

Gibbet Road Residential Development

Traffic Impact Analysis

Bluffton, South Carolina

Prepared for

Milestone Management, LLC

Prepared by

Kimley»Horn

April 2023

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1 Executive Summary

The proposed Gibbet Road Residential Development is in the northeast quadrant of the SC 170 (Okatie Highway) and Gibbet Road intersection in Bluffton, South Carolina. This development is planned to consist of the following phases and land uses:

- 2025 Build Phase 1 – 150 multi-family housing units.
- 2027 Build Phase 2 – 6,300 square-foot convenience store and gas station with 12 fueling positions.
- 2029 Build Phase 3 – 8,850 square feet office space and 8,850 square feet retail space.

It was assumed that the project will access the roadway network via the following five unsignalized driveways:

- Site Access #1 – Planned to be constructed under Phase 1 and is located approximately 850' north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #2 – Planned to be constructed under Phase 1 and is located approximately 350' east of SC 170 (Okatie Highway) along Gibbet Road. This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #3 – Planned to be constructed under Phase 1 and is proposed to be full-movement and align with Estate Drive.
- Site Access #4 – Planned to be constructed under Phase 2 and is located approximately 350' feet north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #5 – Planned to be constructed under Phase 3 and is located approximately 875' feet south of Lawton Boulevard along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.

This study summarizes the results of the traffic analyses at the following study intersections:

- 1) SC 170 (Okatie Highway) at Lawton Boulevard
- 2) SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard
- 3) Gibbet Road at Estate Drive/Site Access #3
- 4) SC 170 (Okatie Highway) at Site Access #1
- 5) Gibbet Road at Site Access #2
- 6) SC 170 (Okatie Highway) at Site Access #4
- 7) SC 170 (Okatie Highway) at Site Access #5

Improvements Considered by Others

In the surrounding area, the approved development of the Palmetto Point Pickleball and Commercial Site, Kimley-Horn 2021, was accounted for in the analysis of 2025, 2027, and 2029 conditions. Based on this report, an eastbound right-turn lane along Gibbet Road at the intersection of Estate Drive will be constructed.

Based on the results of the traffic analyses, the following improvements are recommended to mitigate the impact of the proposed development's traffic on the study area intersections:

2025 Build Phase 1**Gibbet Road at Estate Drive/ Site Access #3**

- Construct Site Access #3 to align with Estate Drive. Site Access #3 should consist of one ingress lane and two egress lanes. The egress lanes should consist of a left-turn lane and shared through/right-turn lane.

SC 170 (Okatie Highway) at Site Access #1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #1 to be a right-in, right-out access only with one ingress lane and one egress lane.

Gibbet Road at Site Access #2

- Construct Site Access #2 to be a right-in, right-out access only with one ingress lane and one egress lane.

2027 Build Phase 2**Gibbet Road at Estate Drive/ Site Access #3**

- Construct an eastbound left-turn lane along Gibbet Road in accordance with the SCDOT *Roadway Design Manual*.

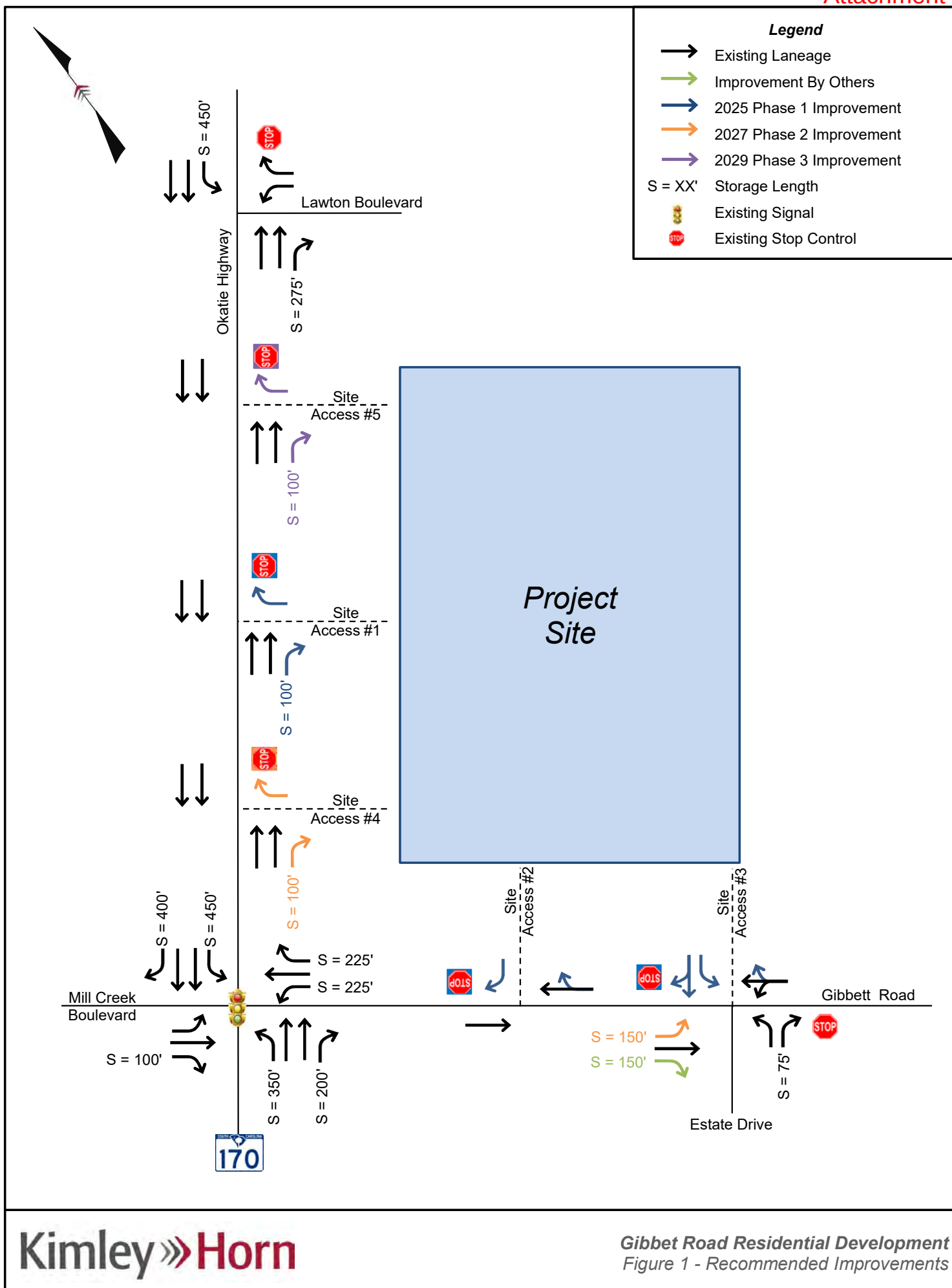
SC 170 (Okatie Highway) at Site Access #4

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #4 to be a right-in, right-out access only with one ingress lane and one egress lane.

2029 Build Phase 3**SC 170 (Okatie Highway) at Site Access #5**

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #5 to be a right-in, right-out access only with one ingress lane and one egress lane.

Recommended improvements are illustrated in **Figure 1**.



1 Introduction

The proposed Gibbet Road Residential Development is in the northeast quadrant of the SC 170 (Okatie Highway) and Gibbet Road intersection in Beaufort County, South Carolina. This development is planned to consist of the following phases and land uses:

- 2025 Build Phase 1 – 150 multi-family housing units.
- 2027 Build Phase 2 – 6,300 square-foot convenience store and gas station with 12 fueling positions.
- 2029 Build Phase 3 – 8,850 square feet office space and 8,850 square feet retail space.

The location of the proposed development is illustrated in **Figure 2**, and the conceptual site plans are attached in **Appendix A**.

It is assumed that Phase 1 of the development will be built and fully occupied by 2025, Phase 2 by 2027, and Phase 3 by 2029. Therefore, this study summarizes the results of the traffic analyses under 2022 Existing conditions, future 2025 conditions, future 2027 conditions, and future 2029 conditions.

The study area consists of the following study intersections:

- 1) SC 170 (Okatie Highway) at Lawton Boulevard
- 2) SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard
- 3) Gibbet Road at Estate Drive/Site Access #3 (proposed full-movement)
- 4) SC 170 (Okatie Highway) at Site Access #1 (proposed right-in, right-out access)
- 5) Gibbet Road at Site Access #2 (proposed right-in, right-out access)
- 6) SC 170 (Okatie Highway) at Site Access #4 (proposed right-in, right-out access)
- 7) SC 170 (Okatie Highway) at Site Access #5 (proposed right-in, right-out access)

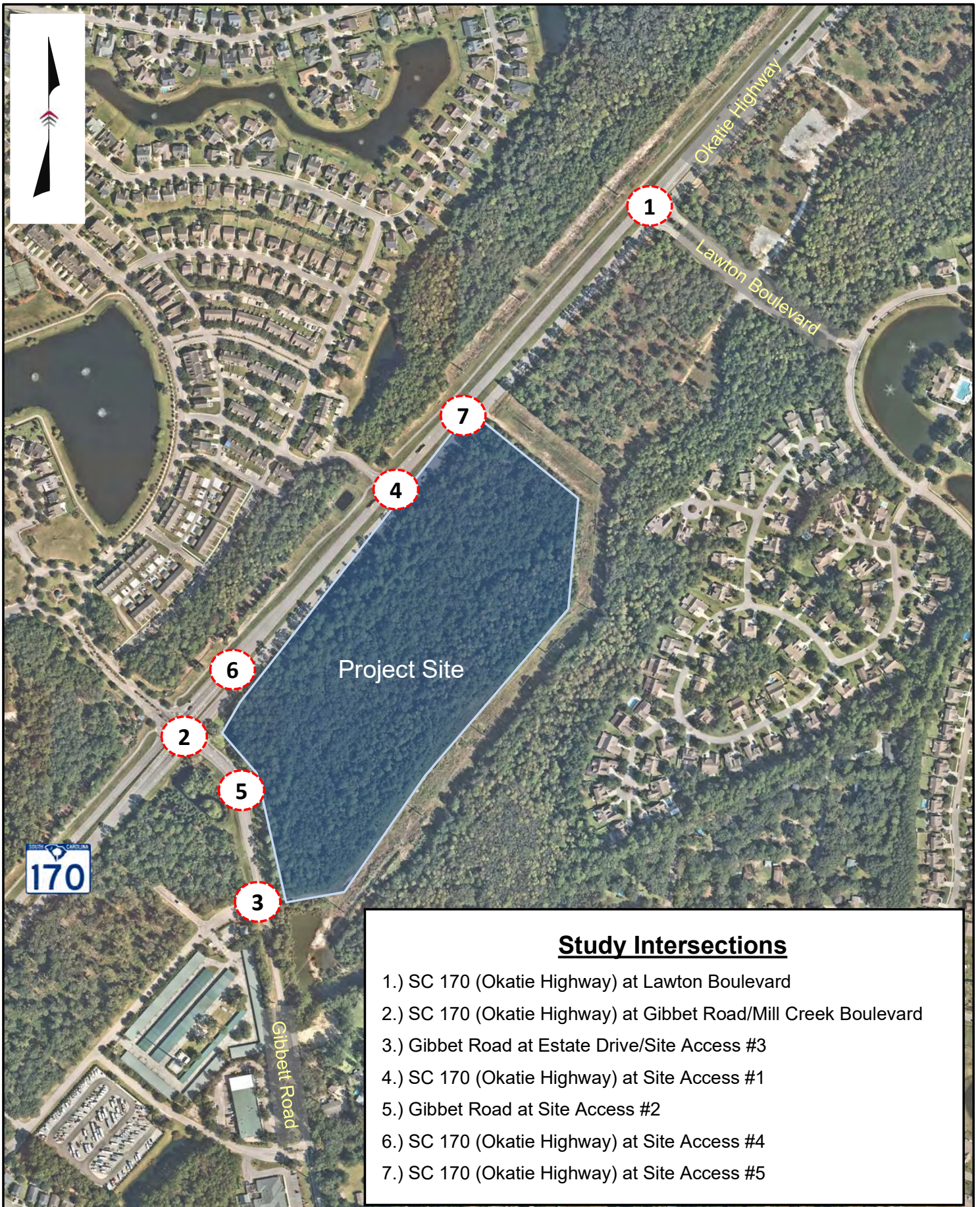
1.1 Existing Conditions

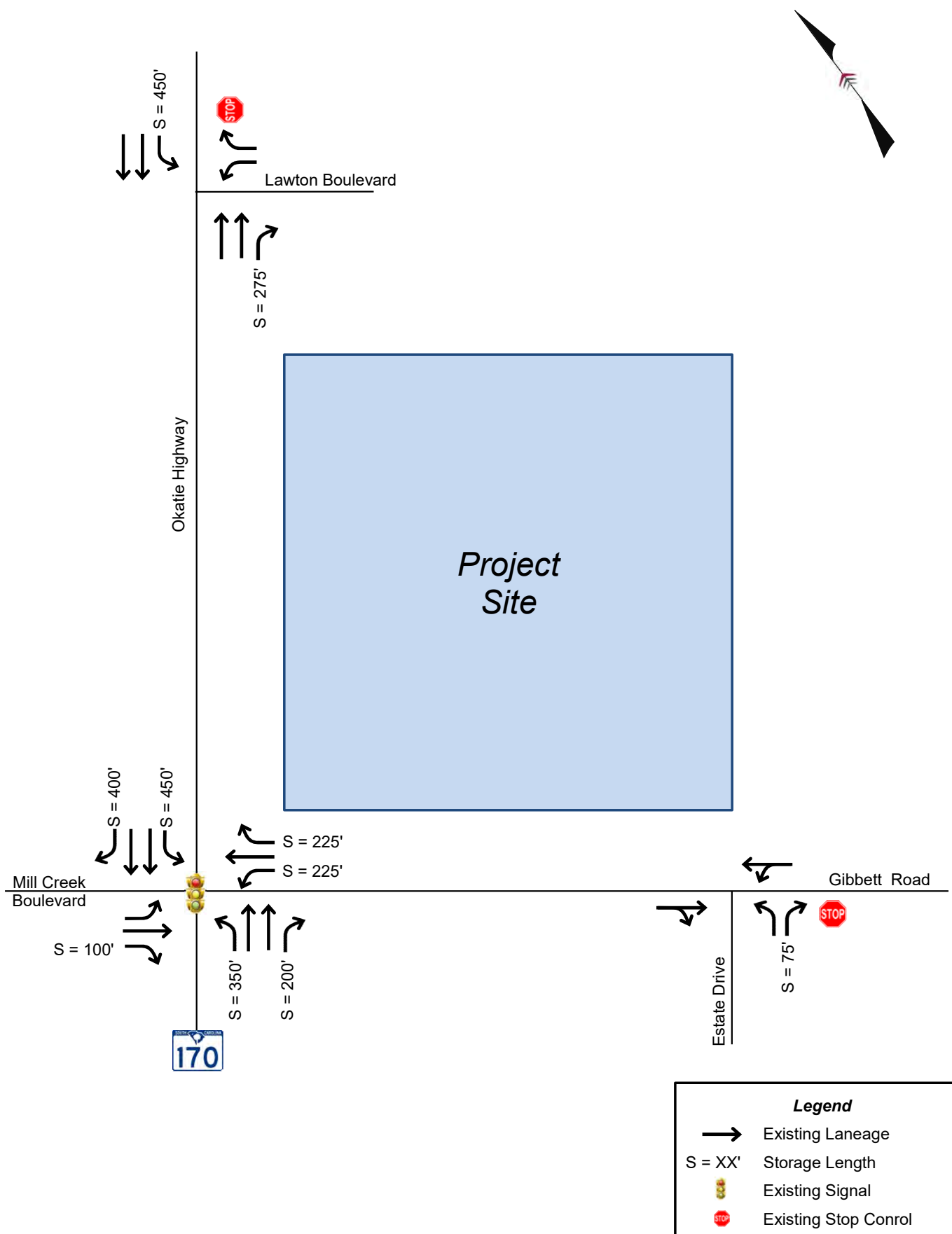
SC 170 (Okatie Highway) is a four-lane divided, urban minor arterial with a posted speed limit of 50 miles per hour (mph) in the study area. Based upon SCDOT data, 25,100 vehicles per day travelled along Okatie Highway in 2021 at count station 07-0165. Count station 07-0165 is good from SC 46 to US 278/W Fording Island Road.

Gibbet Road is a two-lane, urban major collector with a posted speed limit of 45 mph in the study area. Based upon SCDOT data, 3,500 vehicles per day travelled along Gibbet Road in 2021 at count station 07-0325. Count station 07-0325 is good from SC 170 (Okatie Highway) to May River Road.

Estate Drive and Lawton Boulevard are local roads. SCDOT does not provide daily traffic data for Estate Drive and Lawton Boulevard.

The existing geometry and traffic control for the study area intersections is illustrated in **Figure 3**.





2 Project Traffic

2.1 Trip Generation

The trip generation rates and equations published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual; 11th Edition* were used to estimate the trip generation potential for the development. The analysis was performed using the information provided for the following land use codes (LUCs):

- LUC 220 - Multifamily Housing (Low-Rise) – 150 Dwelling Units
- LUC 712 – Small Office Building – 8,850 SF
- LUC 822 – Strip Retail Plaza (<40K) – 8,850 SF
- LUC 945 – Convenience Store/Gas Station (9-15 Fueling Positions) – 6,300 SF

Pass-by trip reductions were estimated based on the methodologies in the *ITE Trip Generation Manual, 11th Edition*. Furthermore, because Phase 1 only includes a multifamily scenario, pass-by trips were only estimated for Phase 2 and Phase 3 of the development. Since the development includes retail, residential, and office land uses internal capture reductions were calculated. As shown in **Table 1**, Phase 1 of the development is anticipated to generate 69 (17 In/52 Out) new AM peak hour trips and 85 (54 In/31 Out) new PM peak hour net new external trips.

Table 2 shows that Phase 2 of the development is anticipated to generate 153 (59 in/94 out) new AM peak hour trips and 138 (81 in/57 out) new PM peak hour trips. The estimated trip generation is summarized in **Table 2**.

Table 3 shows that Phase 3 of the development is anticipated to generate 193 (86 in/107 out) new AM peak hour trips and 214 (116 in/98 out) new PM peak hour trips. The estimated trip generation is summarized in **Table 3**. Trip generation calculations can be found in **Appendix B**.

Table 1 – Phase 1 Trip Generation Summary

Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
220 – Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			1,037	69	17	52	85	54	31
Total Net New External Trips			1,037	69	17	52	85	54	31

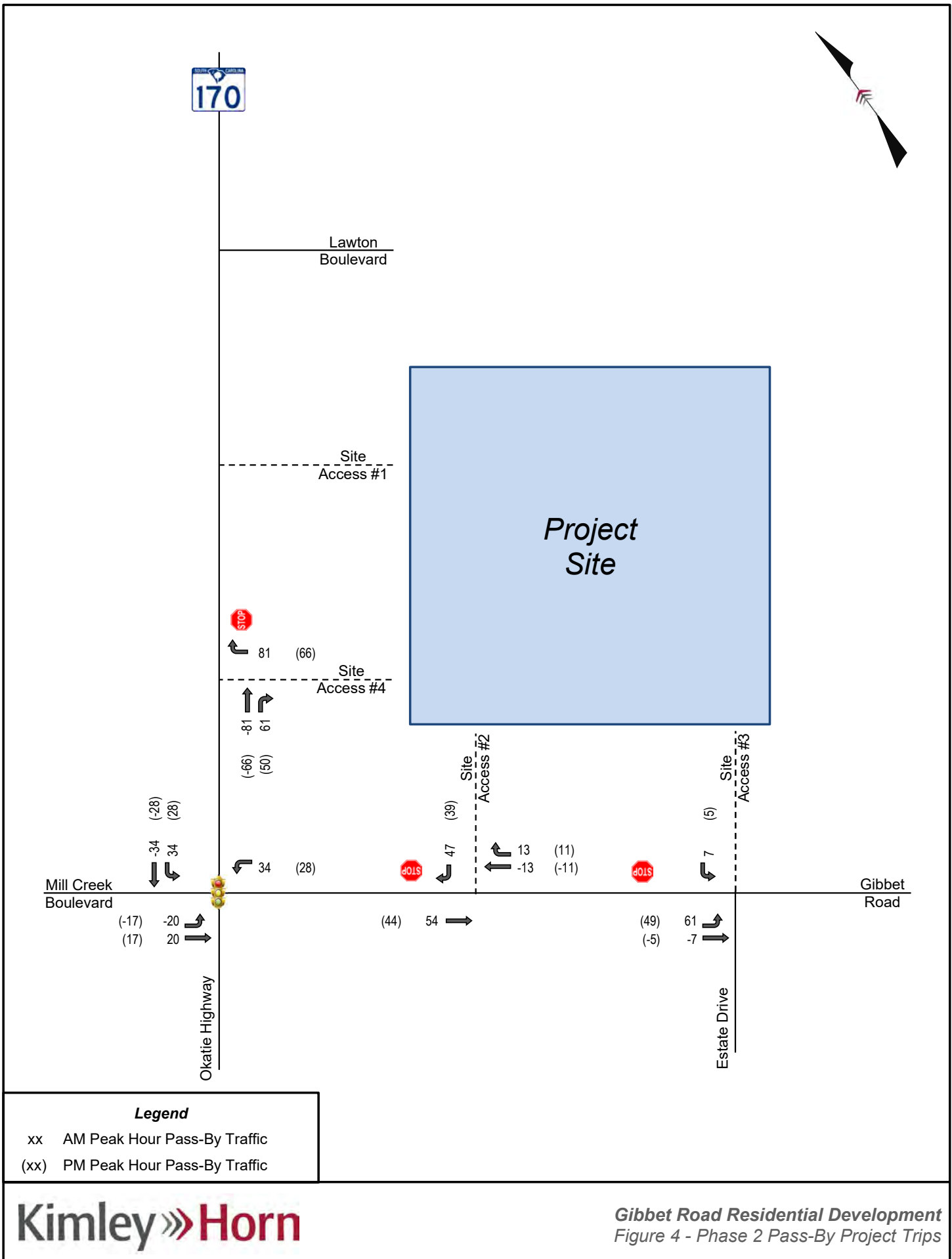
Table 2 - Phase 2 Trip Generation Summary

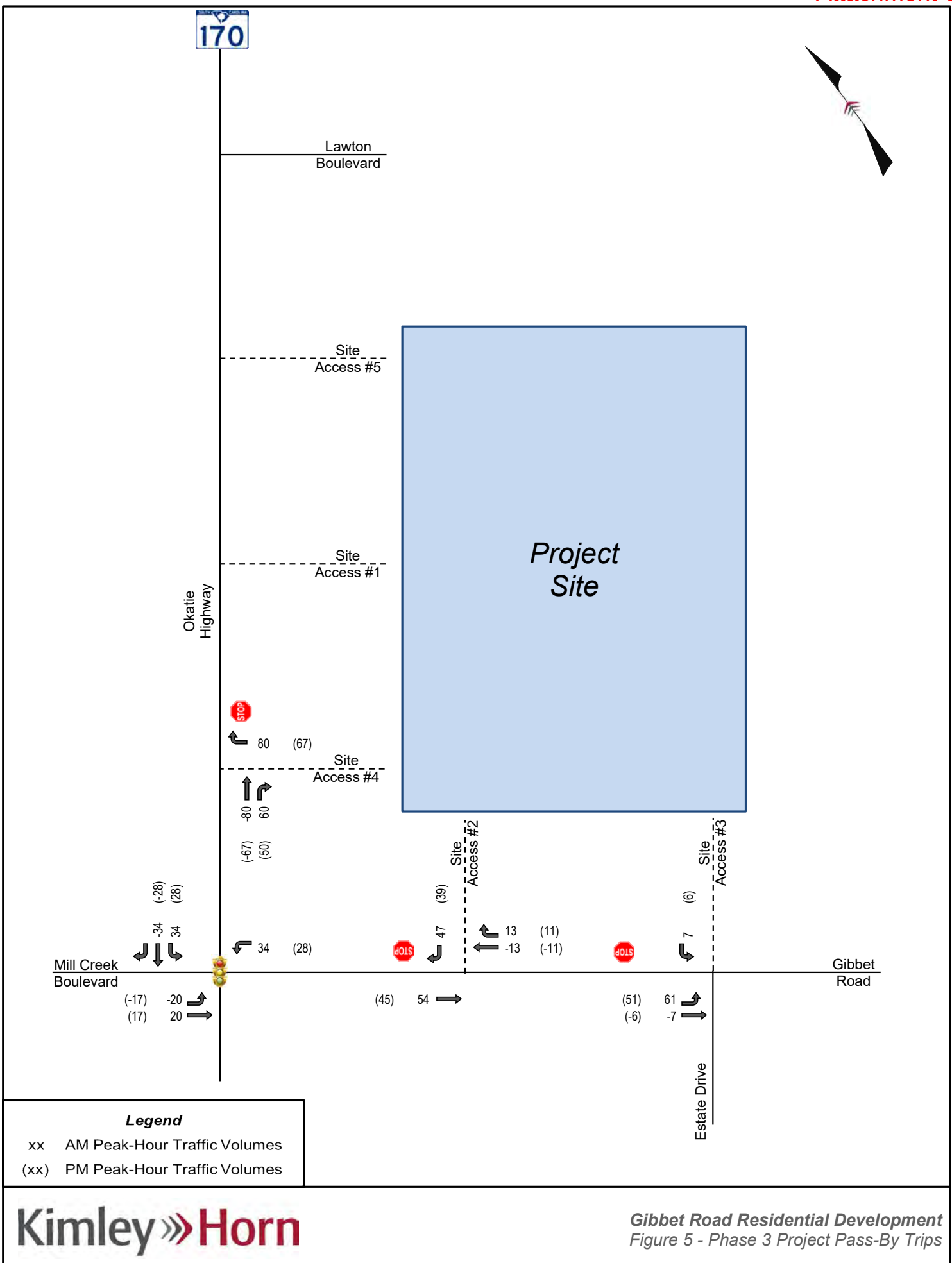
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
220 – Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
945 – Convenience Store/Gas Station (9-15 Fueling Positions)	6.3	KSF	4,082	356	178	178	343	172	171
Subtotal			5,119	425	195	230	428	226	202
Internal Capture			-470	-2	-1	-1	-70	-35	-35
Pass-By			-3,000	-270	-135	-135	-220	-110	-110
Total Net New External Trips			1,649	153	59	94	138	81	57

Table 3 - Phase 3 Trip Generation Summary

Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
220 – Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
712 – Small Office Building	8.85	KSF	127	15	12	3	19	6	13
822 – Strip Retail Plaza (<40K)	8.85	KSF	603	27	16	11	71	36	35
945 – Convenience Store/Gas Station (9-15 Fueling Positions)	6.3	KSF	4,082	356	178	178	343	172	171
Subtotal			5,849	467	223	244	518	268	250
Internal Capture			-556	-6	-3	-3	-80	-40	-40
Pass-By			-3,000	-268	-134	-134	-224	-112	-112
Total Net New External Trips			2,293	193	86	107	214	116	98

The project pass-by project trips for phase 2 and phase 3 of the development is illustrated in **Figure 4** and **Figure 5**, respectively.



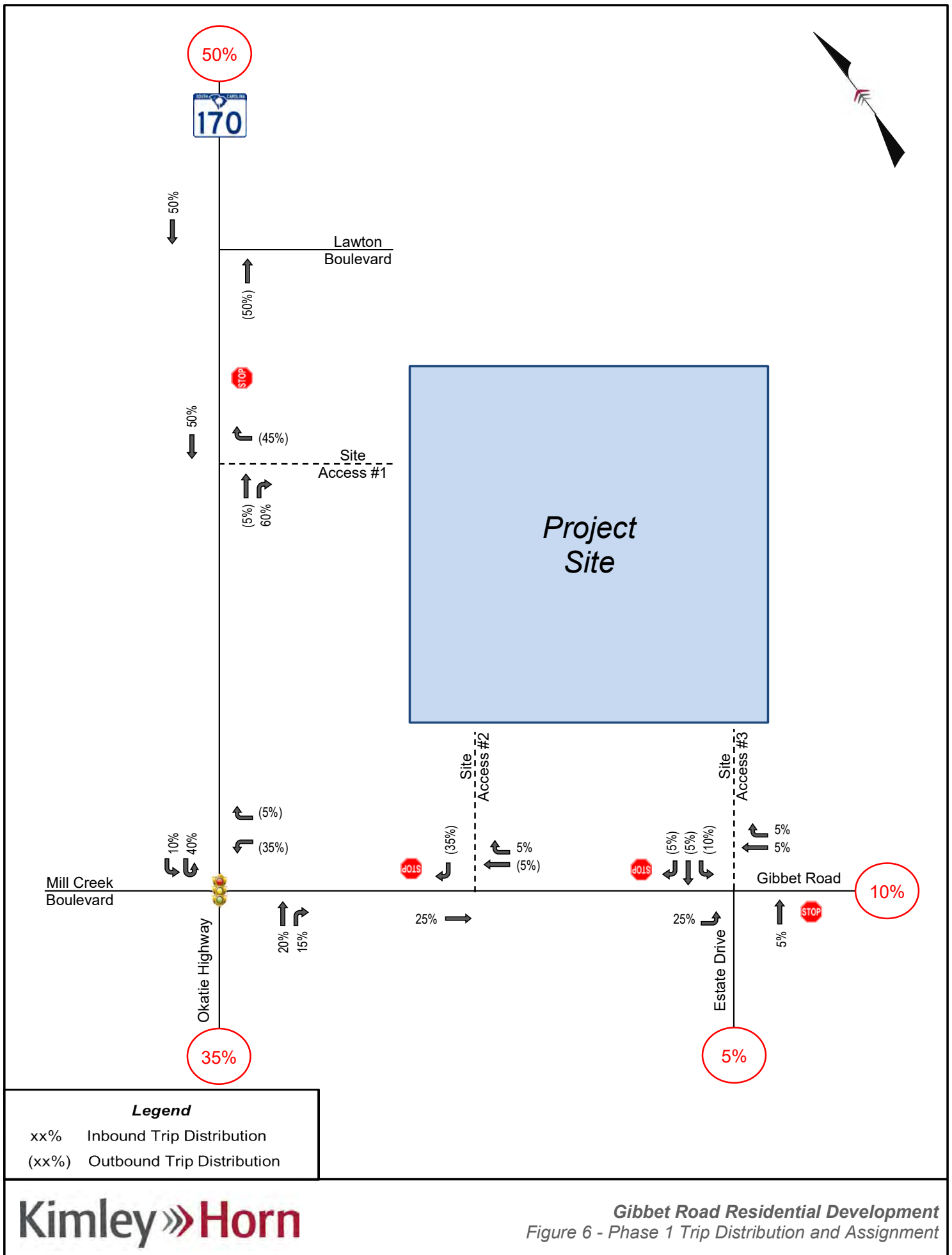


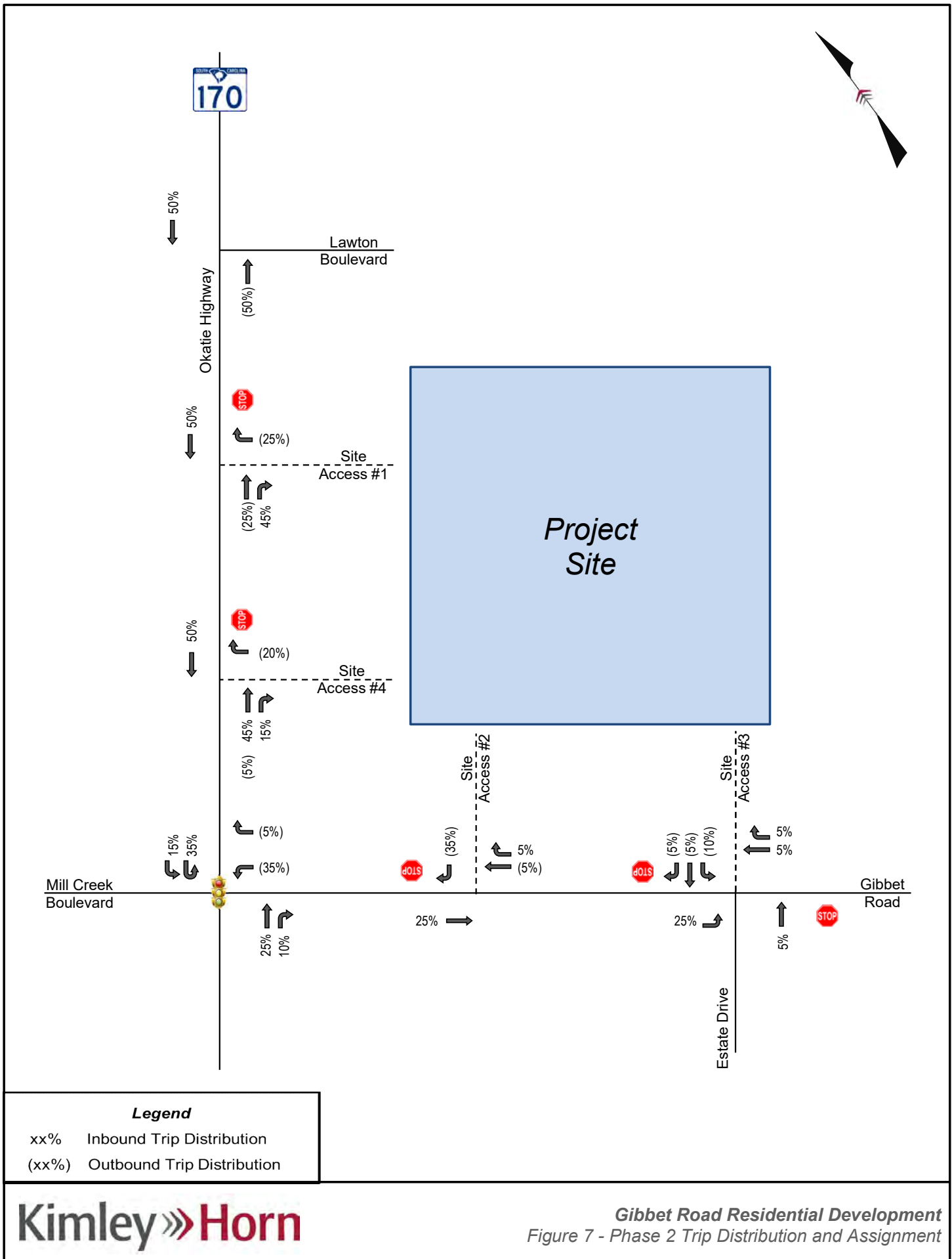
2.2 Trip Distribution & Assignment

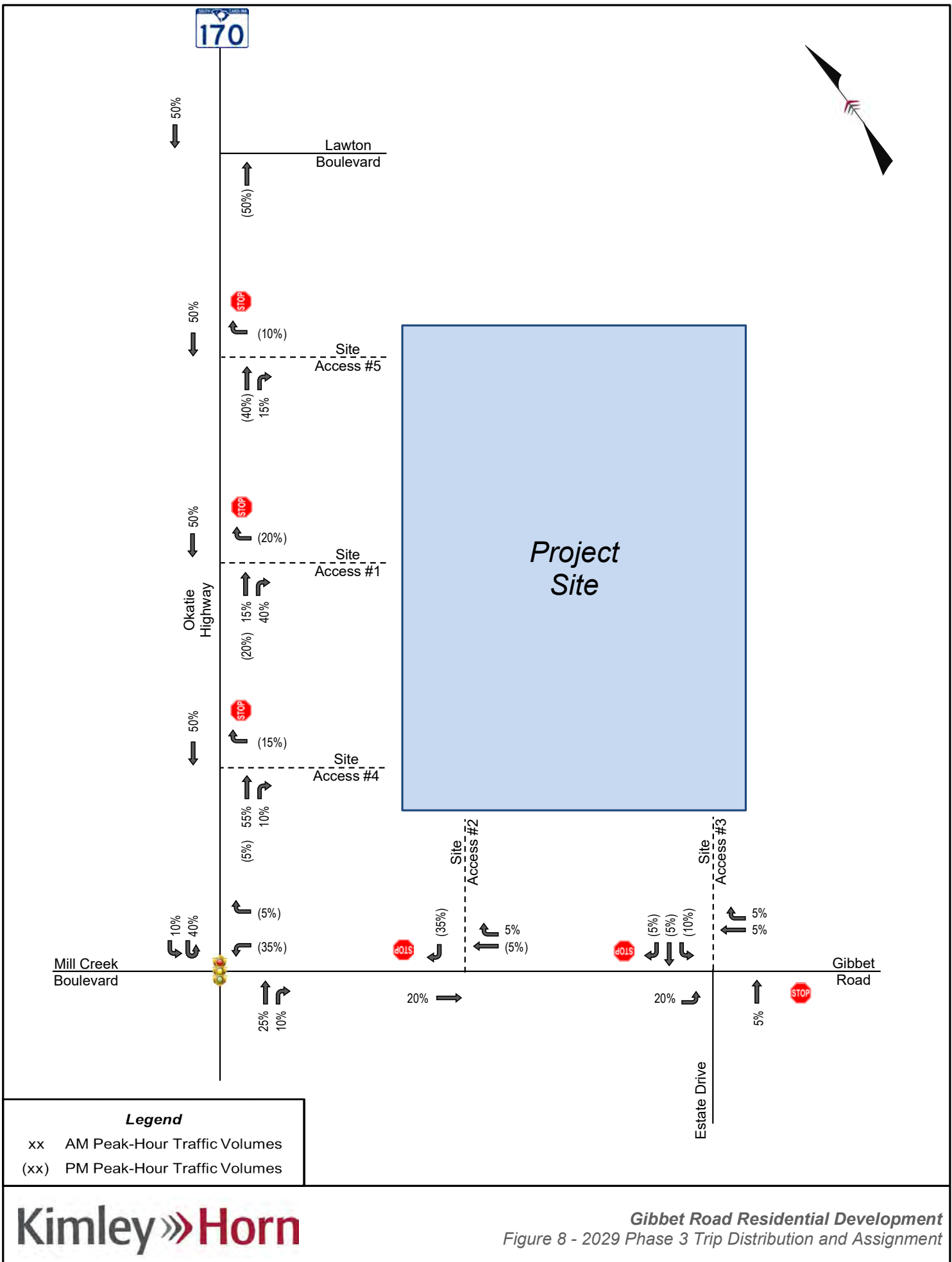
New external trips generated by the proposed development were distributed and assigned to the surrounding roadway network based on existing travel patterns, surrounding land uses, and the proposed site layout. The trip distribution percentages used in this analysis are as follows.

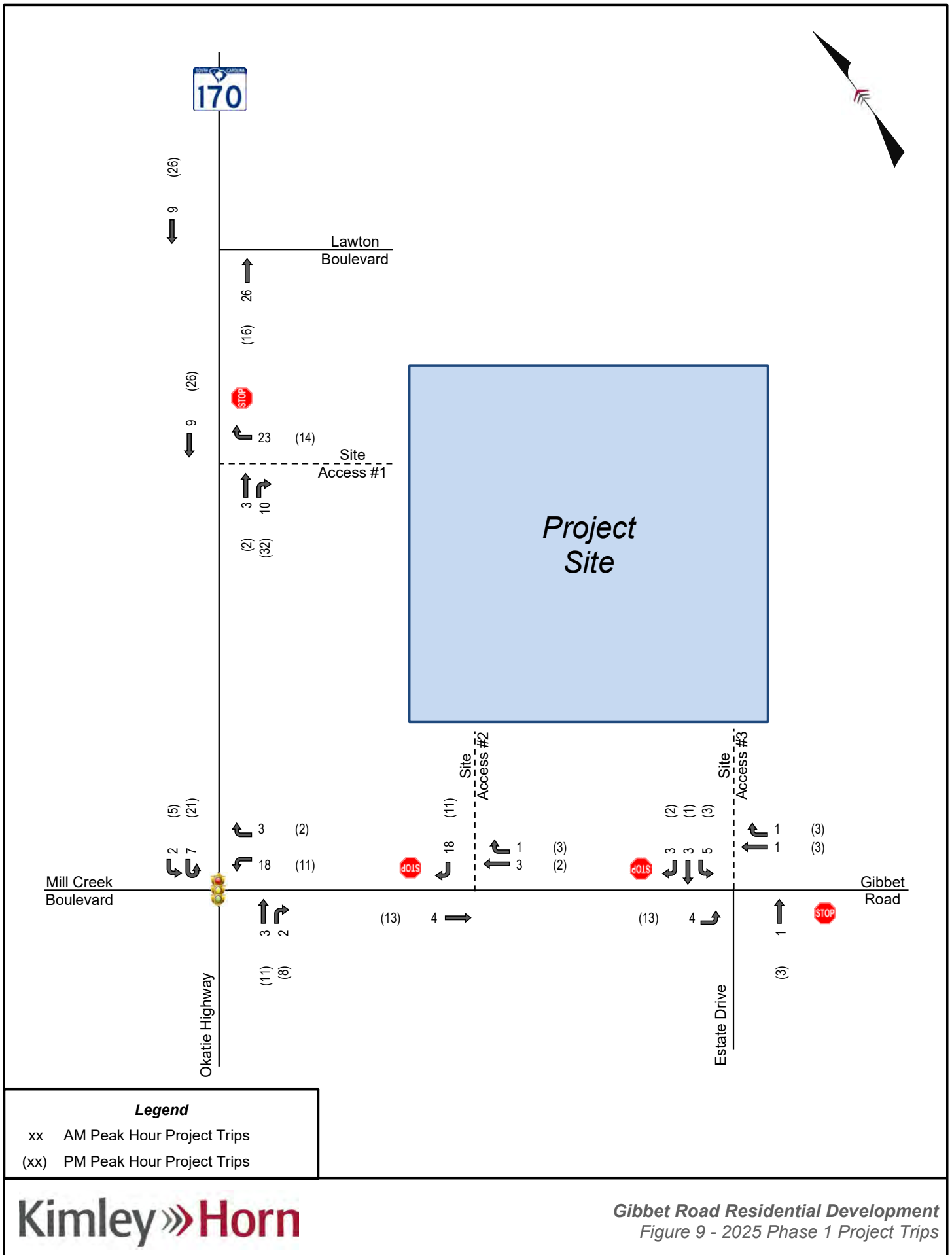
- 50% to/from the North via SC 170 (Okatie Highway)
- 35% to/from the South via SC 170 (Okatie Highway)
- 5% to/from the South via Estate Drive
- 10% to/from the East via Gibbet Road

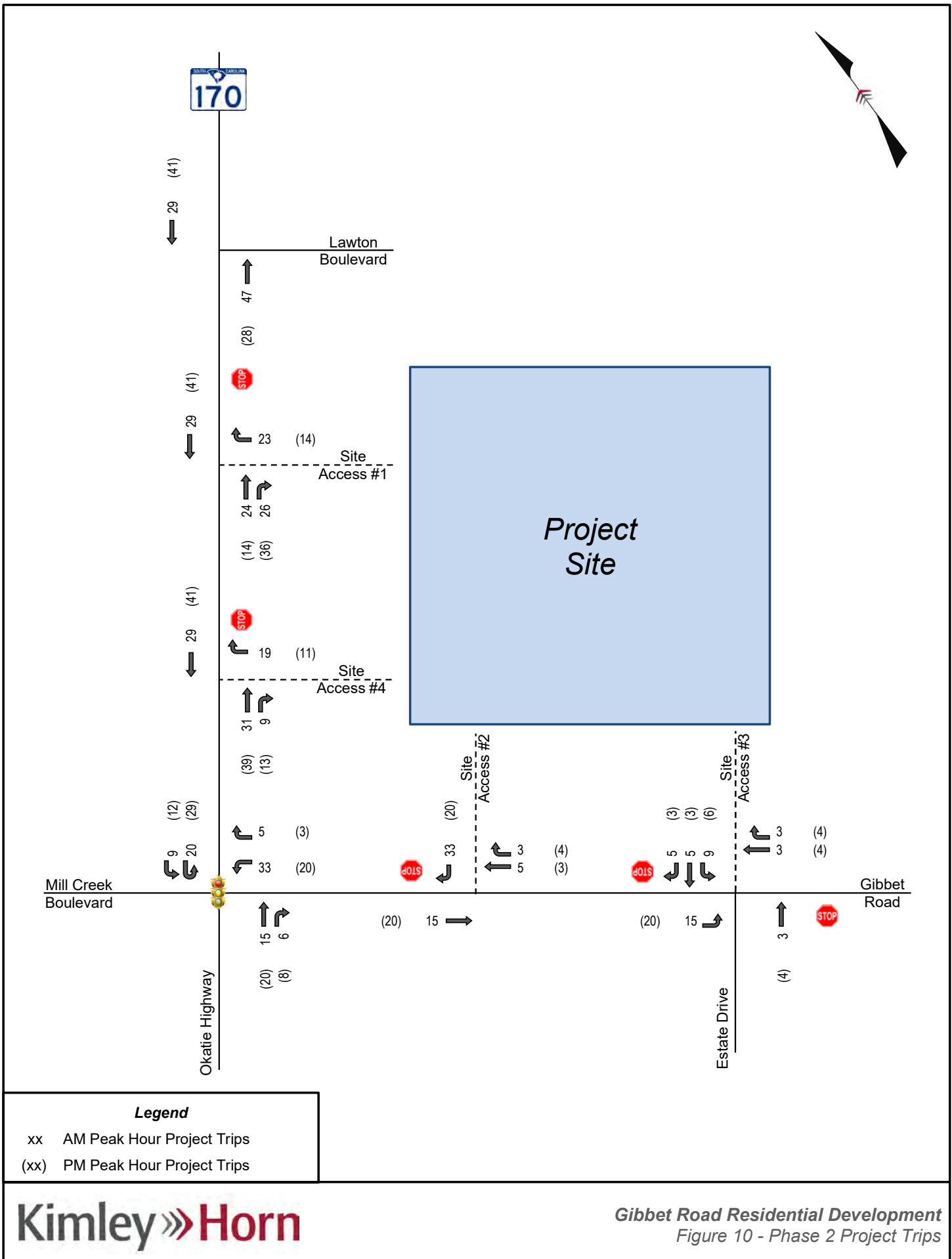
The site trip distributions and assignments for Phase 1, Phase 2, and Phase 3 are illustrated in **Figure 6**, **Figure 7**, and **Figure 8**, respectively. 2025 Phase 1 Project Trips, 2027 Phase 2 Project Trips, and 2029 Phase 3 Project Trips are illustrated in **Figure 9**, **Figure 10**, and **Figure 11**, respectively.

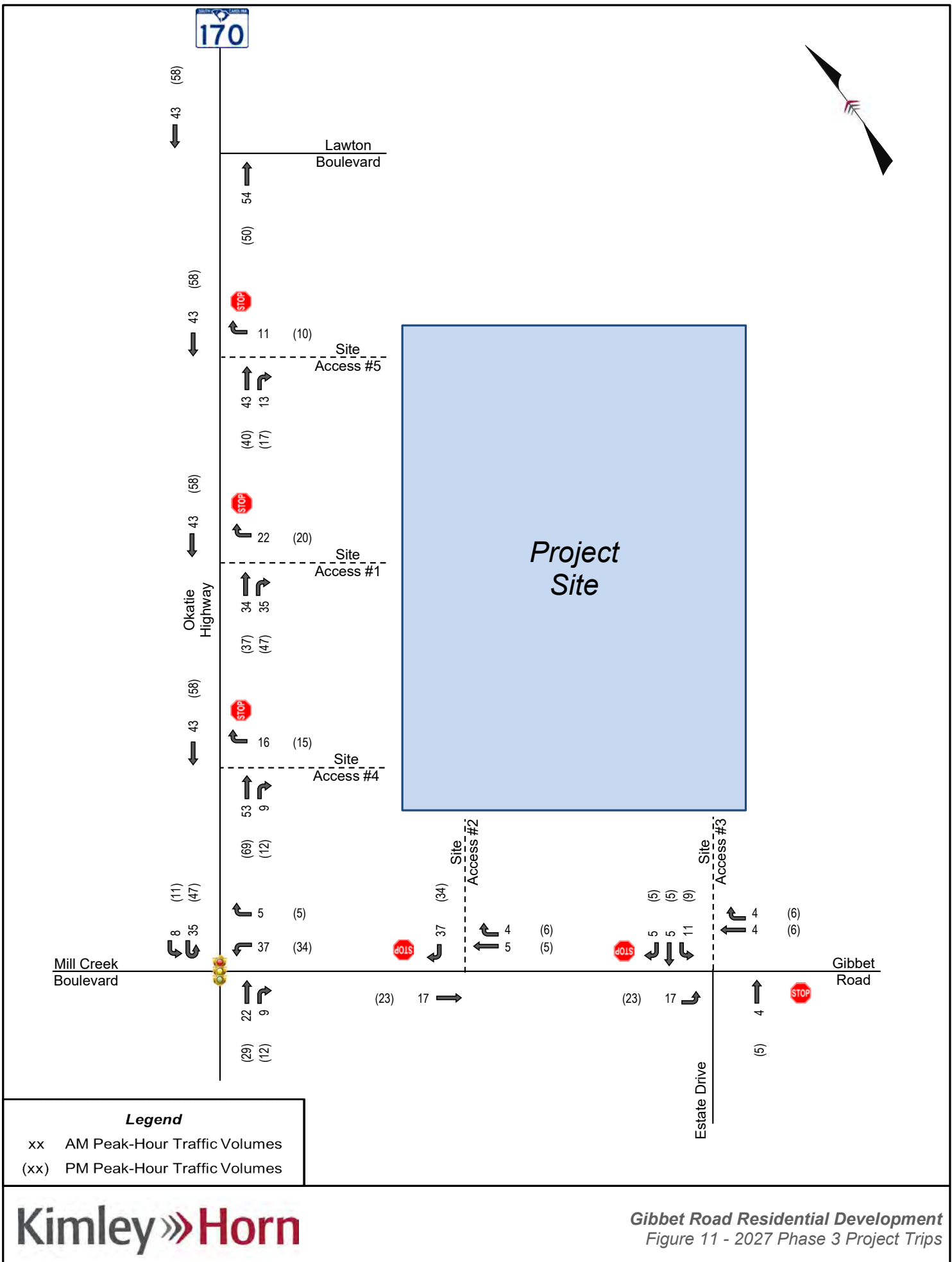












3 Existing and Future Traffic Volume Development

Existing 2022 traffic volumes were utilized in the analysis and future-year traffic volumes were developed for projected 2025, 2027, and 2029 traffic conditions. The future-year volumes consisted of the existing traffic volumes adjusted by an annual growth rate and the projected traffic volumes of the Gibbet Road Residential development. Worksheets documenting the traffic volume development are provided in **Appendix C**.

3.1 2022 Existing Traffic

Peak-hour intersection turning movement counts were conducted in the AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM to 6:00 PM) on Thursday, November 10th, 2022, at the following intersections:

- SC 170 (Okatie Highway) at Gibbet Road
- SC 170 (Okatie Highway) at Lawton Boulevard
- Gibbet Road at Estate Drive

Figure 12 illustrates the 2022 Existing peak-hour traffic volumes for the AM and PM peak hours. The raw-turning movement count data is included in **Appendix D**.

3.2 Future-Year No-Build Traffic Development

It was assumed that Phase 1 of the development will be built and fully occupied by 2025, Phase 2 by 2027, and Phase 3 by 2029. The future-year traffic volumes consist of the 2022 existing traffic volumes adjusted by a growth rate for the no-build scenarios.

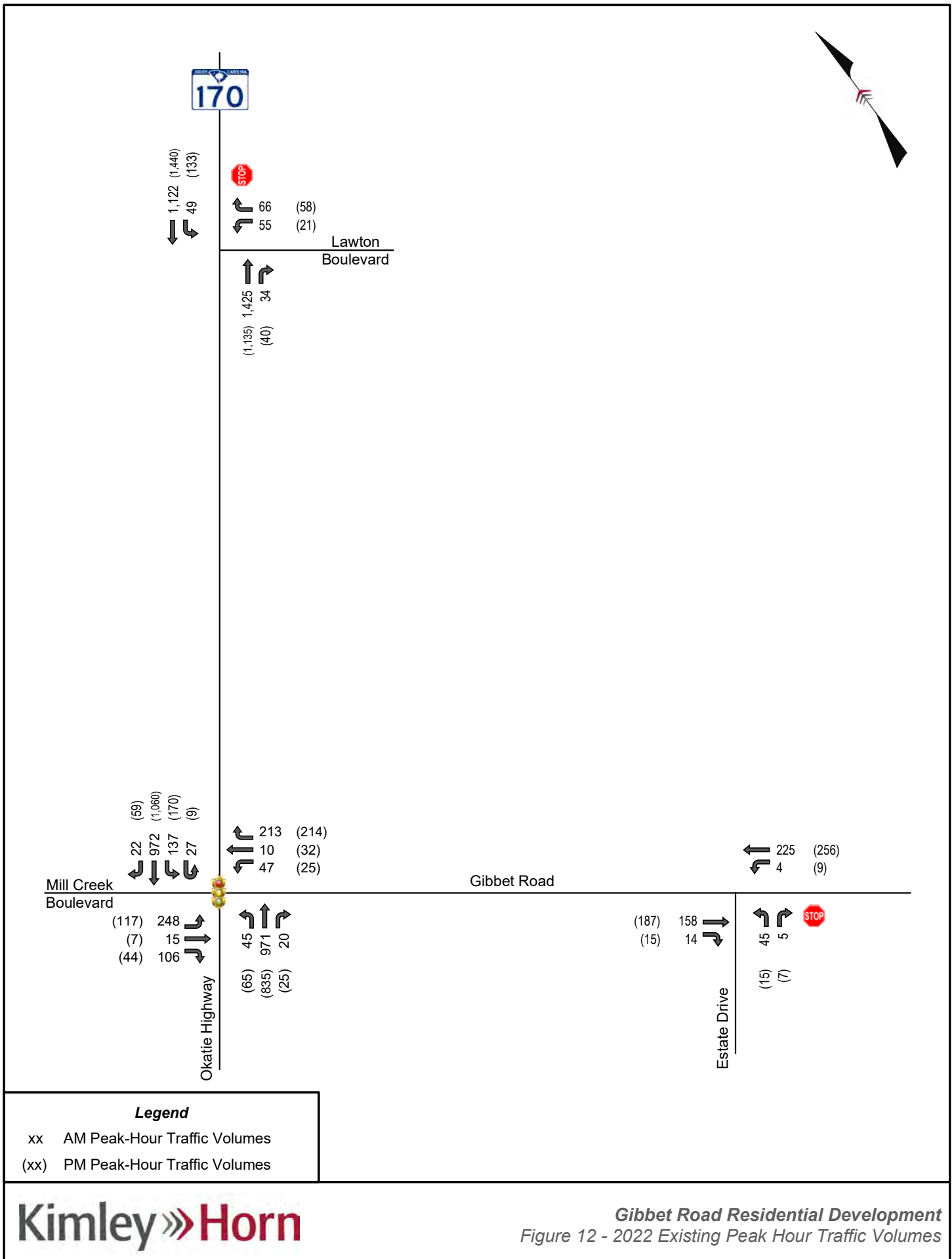
To determine the historical growth rate in the area, traffic count data was obtained from SCDOT for the count stations along Okatie Hwy and Gibbet Road. Over the past ten years, these roadways have experienced an annual growth rate of 6.5%. Therefore, a 7.0% growth rate was used to develop the no-build traffic volumes for the 2025, 2027, and 2029 conditions. A worksheet documenting the growth rate determination is included in **Appendix E**.

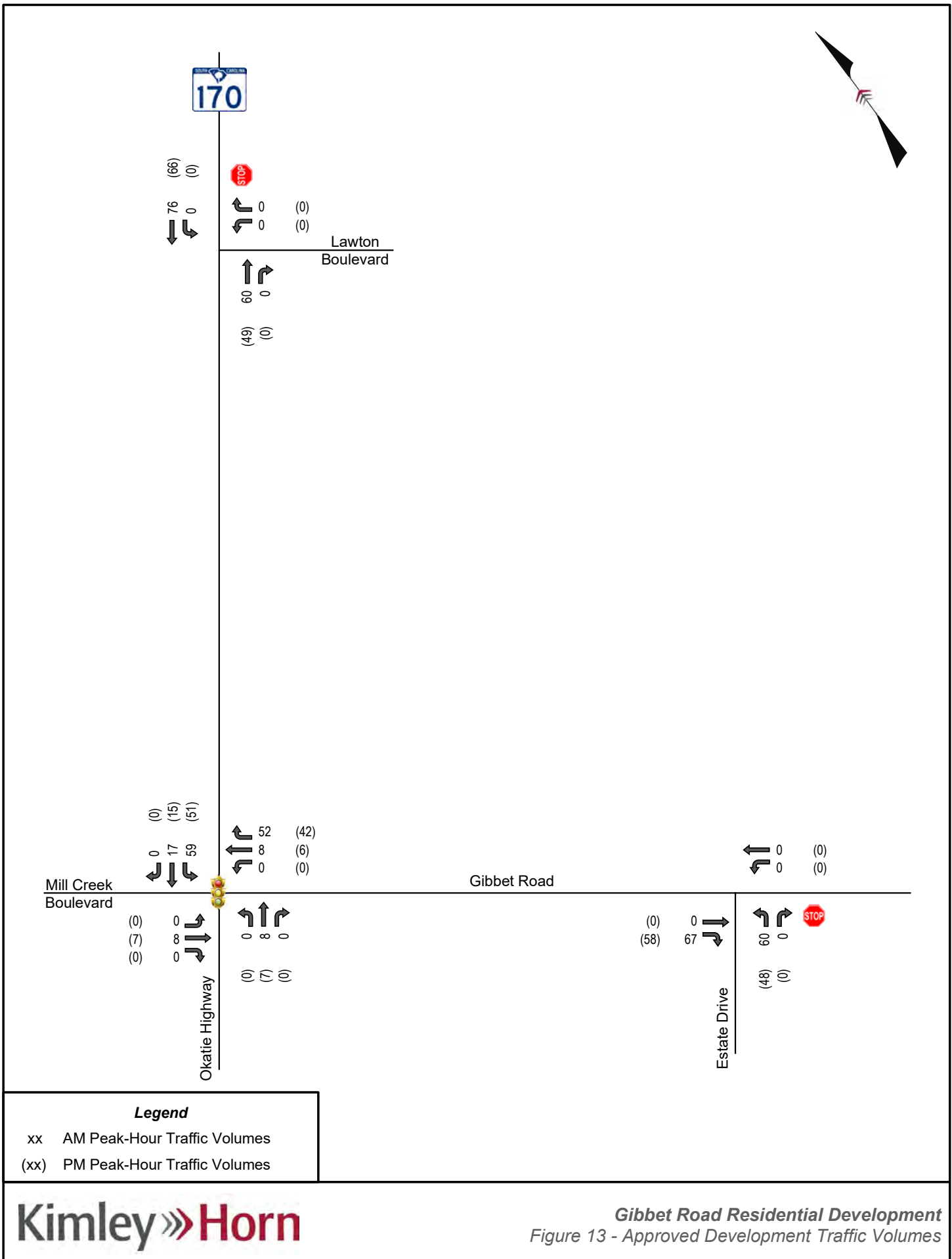
In the surrounding area, the approved background development of the *Palmetto Point Pickleball and Commercial Site*, Kimley-Horn 2021, was accounted for in developing 2025 No-Build, 2027 No-Build, and 2029 No-Build traffic volumes. Volumes associated with this development are illustrated in **Figure 13**.

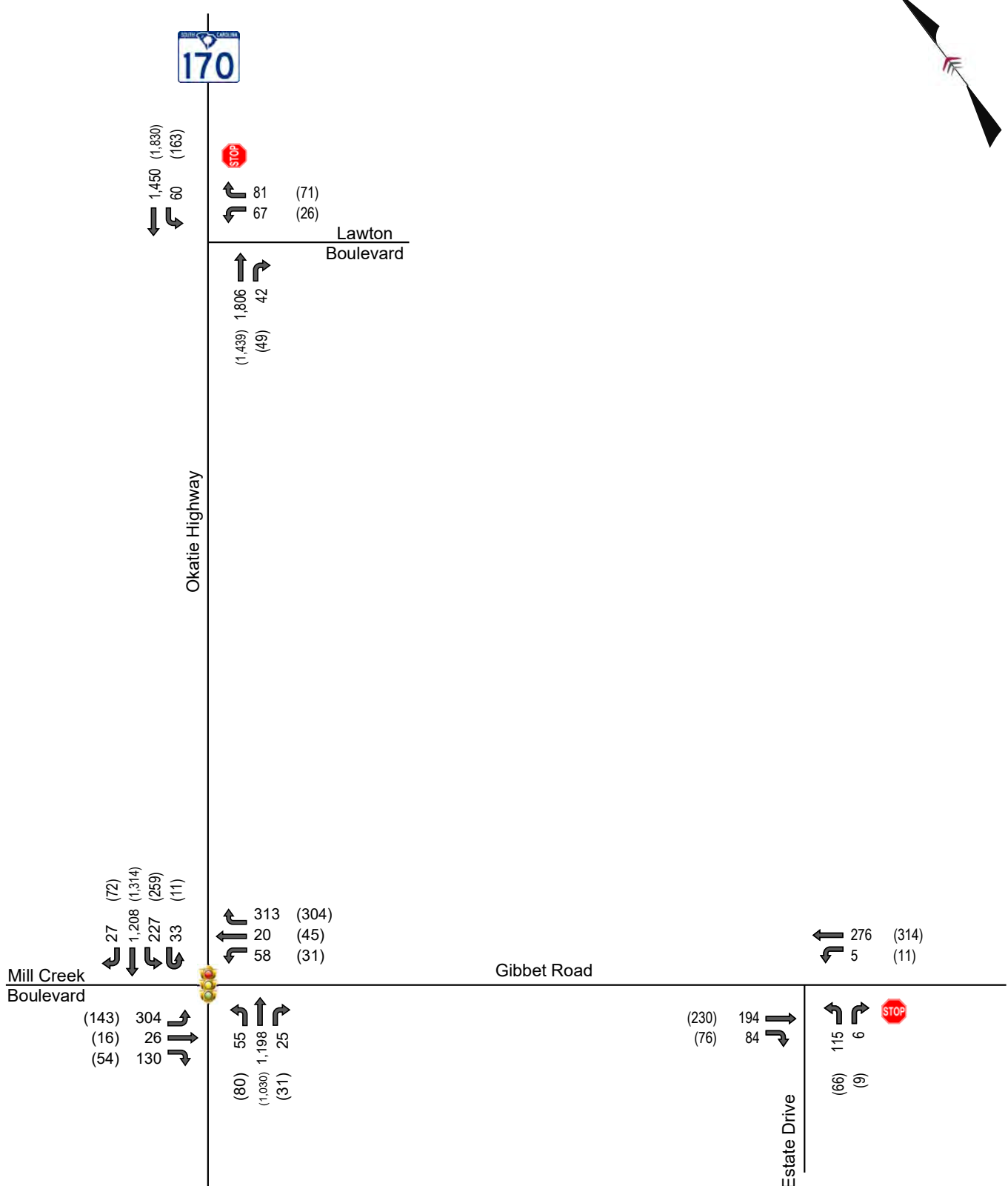
Figure 14 illustrates the 2025 No-Build traffic volumes, **Figure 15** illustrates the 2027 No-Build traffic volumes, and **Figure 16** illustrates the 2029 No-Build traffic volumes for the AM and PM peak hours.

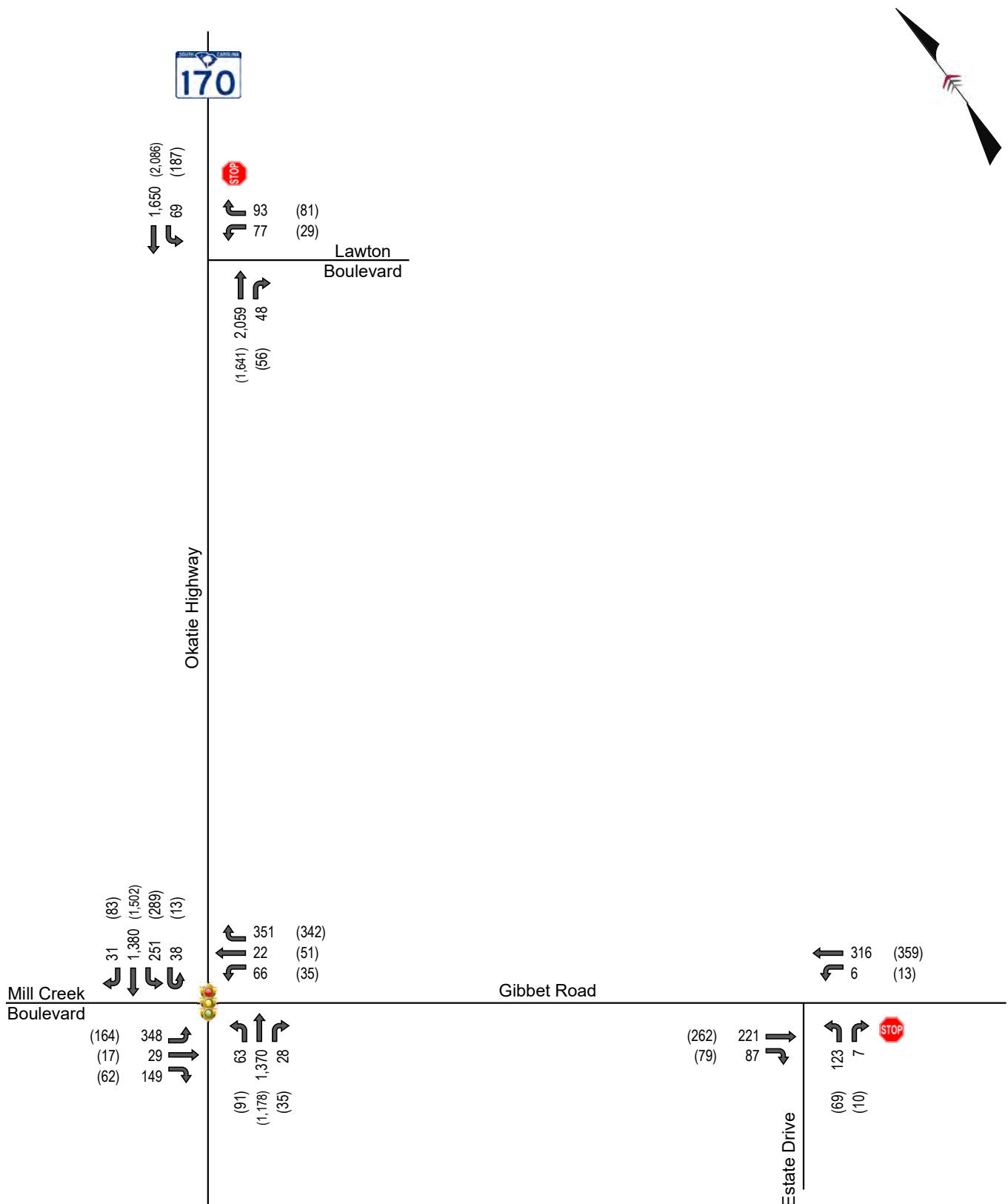
3.3 Future-Year Build Traffic Development

The Gibbet Road Residential project traffic volumes were added to the no-build traffic volumes to develop build traffic volumes for the 2025, 2027, and 2029 build-out scenarios. **Figure 17** illustrates the 2025 build traffic volumes, **Figure 18** illustrates the 2027 build traffic volumes, and **Figure 19** illustrates the 2029 build traffic volumes for the AM and PM peak hours.

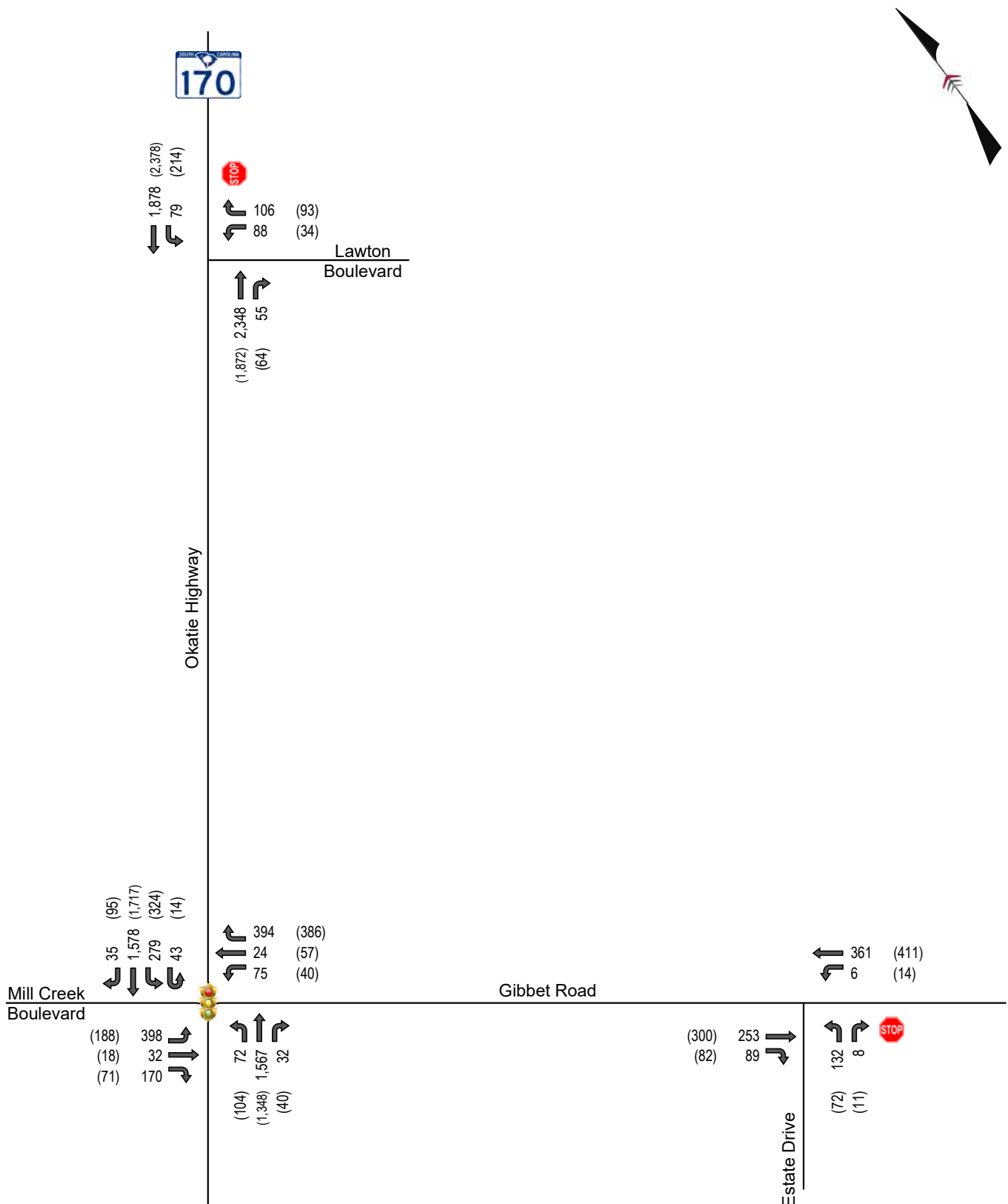




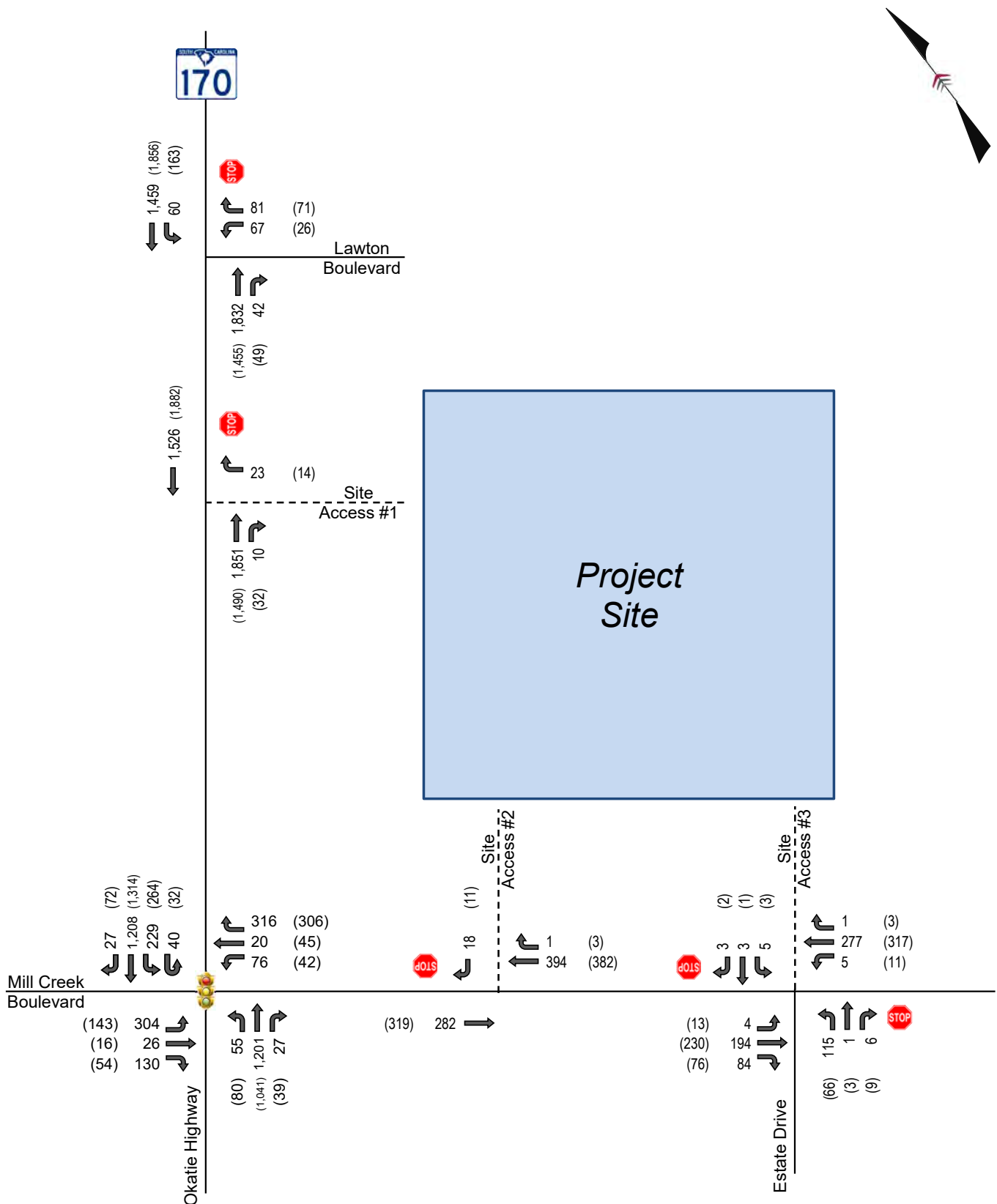


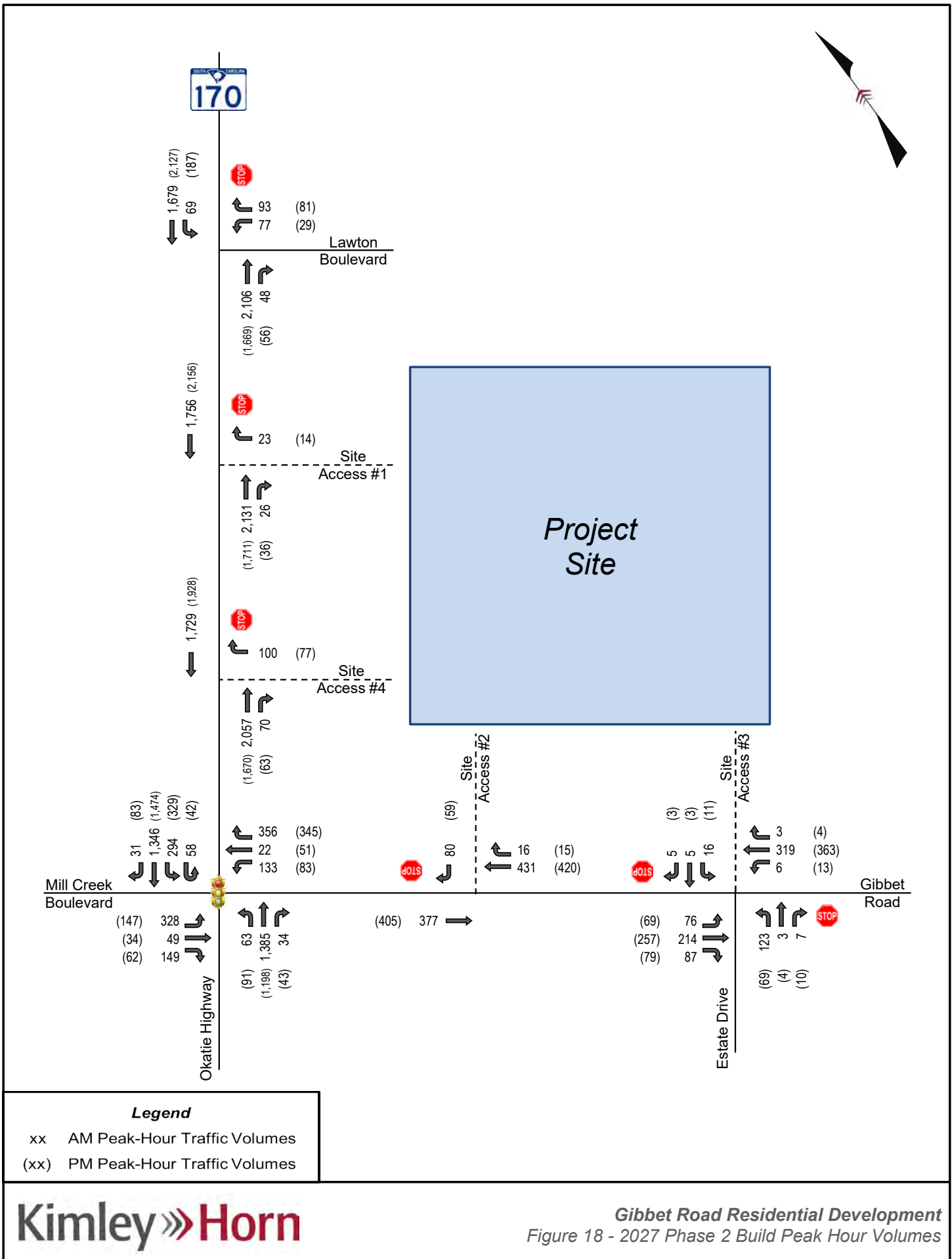
**Legend**

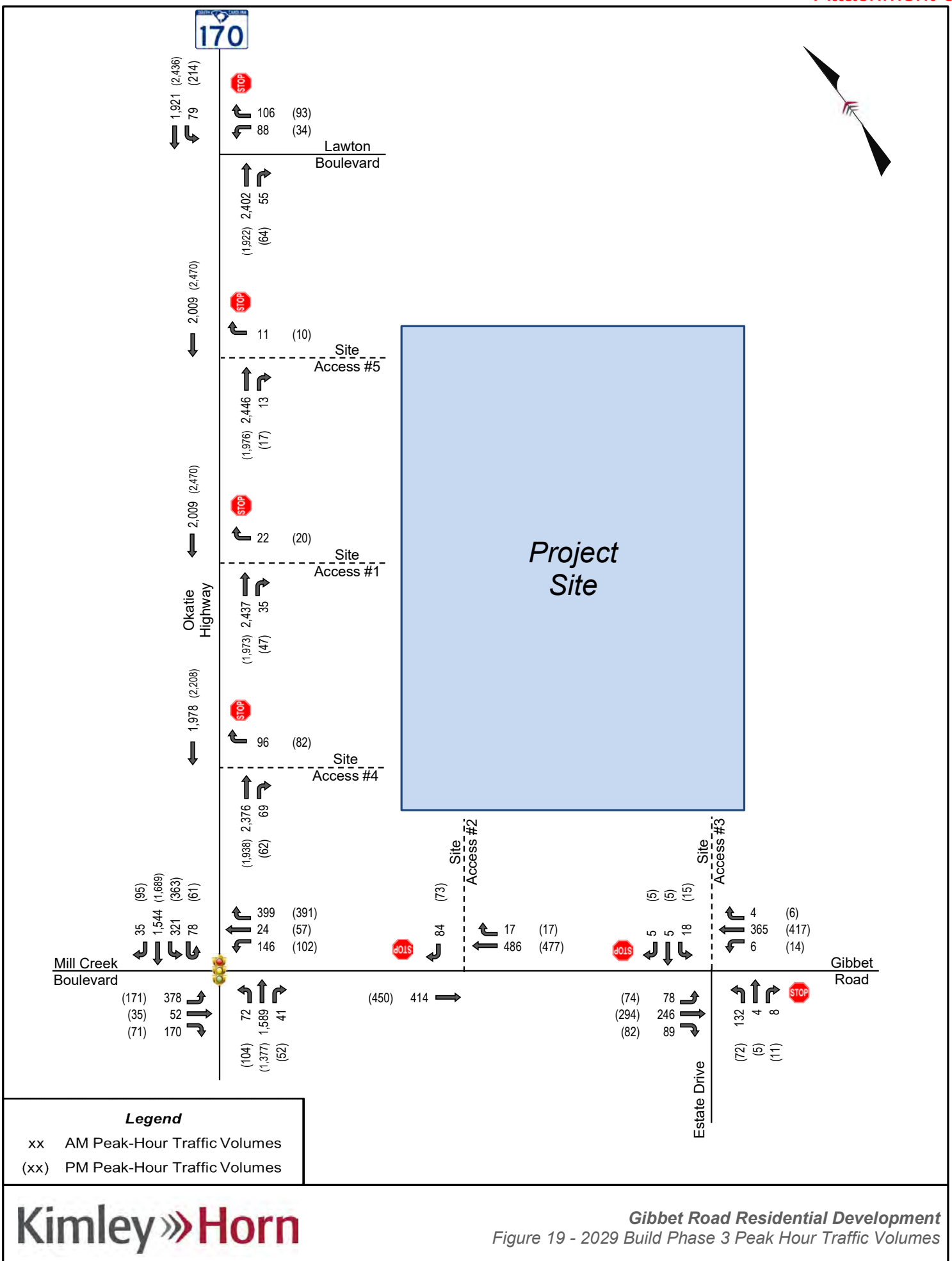
- xx AM Peak Hour Traffic Volumes
- (xx) PM Peak Hour Traffic Volumes

**Legend**

- xx AM Peak Hour Traffic Volumes
 (xx) PM Peak Hour Traffic Volumes







4 Capacity Analysis

Capacity/level-of-service (LOS) analyses were conducted using the *Highway Capacity Manual (HCM)*, 6th Edition, methodologies of the *Synchro*, Version 11, traffic analysis software. Capacity analyses were conducted for the AM and PM peak hours of the 2022 Existing conditions, 2025 No-Build conditions, 2025 Build conditions, 2027 No-Build conditions, 2027 Build conditions, 2029 No-Build conditions, and 2029 Build conditions analysis scenarios.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, gridlocked conditions with high vehicular delays, and are generally considered undesirable. **Table 4** lists the LOS control delay thresholds published in the *HCM* for signalized and unsignalized intersections.

Table 4 – HCM Level of Service Criteria

LOS	Control Delay per Vehicle (sec/veh)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

As part of the intersection analysis, SCDOT's default Synchro parameters were utilized. Existing peak-hour factors (PHF) were utilized for the existing scenarios and the PHFs for the future-year scenarios were adjusted to a minimum of 0.90 and maximum of 0.95. Existing heavy vehicle percentages were utilized for all scenarios, with a minimum of 2% considered.

Please note, U-turns located at the intersection of SC 170 (Okatie Highway) with Gibbet Road were accounted for in the left-turn volume due to the phasing conflict with the right-turn overlap along Gibbet Road. In addition, the 2027 and 2029 No-Build conditions do not account for the previous phases of the development.

The following sections outline the results of the capacity analysis for each of the study intersections. The capacity analysis worksheets are included in **Appendix F**.

4.1 SC 170 (Okatie Highway) at Lawton Boulevard

The capacity analysis results for the SC 170 (Okatie Highway) at Lawton Boulevard intersection are summarized in Table 5.

Table 5 – SC 170 (Okatie Highway) at Lawton Boulevard Analysis Results

Condition	Measure	WB (Lawton Boulevard)		NB (SC 170 Okatie Hwy)		SB (SC 170 Okatie Hwy)	
		WBL	WBR	NBT	NBR	SBL	SBT
AM Peak Hour							
2022 Existing	LOS (Delay)	D (27.2)		A (0.0)		B (13.8)*	
	Synchro 95th Q	38'	18'	0'	0'	10'	0'
2025 No-Build	LOS (Delay)	F (69.1)		A (0.0)		C (19.6)*	
	Synchro 95th Q	100'	35'	0'	0'	20'	0'
2025 Phase 1 Build	LOS (Delay)	F (72.0)		A (0.0)		C (20.0)*	
	Synchro 95th Q	103'	35'	0'	0'	20'	0'
2027 No-Build	LOS (Delay)	F (126.7)		A (0.0)		C (24.1)*	
	Synchro 95th Q	148'	50'	0'	0'	28'	0'
2027 Phase 2 Build	LOS (Delay)	F (141.2)		A (0.0)		D (25.3)*	
	Synchro 95th Q	155'	53'	0'	0'	28'	0'
2029 No-Build	LOS (Delay)	F (298.3)		A (0.0)		E (35.4)*	
	Synchro 95th Q	225'	85'	0'	0'	45'	0'
2029 Phase 3 Build	LOS (Delay)	F (\$)		A (0.0)		E (37.8)*	
	Synchro 95th Q	230'	90'	0'	0'	50'	0'
PM Peak Hour							
2022 Existing	LOS (Delay)	C (18.8)		A (0.0)		B (13.2)*	
	Synchro 95th Q	13'	13'	0'	0'	23'	0'
2025 No-Build	LOS (Delay)	D (28.5)		A (0.0)		C (18.5)*	
	Synchro 95th Q	28'	20'	0'	0'	45'	0'
2025 Phase 1 Build	LOS (Delay)	D (29.2)		A (0.0)		C (18.8)*	
	Synchro 95th Q	28'	20'	0'	0'	48'	0'
2027 No-Build	LOS (Delay)	E (45.1)		A (0.0)		D (26.2)*	
	Synchro 95th Q	48'	30'	0'	0'	78'	0'
2027 Phase 2 Build	LOS (Delay)	E (48.6)		A (0.0)		D (27.4)*	
	Synchro 95th Q	53'	30'	0'	0'	83'	0'
2029 No-Build	LOS (Delay)	F (155.8)		A (0.0)		F (50.0)*	
	Synchro 95th Q	108'	45'	0'	0'	150'	0'
2029 Phase 3 Build	LOS (Delay)	F (205.3)		A (0.0)		F (56.7)*	
	Synchro 95th Q	115'	48'	0'	0'	163'	0'

* LOS and Delay shown for the southbound left-turn movement

\$ - Delay Exceeds 300 sec/veh

2022 Existing, 2025 No-Build, and 2025 Phase 1 Build

Under 2022 Existing conditions the westbound approach along Lawton Boulevard operates at LOS D during the AM peak hour and LOS C during the PM peak hour. Under 2025 No-Build conditions, the westbound approach is expected to operate at LOS F during the AM peak hour and LOS D during the PM peak hour. This westbound approach is expected to operate similarly under the 2025 Build conditions with the consideration of the proposed development. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of Phase 1 of this proposed development.

2027 No-Build and 2027 Phase 2 Build

Under 2027 No-Build conditions, the westbound approach is expected to operate at LOS F during the AM peak hour and LOS E during the PM peak hour. This westbound approach is expected to operate similarly under the 2027 Build conditions with the consideration of the proposed development. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of Phase 2 of this proposed development.

2029 No-Build and 2029 Phase 3 Build

Under 2029 No-Build conditions, the westbound approach is expected to operate at LOS F during the AM and PM peak hour. The large increase in delay is primarily due to the large background growth of 7% per year over the seven-year period from 2022 to 2029. Additionally, volumes grown along Lawton Boulevard are conservative due to a majority of the neighborhood being built and occupied at the time turning movement counts were conducted. In addition, queues are not only anticipated to increase by one to two vehicles. Based on this, it is recommended that this intersection be monitored for the potential of installation of a traffic signal. It should be noted that Lawton Boulevard will operate at LOS F with or without phase 3 of this development, and if a traffic signal is warranted in the future, the Gibbet Road Residential Development is not responsible for installation.

4.2 SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard

The capacity analysis results for the SC 170 (Okatie Highway) at Gibbet Road/Mill Creek intersection is summarized in **Table 6** on the following page.

2022 Existing, 2025 No-Build, and 2025 Phase 1 Build

Under 2022 Existing conditions the signalized intersection of SC 170 (Okatie Highway) and Gibbet Road/Mill Creek Boulevard operates at LOS C during the AM peak hour and LOS B during the PM peak hour. Under 2025 No-Build conditions this intersection is expected to operate at LOS C during the AM and PM peak hours. However, the eastbound approach is expected to operate at LOS F during the AM peak hour. With the consideration of development traffic, this intersection is expected to operate at LOS D and LOS C under the 2025 Build conditions during the AM and PM peak hours, respectively.

2027 No-Build and 2027 Phase 2 Build

Under 2027 No-Build conditions this intersection is expected to operate at LOS D during the AM Peak hour and LOS C during the PM peak hour. With the consideration of development traffic, the intersection is expected to continue to operate at LOS D during the AM peak hour and LOS C during the PM peak hour. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of the proposed development at this intersection

2029 No-Build and 2029 Phase 3 Build

Under 2029 No-Build conditions this intersection is expected to operate at LOS F during the AM Peak hour and LOS D during the PM peak hour. With the consideration of development traffic, the intersection is expected to continue to operate at LOS F during the AM peak hour and LOS D during the PM peak hour. Although this intersection is expected to operate at LOS F during the PM peak hour, the addition of traffic associate with the development is only anticipated to increase the control delay of the intersection by 72 sec/veh and queues are anticipated to be similar to the No-Build condition. Therefore, based on the expected Build operations being similar to No-Build operations, no improvements are recommended to mitigate the impact of the proposed development at this intersection

Table 6 –SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard Analysis Results

Condition	Measure	EB (Mill Creek Boulevard)			WB (Gibbet Road)			NB (SC 170/Okatie Highway)			SB (SC 170/Okatie Highway)			Intersection
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
AM Peak Hour														
2022 Existing	LOS (Delay)	D (41.2)			C (26.9)			C (21.2)			B (18.4)			C (22.6)
	Synchro 95th Q	#283'	26'	3'	59'	19'	128'	26'	371'	0'	80'	316'	0'	
2025 No-Build	LOS (Delay)	F (92.8)			C (29.6)			C (30.2)			C (26.0)			C (34.3)
	Synchro 95th Q	#401'	38'	21'	72'	32'	207'	31'	523'	0'	#285'	440'	0'	
2025 Phase 1 Build	LOS (Delay)	F (93.6)			C (29.3)			C (31.6)			C (26.7)			D (35.1)
	Synchro 95th Q	#401'	38'	21'	90'	32'	210'	31'	524'	0'	#301'	440'	0'	
2027 No-Build	LOS (Delay)	F (164.3)			C (29.8)			D (50.2)			C (32.2)			D (51.2)
	Synchro 95th Q	#474'	42'	34'	79'	34'	237'	34'	#685'	0'	#338'	537'	0'	
2027 Phase 2 Build	LOS (Delay)	F (135.6)			C (31.5)			D (52.7)			D (46.7)			D (53.0)
	Synchro 95th Q	#439'	61'	34'	147'	34'	241'	34'	#697'	0'	#449'	513'	0'	
2029 No-Build	LOS (Delay)	F (254.3)			C (31.6)			F (94.2)			D (44.8)			F (81.8)
	Synchro 95th Q	#560'	44'	50'	88'	37'	276'	#55'	#845'	0'	#395'	#738'	0'	
2029 Phase 3 Build	LOS (Delay)	F (217.8)			C (33.3)			F (99.8)			D (54.0)			F (88.0)
	Synchro 95th Q	#526'	64'	50'	159'	37'	281'	#55'	#863'	0'	#532'	#711'	0'	
PM Peak Hour														
2022 Existing	LOS (Delay)	D (36.9)			C (31.6)			B (14.5)			B (14.0)			B (17.2)
	Synchro 95th Q	#130'	16'	0'	35'	42'	118'	24'	249'	0'	58'	288'	0'	
2025 No-Build	LOS (Delay)	D (51.3)			D (40.0)			B (18.0)			B (17.4)			C (21.9)
	Synchro 95th Q	#190'	28'	0'	45'	58'	188'	31'	364'	0'	176'	395'	3'	
2025 Phase 1 Build	LOS (Delay)	D (51.4)			D (37.6)			B (18.8)			B (18.2)			C (22.3)
	Synchro 95th Q	#190'	28'	0'	56'	58'	189'	31'	370'	0'	#236'	395'	3'	
2027 No-Build	LOS (Delay)	E (76.9)			D (43.9)			C (21.9)			C (23.0)			C (27.7)
	Synchro 95th Q	#227'	29'	0'	48'	64'	219'	52'	#485'	0'	#266'	502'	7'	
2027 Phase 2 Build	LOS (Delay)	E (59.9)			C (32.9)			C (30.3)			C (26.8)			C (28.7)
	Synchro 95th Q	#199'	46'	0'	96'	64'	222'	#57'	#499'	0'	#374'	485'	7'	
2029 No-Build	LOS (Delay)	F (131.4)			D (37.0)			D (48.1)			D (35.8)			D (45.0)
	Synchro 95th Q	#267'	31'	0'	54'	69'	259'	#80'	#605'	0'	#322'	#715'	12'	
2029 Phase 3 Build	LOS (Delay)	F (98.3)			D (38.1)			D (53.2)			D (48.8)			D (51.3)
	Synchro 95th Q	#239'	48'	0'	115'	69'	264'	#80'	#626'	0'	#453'	#696'	12'	

4.3 Gibbet Road at Estate Drive/Site Access #3

The capacity analysis results for the Gibbet Road at Estate Drive/Site Access #3 intersection are summarized in **Table 7**. The southbound Site Access #3 approach is proposed to be constructed under Phase 1 of the development and is planned to consist of one ingress lane and two egress lanes.

Table 7 – Gibbet Road at Estate Drive/Site Access #3 Analysis Results

Condition	Measure	EB (Gibbet Road)			WB (Gibbet Road)			NB (Estate Drive)			SB (Site Access #3)		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2022 Existing	LOS (Delay)	A (0.0)			A (7.6)*			B (11.9)			-		
	Synchro 95th Q	-	0'		0'			8'	-	0'			
2025 No-Build	LOS (Delay)	A (0.0)			A (7.9)*			B (14.4)					
	Synchro 95th Q	-	0'	0'	0'			25'	-	0'			
2025 Phase 1 Build	LOS (Delay)	A (7.9)*			A (7.9)*			C (16.3)			B (13.0)		
	Synchro 95th Q	0'		0'	0'			30'	0'		0'	0'	
2027 No-Build	LOS (Delay)	A (0.0)			A (8.0)*			C (17.0)			-		
	Synchro 95th Q	-	0'	0'	0'			35'	-	0'			
2027 Phase 2 Build	LOS (Delay)	A (8.3)*			A (8.0)*			D (32.5)			C (18.7)		
	Synchro 95th Q	5'		0'	0'			75'	3'		5'	3'	
2029 No-Build	LOS (Delay)	A (0.0)			A (8.1)*			C (19.9)			-		
	Synchro 95th Q	-	0'	0'	0'			48'	-	0'			
2029 Phase 3 Build	LOS (Delay)	A (8.5)*			A (8.1)*			E (45.8)			C (21.2)		
	Synchro 95th Q	8'		0'	0'			108'	3'		8'	3'	
PM Peak Hour													
2022 Existing	LOS (Delay)	A (0.0)			A (7.7)*			B (11.5)			-		
	Synchro 95th Q	-	0'		0'			5'	-	0'			
2025 No-Build	LOS (Delay)	A (0.0)			A (8.8)*			B (14.2)					
	Synchro 95th Q	-	0'	0'	0'			15'	-	0'			
2025 Phase 1 Build	LOS (Delay)	A (8.0)*			A (8.0)*			C (16.3)			B (14.0)		
	Synchro 95th Q	0'		0'	0'			18'	3'		0'	0'	
2027 No-Build	LOS (Delay)	A (0.0)			A (8.1)*			C (16.2)			-		
	Synchro 95th Q	-	0'	0'	0'			20'	-	0'			
2027 Phase 2 Build	LOS (Delay)	A (8.4)*			A (8.1)*			D (25.8)			C (20.7)		
	Synchro 95th Q	5'		0'	0'			35'	3'		5'	3'	
2029 No-Build	LOS (Delay)	A (0.0)			A (8.3)*			C (18.5)			-		
	Synchro 95th Q	-	0'	0'	0'			25'	-	0'			
2029 Phase 3 Build	LOS (Delay)	A (8.6)*			A (8.2)*			D (33.5)			C (24.0)		
	Synchro 95th Q	8'		0'	0'			50'	3'		8'	3'	

* LOS and Delay shown for the southbound left-turn movement

2022 Existing, 2025 No-Build, and 2025 Phase 1 Build

Under 2022 Existing conditions the northbound approach along Estate Drive operates at LOS B during both the AM peak hour and PM peak hours. Under the 2025 No-Build conditions, a eastbound right-turn lane is planned to be constructed as part of the Palmetto Point Pickleball and Commercial Site. The northbound approach is expected to continue to operate at LOS B under 2025 No-Build conditions during both the AM and PM peak hour. With the addition of traffic associated with the proposed development, the northbound approach is expected to increase to LOS C during the AM and PM peak hour. The new southbound approach of Site Access #3 is expected to operate at LOS B during the AM and PM peak hours of the 2025 Build Phase 1 conditions.

Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT Roadway Design Manual. The results of the warrant indicate that under 2025 Build Phase 1 conditions an eastbound left-turn lane and westbound right-turn lane are not necessary along Gibbet Road. Therefore, based on the expected Build operations being a LOS C or better, no improvements are recommended to mitigate the impact of Phase 1 of this proposed development.

2027 No-Build and 2027 Phase 2 Build

Under 2027 No-Build conditions the northbound approach along Estate Drive is expected to operate at LOS C during the AM and PM peak hour. Under 2027 Build Phase 2 conditions the northbound approach is expected to operate at LOS D during the AM and PM peak hour. The southbound approach of Site Access #3 is expected to operate at LOS C during the AM and PM peak hour.

Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2027 Build Phase 2 conditions the eastbound left-turn lane along Gibbet Road should be considered. Therefore, it is recommended to construct an eastbound left-turn lane along Gibbet Road in accordance with the SCDOT *Roadway Design Manual*. Turn lane warrant worksheets can be seen in **Appendix G**.

2029 No-Build and 2029 Phase 3 Build

Under 2029 No-Build conditions the northbound approach along Estate Drive is expected to operate at LOS C during the AM and PM peak hour. Under 2029 Build conditions, it was assumed that the eastbound left-turn lane would be constructed with phase 2 of the development. Under 2029 Build Phase 2 conditions the northbound approach is expected to operate at LOS E during the AM peak hour and LOS D under the PM peak hour. The southbound approach of Site Access #3 is expected to operate at LOS C during the AM and PM peak hour.

Although there is an increase in LOS along the northbound approach with the consideration of project traffic, it is not uncommon for minor street approaches to operate at LOS E, or LOS F, during peak hours of travel. Therefore, no improvements are recommended to mitigate the impact of Phase 3 of this proposed development.

4.4 SC 170 (Okatie Highway) at Site Access #1

The capacity analysis results for the SC 170 (Okatie Highway) at Site Access #1 intersection are summarized in **Table 8**. Site Access #1 is proposed to be constructed as part of Phase 1 and is planned to consist of one ingress lane and one egress lanes that will be restricted to right-in, right-out access only. Site Access #1 is planned to be located approximately 850 feet north of the intersection of SC 170 (Okatie Highway) with Gibbet Road.

Table 8 - SC 170 (Okatie Hwy) at Site Access #1 Analysis Results

Condition	Measure	WB (Site Access #1)	NB (SC 170/Okatie Highway)		SB (SC 170/Okatie Highway)
		WBR	NBT	NBR	SBT
AM Peak Hour					
2025 Phase 1 Build	LOS (Delay)	C (22.7)	A (0.0)		A (0.0)
	Synchro 95th Q	10'	0'		0'
2027 Phase 2 Build	LOS (Delay)	D (28.6)	A (0.0)		A (0.0)
	Synchro 95th Q	13'	0'		0'
2029 Phase 3 Build	LOS (Delay)	E (36.1)	A (0.0)		A (0.0)
	Synchro 95th Q	15'	0'		0'
PM Peak Hour					
2025 Phase 1 Build	LOS (Delay)	C (17.4)	A (0.0)		A (0.0)
	Synchro 95th Q	5'	0'		0'
2027 Phase 2 Build	LOS (Delay)	C (20.2)	A (0.0)		A (0.0)
	Synchro 95th Q	5'	0'		0'
2029 Phase 3 Build	LOS (Delay)	C (24.4)	A (0.0)		A (0.0)
	Synchro 95th Q	10'	0'		0'

2025 Phase 1 Build

Under 2025 Build Phase 1 conditions the westbound approach along Site Access #1 is expected to operate at LOS C during the AM and PM peak hours. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2025 Build Phase 1 conditions and 2027 Build Phase 2 conditions, a northbound right-turn lane is not necessary along SC 170 (Okatie Highway). However, based on coordination with the SCDOT, all driveways located along SC 170 (Okatie Highway) will be required to construct turn lanes for ingress movements. Turn lane warrant worksheets can be seen in **Appendix G**. Based on the capacity analysis, Site Access #1 is recommended to be constructed as a right-in, right-out only driveway with one ingress lane and one egress lane.

2027 Phase 2 Build

Under 2027 Build Phase 2 the westbound approach is anticipated to increase to LOS D during the AM peak hour and remain at LOS C during the PM peak hour. Therefore, no improvements are recommended to mitigate the impact of Phase 2 of this proposed development.

2029 Phase 3 Build

Under 2029 Build Phase 3 the westbound approach is anticipated to increase to LOS E during the AM peak hour and remain at LOS C during the PM peak hour. Please note that although the westbound approach along Site Access #1 is anticipated to operate at LOS E, it is not uncommon for unsignalized driveways to operate at LOS E, or LOS F, during peak hours of travel. In addition, queues are not anticipated to be more than two vehicles along the westbound approach. Based on this, no improvements are recommended to mitigate the impact of Phase 3 of this proposed development.

4.5 Gibbet Road at Site Access #2

The capacity analysis results for the Gibbet Road at Site Access #2 intersection are summarized in **Table 9**. Site Access #2 is proposed to be constructed as part of Phase 1 and is planned to consist of one ingress lane and one egress lanes that will be restricted to a right-in, right-out access only. Site Access #2 is planned to be located approximately 350' east of the intersection of SC 170 (Okatie Highway) at Gibbet Road.

Table 9 - Gibbet Road at Site Access #2 Analysis Results

Condition	Measure	EB (Gibbet Road)	WB (Gibbet Road)	SB (Site Access #2)
		EBT	WBTR	SBR
AM Peak Hour				
2025 Phase 1 Build	LOS (Delay)	A (0.0)	A (0.0)	B (11.0)
	Synchro 95th Q	0'	0'	3'
2027 Phase 2 Build	LOS (Delay)	A (0.0)	A (0.0)	B (12.3)
	Synchro 95th Q	0'	0'	13'
2029 Phase 3 Build	LOS (Delay)	A (0.0)	A (0.0)	B (13.1)
	Synchro 95th Q	0'	0'	13'
PM Peak Hour				
2025 Phase 1 Build	LOS (Delay)	A (0.0)	A (0.0)	B (10.8)
	Synchro 95th Q	0'	0'	0'
2027 Phase 2 Build	LOS (Delay)	A (0.0)	A (0.0)	B (11.9)
	Synchro 95th Q	0'	0'	10'
2029 Phase 3 Build	LOS (Delay)	A (0.0)	A (0.0)	B (12.8)
	Synchro 95th Q	0'	0'	13'

All approaches at this intersection are anticipated to operate with short delays during the AM and PM peak hours. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2025 Build Phase 1 conditions, 2027 Phase 2 Build conditions, and 2029 Phase 3 Build conditions a westbound right-turn lane is not necessary along Gibbet Road. Turn lane warrant worksheets can be seen in **Appendix G**.

Based on all approaches anticipated to operate with short delays, and turn lane warrants not being met, no improvements are recommended for this intersection. Site Access #2 should be constructed as a right-in, right-out only driveway with one ingress lane and one egress lane.

4.6 SC 170 (Okatie Hwy) at Site Access #4

The capacity analysis results for the SC 170 (Okatie Highway)/ Site Access #4 intersection is summarized in **Table 10**. Site Access #4 is proposed to be constructed as part of Phase 2 and is planned to consist of one ingress lane and one egress lanes that will be restricted to a right-in, right-out access only. Site Access #4 is planned to be located approximately 350' north of the intersection of SC 170 (Okatie Highway) at Gibbet Road.

Table 10 - SC 170 (Okatie Hwy) at Site Access #4 Analysis Results

Condition	Measure	WB (Site Access #4)	NB (SC 170/Okatie Highway)		SB (SC 170/Okatie Highway)
		WBR	NBT	NBR	SBT
AM Peak Hour					
2027 Phase 2 Build	LOS (Delay)	F (51.7)	A (0.0)		A (0.0)
	Synchro 95th Q	85'	0'		0'
2029 Phase 3 Build	LOS (Delay)	F (76.4)	A (0.0)		A (0.0)
	Synchro 95th Q	108'	0'		0'
PM Peak Hour					
2027 Phase 2 Build	LOS (Delay)	D (26.0)	A (0.0)		A (0.0)
	Synchro 95th Q	35'	0'		0'
2029 Phase 3 Build	LOS (Delay)	D (33.5)	A (0.0)		A (0.0)
	Synchro 95th Q	50'	0'		0'

The westbound approach at this proposed intersection is anticipated to operate at LOS F during the AM peak hour and LOS D during the PM peak hour. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2027 Build conditions, a northbound right-turn lane should be considered along SC 170 (Okatie Highway). Turn lane warrant worksheets can be seen in **Appendix G**.

Based on the capacity and turn lane warrant analysis, it is recommended to construct Site Access #4 as a right-in, right-out only driveway with one ingress and one egress lane, and construct a northbound right turn lane in accordance with the SCDOT *Roadway Design Manual*.

4.7 SC 170 (Okatie Hwy) at Site Access #5

The capacity analysis results for the SC 170 (Okatie Highway)/ Site Access #5 intersection is summarized in **Table 11**. Site Access #5 is proposed to be constructed as part of Phase 3 and is planned to consist of one ingress lane and one egress lanes that will be restricted to a right-in, right-out access only. Site Access #5 is planned to be located approximately 875' south of the intersection of SC 170 (Okatie Highway) at Lawton Boulevard.

Table 11 - SC 170 (Okatie Hwy) at Site Access #5 Analysis Results

Condition	Measure	WB (Site Access #5)	NB (SC 170/Okatie Highway)		SB (SC 170/Okatie Highway)
		WBR	NBT	NBR	SBT
AM Peak Hour					
2029 Phase 3 Build	LOS (Delay)	D (33.8)	A (0.0)		A (0.0)
	Synchro 95th Q	8'	0'		0'
PM Peak Hour					
2029 Phase 3 Build	LOS (Delay)	C (23.7)	A (0.0)		A (0.0)
	Synchro 95th Q	5'	0'		0'

The westbound approach at this proposed intersection is anticipated to operate at LOS D during the AM peak hour and LOS C during the PM peak hour. Additional turn lane improvements for this unsignalized intersection beyond those necessary for capacity were determined based on guidelines in the 2021 SCDOT *Roadway Design Manual*. The results of the warrant indicate that under 2029 Build Phase 3 conditions a northbound right-turn lane is not necessary along SC 170 (Okatie Highway). However, based on coordination with the SCDOT, all driveways located along SC 170 (Okatie Highway) will be required to construct turn lanes for ingress movements. Turn lane warrant worksheets can be seen in **Appendix G**.

Based on the capacity and turn lane warrant analysis, it is recommended to construct Site Access #5 as a right-in, right-out only driveway with one ingress and one egress lane, and construct a northbound right turn lane in accordance with the SCDOT *Roadway Design Manual*.

6 Conclusion

The proposed Gibbet Road Residential Development is in the northeast quadrant of the SC 170 (Okatie Highway) and Gibbet Road intersection in Bluffton, South Carolina. This development is planned to consist of the following phases and land uses:

- 2025 Build Phase 1 – 150 multi-family housing units.
- 2027 Build Phase 2 – 6,300 square-foot convenience store and gas station with 12 fueling positions.
- 2029 Build Phase 3 – 8,850 square feet office space and 8,850 square feet retail space.

It was assumed that the project will access the roadway network via the following five unsignalized driveways:

- Site Access #1 – Planned to be constructed under Phase 1 and is located approximately 850' north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #2 – Planned to be constructed under Phase 1 and is located approximately 350' east of SC 170 (Okatie Highway) along Gibbet Road. This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #3 – Planned to be constructed under Phase 1, and is proposed to be full-movement and align with Estate Drive.
- Site Access #4 – Planned to be constructed under Phase 2 and is located approximately 350' feet north of Gibbet Road along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.
- Site Access #5 – Planned to be constructed under Phase 3 and is located approximately 875' feet south of Lawton Boulevard along SC 170 (Okatie Highway). This access is proposed to be restricted to right-in, right-out movements only.

This study summarizes the results of the traffic analyses at the following study intersections:

- 1) SC 170 (Okatie Highway) at Lawton Boulevard
- 2) SC 170 (Okatie Highway) at Gibbet Road/Mill Creek Boulevard
- 3) Gibbet Road at Estate Drive/Site Access #3
- 4) SC 170 (Okatie Highway) at Site Access #1
- 5) Gibbet Road at Site Access #2
- 6) SC 170 (Okatie Highway) at Site Access #4
- 7) SC 170 (Okatie Highway) at Site Access #5

Improvements Considered by Others

In the surrounding area, the approved development of the Palmetto Point Pickleball and Commercial Site, Kimley-Horn 2021, was accounted for in the analysis of 2025, 2027, and 2029 conditions. Based on this report, an eastbound right-turn lane along Gibbet Road at the intersection of Estate Drive will be constructed.

Based on the results of the traffic analyses, the following improvements are recommended to mitigate the impact of the proposed development's traffic on the study area intersections:

2025 Build Phase 1**Gibbet Road at Estate Drive/ Site Access #3**

- Construct Site Access #3 to align with Estate Drive. Site Access #3 should consist of one ingress lane and two egress lanes. The egress lanes should consist of a left-turn lane and shared through/right-turn lane.

SC 170 (Okatie Highway) at Site Access #1

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #1 to be a right-in, right-out access only with one ingress lane and one egress lane.

Gibbet Road at Site Access #2

- Construct Site Access #2 to be a right-in, right-out access only with one ingress lane and one egress lane.

2027 Build Phase 2**Gibbet Road at Estate Drive/ Site Access #3**

- Construct an eastbound left-turn lane along Gibbet Road in accordance with the SCDOT *Roadway Design Manual*.

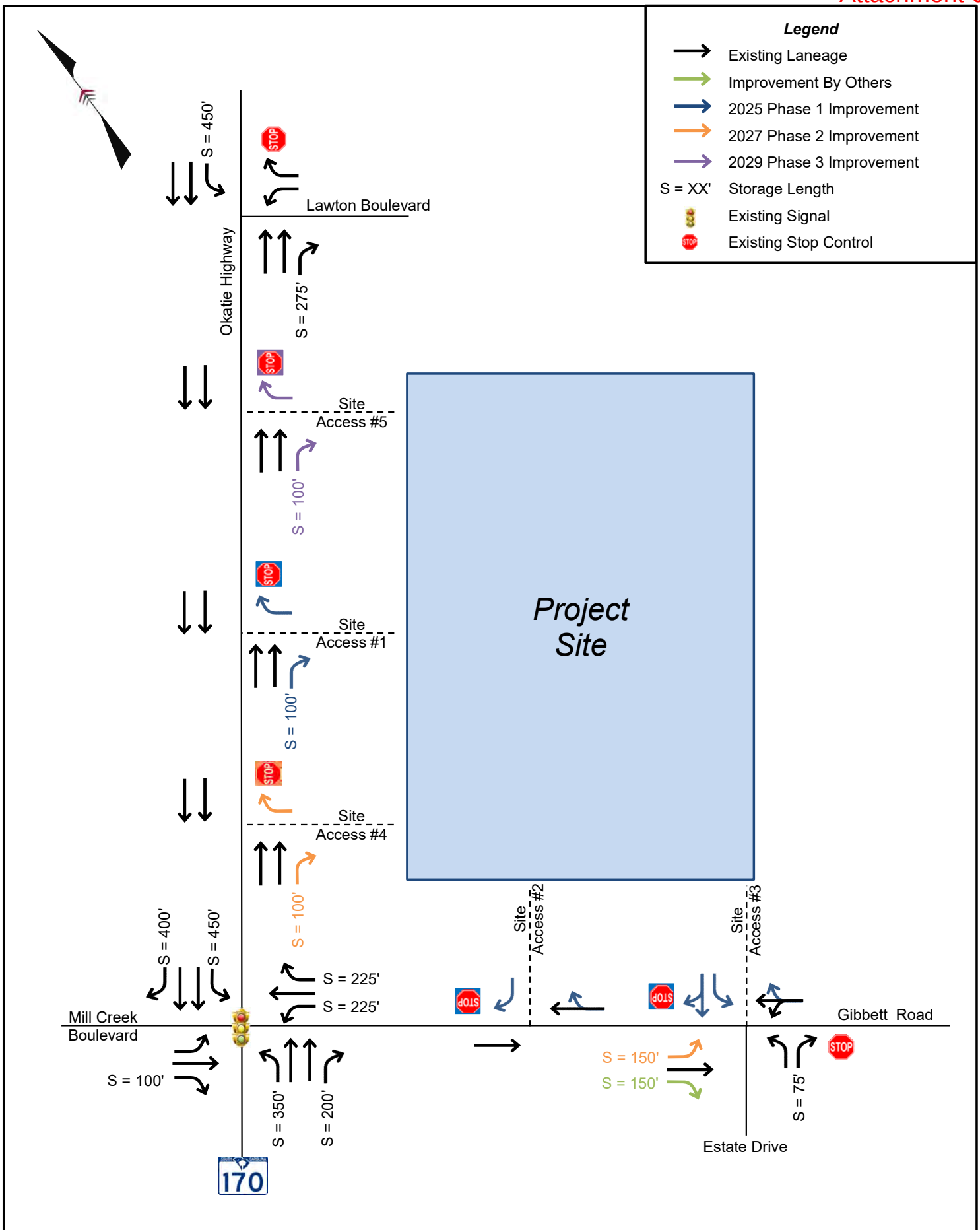
SC 170 (Okatie Highway) at Site Access #4

- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #4 to be a right-in, right-out access only with one ingress lane and one egress lane.

2029 Build Phase 3**SC 170 (Okatie Highway) at Site Access #5**

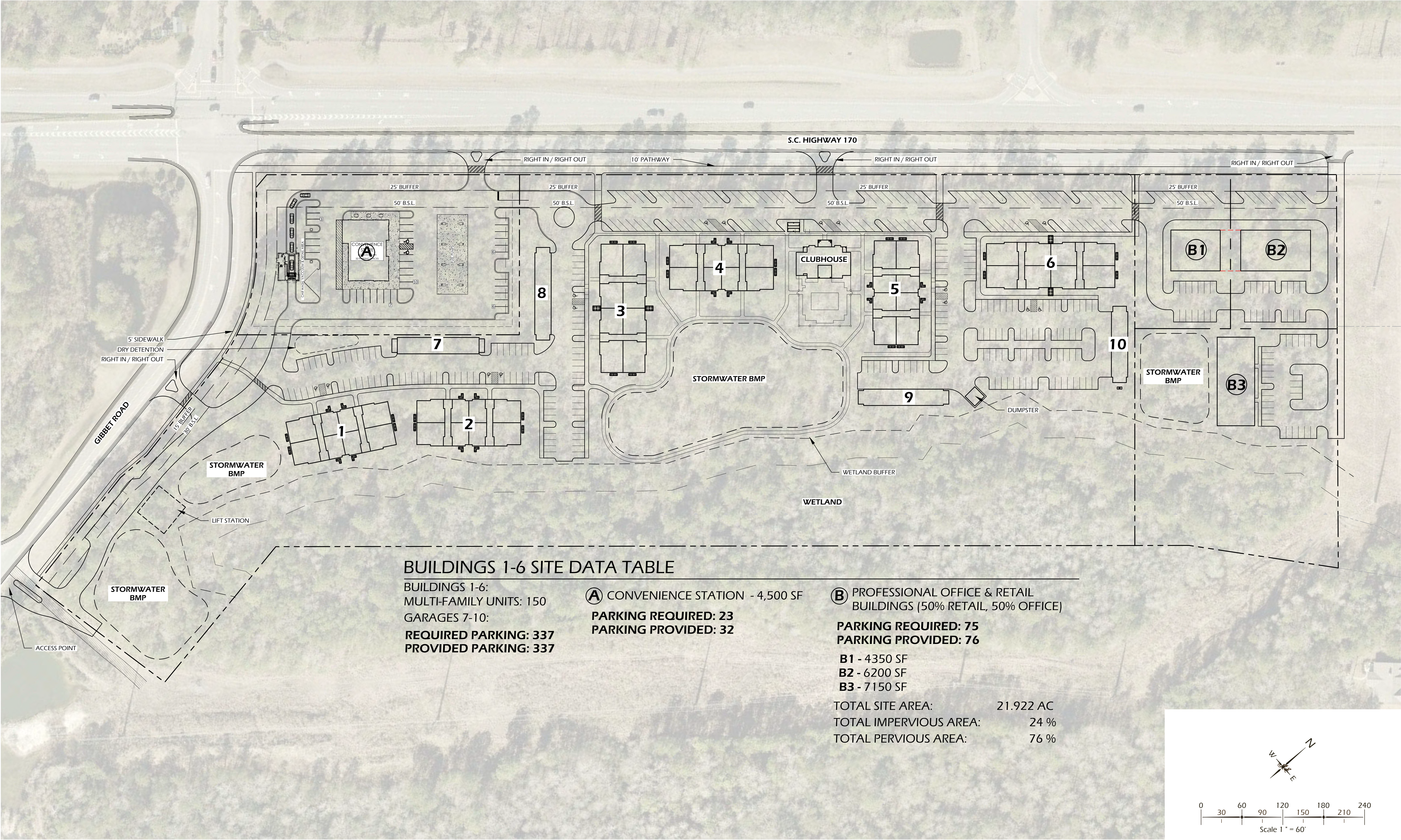
- Construct a northbound right-turn lane along SC 170 (Okatie Highway) in accordance with the SCDOT *Roadway Design Manual*.
- Construct Site Access #5 to be a right-in, right-out access only with one ingress lane and one egress lane.

Figure 20 illustrates the recommended improvements for the study area.



Appendix A – Site Plan

MASTER PLAN



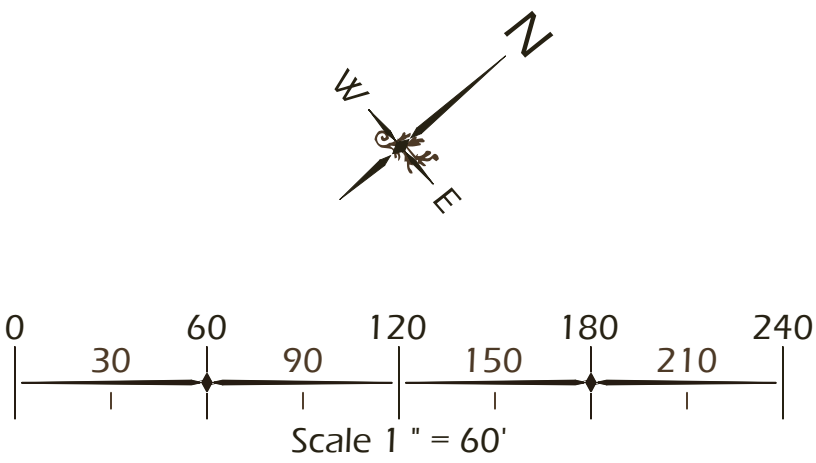
BUILDINGS 1-6 SITE DATA TABLE

BUILDINGS 1-6:
MULTI-FAMILY UNITS: 150
GARAGES 7-10:
REQUIRED PARKING: 337
PROVIDED PARKING: 337

(A) CONVENIENCE STATION - 4,500 SF
PARKING REQUIRED: 23
PARKING PROVIDED: 32

(B) PROFESSIONAL OFFICE & RETAIL
BUILDINGS (50% RETAIL, 50% OFFICE)
PARKING REQUIRED: 75
PARKING PROVIDED: 76
B1 - 4350 SF
B2 - 6200 SF
B3 - 7150 SF

TOTAL SITE AREA: 21.922 AC
TOTAL IMPERVIOUS AREA: 24 %
TOTAL PERVIOUS AREA: 76 %



Appendix B – Trip Generation Calculations

Gibbet Road Multifamily Phase 1 Trip Generation									
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Residential Land Uses			1,037	69	17	52	85	54	31
220 - Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			1,037	69	17	52	85	54	31
Total Net New External Trips			1,037	69	17	52	85	54	31

Note: Trip generation was calculated using the following data:

Daily Traffic Generation

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = $T = 6.41 * (X) + (75.31); (50 \% \text{ In}; 50 \% \text{ Out})$

AM Peak-Hour Traffic Generation

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = $T = 0.31 * (X) + (22.85); (24 \% \text{ In}; 76 \% \text{ Out})$

PM Peak-Hour Traffic Generation

Residential Land Uses

220 - Multifamily Housing (Low-Rise) ITE 220 = $T = 0.43 * (X) + (20.55); (63 \% \text{ In}; 37 \% \text{ Out})$

Gibbet Road Residential Phase 2 Trip Generation									
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Retail Land Uses			4,082	356	178	178	343	172	171
945 - Convenience Store/Gas Station (9-15 Fueling Positions)	6.3	KSF	4,082	356	178	178	343	172	171
Residential Land Uses			1,037	69	17	52	85	54	31
220 - Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			5,119	425	195	230	428	226	202
Internal Capture			470	2	1	1	70	35	35
ITE Pass-By			3,510	270	135	135	220	110	110
Adjacent Street Traffic			30,000	3,000			3,000		
10% Adjacent Street Traffic			3,000	300	150	150	300	150	150
Pass-By			3,000	270	135	135	220	110	110
Total Net New External Trips			1,649	153	59	94	138	81	57
Note: Trip generation was calculated using the following data:									
<u>Daily Traffic Generation</u>									
Retail Land Uses									
945 - Convenience Store/Gas Station (9-15 Fueling Positions)			ITE 945	=	T = 560.88 * (X) + (548.79); (50 % In; 50 % Out)				
Residential Land Uses									
220 - Multifamily Housing (Low-Rise)			ITE 220	=	T = 6.41 * (X) + (75.31); (50 % In; 50 % Out)				
<u>AM Peak-Hour Traffic Generation</u>									
Retail Land Uses									
945 - Convenience Store/Gas Station (9-15 Fueling Positions)			ITE 945	=	T = 56.52 (X); (50 % In; 50 % Out)				
Residential Land Uses									
220 - Multifamily Housing (Low-Rise)			ITE 220	=	T = 0.31 * (X) + (22.85); (24 % In; 76 % Out)				
<u>PM Peak-Hour Traffic Generation</u>									
Retail Land Uses									
945 - Convenience Store/Gas Station (9-15 Fueling Positions)			ITE 945	=	T = 54.52 (X); (50 % In; 50 % Out)				
Residential Land Uses									
220 - Multifamily Housing (Low-Rise)			ITE 220	=	T = 0.43 * (X) + (20.55); (63 % In; 37 % Out)				

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Gibbet Road Residential Phase 2			Organization:	Kimley-Horn
Project Location:	Okatie, SC			Performed By:	
Scenario Description:				Date:	
Analysis Year:				Checked By:	
Analysis Period:	AM Street Peak Hour			Date:	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)							
Land Use	Development Data (For Information Only)				Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units		Total	Entering	Exiting
Office					0	0	0
Retail					356	178	178
Restaurant					0	0	0
Cinema/Entertainment					0	0	0
Residential					69	17	52
Hotel					0	0	0
All Other Land Uses ²					0	0	0
					425	195	230

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses ²	1.10	0%	0%	1.10	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	468	215	253
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips ⁵	423	194	229
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	1%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	2%
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Gibbet Road Residential Phase 2	Organization:	Kimley-Horn		
Project Location:	Okatie, SC	Performed By:			
Scenario Description:		Date:			
Analysis Year:		Checked By:			
Analysis Period:	PM Street Peak Hour	Date:			

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				343	172	171
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				85	54	31
Hotel				0	0	0
All Other Land Uses ²				0	0	0
				428	226	202

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses ²	1.10	0%	0%	1.10	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1000	1000		1000	
Retail					1000	
Restaurant					1000	
Cinema/Entertainment					1000	
Residential		1000	1000			
Hotel					1000	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	27	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	11	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	470	248	222
Internal Capture Percentage	16%	15%	17%
External Vehicle-Trips ⁵	358	191	167
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	6%	14%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	46%	32%
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Gibbet Road Residential Phase 3 Trip Generation									
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
Office Land Uses			127	15	12	3	19	6	13
712 - Small Office Building	8.85	KSF	127	15	12	3	19	6	13
Retail Land Uses			4,685	383	194	189	414	208	206
945 - Convenience Store/Gas Station (9-15 Fueling Positions)	6.30	KSF	4,082	356	178	178	343	172	171
822 - Strip Retail Plaza (<40k)	8.85	KSF	603	27	16	11	71	36	35
Residential Land Uses			1,037	69	17	52	85	54	31
220 - Multifamily Housing (Low-Rise)	150	DU	1,037	69	17	52	85	54	31
Subtotal			5,849	467	223	244	518	268	250
Internal Capture			556	6	3	3	80	40	40
ITE Pass-By			3,996	268	134	134	224	112	112
Adjacent Street Traffic			30,000	3,000			3,000		
10% Adjacent Street Traffic			3,000	300	150	150	300	150	150
Pass-By			3,000	268	134	134	224	112	112
Total Net New External Trips			2,293	193	86	107	214	116	98
Note: Trip generation was calculated using the following data:									
<u>Daily Traffic Generation</u>									
Office Land Uses									
712 - Small Office Building			ITE 712	=	T = 14.39 (X); (50 % In; 50 % Out)				
Retail Land Uses									
945 - Convenience Store/Gas Station (9-15 Fueling Positions)			ITE 945	=	T = 560.88 * (X) + (548.79); (50 % In; 50 % Out)				
822 - Strip Retail Plaza (<40k)			ITE 822	=	T = 42.2 * (X) + (229.68); (50 % In; 50 % Out)				
Residential Land Uses									
220 - Multifamily Housing (Low-Rise)			ITE 220	=	T = 6.41 * (X) + (75.31); (50 % In; 50 % Out)				
<u>AM Peak-Hour Traffic Generation</u>									
Office Land Uses									
712 - Small Office Building			ITE 712	=	T = 1.67 (X); (82 % In; 18 % Out)				
Retail Land Uses									
945 - Convenience Store/Gas Station (9-15 Fueling Positions)			ITE 945	=	T = 56.52 (X); (50 % In; 50 % Out)				
822 - Strip Retail Plaza (<40k)			ITE 822	=	LN (T) = 0.66 * LN (X) + (1.84); (60 % In; 40 % Out)				
Residential Land Uses									
220 - Multifamily Housing (Low-Rise)			ITE 220	=	T = 0.31 * (X) + (22.85); (24 % In; 76 % Out)				
<u>PM Peak-Hour Traffic Generation</u>									
Office Land Uses									
712 - Small Office Building			ITE 712	=	T = 2.16 (X); (34 % In; 68 % Out)				
Retail Land Uses									
945 - Convenience Store/Gas Station (9-15 Fueling Positions)			ITE 945	=	T = 54.52 (X); (50 % In; 50 % Out)				
822 - Strip Retail Plaza (<40k)			ITE 822	=	LN (T) = 0.71 * LN (X) + (2.72); (50 % In; 50 % Out)				
Residential Land Uses									
220 - Multifamily Housing (Low-Rise)			ITE 220	=	T = 0.43 * (X) + (20.55); (63 % In; 37 % Out)				

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Gibbet Road Residential Phase 3	Organization:	Kimley-Horn		
Project Location:	Okatie, SC	Performed By:			
Scenario Description:		Date:			
Analysis Year:		Checked By:			
Analysis Period:	AM Street Peak Hour	Date:			

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)							
Land Use	Development Data (For Information Only)				Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units		Total	Entering	Exiting
Office					15	12	3
Retail					383	194	189
Restaurant					0	0	0
Cinema/Entertainment					0	0	0
Residential					69	17	52
Hotel					0	0	0
All Other Land Uses ²					0	0	0
					467	223	244

Table 2-A: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses ²	1.10	0%	0%	1.10	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	0	0	0	0
Retail	1		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	513	245	268
Internal Capture Percentage	1%	1%	1%
External Vehicle-Trips ⁵	461	220	241
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	8%	33%
Retail	1%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	2%
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Gibbet Road Residential Phase 3	Organization:	Kimley-Horn		
Project Location:	Okatie, SC	Performed By:			
Scenario Description:		Date:			
Analysis Year:		Checked By:			
Analysis Period:	PM Street Peak Hour	Date:			

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				19	6	13
Retail				414	208	206
Restaurant				0	0	0
Cinema/Entertainment				0	0	0
Residential				85	54	31
Hotel				0	0	0
All Other Land Uses ²				0	0	0
				518	268	250

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses ²	1.10	0%	0%	1.10	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1000	1000		1000	
Retail					1000	
Restaurant					1000	
Cinema/Entertainment					1000	
Residential		1000	1000			
Hotel					1000	

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	0	0	0
Retail	2		0	0	27	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	11	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	570	295	275
Internal Capture Percentage	15%	15%	16%
External Vehicle-Trips ⁵	440	229	211
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	43%	14%
Retail	6%	13%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	46%	35%
Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

³Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

⁴Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made.

⁵Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

⁶Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Appendix C – Traffic Volume Development Worksheets

PHASE 1 VOLUME DEVELOPMENT

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: SC 170/Okatie Highway at Lawton Boulevard
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.98 **AM FUTURE PEAK HOUR FACTOR:** 0.95
PM PEAK HOUR FACTOR: 0.95 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC		0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	6%	2%
AM 2025 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	12	0	15	0	0	321	8	0	11	252	0
AM 2025 NO-BUILD TRAFFIC (No AD)		0	0	0	0	0	67	0	81	0	0	1,746	42	0	60	1,374	0
Approved Development 1: Palmetto Point Pickleball and												60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2025 NO-BUILD TRAFFIC		0	0	0	0	0	67	0	81	0	0	1,806	42	0	60	1,450	0
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering															50%	
Distribution	Exiting											50%					
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	26	0	0	0	9	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	0	0	0	26	0	0	0	9	0
AM 2025 BUILD-OUT TRAFFIC		0	0	0	0	0	67	0	81	0	0	1,832	42	0	60	1,459	0

PM Peak Hour

PM 2022 EXISTING TRAFFIC						EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Adjusted Turning Movement Counts ¹						0	0	0	0	0	21	0	58	0	0	1,134	40	0	133	1,440	0		
PM Volume Balancing						0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0		
PM 2022 EXISTING TRAFFIC						0	0	0	0	0	21	0	58	0	0	1,135	40	0	133	1,440	0		
PM Heavy Vehicle Percentage						2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%		
PM 2025 NO-BUILD TRAFFIC						EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Annual Growth Rate						7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	
PM 2025 NO-BUILD TRAFFIC GROWTH						0	0	0	0	0	5	0	13	0	0	255	9	0	30	324	0		
PM 2025 NO-BUILD TRAFFIC (No AD)						0	0	0	0	0	26	0	71	0	0	1,390	49	0	163	1,764	0		
Approved Development 1: Palmetto Point Pickleball and															49				66				
TOTAL PM APPROVED DEVELOPMENT TRAFFIC						0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0		
PM 2025 NO-BUILD TRAFFIC						0	0	0	0	0	26	0	71	0	0	1,439	49	0	163	1,830	0		
"SITE TRAFFIC DISTRIBUTION"																							
LAND USE		TYPE				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Net New		Entering																		50%			
Distribution		Exiting													50%								
"PM PROJECT TRIPS"																							
LAND USE		TYPE				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Project Trip		Net New				0	0	0	0	0	0	0	0	0	0	16	0	0	0	26	0		
PM TOTAL PROJECT TRIPS						0	0	0	0	0	0	0	0	0	0	16	0	0	0	26	0		
PM 2025 BUILD-OUT TRAFFIC						0	0	0	0	0	26	0	71	0	0	1,455	49	0	163	1,856	0		

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: SC 170/Okatie Highway at Gibbet Road
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.91
AM FUTURE PEAK HOUR FACTOR: 0.95
PM FUTURE PEAK HOUR FACTOR: 0.91

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22
AM Volume Balancing		0	0	3	0	0	0	0	0	0	0	10	4	0	14	0	0
AM 2022 EXISTING TRAFFIC		0	248	15	106	0	47	10	213	0	45	971	20	27	137	972	22
AM Heavy Vehicle Percentage		2%	1%	8%	3%	2%	4%	10%	1%	2%	9%	3%	2%	2%	6%	6%	2%
AM 2025 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH		0	56	3	24	0	11	2	48	0	10	219	5	6	31	219	5
AM 2025 NO-BUILD TRAFFIC (No AD)		0	304	18	130	0	58	12	261	0	55	1,190	25	33	168	1,191	27
Approved Development 1: Palmetto Point Pickleball and				8				8	52			8			59	17	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	8	0	0	0	8	52	0	0	8	0	0	59	17	0
AM 2025 NO-BUILD TRAFFIC		0	304	26	130	0	58	20	313	0	55	1,198	25	33	227	1,208	27
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering											20%	15%	40%	10%		
Distribution	Exiting						35%		5%								
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	18	0	3	0	0	3	2	7	2	0	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	18	0	3	0	0	3	2	7	2	0	0
AM 2025 BUILD-OUT TRAFFIC		0	304	26	130	0	76	20	316	0	55	1,201	27	40	229	1,208	27

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹					0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59	
PM Volume Balancing					0	0	1	0	0	0	0	0	0	0	0	2	0	17	0	0	
PM 2022 EXISTING TRAFFIC					0	117	7	44	0	25	32	214	0	65	835	25	9	170	1,060	59	
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	5%	2%	11%	1%	2%	2%	
PM 2025 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH					0	26	2	10	0	6	7	48	0	15	188	6	2	38	239	13	
PM 2025 NO-BUILD TRAFFIC (No AD)					0	143	9	54	0	31	39	262	0	80	1,023	31	11	208	1,299	72	
Approved Development 1: Palmetto Point Pickleball and						7				6		42		7			51	15			
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	7	0	0	0	6	42	0	0	7	0	0	51	15	0	
PM 2025 NO-BUILD TRAFFIC					0	143	16	54	0	31	45	304	0	80	1,030	31	11	259	1,314	72	
"SITE TRAFFIC DISTRIBUTION"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Net New		Entering												20%		15%	40%	10%			
Distribution		Exiting								35%		5%									
"PM PROJECT TRIPS"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Project Trip		Net New			0	0	0	0	0	11	0	2	0	0	11	8	21	5	0	0	
PM TOTAL PROJECT TRIPS					0	0	0	0	0	11	0	2	0	0	11	8	21	5	0	0	
PM 2025 BUILD-OUT TRAFFIC					0	143	16	54	0	42	45	306	0	80	1,041	39	32	264	1,314	72	

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: Gibbet Road at Estate Drive/Site Access #3
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.86 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.87 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
AM Adjusted Turning Movement Counts ¹	0	0	158	14	0	4	212	0	0	42	0	5	0	0	0	0	
AM Volume Balancing	0	0	0	0	0	0	13	0	0	3	0	0	0	0	0	0	
AM 2022 EXISTING TRAFFIC	0	0	158	14	0	4	225	0	0	45	0	5	0	0	0	0	
AM Heavy Vehicle Percentage	2%	2%	4%	21%	2%	2%	2%	2%	2%	5%	2%	20%	2%	2%	2%	2%	
AM 2025 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	
AM 2025 NO-BUILD TRAFFIC GROWTH	0	0	36	3	0	1	51	0	0	10	0	1	0	0	0	0	
AM 2025 NO-BUILD TRAFFIC (No AD)	0	0	194	17	0	5	276	0	0	55	0	6	0	0	0	0	
Approved Development 1: Palmetto Point Pickleball and				67						60							
TOTAL AM APPROVED DEVELOPMENT TRAFFIC	0	0	0	67	0	0	0	0	0	60	0	0	0	0	0	0	
AM 2025 NO-BUILD TRAFFIC	0	0	194	84	0	5	276	0	0	115	0	6	0	0	0	0	
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering		25%					5%	5%			5%					
Distribution	Exiting														10%	5%	5%
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	4	0	0	0	0	1	1	0	0	1	0	0	5	3	3
AM TOTAL PROJECT TRIPS		0	4	0	0	0	0	1	1	0	0	1	0	0	5	3	3
AM 2025 BUILD-OUT TRAFFIC		0	4	194	84	0	5	277	1	0	115	1	6	0	5	3	3

PM Peak Hour

PM 2022 EXISTING TRAFFIC				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts ¹				0	0	187	15	0	9	254	0	0	15	0	7	0	0	0	0
PM Volume Balancing				0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC				0	0	187	15	0	9	256	0	0	15	0	7	0	0	0	0
PM Heavy Vehicle Percentage				2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2025 NO-BUILD TRAFFIC				EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate				7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH				0	0	43	3	0	2	58	0	0	3	0	2	0	0	0	0
PM 2025 NO-BUILD TRAFFIC (No AD)				0	0	230	18	0	11	314	0	0	18	0	9	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and					58								48						
TOTAL PM APPROVED DEVELOPMENT TRAFFIC				0	0	0	58	0	0	0	0	0	48	0	0	0	0	0	0
PM 2025 NO-BUILD TRAFFIC				0	0	230	76	0	11	314	0	0	66	0	9	0	0	0	0
"SITE TRAFFIC DISTRUBUTION"																			
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Net New	Entering		25%				5%		5%		5%								
Distribution	Exiting												10%				5%	5%	
"PM PROJECT TRIPS"																			
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Project Trip	Net New	0	13	0	0	0	0	3	3	0	0	3	0	0	3	1	2		
PM TOTAL PROJECT TRIPS				0	13	0	0	0	0	3	3	0	0	3	0	0	3	1	2
PM 2025 BUILD-OUT TRAFFIC				0	13	230	76	0	11	317	3	0	66	3	9	0	3	1	2

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION: SC 170/Okatie Highway at Site Access #1
 COUNT DATE: November 11, 2022
 AM PEAK HOUR FACTOR: 0.90 AM FUTURE PEAK HOUR FACTOR: 0.90
 PM PEAK HOUR FACTOR: 0.90 PM FUTURE PEAK HOUR FACTOR: 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2025 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	0	0	0	0	0	329	0	0	0	264	0
AM 2025 NO-BUILD TRAFFIC (No AD)		0	0	0	0	0	0	0	0	0	0	1,788	0	0	0	1,441	0
Approved Development 1: Palmetto Point Pickleball and												60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2025 NO-BUILD TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,848	0	0	0	1,517	0
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering												60%			50%	
Distribution	Exiting							45%				5%					
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	23	0	0	3	10	0	0	9	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	23	0	0	3	10	0	0	9	0
AM 2025 BUILD-OUT TRAFFIC		0	0	0	0	0	0	0	23	0	0	1,851	10	0	0	1,526	0

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹					0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	0	1,461	0
PM Volume Balancing					0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
PM 2022 EXISTING TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,175	0	0	0	0	1,461	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	1%	2%
PM 2025 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	0	0	0	0	0	264	0	0	0	0	329	0
PM 2025 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	0	0	0	0	0	1,439	0	0	0	0	1,790	0
Approved Development 1: Palmetto Point Pickleball and														49				66			
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	66	0
PM 2025 NO-BUILD TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,488	0	0	0	0	1,856	0
"SITE TRAFFIC DISTRIBUTION"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Net New		Entering													60%				50%		
Distribution		Exiting									45%				5%						
"PM PROJECT TRIPS"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Project Trip		Net New			0	0	0	0	0	0	0	14	0	0	2	32	0	0	0	26	0
PM TOTAL PROJECT TRIPS					0	0	0	0	0	0	0	14	0	0	2	32	0	0	0	26	0
PM 2025 BUILD-OUT TRAFFIC					0	0	0	0	0	0	0	14	0	0	1,490	32	0	0	0	1,882	0

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 1

INTERSECTION:		Gibbet Road at Site Access #2	
COUNT DATE:		November 12, 2022	
AM PEAK HOUR FACTOR:	0.90	AM FUTURE PEAK HOUR FACTOR:	0.90
PM PEAK HOUR FACTOR:	0.90	PM FUTURE PEAK HOUR FACTOR:	0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	151	0	0	0	270	0	0	0	0	0	0	0	0	0
AM Volume Balancing		0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC		0	0	172	0	0	0	270	0	0	0	0	0	0	0	0	0
AM Heavy Vehicle Percentage		2%	2%	5%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
AM 2025 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2025 NO-BUILD TRAFFIC GROWTH		0	0	39	0	0	0	61	0	0	0	0	0	0	0	0	0
AM 2025 NO-BUILD TRAFFIC (No AD)		0	0	211	0	0	0	331	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				67				60									
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	67	0	0	0	60	0	0	0	0	0	0	0	0	0
AM 2025 NO-BUILD TRAFFIC		0	0	278	0	0	0	391	0	0	0	0	0	0	0	0	0
"SITE TRAFFIC DISTRUBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering			25%				5%									
Distribution	Exiting							5%									35%
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	4	0	0	0	3	1	0	0	0	0	0	0	0	18
AM TOTAL PROJECT TRIPS		0	0	4	0	0	0	3	1	0	0	0	0	0	0	0	18
AM 2025 BUILD-OUT TRAFFIC		0	0	282	0	0	0	394	1	0	0	0	0	0	0	0	18

PM Peak Hour

PM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts ¹		0	0	182	0	0	0	271	0	0	0	0	0	0	0	0	0
PM Volume Balancing		0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC		0	0	202	0	0	0	271	0	0	0	0	0	0	0	0	0
PM Heavy Vehicle Percentage		2%	2%	1%	2%	2%	2%	1%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2025 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2025 NO-BUILD TRAFFIC GROWTH		0	0	46	0	0	0	61	0	0	0	0	0	0	0	0	0
PM 2025 NO-BUILD TRAFFIC (No AD)		0	0	248	0	0	0	332	0	0	0	0	0	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and				58				48									
TOTAL PM APPROVED DEVELOPMENT TRAFFIC		0	0	58	0	0	0	48	0	0	0	0	0	0	0	0	0
PM 2025 NO-BUILD TRAFFIC		0	0	306	0	0	0	380	0	0	0	0	0	0	0	0	0
"SITE TRAFFIC DISTRUBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New	Entering			25%				5%									
Distribution	Exiting							5%									35%
"PM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	13	0	0	0	2	3	0	0	0	0	0	0	0	11
PM TOTAL PROJECT TRIPS		0	0	13	0	0	0	2	3	0	0	0	0	0	0	0	11
PM 2025 BUILD-OUT TRAFFIC		0	0	319	0	0	0	382	3	0	0	0	0	0	0	0	11

PHASE 2 VOLUME DEVELOPMENT

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Lawton Boulevard
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.98 **AM FUTURE PEAK HOUR FACTOR:** 0.98
PM PEAK HOUR FACTOR: 0.95 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹					0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Volume Balancing					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC					0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	6%	2%
AM 2027 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	22	0	27	0	0	574	14	0	20	452	0
AM 2027 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	77	0	93	0	0	1,999	48	0	69	1,574	0
Approved Development 1: Palmetto Point Pickleball and														60				76		
TOTAL AM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2027 NO-BUILD TRAFFIC					0	0	0	0	0	77	0	93	0	0	2,059	48	0	69	1,650	0
"SITE TRAFFIC DISTRIBUTION"																				
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Pass-By Distribution	Entering																			
	Exiting																			
Net New Distribution	Entering																50%			
	Exiting											50%								
"AM PROJECT TRIPS"																				
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Project Trip	Pass - By																			
	Net New	0	0	0	0	0	0	0	0	0	0	47	0	0	0	29	0			
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	0	0	0	47	0	0	0	29	0			
AM 2027 BUILD-OUT TRAFFIC		0	0	0	0	0	77	0	93	0	0	2,106	48	0	69	1,679	0			

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹	0	0	0	0	0	21	0	58	0	0	1,134	40	0	133	1,440	0	
PM Volume Balancing	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
PM 2022 EXISTING TRAFFIC	0	0	0	0	0	21	0	58	0	0	1,135	40	0	133	1,440	0	
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%	
PM 2027 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	
PM 2027 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	8	0	23	0	0	457	16	0	54	580	0	
PM 2027 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	29	0	81	0	0	1,592	56	0	187	2,020	0	
Approved Development 1: Palmetto Point Pickleball and											49				66		
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0	
PM 2027 NO-BUILD TRAFFIC	0	0	0	0	0	29	0	81	0	0	1,641	56	0	187	2,086	0	
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering															50%	
	Exiting										50%						
"PM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	0	0	0	28	0	0	0	41	0
PM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	0	0	0	28	0	0	0	41	0
PM 2027 BUILD-OUT TRAFFIC		0	0	0	0	0	29	0	81	0	0	1,669	56	0	187	2,127	0

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Gibbet Road
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.91
AM FUTURE PEAK HOUR FACTOR: 0.96
PM FUTURE PEAK HOUR FACTOR: 0.91

AM Peak Hour

AM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
AM Adjusted Turning Movement Counts ¹					0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22	
AM Volume Balancing					0	0	3	0	0	0	0	0	0	0	10	4	0	14	0	0	
AM 2022 EXISTING TRAFFIC					0	248	15	106	0	47	10	213	0	45	971	20	27	137	972	22	
AM Heavy Vehicle Percentage					2%	1%	8%	3%	2%	4%	10%	1%	2%	9%	3%	2%	2%	6%	6%	2%	
AM 2027 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH					0	100	6	43	0	19	4	86	0	18	391	8	11	55	391	9	
AM 2027 NO-BUILD TRAFFIC (No AD)					0	348	21	149	0	66	14	299	0	63	1,362	28	38	192	1,363	31	
Approved Development 1: Palmetto Point Pickleball and						8				8		52		8			59		17		
TOTAL AM APPROVED DEVELOPMENT TRAFFIC					0	0	8	0	0	0	8	52	0	0	8	0	0	59	17	0	
AM 2027 NO-BUILD TRAFFIC					0	348	29	149	0	66	22	351	0	63	1,370	28	38	251	1,380	31	
"SITE TRAFFIC DISTRIBUTION"																					
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR				
Pass-By Distribution	Entering		-15%	15%											25%	-25%					
	Exiting						25%														
Net New Distribution	Entering										25%	10%	35%	15%							
	Exiting						35%	5%													
"AM PROJECT TRIPS"																					
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR				
Project Trip	Pass - By		-20	20			34								34	-34					
	Net New	0	0	0	0	0	33	0	5	0	0	15	6	20	9	0	0				
AM TOTAL PROJECT TRIPS		0	-20	20	0	0	67	0	5	0	0	15	6	20	43	-34	0				
AM 2027 BUILD-OUT TRAFFIC		0	328	49	149	0	133	22	356	0	63	1,385	34	58	294	1,346	31				

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts ¹					0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59
PM Volume Balancing					0	0	1	0	0	0	0	0	0	0	0	2	0	17	0	0
PM 2022 EXISTING TRAFFIC					0	117	7	44	0	25	32	214	0	65	835	25	9	170	1,060	59
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	5%	2%	11%	1%	2%	2%
PM 2027 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH					0	47	3	18	0	10	13	86	0	26	336	10	4	68	427	24
PM 2027 NO-BUILD TRAFFIC (No AD)					0	164	10	62	0	35	45	300	0	91	1,171	35	13	238	1,487	83
Approved Development 1: Palmetto Point Pickleball and							7				6	42			7			51	15	
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	7	0	0	0	6	42	0	0	7	0	0	51	15	0
PM 2027 NO-BUILD TRAFFIC					0	164	17	62	0	35	51	342	0	91	1,178	35	13	289	1,502	83
"SITE TRAFFIC DISTRIBUTION"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering				-15%	15%												25%	-25%	
	Exiting									25%										
Net New Distribution	Entering														25%	10%	35%	15%		
	Exiting									35%	5%									
"PM PROJECT TRIPS"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By				-17	17				28								28	-28	
	Net New				0	0	0	0	0	20	0	3	0	0	20	8	29	12	0	0
PM TOTAL PROJECT TRIPS					0	-17	17	0	0	48	0	3	0	0	20	8	29	40	-28	0
PM 2027 BUILD-OUT TRAFFIC					0	147	34	62	0	83	51	345	0	91	1,198	43	42	329	1,474	83

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: Gibbet Road at Estate Drive/Site Access #3
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.86
PM PEAK HOUR FACTOR: 0.87
AM FUTURE PEAK HOUR FACTOR: 0.86
PM FUTURE PEAK HOUR FACTOR: 0.87

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	158	14	0	4	212	0	0	42	0	5	0	0	0	0
AM Volume Balancing		0	0	0	0	0	0	13	0	0	3	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC		0	0	158	14	0	4	225	0	0	45	0	5	0	0	0	0
AM Heavy Vehicle Percentage		2%	2%	4%	21%	2%	2%	2%	2%	2%	5%	2%	20%	2%	2%	2%	2%
AM 2027 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH		0	0	63	6	0	2	91	0	0	18	0	2	0	0	0	0
AM 2027 NO-BUILD TRAFFIC (No AD)		0	0	221	20	0	6	316	0	0	63	0	7	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and					67						60						
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	67	0	0	0	0	0	60	0	0	0	0	0	0
AM 2027 NO-BUILD TRAFFIC		0	0	221	87	0	6	316	0	0	123	0	7	0	0	0	0
"SITE TRAFFIC DISTRUBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		45%	-5%													
	Exiting														5%		
Net New Distribution	Entering		25%					5%	5%			5%					
	Exiting														10%	5%	5%
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		61	-7											7		
	Net New	0	15	0	0	0	0	3	3	0	0	3	0	0	9	5	5
AM TOTAL PROJECT TRIPS		0	76	-7	0	0	0	3	3	0	0	3	0	0	16	5	5
AM 2027 BUILD-OUT TRAFFIC		0	76	214	87	0	6	319	3	0	123	3	7	0	16	5	5

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts ¹					0	0	187	15	0	9	254	0	0	15	0	7	0	0	0	0
PM Volume Balancing					0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC					0	0	187	15	0	9	256	0	0	15	0	7	0	0	0	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2027 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH					0	0	75	6	0	4	103	0	0	6	0	3	0	0	0	0
PM 2027 NO-BUILD TRAFFIC (No AD)					0	0	262	21	0	13	359	0	0	21	0	10	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and								58						48						
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	58	0	0	0	0	0	48	0	0	0	0	0	0
PM 2027 NO-BUILD TRAFFIC					0	0	262	79	0	13	359	0	0	69	0	10	0	0	0	0
"SITE TRAFFIC DISTRIBUTION"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering				45%	-5%														
	Exiting																	5%		
Net New Distribution	Entering				25%					5%	5%			5%						
	Exiting																	10%	5%	5%
"PM PROJECT TRIPS"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By				49	-5									4	0		5		
	Net New				20	0	0	0	0	0	4	4	0	0	4	0	0	6	3	3
PM TOTAL PROJECT TRIPS					0	69	-5	0	0	0	4	4	0	0	4	0	0	11	3	3
PM 2027 BUILD-OUT TRAFFIC					0	69	257	79	0	13	363	4	0	69	4	10	0	11	3	3

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Site Access #1
COUNT DATE: November 11, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
AM Adjusted Turning Movement Counts ¹					0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	0	1,177	0
AM Volume Balancing					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	0	1,177	0
AM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%	
AM 2027 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	0	0	0	0	0	588	0	0	0	0	474	0
AM 2027 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	0	0	0	0	0	2,047	0	0	0	0	1,651	0
Approved Development 1: Palmetto Point Pickleball and														60				76			
TOTAL AM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	76	0
AM 2027 NO-BUILD TRAFFIC					0	0	0	0	0	0	0	0	0	0	2,107	0	0	0	0	1,727	0
"SITE TRAFFIC DISTRUBUTION"																					
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR				
Pass-By Distribution	Entering																				
	Exiting																				
Net New Distribution	Entering											45%				50%					
	Exiting							25%			25%										
"AM PROJECT TRIPS"																					
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR				
Project Trip	Pass - By																				
	Net New	0	0	0	0	0	0	0	23	0	0	24	26	0	0	29	0				
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	23	0	0	24	26	0	0	29	0				
AM 2027 BUILD-OUT TRAFFIC		0	0	0	0	0	0	0	23	0	0	2,131	26	0	0	1,756	0				

PM Peak Hour

PM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
PM Adjusted Turning Movement Counts ¹		0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	1,461	0		
PM Volume Balancing		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0		
PM 2022 EXISTING TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,175	0	0	0	1,461	0		
PM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%		
PM 2027 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%		
PM 2027 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	0	0	0	0	0	473	0	0	0	588	0		
PM 2027 NO-BUILD TRAFFIC (No AD)		0	0	0	0	0	0	0	0	0	0	1,648	0	0	0	2,049	0		
Approved Development 1: Palmetto Point Pickleball and												49				66			
TOTAL PM APPROVED DEVELOPMENT TRAFFIC		0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0		
PM 2027 NO-BUILD TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,697	0	0	0	2,115	0		
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																		
	Exiting																		
Net New Distribution	Entering													45%				50%	
	Exiting									25%			25%						
"PM PROJECT TRIPS"																			
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR		
Project Trip	Pass - By																		
	Net New	0	0	0	0	0	0	0	14	0	0	14	36	0	0	41	0		
PM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	14	0	0	14	36	0	0	41	0		
PM 2027 BUILD-OUT TRAFFIC		0	0	0	0	0	0	0	14	0	0	1,711	36	0	0	2,156	0		

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 2

INTERSECTION: SC 170/Okatie Highway at Site Access #4
COUNT DATE: November 13, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,144	0
AM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
AM 2022 EXISTING TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,158	0
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2027 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2027 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	0	0	0	0	0	588	0	0	0	466	0
AM 2027 NO-BUILD TRAFFIC (No AD)		0	0	0	0	0	0	0	0	0	0	2,047	0	0	0	1,624	0
Approved Development 1: Palmetto Point Pickleball and												60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2027 NO-BUILD TRAFFIC		0	0	0	0	0	0	0	0	0	0	2,107	0	0	0	1,700	0
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering											-60%	45%				
	Exiting								60%								
Net New Distribution	Entering											45%	15%			50%	
	Exiting								20%			5%					
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By								81			-81	61				
	Net New	0	0	0	0	0	0	0	19	0	0	31	9	0	0	29	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	100	0	0	-50	70	0	0	29	0
AM 2027 BUILD-OUT TRAFFIC		0	0	0	0	0	0	0	100	0	0	2,057	70	0	0	1,729	0

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹					0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	0	1,281	0
PM Volume Balancing					0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	17	0
PM 2022 EXISTING TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,175	0	0	0	0	1,298	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%
PM 2027 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2027 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	0	0	0	0	0	473	0	0	0	0	523	0
PM 2027 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	0	0	0	0	0	1,648	0	0	0	0	1,821	0
Approved Development 1: Palmetto Point Pickleball and														49				66			
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	66	0
PM 2027 NO-BUILD TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,697	0	0	0	0	1,887	0
"SITE TRAFFIC DISTRIBUTION"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Pass-By Distribution	Entering													-60%	45%						
	Exiting										60%										
Net New Distribution	Entering													45%	15%				50%		
	Exiting										20%			5%							
"PM PROJECT TRIPS"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Project Trip	Pass - By										66			-66	50						
	Net New	0	0	0	0	0	0	0	0	0	11	0	0	39	13	0	0	0	41	0	
PM TOTAL PROJECT TRIPS					0	0	0	0	0	0	0	77	0	0	-27	63	0	0	0	41	0
PM 2027 BUILD-OUT TRAFFIC					0	0	0	0	0	0	0	77	0	0	1,670	63	0	0	0	1,928	0

PHASE 3 VOLUME DEVELOPMENT

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Lawton Boulevard
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.98 **AM FUTURE PEAK HOUR FACTOR:** 0.98
PM PEAK HOUR FACTOR: 0.95 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹					0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Volume Balancing					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC					0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0
AM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	33	0	40	0	0	863	21	0	30	680	0
AM 2029 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	88	0	106	0	0	2,288	55	0	79	1,802	0
Approved Development 1: Palmetto Point Pickleball and														60				76		
TOTAL AM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC					0	0	0	0	0	88	0	106	0	0	2,348	55	0	79	1,878	0
"SITE TRAFFIC DISTRIBUTION"																				
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Pass-By	Entering																			
Distribution	Exiting																			
Net New	Entering																	50%		
Distribution	Exiting											50%								
"AM PROJECT TRIPS"																				
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Project Trip	Pass - By																			
	Net New	0	0	0	0	0	0	0	0	0	0	54	0	0	0	43	0			
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	0	0	0	54	0	0	0	43	0			
AM 2029 BUILD-OUT TRAFFIC																				
		0	0	0	0	0	88	0	106	0	0	2,402	55	0	79	1,921	0			

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts ¹					0	0	0	0	0	21	0	58	0	0	1,134	40	0	133	1,440	0
PM Volume Balancing					0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PM 2022 EXISTING TRAFFIC					0	0	0	0	0	21	0	58	0	0	1,135	40	0	133	1,440	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%
PM 2029 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	13	0	35	0	0	688	24	0	81	872	0
PM 2029 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	34	0	93	0	0	1,823	64	0	214	2,312	0
Approved Development 1: Palmetto Point Pickleball and														49				66		
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	49	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC					0	0	0	0	0	34	0	93	0	0	1,872	64	0	214	2,378	0
"SITE TRAFFIC DISTRIBUTION"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																			
	Exiting																			
Net New Distribution	Entering																		50%	
	Exiting													50%						
"PM PROJECT TRIPS"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																			
	Net New			0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	58	0
PM TOTAL PROJECT TRIPS					0	0	0	0	0	0	0	0	0	0	50	0	0	0	58	0
PM 2029 BUILD-OUT TRAFFIC					0	0	0	0	0	34	0	93	0	0	1,922	64	0	214	2,436	0

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Gibbet Road
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.96
PM PEAK HOUR FACTOR: 0.91
AM FUTURE PEAK HOUR FACTOR: 0.96
PM FUTURE PEAK HOUR FACTOR: 0.91

AM Peak Hour

AM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹					0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22
AM Volume Balancing					0	0	3	0	0	0	0	0	0	0	10	4	0	14	0	0
AM 2022 EXISTING TRAFFIC					0	248	15	106	0	47	10	213	0	45	971	20	27	137	972	22
AM Heavy Vehicle Percentage					2%	1%	8%	3%	2%	4%	10%	1%	2%	9%	3%	2%	2%	6%	6%	2%
AM 2029 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH					0	150	9	64	0	28	6	129	0	27	588	12	16	83	589	13
AM 2029 NO-BUILD TRAFFIC (No AD)					0	398	24	170	0	75	16	342	0	72	1,559	32	43	220	1,561	35
Approved Development 1: Palmetto Point Pickleball and						8				8		52		8			59		17	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC					0	0	8	0	0	0	8	52	0	0	8	0	0	59	17	0
AM 2029 NO-BUILD TRAFFIC					0	398	32	170	0	75	24	394	0	72	1,567	32	43	279	1,578	35
"SITE TRAFFIC DISTRUBUTION"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution		Entering				-15%	15%											25%	-25%	
		Exiting								25%										
Net New Distribution		Entering													25%	10%	40%	10%		
		Exiting								35%		5%								
"AM PROJECT TRIPS"																				
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip		Pass - By				-20	20			34								34	-34	
		Net New			0	0	0	0	0	37	0	5	0	0	22	9	35	8	0	0
AM TOTAL PROJECT TRIPS					0	-20	20	0	0	71	0	5	0	0	22	9	35	42	-34	0
AM 2029 BUILD-OUT TRAFFIC					0	378	52	170	0	146	24	399	0	72	1,589	41	78	321	1,544	35

PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹	0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59	
PM Volume Balancing	0	0	1	0	0	0	0	0	0	0	0	2	0	17	0	0	
PM 2022 EXISTING TRAFFIC	0	117	7	44	0	25	32	214	0	65	835	25	9	170	1,060	59	
PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	5%	2%	11%	1%	2%	2%	
PM 2029 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	
PM 2029 NO-BUILD TRAFFIC GROWTH	0	71	4	27	0	15	19	130	0	39	506	15	5	103	642	36	
PM 2029 NO-BUILD TRAFFIC (No AD)	0	188	11	71	0	40	51	344	0	104	1,341	40	14	273	1,702	95	
Approved Development 1: Palmetto Point Pickleball and			7				6	42			7			51	15		
TOTAL PM APPROVED DEVELOPMENT TRAFFIC	0	0	7	0	0	0	6	42	0	0	7	0	0	51	15	0	
PM 2029 NO-BUILD TRAFFIC	0	188	18	71	0	40	57	386	0	104	1,348	40	14	324	1,717	95	
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		-15%	15%											25%	-25%	
Net New Distribution	Exiting						25%										
	Entering										25%	10%	40%	10%			
	Exiting						35%	5%									
"PM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		-17	17			28								28	-28	
	Net New	0	0	0	0	0	34	0	5	0	0	29	12	47	11	0	0
PM TOTAL PROJECT TRIPS		0	-17	17	0	0	62	0	5	0	0	29	12	47	39	-28	0
PM 2029 BUILD-OUT TRAFFIC		0	171	35	71	0	102	57	391	0	104	1,377	52	61	363	1,689	95

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: Gibbet Road at Estate Drive/Site Access #3
COUNT DATE: November 10, 2022
AM PEAK HOUR FACTOR: 0.86
PM PEAK HOUR FACTOR: 0.87
AM FUTURE PEAK HOUR FACTOR: 0.86
PM FUTURE PEAK HOUR FACTOR: 0.87

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	158	14	0	4	212	0	0	42	0	5	0	0	0	0
AM Volume Balancing		0	0	0	0	0	0	13	0	0	3	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC		0	0	158	14	0	4	225	0	0	45	0	5	0	0	0	0
AM Heavy Vehicle Percentage		2%	2%	4%	21%	2%	2%	2%	2%	2%	5%	2%	20%	2%	2%	2%	2%
AM 2029 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH		0	0	95	8	0	2	136	0	0	27	0	3	0	0	0	0
AM 2029 NO-BUILD TRAFFIC (No AD)		0	0	253	22	0	6	361	0	0	72	0	8	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and					67						60						
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	67	0	0	0	0	0	60	0	0	0	0	0	0
AM 2029 NO-BUILD TRAFFIC		0	0	253	89	0	6	361	0	0	132	0	8	0	0	0	0
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering		45%	-5%													
	Exiting														5%		
Net New Distribution	Entering		20%					5%	5%			5%					
	Exiting														10%	5%	5%
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By		61	-7											7		
	Net New	0	17	0	0	0	0	4	4	0	0	4	0	0	11	5	5
AM TOTAL PROJECT TRIPS		0	78	-7	0	0	0	4	4	0	0	4	0	0	18	5	5
AM 2029 BUILD-OUT TRAFFIC		0	78	246	89	0	6	365	4	0	132	4	8	0	18	5	5

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
PM Adjusted Turning Movement Counts ¹					0	0	187	15	0	9	254	0	0	15	0	7	0	0	0	0
PM Volume Balancing					0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC					0	0	187	15	0	9	256	0	0	15	0	7	0	0	0	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
PM 2029 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH					0	0	113	9	0	5	155	0	0	9	0	4	0	0	0	0
PM 2029 NO-BUILD TRAFFIC (No AD)					0	0	300	24	0	14	411	0	0	24	0	11	0	0	0	0
Approved Development 1: Palmetto Point Pickleball and								58						48						
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	58	0	0	0	0	0	48	0	0	0	0	0	0
PM 2029 NO-BUILD TRAFFIC					0	0	300	82	0	14	411	0	0	72	0	11	0	0	0	0
"SITE TRAFFIC DISTRIBUTION"																				
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Pass-By Distribution	Entering		45%	-5%																
	Exiting															5%				
Net New Distribution	Entering		20%					5%	5%			5%								
	Exiting														10%	5%	5%			
PM PROJECT TRIPS																				
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Project Trip	Pass - By		51	-6											6					
	Net New	0	23	0	0	0	0	6	6	0	0	5	0	0	9	5	5			
PM TOTAL PROJECT TRIPS					0	74	-6	0	0	0	6	6	0	0	5	0	0	15	5	5
PM 2029 BUILD-OUT TRAFFIC					0	74	294	82	0	14	417	6	0	72	5	11	0	15	5	5

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Site Access #1
COUNT DATE: November 11, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	0	0	0	0	0	884	0	0	0	713	0
AM 2029 NO-BUILD TRAFFIC (No AD)		0	0	0	0	0	0	0	0	0	0	2,343	0	0	0	1,890	0
Approved Development 1: Palmetto Point Pickleball and												60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC		0	0	0	0	0	0	0	0	0	0	2,403	0	0	0	1,966	0
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering											15%	40%			50%	
	Exiting								20%			20%					
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	22	0	0	34	35	0	0	43	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	22	0	0	34	35	0	0	43	0
AM 2029 BUILD-OUT TRAFFIC		0	0	0	0	0	0	0	22	0	0	2,437	35	0	0	2,009	0

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹					0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	0	1,461	0
PM Volume Balancing					0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
PM 2022 EXISTING TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,175	0	0	0	0	1,461	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%	
PM 2029 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	0	0	0	0	0	712	0	0	0	0	885	0
PM 2029 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	0	0	0	0	0	1,887	0	0	0	0	2,346	0
Approved Development 1: Palmetto Point Pickleball and														49				66			
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,936	0	0	0	0	2,412	0
"SITE TRAFFIC DISTRIBUTION"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Pass-By Distribution	Entering																				
	Exiting																				
Net New Distribution	Entering													15%	40%				50%		
	Exiting										20%			20%							
"PM PROJECT TRIPS"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Project Trip	Pass - By																				
	Net New			0	0	0	0	0	0	0	20	0	0	37	47	0	0	0	58	0	
PM TOTAL PROJECT TRIPS					0	0	0	0	0	0	0	20	0	0	37	47	0	0	0	58	0
PM 2029 BUILD-OUT TRAFFIC					0	0	0	0	0	0	0	20	0	0	1,973	47	0	0	0	2,470	0

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Site Access #4
COUNT DATE: November 13, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,144	0
AM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
AM 2022 EXISTING TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,158	0
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	0	0	0	0	0	884	0	0	0	701	0
AM 2029 NO-BUILD TRAFFIC (No AD)		0	0	0	0	0	0	0	0	0	0	2,343	0	0	0	1,859	0
Approved Development 1: Palmetto Point Pickleball and												60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC		0	0	0	0	0	0	0	0	0	0	2,403	0	0	0	1,935	0
"SITE TRAFFIC DISTRIBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering											-60%	45%				
	Exiting								60%								
Net New Distribution	Entering											55%	10%			50%	
	Exiting								15%			5%					
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By								80			-80	60				
	Net New	0	0	0	0	0	0	0	16	0	0	53	9	0	0	43	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	96	0	0	-27	69	0	0	43	0
AM 2029 BUILD-OUT TRAFFIC		0	0	0	0	0	0	0	96	0	0	2,376	69	0	0	1,978	0

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹					0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	0	1,281	0
PM Volume Balancing					0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	17	0
PM 2022 EXISTING TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,175	0	0	0	0	1,298	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%
PM 2029 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	0	0	0	0	0	712	0	0	0	0	786	0
PM 2029 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	0	0	0	0	0	1,887	0	0	0	0	2,084	0
Approved Development 1: Palmetto Point Pickleball and														49				66			
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,936	0	0	0	0	2,150	0
"SITE TRAFFIC DISTRIBUTION"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Pass-By Distribution	Entering														-60%	45%					
	Exiting										60%										
Net New Distribution	Entering														55%	10%			50%		
	Exiting										15%				5%						
"PM PROJECT TRIPS"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Project Trip	Pass - By										67				-67	50					
	Net New			0	0	0	0	0	0	0	15	0	0	0	69	12	0	0	58	0	
PM TOTAL PROJECT TRIPS					0	0	0	0	0	0	0	82	0	0	2	62	0	0	0	58	0
PM 2029 BUILD-OUT TRAFFIC					0	0	0	0	0	0	0	82	0	0	1,938	62	0	0	0	2,208	0

INTERSECTION TRAFFIC VOLUME DEVELOPMENT - PHASE 3

INTERSECTION: SC 170/Okatie Highway at Site Access #5
COUNT DATE: November 13, 2022
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.90 **PM FUTURE PEAK HOUR FACTOR:** 0.90

AM Peak Hour

AM 2022 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
AM Adjusted Turning Movement Counts ¹		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM 2022 EXISTING TRAFFIC		0	0	0	0	0	0	0	0	0	0	1,459	0	0	0	1,177	0
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
AM 2029 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Annual Growth Rate		7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
AM 2029 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	0	0	0	0	0	884	0	0	0	713	0
AM 2029 NO-BUILD TRAFFIC (No AD)		0	0	0	0	0	0	0	0	0	0	2,343	0	0	0	1,890	0
Approved Development 1: Palmetto Point Pickleball and												60				76	
TOTAL AM APPROVED DEVELOPMENT TRAFFIC		0	0	0	0	0	0	0	0	0	0	60	0	0	0	76	0
AM 2029 NO-BUILD TRAFFIC		0	0	0	0	0	0	0	0	0	0	2,403	0	0	0	1,966	0
"SITE TRAFFIC DISTRUBUTION"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Pass-By Distribution	Entering																
	Exiting																
Net New Distribution	Entering												15%			50%	
	Exiting								10%			40%					
"AM PROJECT TRIPS"																	
LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Pass - By																
	Net New	0	0	0	0	0	0	0	11	0	0	43	13	0	0	43	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	11	0	0	43	13	0	0	43	0
AM 2029 BUILD-OUT TRAFFIC		0	0	0	0	0	0	0	11	0	0	2,446	13	0	0	2,009	0

PM Peak Hour

PM 2022 EXISTING TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
PM Adjusted Turning Movement Counts ¹					0	0	0	0	0	0	0	0	0	0	1,174	0	0	0	0	1,461	0
PM Volume Balancing					0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
PM 2022 EXISTING TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,175	0	0	0	0	1,461	0
PM Heavy Vehicle Percentage					2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	1%	2%	
PM 2029 NO-BUILD TRAFFIC					EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Annual Growth Rate					7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
PM 2029 NO-BUILD TRAFFIC GROWTH					0	0	0	0	0	0	0	0	0	0	712	0	0	0	0	885	0
PM 2029 NO-BUILD TRAFFIC (No AD)					0	0	0	0	0	0	0	0	0	0	1,887	0	0	0	0	2,346	0
Approved Development 1: Palmetto Point Pickleball and														49				66			
TOTAL PM APPROVED DEVELOPMENT TRAFFIC					0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	66	0
PM 2029 NO-BUILD TRAFFIC					0	0	0	0	0	0	0	0	0	0	1,936	0	0	0	0	2,412	0
"SITE TRAFFIC DISTRIBUTION"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Pass-By Distribution	Entering																				
	Exiting																				
Net New Distribution	Entering															15%			50%		
	Exiting										10%				40%						
"PM PROJECT TRIPS"																					
LAND USE		TYPE			EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR	
Project Trip	Pass - By																				
	Net New			0	0	0	0	0	0	0	10	0	0	40	17	0	0	0	58	0	
PM TOTAL PROJECT TRIPS					0	0	0	0	0	0	0	10	0	0	40	17	0	0	0	58	0
PM 2029 BUILD-OUT TRAFFIC					0	0	0	0	0	0	0	10	0	0	1,976	17	0	0	0	2,470	0

Appendix D – Raw Turning Movement Counts



(303) 216-2439
www.alltrafficdata.net

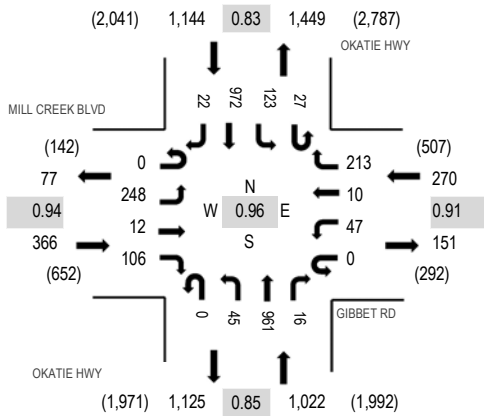
Location: 1 OKATIE HWY & GIBBET RD AM

Date: Thursday, November 10, 2022

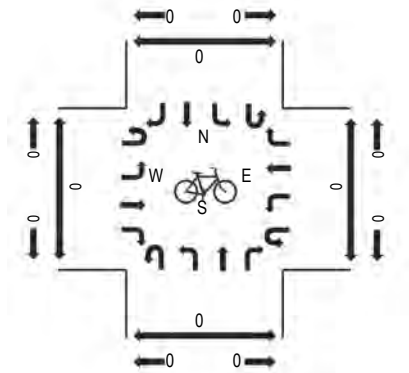
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

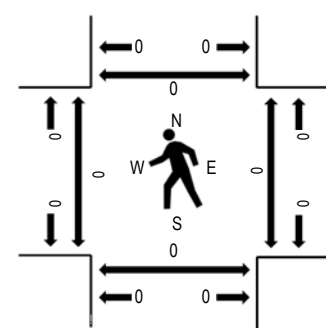
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MILL CREEK BLVD Eastbound				GIBBET RD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	63	1	21	0	11	0	58	0	2	211	3	10	20	164	0	564	2,631	0	0	0	0
7:15 AM	0	66	3	30	1	7	3	58	1	10	258	8	6	17	175	2	645	2,723	0	0	0	0
7:30 AM	0	59	2	30	0	9	1	64	0	16	300	4	6	23	207	6	727	2,802	0	0	0	0
7:45 AM	0	67	3	17	0	14	6	60	0	11	258	4	8	34	210	3	695	2,710	0	0	0	0
8:00 AM	0	78	5	17	0	8	1	49	0	9	191	6	6	32	249	5	656	2,561	0	0	0	0
8:15 AM	0	44	2	42	0	16	2	40	0	9	212	2	7	34	306	8	724		0	0	0	0
8:30 AM	0	43	4	16	0	7	1	48	0	16	216	3	7	43	220	11	635		1	0	0	0
8:45 AM	0	29	0	10	0	6	2	35	0	13	226	3	4	35	178	5	546		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	1	0	0	0	0	6	0	0	1	14	0	22
Lights	0	246	11	103	0	45	9	210	0	41	933	16	27	116	911	22	2,690
Mediums	0	2	1	3	0	1	1	3	0	4	22	0	0	6	47	0	90
Total	0	248	12	106	0	47	10	213	0	45	961	16	27	123	972	22	2,802

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%				0.4%				0.6%				1.3%				0.8%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.8%	1.4%	0.0%	0.8%
Peak Hour Factor	0.94				0.91				0.85				0.83				0.96
Peak Hour Factor	0.00	0.87	0.70	0.63	0.25	0.73	0.46	0.94	0.25	0.73	0.86	0.69	0.75	0.84	0.80	0.66	0.96



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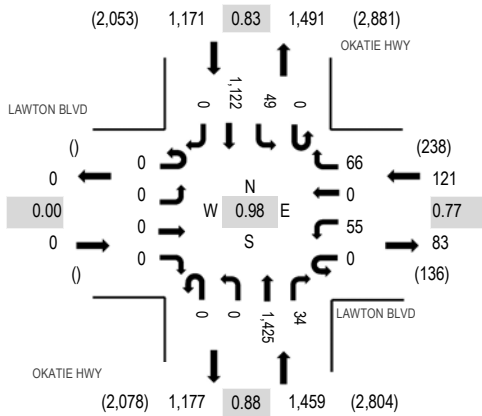
Location: 2 OKATIE HWY & LAWTON BLVD AM

Date: Thursday, November 10, 2022

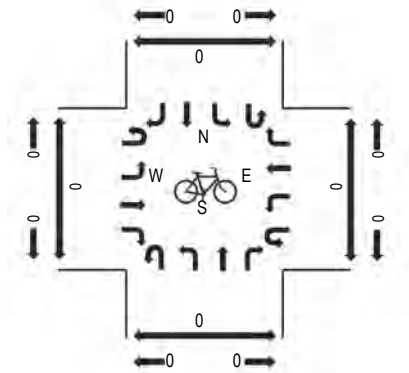
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

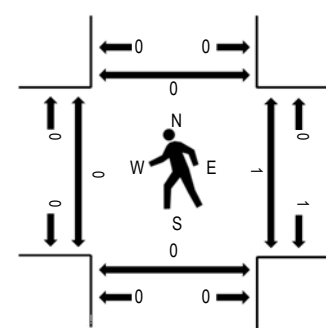
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LAWTON BLVD Eastbound				LAWTON BLVD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	13	0	16	0	0	337	3	0	2	172	0	543	2,565	0	0	0	0
7:15 AM	0	0	0	0	0	19	0	23	0	0	375	7	0	6	186	0	616	2,670	0	0	0	0
7:30 AM	0	0	0	0	0	7	0	15	0	0	431	16	0	11	225	0	705	2,751	0	0	0	0
7:45 AM	0	0	0	0	0	13	0	17	0	0	389	7	0	13	262	0	701	2,684	0	0	0	0
8:00 AM	0	0	0	0	0	10	0	17	0	0	320	7	0	13	281	0	648	2,530	0	1	0	0
8:15 AM	0	0	0	0	0	25	0	17	0	0	285	4	0	12	354	0	697		0	0	0	0
8:30 AM	0	0	0	0	0	14	0	16	0	0	324	6	0	9	269	0	638		0	0	0	0
8:45 AM	0	0	0	0	0	6	0	10	0	0	289	4	0	16	222	0	547		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	6	0	0	0	15	0	21
Lights	0	0	0	0	0	55	0	65	0	0	1,394	33	0	48	1,053	0	2,648
Mediums	0	0	0	0	0	0	0	1	0	0	25	1	0	1	54	0	82
Total	0	0	0	0	0	55	0	66	0	0	1,425	34	0	49	1,122	0	2,751

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.3%	0.0%	0.8%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	1.3%	0.0%	0.8%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.78	0.00	0.00	0.89	0.58	0.00	0.78	0.82	0.00	0.98
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.78	0.00	0.00	0.89	0.58	0.00	0.78	0.82	0.00	0.98



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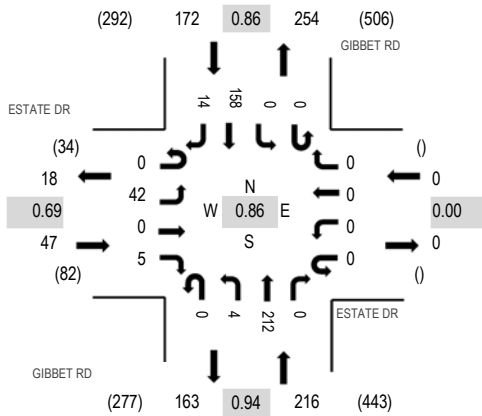
Location: 3 GIBBET RD & ESTATE DR AM

Date: Thursday, November 10, 2022

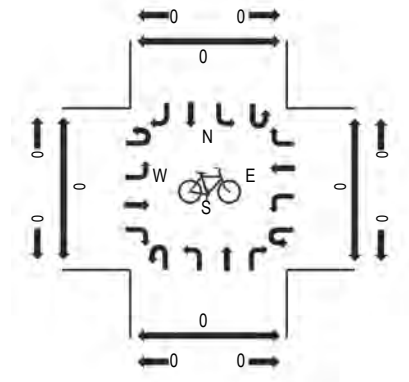
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

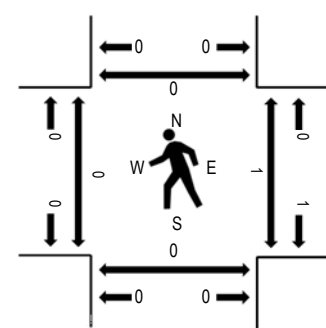
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ESTATE DR Eastbound				ESTATE DR Westbound				GIBBET RD Northbound				GIBBET RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	13	0	0	0	0	0	0	0	0	59	0	0	0	22	2	96	428	0	0	0	0
7:15 AM	0	6	0	1	0	0	0	0	0	2	63	0	0	0	25	3	100	430	0	0	0	0
7:30 AM	0	8	0	2	0	0	0	0	0	1	64	0	0	0	27	3	105	431	0	0	0	0
7:45 AM	0	17	0	1	0	0	0	0	0	3	65	0	0	0	37	4	127	435	0	0	0	0
8:00 AM	0	9	0	2	0	0	0	0	0	0	46	0	0	0	38	3	98	389	0	0	0	0
8:15 AM	0	10	0	1	0	0	0	0	0	1	49	0	0	0	38	2	101		0	1	0	0
8:30 AM	0	6	0	1	0	0	0	0	0	0	52	0	0	0	45	5	109		0	0	0	0
8:45 AM	0	4	0	1	0	0	0	0	0	3	35	0	0	0	36	2	81		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	40	0	4	0	0	0	0	0	4	208	0	0	0	152	11	419
Mediums	0	1	0	1	0	0	0	0	0	0	4	0	0	0	6	3	15
Total	0	42	0	5	0	0	0	0	0	4	212	0	0	0	158	14	435

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		2.1%				0.0%				0.0%				0.0%			0.2%
Heavy Vehicle %	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Peak Hour Factor		0.69				0.00				0.94				0.86			0.86
Peak Hour Factor	0.00	0.65	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.50	0.97	0.00	0.00	0.00	0.88	0.70	0.86



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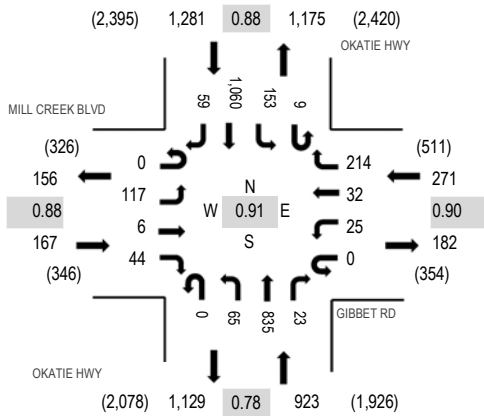
Location: 1 OKATIE HWY & GIBBET RD PM

Date: Thursday, November 10, 2022

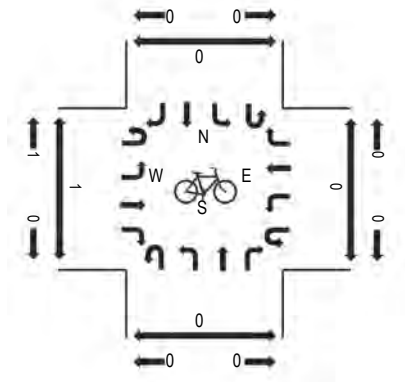
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

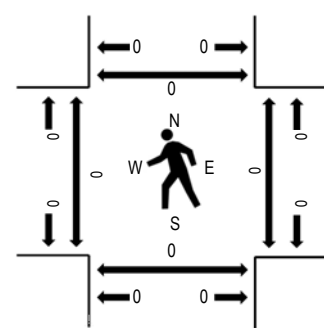
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MILL CREEK BLVD Eastbound				GIBBET RD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	35	2	10	0	5	9	53	0	15	314	3	3	35	207	18	709	2,578	0	0	0	0
4:15 PM	0	25	0	9	0	6	7	37	0	19	219	5	5	36	209	23	600	2,520	0	0	0	0
4:30 PM	0	32	2	10	0	3	7	51	0	13	216	5	3	29	265	9	645	2,642	0	0	0	0
4:45 PM	0	29	2	14	0	5	3	50	0	18	199	7	1	38	237	21	624	2,617	0	0	0	0
5:00 PM	0	32	2	8	0	8	14	54	0	17	197	5	2	37	269	6	651	2,600	0	0	0	0
5:15 PM	0	24	0	12	0	9	8	59	0	17	223	6	3	49	289	23	722		0	0	0	0
5:30 PM	0	40	2	8	0	4	9	46	0	17	191	11	5	46	224	17	620		0	0	0	0
5:45 PM	0	30	4	14	0	7	5	52	0	19	188	2	2	26	246	12	607		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	6	0	0	1	2	0	10
Lights	0	115	6	43	0	25	32	212	0	65	796	23	8	152	1,036	59	2,572
Mediums	0	2	0	1	0	0	0	1	0	0	33	0	1	0	22	0	60
Total	0	117	6	44	0	25	32	214	0	65	835	23	9	153	1,060	59	2,642

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%				0.4%				0.7%				0.2%				0.4%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%	0.2%	0.0%	0.4%
Peak Hour Factor	0.88				0.90				0.78				0.88				0.91
Peak Hour Factor	0.00	0.79	0.50	0.79	0.00	0.78	0.64	0.91	0.00	0.92	0.75	0.66	0.60	0.87	0.92	0.77	0.91



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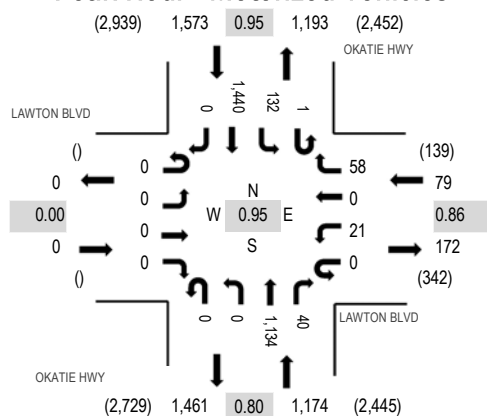
Location: 2 OKATIE HWY & LAWTON BLVD PM

Date: Thursday, November 10, 2022

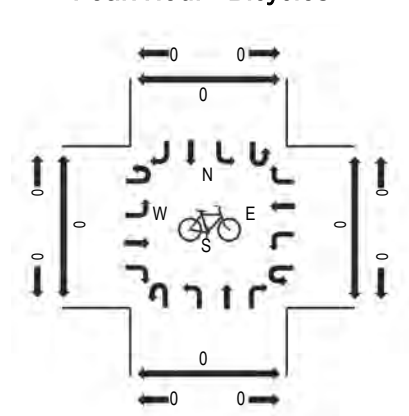
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

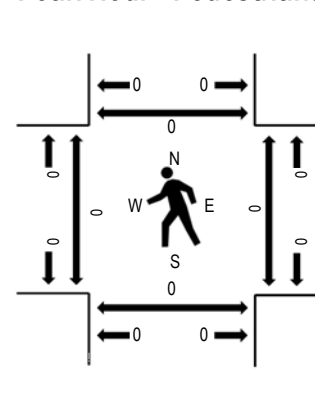
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	LAWTON BLVD Eastbound				LAWTON BLVD Westbound				OKATIE HWY Northbound				OKATIE HWY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	7	0	8	0	0	380	22	0	30	290	0	737	2,729	0	0	0	0
4:15 PM	0	0	0	0	0	2	0	13	1	0	301	7	0	28	314	0	666	2,707	0	0	0	0
4:30 PM	0	0	0	0	0	5	0	11	0	0	286	15	0	31	322	0	670	2,786	0	0	0	0
4:45 PM	0	0	0	0	0	3	0	12	0	0	268	10	0	26	337	0	656	2,826	0	0	0	0
5:00 PM	0	0	0	0	0	7	0	13	0	0	279	15	0	36	365	0	715	2,794	0	0	0	0
5:15 PM	0	0	0	0	0	9	0	14	0	0	298	10	1	34	379	0	745		0	0	0	0
5:30 PM	0	0	0	0	0	2	0	19	0	0	289	5	0	36	359	0	710		0	0	0	0
5:45 PM	0	0	0	0	0	8	0	6	0	0	254	5	0	32	319	0	624		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	9
Lights	0	0	0	0	0	21	0	58	0	0	1,102	40	1	132	1,420	0	2,774
Mediums	0	0	0	0	0	0	0	0	0	0	24	0	0	0	19	0	43
Total	0	0	0	0	0	21	0	58	0	0	1,134	40	1	132	1,440	0	2,826

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.3%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.1%	0.0%	0.3%
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.76	0.25	0.00	0.81	0.61	0.25	0.96	0.95	0.00	0.95
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.76	0.25	0.00	0.81	0.61	0.25	0.96	0.95	0.00	0.95



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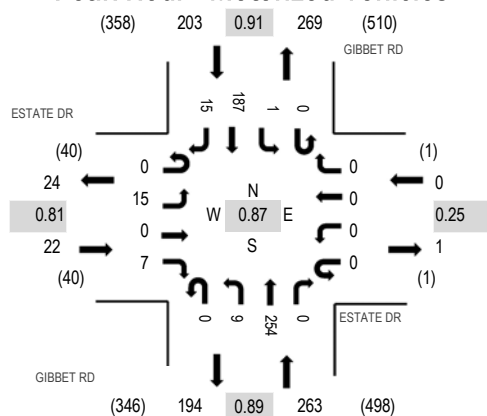
Location: 3 GIBBET RD & ESTATE DR PM

Date: Thursday, November 10, 2022

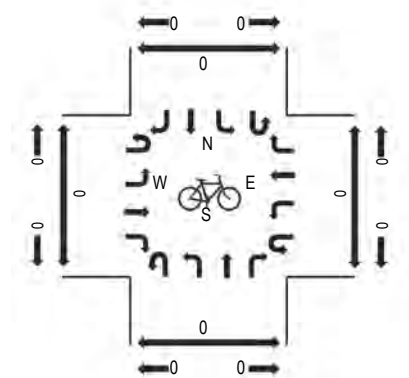
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

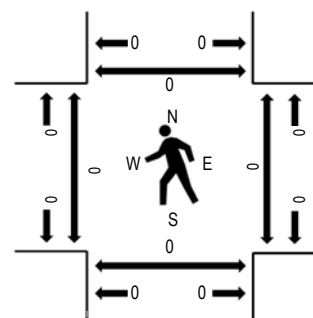
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	ESTATE DR Eastbound				ESTATE DR Westbound				GIBBET RD Northbound				GIBBET RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	2	0	2	0	0	0	0	0	1	63	0	0	0	39	2	109	415	0	0	0	0
4:15 PM	0	4	0	0	0	0	0	0	0	4	45	0	0	0	40	2	95	427	0	0	0	0
4:30 PM	0	5	0	3	0	0	0	0	0	0	54	0	0	0	33	3	98	472	0	0	0	0
4:45 PM	0	4	0	2	0	0	0	0	0	3	57	0	0	0	42	5	113	488	0	0	0	0
5:00 PM	0	4	0	0	0	0	0	0	0	4	69	0	0	0	40	4	121	482	0	0	0	0
5:15 PM	0	6	0	2	0	0	0	0	0	0	76	0	0	0	51	5	140		0	0	0	0
5:30 PM	0	1	0	3	0	0	0	0	0	2	52	0	0	1	54	1	114		0	0	0	0
5:45 PM	0	1	0	1	0	0	0	1	0	2	66	0	0	0	34	2	107		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	15	0	7	0	0	0	0	0	9	253	0	0	1	187	15	487
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	15	0	7	0	0	0	0	0	9	254	0	0	1	187	15	488

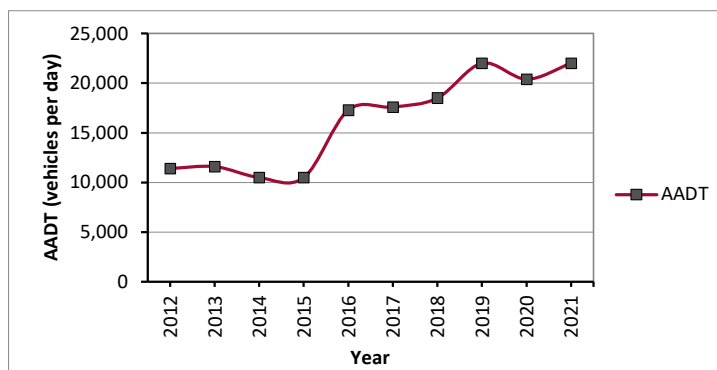
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Peak Hour Factor	0.81				0.25				0.89				0.91				0.87
Peak Hour Factor	0.00	0.79	0.00	0.58	0.00	0.00	0.00	0.25	0.00	0.69	0.87	0.00	0.00	0.25	0.87	0.85	0.87

Appendix E – Historical Growth Rate Data

**Annual Average Daily Traffic (AADT) from the
South Carolina Department of Transportation (SCDOT)**

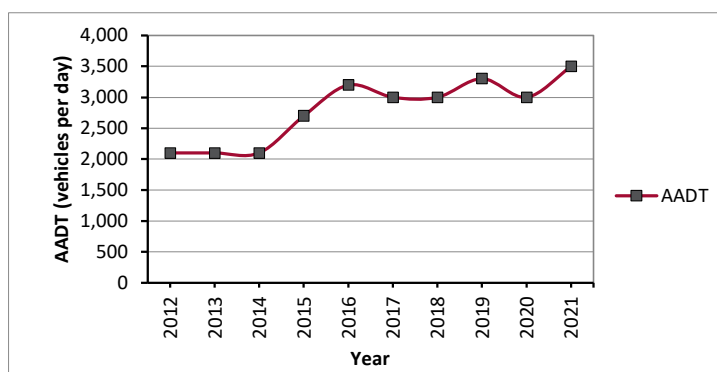
Station	070165
Route	SC 170
Location	SC 46 (OKATIE HWY) TO US 278 (W FORDING ISLAND RD)
2012	11,400
2013	11,600
2014	10,500
2015	10,500
2016	17,300
2017	17,600
2018	18,500
2019	22,000
2020	20,400
2021	22,000



Annual Growth for Last Five (5) Years --- SC 170 is 4.6%

Annual Growth for Last Ten (10) Years --- SC 170 is 6.8%

Station	070325
Route	S- 34
Location	SC 170 (OKATIE HWY) TO SC 46 (MAY RIVER RD)
2012	2,100
2013	2,100
2014	2,100
2015	2,700
2016	3,200
2017	3,000
2018	3,000
2019	3,300
2020	3,000
2021	3,500



Annual Growth for Last Five (5) Years --- S- 34 is 3.1%

Annual Growth for Last Ten (10) Years --- S- 34 is 5.2%

Appendix F – Capacity Analysis Worksheets

2022 EXISTING CONDITIONS

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2022 Existing AM

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	55	66	1425	34	49	1122
Future Vol, veh/h	55	66	1425	34	49	1122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	56	67	1454	35	50	1145
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2127	727	0	0	1454	0
Stage 1	1454	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 43	366	-	-	461	-
Stage 1	181	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 38	366	-	-	461	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	181	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	27.2	0		0.6		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	159	366	461	-
HCM Lane V/C Ratio	-	-	0.353	0.184	0.108	-
HCM Control Delay (s)	-	-	39.5	17	13.8	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	1.5	0.7	0.4	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2022 Existing AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	258	16	110	49	10	222	47	1011	21	171	1013	23
v/c Ratio	0.76	0.04	0.21	0.15	0.02	0.30	0.17	0.79	0.03	0.55	0.60	0.03
Control Delay	47.2	28.5	1.2	29.6	28.5	13.5	10.0	29.4	0.1	17.1	19.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	28.5	1.2	29.6	28.5	13.5	10.0	29.4	0.1	17.1	19.0	0.0
Queue Length 50th (ft)	129	7	0	21	4	56	10	251	0	41	230	0
Queue Length 95th (ft)	#283	26	3	59	19	128	26	371	0	80	316	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	449	560	624	434	549	873	272	1925	952	442	2326	1117
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.03	0.18	0.11	0.02	0.25	0.17	0.53	0.02	0.39	0.44	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2022 Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	15	106	47	10	213	45	971	20	164	972	22
Future Volume (veh/h)	248	15	106	47	10	213	45	971	20	164	972	22
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	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	258	16	0	49	10	222	47	1011	21	171	1012	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	354	438		403	431	514	278	1569	706	323	1664	
Arrive On Green	0.25	0.25	0.00	0.25	0.25	0.25	0.04	0.45	0.45	0.08	0.48	0.00
Sat Flow, veh/h	1158	1781	1572	1375	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	258	16	0	49	10	222	47	1011	21	171	1012	0
Grp Sat Flow(s),veh/h/ln	1158	1781	1572	1375	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	21.0	0.7	0.0	2.7	0.4	10.6	1.3	21.5	0.7	5.1	20.7	0.0
Cycle Q Clear(g_c), s	21.4	0.7	0.0	3.4	0.4	10.6	1.3	21.5	0.7	5.1	20.7	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	354	438		403	431	514	278	1569	706	323	1664	
V/C Ratio(X)	0.73	0.04		0.12	0.02	0.43	0.17	0.64	0.03	0.53	0.61	
Avail Cap(c_a), veh/h	384	484		439	476	555	305	1652	743	480	2005	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.7	27.7	0.0	29.0	27.6	25.8	13.8	20.8	15.0	15.8	18.2	0.0
Incr Delay (d2), s/veh	6.3	0.0	0.0	0.1	0.0	0.6	0.3	0.9	0.0	1.3	0.4	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	6.5	0.3	0.0	0.9	0.2	3.8	0.5	8.0	0.2	1.8	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	27.7	0.0	29.1	27.6	26.4	14.1	21.7	15.1	17.2	18.7	0.0
LnGrp LOS	D	C		C	C	C	B	C	B	B	B	
Approach Vol, veh/h		274	A		281			1079			1183	A
Approach Delay, s/veh		41.2			26.9			21.2			18.4	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.2	50.7		31.5	10.5	54.5		31.5				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+l1), s	7.1	23.5		23.4	3.3	22.7		12.6				
Green Ext Time (p_c), s	0.3	16.8		0.3	0.0	23.9		0.8				

Intersection Summary

HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2022 Existing AM

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	158	14	4	225	45	5
Future Vol, veh/h	158	14	4	225	45	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	184	16	5	262	52	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	464	192
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	272	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1372	-	551	806
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	767	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1372	-	549	806
Mov Cap-2 Maneuver	-	-	-	-	549	-
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	764	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		11.9	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	549	806	-	-	1372	-
HCM Lane V/C Ratio	0.095	0.007	-	-	0.003	-
HCM Control Delay (s)	12.2	9.5	-	-	7.6	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile O(veh)	0.3	0	-	-	0	-

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2022 Existing PM

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	58	1135	40	133	1440
Future Vol, veh/h	21	58	1135	40	133	1440
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	22	61	1195	42	140	1516
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2233	598	0	0	1195	0
Stage 1	1195	-	-	-	-	-
Stage 2	1038	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	36	445	-	-	580	-
Stage 1	250	-	-	-	-	-
Stage 2	302	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	27	445	-	-	580	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	18.8	0	1.1			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 160 445	580	-		
HCM Lane V/C Ratio	-	- 0.138 0.137	0.241	-		
HCM Control Delay (s)	-	- 31.1 14.4	13.2	-		
HCM Lane LOS	-	- D B	B	-		
HCM 95th %tile Q(veh)	-	- 0.5 0.5	0.9	-		

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2022 Existing PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	129	8	48	27	35	235	71	918	27	197	1165	65
v/c Ratio	0.53	0.02	0.10	0.11	0.10	0.39	0.23	0.64	0.03	0.45	0.58	0.07
Control Delay	38.8	28.4	0.4	29.4	28.9	14.1	7.4	19.4	0.1	9.6	15.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	28.4	0.4	29.4	28.9	14.1	7.4	19.4	0.1	9.6	15.6	0.1
Queue Length 50th (ft)	53	3	0	10	13	50	11	172	0	32	215	0
Queue Length 95th (ft)	#130	16	0	35	42	118	24	249	0	58	288	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	283	387	507	290	387	783	309	2066	1041	639	2607	1203
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.02	0.09	0.09	0.09	0.30	0.23	0.44	0.03	0.31	0.45	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2022 Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	7	44	25	32	214	65	835	25	179	1060	59
Future Volume (veh/h)	117	7	44	25	32	214	65	835	25	179	1060	59
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	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	129	8	0	27	35	235	71	918	27	197	1165	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	241	292		300	292	377	315	1719	785	417	1873	
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.05	0.50	0.50	0.08	0.53	0.00
Sat Flow, veh/h	1109	1870	1585	1407	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	129	8	0	27	35	235	71	918	27	197	1165	0
Grp Sat Flow(s),veh/h/ln	1109	1870	1585	1407	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	9.5	0.3	0.0	1.4	1.3	11.0	1.5	15.2	0.7	4.4	19.3	0.0
Cycle Q Clear(g_c), s	10.8	0.3	0.0	1.7	1.3	11.0	1.5	15.2	0.7	4.4	19.3	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	241	292		300	292	377	315	1719	785	417	1873	
V/C Ratio(X)	0.53	0.03		0.09	0.12	0.62	0.23	0.53	0.03	0.47	0.62	
Avail Cap(c_a), veh/h	243	295		303	295	380	337	1719	785	619	2089	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.0	29.9	0.0	30.7	30.4	28.7	10.5	14.5	10.8	10.5	13.9	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.1	0.2	3.1	0.4	0.4	0.0	0.8	0.5	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	0.1	0.0	0.5	0.6	4.2	0.5	5.1	0.2	1.4	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	30.0	0.0	30.8	30.6	31.8	10.8	14.9	10.9	11.4	14.5	0.0
LnGrp LOS	D	C		C	C	C	B	B	B	B	B	
Approach Vol, veh/h		137	A		297			1016			1362	A
Approach Delay, s/veh		36.9			31.6			14.5			14.0	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	49.3		20.9	10.9	51.9		20.9				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	6.4	17.2		12.8	3.5	21.3		13.0				
Green Ext Time (p_c), s	0.4	15.3		0.0	0.0	22.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay 17.2

HCM 6th LOS B

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2022 Existing PM

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	187	15	9	256	15	7
Future Vol, veh/h	187	15	9	256	15	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	215	17	10	294	17	8
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	232	0	538	224
Stage 1	-	-	-	-	224	-
Stage 2	-	-	-	-	314	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1336	-	504	815
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1336	-	499	815
Mov Cap-2 Maneuver	-	-	-	-	499	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	734	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		11.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	499	815	-	-	1336	-
HCM Lane V/C Ratio	0.035	0.01	-	-	0.008	-
HCM Control Delay (s)	12.5	9.5	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile O(veh)	0.1	0	-	-	0	-

2025 NO BUILD CONDITIONS

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2025 Phase 1 No-Build AM

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	81	1806	42	60	1450
Future Vol, veh/h	67	81	1806	42	60	1450
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	71	85	1901	44	63	1526
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2790	951	0	0	1901	0
Stage 1	1901	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 15	260	-	-	309	-
Stage 1	103	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 12	260	-	-	309	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	103	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	69.1	0		0.8		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	91	260	309	-
HCM Lane V/C Ratio	-	-	0.775	0.328	0.204	-
HCM Control Delay (s)	-	-	121.8	25.5	19.6	-
HCM Lane LOS	-	-	F	D	C	-
HCM 95th %tile Q(veh)	-	-	4	1.4	0.8	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2025 Phase 1 No-Build AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	320	27	137	61	21	329	58	1261	26	274	1272	28
v/c Ratio	0.94	0.06	0.26	0.19	0.05	0.43	0.30	0.90	0.04	0.88	0.72	0.03
Control Delay	77.0	32.9	3.1	35.1	32.8	18.7	12.3	40.3	0.1	55.8	23.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.0	32.9	3.1	35.1	32.8	18.7	12.3	40.3	0.1	55.8	23.0	0.1
Queue Length 50th (ft)	224	15	0	34	12	130	15	423	0	136	354	0
Queue Length 95th (ft)	#401	38	21	72	32	207	31	523	0	#285	440	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	348	437	528	336	429	777	194	1505	784	327	1818	899
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.06	0.26	0.18	0.05	0.42	0.30	0.84	0.03	0.84	0.70	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2025 Phase 1 No-Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	26	130	58	20	313	55	1198	25	260	1208	27
Future Volume (veh/h)	304	26	130	58	20	313	55	1198	25	260	1208	27
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	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	320	27	0	61	21	329	58	1261	26	274	1272	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	315	440		388	433	572	219	1516	682	306	1729	
Arrive On Green	0.25	0.25	0.00	0.25	0.25	0.25	0.04	0.43	0.43	0.11	0.50	0.00
Sat Flow, veh/h	1039	1781	1572	1361	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	320	27	0	61	21	329	58	1261	26	274	1272	0
Grp Sat Flow(s),veh/h/ln	1039	1781	1572	1361	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.2	1.2	0.0	3.8	1.0	17.7	1.7	33.7	1.0	9.4	31.0	0.0
Cycle Q Clear(g_c), s	26.2	1.2	0.0	5.0	1.0	17.7	1.7	33.7	1.0	9.4	31.0	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	315	440		388	433	572	219	1516	682	306	1729	
V/C Ratio(X)	1.02	0.06		0.16	0.05	0.58	0.26	0.83	0.04	0.89	0.74	
Avail Cap(c_a), veh/h	315	440		388	433	572	235	1516	682	376	1822	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.2	30.6	0.0	32.5	30.5	27.5	16.8	26.8	17.5	22.7	20.8	0.0
Incr Delay (d2), s/veh	54.9	0.1	0.0	0.2	0.0	1.4	0.6	4.2	0.0	20.1	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	13.2	0.5	0.0	1.2	0.4	6.6	0.6	13.6	0.3	5.0	11.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.1	30.6	0.0	32.7	30.5	29.0	17.5	31.0	17.6	42.9	22.4	0.0
LnGrp LOS	F	C		C	C	C	B	C	B	D	C	
Approach Vol, veh/h		347	A		411			1345			1546	A
Approach Delay, s/veh		92.8			29.6			30.2			26.0	
Approach LOS		F			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.7	53.4		34.0	11.0	61.1		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+l1), s	11.4	35.7		28.2	3.7	33.0		19.7				
Green Ext Time (p_c), s	0.4	8.8		0.0	0.0	20.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2025 Phase 1 No-Build AM

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	194	84	5	276	115	6
Future Vol, veh/h	194	84	5	276	115	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	216	93	6	307	128	7
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	309	0	535	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1252	-	501	781
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	730	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1252	-	498	781
Mov Cap-2 Maneuver	-	-	-	-	498	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	726	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		14.4	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	498	781	-	-	1252	-
HCM Lane V/C Ratio	0.257	0.009	-	-	0.004	-
HCM Control Delay (s)	14.7	9.6	-	-	7.9	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	1	0	-	-	0	-

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2025 Phase 1 No-Build PM

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	71	1439	49	163	1830
Future Vol, veh/h	26	71	1439	49	163	1830
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	27	75	1515	52	172	1926
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2822	758	0	0	1515	0
Stage 1	1515	-	-	-	-	-
Stage 2	1307	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 14	350	-	-	437	-
Stage 1	168	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 8	350	-	-	437	-
Mov Cap-2 Maneuver	96	-	-	-	-	-
Stage 1	168	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	28.5	0		1.5		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	96	350	437	-
HCM Lane V/C Ratio	-	-	0.285	0.214	0.393	-
HCM Control Delay (s)	-	-	56.8	18.1	18.5	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	1.1	0.8	1.8	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2025 Phase 1 No-Build PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	157	18	59	34	49	334	88	1132	34	297	1444	79
v/c Ratio	0.74	0.06	0.14	0.16	0.17	0.48	0.42	0.82	0.04	0.77	0.76	0.09
Control Delay	58.5	33.3	0.6	34.9	34.4	17.8	12.7	27.6	0.1	30.3	18.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.5	33.3	0.6	34.9	34.4	17.8	12.7	27.6	0.1	30.3	18.7	0.4
Queue Length 50th (ft)	81	8	0	16	23	104	14	270	0	85	310	0
Queue Length 95th (ft)	#190	28	0	45	58	188	31	364	0	176	395	3
Internal Link Dist (ft)	776			677			1441			2596		
Turn Bay Length (ft)	100			225			225			200		
Base Capacity (vph)	225	310	451	231	310	763	208	1659	880	466	2199	1037
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.06	0.13	0.15	0.16	0.44	0.42	0.68	0.04	0.64	0.66	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2025 Phase 1 No-Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	16	54	31	45	304	80	1030	31	270	1314	72
Future Volume (veh/h)	143	16	54	31	45	304	80	1030	31	270	1314	72
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	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	157	18	0	34	49	334	88	1132	34	297	1444	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	209	281		280	281	414	257	1682	769	392	1932	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.48	0.48	0.11	0.54	0.00
Sat Flow, veh/h	1000	1870	1585	1395	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	157	18	0	34	49	334	88	1132	34	297	1444	0
Grp Sat Flow(s),veh/h/ln	1000	1870	1585	1395	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	11.2	0.7	0.0	1.9	2.0	13.2	1.9	21.9	1.0	7.1	27.5	0.0
Cycle Q Clear(g_c), s	13.2	0.7	0.0	2.6	2.0	13.2	1.9	21.9	1.0	7.1	27.5	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	209	281		280	281	414	257	1682	769	392	1932	
V/C Ratio(X)	0.75	0.06		0.12	0.17	0.81	0.34	0.67	0.04	0.76	0.75	
Avail Cap(c_a), veh/h	209	281		280	281	414	271	1682	769	525	1988	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.4	32.1	0.0	33.2	32.6	30.5	13.3	17.3	11.9	15.0	15.4	0.0
Incr Delay (d2), s/veh	14.0	0.1	0.0	0.2	0.3	11.2	0.8	1.1	0.0	4.4	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	4.2	0.3	0.0	0.6	0.9	7.4	0.6	7.6	0.3	2.6	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	32.2	0.0	33.4	32.9	41.7	14.0	18.4	11.9	19.4	17.0	0.0
LnGrp LOS	D	C		C	C	D	B	B	B	B	B	
Approach Vol, veh/h	175			A			417			1254		
Approach Delay, s/veh	51.3			40.0			18.0			17.4		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	50.4		21.0	11.3	55.6		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	9.1	23.9		15.2	3.9	29.5		15.2				
Green Ext Time (p_c), s	0.5	12.3		0.0	0.0	18.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2025 Phase 1 No-Build PM

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	230	76	11	314	66	9
Future Vol, veh/h	230	76	11	314	66	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	256	84	12	349	73	10
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	340	0	629	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1219	-	446	783
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1219	-	441	783
Mov Cap-2 Maneuver	-	-	-	-	441	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	688	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		14.2	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	441	783	-	-	1219	-
HCM Lane V/C Ratio	0.166	0.013	-	-	0.01	-
HCM Control Delay (s)	14.8	9.7	-	-	8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-

2025 BUILD PHASE 1 CONDITIONS

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2025 Phase 1 Build AM

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	81	1832	42	60	1459
Future Vol, veh/h	67	81	1832	42	60	1459
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	71	85	1928	44	63	1536
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2822	964	0	0	1928	0
Stage 1	1928	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 14	255	-	-	302	-
Stage 1	100	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 11	255	-	-	302	-
Mov Cap-2 Maneuver	89	-	-	-	-	-
Stage 1	100	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	72	0		0.8		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	89	255	302	-
HCM Lane V/C Ratio	-	-	0.792	0.334	0.209	-
HCM Control Delay (s)	-	-	127.6	26	20	-
HCM Lane LOS	-	-	F	D	C	-
HCM 95th %tile Q(veh)	-	-	4.1	1.4	0.8	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2025 Phase 1 Build AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	320	27	137	80	21	333	58	1264	28	283	1272	28
v/c Ratio	0.94	0.06	0.26	0.24	0.05	0.43	0.30	0.91	0.04	0.90	0.72	0.03
Control Delay	77.8	33.0	3.1	36.1	32.8	18.8	12.3	40.7	0.1	59.9	22.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.8	33.0	3.1	36.1	32.8	18.8	12.3	40.7	0.1	59.9	22.9	0.1
Queue Length 50th (ft)	224	15	0	46	12	132	15	424	0	145	354	0
Queue Length 95th (ft)	#401	38	21	90	32	210	31	524	0	#301	440	0
Internal Link Dist (ft)		776			302			1441			1136	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	346	435	526	335	427	775	194	1497	781	325	1809	895
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.06	0.26	0.24	0.05	0.43	0.30	0.84	0.04	0.87	0.70	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2025 Phase 1 Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	26	130	76	20	316	55	1201	27	269	1208	27
Future Volume (veh/h)	304	26	130	76	20	316	55	1201	27	269	1208	27
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	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	320	27	0	80	21	333	58	1264	28	283	1272	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	314	440		388	433	585	219	1487	669	314	1729	
Arrive On Green	0.25	0.25	0.00	0.25	0.25	0.25	0.04	0.42	0.42	0.12	0.50	0.00
Sat Flow, veh/h	1035	1781	1572	1361	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	320	27	0	80	21	333	58	1264	28	283	1272	0
Grp Sat Flow(s),veh/h/ln	1035	1781	1572	1361	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.2	1.2	0.0	5.1	1.0	17.7	1.7	34.3	1.1	10.3	31.0	0.0
Cycle Q Clear(g_c), s	26.2	1.2	0.0	6.3	1.0	17.7	1.7	34.3	1.1	10.3	31.0	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	314	440		388	433	585	219	1487	669	314	1729	
V/C Ratio(X)	1.02	0.06		0.21	0.05	0.57	0.26	0.85	0.04	0.90	0.74	
Avail Cap(c_a), veh/h	314	440		388	433	585	235	1502	675	370	1822	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.2	30.6	0.0	33.0	30.5	26.9	16.8	27.7	18.1	24.3	20.8	0.0
Incr Delay (d2), s/veh	55.7	0.1	0.0	0.3	0.0	1.3	0.6	4.9	0.0	21.9	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	13.3	0.5	0.0	1.6	0.4	6.6	0.6	14.1	0.4	5.6	11.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.9	30.6	0.0	33.2	30.5	28.2	17.5	32.6	18.1	46.2	22.4	0.0
LnGrp LOS	F	C		C	C	C	B	C	B	D	C	
Approach Vol, veh/h	347			434			1350			1555		
Approach Delay, s/veh	93.6			29.3			31.6			26.7		
Approach LOS	F			C			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	52.6		34.0	11.0	61.1		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+l1), s	12.3	36.3		28.2	3.7	33.0		19.7				
Green Ext Time (p_c), s	0.3	8.3		0.0	0.0	20.4		0.9				

Intersection Summary

HCM 6th Ctrl Delay 35.1

HCM 6th LOS D

Notes

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

HCM 6th TWSC
3: Estate Drive/Slite Access #3 & Gibbet Road

Gibbet Road Multifamily Development
2025 Phase 1 Build AM

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑		↑	↑	
Traffic Vol, veh/h	4	194	84	5	277	1	115	1	6	5	3	3
Future Vol, veh/h	4	194	84	5	277	1	115	1	6	5	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	4	21	2	2	2	5	2	20	2	2	2
Mvmt Flow	4	216	93	6	308	1	128	1	7	6	3	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	309	0	0	309	0	0	548	545	216	596	638	309
Stage 1	-	-	-	-	-	-	224	224	-	321	321	-
Stage 2	-	-	-	-	-	-	324	321	-	275	317	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.52	6.4	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.018	3.48	3.518	4.018	3.318
Pot Cap-1 Maneuver	1252	-	-	1252	-	-	443	446	781	415	394	731
Stage 1	-	-	-	-	-	-	772	718	-	691	652	-
Stage 2	-	-	-	-	-	-	682	652	-	731	654	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1252	-	-	1252	-	-	435	442	781	408	390	731
Mov Cap-2 Maneuver	-	-	-	-	-	-	435	442	-	408	390	-
Stage 1	-	-	-	-	-	-	769	715	-	688	648	-
Stage 2	-	-	-	-	-	-	671	648	-	721	651	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			16.3			13		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	435	704	1252	-	-	1252	-	-	408	509		
HCM Lane V/C Ratio	0.294	0.011	0.004	-	-	0.004	-	-	0.014	0.013		
HCM Control Delay (s)	16.7	10.2	7.9	-	-	7.9	0	-	13.9	12.2		
HCM Lane LOS	C	B	A	-	-	A	A	-	B	B		
HCM 95th %tile Q(veh)	1.2	0	0	-	-	0	-	-	0	0		

HCM 6th TWSC
4: SC 170 (Okatie Hwy) & Site Access #1

Gibbet Road Multifamily Development
2025 Phase 1 Build AM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	23	1851	10	0	1526
Future Vol, veh/h	0	23	1851	10	0	1526
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, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	26	2057	11	0	1696
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	1034	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	229	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	229	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	22.7	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 229		-		
HCM Lane V/C Ratio	-	- 0.112		-		
HCM Control Delay (s)	-	- 22.7		-		
HCM Lane LOS	-	- C		-		
HCM 95th %tile Q(veh)	-	- 0.4		-		

HCM 6th TWSC
5: Gibbet Road & Site Access #2

Gibbet Road Multifamily Development
2025 Phase 1 Build AM

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	282	394	1	0	18
Future Vol, veh/h	0	282	394	1	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	313	438	1	0	20
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	439
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	618
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	618
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		11		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	618		
HCM Lane V/C Ratio	-	-	-	0.032		
HCM Control Delay (s)	-	-	-	11		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.1		

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2025 Phase 1 Build PM

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	71	1455	49	163	1856
Future Vol, veh/h	26	71	1455	49	163	1856
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	27	75	1532	52	172	1954
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	2853	766	0	0	1532	0
Stage 1	1532	-	-	-	-	-
Stage 2	1321	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 13	345	-	-	430	-
Stage 1	164	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 8	345	-	-	430	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	164	-	-	-	-	-
Stage 2	128	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	29.2	0		1.5		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	93	345	430	-
HCM Lane V/C Ratio	-	-	0.294	0.217	0.399	-
HCM Control Delay (s)	-	-	59.1	18.3	18.8	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	1.1	0.8	1.9	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2025 Phase 1 Build PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	157	18	59	46	49	336	88	1144	43	325	1444	79
v/c Ratio	0.75	0.06	0.14	0.21	0.17	0.47	0.42	0.84	0.06	0.81	0.76	0.09
Control Delay	59.7	33.5	0.6	36.1	34.7	17.5	12.5	29.3	0.2	36.1	18.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	33.5	0.6	36.1	34.7	17.5	12.5	29.3	0.2	36.1	18.4	0.4
Queue Length 50th (ft)	84	9	0	23	24	105	14	286	0	107	310	0
Queue Length 95th (ft)	#190	28	0	56	58	189	31	370	0	#236	395	3
Internal Link Dist (ft)		776			302			1441			1136	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	222	307	449	228	307	756	209	1640	872	455	2174	1027
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.06	0.13	0.20	0.16	0.44	0.42	0.70	0.05	0.71	0.66	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2025 Phase 1 Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	16	54	42	45	306	80	1041	39	296	1314	72
Future Volume (veh/h)	143	16	54	42	45	306	80	1041	39	296	1314	72
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	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	157	18	0	46	49	336	88	1144	43	325	1444	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	209	281		280	281	429	257	1649	753	398	1932	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.48	0.48	0.12	0.54	0.00
Sat Flow, veh/h	998	1870	1585	1395	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	157	18	0	46	49	336	88	1144	43	325	1444	0
Grp Sat Flow(s),veh/h/ln	998	1870	1585	1395	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	11.2	0.7	0.0	2.6	2.0	13.2	1.9	22.7	1.3	7.9	27.5	0.0
Cycle Q Clear(g_c), s	13.2	0.7	0.0	3.3	2.0	13.2	1.9	22.7	1.3	7.9	27.5	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	209	281		280	281	429	257	1649	753	398	1932	
V/C Ratio(X)	0.75	0.06		0.16	0.17	0.78	0.34	0.69	0.06	0.82	0.75	
Avail Cap(c_a), veh/h	209	281		280	281	429	271	1649	753	514	1988	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.4	32.1	0.0	33.5	32.6	29.8	13.3	18.1	12.4	15.7	15.4	0.0
Incr Delay (d2), s/veh	14.1	0.1	0.0	0.3	0.3	9.1	0.8	1.3	0.0	7.8	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	4.2	0.3	0.0	0.8	0.9	7.2	0.6	8.0	0.4	3.4	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	32.2	0.0	33.8	32.9	38.9	14.0	19.4	12.5	23.5	17.0	0.0
LnGrp LOS	D	C		C	C	D	B	B	B	C	B	
Approach Vol, veh/h		175			431			1275			1769	
Approach Delay, s/veh		51.4			37.6			18.8			18.2	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.3	49.6		21.0	11.3	55.6		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+l1), s	9.9	24.7		15.2	3.9	29.5		15.2				
Green Ext Time (p_c), s	0.5	11.8		0.0	0.0	18.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

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

HCM 6th TWSC
3: Estate Drive/Slte Access #3 & Gibbet Road

Gibbet Road Multifamily Development
2025 Phase 1 Build PM

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑		↑	↑	
Traffic Vol, veh/h	13	230	76	11	317	3	66	3	9	3	1	2
Future Vol, veh/h	13	230	76	11	317	3	66	3	9	3	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	14	256	84	12	352	3	73	3	10	3	1	2
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	355	0	0	340	0	0	663	663	256	711	746	354
Stage 1	-	-	-	-	-	-	284	284	-	378	378	-
Stage 2	-	-	-	-	-	-	379	379	-	333	368	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1204	-	-	1219	-	-	375	382	783	348	342	690
Stage 1	-	-	-	-	-	-	723	676	-	644	615	-
Stage 2	-	-	-	-	-	-	643	615	-	681	621	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1204	-	-	1219	-	-	365	372	783	334	333	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	365	372	-	334	333	-
Stage 1	-	-	-	-	-	-	712	666	-	634	608	-
Stage 2	-	-	-	-	-	-	632	608	-	659	612	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			16.3			14		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	365		614	1204	-	-	1219	-	-	334	508	
HCM Lane V/C Ratio	0.201		0.022	0.012	-	-	0.01	-	-	0.01	0.007	
HCM Control Delay (s)	17.3		11	8	-	-	8	0	-	15.9	12.1	
HCM Lane LOS	C		B	A	-	-	A	A	-	C	B	
HCM 95th %tile Q(veh)	0.7		0.1	0	-	-	0	-	-	0	0	

HCM 6th TWSC
4: SC 170 (Okatie Hwy) & Site Access #1

Gibbet Road Multifamily Development
2025 Phase 1 Build PM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	1490	32	0	1882
Future Vol, veh/h	0	14	1490	32	0	1882
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, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	16	1656	36	0	2091
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	846	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	306	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	306	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	17.4	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	-	306	-		
HCM Lane V/C Ratio	-	-	0.051	-		
HCM Control Delay (s)	-	-	17.4	-		
HCM Lane LOS	-	-	C	-		
HCM 95th %tile Q(veh)	-	-	0.2	-		

HCM 6th TWSC
5: Gibbet Road & Site Access #2

Gibbet Road Multifamily Development
2025 Phase 1 Build PM

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	319	382	3	0	11
Future Vol, veh/h	0	319	382	3	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	0	354	424	3	0	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	426
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	628
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	628
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	628		
HCM Lane V/C Ratio	-	-	-	0.019		
HCM Control Delay (s)	-	-	-	10.8		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.1		

2027 NO-BUILD CONDITIONS

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2027 Phase 2 No-Build AM

Intersection						
Int Delay, s/veh	5.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	93	2059	48	69	1650
Future Vol, veh/h	77	93	2059	48	69	1650
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	79	95	2101	49	70	1684
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3083	1051	0	0	2101	0
Stage 1	2101	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 9	223	-	-	258	-
Stage 1	80	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 7	223	-	-	258	-
Mov Cap-2 Maneuver	~ 71	-	-	-	-	-
Stage 1	80	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	126.7		0		1	
HCM LOS	F					
Minor Lane/Major Mvmt	NBT		NBRWBLn1WBLn2		SBL	SBT
Capacity (veh/h)	-		- 71 223		258	-
HCM Lane V/C Ratio	-		- 1.107 0.426		0.273	-
HCM Control Delay (s)	-		- 240.4 32.6		24.1	-
HCM Lane LOS	-		- F D		C	-
HCM 95th %tile Q(veh)	-		- 5.9 2		1.1	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2027 Phase 2 No-Build AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	363	30	155	69	23	366	66	1427	29	301	1438	32
v/c Ratio	1.09	0.07	0.30	0.21	0.06	0.49	0.42	0.99	0.04	0.96	0.79	0.04
Control Delay	117.1	33.2	4.5	35.8	33.0	20.6	16.6	54.4	0.1	74.2	25.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	117.1	33.2	4.5	35.8	33.0	20.6	16.6	54.4	0.1	74.2	25.6	0.1
Queue Length 50th (ft)	~290	16	0	39	13	152	17	517	0	163	435	0
Queue Length 95th (ft)	#474	42	34	79	34	237	34	#685	0	#338	537	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	321	411	754	159	1440	758	313	1814	897
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.07	0.30	0.21	0.06	0.49	0.42	0.99	0.04	0.96	0.79	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2027 Phase 2 No-Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	29	149	66	22	351	63	1370	28	289	1380	31
Future Volume (veh/h)	348	29	149	66	22	351	63	1370	28	289	1380	31
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	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	362	30	0	69	23	366	66	1427	29	301	1438	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	294	424		371	417	614	192	1449	651	322	1782	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	1003	1781	1572	1358	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	362	30	0	69	23	366	66	1427	29	301	1438	0
Grp Sat Flow(s),veh/h/ln	1003	1781	1572	1358	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.1	1.4	0.0	4.6	1.1	20.1	2.0	44.1	1.2	14.5	38.1	0.0
Cycle Q Clear(g_c), s	26.2	1.4	0.0	6.0	1.1	20.1	2.0	44.1	1.2	14.5	38.1	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	294	424		371	417	614	192	1449	651	322	1782	
V/C Ratio(X)	1.23	0.07		0.19	0.06	0.60	0.34	0.99	0.04	0.94	0.81	
Avail Cap(c_a), veh/h	294	424		371	417	614	204	1449	651	322	1782	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.2	32.5	0.0	34.8	32.3	27.0	19.3	32.1	19.4	33.4	22.0	0.0
Incr Delay (d2), s/veh	130.0	0.1	0.0	0.2	0.1	1.6	1.1	20.1	0.0	33.9	2.9	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	18.8	0.6	0.0	1.5	0.5	7.5	0.7	21.1	0.4	6.6	14.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	175.2	32.5	0.0	35.0	32.4	28.6	20.4	52.1	19.5	67.3	24.9	0.0
LnGrp LOS	F	C		D	C	C	C	D	B	E	C	
Approach Vol, veh/h	392		A	458				1522			1739	A
Approach Delay, s/veh	164.3			29.8				50.2			32.2	
Approach LOS	F			C				D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.2	64.8		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+l1), s	16.5	46.1		28.2	4.0	40.1		22.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	15.1		0.7				

Intersection Summary

HCM 6th Ctrl Delay 51.2

HCM 6th LOS D

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2027 Phase 2 No-Build AM

Intersection						
Int Delay, s/veh	3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	221	87	6	316	123	7
Future Vol, veh/h	221	87	6	316	123	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	257	101	7	367	143	8
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	358	0	638	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	381	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1201	-	436	740
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	684	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1201	-	433	740
Mov Cap-2 Maneuver	-	-	-	-	433	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	679	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		17	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	433	740	-	-	1201	-
HCM Lane V/C Ratio	0.33	0.011	-	-	0.006	-
HCM Control Delay (s)	17.4	9.9	-	-	8	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	1.4	0	-	-	0	-

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2027 Phase 2 No-Build PM

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	81	1641	56	187	2086
Future Vol, veh/h	29	81	1641	56	187	2086
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	31	85	1727	59	197	2196
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	3219	864	0	0	1727	0
Stage 1	1727	-	-	-	-	-
Stage 2	1492	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 7	297	-	-	362	-
Stage 1	129	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	297	-	-	362	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	129	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	45.1	0		2.2		
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	62	297	362	-
HCM Lane V/C Ratio	-	-	0.492	0.287	0.544	-
HCM Control Delay (s)	-	-	109.8	21.9	26.2	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	1.9	1.2	3.1	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2027 Phase 2 No-Build PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	180	19	68	38	56	376	100	1295	38	332	1651	91
v/c Ratio	0.88	0.07	0.16	0.18	0.20	0.54	0.53	0.91	0.05	0.85	0.84	0.10
Control Delay	78.1	33.9	0.8	36.1	35.7	19.8	19.5	34.4	0.1	43.0	21.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.1	33.9	0.8	36.1	35.7	19.8	19.5	34.4	0.1	43.0	21.4	0.7
Queue Length 50th (ft)	102	9	0	19	28	132	16	347	0	125	393	0
Queue Length 95th (ft)	#227	29	0	48	64	219	52	#485	0	#266	502	7
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	205	286	433	212	286	721	190	1526	828	419	2024	966
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.07	0.16	0.18	0.20	0.52	0.53	0.85	0.05	0.79	0.82	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2027 Phase 2 No-Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	17	62	35	51	342	91	1178	35	302	1502	83
Future Volume (veh/h)	164	17	62	35	51	342	91	1178	35	302	1502	83
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	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	180	19	0	38	56	376	100	1295	38	332	1651	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	197	277		275	277	438	219	1643	751	373	1948	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.47	0.47	0.13	0.55	0.00
Sat Flow, veh/h	956	1870	1585	1393	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	180	19	0	38	56	376	100	1295	38	332	1651	0
Grp Sat Flow(s),veh/h/ln	956	1870	1585	1393	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.9	0.8	0.0	2.2	2.3	13.2	2.1	28.0	1.2	8.7	35.0	0.0
Cycle Q Clear(g_c), s	13.2	0.8	0.0	2.9	2.3	13.2	2.1	28.0	1.2	8.7	35.0	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	197	277		275	277	438	219	1643	751	373	1948	
V/C Ratio(X)	0.91	0.07		0.14	0.20	0.86	0.46	0.79	0.05	0.89	0.85	
Avail Cap(c_a), veh/h	197	277		275	277	438	230	1643	751	471	1961	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.1	32.7	0.0	33.9	33.3	30.7	17.7	19.7	12.7	18.7	17.0	0.0
Incr Delay (d2), s/veh	40.5	0.1	0.0	0.2	0.4	15.6	1.5	2.7	0.0	15.8	3.7	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	6.2	0.4	0.0	0.7	1.0	9.0	1.0	10.2	0.4	4.4	12.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.6	32.8	0.0	34.2	33.7	46.4	19.2	22.4	12.7	34.5	20.7	0.0
LnGrp LOS	F	C		C	C	D	B	C	B	C	C	
Approach Vol, veh/h		199	A		470			1433			1983	A
Approach Delay, s/veh		76.9			43.9			21.9			23.0	
Approach LOS		E			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	50.0		21.0	11.5	56.7		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+l1), s	10.7	30.0		15.2	4.1	37.0		15.2				
Green Ext Time (p_c), s	0.5	7.7		0.0	0.0	11.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2027 Phase 2 No-Build PM

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	262	79	13	359	69	10
Future Vol, veh/h	262	79	13	359	69	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	301	91	15	413	79	11
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	392	0	744	301
Stage 1	-	-	-	-	301	-
Stage 2	-	-	-	-	443	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1167	-	382	739
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	647	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1167	-	376	739
Mov Cap-2 Maneuver	-	-	-	-	376	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	636	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		16.2	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	376	739	-	-	1167	-
HCM Lane V/C Ratio	0.211	0.016	-	-	0.013	-
HCM Control Delay (s)	17.1	9.9	-	-	8.1	0
HCM Lane LOS	C	A	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-

2027 BUILD PHASE 2 CONDITIONS

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2027 Phase 2 Build AM

Intersection						
Int Delay, s/veh	6.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	77	93	2106	48	69	1679
Future Vol, veh/h	77	93	2106	48	69	1679
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	79	95	2149	49	70	1713
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	3146	1075	0	0	2149	0
Stage 1	2149	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 8	215	-	-	247	-
Stage 1	~ 75	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 6	215	-	-	247	-
Mov Cap-2 Maneuver	~ 67	-	-	-	-	-
Stage 1	~ 75	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	141.2	0		1		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	67	215	247	-
HCM Lane V/C Ratio	-	-	1.173	0.441	0.285	-
HCM Control Delay (s)	-	-	270.4	34.3	25.3	-
HCM Lane LOS	-	-	F	D	D	-
HCM 95th %tile Q(veh)	-	-	6.2	2.1	1.1	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2027 Phase 2 Build AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	342	51	155	139	23	371	66	1443	35	367	1402	32
v/c Ratio	1.03	0.12	0.30	0.44	0.06	0.49	0.40	1.00	0.05	1.17	0.77	0.04
Control Delay	99.5	33.9	4.5	40.9	33.0	20.8	15.6	57.1	0.1	137.4	24.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.5	33.9	4.5	40.9	33.0	20.8	15.6	57.1	0.1	137.4	24.8	0.1
Queue Length 50th (ft)	~259	28	0	84	13	155	17	~529	0	~262	416	0
Queue Length 95th (ft)	#439	61	34	147	34	241	34	#697	0	#449	513	0
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	315	411	754	166	1440	758	313	1814	897
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.12	0.30	0.44	0.06	0.49	0.40	1.00	0.05	1.17	0.77	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2027 Phase 2 Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	49	149	133	22	356	63	1385	34	352	1346	31
Future Volume (veh/h)	328	49	149	133	22	356	63	1385	34	352	1346	31
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	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	342	51	0	139	23	371	66	1443	35	367	1402	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	293	424		353	417	614	199	1449	651	319	1782	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	998	1781	1572	1332	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	342	51	0	139	23	371	66	1443	35	367	1402	0
Grp Sat Flow(s), veh/h/ln	998	1781	1572	1332	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.1	2.5	0.0	10.0	1.1	20.5	2.0	44.9	1.5	16.1	36.5	0.0
Cycle Q Clear(g_c), s	26.2	2.5	0.0	12.5	1.1	20.5	2.0	44.9	1.5	16.1	36.5	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	293	424		353	417	614	199	1449	651	319	1782	
V/C Ratio(X)	1.17	0.12		0.39	0.06	0.60	0.33	1.00	0.05	1.15	0.79	
Avail Cap(c_a), veh/h	293	424		353	417	614	211	1449	651	319	1782	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.3	32.9	0.0	37.8	32.3	27.1	18.6	32.3	19.5	35.1	21.6	0.0
Incr Delay (d2), s/veh	105.7	0.1	0.0	0.7	0.1	1.7	1.0	22.7	0.0	97.8	2.5	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	16.8	1.1	0.0	3.2	0.5	7.7	0.7	21.9	0.5	12.5	13.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	151.0	33.0	0.0	38.5	32.4	28.8	19.6	55.0	19.6	133.0	24.1	0.0
LnGrp LOS	F	C		D	C	C	B	D	B	F	C	
Approach Vol, veh/h	393				533				1544			
Approach Delay, s/veh	135.6				31.5				52.7			
Approach LOS	F				C				D			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.2	64.8		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	18.1	46.9		28.2	4.0	38.5		22.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	16.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay	55.2
HCM 6th LOS	E

Notes

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

HCM 6th TWSC
3: Estate Drive/Slte Access #3 & Gibbet Road

Gibbet Road Multifamily Development
2027 Phase 2 Build AM

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑		↑	↑	
Traffic Vol, veh/h	76	214	87	6	319	3	123	3	7	16	5	5
Future Vol, veh/h	76	214	87	6	319	3	123	3	7	16	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	4	21	2	2	2	5	2	20	2	2	2
Mvmt Flow	88	249	101	7	371	3	143	3	8	19	6	6
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	374	0	0	350	0	0	818	813	249	868	913	373
Stage 1	-	-	-	-	-	-	425	425	-	387	387	-
Stage 2	-	-	-	-	-	-	393	388	-	481	526	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.52	6.4	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.018	3.48	3.518	4.018	3.318
Pot Cap-1 Maneuver	1184	-	-	1209	-	-	291	313	748	273	273	673
Stage 1	-	-	-	-	-	-	601	586	-	637	610	-
Stage 2	-	-	-	-	-	-	626	609	-	566	529	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1184	-	-	1209	-	-	262	282	748	247	246	673
Mov Cap-2 Maneuver	-	-	-	-	-	-	262	282	-	247	246	-
Stage 1	-	-	-	-	-	-	545	531	-	577	606	-
Stage 2	-	-	-	-	-	-	610	605	-	504	479	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			0.1			32.5			18.7		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	262	500	1184	-	-	1209	-	-	247	360		
HCM Lane V/C Ratio	0.546	0.023	0.075	-	-	0.006	-	-	0.075	0.032		
HCM Control Delay (s)	34.1	12.4	8.3	-	-	8	0	-	20.8	15.3		
HCM Lane LOS	D	B	A	-	-	A	A	-	C	C		
HCM 95th %tile Q(veh)	3	0.1	0.2	-	-	0	-	-	0.2	0.1		

HCM 6th TWSC
4: SC 170 (Okatie Hwy) & Site Access #1

Gibbet Road Multifamily Development
2027 Phase 2 Build AM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	23	2131	26	0	1756
Future Vol, veh/h	0	23	2131	26	0	1756
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	0	-	-	200	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	26	2368	29	0	1951
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	3359	1199	0	0	2397	0
Stage 1	2383	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	6	178	-	-	197	-
Stage 1	55	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	6	178	-	-	197	-
Mov Cap-2 Maneuver	51	-	-	-	-	-
Stage 1	55	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	28.6	0	0			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	178	197	-	
HCM Lane V/C Ratio	-	-	0.144	-	-	
HCM Control Delay (s)	-	-	0	28.6	0	-
HCM Lane LOS	-	-	A	D	A	-
HCM 95th %tile Q(veh)	-	-	-	0.5	0	-

HCM 6th TWSC
5: Gibbet Road & Site Access #2

Gibbet Road Multifamily Development
2027 Phase 2 Build AM

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	377	431	16	0	80
Future Vol, veh/h	0	377	431	16	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	419	479	18	0	89
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	488
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	580
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	580
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.3		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	580		
HCM Lane V/C Ratio	-	-	-	0.153		
HCM Control Delay (s)	-	-	-	12.3		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.5		

HCM 6th TWSC
6: SC 170 (Okatie Hwy) & Site Access #4

Gibbet Road Multifamily Development
2027 Phase 2 Build AM

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	100	2057	70	0	1729
Future Vol, veh/h	0	100	2057	70	0	1729
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	111	2286	78	0	1921
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	1182	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	182	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	182	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	51.7	0		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	- 182		-		
HCM Lane V/C Ratio	-	- 0.611		-		
HCM Control Delay (s)	-	- 51.7		-		
HCM Lane LOS	-	- F		-		
HCM 95th %tile Q(veh)	-	- 3.4		-		

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2027 Phase 2 Build PM

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	81	1669	56	187	2127
Future Vol, veh/h	29	81	1669	56	187	2127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	31	85	1757	59	197	2239
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	3271	879	0	0	1757	0
Stage 1	1757	-	-	-	-	-
Stage 2	1514	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 7	291	-	-	352	-
Stage 1	124	-	-	-	-	-
Stage 2	168	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	291	-	-	352	-
Mov Cap-2 Maneuver	58	-	-	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	74	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	48.6	0		2.2		
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	58	291	352	-
HCM Lane V/C Ratio	-	-	0.526	0.293	0.559	-
HCM Control Delay (s)	-	-	121.9	22.4	27.4	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	2.1	1.2	3.3	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2027 Phase 2 Build PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	162	37	68	91	56	379	100	1316	47	408	1620	91
v/c Ratio	0.84	0.14	0.16	0.46	0.21	0.54	0.54	0.92	0.06	1.00	0.80	0.09
Control Delay	73.3	35.0	0.8	43.7	36.1	20.0	21.0	35.9	0.1	70.4	19.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.3	35.0	0.8	43.7	36.1	20.0	21.0	35.9	0.1	70.4	19.8	0.7
Queue Length 50th (ft)	91	19	0	48	28	134	16	357	0	~183	380	0
Queue Length 95th (ft)	#199	46	0	96	64	222	#57	#499	0	#374	485	7
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	201	280	429	205	280	698	186	1494	815	410	2024	966
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.13	0.16	0.44	0.20	0.54	0.54	0.88	0.06	1.00	0.80	0.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2027 Phase 2 Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	34	62	83	51	345	91	1198	43	371	1474	83
Future Volume (veh/h)	147	34	62	83	51	345	91	1198	43	371	1474	83
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	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	162	37	0	91	56	379	100	1316	47	408	1620	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	195	275		258	275	521	226	1468	671	430	1959	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.42	0.42	0.18	0.55	0.00
Sat Flow, veh/h	954	1870	1585	1371	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	162	37	0	91	56	379	100	1316	47	408	1620	0
Grp Sat Flow(s), veh/h/ln	954	1870	1585	1371	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.8	1.5	0.0	5.6	2.4	13.2	2.1	31.7	1.6	14.6	33.8	0.0
Cycle Q Clear(g_c), s	13.2	1.5	0.0	7.1	2.4	13.2	2.1	31.7	1.6	14.6	33.8	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	195	275		258	275	521	226	1468	671	430	1959	
V/C Ratio(X)	0.83	0.13		0.35	0.20	0.73	0.44	0.90	0.07	0.95	0.83	
Avail Cap(c_a), veh/h	195	275		258	275	521	236	1476	674	430	1959	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.0	33.3	0.0	36.4	33.7	26.7	16.9	24.1	15.4	24.6	16.6	0.0
Incr Delay (d2), s/veh	24.8	0.2	0.0	0.8	0.4	5.0	1.4	7.7	0.1	30.4	3.1	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	0.7	0.0	1.8	1.0	7.3	0.9	12.8	0.5	11.6	11.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	33.5	0.0	37.2	34.0	31.8	18.2	31.7	15.5	55.0	19.8	0.0
LnGrp LOS	E	C		D	C	C	B	C	B	D	B	
Approach Vol, veh/h					526		1463				2028	
Approach Delay, s/veh	59.9				32.9		30.3				26.8	
Approach LOS	E				C		C				C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	45.8		21.0	11.5	57.3		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	16.6	33.7		15.2	4.1	35.8		15.2				
Green Ext Time (p_c), s	0.0	4.3		0.0	0.0	13.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Notes

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

HCM 6th TWSC
3: Estate Drive/Slte Access #3 & Gibbet Road

Gibbet Road Multifamily Development
2027 Phase 2 Build PM

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑		↑	↑	
Traffic Vol, veh/h	69	257	79	13	363	4	69	4	10	11	3	3
Future Vol, veh/h	69	257	79	13	363	4	69	4	10	11	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	79	295	91	15	417	5	79	5	11	13	3	3
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	386	0	0	906	905	295	957	994	420
Stage 1	-	-	-	-	-	-	453	453	-	450	450	-
Stage 2	-	-	-	-	-	-	453	452	-	507	544	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1137	-	-	1172	-	-	257	276	744	237	245	633
Stage 1	-	-	-	-	-	-	586	570	-	589	572	-
Stage 2	-	-	-	-	-	-	586	570	-	548	519	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1137	-	-	1172	-	-	232	247	744	211	219	633
Mov Cap-2 Maneuver	-	-	-	-	-	-	232	247	-	211	219	-
Stage 1	-	-	-	-	-	-	533	519	-	536	562	-
Stage 2	-	-	-	-	-	-	569	560	-	487	472	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.3			25.8			20.7		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	232	472	1137	-	-	1172	-	-	211	325		
HCM Lane V/C Ratio	0.342	0.034	0.07	-	-	0.013	-	-	0.06	0.021		
HCM Control Delay (s)	28.4	12.9	8.4	-	-	8.1	0	-	23.1	16.3		
HCM Lane LOS	D	B	A	-	-	A	A	-	C	C		
HCM 95th %tile Q(veh)	1.4	0.1	0.2	-	-	0	-	-	0.2	0.1		

HCM 6th TWSC
4: SC 170 (Okatie Hwy) & Site Access #1

Gibbet Road Multifamily Development
2027 Phase 2 Build PM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	1711	36	0	2156
Future Vol, veh/h	0	14	1711	36	0	2156
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	0	-	-	200	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	16	1901	40	0	2396
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	3119	971	0	0	1941	0
Stage 1	1921	-	-	-	-	-
Stage 2	1198	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	9	252	-	-	298	-
Stage 1	101	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	9	252	-	-	298	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	101	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	20.2	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	252	298	-	
HCM Lane V/C Ratio	-	-	0.062	-	-	
HCM Control Delay (s)	-	-	0	20.2	0	
HCM Lane LOS	-	-	A	C	A	
HCM 95th %tile Q(veh)	-	-	-	0.2	0	

HCM 6th TWSC
5: Gibbet Road & Site Access #2

Gibbet Road Multifamily Development
2027 Phase 2 Build PM

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	405	420	15	0	59
Future Vol, veh/h	0	405	420	15	0	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	0	450	467	17	0	66
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	476
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	589
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	589
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		11.9		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	589		
HCM Lane V/C Ratio	-	-	-	0.111		
HCM Control Delay (s)	-	-	-	11.9		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.4		

HCM 6th TWSC
6: SC 170 (Okatie Hwy) & Site Access #4

Gibbet Road Multifamily Development
2027 Phase 2 Build PM

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	77	1670	63	0	1928
Future Vol, veh/h	0	77	1670	63	0	1928
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	86	1856	70	0	2142
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	963	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	256	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	256	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	26	0		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	256		-		
HCM Lane V/C Ratio	-	0.334		-		
HCM Control Delay (s)	-	26		-		
HCM Lane LOS	-	D		-		
HCM 95th %tile Q(veh)	-	1.4		-		

2029 NO-BUILD CONDITIONS

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2029 Phase 3 No-Build AM

Intersection						
Int Delay, s/veh	13.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	106	2348	55	79	1878
Future Vol, veh/h	88	106	2348	55	79	1878
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	90	108	2396	56	81	1916
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	3516	1198	0	0	2396	0
Stage 1	2396	-	-	-	-	-
Stage 2	1120	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 5	178	-	-	197	-
Stage 1	~ 54	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 3	178	-	-	197	-
Mov Cap-2 Maneuver	~ 48	-	-	-	-	-
Stage 1	~ 54	-	-	-	-	-
Stage 2	161	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	298.3	0		1.4		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	48	178	197	-
HCM Lane V/C Ratio	-	-	1.871	0.608	0.409	-
HCM Control Delay (s)	-	-	\$ 594.5	52.4	35.4	-
HCM Lane LOS	-	-	F	F	E	-
HCM 95th %tile Q(veh)	-	-	9	3.4	1.8	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2029 Phase 3 No-Build AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	415	33	177	78	25	410	75	1632	33	335	1644	36
v/c Ratio	1.25	0.08	0.35	0.24	0.06	0.54	0.54	1.13	0.04	1.07	0.91	0.04
Control Delay	171.7	33.3	6.6	36.4	33.0	22.2	27.2	100.7	0.1	103.1	32.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	171.7	33.3	6.6	36.4	33.0	22.2	27.2	100.7	0.1	103.1	32.7	0.1
Queue Length 50th (ft)	~367	18	0	45	14	179	19	~706	0	~214	555	0
Queue Length 95th (ft)	#560	44	50	88	37	276	#55	#845	0	#395	#738	0
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	320	411	754	140	1440	758	313	1814	897
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.08	0.35	0.24	0.06	0.54	0.54	1.13	0.04	1.07	0.91	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2029 Phase 3 No-Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	32	170	75	24	394	72	1567	32	322	1578	35
Future Volume (veh/h)	398	32	170	75	24	394	72	1567	32	322	1578	35
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	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	415	33	0	78	25	410	75	1632	33	335	1644	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	284	424		369	417	614	155	1449	651	318	1777	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	961	1781	1572	1354	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	415	33	0	78	25	410	75	1632	33	335	1644	0
Grp Sat Flow(s), veh/h/ln	961	1781	1572	1354	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.0	1.6	0.0	5.2	1.2	23.4	2.3	45.2	1.4	16.1	48.7	0.0
Cycle Q Clear(g_c), s	26.2	1.6	0.0	6.8	1.2	23.4	2.3	45.2	1.4	16.1	48.7	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	284	424		369	417	614	155	1449	651	318	1777	
V/C Ratio(X)	1.46	0.08		0.21	0.06	0.67	0.48	1.13	0.05	1.05	0.93	
Avail Cap(c_a), veh/h	284	424		369	417	614	165	1449	651	318	1777	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.4	32.5	0.0	35.2	32.4	28.0	24.8	32.4	19.5	35.3	24.6	0.0
Incr Delay (d2), s/veh	226.5	0.1	0.0	0.3	0.1	2.8	2.3	66.4	0.0	65.3	8.8	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	25.8	0.7	0.0	1.7	0.5	8.9	1.0	30.9	0.5	9.6	19.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	271.9	32.6	0.0	35.4	32.4	30.8	27.1	98.8	19.5	100.6	33.5	0.0
LnGrp LOS	F	C		D	C	C	C	F	B	F	C	
Approach Vol, veh/h			A			513			1740			A
Approach Delay, s/veh			254.3			31.6			94.2			44.8
Approach LOS			F			C			F			D
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.4	64.6		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	18.1	47.2		28.2	4.3	50.7		25.4				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.4		0.2				

Intersection Summary

HCM 6th Ctrl Delay 81.8

HCM 6th LOS F

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2029 Phase 3 No-Build AM

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	253	89	6	361	132	8
Future Vol, veh/h	253	89	6	361	132	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	4	21	2	2	5	20
Mvmt Flow	294	103	7	420	153	9
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	397	0	728	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	4.12	-	6.45	6.4
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.218	-	3.545	3.48
Pot Cap-1 Maneuver	-	-	1162	-	386	705
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	647	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1162	-	383	705
Mov Cap-2 Maneuver	-	-	-	-	383	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	642	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		19.9	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	383	705	-	-	1162	-
HCM Lane V/C Ratio	0.401	0.013	-	-	0.006	-
HCM Control Delay (s)	20.5	10.2	-	-	8.1	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1.9	0	-	-	0	-

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2029 Phase 3 No-Build PM

Intersection						
Int Delay, s/veh	6.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	93	1872	64	214	2378
Future Vol, veh/h	34	93	1872	64	214	2378
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	36	98	1971	67	225	2503
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	3673	986	0	0	1971	0
Stage 1	1971	-	-	-	-	-
Stage 2	1702	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 4	247	-	-	290	-
Stage 1	94	-	-	-	-	-
Stage 2	133	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 1	247	-	-	290	-
Mov Cap-2 Maneuver	~ 27	-	-	-	-	-
Stage 1	94	-	-	-	-	-
Stage 2	~ 30	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	155.8	0		4.1		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	27	247	290	-
HCM Lane V/C Ratio	-	-	1.326	0.396	0.777	-
HCM Control Delay (s)	-	-	\$ 503	28.8	50	-
HCM Lane LOS	-	-	F	D	F	-
HCM 95th %tile Q(veh)	-	-	4.3	1.8	6	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2029 Phase 3 No-Build PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	207	20	78	44	63	424	114	1481	44	371	1887	104
v/c Ratio	1.06	0.07	0.18	0.22	0.23	0.62	0.62	1.01	0.05	0.93	0.98	0.11
Control Delay	121.3	34.0	1.0	37.0	36.5	22.5	26.9	52.0	0.1	56.4	36.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	121.3	34.0	1.0	37.0	36.5	22.5	26.9	52.0	0.1	56.4	36.4	1.1
Queue Length 50th (ft)	~130	10	0	22	32	159	19	~447	0	154	514	0
Queue Length 95th (ft)	#267	31	0	54	69	259	#80	#605	0	#322	#715	12
Internal Link Dist (ft)		776			677			1441			2596	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	195	273	424	203	273	693	184	1472	806	405	1934	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.07	0.18	0.22	0.23	0.61	0.62	1.01	0.05	0.92	0.98	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2029 Phase 3 No-Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	18	71	40	57	386	104	1348	40	338	1717	95
Future Volume (veh/h)	188	18	71	40	57	386	104	1348	40	338	1717	95
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	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	207	20	0	44	63	424	114	1481	44	371	1887	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	186	274		271	274	520	183	1472	673	401	1958	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.42	0.42	0.18	0.55	0.00
Sat Flow, veh/h	909	1870	1585	1392	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	207	20	0	44	63	424	114	1481	44	371	1887	0
Grp Sat Flow(s), veh/h/ln	909	1870	1585	1392	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.5	0.8	0.0	2.5	2.7	13.2	2.4	38.2	1.5	14.2	45.8	0.0
Cycle Q Clear(g_c), s	13.2	0.8	0.0	3.4	2.7	13.2	2.4	38.2	1.5	14.2	45.8	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	186	274		271	274	520	183	1472	673	401	1958	
V/C Ratio(X)	1.11	0.07		0.16	0.23	0.82	0.62	1.01	0.07	0.92	0.96	
Avail Cap(c_a), veh/h	186	274		271	274	520	191	1472	673	401	1958	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.0	33.1	0.0	34.6	33.9	27.9	21.1	25.9	15.3	26.9	19.3	0.0
Incr Delay (d2), s/veh	98.9	0.1	0.0	0.3	0.4	9.7	5.7	24.9	0.0	27.0	12.9	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	9.3	0.4	0.0	0.8	1.2	9.1	1.4	18.6	0.5	5.9	18.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	140.9	33.2	0.0	34.9	34.3	37.6	26.8	50.8	15.4	54.0	32.2	0.0
LnGrp LOS	F	C		C	C	D	C	F	B	D	C	
Approach Vol, veh/h		227	A		531			1639			2258	A
Approach Delay, s/veh		131.4			37.0			48.1			35.8	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	46.0		21.0	11.6	57.4		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+l1), s	16.2	40.2		15.2	4.4	47.8		15.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	1.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

Notes

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

HCM 6th TWSC
3: Estate Drive & Gibbet Road

Gibbet Road Multifamily Development
2029 Phase 3 No-Build PM

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	82	14	411	72	11
Future Vol, veh/h	300	82	14	411	72	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	-	-	0	75
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	0	2	2
Mvmt Flow	345	94	16	472	83	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	439	0	849	345
Stage 1	-	-	-	-	345	-
Stage 2	-	-	-	-	504	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1121	-	331	698
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1121	-	325	698
Mov Cap-2 Maneuver	-	-	-	-	325	-
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	595	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		18.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	325	698	-	-	1121	-
HCM Lane V/C Ratio	0.255	0.018	-	-	0.014	-
HCM Control Delay (s)	19.8	10.3	-	-	8.3	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1	0.1	-	-	0	-

2029 BUILD PHASE 3 CONDITIONS

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2029 Phase 3 Build AM

Intersection						
Int Delay, s/veh	14.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	106	2402	55	79	1921
Future Vol, veh/h	88	106	2402	55	79	1921
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	3	2	6
Mvmt Flow	90	108	2451	56	81	1960
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	3593	1226	0	0	2451	0
Stage 1	2451	-	-	-	-	-
Stage 2	1142	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 4	170	-	-	188	-
Stage 1	~ 51	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 2	170	-	-	188	-
Mov Cap-2 Maneuver	~ 45	-	-	-	-	-
Stage 1	~ 51	-	-	-	-	-
Stage 2	151	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s\$	329.9	0		1.5		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	45	170	188	-
HCM Lane V/C Ratio	-	-	1.995	0.636	0.429	-
HCM Control Delay (s)	-	-	\$ 658.3	57.3	37.8	-
HCM Lane LOS	-	-	F	F	E	-
HCM 95th %tile Q(veh)	-	-	9.2	3.6	2	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2029 Phase 3 Build AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	394	54	177	152	25	416	75	1655	43	416	1608	36
v/c Ratio	1.19	0.13	0.35	0.48	0.06	0.55	0.54	1.15	0.06	1.33	0.89	0.04
Control Delay	148.3	34.0	6.6	42.2	33.0	22.4	27.2	107.1	0.1	197.9	31.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.3	34.0	6.6	42.2	33.0	22.4	27.2	107.1	0.1	197.9	31.0	0.1
Queue Length 50th (ft)	~336	30	0	93	14	184	19	~724	0	~335	532	0
Queue Length 95th (ft)	#526	64	50	159	37	281	#55	#863	0	#532	#711	0
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	332	418	513	314	411	754	140	1440	758	313	1814	897
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.19	0.13	0.35	0.48	0.06	0.55	0.54	1.15	0.06	1.33	0.89	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2029 Phase 3 Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	378	52	170	146	24	399	72	1589	41	399	1544	35
Future Volume (veh/h)	378	52	170	146	24	399	72	1589	41	399	1544	35
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	1781	1856	1841	1752	1885	1767	1856	1870	1811	1811	1870
Adj Flow Rate, veh/h	394	54	0	152	25	416	75	1655	43	416	1608	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	8	3	4	10	1	9	3	2	6	6	2
Cap, veh/h	283	424		350	417	614	162	1449	651	318	1777	
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.04	0.41	0.41	0.15	0.52	0.00
Sat Flow, veh/h	956	1781	1572	1329	1752	1598	1682	3526	1585	1725	3441	1585
Grp Volume(v), veh/h	394	54	0	152	25	416	75	1655	43	416	1608	0
Grp Sat Flow(s), veh/h/ln	956	1781	1572	1329	1752	1598	1682	1763	1585	1725	1721	1585
Q Serve(g_s), s	25.0	2.6	0.0	11.2	1.2	23.8	2.3	45.2	1.8	16.1	46.7	0.0
Cycle Q Clear(g_c), s	26.2	2.6	0.0	13.8	1.2	23.8	2.3	45.2	1.8	16.1	46.7	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	283	424		350	417	614	162	1449	651	318	1777	
V/C Ratio(X)	1.39	0.13		0.43	0.06	0.68	0.46	1.14	0.07	1.31	0.90	
Avail Cap(c_a), veh/h	283	424		350	417	614	171	1449	651	318	1777	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.4	32.9	0.0	38.3	32.4	28.2	24.1	32.4	19.6	35.3	24.1	0.0
Incr Delay (d2), s/veh	197.7	0.1	0.0	0.8	0.1	3.0	2.1	72.9	0.1	159.7	7.1	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	23.4	1.2	0.0	3.6	0.5	9.1	1.0	32.1	0.6	17.9	18.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	243.1	33.1	0.0	39.2	32.4	31.1	26.2	105.3	19.7	195.0	31.2	0.0
LnGrp LOS	F	C		D	C	C	C	F	B	F	C	
Approach Vol, veh/h	448			593			1773			2024		
Approach Delay, s/veh	217.8			33.3			99.8			64.9		
Approach LOS	F			C			F			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	53.0		34.0	11.4	64.6		34.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	45.2		26.2	5.1	56.2		26.2				
Max Q Clear Time (g_c+I1), s	18.1	47.2		28.2	4.3	48.7		25.8				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	7.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay 88.0

HCM 6th LOS F

Notes

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

HCM 6th TWSC
3: Estate Drive/Slte Access #3 & Gibbet Road

Gibbet Road Multifamily Development
2029 Phase 3 Build AM

Intersection												
Int Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	246	89	6	365	4	132	4	8	18	5	5
Future Vol, veh/h	78	246	89	6	365	4	132	4	8	18	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	4	21	2	2	2	5	2	20	2	2	2
Mvmt Flow	91	286	103	7	424	5	153	5	9	21	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	429	0	0	389	0	0	915	911	286	968	1012	427
Stage 1	-	-	-	-	-	-	468	468	-	441	441	-
Stage 2	-	-	-	-	-	-	447	443	-	527	571	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.52	6.4	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.018	3.48	3.518	4.018	3.318
Pot Cap-1 Maneuver	1130	-	-	1170	-	-	250	274	712	233	239	628
Stage 1	-	-	-	-	-	-	570	561	-	595	577	-
Stage 2	-	-	-	-	-	-	585	576	-	535	505	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1130	-	-	1170	-	-	227	250	712	212	218	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	250	-	212	218	-
Stage 1	-	-	-	-	-	-	524	516	-	547	572	-
Stage 2	-	-	-	-	-	-	569	571	-	481	464	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.6			0.1			45.8			21.2		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	227	441	1130	-	-	1170	-	-	212	324
HCM Lane V/C Ratio	0.676	0.032	0.08	-	-	0.006	-	-	0.099	0.036
HCM Control Delay (s)	48.7	13.4	8.5	-	-	8.1	0	-	23.8	16.5
HCM Lane LOS	E	B	A	-	-	A	A	-	C	C
HCM 95th %tile Q(veh)	4.3	0.1	0.3	-	-	0	-	-	0.3	0.1

HCM 6th TWSC
4: SC 170 (Okatie Hwy) & Site Access #1

Gibbet Road Multifamily Development
2029 Phase 3 Build AM

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	2437	35	0	2009
Future Vol, veh/h	0	22	2437	35	0	2009
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	-	150	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	24	2708	39	0	2232
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	-	1354	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	140	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	140	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	36.1	0		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBT		
Capacity (veh/h)	-	140		-		
HCM Lane V/C Ratio	-	0.175		-		
HCM Control Delay (s)	-	36.1		-		
HCM Lane LOS	-	E		-		
HCM 95th %tile Q(veh)	-	0.6		-		

HCM 6th TWSC
5: Gibbet Road & Site Access #2

Gibbet Road Multifamily Development
2029 Phase 3 Build AM

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	414	486	17	0	84
Future Vol, veh/h	0	414	486	17	0	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	5	2	2	2	2
Mvmt Flow	0	460	540	19	0	93
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	-	550
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	535
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	535
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.1		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	535		
HCM Lane V/C Ratio	-	-	-	0.174		
HCM Control Delay (s)	-	-	-	13.1		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.6		

HCM 6th TWSC
6: SC 170 (Okatie Hwy) & Site Access #4

Gibbet Road Multifamily Development
2029 Phase 3 Build AM

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	96	2376	69	0	1978
Future Vol, veh/h	0	96	2376	69	0	1978
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	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	107	2640	77	0	2198
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	1320	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	147	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	147	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	76.4	0	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	-	147	-		
HCM Lane V/C Ratio	-	-	0.726	-		
HCM Control Delay (s)	-	-	76.4	-		
HCM Lane LOS	-	-	F	-		
HCM 95th %tile Q(veh)	-	-	4.3	-		

HCM 6th TWSC
7: SC 170 (Okatie Hwy) & Site Access #5

Gibbet Road Multifamily Development
2029 Phase 3 Build AM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗			↗↗
Traffic Vol, veh/h	0	11	2446	13	0	2009
Future Vol, veh/h	0	11	2446	13	0	2009
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	6
Mvmt Flow	0	12	2718	14	0	2232
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	1366	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	137	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	137	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	33.8	0	0			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	-	137	-		
HCM Lane V/C Ratio	-	-	0.089	-		
HCM Control Delay (s)	-	-	33.8	-		
HCM Lane LOS	-	-	D	-		
HCM 95th %tile Q(veh)	-	-	0.3	-		

HCM 6th TWSC
1: SC 170 (Okatie Hwy) & Lawton Boulevard

Gibbet Road Multifamily Development
2029 Phase 3 Build PM

Intersection						
Int Delay, s/veh	8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	93	1922	64	214	2436
Future Vol, veh/h	34	93	1922	64	214	2436
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Yield	-	None
Storage Length	0	0	-	275	450	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	36	98	2023	67	225	2564
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	3755	1012	0	0	2023	0
Stage 1	2023	-	-	-	-	-
Stage 2	1732	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 3	237	-	-	277	-
Stage 1	88	-	-	-	-	-
Stage 2	128	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 1	237	-	-	277	-
Mov Cap-2 Maneuver	~ 22	-	-	-	-	-
Stage 1	88	-	-	-	-	-
Stage 2	~ 24	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	205.3	0		4.6		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	22	237	277	-
HCM Lane V/C Ratio	-	-	1.627	0.413	0.813	-
HCM Control Delay (s)	-	-	\$ 683.4	30.5	56.7	-
HCM Lane LOS	-	-	F	D	F	-
HCM 95th %tile Q(veh)	-	-	4.6	1.9	6.5	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Queues

Gibbet Road Multifamily Development

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

2029 Phase 3 Build PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	188	38	78	112	63	430	114	1513	57	466	1856	104
v/c Ratio	0.96	0.14	0.18	0.56	0.23	0.62	0.62	1.04	0.07	1.15	0.96	0.11
Control Delay	96.8	35.0	1.0	47.5	36.5	22.6	26.9	60.7	0.2	119.3	33.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.8	35.0	1.0	47.5	36.5	22.6	26.9	60.7	0.2	119.3	33.4	1.1
Queue Length 50th (ft)	108	19	0	60	32	163	19	~492	0	~262	496	0
Queue Length 95th (ft)	#239	48	0	115	69	264	#80	#626	0	#453	#696	12
Internal Link Dist (ft)		776			302			1441			236	
Turn Bay Length (ft)			100	225		225	350		200	450		400
Base Capacity (vph)	195	273	424	200	273	693	184	1459	801	405	1934	929
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.14	0.18	0.56	0.23	0.62	0.62	1.04	0.07	1.15	0.96	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 6th Signalized Intersection Summary

2: SC 170 (Okatie Hwy) & Mill Creek Blvd/Gibbet Road

Gibbet Road Multifamily Development

2029 Phase 3 Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	171	35	71	102	57	391	104	1377	52	424	1689	95
Future Volume (veh/h)	171	35	71	102	57	391	104	1377	52	424	1689	95
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	1870	1870	1870	1870	1870	1885	1870	1826	1870	1885	1870	1870
Adj Flow Rate, veh/h	188	38	0	112	63	430	114	1513	57	466	1856	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	1	2	5	2	1	2	2
Cap, veh/h	186	274		257	274	520	188	1472	673	401	1958	
Arrive On Green	0.15	0.15	0.00	0.15	0.15	0.15	0.05	0.42	0.42	0.18	0.55	0.00
Sat Flow, veh/h	904	1870	1585	1370	1870	1598	1781	3469	1585	1795	3554	1585
Grp Volume(v), veh/h	188	38	0	112	63	430	114	1513	57	466	1856	0
Grp Sat Flow(s), veh/h/ln	904	1870	1585	1370	1870	1598	1781	1735	1585	1795	1777	1585
Q Serve(g_s), s	10.5	1.6	0.0	7.0	2.7	13.2	2.4	38.2	1.9	16.1	44.2	0.0
Cycle Q Clear(g_c), s	13.2	1.6	0.0	8.6	2.7	13.2	2.4	38.2	1.9	16.1	44.2	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	186	274		257	274	520	188	1472	673	401	1958	
V/C Ratio(X)	1.01	0.14		0.44	0.23	0.83	0.61	1.03	0.08	1.16	0.95	
Avail Cap(c_a), veh/h	186	274		257	274	520	196	1472	673	401	1958	
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.0	33.4	0.0	37.2	33.9	28.0	20.9	25.9	15.5	28.2	19.0	0.0
Incr Delay (d2), s/veh	69.3	0.2	0.0	1.2	0.4	10.6	4.9	30.8	0.1	96.9	10.6	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	7.7	0.7	0.0	2.3	1.2	9.4	1.4	19.8	0.6	14.3	17.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.3	33.7	0.0	38.3	34.3	38.6	25.8	56.7	15.5	125.1	29.6	0.0
LnGrp LOS	F	C		D	C	D	C	F	B	F	C	
Approach Vol, veh/h		226			605			1684			2322	
Approach Delay, s/veh		98.3			38.1			53.2			48.8	
Approach LOS		F			D			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.0	46.0		21.0	11.6	57.4		21.0				
Change Period (Y+Rc), s	6.9	7.8		7.8	6.9	7.8		7.8				
Max Green Setting (Gmax), s	16.1	38.2		13.2	5.1	49.2		13.2				
Max Q Clear Time (g_c+I1), s	18.1	40.2		15.2	4.4	46.2		15.2				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	3.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	51.3
HCM 6th LOS	D

Notes

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

HCM 6th TWSC
3: Estate Drive/Slte Access #3 & Gibbet Road

Gibbet Road Multifamily Development
2029 Phase 3 Build PM

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	294	82	14	417	6	72	5	11	15	5	5
Future Vol, veh/h	74	294	82	14	417	6	72	5	11	15	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	-	-	-	0	-	75	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	85	338	94	16	479	7	83	6	13	17	6	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	486	0	0	432	0	0	1029	1026	338	1080	1117	483
Stage 1	-	-	-	-	-	-	508	508	-	515	515	-
Stage 2	-	-	-	-	-	-	521	518	-	565	602	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1077	-	-	1128	-	-	212	235	704	196	207	584
Stage 1	-	-	-	-	-	-	547	539	-	543	535	-
Stage 2	-	-	-	-	-	-	539	533	-	510	489	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1077	-	-	1128	-	-	190	212	704	175	187	584
Mov Cap-2 Maneuver	-	-	-	-	-	-	190	212	-	175	187	-
Stage 1	-	-	-	-	-	-	504	496	-	500	525	-
Stage 2	-	-	-	-	-	-	518	523	-	456	450	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.3			33.5			24		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	190	408	1077	-	-	1128	-	-	175	283
HCM Lane V/C Ratio	0.436	0.045	0.079	-	-	0.014	-	-	0.099	0.041
HCM Control Delay (s)	37.8	14.2	8.6	-	-	8.2	0	-	27.8	18.3
HCM Lane LOS	E	B	A	-	-	A	A	-	D	C
HCM 95th %tile Q(veh)	2	0.1	0.3	-	-	0	-	-	0.3	0.1

HCM 6th TWSC
4: SC 170 (Okatie Hwy) & Site Access #1

Gibbet Road Multifamily Development
2029 Phase 3 Build PM

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	20	1973	47	0	2470
Future Vol, veh/h	0	20	1973	47	0	2470
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	-	150	-	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	22	2192	52	0	2744
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	1096	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	208	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	208	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	24.4	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	-	208			
HCM Lane V/C Ratio	-	-	0.107			
HCM Control Delay (s)	-	-	24.4			
HCM Lane LOS	-	-	C			
HCM 95th %tile Q(veh)	-	-	0.4			

HCM 6th TWSC
5: Gibbet Road & Site Access #2

Gibbet Road Multifamily Development
2029 Phase 3 Build PM

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	450	477	17	0	73
Future Vol, veh/h	0	450	477	17	0	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	1	1	2	2	2
Mvmt Flow	0	500	530	19	0	81
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	-	540
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	542
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	542
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.8		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	-	-	-	542		
HCM Lane V/C Ratio	-	-	-	0.15		
HCM Control Delay (s)	-	-	-	12.8		
HCM Lane LOS	-	-	-	B		
HCM 95th %tile Q(veh)	-	-	-	0.5		

HCM 6th TWSC
6: SC 170 (Okatie Hwy) & Site Access #4

Gibbet Road Multifamily Development
2029 Phase 3 Build PM

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↗↗	↗		↗↗
Traffic Vol, veh/h	0	82	1938	62	0	2208
Future Vol, veh/h	0	82	1938	62	0	2208
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	-	150	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	91	2153	69	0	2453
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	1077	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	215	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	215	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	33.5	0	0			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	-	215	-		
HCM Lane V/C Ratio	-	-	0.424	-		
HCM Control Delay (s)	-	-	33.5	-		
HCM Lane LOS	-	-	D	-		
HCM 95th %tile Q(veh)	-	-	2	-		

HCM 6th TWSC
7: SC 170 (Okatie Hwy) & Site Access #5

Gibbet Road Multifamily Development
2029 Phase 3 Build PM

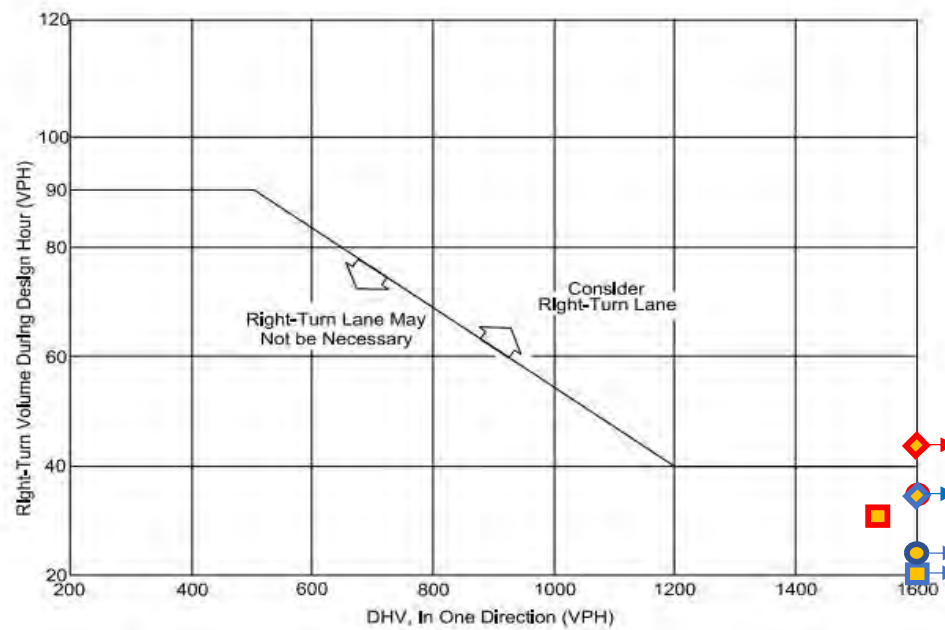
Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	1976	17	0	2470
Future Vol, veh/h	0	10	1976	17	0	2470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	1
Mvmt Flow	0	11	2196	19	0	2744
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	1108	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	204	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	204	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	23.7	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT			
Capacity (veh/h)	-	-	204	-		
HCM Lane V/C Ratio	-	-	0.054	-		
HCM Control Delay (s)	-	-	23.7	-		
HCM Lane LOS	-	-	C	-		
HCM 95th %tile Q(veh)	-	-	0.2	-		

Appendix G – Turn Lane Warrant Analysis

March 2017

INTERSECTIONS

9.5-3

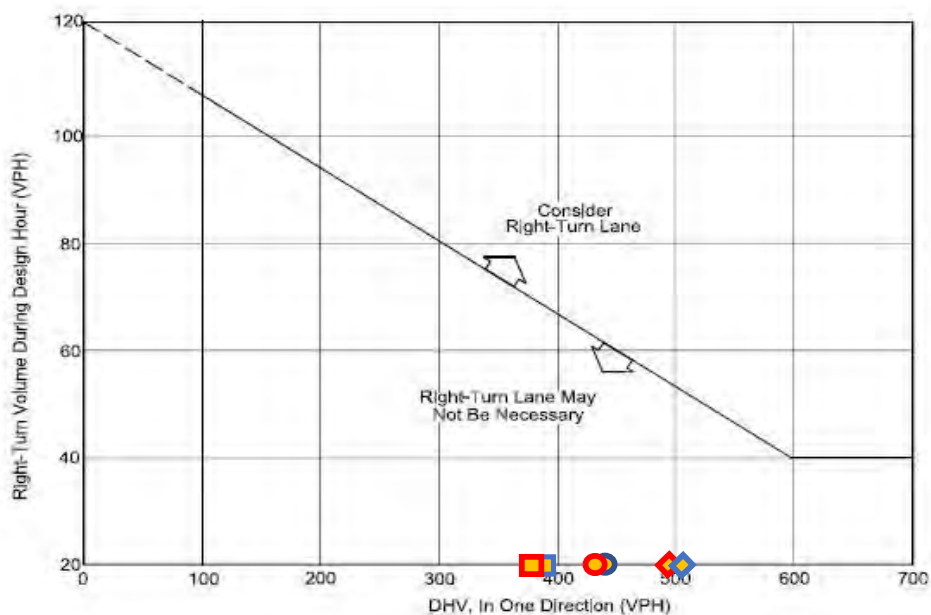


Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS
ON FOUR-LANE HIGHWAYS**
Figure 9.5-B

Gibbet Road at Site Access #1

Northbound	Right	DHV	RTs
	2025 Phase 1 Build AM	1861	10
	2025 Phase 1 Build PM	1522	32
	2027 Phase 2 Build AM	2157	26
	2027 Phase 2 Build PM	1747	36
	2029 Phase 3 Build AM	2382	35
	2029 Phase 3 Build PM	2020	47



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given: Design Speed = 35 miles per hour
 DHV = 250 vehicles per hour
 Right Turns = 100 vehicles per hour

Problem: Determine if a right-turn lane is necessary.

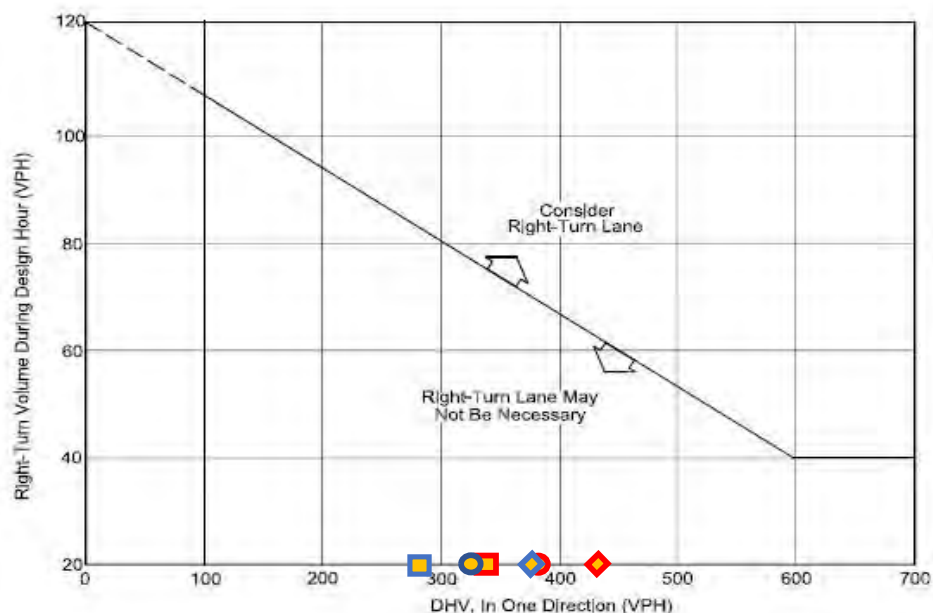
Solution: To read the vertical axis, use $100 - 20 = 80$ vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS

Figure 9.5-A

Gibbet Road at Site Access #2

Southbound	Right	DHV	RTs
	2025 Phase 1 Build AM	395	1
	2025 Phase 1 Build PM	385	3
	2027 Phase 2 Build AM	447	16
	2027 Phase 2 Build PM	435	15
	2029 Phase 3 Build AM	503	17
	2029 Phase 3 Build PM	494	17



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given: Design Speed = 35 miles per hour
 DHV = 250 vehicles per hour
 Right Turns = 100 vehicles per hour

Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use $100 - 20 = 80$ vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS

Figure 9.5-A

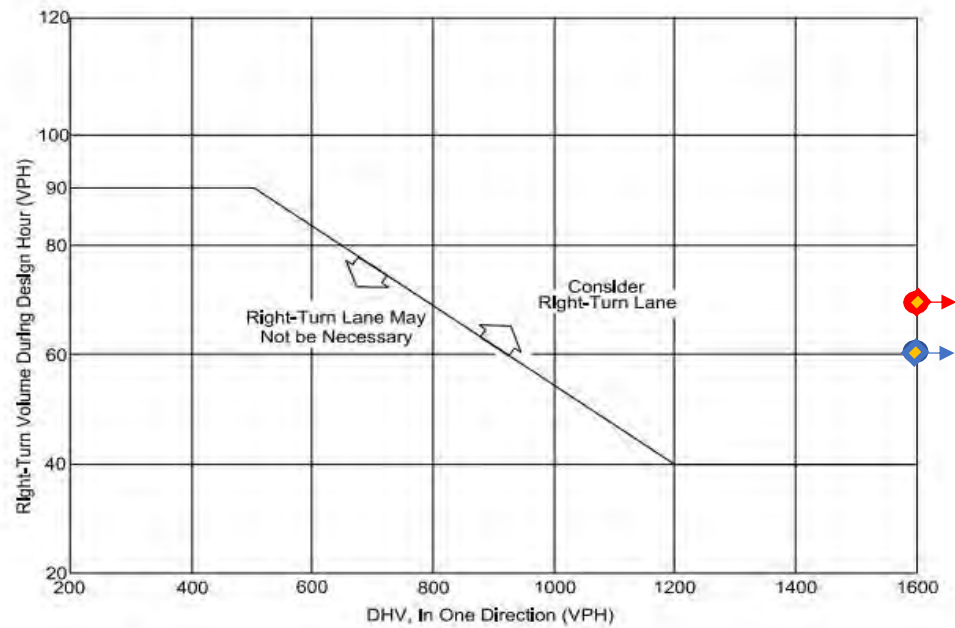
Gibbet Road at Site Access #3

Westbound	Right	DHV	RTs
	2025 Phase 1 Build AM	283	1
	2025 Phase 1 Build PM	331	3
	2027 Phase 2 Build AM	328	3
	2027 Phase 2 Build PM	380	4
	2029 Phase 3 Build AM	375	4
	2029 Phase 3 Build PM	437	6

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INTERSECTIONS

9.5-3



Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS
ON FOUR-LANE HIGHWAYS**
Figure 9.5-B

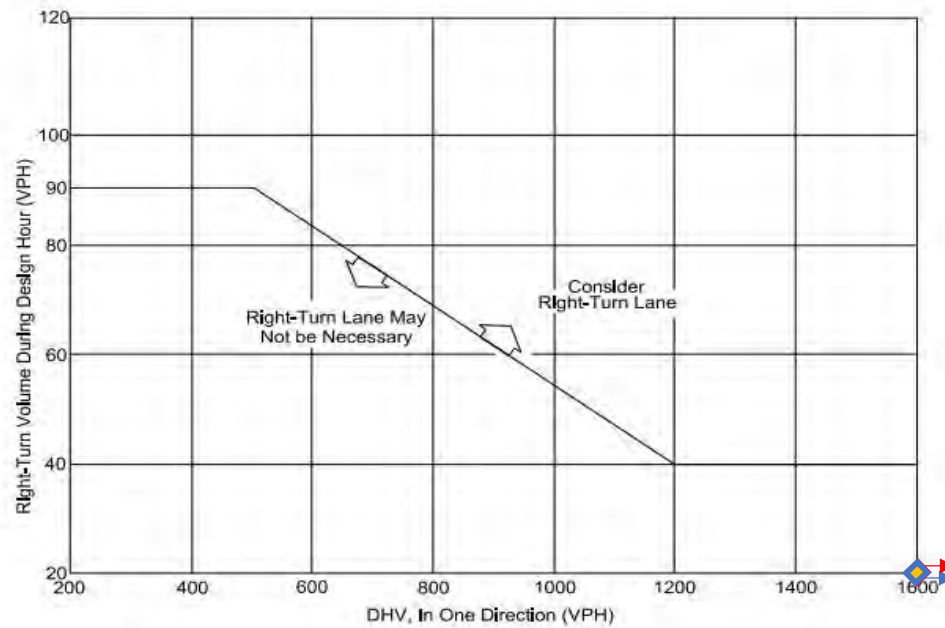
Gibbet Road at Site Access #4

Northbound	Right	DHV	RTs
	2027 Phase 2 Build AM	2127	70
	2027 Phase 2 Build PM	1733	63
	2029 Phase 3 Build AM	2445	69
	2029 Phase 3 Build PM	2000	62

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INTERSECTIONS

9.5-3



Note: Figure is only applicable on highways with a design speed of 50 miles per hour or greater.

**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS
ON FOUR-LANE HIGHWAYS**
Figure 9.5-B

Gibbet Road at Site Access #5

Northbound	Right	DHV	RTs
	2029 Phase 3 Build AM	2459	13
	2029 Phase 3 Build PM	1993	17