TRAFFIC IMPACT STUDY FOR

SPOUT SPRINGS ROAD RESIDENTIAL DEVELOPMENT

DATE:
August 4, 2021

LOCATION:
Hall County, Georgia

PREPARED FOR:
Norton Commercial Real Estate

PREPARED BY:
NV5 Engineers and Consultants, Inc.
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Roswell, GA 30075
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NV5

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Executive Summary

A new residential development is proposed for construction along Spout Springs Road in Hall County, Georgia. The proposed development will consist of 100 rental units. The development will have one (1) new full-access driveway along Spout Springs Road. The development has a projected build out date of 2022.

When complete, the development is expected to generate a total of 716 new daily trips, 48 trips during the AM peak hour (11 entering and 37 exiting), and 59 during the PM peak hour (37 entering and 22 exiting).

Traffic operations at the study intersections are satisfactory in the Existing and No-Build conditions with the westbound approach of Union Circle operating at Levels of Service F during the PM peak hour. This is not uncommon for a side street approaching a high-volume roadway at an unsignalized intersection. Conditions are expected to worsen as evidenced in the No-Build scenario due to the anticipated growth in the study area.

The additional project trips from the residential development do not significantly affect the study network. With the added trips, the delays at the study intersections do increase slightly, however, the overall Levels of Service remain unchanged from the No-Build scenario.

The proposed site driveway along Spout Springs Road warrants a right-turn deceleration lane.

Based on the analysis prepared for the proposed development, improvements at the study intersections are not required to mitigate the impact of the proposed development.

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A. Introduction

A new residential development is proposed for construction along Spout Springs Road in Hall County, Georgia. The proposed development will consist of 100 rental units. The development will have one (1) new full-access driveway along Spout Springs Road.

The traffic analyses in this report are for a single phase of construction. The purpose of this report is to identify the traffic expected to be generated by new vehicular trips when the development is completed. This study includes analysis of the Existing, No-Build, Background, and Build conditions at the following intersections for the year 2022:

1. Spout Springs Road and Union Circle
2. Spout Springs Road and Williams Road
3. Spout Springs Road and SR 347 (Friendship Road)
4. Spout Springs Road and Site Driveway

The report summarizes the analysis of existing, background and projected traffic at the study locations, analysis of traffic impacts including Levels of Service (LOS) and conclusions and recommendations from the analysis.

Figure 1 depicts the study area (vicinity map) in Hall County. The study intersections listed above are depicted in Figure 2. A copy of the development concept plan is included in Appendix A.

Figure 1: Vicinity Map

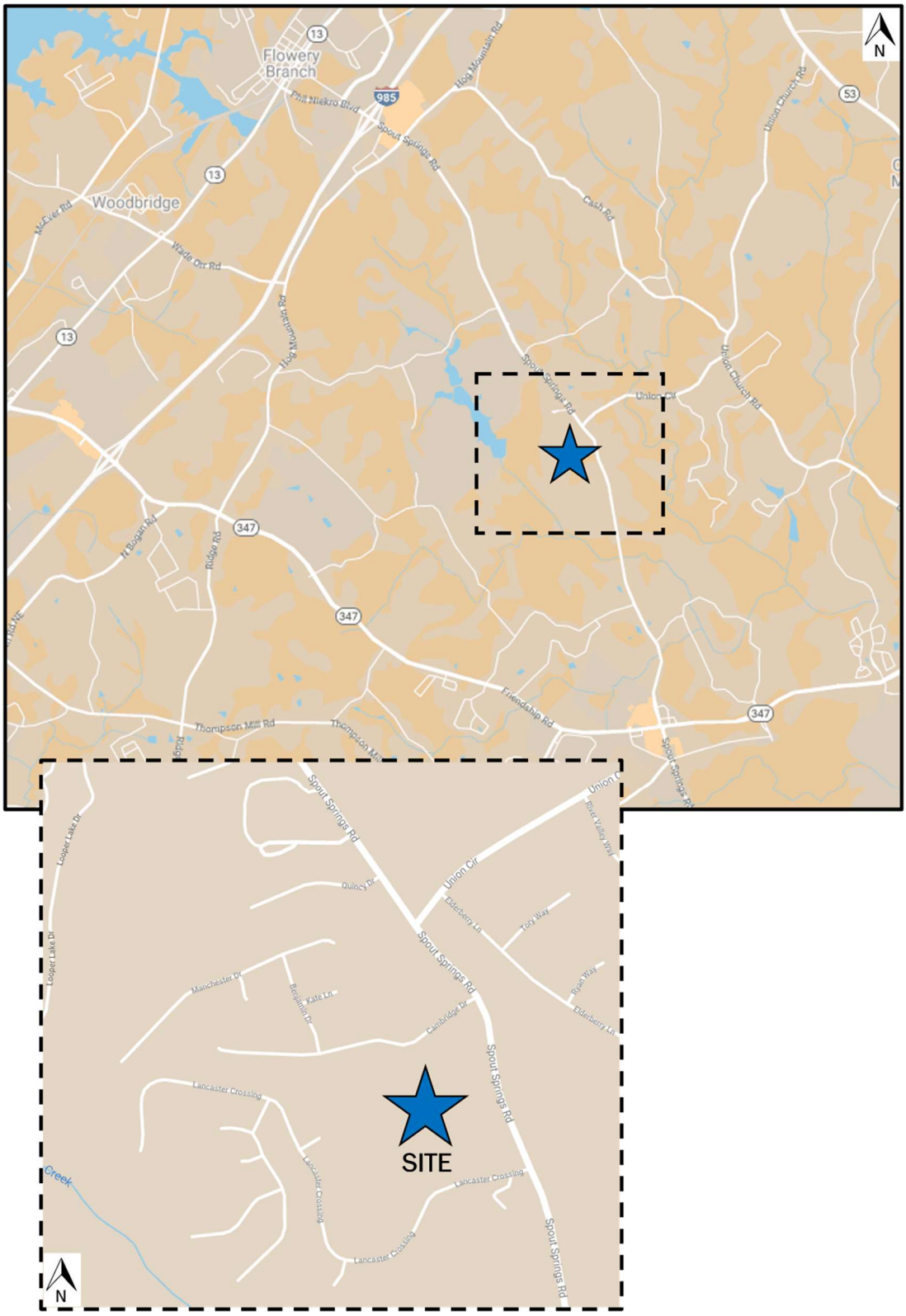
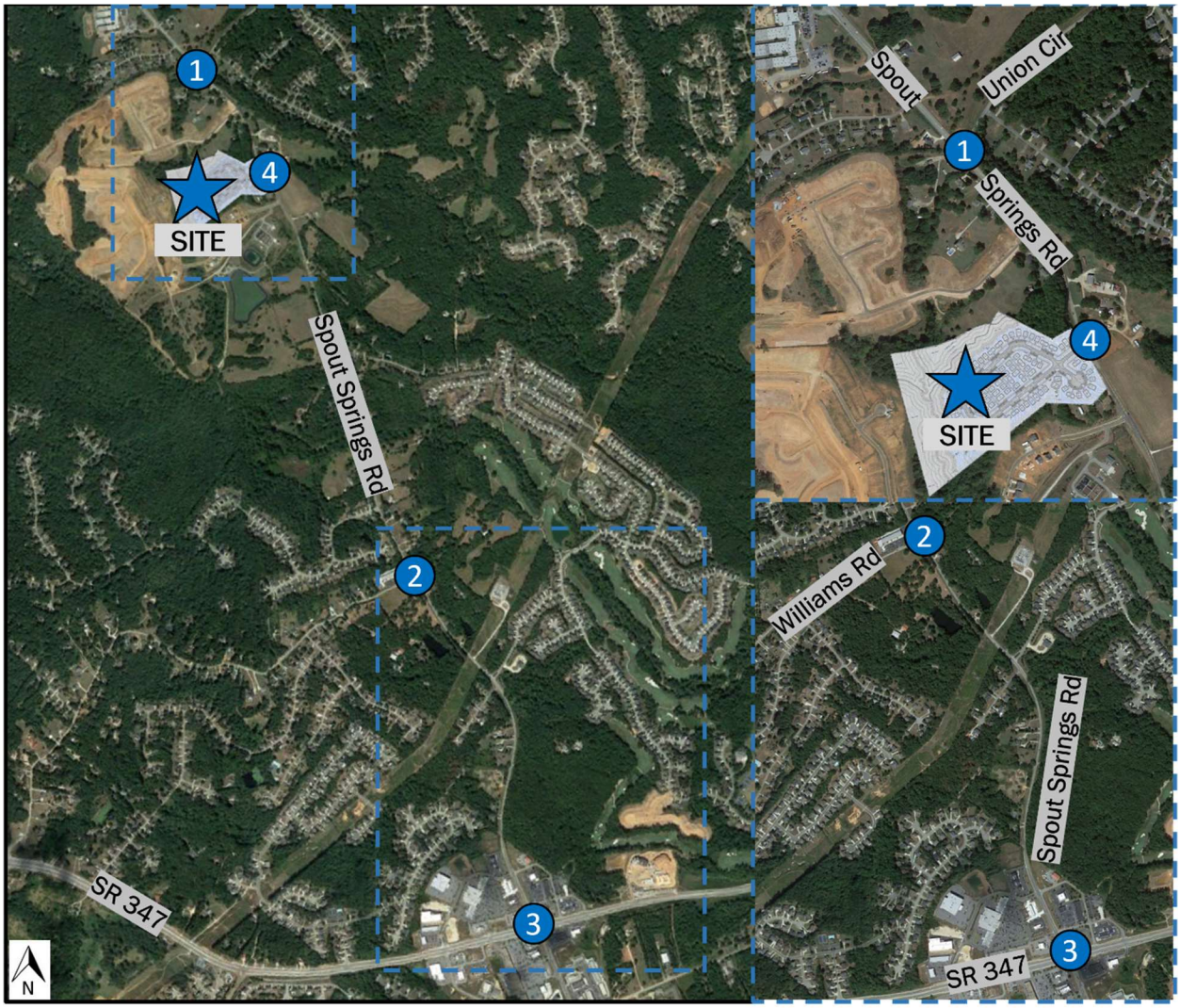


Figure 2: Site Location Aerial



1. Spout Springs Road and Union Circle
2. Spout Springs Road and Williams Road
3. Spout Springs Road and SR 347 (Friendship Road)
4. Spout Springs Road and Site Driveway

B. Existing Conditions

B.1. Transportation Facilities

Spout Springs Road is a two-lane undivided roadway with north/south orientation that provides access to I-985 approximately three miles north of its intersection with Union Circle. Spout Springs Road has a posted speed limit of 45 miles per hour and provides access to various residential and institutional uses along its length as well as commercial areas near I-985 and SR 347 (Friendship Road).

Union Circle is a two-lane undivided roadway with east/west orientation. Union Circle has a posted speed limit of 45 miles per hour and provides access to multiple residential developments along its length.

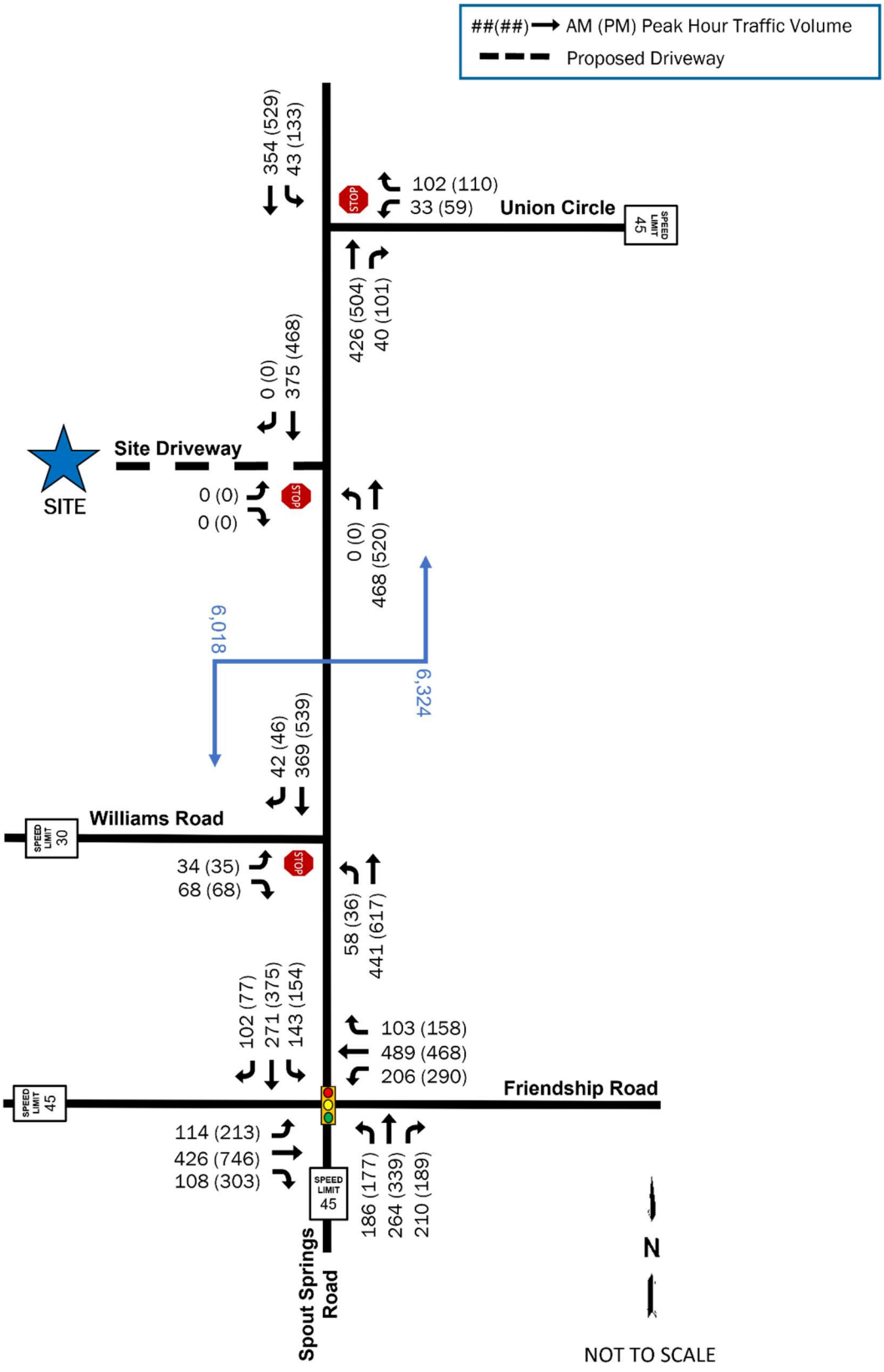
Williams Road is a two-lane undivided roadway with east/west orientation that provides an alternate cut-through to SR 347 (Friendship Road). Williams Road has a posted speed limit of 30 miles per hour and mostly provides access to residential developments with a small commercial development located at its intersection with Spout Springs Road.

SR 347 (Friendship Road) is a four-lane divided roadway with east/west orientation that serves as a main highway for the area. The road connects to I-985 to the west and SR 211 to the east. SR 347 (Friendship Road) has a posted speed limit of 45 miles per hour and provides access to multiple residential, commercial, and institutional uses along its length.

B.2. Traffic Counts

Weekday AM and PM peak period turning movement counts were collected at the intersections of: Spout Springs Road at Union Circle; Spout Springs Road at Williams Road; and Spout Springs Road at SR 347 (Friendship Road) on Tuesday, July 27, 2021. Average daily traffic counts were also taken on Spout Springs Road near the proposed site driveway. Counts were then compared between July 27, 2021, and May 11, 2021, at the intersection of Spout Springs Road at SR 347 (Friendship Road) using data from the Georgia Department of Transportation (GDOT) ATSPM website to develop an adjustment factor for schools being out of session. The AM adjustment factor was 1.11 and the PM adjustment factor was 1.07. The count and adjustment factor worksheets are included in Appendix B.

Figure 3: Existing Volumes (2021)



C. Future Conditions

C.1. Planned Transportation Improvement Projects

There are two GDOT projects that are actively under construction along Spout Springs Road The projects (P.I. # 0009679 & 0015280) propose a widening of Spout Springs Road from a two-lane undivided roadway to a four-lane divided roadway with a two-feet wide, raised median. Since the projects will not be completed until after the proposed development build-out year of 2022, the projects have not been included in this analysis.

C.2. Background Growth

The growth rate in the study area is based upon an analysis of historical traffic counts collected by the Georgia Department of Transportation (GDOT). The project is expected to be built-out in 2022. To account for ambient growth in the area, the existing traffic counts for this study were grown by 2% per year for one year. The growth rate considers historical GDOT traffic data collected along Spout Springs Road and Thompson Mill Road near the site. The expected volumes are depicted in Figure 4, 2022 No-Build Volumes. The growth rate development worksheet is included in Appendix B.

C.3. Project Trip Generation

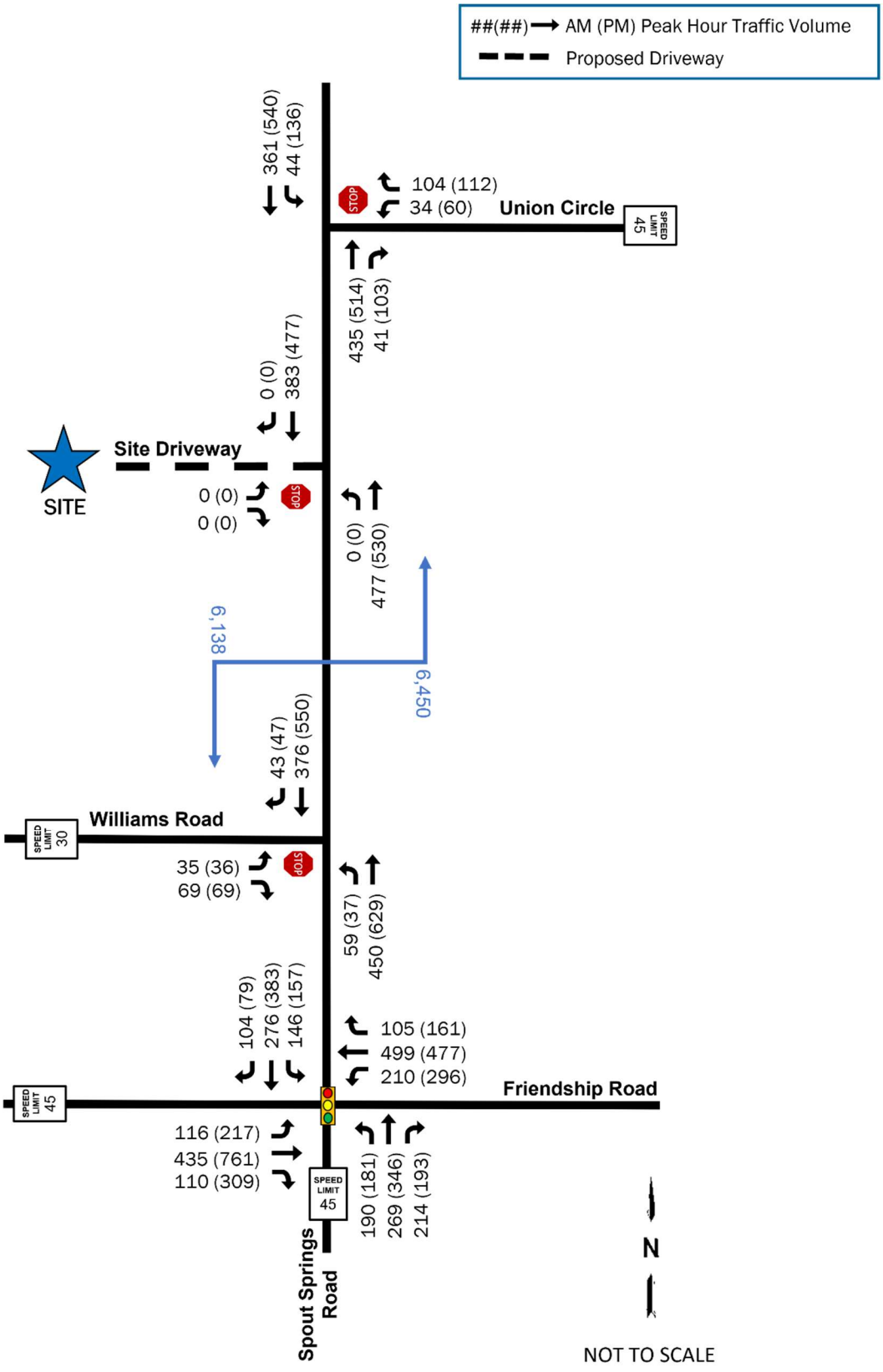
Table 1 summarizes the project trip generation calculated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition, 2017. The development consists of 100 rental units including: 64 single unit buildings and 18 duplexes.

Table 1: Trip Generation

LAND USE	PERIOD	TOTAL	IN	OUT
Multifamily Housing (Low-Rise), LUC 220 (100 Units)	Daily	716	358	358
	AM Peak Hour	48	11	37
	PM Peak Hour	59	37	22

The development will generate a total of 48 trips (11 entering and 37 exiting) during the AM peak hour, and a total of 59 trips (37 entering and 22 exiting) during the PM peak hour.

Figure 4: 2022 No-Build Traffic Volumes



C.4. Trip Distribution and Assignment

The assignment and directional distribution of new project trips was based on the traffic patterns evidenced in the overall study area. It is expected that approximately 50% will travel to/from the north along Spout Springs Road, approximately 5% will travel to/from the east along Union Circle, approximately 5% will travel to/from the west along Williams Road, approximately 10% will travel to/from the west along SR 347 (Friendship Road), approximately 10% will travel to/from the east along SR 347 (Friendship Road), and approximately 20% will travel to/from the south along Spout Springs Road. Figure 5 depicts the Trip Distributions. The project trips generated from the development utilizing the trip distribution and are depicted in Figure 6. The No-Build plus project trips (Build Volumes) are depicted in Figure 7.

Figure 5: Trip Distribution

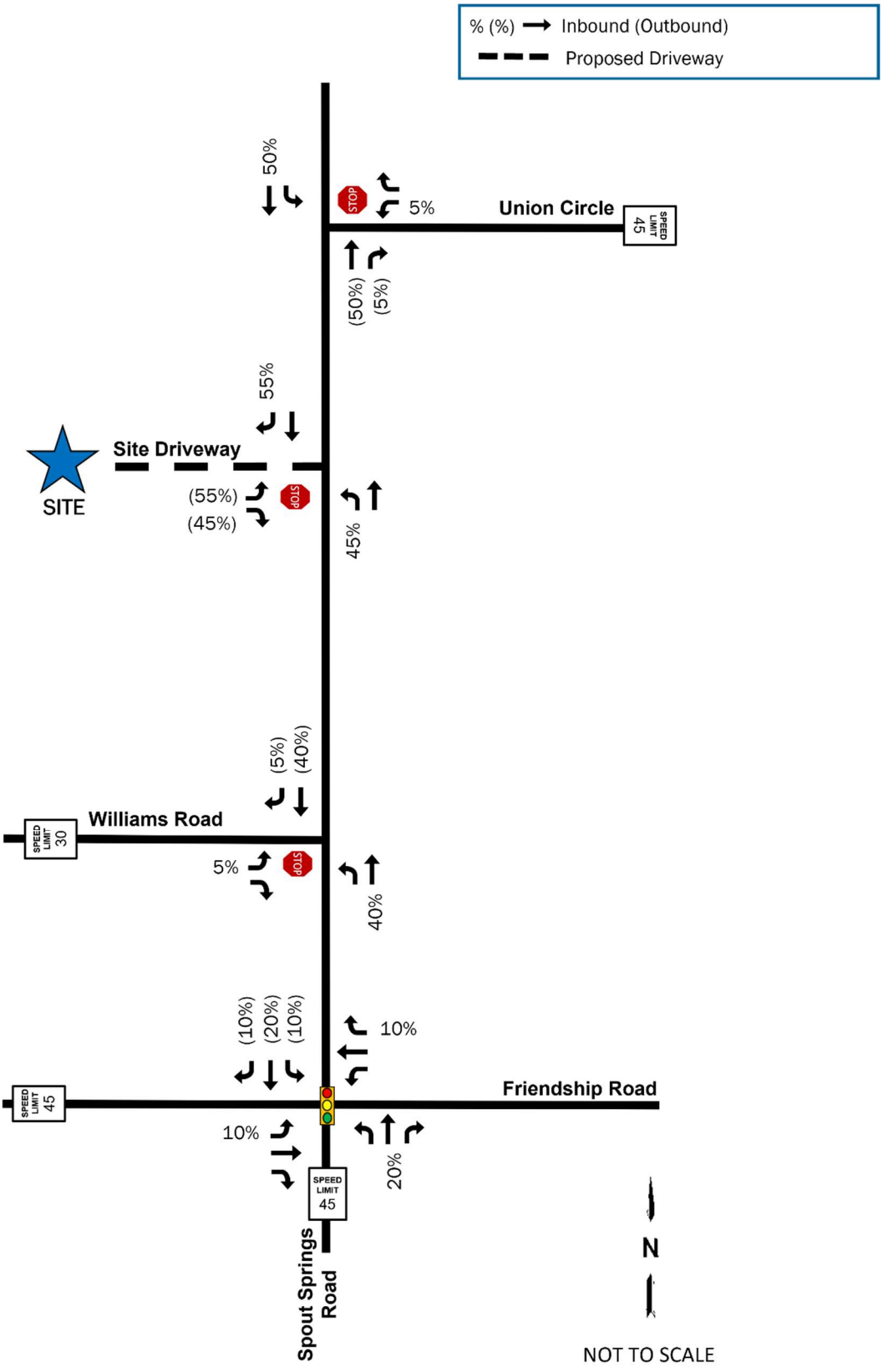


Figure 6: Project Development Trips

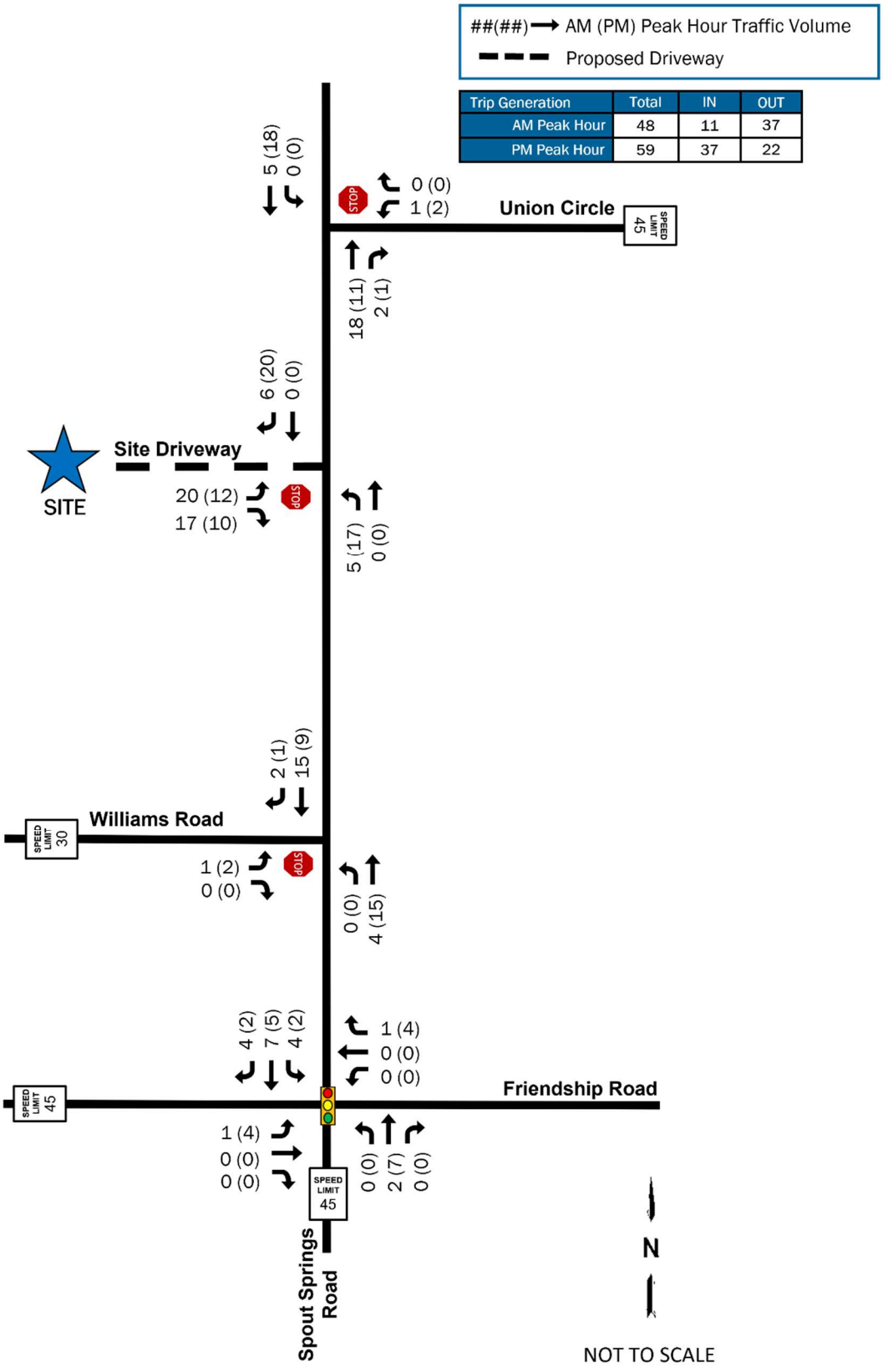
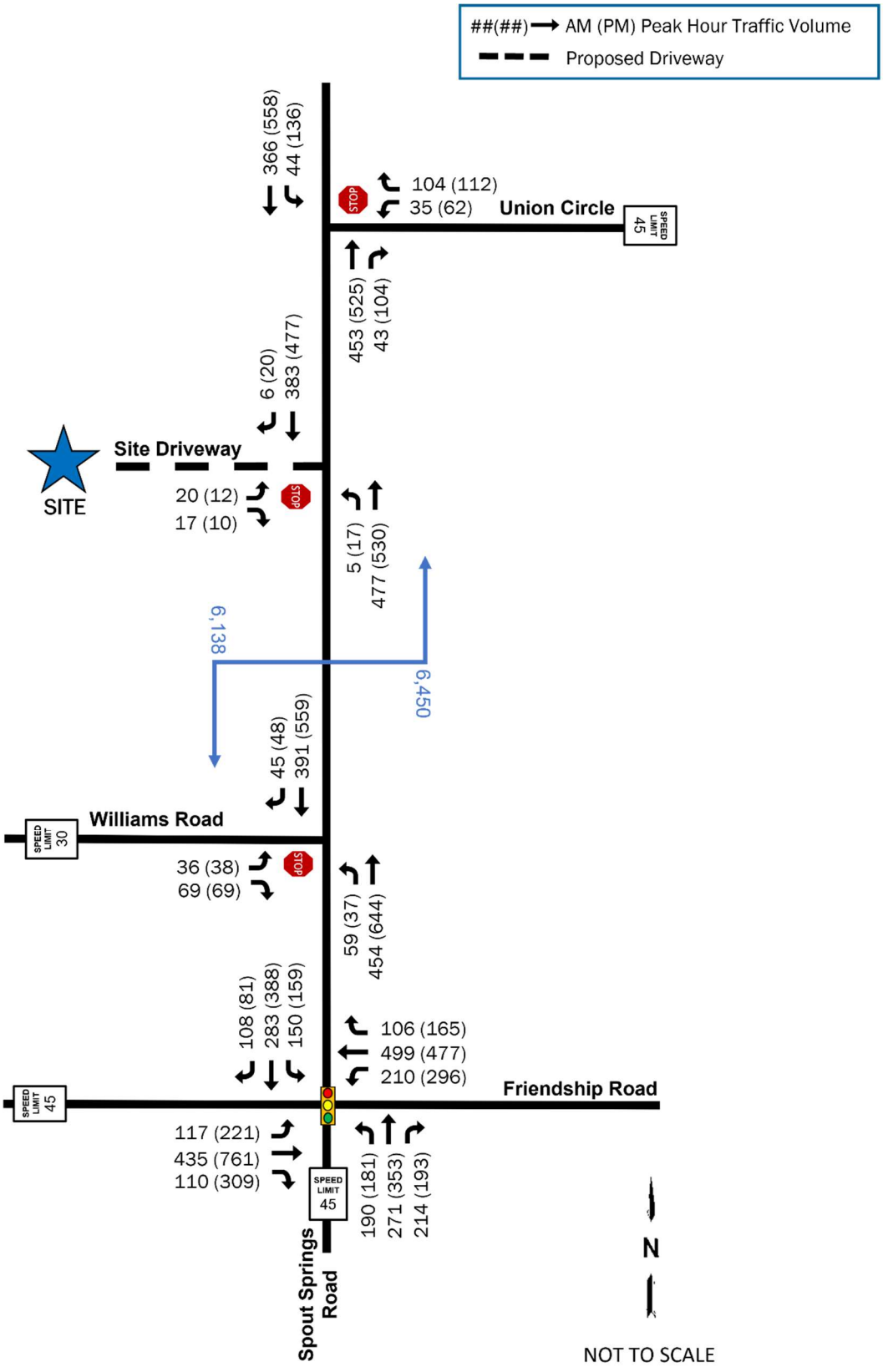


Figure 7: 2022 Build Traffic Volumes



D. Traffic Impact Analyses

The analysis in each of the scenarios for the study was performed using the traffic analysis software Synchro® 11. Average vehicular delays are calculated and reported as Levels of Service (LOS) as defined by the Highway Capacity Manual (HCM 6th Edition). HCM uses a grading system A through F, where A is the best (little to no delay), and F is the worst (very heavy delay). HCM level of service (LOS) standards and Synchro® output reports are included in Appendix C.

D.1. 2021 Existing Conditions Analysis

The results of the 2021 existing conditions capacity analysis are shown in Table 2 and include analysis of the volumes presented in Figure 3.

Table 2: 2021 Existing Conditions Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				Delay	LOS	Delay	LOS
1	Spout Springs Rd & Union Circle	Stop-Control	WB	16.8	C	63.6	F
			SBL	8.6	A	9.6	A
2	Spout Springs Rd & Williams Rd	Stop-Control	EB	17.0	C	23.9	C
			NBL	8.4	A	8.9	A
3	Spout Springs Rd & SR 347 (Friendship Rd)	Signal	EB	43.7	D	45.9	D
			WB	39.2	D	40.9	D
			NB	20.8	C	34.2	C
			SB	22.2	C	36.7	D
			Overall	**33.6**	**C**	**41.1**	**D**

As shown in Table 2, the overall operations at the study intersections are satisfactory in existing conditions during the AM and PM peak hours. The westbound approach of Union Circle operates at Levels of Service F during the PM peak hours, which is not uncommon for a side street approaching a high-volume roadway at an unsignalized intersection.

D.2. 2022 No-Build Conditions Capacity Analysis

The results of the 2022 No-Build conditions capacity analysis are shown in Table 3 for the operation of the study intersections with the volumes presented in Figure 4.

Table 3: 2022 No-Build Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				Delay	LOS	Delay	LOS
1	Spout Springs Rd & Union Circle	Stop-Control	WB	17.3	C	72.5	F
			SBL	8.6	A	9.7	A
2	Spout Springs Rd & Williams Rd	Stop-Control	EB	17.6	C	25.3	D
			NBL	8.4	A	8.9	A
3	Spout Springs Rd & SR 347 (Friendship Rd)	Signal	EB	43.9	D	46.6	D
			WB	39.3	D	42.0	D
			NB	21.3	C	35.4	D
			SB	22.8	C	38.1	D
			Overall	**33.9**	**D**	**42.1**	**D**

As shown in Table 3, under No-Build conditions the study intersections experience an increase in delay due to the applied growth rate. The overall Levels of Service (LOS) at the intersection of Spout Springs Road at SR 347 (Friendship Road) changes from LOS C to D during the AM peak hours. Similarly, the eastbound approach at the intersection of Spout Springs Road at Williams Road and the northbound approach at the intersection of Spout Springs Road at SR 347 (Friendship Road) change from LOS C to D during the PM peak hour.

D.3. 2022 Build Conditions Capacity Analysis

The results of the 2022 Build conditions intersection capacity analysis are shown in Table 4 for No-Build plus project volumes as presented in Figure 7.

Table 4: 2022 Build Capacity Analysis

ID	Intersection	Control	Movement	AM		PM	
				Delay	LOS	Delay	LOS
1	Spout Springs Rd & Union Circle	Stop-Control	WB	18.0	C	84.7	F
			SBL	8.7	A	9.7	A
2	Spout Springs Rd & Williams Rd	Stop-Control	EB	18.2	C	27.1	D
			NBL	8.5	A	9.0	A
3	Spout Springs Rd & SR 347 (Friendship Rd)	Signal	EB	44.0	D	46.7	D
			WB	39.5	D	42.2	D
			NB	21.4	C	35.8	D
			SB	22.9	C	38.3	D
			Overall	**34.0**	**D**	**42.3**	D
4	Spout Springs Rd & Site Driveway	Stop-Control	EB	15.5	C	18.1	C
			NBL	8.2	A	8.6	A

As shown in Table 4, the overall traffic from the additional project trips from the proposed residential development do not significantly affect the study network. With the added trips, the study intersections experience an increase in delay, however, the overall Levels of Service remain the same as in the No-Build conditions. The intersection of Spout Springs Road and the proposed site driveway is expected to operate adequately at LOS C or better for all movements during the AM and PM peak hours.

E. GDOT Turn Lane Evaluations

The need for turn lanes was evaluated for the proposed site driveway along Spout Springs Road using methodologies from the Georgia Department of Transportation (GDOT) Access Manual. The ADT data collected on Tuesday, July 27, 2021, along Spout Springs Road shows the average weekday traffic to be approximately 12,300 vehicles. The results of the evaluation are summarized in Table 5.

Table 5: GDOT Turn Lane Evaluations

ID	Intersection	Movement/ Turn Lane	Turn Volume	GDOT Volume Criteria	GDOT Criteria met?
4	Spout Springs Rd & Site Driveway	NBL	161 LT/Day	175 LT/Day	NO
		SBR	197 RT/Day	75 RT/Day	YES

Based on this analysis, the left-turn movement into the site driveway is not expected to exceed 175 vehicles per day for two-lane roadway with more than 6,000 daily vehicles and a speed limit of 45 miles per hour. However, the right-turn movement into the site driveway is expected to exceed 75 vehicles per day. From the evaluation, given the amount of expected traffic at the site driveway, a right-turn deceleration lane is warranted.

F. Conclusions

A new residential development is proposed for construction along Spout Springs Road in Hall County, Georgia. The proposed development will consist of 100 rental units. The development will have one (1) new full-access driveway along Spout Springs Road. The development has a projected build out date of 2022.

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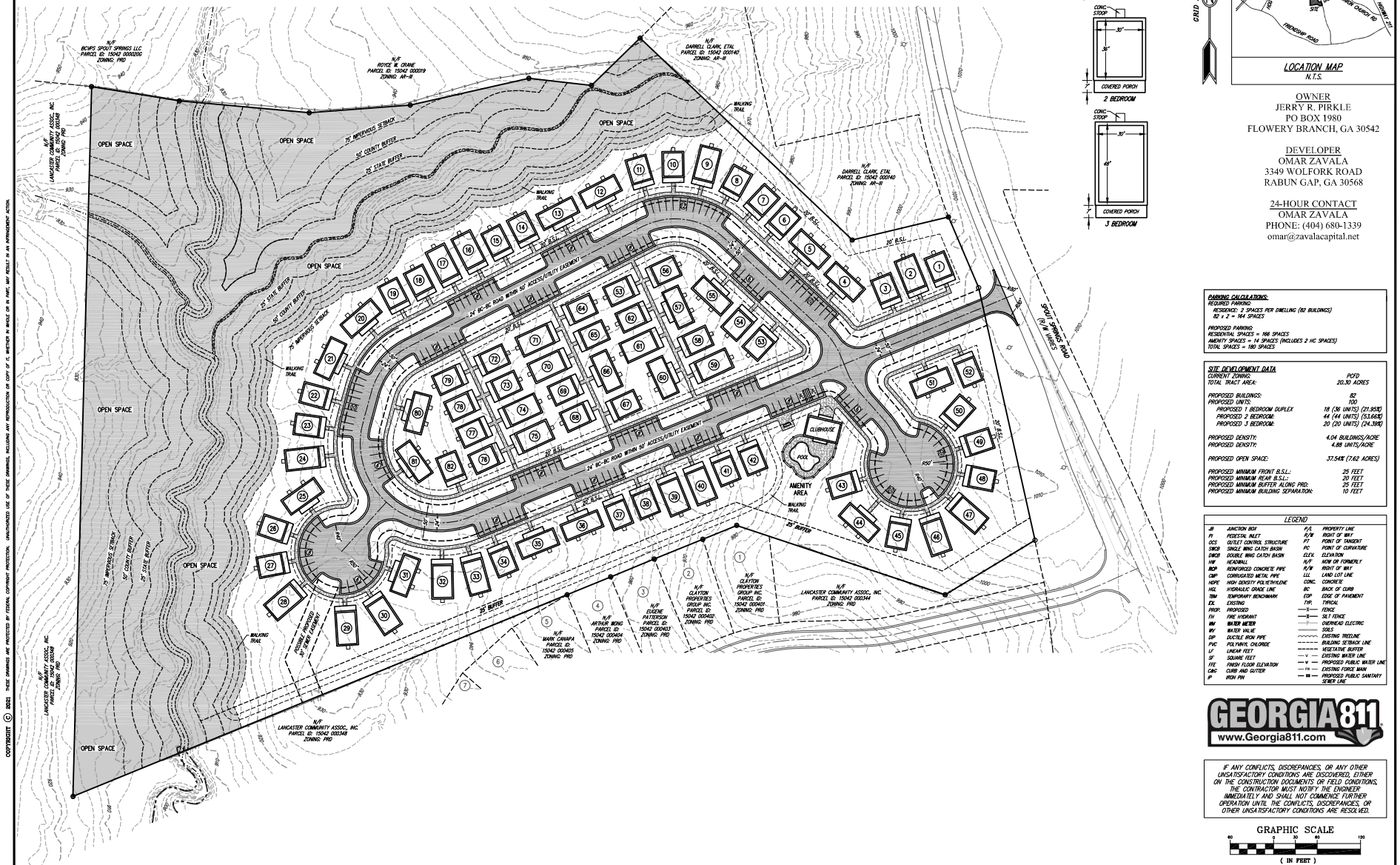
The proposed site driveway along Spout Springs Road warrants a right-turn deceleration lane.

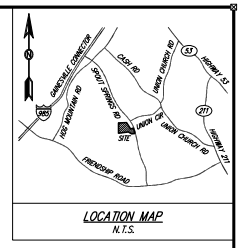
Based on the analysis prepared for the proposed development, improvements at the study intersections are not required to mitigate the impact of the proposed development.

APPENDIX A:

STIE PLAN



GRID NORTH



LOCATION MAP
N.T.S.

OWNER
JERRY R. PIRKLE
PO BOX 1980
FLOWERY BRANCH, GA 30542

DEVELOPER
OMAR ZAVALA
3349 WOLFORK ROAD
RABUN GAP, GA 30568

24-HOUR CONTACT
OMAR ZAVALA
PHONE: (404) 680-1339
omar@zavalacapital.net

PARKING CALCULATIONS:
REQUIRED PARKING:
RESIDENCE: 2 SPACES PER DWELLING (82 BUILDINGS)
82 x 2 = 164 SPACES

PROPOSED PARKING:
RESIDENTIAL SPACES = 166 SPACES
AMENITY SPACES = 14 SPACES (INCLUDES 2 HC SPACES)
TOTAL SPACES = 180 SPACES

SITE DEVELOPMENT DATA

CURRENT ZONING:	PCFD
TOTAL TRACT AREA:	20.30 ACRES
PROPOSED BUILDINGS:	82
PROPOSED UNITS:	100
PROPOSED 1 BEDROOM DUPLEX	18 (36 UNITS) (21.95%)
PROPOSED 2 BEDROOM:	44 (44 UNITS) (53.66%)
PROPOSED 3 BEDROOM:	20 (20 UNITS) (24.39%)
PROPOSED DENSITY:	4.04 BUILDINGS/ACRE
PROPOSED DENSITY:	4.88 UNITS/ACRE
PROPOSED OPEN SPACE:	37.54% (7.62 ACRES)
PROPOSED MINIMUM FRONT B.S.L.:	25 FEET
PROPOSED MINIMUM REAR B.S.L.:	20 FEET
PROPOSED MINIMUM BUFFER ALONG PRD:	25 FEET
PROPOSED MINIMUM BUILDING SEPARATION:	10 FEET

LEGEND

JB	JUNCTION BOX	P/L	PROPERTY LINE
FI	FIDUCIAL INLET	R/W	RIGHT OF WAY
OCS	OUTLET CONTROL STRUCTURE	PT	POINT OF TANGENT
SWCB	SINGLE WING CATCH BASIN	PC	POINT OF CURVATURE
DWCB	DOUBLE WING CATCH BASIN	ELEV.	ELEVATION
HW	HEADWALL	N/F	NOW OR FORMERLY
RCP	REINFORCED CONCRETE PIPE	R/W	RIGHT OF WAY
CMP	CORRUGATED METAL PIPE	LL	LAND LOT LINE
HDPE	HIGH DENSITY POLYETHYLENE	CONC.	CONCRETE
HGL	HYDRAULIC GRADE LINE	BC	BACK OF CURB
TBM	TEMPORARY BENCHMARK	EOP	EDGE OF PAVEMENT
EX.	EXISTING	TYP.	TYPICAL
PROP.	PROPOSED		FENCE
FH	FIRE HYDRANT		SILT FENCE
WM	WATER METER		OVERHEAD ELECTRIC
WV	WATER VALVE		GOLF
DIP	DUCTILE IRON PIPE		EXISTING TREELINE
PVC	POLYVINYL CHLORIDE		BUILDING SETBACK LINE
LF	LINEAR FEET		VEGETATIVE BUFFER
SF	SQUARE FEET	W	EXISTING WATER LINE
FFE	FINISH FLOOR ELEVATION	W	PROPOSED PUBLIC WATER LINE
C&G	CURB AND GUTTER	FM	EXISTING FORCE MAIN
IP	IRON PIN	SS	PROPOSED PUBLIC SANITARY SEWER LINE

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IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

DES DAVIS
ENGINEERING & SURVEYING
133 PROMINENCE COURT
SUITE 210
DAWSONVILLE, GA 30534
PHONE: (706) 265-1234
DAVISENGINEERS.COM

REVISION	DATE	DESCRIPTION
-	-	-

CONCEPT PLAN

SPOUT SPRINGS
G.M.D.: 1419
PARCEL ID: 14042 000018
HALL COUNTY, GEORGIA

DRAWN BY:	TJB
CHECKED BY:	JKD
LAND LOT:	G.M.D. 1419
DISTRICT:	-
SECTION:	-
CITY:	-
COUNTY:	HALL
DATE:	7/22/21

SHEET NO.
2 OF 18

PROJECT NO.
2020-202

APPENDIX B:

TRAFFIC COUNTS,

ADJUSTMENT FACTOR &

GROWTH RATE

DEVELOPMENT WORKSHEET

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122 E-mail: info@trafficdataservices.com

INTERSECTION VEHICLE CLASSIFICATION TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: HALL COUNTY INTERSECTION TRAFFIC STUDY
DATE: TUESDAY, JULY 27TH 2021
PERIOD: 7:00 AM TO 9:00 AM
INTERSECTION: N/S SPOUT SPRINGS ROAD
E/W UNION CIRCLE

	1 SBRT				2 SBTH				3 SBLT			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	0	0	0	0	42	1	0	43	4	0	0	4
715-730	0	0	0	0	53	0	1	54	9	0	0	9
730-745	0	0	0	0	66	0	1	67	3	0	0	3
745-800	0	0	0	0	72	3	2	77	10	0	0	10
800-815	0	0	0	0	58	3	0	61	8	0	1	9
815-830	0	0	0	0	86	2	0	88	11	0	3	14
830-845	0	0	0	0	88	2	5	95	6	0	0	6
845-900	0	0	0	0	83	5	5	93	10	0	0	10
HOUR TOTALS												
700-800	0	0	0	0	233	4	4	241	26	0	0	26
715-815	0	0	0	0	249	6	4	259	30	0	1	31
730-830	0	0	0	0	282	8	3	293	32	0	4	36
745-845	0	0	0	0	304	10	7	321	35	0	4	39
800-900	0	0	0	0	315	12	10	337	35	0	4	39

	4 WBRT				5 WBTH				6 WBLT			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	20	0	1	21	0	0	0	0	4	1	0	5
715-730	23	0	0	23	0	0	0	0	7	0	0	7
730-745	27	0	1	28	0	0	0	0	11	0	0	11
745-800	33	0	1	34	0	0	0	0	10	0	0	10
800-815	23	0	0	23	0	0	0	0	10	0	0	10
815-830	20	0	0	20	0	0	0	0	4	0	0	4
830-845	13	0	3	16	0	0	0	0	6	0	0	6
845-900	18	0	2	20	0	0	0	0	9	0	0	9
HOUR TOTALS												
700-800	103	0	3	106	0	0	0	0	32	1	0	33
715-815	106	0	2	108	0	0	0	0	38	0	0	38
730-830	103	0	2	105	0	0	0	0	35	0	0	35
745-845	89	0	4	93	0	0	0	0	30	0	0	30
800-900	74	0	5	79	0	0	0	0	29	0	0	29

PEAK HOUR
745-845
PEAK HOUR FACTOR
0.92

	7 NBRT				8 NBTH				9 NBLT			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	7	0	0	7	56	1	2	59	0	0	0	0
715-730	6	0	2	8	88	2	2	92	0	0	0	0
730-745	6	0	1	7	77	1	0	78	0	0	0	0
745-800	8	0	0	8	99	1	6	106	0	0	0	0
800-815	11	0	0	11	88	2	2	92	0	0	0	0
815-830	9	1	0	10	90	0	3	93	0	0	0	0
830-845	7	0	0	7	92	0	2	94	0	0	0	0
845-900	5	1	1	7	99	0	4	103	0	0	0	0
HOUR TOTALS												
700-800	27	0	3	30	320	5	10	335	0	0	0	0
715-815	31	0	3	34	352	6	10	368	0	0	0	0
730-830	34	1	1	36	354	4	11	369	0	0	0	0
745-845	35	1	0	36	369	3	13	385	0	0	0	0
800-900	32	2	1	35	369	2	11	382	0	0	0	0

	10 EBRT				11 EBTH				12 EBLT				TOTALS			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	0	0	0	0	0	0	0	0	0	0	0	0	133	3	3	139
715-730	0	0	0	0	0	0	0	0	0	0	0	0	186	2	5	193
730-745	0	0	0	0	0	0	0	0	0	0	0	0	190	1	3	194
745-800	0	0	0	0	0	0	0	0	0	0	0	0	232	4	9	245
800-815	0	0	0	0	0	0	0	0	0	0	0	0	198	5	3	206
815-830	0	0	0	0	0	0	0	0	0	0	0	0	220	3	6	229
830-845	0	0	0	0	0	0	0	0	0	0	0	0	212	2	10	224
845-900	0	0	0	0	0	0	0	0	0	0	0	0	224	6	12	242
HOUR TOTALS																
700-800	0	0	0	0	0	0	0	0	0	0	0	0	741	10	20	771
715-815	0	0	0	0	0	0	0	0	0	0	0	0	806	12	20	838
730-830	0	0	0	0	0	0	0	0	0	0	0	0	840	13	21	874
745-845	0	0	0	0	0	0	0	0	0	0	0	0	862	14	28	904
800-900	0	0	0	0	0	0	0	0	0	0	0	0	854	16	31	901

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122 E-mail: info@trafficdataservices.com

INTERSECTION VEHICLE CLASSIFICATION TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: HALL COUNTY INTERSECTION TRAFFIC STUDY
DATE: TUESDAY, JULY 27TH 2021
PERIOD: 7:00 AM TO 9:00 AM
INTERSECTION: N/S SPOUT SPRINGS ROAD
E/W WILLIAMS ROAD

	1 SBRT				2 SBTH				3 SBLT			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	7	1	0	8	64	1	0	65	0	0	0	0
715-730	9	0	0	9	77	1	0	78	0	0	0	0
730-745	10	0	0	10	96	0	0	96	0	0	0	0
745-800	11	0	0	11	95	1	0	96	0	0	0	0
800-815	6	0	0	6	70	1	1	72	0	0	0	0
815-830	10	0	0	10	85	1	1	87	0	0	0	0
830-845	11	0	0	11	79	0	1	80	0	0	0	0
845-900	11	0	0	11	95	4	1	100	0	0	0	0
HOUR TOTALS												
700-800	37	1	0	38	332	3	0	335	0	0	0	0
715-815	36	0	0	36	338	3	1	342	0	0	0	0
730-830	37	0	0	37	346	3	2	351	0	0	0	0
745-845	38	0	0	38	329	3	3	335	0	0	0	0
800-900	38	0	0	38	329	6	4	339	0	0	0	0

	4 WBRT				5 WBTH				6 WBLT			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	0	0	0	0	0	0	0	0	0	0	0	0
715-730	0	0	0	0	0	0	0	0	0	0	0	0
730-745	0	0	0	0	0	0	0	0	0	0	0	0
745-800	0	0	0	0	0	0	0	0	0	0	0	0
800-815	0	0	0	0	0	0	0	0	0	0	0	0
815-830	0	0	0	0	0	0	0	0	0	0	0	0
830-845	0	0	0	0	0	0	0	0	0	0	0	0
845-900	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS												
700-800	0	0	0	0	0	0	0	0	0	0	0	0
715-815	0	0	0	0	0	0	0	0	0	0	0	0
730-830	0	0	0	0	0	0	0	0	0	0	0	0
745-845	0	0	0	0	0	0	0	0	0	0	0	0
800-900	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR
745-845
PEAK HOUR FACTOR
0.92

	7 NBRT				8 NBTH				9 NBLT			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	0	0	0	0	65	0	0	65	1	0	0	1
715-730	0	0	0	0	77	1	1	79	4	0	0	4
730-745	0	0	0	0	100	3	3	106	3	0	0	3
745-800	0	0	0	0	113	2	2	117	8	0	0	8
800-815	0	0	0	0	90	1	1	92	6	0	0	6
815-830	0	0	0	0	97	1	1	99	15	0	0	15
830-845	0	0	0	0	91	0	0	91	23	0	0	23
845-900	0	0	0	0	76	1	1	78	20	0	0	20
HOUR TOTALS												
700-800	0	0	0	0	355	6	6	367	16	0	0	16
715-815	0	0	0	0	380	7	7	394	21	0	0	21
730-830	0	0	0	0	400	7	7	414	32	0	0	32
745-845	0	0	0	0	391	4	4	399	52	0	0	52
800-900	0	0	0	0	354	3	3	360	64	0	0	64

	10 EBRT				11 EBTH				12 EBLT				TOTALS			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	2	0	0	2	0	0	0	0	5	0	0	5	144	2	0	146
715-730	2	0	0	2	0	0	0	0	5	0	0	5	174	2	1	177
730-745	3	0	0	3	0	0	0	0	9	0	0	9	221	3	3	227
745-800	7	0	0	7	0	0	0	0	9	0	0	9	243	3	2	248
800-815	9	0	0	9	0	0	0	0	5	0	0	5	186	2	2	190
815-830	15	0	0	15	0	0	0	0	3	0	0	3	225	2	2	229
830-845	30	0	0	30	0	0	0	0	14	0	0	14	248	0	1	249
845-900	22	0	0	22	0	0	0	0	9	0	0	9	233	5	2	240
HOUR TOTALS																
700-800	14	0	0	14	0	0	0	0	28	0	0	28	782	10	6	798
715-815	21	0	0	21	0	0	0	0	28	0	0	28	824	10	8	842
730-830	34	0	0	34	0	0	0	0	26	0	0	26	875	10	9	894
745-845	61	0	0	61	0	0	0	0	31	0	0	31	902	7	7	916
800-900	76	0	0	76	0	0	0	0	31	0	0	31	892	9	7	908

TRAFFIC DATA SERVICES Phone: (678) 687-8266 Fax: (404) 294-6122 E-mail: info@trafficdataservices.com

INTERSECTION VEHICLE CLASSIFICATION TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: HALL COUNTY INTERSECTION TRAFFIC STUDY
DATE: TUESDAY, JULY 27TH 2021
PERIOD: 7:00 AM TO 9:00 AM
INTERSECTION: N/S SPOUT SPRINGS ROAD
E/W FRIENDSHIP ROAD

	1 SBRT				2 SBTH				3 SBLT				4 WBRT				5 WBTH				6 WBLT			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	25	0	1	26	49	1	1	51	9	0	0	9	10	1	0	11	87	0	7	94	25	0	0	25
715-730	19	1	0	20	47	0	0	47	19	0	0	19	17	0	1	18	112	0	1	113	41	0	0	41
730-745	20	0	0	20	67	2	0	69	36	0	0	36	22	2	1	25	112	2	0	114	55	1	0	56
745-800	32	0	0	32	58	1	0	59	31	0	1	32	33	0	0	33	105	2	3	110	57	0	0	57
800-815	22	0	0	22	47	2	0	49	23	1	1	25	13	0	0	13	102	0	7	109	34	0	0	34
815-830	19	0	0	19	69	0	0	69	35	2	0	37	23	0	0	23	104	2	4	110	39	0	0	39
830-845	21	0	1	22	56	0	1	57	28	0	1	29	25	0	1	26	97	2	6	105	47	0	0	47
845-900	13	0	1	14	77	3	1	81	22	1	1	24	25	0	0	25	80	2	2	84	36	1	0	37
HOUR TOTALS																								
700-800	96	1	1	98	221	4	1	226	95	0	1	96	82	3	2	87	416	4	11	431	178	1	0	179
715-815	93	1	0	94	219	5	0	224	109	1	2	112	85	2	2	89	431	4	11	446	187	1	0	188
730-830	93	0	0	93	241	5	0	246	125	3	2	130	91	2	1	94	423	6	14	443	185	1	0	186
745-845	94	0	1	95	230	3	1	234	117	3	3	123	94	0	1	95	408	6	20	434	177	0	0	177
800-900	75	0	2	77	249	5	2	256	108	4	3	115	86	0	1	87	383	6	19	408	156	1	0	157

PEAK HOUR
730-830
PEAK HOUR FACTOR
0.93

	7 NBRT				8 NBTH				9 NBLT				10 EBRT				11 EBTH				12 EBLT				TOTALS			
15-MIN COUNTS	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL	CARS	SINGLE UNIT TRUCK & BUSES	HEAVY DUTY TRUCK	TOTAL
700-715	22	2	0	24	51	2	1	54	50	0	0	50	9	0	0	9	47	2	3	52	8	0	0	8	392	8	13	413
715-730	25	0	0	25	45	1	2	48	45	1	0	46	20	0	1	21	66	3	1	70	23	1	0	24	479	7	6	492
730-745	46	0	1	47	66	0	1	67	52	0	0	52	28	0	1	29	71	3	3	77	19	0	1	20	594	10	8	612
745-800	50	3	0	53	65	1	1	67	42	2	0	44	24	0	1	25	93	3	7	103	27	0	0	27	617	12	13	642
800-815	50	0	0	50	50	1	0	51	35	3	0	38	15	0	0	15	104	0	2	106	28	0	0	28	523	7	10	540
815-830	40	1	0	41	52	1	1	54	34	0	0	34	27	1	0	28	89	3	8	100	28	0	0	28	559	10	13	582
830-845	36	0	0	36	57	1	0	58	52	2	0	54	24	2	0	26	94	1	5	100	24	0	0	24	561	8	15	584
845-900	38	0	1	39	51	0	0	51	39	0	0	39	25	1	0	26	92	4	5	101	35	2	2	39	533	14	13	560
HOUR TOTALS																												
700-800	143	5	1	149	227	4	5	236	189	3	0	192	81	0	3	84	277	11	14	302	77	1	1	79	2082	37	40	2159
715-815	171	3	1	175	226	3	4	233	174	6	0	180	87	0	3	90	334	9	13	356	97	1	1	99	2213	36	37	2286
730-830	186	4	1	191	233	3	3	239	163	5	0	168	94	1	2	97	357	9	20	386	102	0	1	103	2293	39	44	2376
745-845	176	4	0	180	224	4	2	230	163	7	0	170	90	3	1	94	380	7	22	409	107	0	0	107	2260	37	51	2348
800-900	164	1	1	166	210	3	1	214	160	5	0	165	91	4	0	95	379	8	20	407	115	2	2	119	2176	39	51	2266

Data File: 'LOC #1.rdf'
Site Code: '#1'
Start Date: 7/27/2021
Start Time: 12:00:00 AM
Sensor Layout: '51'
Sensor Spacing: '10.0'
'Spout Springs Rd Just north of '
'Langcaster Crossing'

Date	Time	Total	NB	SB
7/27/2021	12:00 AM	15	7	8
7/27/2021	12:15 AM	14	6	8
7/27/2021	12:30 AM	6	4	2
7/27/2021	12:45 AM	7	4	3
7/27/2021	1:00 AM	14	8	6
7/27/2021	1:15 AM	10	5	5
7/27/2021	1:30 AM	10	4	6
7/27/2021	1:45 AM	9	3	6
7/27/2021	2:00 AM	8	6	2
7/27/2021	2:15 AM	12	6	6
7/27/2021	2:30 AM	9	5	4
7/27/2021	2:45 AM	12	3	9
7/27/2021	3:00 AM	3	2	1
7/27/2021	3:15 AM	2	1	1
7/27/2021	3:30 AM	8	6	2
7/27/2021	3:45 AM	13	8	5
7/27/2021	4:00 AM	17	9	8
7/27/2021	4:15 AM	13	9	4
7/27/2021	4:30 AM	13	10	3
7/27/2021	4:45 AM	20	6	14
7/27/2021	5:00 AM	16	7	9
7/27/2021	5:15 AM	42	16	26
7/27/2021	5:30 AM	44	21	23
7/27/2021	5:45 AM	35	18	17
7/27/2021	6:00 AM	63	29	34
7/27/2021	6:15 AM	83	42	41
7/27/2021	6:30 AM	94	48	46
7/27/2021	6:45 AM	109	57	52
7/27/2021	7:00 AM	117	59	58
7/27/2021	7:15 AM	144	81	63
7/27/2021	7:30 AM	202	118	84
7/27/2021	7:45 AM	205	109	96
7/27/2021	8:00 AM	163	95	68
7/27/2021	8:15 AM	191	100	91
7/27/2021	8:30 AM	178	99	79
7/27/2021	8:45 AM	190	80	110

7/27/2021	9:00 AM	164	86	78
7/27/2021	9:15 AM	119	63	56
7/27/2021	9:30 AM	177	101	76
7/27/2021	9:45 AM	141	73	68
7/27/2021	10:00 AM	156	89	67
7/27/2021	10:15 AM	170	98	72
7/27/2021	10:30 AM	161	75	86
7/27/2021	10:45 AM	163	87	76
7/27/2021	11:00 AM	162	81	81
7/27/2021	11:15 AM	184	91	93
7/27/2021	11:30 AM	180	79	101
7/27/2021	11:45 AM	202	101	101
7/27/2021	12:00 PM	195	105	90
7/27/2021	12:15 PM	197	104	93
7/27/2021	12:30 PM	191	94	97
7/27/2021	12:45 PM	221	112	109
7/27/2021	1:00 PM	204	95	109
7/27/2021	1:15 PM	183	96	87
7/27/2021	1:30 PM	174	97	77
7/27/2021	1:45 PM	201	109	92
7/27/2021	2:00 PM	176	99	77
7/27/2021	2:15 PM	171	97	74
7/27/2021	2:30 PM	188	95	93
7/27/2021	2:45 PM	202	85	117
7/27/2021	3:00 PM	185	99	86
7/27/2021	3:15 PM	173	82	91
7/27/2021	3:30 PM	230	120	110
7/27/2021	3:45 PM	209	102	107
7/27/2021	4:00 PM	208	113	95
7/27/2021	4:15 PM	221	120	101
7/27/2021	4:30 PM	222	104	118
7/27/2021	4:45 PM	215	112	103
7/27/2021	5:00 PM	236	121	115
7/27/2021	5:15 PM	220	104	116
7/27/2021	5:30 PM	228	119	109
7/27/2021	5:45 PM	241	143	98
7/27/2021	6:00 PM	249	121	128
7/27/2021	6:15 PM	230	103	127
7/27/2021	6:30 PM	221	117	104
7/27/2021	6:45 PM	182	77	105
7/27/2021	7:00 PM	135	67	68
7/27/2021	7:15 PM	144	71	73
7/27/2021	7:30 PM	144	81	63
7/27/2021	7:45 PM	141	72	69
7/27/2021	8:00 PM	134	56	78
7/27/2021	8:15 PM	108	53	55
7/27/2021	8:30 PM	99	58	41

7/27/2021	8:45 PM	101	45	56
7/27/2021	9:00 PM	85	44	41
7/27/2021	9:15 PM	87	31	56
7/27/2021	9:30 PM	74	32	42
7/27/2021	9:45 PM	49	26	23
7/27/2021	10:00 PM	52	31	21
7/27/2021	10:15 PM	44	23	21
7/27/2021	10:30 PM	44	22	22
7/27/2021	10:45 PM	29	20	9
7/27/2021	11:00 PM	23	15	8
7/27/2021	11:15 PM	24	10	14
7/27/2021	11:30 PM	25	11	14
7/27/2021	11:45 PM	14	9	5

May 11, 2021	Vehicle												
	Eastbound			Westbound			Northbound			Southbound			
	L	T	Total	L	T	Total	L	T	Total	L	T	Total	Vehicle Total
12:00 AM	3	29	32	6	27	33	7	15	22	8	14	22	109
1:00 AM	3	11	14	7	30	37	4	8	12	4	9	13	76
2:00 AM	2	15	17	5	21	26	7	7	14	3	7	10	67
3:00 AM	4	24	28	6	30	36	7	8	15	5	9	14	93
4:00 AM	0	23	23	10	51	61	8	23	31	10	17	27	142
5:00 AM	10	96	106	30	206	236	27	41	68	23	60	83	493
6:00 AM	30	230	260	87	486	573	86	102	188	55	117	172	1193
7:00 AM	75	448	523	131	735	866	121	171	292	115	174	289	1970
8:00 AM	85	471	556	133	731	864	93	184	277	107	220	327	2024
9:00 AM	89	441	530	127	650	777	101	183	284	100	205	305	1896
10:00 AM	89	456	545	134	612	746	106	164	270	89	178	267	1828
11:00 AM	91	452	543	150	636	786	94	168	262	103	204	307	1898
12:00 PM	115	545	660	140	677	817	89	177	266	123	244	367	2110
1:00 PM	101	556	657	115	625	740	99	195	294	105	225	330	2021
2:00 PM	109	544	653	131	710	841	94	180	274	117	226	343	2111
3:00 PM	133	629	762	136	650	786	86	181	267	100	245	345	2160
4:00 PM	91	944	1035	87	630	717	102	215	317	114	286	400	2469
5:00 PM	110	1057	1167	74	731	805	92	265	357	107	255	362	2691
6:00 PM	117	760	877	94	603	697	93	236	329	140	294	434	2337

7:00 PM	118	414	532	123	461	584	83	162	245	95	246	341	1702
8:00 PM	74	322	396	95	347	442	70	127	197	75	168	243	1278
9:00 PM	67	226	293	73	220	293	55	98	153	68	134	202	941
10:00 PM	46	114	160	44	140	184	28	56	84	32	72	104	532
11:00 PM	16	54	70	23	62	85	14	24	38	20	38	58	251
Total	1578	8861	10439	1961	10071	12032	1566	2990	4556	1718	3647	5365	32392

July 27, 2021 -	Vehicle												
	Eastbound			Westbound			Northbound			Southbound			
	L	T	Total	L	T	Total	L	T	Total	L	T	Total	Vehicle Total
12:00 AM	3	29	32	6	27	33	7	15	22	8	14	22	109
1:00 AM	3	11	14	7	30	37	4	8	12	4	9	13	76
2:00 AM	2	15	17	5	21	26	7	7	14	3	7	10	67
3:00 AM	4	24	28	6	30	36	7	8	15	5	9	14	93
4:00 AM	0	23	23	10	51	61	8	23	31	10	17	27	142
5:00 AM	10	96	106	30	206	236	27	41	68	23	60	83	493
6:00 AM	30	230	260	87	486	573	86	102	188	55	117	172	1193
7:00 AM	75	448	523	131	735	866	121	171	292	115	174	289	1970
8:00 AM	85	471	556	133	731	864	93	184	277	107	220	327	2024
9:00 AM	89	441	530	127	650	777	101	183	284	100	205	305	1896
10:00 AM	89	456	545	134	612	746	106	164	270	89	178	267	1828
11:00 AM	91	452	543	150	636	786	94	168	262	103	204	307	1898
12:00 PM	115	545	660	140	677	817	89	177	266	123	244	367	2110
1:00 PM	101	556	657	115	625	740	99	195	294	105	225	330	2021
2:00 PM	109	544	653	131	710	841	94	180	274	117	226	343	2111
3:00 PM	133	629	762	136	650	786	86	181	267	100	245	345	2160
4:00 PM	91	944	1035	87	630	717	102	215	317	114	286	400	2469
5:00 PM	110	1057	1167	74	731	805	92	265	357	107	255	362	2691
6:00 PM	117	760	877	94	603	697	93	236	329	140	294	434	2337

7:00 PM	118	414	532	123	461	584	83	162	245	95	246	341	1702
8:00 PM	74	322	396	95	347	442	70	127	197	75	168	243	1278
9:00 PM	67	226	293	73	220	293	55	98	153	68	134	202	941
10:00 PM	46	114	160	44	140	184	28	56	84	32	72	104	532
11:00 PM	16	54	70	23	62	85	14	24	38	20	38	58	251
Total	1578	8861	10439	1961	10071	12032	1566	2990	4556	1718	3647	5365	32392

School Adjustment Factor Worksheet

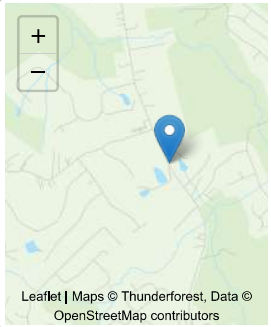
GDOT ATSPM Data (May 11, 2021)						
Friendship Rd & Spout Springs Rd						
	Eastbound	Westbound	Northbound	Southbound	Total	
7:00 AM	523	866	292	289	1970	3994
8:00 AM	556	864	277	327	2024	
4:00 PM	1035	717	317	400	2469	5160
5:00 PM	1167	805	357	362	2691	

GDOT ATSPM Data (July 27, 2021)						
Friendship Rd & Spout Springs Rd						
	Eastbound	Westbound	Northbound	Southbound	Total	
7:00 AM	443	782	298	238	1761	3609
8:00 AM	570	730	279	269	1848	
4:00 PM	896	712	354	379	2341	4828
5:00 PM	952	794	360	381	2487	

Adjustment Factor	
AM	1.11
PM	1.07

0000139_0437 - 139-0437
County: Hall
Route number: 00128700
LRS section: 1392128700
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 34.1213073847158, -83.876837841541

Site Data

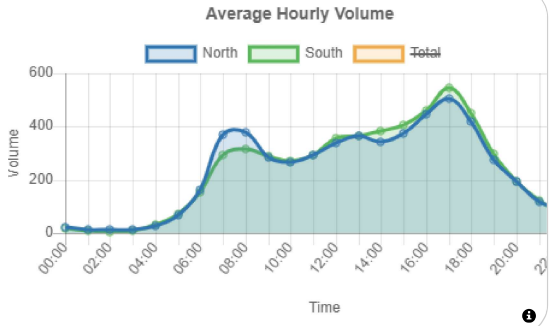


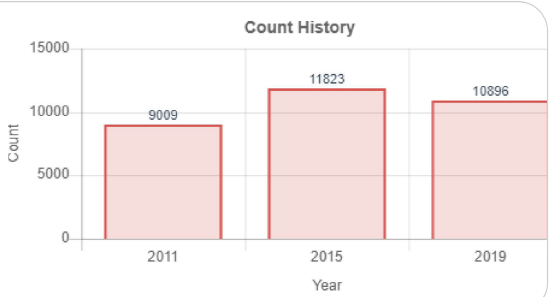
Count History

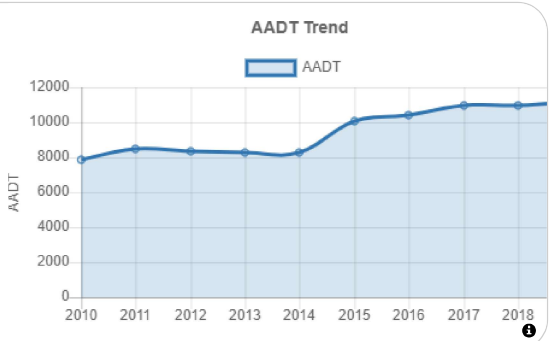
Year	Month	Count type	Duration	Count
2019	January	Class	48 hours	10896
2015	June	Volume	48 hours	11823
2011	September	Class	48 hours	9009

Annual Statistics

Data Item	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Statistics type	-	-	-	-	-	Actual	Estimated	Estimated	Estimated	**Actual**
AADT	7890	8450	8320	8270	8270	10100	10400	11000	11000	**11200**
K-Factor	-	-	-	-	-	0.108	0.108	-	-	**0.109**
D-Factor	-	-	-	-	-	0.500	0.500	-	-	**0.530**
Future AADT	-	-	-	-	-	-	18200	19600	18700	**19700**







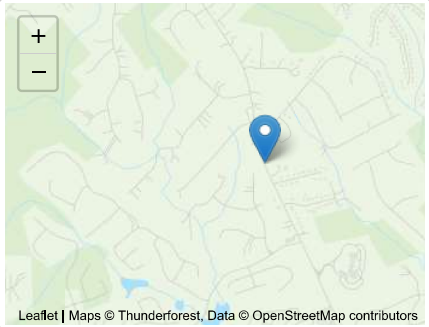
FHWA Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	**0.08%**
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	**77.69%**
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	**18.92%**
4. Buses 2- or 3-axle, full length.	**0.22%**
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	**2.37%**
6. Single-unit trucks 3-axle, single-unit trucks.	**0.20%**
7. Single-unit trucks 4 or more axle, single-unit trucks.	**0.01%**
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.	**0.33%**
9. Single-trailer trucks 5-axle, single-trailer trucks.	**0.17%**
10. Single-trailer trucks 6 or more axle, single-trailer trucks.	**0.00%**
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.	**0%**
12. Multi-trailer trucks 6-axle, multi-trailer trucks.	**0%**
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.	**0.01%**

0000139_0441 - 139-0441

Description: CR 3501/Spout Springs Rd bn Capitola Farm Rd/Hog Mtn Rd
City: Flowery Branch **County:** Hall
Route number: 00350100
LRS section: 1392350100
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 34.16180036, -83.89925967

Site Data

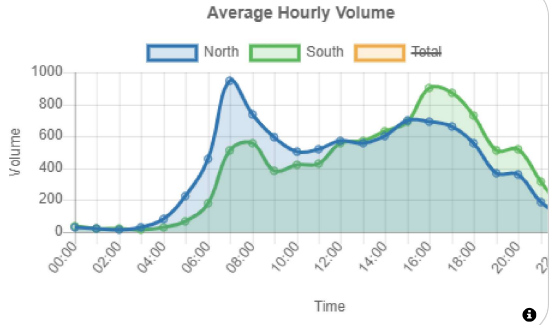


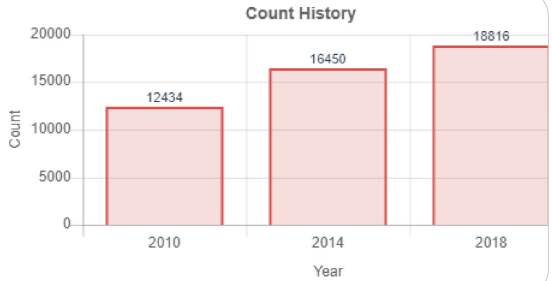
Count History

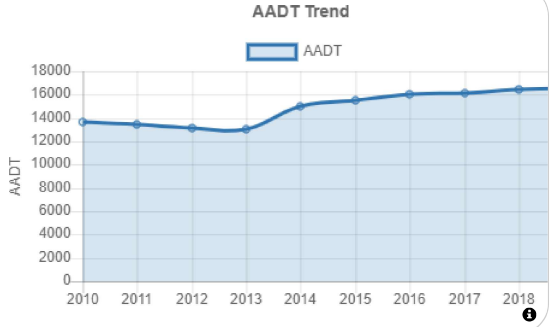
Year	Month	Count type	Duration	Count
2018	May	Volume	48 hours	18816
2014	May	Volume	48 hours	16450
2010	January	Class	48 hours	12434

Annual Statistics

Data Item	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Statistics type	-	-	-	-	-	Estimated	Estimated	Estimated	Actual	**Estimated**
AADT	13700	13400	13100	13000	15000	15500	16000	16100	16400	**16600**
K-Factor	-	-	-	-	0.098	0.098	0.098	-	0.095	**0.095**
D-Factor	-	-	-	-	0.500	0.500	0.500	-	0.580	**0.580**
Future AADT	-	-	-	-	-	-	25000	26800	26600	**25500**

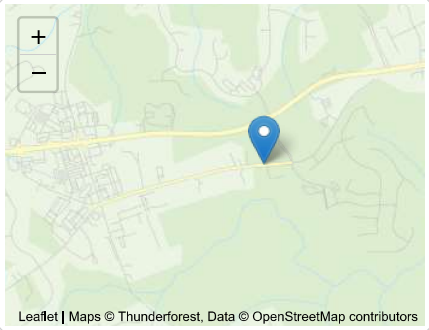






0000139_0493 - 139-0493
Description: CST 128721 BEG AT
County: Hall
Route number: 00360200
LRS section: 1392360200
Functional class: 7U - Local (Urban)
Coordinates: 34.10812131, -83.86121699

Site Data

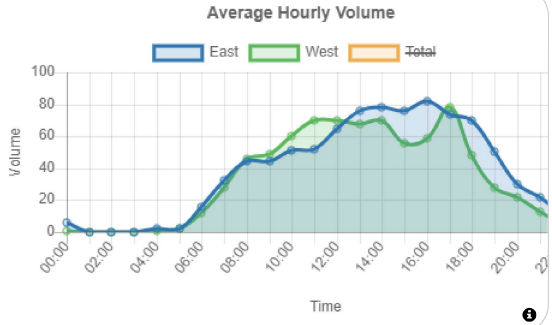


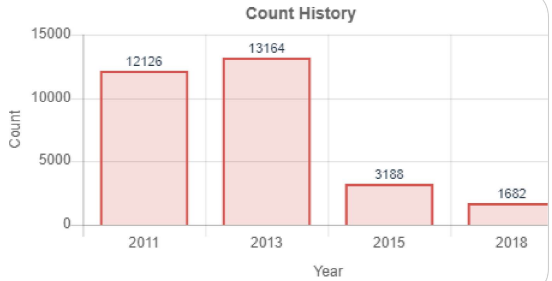
Count History

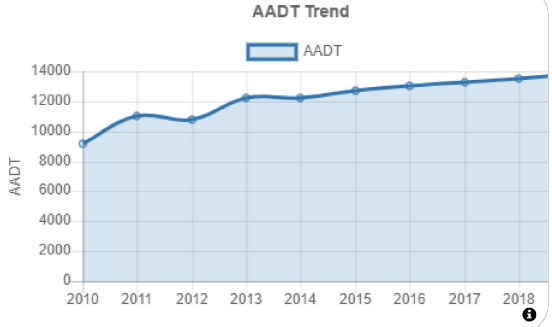
Year	Month	Count type	Duration	Count
2018	May	Volume	48 hours	1682
2015	June	Class	36 hours	3188
2013	June	Class	48 hours	13164
2011	September	Class	48 hours	12126

Annual Statistics

Data Item	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Statistics type	-	-	-	-	-	Estimated	Estimated	Estimated	Estimated	**Estimated**
AADT	9210	11000	10800	12200	12200	12700	13000	13300	13500	**13800**
K-Factor	-	-	-	0.090	0.090	0.090	0.090	-	-	**-**
D-Factor	-	-	-	0.600	0.600	0.600	0.600	-	-	**-**
Future AADT	-	-	-	-	-	-	23800	28500	24000	**23100**







Spout Springs Road Residential Development - Growth Rates

Percentage Growth											
Roadway	**County**	**Traffic Count Station**	**2016 Traffic Volumes**	**2017 Traffic Volumes**	**2018 Traffic Volumes**	**2019 Traffic Volumes**	**2020 Traffic Volumes by Linear Regress.**	**2021 Traffic Volumes by Linear Regress.**	**2022 Traffic Volumes by Linear Regress.**	**Annual Growth 2020 to 2021**	**Annual Growth 2020 to 2022**
Spout Springs Rd	Hall	139-0437	10,400	11,000	11,000	11,200	11,500	11,740	11,980	2.1%	2.0%
Spout Springs Rd	Hall	139-0441	16,000	16,100	16,400	16,600	16,800	17,010	17,220	1.3%	1.2%
Thompson Mill Rd	Hall	139-0493	13,000	13,300	13,500	13,800	14,050	14,310	14,570	1.9%	1.8%
		Weighted Average	**39,400**	**40,400**	**40,900**	**41,600**	**42,350**	**43,060**	**43,770**	**1.7%**	**2%**

APPENDIX C:

SYNCHRO REPORTS

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	102	426	40	43	354
Future Vol, veh/h	33	102	426	40	43	354
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	36	111	463	43	47	385

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	964	485	0	0	506	0
Stage 1	485	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	281	578	-	-	1049	-
Stage 1	615	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	268	578	-	-	1049	-
Mov Cap-2 Maneuver	268	-	-	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	451	1049	-
HCM Lane V/C Ratio	-	-	0.325	0.045	-
HCM Control Delay (s)	-	-	16.8	8.6	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.4	0.1	-

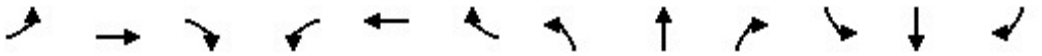
Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	68	58	441	369	42
Future Vol, veh/h	34	68	58	441	369	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	37	74	63	479	401	46

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1029	424	447	0	-	0
Stage 1	424	-	-	-	-	-
Stage 2	605	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	260	632	1119	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	240	632	1119	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	611	-	-	-	-	-
Stage 2	547	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1119	-	409	-	-
HCM Lane V/C Ratio	0.056	-	0.271	-	-
HCM Control Delay (s)	8.4	0	17	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	426	108	206	489	103	186	264	210	143	271	102
Future Volume (veh/h)	114	426	108	206	489	103	186	264	210	143	271	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	123	458	116	222	526	0	200	284	0	154	291	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	265	597	266	318	769		536	785		534	754	
Arrive On Green	0.07	0.17	0.17	0.12	0.22	0.00	0.09	0.42	0.00	0.07	0.41	0.00
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	123	458	116	222	526	0	200	284	0	154	291	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	6.3	13.8	7.3	11.1	15.2	0.0	7.2	11.6	0.0	5.6	12.3	0.0
Cycle Q Clear(g_c), s	6.3	13.8	7.3	11.1	15.2	0.0	7.2	11.6	0.0	5.6	12.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	265	597	266	318	769		536	785		534	754	
V/C Ratio(X)	0.46	0.77	0.44	0.70	0.68		0.37	0.36		0.29	0.39	
Avail Cap(c_a), veh/h	310	1174	524	516	1650		703	785		666	754	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.7	44.0	41.4	32.2	39.9	0.0	17.0	21.8	0.0	17.2	23.2	0.0
Incr Delay (d2), s/veh	1.3	2.1	1.1	2.8	1.1	0.0	0.4	1.3	0.0	0.3	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	6.0	2.8	4.8	6.5	0.0	2.8	5.1	0.0	2.2	5.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	46.1	42.5	34.9	41.0	0.0	17.4	23.1	0.0	17.5	24.7	0.0
LnGrp LOS	D	D	D	C	D		B	C		B	C	
Approach Vol, veh/h		697			748	A		484	A		445	A
Approach Delay, s/veh		43.7			39.2			20.8			22.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.2	30.2	15.6	51.2	19.6	24.8	13.7	53.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	52.0	20.0	43.0	26.0	37.0	16.0	47.0
Max Q Clear Time (g_c+I1), s	8.3	17.2	9.2	14.3	13.1	15.8	7.6	13.6
Green Ext Time (p_c), s	0.1	3.4	0.4	1.6	0.5	3.0	0.2	1.5

Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	8.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	59	110	504	101	133	529
Future Vol, veh/h	59	110	504	101	133	529
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	65	121	554	111	146	581

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1483	610	0	0	665	0
Stage 1	610	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	138	496	-	-	929	-
Stage 1	544	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	116	496	-	-	929	-
Mov Cap-2 Maneuver	116	-	-	-	-	-
Stage 1	544	-	-	-	-	-
Stage 2	346	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	63.6	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	231	929	-
HCM Lane V/C Ratio	-	-	0.804	0.157	-
HCM Control Delay (s)	-	-	63.6	9.6	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	6	0.6	-

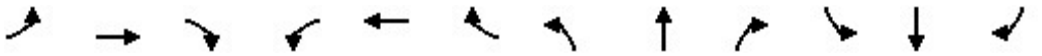
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	68	36	617	539	46
Future Vol, veh/h	35	68	36	617	539	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	37	72	38	649	567	48

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1316	591	615	0	-	0
Stage 1	591	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	175	509	970	-	-	-
Stage 1	555	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	164	509	970	-	-	-
Mov Cap-2 Maneuver	164	-	-	-	-	-
Stage 1	521	-	-	-	-	-
Stage 2	481	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.9	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	970	-	297	-	-
HCM Lane V/C Ratio	0.039	-	0.365	-	-
HCM Control Delay (s)	8.9	0	23.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	746	303	290	468	158	177	339	189	154	375	77
Future Volume (veh/h)	213	746	303	290	468	158	177	339	189	154	375	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	220	769	312	299	482	0	182	349	0	159	387	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	413	927	413	336	1052		365	644		388	627	
Arrive On Green	0.10	0.26	0.26	0.14	0.29	0.00	0.08	0.34	0.00	0.07	0.33	0.00
Sat Flow, veh/h	1795	3582	1598	1795	3582	1598	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	220	769	312	299	482	0	182	349	0	159	387	0
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1791	1598	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	11.4	26.1	23.2	15.4	14.1	0.0	8.5	19.3	0.0	7.4	22.2	0.0
Cycle Q Clear(g_c), s	11.4	26.1	23.2	15.4	14.1	0.0	8.5	19.3	0.0	7.4	22.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	413	927	413	336	1052		365	644		388	627	
V/C Ratio(X)	0.53	0.83	0.75	0.89	0.46		0.50	0.54		0.41	0.62	
Avail Cap(c_a), veh/h	420	1196	533	462	1557		412	644		423	627	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.2	45.1	44.0	31.7	37.1	0.0	26.8	34.3	0.0	26.4	36.1	0.0
Incr Delay (d2), s/veh	1.2	4.0	4.5	14.9	0.3	0.0	1.1	3.3	0.0	0.7	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	11.8	9.4	7.8	6.1	0.0	3.6	9.1	0.0	3.2	10.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	49.0	48.5	46.6	37.4	0.0	27.9	37.5	0.0	27.1	40.6	0.0
LnGrp LOS	C	D	D	D	D		C	D		C	D	
Approach Vol, veh/h		1301			781	A		531	A		546	A
Approach Delay, s/veh		45.9			40.9			34.2			36.7	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	43.8	16.6	48.9	24.0	39.3	15.5	50.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	14.0	56.0	14.0	42.0	27.0	43.0	12.0	44.0
Max Q Clear Time (g_c+I1), s	13.4	16.1	10.5	24.2	17.4	28.1	9.4	21.3
Green Ext Time (p_c), s	0.0	3.1	0.1	1.9	0.6	5.2	0.1	1.8

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

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	104	435	41	44	361
Future Vol, veh/h	34	104	435	41	44	361
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	37	113	473	45	48	392

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	984	496	0	0	518	0
Stage 1	496	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	273	570	-	-	1038	-
Stage 1	608	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	260	570	-	-	1038	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.3	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	441	1038	-
HCM Lane V/C Ratio	-	-	0.34	0.046	-
HCM Control Delay (s)	-	-	17.3	8.6	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.1	-

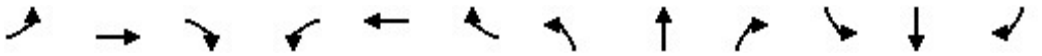
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	69	59	450	376	43
Future Vol, veh/h	35	69	59	450	376	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	38	75	64	489	409	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1050	433	456	0	-	0
Stage 1	433	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	253	625	1110	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	233	625	1110	-	-	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.6	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1110	-	399	-	-
HCM Lane V/C Ratio	0.058	-	0.283	-	-
HCM Control Delay (s)	8.4	0	17.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	435	110	210	499	105	190	269	214	146	276	104
Future Volume (veh/h)	116	435	110	210	499	105	190	269	214	146	276	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	125	468	118	226	537	0	204	289	0	157	297	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	266	607	271	320	780		529	778		527	747	
Arrive On Green	0.07	0.17	0.17	0.12	0.22	0.00	0.09	0.42	0.00	0.07	0.40	0.00
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	125	468	118	226	537	0	204	289	0	157	297	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	6.4	14.2	7.5	11.4	15.7	0.0	7.5	12.0	0.0	5.8	12.8	0.0
Cycle Q Clear(g_c), s	6.4	14.2	7.5	11.4	15.7	0.0	7.5	12.0	0.0	5.8	12.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	607	271	320	780		529	778		527	747	
V/C Ratio(X)	0.47	0.77	0.44	0.71	0.69		0.39	0.37		0.30	0.40	
Avail Cap(c_a), veh/h	308	1164	519	512	1636		690	778		654	747	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.8	44.3	41.5	32.2	40.1	0.0	17.4	22.4	0.0	17.6	23.8	0.0
Incr Delay (d2), s/veh	1.3	2.1	1.1	2.9	1.1	0.0	0.5	1.4	0.0	0.3	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.2	0.1	4.9	6.7	0.0	2.9	5.3	0.0	2.2	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	46.4	42.6	35.0	41.2	0.0	17.8	23.7	0.0	17.9	25.4	0.0
LnGrp LOS	D	D	D	D	D		B	C		B	C	
Approach Vol, veh/h		711			763	A		493	A		454	A
Approach Delay, s/veh		43.9			39.3			21.3			22.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	30.8	15.8	51.1	19.8	25.3	13.9	53.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	52.0	20.0	43.0	26.0	37.0	16.0	47.0
Max Q Clear Time (g_c+I1), s	8.4	17.7	9.5	14.8	13.4	16.2	7.8	14.0
Green Ext Time (p_c), s	0.1	3.5	0.4	1.6	0.5	3.1	0.2	1.6

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	9.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	112	514	103	136	540
Future Vol, veh/h	60	112	514	103	136	540
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	66	123	565	113	149	593

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1513	622	0	0	678	0
Stage 1	622	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	133	489	-	-	919	-
Stage 1	537	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	111	489	-	-	919	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	537	-	-	-	-	-
Stage 2	337	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	72.5	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	223	919	-
HCM Lane V/C Ratio	-	-	0.848	0.163	-
HCM Control Delay (s)	-	-	72.5	9.7	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	6.6	0.6	-

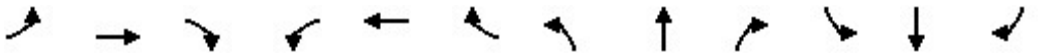
Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	69	37	629	550	47
Future Vol, veh/h	36	69	37	629	550	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	38	73	39	662	579	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1344	604	628	0	-	0
Stage 1	604	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	168	500	959	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	157	500	959	-	-	-
Mov Cap-2 Maneuver	157	-	-	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	474	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.3	0.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	959	-	286	-	-
HCM Lane V/C Ratio	0.041	-	0.386	-	-
HCM Control Delay (s)	8.9	0	25.3	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	1.8	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	761	309	296	477	161	181	346	193	157	383	79
Future Volume (veh/h)	217	761	309	296	477	161	181	346	193	157	383	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	224	785	319	305	492	0	187	357	0	162	395	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	414	939	419	337	1067		357	636		379	618	
Arrive On Green	0.11	0.26	0.26	0.14	0.30	0.00	0.08	0.34	0.00	0.07	0.33	0.00
Sat Flow, veh/h	1795	3582	1598	1795	3582	1598	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	224	785	319	305	492	0	187	357	0	162	395	0
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1791	1598	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	11.7	27.0	24.0	15.8	14.6	0.0	8.9	20.2	0.0	7.7	23.2	0.0
Cycle Q Clear(g_c), s	11.7	27.0	24.0	15.8	14.6	0.0	8.9	20.2	0.0	7.7	23.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	939	419	337	1067		357	636		379	618	
V/C Ratio(X)	0.54	0.84	0.76	0.91	0.46		0.52	0.56		0.43	0.64	
Avail Cap(c_a), veh/h	418	1182	527	456	1539		397	636		409	618	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.3	45.4	44.3	31.8	37.3	0.0	27.7	35.3	0.0	27.2	37.2	0.0
Incr Delay (d2), s/veh	1.4	4.4	5.0	17.5	0.3	0.0	1.2	3.6	0.0	0.8	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	12.2	9.8	8.2	6.3	0.0	3.8	9.6	0.0	3.3	11.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	49.8	49.3	49.3	37.6	0.0	28.8	38.8	0.0	27.9	42.2	0.0
LnGrp LOS	C	D	D	D	D		C	D		C	D	
Approach Vol, veh/h		1328			797	A		544	A		557	A
Approach Delay, s/veh		46.6			42.0			35.4			38.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	44.8	17.0	48.7	24.4	40.2	15.8	50.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	14.0	56.0	14.0	42.0	27.0	43.0	12.0	44.0
Max Q Clear Time (g_c+I1), s	13.7	16.6	10.9	25.2	17.8	29.0	9.7	22.2
Green Ext Time (p_c), s	0.0	3.2	0.1	1.9	0.6	5.2	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	104	453	43	44	366
Future Vol, veh/h	35	104	453	43	44	366
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	38	113	492	47	48	398

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1010	516	0	0	539	0
Stage 1	516	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Critical Hdwy	6.44	6.24	-	-	4.14	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	-	-	2.236	-
Pot Cap-1 Maneuver	264	555	-	-	1019	-
Stage 1	595	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	252	555	-	-	1019	-
Mov Cap-2 Maneuver	252	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	580	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	426	1019	-
HCM Lane V/C Ratio	-	-	0.355	0.047	-
HCM Control Delay (s)	-	-	18	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.6	0.1	-

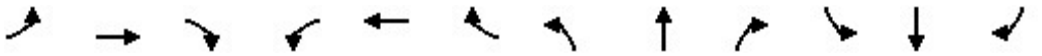
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	69	59	454	391	45
Future Vol, veh/h	36	69	59	454	391	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	39	75	64	493	425	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1071	450	474	0	-	0
Stage 1	450	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	246	611	1093	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	226	611	1093	-	-	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	538	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1093	-	386	-	-
HCM Lane V/C Ratio	0.059	-	0.296	-	-
HCM Control Delay (s)	8.5	0	18.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	435	110	210	499	106	190	271	214	150	283	108
Future Volume (veh/h)	117	435	110	210	499	106	190	271	214	150	283	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	126	468	118	226	537	0	204	291	0	161	304	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	266	607	271	320	779		524	777		527	748	
Arrive On Green	0.07	0.17	0.17	0.12	0.22	0.00	0.09	0.42	0.00	0.07	0.40	0.00
Sat Flow, veh/h	1767	3526	1572	1767	3526	1572	1767	1856	1572	1767	1856	1572
Grp Volume(v), veh/h	126	468	118	226	537	0	204	291	0	161	304	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1572	1767	1763	1572	1767	1856	1572	1767	1856	1572
Q Serve(g_s), s	6.5	14.2	7.5	11.4	15.7	0.0	7.5	12.1	0.0	5.9	13.1	0.0
Cycle Q Clear(g_c), s	6.5	14.2	7.5	11.4	15.7	0.0	7.5	12.1	0.0	5.9	13.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	607	271	320	779		524	777		527	748	
V/C Ratio(X)	0.47	0.77	0.44	0.71	0.69		0.39	0.37		0.31	0.41	
Avail Cap(c_a), veh/h	307	1162	518	511	1633		684	777		651	748	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.8	44.4	41.6	32.3	40.2	0.0	17.4	22.5	0.0	17.6	23.9	0.0
Incr Delay (d2), s/veh	1.3	2.1	1.1	2.9	1.1	0.0	0.5	1.4	0.0	0.3	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	6.2	2.9	4.9	6.7	0.0	2.9	5.3	0.0	2.3	5.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	46.5	42.7	35.2	41.3	0.0	17.9	23.9	0.0	17.9	25.5	0.0
LnGrp LOS	D	D	D	D	D		B	C		B	C	
Approach Vol, veh/h		712			763	A		495	A		465	A
Approach Delay, s/veh		44.0			39.5			21.4			22.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.4	30.8	15.8	51.3	19.8	25.3	14.1	53.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	52.0	20.0	43.0	26.0	37.0	16.0	47.0
Max Q Clear Time (g_c+I1), s	8.5	17.7	9.5	15.1	13.4	16.2	7.9	14.1
Green Ext Time (p_c), s	0.1	3.5	0.4	1.6	0.5	3.1	0.2	1.6

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	17	5	477	383	6
Future Vol, veh/h	20	17	5	477	383	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	18	5	518	416	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	948	420	423	0	-	0
Stage 1	420	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	289	633	1136	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	287	633	1136	-	-	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	659	-	-	-	-	-
Stage 2	592	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1136	-	383	-	-
HCM Lane V/C Ratio	0.005	-	0.105	-	-
HCM Control Delay (s)	8.2	0	15.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	10.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	62	112	525	104	136	558
Future Vol, veh/h	62	112	525	104	136	558
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	240	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	68	123	577	114	149	613

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1545	634	0	0	691	0
Stage 1	634	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	127	481	-	-	908	-
Stage 1	530	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	106	481	-	-	908	-
Mov Cap-2 Maneuver	106	-	-	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	329	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	84.7	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	213	908	-
HCM Lane V/C Ratio	-	-	0.898	0.165	-
HCM Control Delay (s)	-	-	84.7	9.7	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	7.2	0.6	-

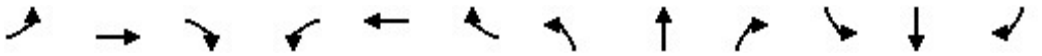
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	69	37	644	559	48
Future Vol, veh/h	38	69	37	644	559	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	40	73	39	678	588	51

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1370	614	639	0	-	0
Stage 1	614	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	162	494	950	-	-	-
Stage 1	542	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	151	494	950	-	-	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	466	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27.1	0.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	950	-	273	-	-
HCM Lane V/C Ratio	0.041	-	0.413	-	-
HCM Control Delay (s)	9	0	27.1	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	1.9	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	761	309	296	477	165	181	353	193	159	388	81
Future Volume (veh/h)	221	761	309	296	477	165	181	353	193	159	388	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	228	785	319	305	492	0	187	364	0	164	400	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	415	939	419	337	1061		353	635		374	619	
Arrive On Green	0.11	0.26	0.26	0.14	0.30	0.00	0.08	0.34	0.00	0.08	0.33	0.00
Sat Flow, veh/h	1795	3582	1598	1795	3582	1598	1795	1885	1598	1795	1885	1598
Grp Volume(v), veh/h	228	785	319	305	492	0	187	364	0	164	400	0
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1791	1598	1795	1885	1598	1795	1885	1598
Q Serve(g_s), s	12.0	27.0	24.0	15.8	14.6	0.0	8.9	20.7	0.0	7.8	23.6	0.0
Cycle Q Clear(g_c), s	12.0	27.0	24.0	15.8	14.6	0.0	8.9	20.7	0.0	7.8	23.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	415	939	419	337	1061		353	635		374	619	
V/C Ratio(X)	0.55	0.84	0.76	0.90	0.46		0.53	0.57		0.44	0.65	
Avail Cap(c_a), veh/h	416	1180	526	455	1537		394	635		403	619	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.3	45.5	44.4	31.9	37.5	0.0	27.8	35.5	0.0	27.3	37.4	0.0
Incr Delay (d2), s/veh	1.5	4.4	5.0	17.4	0.3	0.0	1.2	3.7	0.0	0.8	5.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	12.2	9.8	8.2	6.3	0.0	3.8	9.9	0.0	3.3	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	49.9	49.4	49.4	37.8	0.0	29.0	39.3	0.0	28.1	42.5	0.0
LnGrp LOS	C	D	D	D	D		C	D		C	D	
Approach Vol, veh/h		1332			797	A		551	A		564	A
Approach Delay, s/veh		46.7			42.2			35.8			38.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	44.7	17.0	48.8	24.4	40.2	15.9	50.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	14.0	56.0	14.0	42.0	27.0	43.0	12.0	44.0
Max Q Clear Time (g_c+I1), s	14.0	16.6	10.9	25.6	17.8	29.0	9.8	22.7
Green Ext Time (p_c), s	0.0	3.2	0.1	1.9	0.6	5.2	0.1	1.9

Intersection Summary	
HCM 6th Ctrl Delay	42.3
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	10	17	530	477	20
Future Vol, veh/h	12	10	17	530	477	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	11	18	576	518	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1141	529	539	0	-	0
Stage 1	529	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	222	550	1029	-	-	-
Stage 1	591	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	216	550	1029	-	-	-
Mov Cap-2 Maneuver	216	-	-	-	-	-
Stage 1	576	-	-	-	-	-
Stage 2	541	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.1	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1029	-	298	-	-
HCM Lane V/C Ratio	0.018	-	0.08	-	-
HCM Control Delay (s)	8.6	0	18.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

APPENDIX D:

TURN LANE EVALUATIONS

Spout Springs Road Residential Development - Turn Lane Evaluation Worksheet

ID	Intersection	Movement/ Turn Lane	Turn Volume	GDOT Volume Criteria	GDOT Criteria met?
4	Spout Springs Rd & Site Driveway	NBL	161 LT/Day	175 RT/Day	NO
		SBR	197 RT/Day	75 RT/Day	YES

AADT (Spout Springs Rd): > 6,000

	Trip Dist.	Volume	Threshold
LTV	45%	161	> 175
RTV	55%	197	> 75

		IN	OUT
Daily	715	358	357
AM Peak Hour	48	11	37
PM Peak Hour	59	37	22