.0	2.9			
Cycle Queue Clearance Time ( g c ), s				2.0		7.3			49.8	30.9	3.0	2.9			
Green Ratio ( g/C )				0.07		0.07			0.61	0.61	0.82	0.85			
Capacity ( c ), veh/h				121		115			1120	1098	482	2940			
Volume-to-Capacity Ratio ( X )				0.229		0.780			0.653	0.657	0.415	0.210			
Back of Queue ( Q ), ft/ln ( 90 th percentile)				42.6		15.8			399	379.6	161.7	24.2			
Back of Queue ( Q ), veh/ln ( 90 th percentile)				1.6		0.6			15.3	15.2	6.4	0.9			
Queue Storage Ratio ( RQ ) ( 90 th percentile)				0.24		0.05			0.00	0.00	1.01	0.00			
Uniform Delay ( d 1 ), s/veh				56.8		59.2			13.4	13.5	22.5	1.2			
Incremental Delay ( d 2 ), s/veh				0.9		10.8			2.6	2.7	0.5	0.1			
Initial Queue Delay ( d 3 ), s/veh				0.0		0.0			0.0	0.0	0.0	0.0			
Control Delay ( d ), s/veh				57.8		70.0			16.0	16.1	23.0	1.3			
Level of Service (LOS)				E		E			B	B	C	A			
Approach Delay, s/veh / LOS	0.0			67.1		E		16.1	B		6.6	A			
Intersection Delay, s/veh / LOS				15.3						B					
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.16		B	2.33		B	1.89		B	0.62		A			
Bicycle LOS Score / LOS						F	1.71		B	1.18		A			

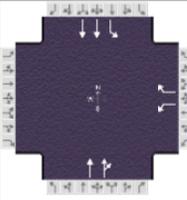
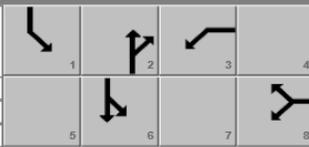
### HCS7 Signalized Intersection Results Summary

General Information				Intersection Information								
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250							
Analyst	DBZ	Analysis Date	Oct 1, 2020	Area Type	Other							
Jurisdiction		Time Period	AM Peak	PHF	0.90							
Urban Street	Preston Highway	Analysis Year	2021 No Build	Analysis Period	1> 7:15							
Intersection	Durrett Lane	File Name	Preston AM 21 NB.xus									
Project Description	1231 Durrett											
Demand Information				EB		WB		NB		SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h				82		83	1313	75	255	554		
Signal Information												
Cycle, s	130.0	Reference Phase	2									
Offset, s	0	Reference Point	End	Green	25.0	79.2	10.0	0.0	0.0	0.0		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	3.6	3.6	3.6	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.6	1.6	1.8	0.0	0.0	0.0		
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Assigned Phase							8		2	1	6	
Case Number							9.0		8.3	1.0	4.0	
Phase Duration, s							15.4		84.4	30.2	114.6	
Change Period, ( Y+R <sub>c</sub> ), s							5.4		5.2	5.2	5.2	
Max Allow Headway ( MAH ), s							4.1		0.0	4.0	0.0	
Queue Clearance Time ( g <sub>s</sub> ), s							9.4			9.3		
Green Extension Time ( g <sub>e</sub> ), s							0.6		0.0	0.9	0.0	
Phase Call Probability							1.00			1.00		
Max Out Probability							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				3		18	2	12	1	6		
Adjusted Flow Rate ( v ), veh/h				91		92	732	721	258	560		
Adjusted Saturation Flow Rate ( s ), veh/h/ln				1668		1585	1826	1791	1781	1738		
Queue Service Time ( g <sub>s</sub> ), s				6.9		7.4	53.6	32.0	7.3	2.6		
Cycle Queue Clearance Time ( g <sub>c</sub> ), s				6.9		7.4	53.6	32.0	7.3	2.6		
Green Ratio ( g/C )				0.08		0.08	0.61	0.61	0.82	0.84		
Capacity ( c ), veh/h				128		121	1113	1092	470	2927		
Volume-to-Capacity Ratio ( X )				0.713		0.759	0.658	0.661	0.549	0.191		
Back of Queue ( Q ), ft/ln ( 90 th percentile)				145.4		140.5	419.7	399.4	266.5	22.6		
Back of Queue ( Q ), veh/ln ( 90 th percentile)				5.4		5.5	16.1	16.0	10.5	0.9		
Queue Storage Ratio ( RQ ) ( 90 th percentile)				0.83		0.47	0.00	0.00	1.67	0.00		
Uniform Delay ( d <sub>1</sub> ), s/veh				58.6		58.8	14.4	14.4	29.6	1.2		
Incremental Delay ( d <sub>2</sub> ), s/veh				7.1		9.3	2.6	2.7	0.9	0.1		
Initial Queue Delay ( d <sub>3</sub> ), s/veh				0.0		0.0	0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh				65.8		68.1	17.0	17.1	30.4	1.3		
Level of Service ( LOS)				E		E	B	B	C	A		
Approach Delay, s/veh / LOS	0.0			67.0		E	17.0		B	10.5		B
Intersection Delay, s/veh / LOS				18.6				B				
Multimodal Results				EB		WB		NB		SB		
Pedestrian LOS Score / LOS	2.16		B	2.33		B	1.89		B	0.62		A
Bicycle LOS Score / LOS						F	1.76		B	1.23		A

### HCS7 Signalized Intersection Results Summary

General Information				Intersection Information									
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250								
Analyst	DBZ	Analysis Date	Oct 1, 2020	Area Type	Other								
Jurisdiction		Time Period	AM Peak	PHF	0.90								
Urban Street	Preston Highway	Analysis Year	2021 Build	Analysis Period	1> 7:15								
Intersection	Durrett Lane	File Name	Preston AM 21 B.xus										
Project Description	1231 Durrett												
Demand Information				EB			WB			NB		SB	
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Demand ( v ), veh/h				82		83	1313	75	255	555			
Signal Information													
Cycle, s	130.0	Reference Phase	2	Green	25.0	79.2	10.0	0.0	0.0	0.0			
Offset, s	0	Reference Point	End	Yellow	3.6	3.6	3.6	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On	Red	1.6	1.6	1.8	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On										
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT		
Assigned Phase							8		2	1	6		
Case Number							9.0		8.3	1.0	4.0		
Phase Duration, s							15.4		84.4	30.2	114.6		
Change Period, ( Y+R c ), s							5.4		5.2	5.2	5.2		
Max Allow Headway ( MAH ), s							4.1		0.0	4.0	0.0		
Queue Clearance Time ( g s ), s							9.4			9.3			
Green Extension Time ( g e ), s							0.6		0.0	0.9	0.0		
Phase Call Probability							1.00			1.00			
Max Out Probability							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				3		18	2	12	1	6			
Adjusted Flow Rate ( v ), veh/h				91		92	732	721	258	561			
Adjusted Saturation Flow Rate ( s ), veh/h/ln				1668		1585	1826	1791	1781	1738			
Queue Service Time ( g s ), s				6.9		7.4	53.6	32.0	7.3	2.6			
Cycle Queue Clearance Time ( g c ), s				6.9		7.4	53.6	32.0	7.3	2.6			
Green Ratio ( g/C )				0.08		0.08	0.61	0.61	0.82	0.84			
Capacity ( c ), veh/h				128		121	1113	1092	470	2927			
Volume-to-Capacity Ratio ( X )				0.713		0.759	0.658	0.661	0.548	0.192			
Back of Queue ( Q ), ft/ln ( 90 th percentile)				145.4		140.5	419.7	399.4	266.2	22.6			
Back of Queue ( Q ), veh/ln ( 90 th percentile)				5.4		5.5	16.1	16.0	10.5	0.9			
Queue Storage Ratio ( RQ ) ( 90 th percentile)				0.83		0.47	0.00	0.00	1.66	0.00			
Uniform Delay ( d 1 ), s/veh				58.6		58.8	14.4	14.4	29.5	1.2			
Incremental Delay ( d 2 ), s/veh				7.1		9.3	2.6	2.7	0.8	0.1			
Initial Queue Delay ( d 3 ), s/veh				0.0		0.0	0.0	0.0	0.0	0.0			
Control Delay ( d ), s/veh				65.8		68.1	17.0	17.1	30.4	1.3			
Level of Service ( LOS)				E		E	B	B	C	A			
Approach Delay, s/veh / LOS	0.0			67.0		E	17.0		B	10.5		B	
Intersection Delay, s/veh / LOS				18.6				B					
Multimodal Results				EB			WB			NB		SB	
Pedestrian LOS Score / LOS	2.16		B	2.33		B	1.89		B	0.62		A	
Bicycle LOS Score / LOS						F	1.76		B	1.23		A	

### HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250										
Analyst	DBZ	Analysis Date	Jul 29, 2020	Area Type	Other										
Jurisdiction		Time Period	PM Peak	PHF	0.95										
Urban Street	Preston Highway	Analysis Year	2018	Analysis Period	1> 4:30										
Intersection	Durrett Lane	File Name	Preston PM 18.xus												
Project Description	1231 Durrett Lane														
Demand Information				EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R			
Demand ( v ), veh/h				84		82	1366	93	65	1042					
Signal Information															
Cycle, s	145.0	Reference Phase	2	Green	22.4	96.5	10.2	0.0	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	3.6	3.6	3.6	0.0	0.0	0.0					
Uncoordinated	No	Simult. Gap E/W	On	Red	1.6	1.6	1.8	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase							8		2	1	6				
Case Number							9.0		8.3	1.0	4.0				
Phase Duration, s							15.6		101.7	27.6	129.4				
Change Period, ( Y+R <sub>c</sub> ), s							5.4		5.2	5.2	5.2				
Max Allow Headway ( MAH ), s							4.1		0.0	4.0	0.0				
Queue Clearance Time ( g <sub>s</sub> ), s							9.7			3.0					
Green Extension Time ( g <sub>e</sub> ), s							0.5		0.0	0.2	0.0				
Phase Call Probability							1.00			0.94					
Max Out Probability							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				3		18	2	12	1	6					
Adjusted Flow Rate ( v ), veh/h				88		86	766	754	68	1089					
Adjusted Saturation Flow Rate ( s ), veh/h/ln				1795		1598	1870	1828	1753	1781					
Queue Service Time ( g <sub>s</sub> ), s				7.0		7.7	50.5	29.1	1.0	9.6					
Cycle Queue Clearance Time ( g <sub>c</sub> ), s				7.0		7.7	50.5	29.1	1.0	9.6					
Green Ratio ( g/C )				0.07		0.07	0.67	0.67	0.83	0.86					
Capacity ( c ), veh/h				127		113	1245	1217	428	3050					
Volume-to-Capacity Ratio ( X )				0.699		0.767	0.615	0.620	0.159	0.357					
Back of Queue ( Q ), ft/ln ( 90 th percentile)				144.7		145.6	356	347.3	46.4	92.4					
Back of Queue ( Q ), veh/ln ( 90 th percentile)				5.7		5.8	14.0	13.9	1.8	3.6					
Queue Storage Ratio ( RQ ) ( 90 th percentile)				0.83		0.49	0.00	0.00	0.29	0.00					
Uniform Delay ( d <sub>1</sub> ), s/veh				65.9		66.2	10.3	10.3	14.6	2.3					
Incremental Delay ( d <sub>2</sub> ), s/veh				6.8		10.3	2.0	2.1	0.2	0.3					
Initial Queue Delay ( d <sub>3</sub> ), s/veh				0.0		0.0	0.0	0.0	0.0	0.0					
Control Delay ( d ), s/veh				72.7		76.6	12.3	12.4	14.8	2.6					
Level of Service (LOS)				E		E	B	B	B	A					
Approach Delay, s/veh / LOS	0.0			74.6		E	12.4	B	3.3	A					
Intersection Delay, s/veh / LOS				12.5					B						
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS	2.16		B	2.33		B	1.88		B	0.62		A			
Bicycle LOS Score / LOS						F	1.75		B	1.45		A			

### HCS7 Signalized Intersection Results Summary

General Information				Intersection Information									
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250								
Analyst	DBZ	Analysis Date	Oct 1, 2020	Area Type	Other								
Jurisdiction		Time Period	PM Peak	PHF	0.95								
Urban Street	Preston Highway	Analysis Year	2021 No Build	Analysis Period	1> 4:30								
Intersection	Durrett Lane	File Name	Preston PM 21 NB.xus										
Project Description	1231 Durrett Lane												
Demand Information				EB			WB			NB		SB	
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Demand ( v ), veh/h				137		84	1425	96	124	1042			
Signal Information													
Cycle, s	145.0	Reference Phase	2	Green	23.8	91.3	14.1	0.0	0.0	0.0			
Offset, s	0	Reference Point	End	Yellow	3.6	3.6	3.6	0.0	0.0	0.0			
Uncoordinated	No	Simult. Gap E/W	On	Red	1.6	1.6	1.8	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On										
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT		
Assigned Phase							8		2	1	6		
Case Number							9.0		8.3	1.0	4.0		
Phase Duration, s							19.5		96.5	29.0	125.5		
Change Period, ( Y+R c ), s							5.4		5.2	5.2	5.2		
Max Allow Headway ( MAH ), s							4.1		0.0	4.0	0.0		
Queue Clearance Time ( g s ), s							13.4			4.2			
Green Extension Time ( g e ), s							0.7		0.0	0.4	0.0		
Phase Call Probability							1.00			0.99			
Max Out Probability							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				3		18	2	12	1	6			
Adjusted Flow Rate ( v ), veh/h				144		88	766	754	123	1034			
Adjusted Saturation Flow Rate ( s ), veh/h/ln				1795		1598	1870	1828	1753	1781			
Queue Service Time ( g s ), s				11.4		7.7	54.3	36.5	2.2	10.6			
Cycle Queue Clearance Time ( g c ), s				11.4		7.7	54.3	36.5	2.2	10.6			
Green Ratio ( g/C )				0.10		0.10	0.63	0.63	0.81	0.83			
Capacity ( c ), veh/h				175		156	1177	1151	424	2954			
Volume-to-Capacity Ratio ( X )				0.825		0.569	0.651	0.655	0.290	0.350			
Back of Queue ( Q ), ft/ln ( 90 th percentile)				217.3		138.7	490.9	478.9	118.8	119.2			
Back of Queue ( Q ), veh/ln ( 90 th percentile)				8.6		5.5	19.3	19.2	4.6	4.7			
Queue Storage Ratio ( RQ ) ( 90 th percentile)				1.24		0.46	0.00	0.00	0.74	0.00			
Uniform Delay ( d 1 ), s/veh				64.2		62.5	15.8	15.8	22.3	3.2			
Incremental Delay ( d 2 ), s/veh				9.4		3.2	2.5	2.6	0.3	0.3			
Initial Queue Delay ( d 3 ), s/veh				0.0		0.0	0.0	0.0	0.0	0.0			
Control Delay ( d ), s/veh				73.6		65.8	18.3	18.4	22.6	3.5			
Level of Service ( LOS)				E		E	B	B	C	A			
Approach Delay, s/veh / LOS	0.0			70.6		E	18.4	B	5.5	A			
Intersection Delay, s/veh / LOS				17.4					B				
Multimodal Results				EB			WB			NB		SB	
Pedestrian LOS Score / LOS	2.16		B	2.33		B	1.89		B	0.63		A	
Bicycle LOS Score / LOS						F	1.81		B	1.50		B	

### HCS7 Signalized Intersection Results Summary

General Information				Intersection Information								
Agency	Diane B. Zimmerman Traffic Engineering			Duration, h	0.250							
Analyst	DBZ	Analysis Date	Oct 1, 2020	Area Type	Other							
Jurisdiction		Time Period	PM Peak	PHF	0.95							
Urban Street	Preston Highway	Analysis Year	2021 Build	Analysis Period	1> 4:30							
Intersection	Durrett Lane	File Name	Preston PM 21 B.xus									
Project Description	1231 Durrett Lane											
Demand Information				EB		WB		NB		SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h				137		84	1425	127	154	1057		
Signal Information												
Cycle, s	145.0	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	No	Simult. Gap E/W	On	Green	23.9	91.2	14.1	0.0	0.0	0.0		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	3.6	3.6	3.6	0.0	0.0	0.0		
				Red	1.6	1.6	1.8	0.0	0.0	0.0		
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	
Assigned Phase							8		2	1	6	
Case Number							9.0		8.3	1.0	4.0	
Phase Duration, s							19.5		96.4	29.1	125.5	
Change Period, ( $Y+R_c$ ), s							5.4		5.2	5.2	5.2	
Max Allow Headway ( $MAH$ ), s							4.1		0.0	4.0	0.0	
Queue Clearance Time ( $g_s$ ), s							13.4			4.7		
Green Extension Time ( $g_e$ ), s							0.7		0.0	0.5	0.0	
Phase Call Probability							1.00			1.00		
Max Out Probability							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				3		18	2	12	1	6		
Adjusted Flow Rate ( $v$ ), veh/h				144		88	768	752	147	1010		
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln				1795		1598	1870	1816	1753	1781		
Queue Service Time ( $g_s$ ), s				11.4		7.7	56.5	36.8	2.7	10.2		
Cycle Queue Clearance Time ( $g_c$ ), s				11.4		7.7	56.5	36.8	2.7	10.2		
Green Ratio ( $g/C$ )				0.10		0.10	0.63	0.63	0.81	0.83		
Capacity ( $c$ ), veh/h				175		156	1176	1142	420	2954		
Volume-to-Capacity Ratio ( $X$ )				0.825		0.569	0.653	0.659	0.350	0.342		
Back of Queue ( $Q$ ), ft/ln ( 90 th percentile)				217.3		138.7	492.9	479.6	150.7	115.7		
Back of Queue ( $Q$ ), veh/ln ( 90 th percentile)				8.6		5.5	19.4	19.2	5.8	4.6		
Queue Storage Ratio ( $RQ$ ) ( 90 th percentile)				1.24		0.46	0.00	0.00	0.94	0.00		
Uniform Delay ( $d_1$ ), s/veh				64.2		62.5	15.8	15.9	25.8	3.1		
Incremental Delay ( $d_2$ ), s/veh				9.4		3.2	2.5	2.7	0.4	0.3		
Initial Queue Delay ( $d_3$ ), s/veh				0.0		0.0	0.0	0.0	0.0	0.0		
Control Delay ( $d$ ), s/veh				73.6		65.8	18.4	18.6	26.2	3.4		
Level of Service (LOS)				E		E	B	B	C	A		
Approach Delay, s/veh / LOS	0.0			70.6		E	18.5	B	6.3	A		
Intersection Delay, s/veh / LOS				17.8					B			
Multimodal Results				EB		WB		NB		SB		
Pedestrian LOS Score / LOS	2.16	B		2.33	B		1.89	B	0.63	A		
Bicycle LOS Score / LOS					F		1.84	B	1.54	B		

HCS7 Two-Way Stop-Control Report																
General Information								Site Information								
Analyst	Diane Zimmerman							Intersection	Durrett Lane Entrance							
Agency/Co.	Diane B Zimmerman Traffic Engineering							Jurisdiction								
Date Performed	10/1/20							East/West Street	Durrett Lane							
Analysis Year	2021							North/South Street	Entrance							
Time Analyzed	AM Peak Build							Peak Hour Factor	0.94							
Intersection Orientation	East-West							Analysis Time Period (hrs)	0.25							
Project Description	1231 Durrett Lane															
Lanes																
<p style="text-align: center;">Major Street: East-West</p>																
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	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0		0	1	0	
Configuration		LT						TR						LR		
Volume (veh/h)		0	330				165	0						0		0
Percent Heavy Vehicles (%)		10												0		10
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized																
Median Type   Storage	Undivided															
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1											7.1			6.2
Critical Headway (sec)		4.20											6.40			6.30
Base Follow-Up Headway (sec)		2.2											3.5			3.3
Follow-Up Headway (sec)		2.21											3.51			3.31
Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)		0												0		
Capacity, c (veh/h)		1400														
v/c Ratio		0.00														
95% Queue Length, Q <sub>95</sub> (veh)		0.0														
Control Delay (s/veh)		7.6														
Level of Service (LOS)		A														
Approach Delay (s/veh)	0.0															
Approach LOS																

HCS7 Two-Way Stop-Control Report																		
General Information								Site Information										
Analyst	Diane Zimmerman							Intersection	Durrett Lane Entrance									
Agency/Co.	Diane B Zimmerman Traffic Engineering							Jurisdiction										
Date Performed	10/1/20							East/West Street	Durrett Lane									
Analysis Year	2021							North/South Street	Entrance									
Time Analyzed	PM Peak Build							Peak Hour Factor	0.95									
Intersection Orientation	East-West							Analysis Time Period (hrs)	0.25									
Project Description	1231 Durrett Lane																	
Lanes																		
<p style="text-align: center;">Major Street: East-West</p>																		
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	1U	1	2	3	4U	4	5	6			7	8	9			10	11	12
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0			0	1	0		
Configuration		LT						TR								LR		
Volume (veh/h)		61	220				221	0								0		0
Percent Heavy Vehicles (%)		10														0		10
Proportion Time Blocked																		
Percent Grade (%)																0		
Right Turn Channelized																		
Median Type   Storage					Undivided													
Critical and Follow-up Headways																		
Base Critical Headway (sec)		4.1													7.1			6.2
Critical Headway (sec)		4.20													6.40			6.30
Base Follow-Up Headway (sec)		2.2													3.5			3.3
Follow-Up Headway (sec)		2.21													3.51			3.31
Delay, Queue Length, and Level of Service																		
Flow Rate, v (veh/h)		64														0		
Capacity, c (veh/h)		1333																
v/c Ratio		0.05																
95% Queue Length, Q <sub>95</sub> (veh)		0.2																
Control Delay (s/veh)		7.8																
Level of Service (LOS)		A																
Approach Delay (s/veh)		2.0																
Approach LOS																		