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Bailey Park

Traffic Impact Study

DRAFT

January 2023

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Quality information

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1. Executive Summary

The planned Bailey Park mixed-use development is to be located south of SC 170 (Okatie Highway) between Old Bailey Road West and Okatie Park Drive in Jasper County, South Carolina. The development is expected to be fully built out by 2027 and is planned to consist of 300 townhomes.

AECOM studied the traffic impacts of the Bailey Park development at full build-out and due to the heavy traffic volumes on SC 170, the minor street approaches at Bailey Road West and Site Driveway #1 are likely to experience moderate to significant delay for all left-turn vehicles in the year 2027. Please note AECOM used a conservative 4% annual growth rate to obtain 2027 traffic volumes.

In the Build 2027 scenario, the minor approach at Site Driveway #1 intersecting with SC 170 is expected to operate with a poor level of service and experience significant queuing. The following items were recommended for this scenario:

SC 170 at Site Driveway #1

- Construct a 150-foot eastbound right turn lane on SC 170 at Site Driveway #1.
- Construct a northbound left-turn lane along with 200-foot right-turn lane on Site Driveway #1 at SC 170.

While these recommendations may not fully mitigate congestion during peak hours, the following additional improvement should be considered if queues are excessive:

- Install a sign at Site Driveway #1 that prohibits vehicles from turning left out of driveway between 4-6 PM. As a result of vehicles being restricted from turning left out of Site Driveway #1, the intersection of SC 170 at Bailey Road West should be monitored as future signalization may be warranted at a later time.

Old Bailey Road at Site Driveway #2

- Construct a single lane southbound approach on Site Driveway #2 at Old Bailey Road under stop control. No significant delay is expected at this driveway.

2. Introduction

The planned Bailey Park mixed-use development is to be located on SC 170 (Okatie Highway) between Old Bailey Road West and Okatie Park Drive in Jasper County, South Carolina as seen in **Figure 1**. The development is expected to be fully built out by 2027 and is planned to consist of 300 townhomes. The proposed site plan is shown in **Figure 2**. The intersections studied in this report are listed below:

1. SC 170 at Old Bailey Road West (S-18)
2. SC 170 at Old Bailey Road East (S-18)

This traffic study focuses on trip generation, distribution, traffic analyses, and provides recommendations for mitigating Level of Service (LOS) and queuing incurred by the proposed Bailey Park mixed-use development.

AECOM was tasked with studying traffic conditions near the proposed project during the weekday AM and PM peak hours for three (3) scenarios:

- 2022 Existing: An analysis of the existing conditions
- 2027 Background: An analysis of conditions in the year 2027 if the development is not constructed.
- 2027 Build: An analysis of conditions in the year 2027 if the development is constructed.

Based on these scenarios, the study is structured to focus on whether the proposed development will have a negative impact on traffic regarding LOS, delay, and queuing.

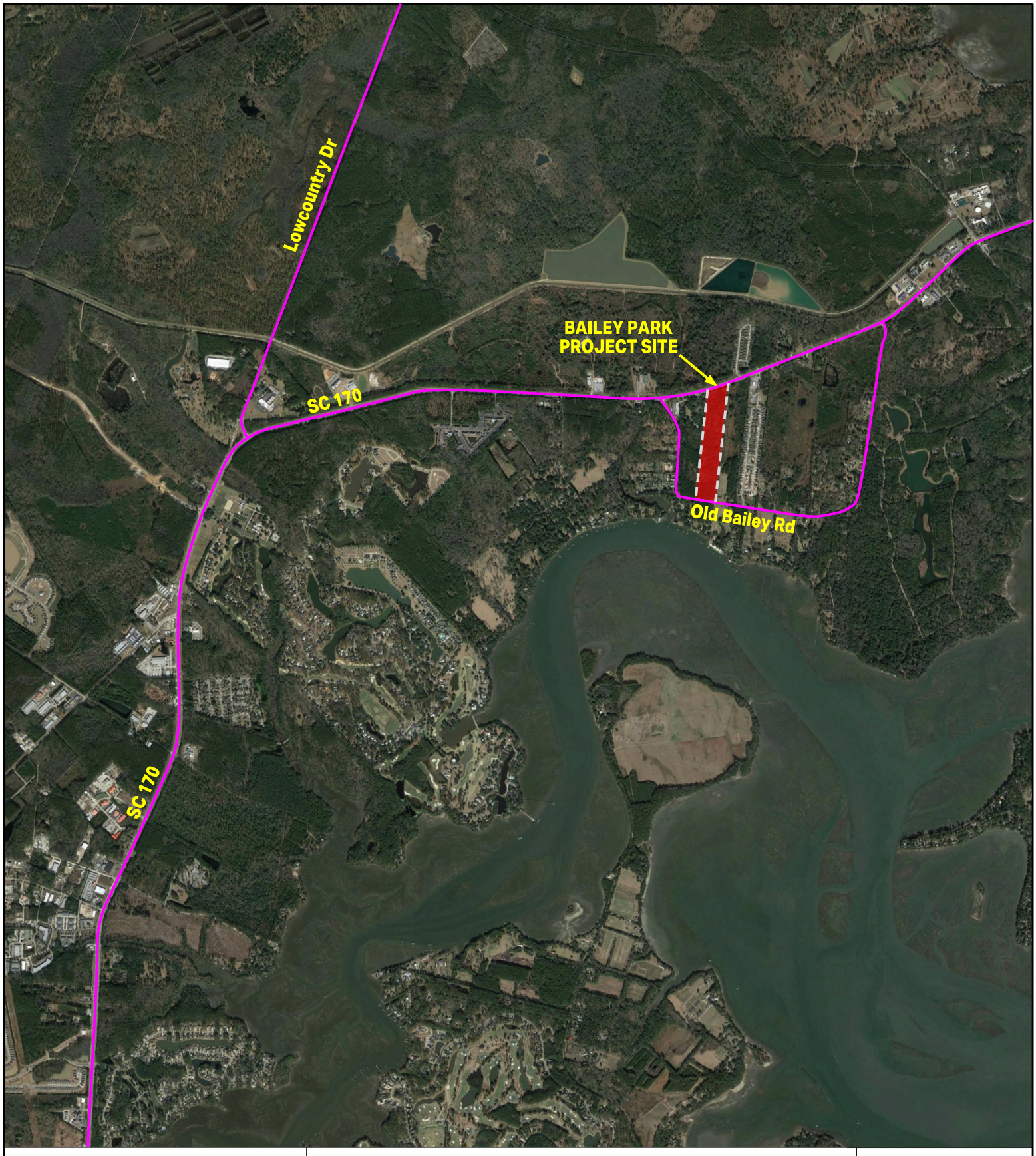

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FIGURE 1

VICINITY MAP

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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Drawing Not to Scale

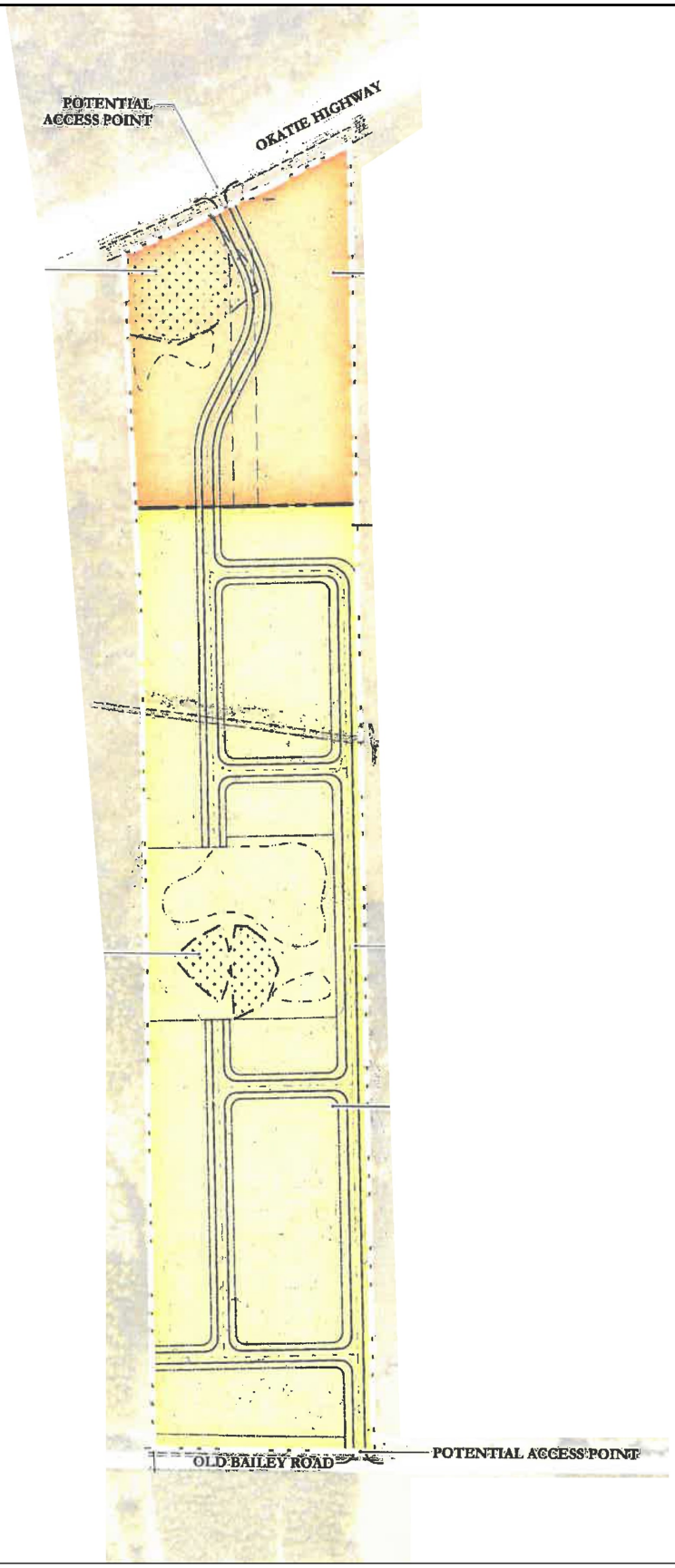

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FIGURE 2

PROPOSED SITE PLAN

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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3. Existing Conditions

Resources on the South Carolina Department of Transportation (SCDOT) website were referenced to determine the functional classification and Annual Average Daily Traffic (AADT) of the roadways studied in this report. This data assisted with determination of growth rates and other analysis factors.

3.1 Roadway Characteristics

Okatie Highway (SC 170) is a 5-lane divided principal arterial with a speed limit of 55 miles per hour in the study area. According to the SCDOT traffic counts, the 2019 (Pre-Pandemic) average daily traffic consisted of 28,300 vehicles just east of the study area.

The existing lane configuration is shown in **Figure 3**.

3.2 Field Review

AECOM conducted a field visit on Monday, April 11, 2022 to record the existing roadway geometry and operations at the proposed study intersection.

Looking east towards proposed driveway location along SC 170

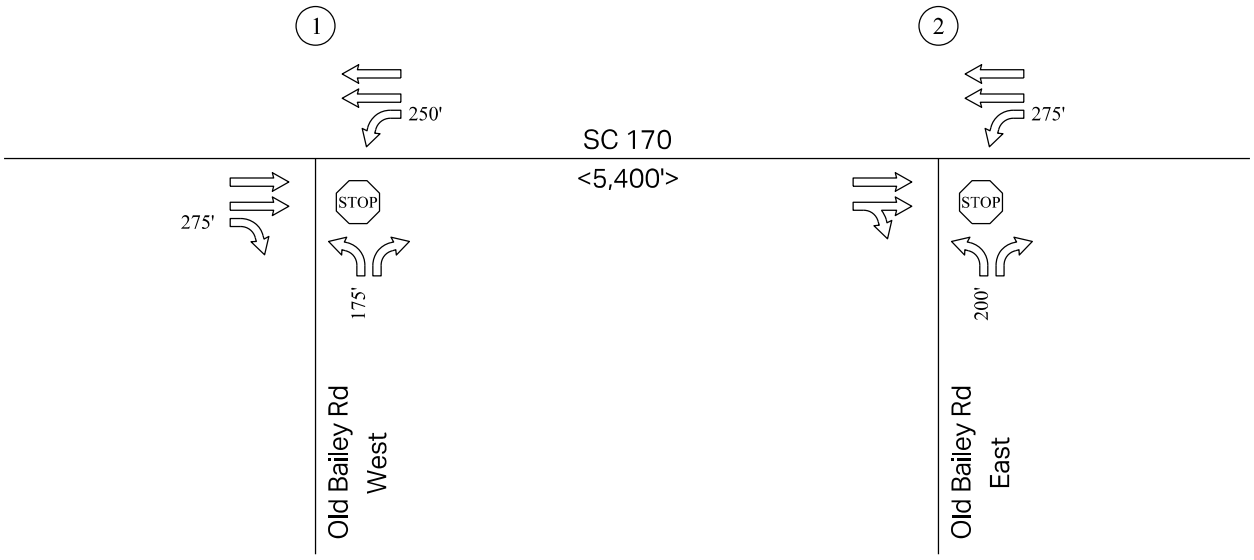
Looking east toward proposed driveway location along Old Bailey Road

3.3 Traffic Counts

Turning movement count data was collected by National Data and Surveying Services, Inc. at the study intersections on Thursday, April 7, 2022, from 7:00 – 9:00 AM and 4:00 – 6:00 PM. The peak hours were determined to be 7:00 – 8:00 AM and 4:00 – 5:00 PM.

An Average Daily Traffic (ADT) volume of 467 was collected over a 24-hour period on Thursday, April 7, 2022 along Old Bailey Road near the proposed Site Driveway #2.

The existing volumes are shown in **Figure 4.** Peak hour factors and truck percentages for the roadway are also reflected in the analysis. Traffic count data can be found in **Appendix A**.



LEGEND

- Existing Laneage
- (##) Intersection Number
- <##'> Distance Between Intersections

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FIGURE 3

Existing 2022 Lane Configuration

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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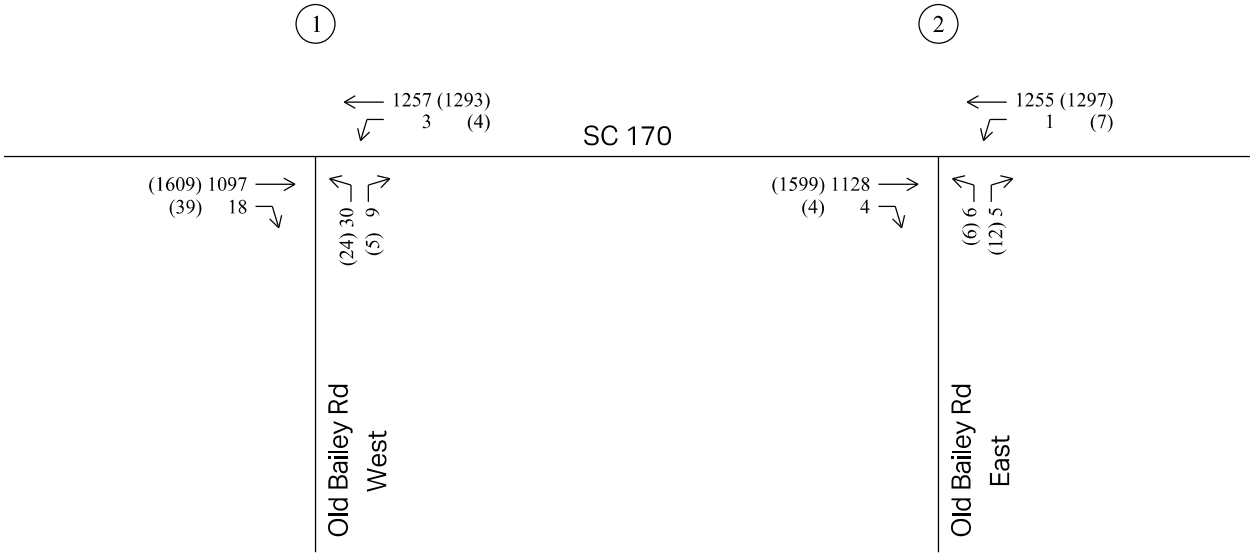

LEGEND

- Volume Movement
- (##) Intersection Number
- ## AM Peak Hour Traffic Volume
- (##) PM Peak Hour Traffic Volume

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FIGURE 4

Existing 2022
AM / PM Peak Hour Volumes

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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4. Background Growth

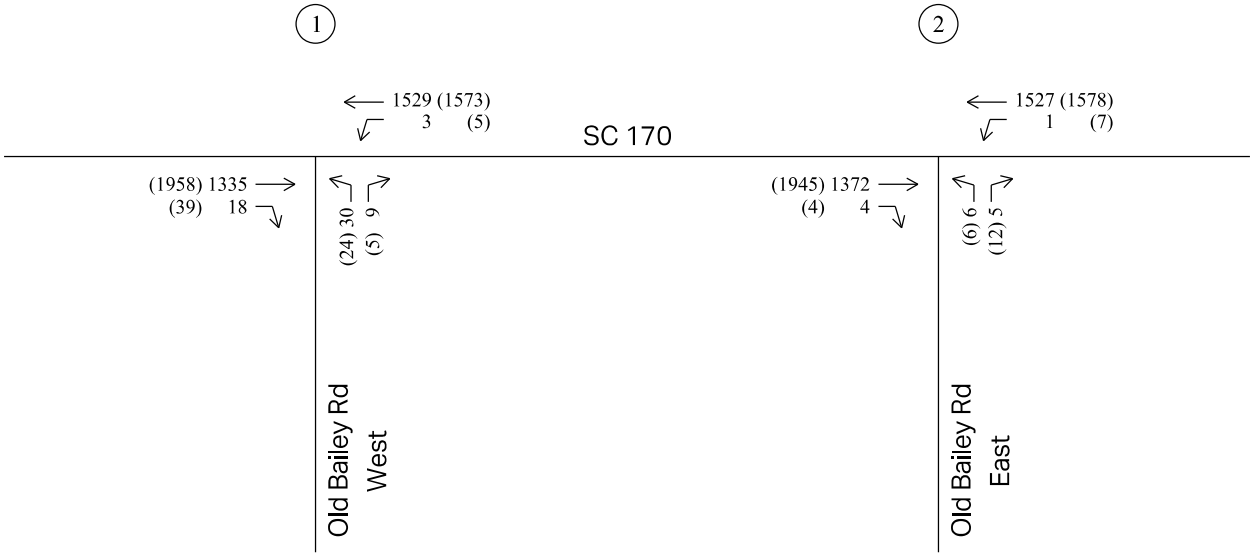
4.1 AADT Trends

Historic trend analysis of the data referenced from the SCDOT website shows growth rates in the study area at approximately 4 percent (4%) growth per year from 2014-2019. **Table 1** shows Annual Average Daily Traffic (AADT) Trends from 2014 to 2019.

Table 1 – AADT Trends

Road Name	Station	2014	2015	2016	2017	2018	2019	% Growth Rate
SC 170 from Jasper County Line to Beaufort County Line	184	23,100	22,200	22,900	23,600	25,500	28,300	4.14%

Background 2027 volumes are shown in **Figure 5**.



LEGEND

- ← Volume Movement
- (##) Intersection Number
- ## AM Peak Hour Traffic Volume
- (##) PM Peak Hour Traffic Volume

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FIGURE 5

Background 2027
AM / PM Peak Hour Volumes

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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5. Trip Generation and Distribution

5.1 Trip Generation

AECOM used the Trip Generation Manual (Institute of Transportation Engineers, 11th Edition, 2022) to generate the site trips for the Bailey Park mixed-use development as shown in **Table 2.** The Trip Generation Handbook (Institute of Transportation Engineers, 3rd Edition, 2017) was referenced for determining whether to use the average rate or equation to generate projected traffic.

The development is planned to consist of 300 townhomes and is expected to be fully built out by 2027.

The Bailey Park mixed-use development is projected to generate 1,998 new daily trips (999 entering, 999 exiting) for a normal weekday. During the peak hours the proposed development is expected to generate 116 new trips (28 entering, 88 exiting) in the AM peak, and 150 new trips (95 entering, 55 exiting) during the PM peak.

Detailed trip generation calculations are provided in **Appendix B**.

Table 2 – Trip Generation

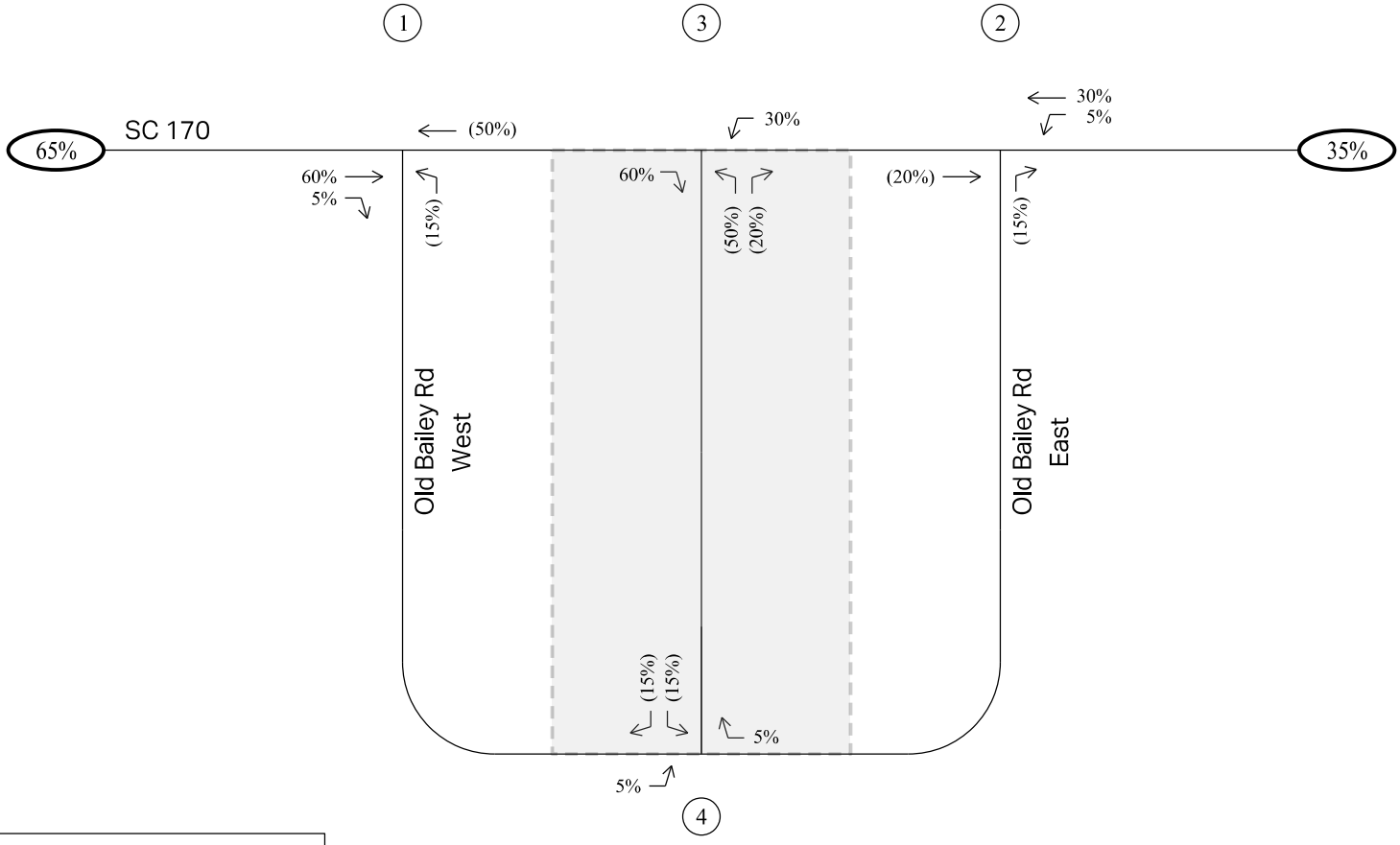
Land Use Type	ITE Code	Daily			AM Peak Hour			PM Peak Hour		
		Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
300 Townhomes	220	1,998	999	999	116	28	88	150	95	55

5.2 Trip Distribution

The planned development is to be accessed by a full access driveway along SC 170. Trip distributions for the Bailey Park mixed-use development were developed by analyzing existing traffic patterns at the study intersections. The distribution is described below:

- 65% to and from the west on SC 170
- 35% to and from the east on SC 170

Site trip distribution and assignment are presented in **Figure 6**. The AM site trips using this distribution are shown in **Figure 7**. The PM site trips using this distribution are shown in **Figure 8.**



LEGEND

- ← Turning Movement
- (##) Intersection Number
- XX% Origin / Destination
- ##% Entering
- (##%) Exiting
- Site

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FIGURE 6

Site Traffic Distribution

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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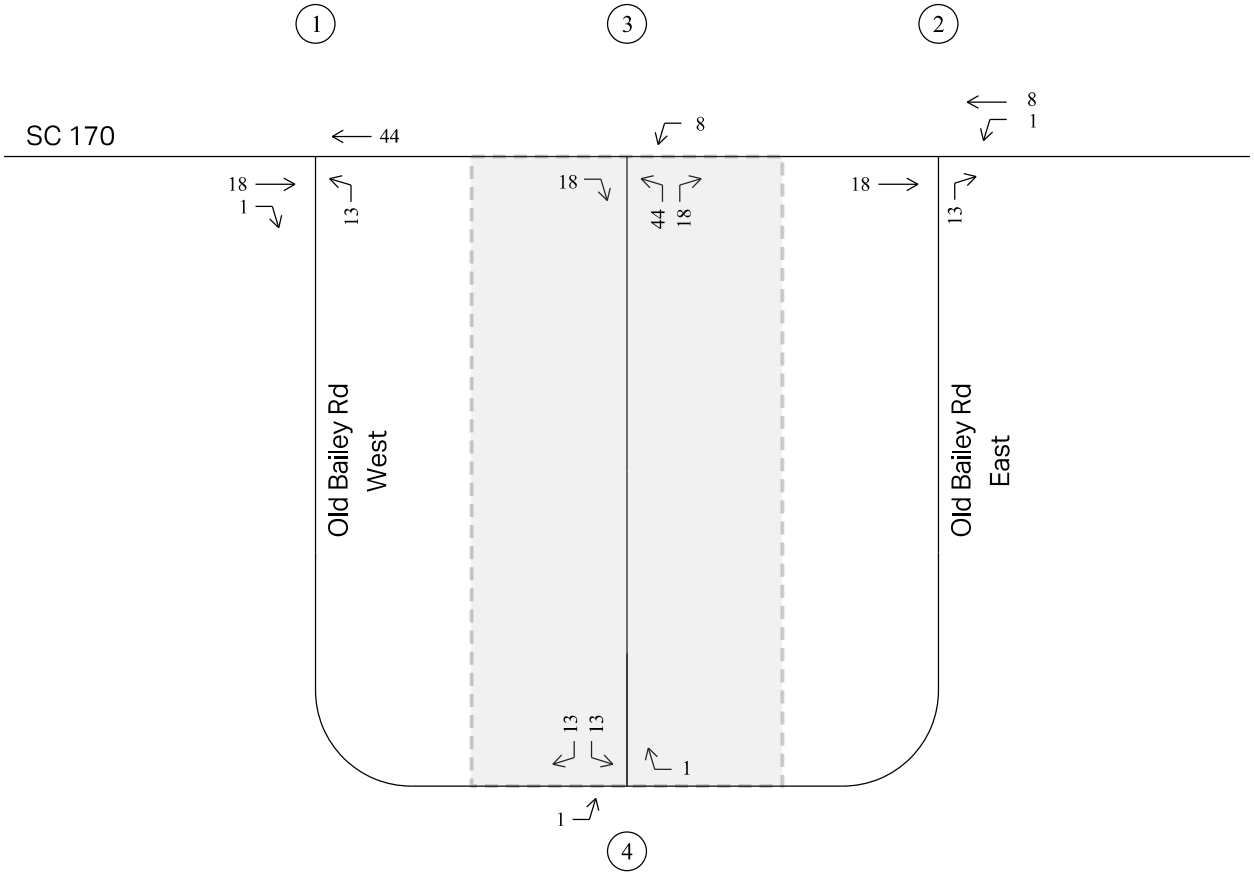

LEGEND

- ← Turning Movement
- (##) Intersection Number
- ## AM Peak Hour Site Traffic Volume
- Site

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FIGURE 7

Site Traffic Volume AM

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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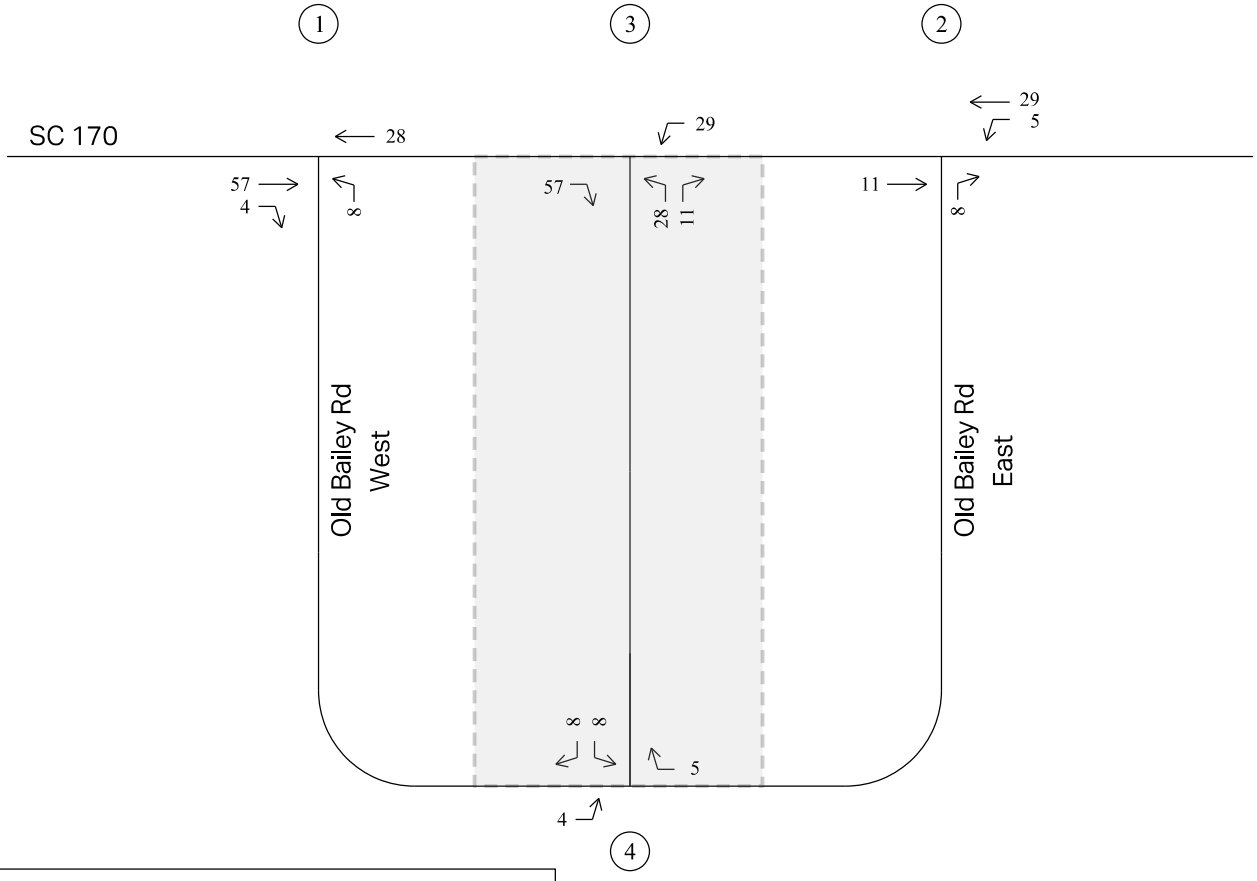

LEGEND

←	Turning Movement
(##)	Intersection Number
##	PM Peak Hour Site Traffic Volume
<##>	PM Pass-By Peak Hour Traffic Volume
[##]	PM Peak Hour Total External Site Traffic Volume
	Site

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FIGURE 8

Site Traffic Volume PM

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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6. Capacity Analysis

The traffic carrying ability of a roadway is described by levels of service (LOS) that range from LOS A to LOS F. LOS A represents unrestricted maneuverability and operating speeds. LOS B represents reduced maneuverability and operating speeds. LOS C represents restricted maneuverability and operating speeds closer to the speed limit. LOS D represents severely restricted maneuverability and unstable, low operating speeds. LOS E represents operating conditions at or near the capacity level. LOS F represents breakdown conditions characterized by stop and go travel. A visual representation of each LOS is shown below.

The Highway Capacity Manual (HCM) 6 defines LOS at an unsignalized intersection by average control delay per vehicle, which includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the controlled delay for unsignalized intersections, such as availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue. The Highway Capacity Manual explains that drivers perceive that a signalized intersection is designed to carry higher traffic volumes and therefore expect to experience greater delays at signalized intersections. Unsignalized intersections are assigned a LOS for each minor movement. Typically, LOS D is considered the minimum acceptable level of service at an urban intersection. **Table 3** presents LOS thresholds for unsignalized intersections.

Table 3 – LOS Thresholds for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	< 10.0
B	> 10.0 and < 15.0
C	> 15.0 and < 25.0
D	> 25.0 and < 35.0
E	> 35.0 and < 50.0
F	> 50.0

AECOM performed an analysis using Synchro 11.1 (Build 2, Rev 9) for the study intersections. AECOM analyzed each scenario for the AM and PM peak hours.

AECOM determined the required laneage to satisfy the LOS requirement as well as the appropriate storage lengths to accommodate 95th percentile queuing. According to Highway Capacity Manual (HCM) 6, an acceptable Level-of-Service (LOS) is “D” or better with “A” having the shortest delays and “F” having the longest delays. Sim Traffic was used to report 95th percentile queuing.

Appendix C provides the volume calculation spreadsheets used to develop all capacity analysis scenarios.

6.1 Existing 2022

AECOM analyzed the Existing 2022 traffic conditions during the AM and PM peak hours at the study intersections. **Figure 9** shows the Existing 2022 AM and PM peak hour volumes and LOS.

Table 4 presents a summary of the LOS, delay, and volume to capacity ratios for the Existing 2022 conditions.

Table 4 – Existing 2022 Summary of LOS and Delay

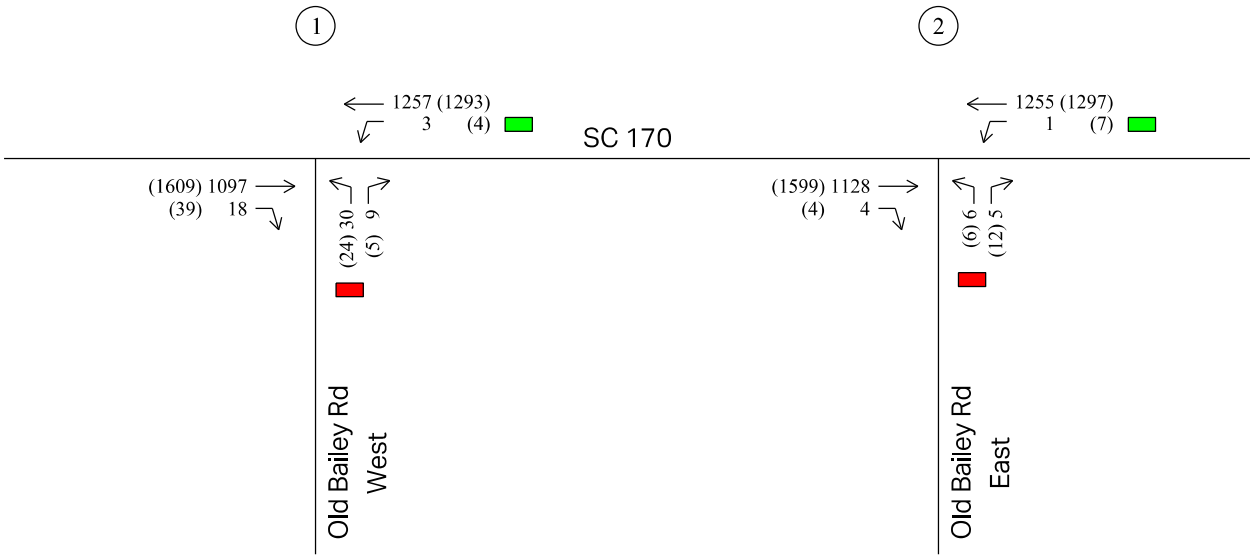
ID#	Intersection	Approach	HCM 6 Level of Service (LOS)		Control Delay (sec/veh)		Volume to Capacity Ratio (V/C)	
			AM	PM	AM	PM	AM	PM
1	SC 170 at Old Bailey Road West *(Unsignalized)*	EBR	A	A	0.0	0.0	-	-
		WBL	C	B	16.3	14.9	0.010	0.012
		NBL	D	E	26.5	48.0	0.228	0.306
		NBR	B	C	13.6	16.9	0.034	0.025
2	SC 170 at Old Bailey Road East *(Unsignalized)*	EB	A	A	0.0	0.0	-	-
		WBL	B	C	12.6	16.8	0.002	0.025
		NBL	D	E	25.0	37.5	0.068	0.078
		NBR	B	C	13.1	18.4	0.024	0.065

The 95th percentile queues for the Existing 2022 scenario are shown in **Table 5**.

Table 5 – Existing 2022 Summary of 95th Percentile Queues

ID#	Intersection	Approach	Storage Length (ft)	95th Percentile Queue (ft)	
				AM	PM
1	SC 170 at Old Bailey Road West *(Unsignalized)*	EBR	275	0	0
		WBL	250	21	22
		NBL	175	72	93
		NBR	-	42	24
2	SC 170 at Old Bailey Road East *(Unsignalized)*	WBL	275	8	19
		NBL	200	32	22
		NBR	-	26	41

Synchro 11 and Sim Traffic outputs from the Existing 2022 analysis are provided in **Appendix D.**



LEGEND

- Volume Movement
- (##) Intersection Number
- ## AM Peak Hour Traffic Volume
- (##) PM Peak Hour Traffic Volume
- Site

Unsignalized LOS (Critical Peak Hour)

- LOS E/F
- LOS D
- LOS A/B/C

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FIGURE 9

Existing 2022 AM / PM
Peak Hour Volumes & LOS

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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Drawing Not to Scale

6.2 Background 2027

AECOM analyzed the Background 2027 traffic conditions during the AM and PM peak hours at each study intersection. As previously mentioned, this is an analysis of conditions in the year 2027 if the project is not constructed.

Table 6 presents a summary of the LOS, delay, and volume to capacity ratios for the Background 2027 conditions. As indicated in the table below, the northbound left turns experience a high level of delay due to the high east-west traffic volume on SC 170 and the 4% annual growth.

Table 6 – Background 2027 Summary of LOS and Delay

ID#	Intersection	Approach	HCM 6 Level of Service (LOS)		Control Delay (sec/veh)		Volume to Capacity Ratio (V/C)	
			AM	PM	AM	PM	AM	PM
1	SC 170 at Old Bailey Road West *(Unsignalized)*	EBR	A	A	0.0	0.0	-	-
		WBL	C	C	20.2	18.9	0.014	0.021
		NBL	D	F	33.5	77.4	0.210	0.356
		NBR	C	C	15.4	20.8	0.028	0.024
2	SC 170 at Old Bailey Road East *(Unsignalized)*	EB	A	A	0.0	0.0	-	-
		WBL	B	C	14.8	22.0	0.003	0.035
		NBL	D	F	32.0	56.9	0.048	0.088
		NBR	B	C	14.7	22.9	0.015	0.062

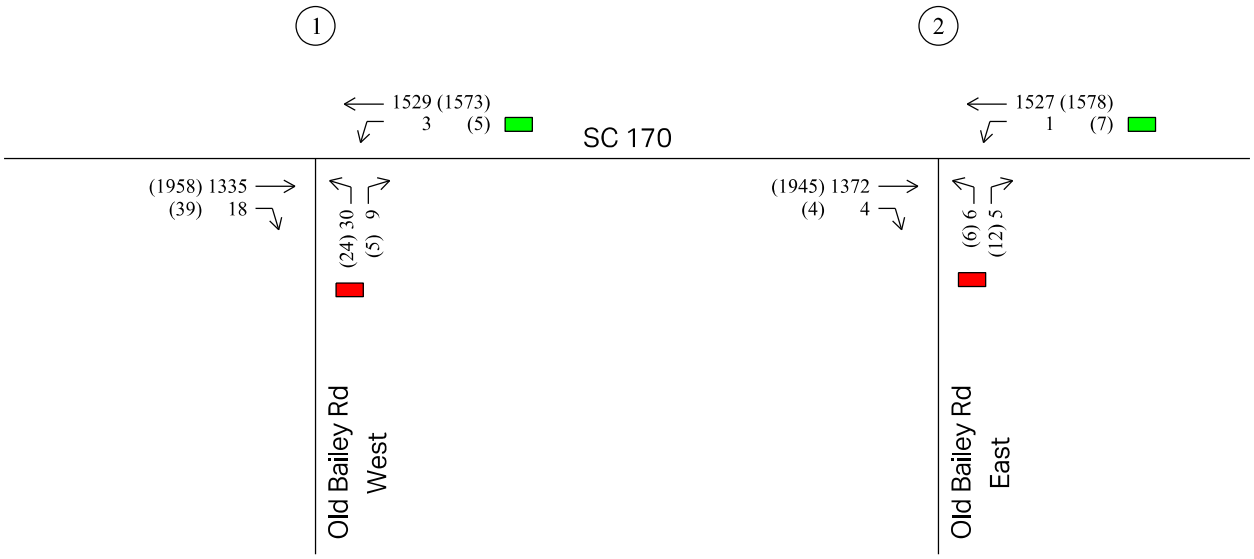
Figure 10 shows the Background 2027 AM and PM peak hour volumes and LOS.

The 95th percentile queues for the Build 2027 scenario are shown in **Table 7**.

Table 7 – Background 2027 Summary of 95th Percentile Queues

ID#	Intersection	Approach	Storage Length (ft)	95th Percentile Queue (ft)	
				AM	PM
1	SC 170 at Old Bailey Road West *(Unsignalized)*	EBR	275	0	0
		WBL	250	16	12
		NBL	175	75	314
		NBR	-	36	373
2	SC 170 at Old Bailey Road East *(Unsignalized)*	WBL	275	0	17
		NBL	200	29	17
		NBR	-	25	40

Synchro 11 and Sim Traffic outputs from the Background 2027 analysis are provided in **Appendix E.**



LEGEND

- Volume Movement
- (##) Intersection Number
- ## AM Peak Hour Traffic Volume
- (##) PM Peak Hour Traffic Volume
- Site

Unsignalized LOS (Critical Peak Hour)

- LOS E/F
- LOS D
- LOS A/B/C

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FIGURE 10

Background 2027 AM / PM
Peak Hour Volumes & LOS

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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6.3 Build 2027

AECOM analyzed the Build 2027 traffic conditions during the AM and PM peak hours at the study intersection. This is an analysis of conditions in the year 2027 if the development is constructed.

Based on SCDOT turn lane warrants, a westbound left and eastbound right turn lane are both warranted at Site Driveway #1. The right turn lane warrant for the eastbound approach can be found in **Appendix F**. A left turn lane is recommended on all divided highways able to accommodate them according to the SCDOT ARMS Manual.

In the Build 2027 scenario, the minor approach at Site Driveway #1 intersecting with SC 170 is expected to operate with a poor level of service and experience significant queuing. The following items were recommended for this scenario:

SC 170 at Site Driveway #1

- Construct a 150-foot eastbound right turn lane on SC 170 at Site Driveway #1.
- Construct a northbound left-turn lane along with 200-foot right-turn lane on Site Driveway #1 at SC 170

While these recommendations may not fully mitigate congestion during peak hours, the following additional improvement should be considered if queues are excessive:

- Install a sign at Site Driveway #1 that prohibits vehicle from turning left out of driveway between 4-6 PM. As a result of vehicles being restricted from turning left out of Site Driveway #1, the intersection of SC 170 at Bailey Road West should be monitored as future signalization may be warranted at a later time.

Old Bailey Road at Site Driveway #2

- Construct a single lane southbound approach on Site Driveway #2 at Old Bailey Road under stop control. No significant delay is expected at this driveway.

Table 8 presents a summary of the LOS, delay, and volume to capacity ratios for the Build 2027 conditions.

Table 8 – Build 2027 Summary of LOS and Delay

ID#	Intersection	Approach	HCM 6 Level of Service (LOS)		Control Delay (sec/veh)		Volume to Capacity Ratio (V/C)	
			AM	PM	AM	PM	AM	PM
1	SC 170 at Old Bailey Road West *(Unsignalized)*	EBR	A	A	0.0	0.0	-	-
		WBL	C	C	21.8	21.4	0.015	0.025
		NBL	E	F	41.6	129.5	0.330	0.593
		NBR	C	C	16.1	23.1	0.030	0.027
2	SC 170 at Old Bailey Road East *(Unsignalized)*	EB	A	A	0.0	0.0	-	-
		WBL	C	C	16.0	24.0	0.007	0.066
		NBL	E	F	35.9	63.6	0.054	0.098
		NBR	C	D	16.0	25.1	0.058	0.111
3	SC 170 at Site Driveway #1 *(Unsignalized)*	EBR	A	A	0.0	0.0	-	-
		WBL	B	C	13.4	23.5	0.020	0.142
		NBL	E	F	40.9	101.0	0.330	0.471
		NBR	C	C	15.7	23.2	0.056	0.058
4	Old Bailey Road at Site Driveway #2 *(Unsignalized)*	EB	A	A	7.3	7.3	0.001	0.003
		SB Approach	A	A	8.7	8.8	0.029	0.019

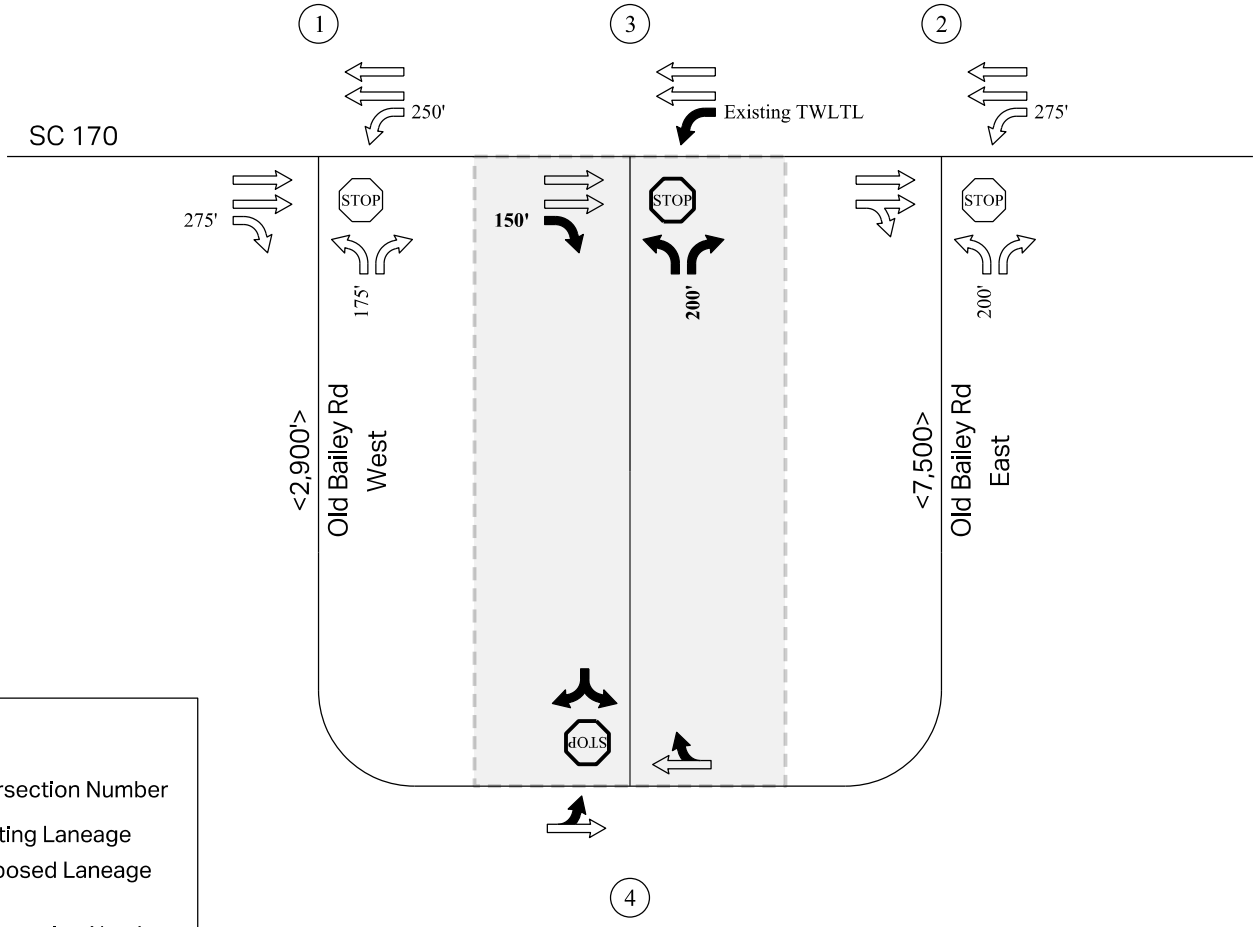
Figure 11 shows the proposed Build 2027 proposed laneage and **Figure 12** shows the Build 2027 AM and PM peak hour volumes and LOS. As indicated in the tables, the northbound approaches at intersections #1 (Old Bailey Road West) and #3 (Site Driveway #1) with SC 170 are expected experience significant delay and queuing during the PM peak hour. It should be noted that the volume to capacity ratio is less than 1.0 at the Old Bailey Road West intersection and not likely to warrant a traffic signal.

The 95th percentile queues for the Build 2027 scenario are shown in **Table 9**.

Table 9 – Build 2027 Summary of 95th Percentile Queues

ID#	Intersection	Approach	Storage Length (ft)	95th Percentile Queue (ft)	
				AM	PM
1	SC 170 at Old Bailey Road West *(Unsignalized)*	EBR	275	0	0
		WBL	250	23	18
		NBL	175	93	343
		NBR	-	39	449
2	SC 170 at Old Bailey Road East *(Unsignalized)*	WBL	275	0	23
		NBL	-	51	28
		NBR	200	42	46
3	SC 170 at Site Driveway #1 *(Unsignalized)*	EBR	150	0	7
		WBL	150	20	59
		NBL	-	71	518
		NBR	-	23	30
4	Old Bailey Road at Site Driveway #2 *(Unsignalized)*	EBL	-	0	0
		SB Approach	-	43	36

Synchro 11 and Sim Traffic outputs from the Build 2027 analysis are provided in **Appendix G**



LEGEND

- ## — Intersection Number
- Existing Laneage
- Proposed Laneage
- ## — Intersection Number
- STOP — Proposed Stop Sign
- ##' — Storage Length
- <##'> — Distance Between Intersections
- Site

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FIGURE 11

Build 2027
Lane Configuration

Bailey Park
Traffic Impact Analysis - Jasper County, SC

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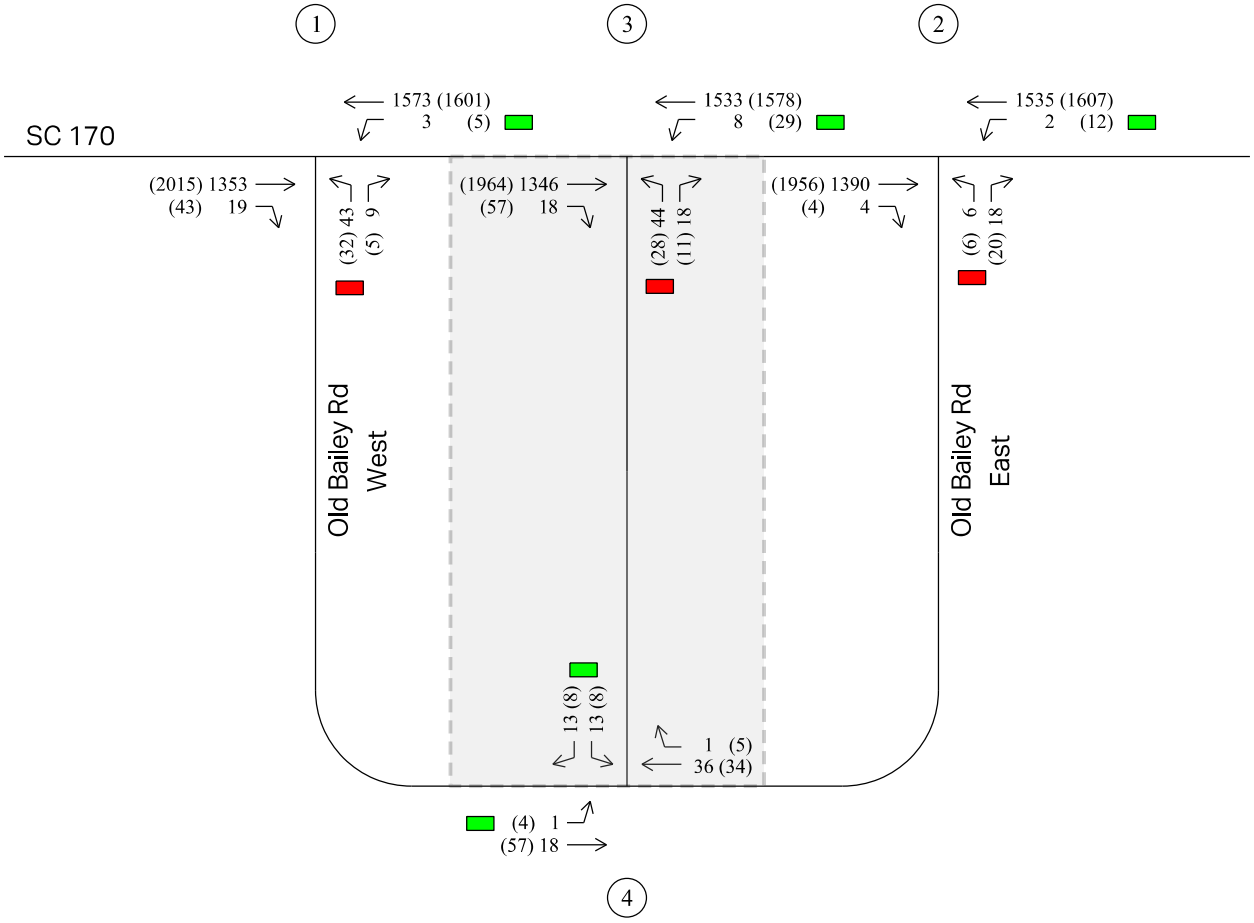

LEGEND

- ← Volume Movement
- (##) Intersection Number
- ## AM Peak Hour Traffic Volume
- (##) PM Peak Hour Traffic Volume
- Site

Unsignalized LOS (Critical Peak Hour)

- LOS E/F
- LOS D
- LOS A/B/C

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FIGURE 12

Build 2027 AM / PM
Peak Hour Volumes & LOS

Bailey Park
Traffic Impact Analysis - Jasper County, SC

N

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7. Conclusions and Recommendations

AECOM analyzed multiple scenarios for the Bailey Park development. A summary of the LOS and delay for each scenario is summarized in **Table 10**.

Table 10 – Scenario Summary of LOS and Delay

ID#	Intersection	Approach	Level of Service and Delay (sec)					
			2022 Existing		2027 Background		2027 Build	
			AM	PM	AM	PM	AM	PM
1	SC 170 at Old Bailey Road West	NB Left	D (26.5)	E (48.0)	D (33.5)	F (77.4)	E (41.6)	F (129.5)
2	SC 170 at Old Bailey Road East	NB Left	D (25.0)	E (37.5)	D (32.0)	F (56.9)	E (35.9)	F (63.6)
3	SC 170 at Site Driveway #1	NB Left	-	-	-	-	E (40.9)	F* (101.0)
4	Old Bailey Road at Site Driveway #2	SB Approach	-	-	-	-	A (8.7)	A (8.8)

***Installing sign prohibiting no left-turn existing Site Driveway #1 during the PM peak hours is expected to improve LOS from F to C.**

The summary table above indicates that in the Existing, Background, and Build scenarios the study intersections along SC 170 operate at poor LOS on the minor approaches. The Site Driveway #1 approach should be expected to experience long queues during the PM peak hour. It is likely that traffic from the development will choose the less congested route such as using the Old Bailey Road back driveway which eventually intersect with SC 170.

A future consideration to improve queuing and delay at Site Driveway #1 would be to allow exiting vehicles to a northbound right only and to not allow northbound left turns. This access configuration could be achieved with restriping and signage. Northbound left turning vehicles would then have the option to access SC 170 via both of its intersections with Old Bailey Road through the back access Site Driveway #2.

As access is restricted along all northbound site driveways along SC 170 in general study area, warrants are likely to be met for a traffic signal at Old Bailey Road West. Traffic from the Bailey Park development and other sites along Old Bailey Road would likely opt to use the signal to turn left onto SC 170 to avoid long queues and delay at unsignalized intersections.

The growth rate used in this study was 4%. This is a conservative growth rate and does result in significant growth in background traffic. This is not an unreasonable growth rate to use based on historic traffic counts but if growth does not continue at this rate, traffic congestion may not be to the level indicated in this report.

As development increases along SC 170, a corridor study may be necessary to determine a long-term solution to alleviate congestion and safety. These solutions may include raised median barriers along SC 170 combined with dedicated U-turn sites which would help facilitate the right-out only movement from Site Driveway #1.

Appendix A – Traffic Count Data

Project ID: 22-150013-001
Location: SR S-7-18/Old Bailey Rd W & SR 170/Okatie Hwy
City: Ridgeland

Day: Thursday
Date: 4/7/2022

Groups Printed - Cars, PU, Vans - Heavy Trucks

	SR S-7-18/Old Bailey Rd W Northbound						SR S-7-18/Old Bailey Rd W Southbound						SR 170/Okatie Hwy Eastbound						SR 170/Okatie Hwy Westbound						
Start Time	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Int. Total
7:00 AM	7	0	1	0	0	8	0	0	0	0	0	0	0	258	7	0	0	265	1	349	0	0	0	350	623
7:15 AM	10	0	6	0	0	16	0	0	0	0	0	0	0	287	6	0	0	293	0	332	0	0	0	332	641
7:30 AM	7	0	2	0	0	9	0	0	0	0	0	0	0	294	3	0	0	297	1	321	0	0	0	322	628
7:45 AM	6	0	0	0	0	6	0	0	0	0	0	0	0	258	2	0	0	260	1	255	0	0	0	256	522
Total	30	0	9	0	0	39	0	0	0	0	0	0	0	1097	18	0	0	1115	3	1257	0	0	0	1260	2414
8:00 AM	4	0	0	0	0	4	0	0	0	0	0	0	0	256	3	0	0	259	1	241	0	0	0	242	505
8:15 AM	8	0	0	0	0	8	0	0	0	0	0	0	0	219	1	0	0	220	1	269	0	0	0	270	498
8:30 AM	3	0	0	0	0	3	0	0	0	0	0	0	0	218	4	0	0	222	0	281	0	0	0	281	506
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	225	5	0	0	230	3	249	0	0	0	252	482
Total	15	0	0	0	0	15	0	0	0	0	0	0	0	918	13	0	0	931	5	1040	0	0	0	1045	1991
BREAK																									
4:00 PM	8	0	3	0	0	11	0	0	0	0	0	0	0	409	11	0	0	420	1	369	0	0	0	370	801
4:15 PM	2	0	1	0	0	3	0	0	0	0	0	0	0	422	11	0	0	433	3	326	0	0	0	329	765
4:30 PM	8	0	1	0	0	9	0	0	0	0	0	0	0	391	9	0	0	400	0	321	0	0	0	321	730
4:45 PM	6	0	0	0	0	6	0	0	0	0	0	0	0	387	8	0	0	395	0	277	0	0	0	277	678
Total	24	0	5	0	0	29	0	0	0	0	0	0	0	1609	39	0	0	1648	4	1293	0	0	0	1297	2974
5:00 PM	3	0	1	0	0	4	0	0	0	0	0	0	0	327	8	0	0	335	1	251	0	0	0	252	591
5:15 PM	5	0	1	0	0	6	0	0	0	0	0	0	0	298	11	0	0	309	0	216	0	0	0	216	531
5:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	247	6	0	0	253	1	200	0	0	0	201	455
5:45 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	185	6	0	0	191	1	155	0	0	0	156	349
Total	9	0	4	0	0	13	0	0	0	0	0	0	0	1057	31	0	0	1088	3	822	0	0	0	825	1926
Grand Total	78	0	18	0	0	96	0	0	0	0	0	0	0	4681	101	0	0	4782	15	4412	0	0	0	4427	9305
Apprch %	81.3	0.0	18.8	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	97.9	2.1	0.0	0.0		0.3	99.7	0.0	0.0	0.0		
Total %	0.8	0.0	0.2	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.3	1.1	0.0	0.0	51.4	0.2	47.4	0.0	0.0	0.0	47.6	
Cars, PU, Vans	75	0	17	0		92	0	0	0	0		0	0	4460	97	0		4557	12	4239	0	0		4251	8900
% Cars, PU, Vans	96.2	0.0	94.4	0.0		95.8	0.0	0.0	0.0	0.0		0.0	0.0	95.3	96.0	0.0		95.3	80.0	96.1	0.0	0.0		96.0	95.6
Heavy trucks	3	0	1	0		4	0	0	0	0		0	0	221	4	0		225	3	173	0	0		176	405
%Heavy trucks	3.8	0.0	5.6	0.0		4.2	0.0	0.0	0.0	0.0		0.0	0.0	4.7	4.0	0.0		4.7	20.0	3.9	0.0	0.0		4.0	4.4

Project ID: 22-150013-001
Location: SR S-7-18/Old Bailey Rd W & SR 170/Okatie Hwy
City: Ridgeland

PEAK HOURS

Day: Thursday
Date: 4/7/2022

AM

	SR S-7-18/Old Bailey Rd W Northbound					SR S-7-18/Old Bailey Rd W Southbound					SR 170/Okatie Hwy Eastbound					SR 170/Okatie Hwy Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 09:00 AM																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
7:00 AM	7	0	1	0	8	0	0	0	0	0	0	258	7	0	265	1	349	0	0	350	623
7:15 AM	10	0	6	0	16	0	0	0	0	0	0	287	6	0	293	0	332	0	0	332	641
7:30 AM	7	0	2	0	9	0	0	0	0	0	0	294	3	0	297	1	321	0	0	322	628
7:45 AM	6	0	0	0	6	0	0	0	0	0	0	258	2	0	260	1	255	0	0	256	522
Total Volume	30	0	9	0	39	0	0	0	0	0	0	1097	18	0	1115	3	1257	0	0	1260	2414
% App. Total	76.9	0.0	23.1	0.0	100	0.0	0.0	0.0	0.0	0	0.0	98.4	1.6	0.0	100	0.2	99.8	0.0	0.0	100	
PHF					0.609										0.939					0.900	0.941
Cars, PU, Vans	29	0	8	0	37	0	0	0	0	0	0	1021	17	0	1038	1	1201	0	0	1202	2277
% Cars, PU, Vans	96.7	0.0	88.9	0.0	94.9	0.0	0.0	0.0	0.0	0.0	0.0	93.1	94.4	0.0	93.1	33.3	95.5	0.0	0.0	95.4	94.3
Heavy trucks	1	0	1	0	2	0	0	0	0	0	0	76	1	0	77	2	56	0	0	58	137
%Heavy trucks	3.3	0.0	11.1	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	6.9	5.6	0.0	6.9	66.7	4.5	0.0	0.0	4.6	5.7

PM

	SR S-7-18/Old Bailey Rd W Northbound					SR S-7-18/Old Bailey Rd W Southbound					SR 170/Okatie Hwy Eastbound					SR 170/Okatie Hwy Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 04:00 PM - 06:00 PM																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
4:00 PM	8	0	3	0	11	0	0	0	0	0	0	409	11	0	420	1	369	0	0	370	801
4:15 PM	2	0	1	0	3	0	0	0	0	0	0	422	11	0	433	3	326	0	0	329	765
4:30 PM	8	0	1	0	9	0	0	0	0	0	0	391	9	0	400	0	321	0	0	321	730
4:45 PM	6	0	0	0	6	0	0	0	0	0	0	387	8	0	395	0	277	0	0	277	678
Total Volume	24	0	5	0	29	0	0	0	0	0	0	1609	39	0	1648	4	1293	0	0	1297	2974
% App. Total	82.8	0.0	17.2	0.0	100	0.0	0.0	0.0	0.0	0	0.0	97.6	2.4	0.0	100	0.3	99.7	0.0	0.0	100	
PHF					0.659										0.952					0.876	0.928
Cars, PU, Vans	23	0	5	0	28	0	0	0	0	0	0	1570	37	0	1607	4	1269	0	0	1273	2908
% Cars, PU, Vans	95.8	0.0	100.0	0.0	96.6	0.0	0.0	0.0	0.0	0.0	0.0	97.6	94.9	0.0	97.5	100.0	98.1	0.0	0.0	98.1	97.8
Heavy trucks	1	0	0	0	1	0	0	0	0	0	0	39	2	0	41	0	24	0	0	24	66
%Heavy trucks	4.2	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.1	0.0	2.5	0.0	1.9	0.0	0.0	1.9	2.2

Project ID: 22-150013-002
Location: SR S-7-18 & SR 170/Okatie Hwy
City: Ridgeland

Day: Thursday
Date: 4/7/2022

Groups Printed - Cars, PU, Vans - Heavy Trucks

	SR S-7-18 Northbound						SR S-7-18 Southbound						SR 170/Okatie Hwy Eastbound						SR 170/Okatie Hwy Westbound						
Start Time	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Int. Total
7:00 AM	4	0	2	0	0	6	0	0	0	0	0	0	0	267	1	0	0	268	1	345	0	0	0	346	620
7:15 AM	1	0	1	0	0	2	0	0	0	0	0	0	0	295	1	0	0	296	0	336	0	0	0	336	634
7:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	295	0	1	0	296	0	310	0	0	0	310	607
7:45 AM	1	0	1	0	0	2	0	0	0	0	0	0	0	271	2	0	0	273	0	264	0	0	0	264	539
Total	6	0	5	0	0	11	0	0	0	0	0	0	0	1128	4	1	0	1133	1	1255	0	0	0	1256	2400
8:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	266	1	0	0	267	2	246	0	0	0	248	516
8:15 AM	1	0	2	0	0	3	0	0	0	0	0	0	0	233	0	0	0	233	1	263	0	0	0	264	500
8:30 AM	2	0	1	0	0	3	0	0	0	0	0	0	0	205	0	0	0	205	1	273	0	0	0	274	482
8:45 AM	1	0	3	0	0	4	0	0	0	0	0	0	0	237	1	0	0	238	0	262	0	0	0	262	504
Total	4	0	7	0	0	11	0	0	0	0	0	0	0	941	2	0	0	943	4	1044	0	0	0	1048	2002
BREAK																									
4:00 PM	1	0	3	0	0	4	0	0	0	0	0	0	0	402	2	0	0	404	0	361	0	0	0	361	769
4:15 PM	2	0	5	0	0	7	0	0	0	0	0	0	0	429	0	0	0	429	1	332	0	0	0	333	769
4:30 PM	3	0	2	0	0	5	0	0	0	0	0	0	0	391	1	0	0	392	4	316	0	0	0	320	717
4:45 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	377	1	0	0	378	2	288	0	0	0	290	670
Total	6	0	12	0	0	18	0	0	0	0	0	0	0	1599	4	0	0	1603	7	1297	0	0	0	1304	2925
5:00 PM	1	0	2	0	0	3	0	0	0	0	0	0	0	336	2	0	0	338	1	261	0	0	0	262	603
5:15 PM	1	0	5	0	0	6	0	0	0	0	0	0	0	311	1	0	0	312	5	205	0	0	0	210	528
5:30 PM	2	0	1	0	0	3	0	0	0	0	0	0	0	254	0	0	0	254	3	211	0	0	0	214	471
5:45 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	186	0	0	0	186	3	162	0	0	0	165	355
Total	4	0	12	0	0	16	0	0	0	0	0	0	0	1087	3	0	0	1090	12	839	0	0	0	851	1957
Grand Total	20	0	36	0	0	56	0	0	0	0	0	0	0	4755	13	1	0	4769	24	4435	0	0	0	4459	9284
Apprch %	35.7	0.0	64.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	99.7	0.3	0.0	0.0		0.5	99.5	0.0	0.0	0.0		
Total %	0.2	0.0	0.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.2	0.1	0.0	0.0	51.4	0.3	47.8	0.0	0.0	0.0	48.0	
Cars, PU, Vans	18	0	35	0		53	0	0	0	0		0	0	4533	13	1		4547	21	4261	0	0		4282	8882
% Cars, PU, Vans	90.0	0.0	97.2	0.0		94.6	0.0	0.0	0.0	0.0		0.0	0.0	95.3	100.0	100.0		95.3	87.5	96.1	0.0	0.0		96.0	95.7
Heavy trucks	2	0	1	0		3	0	0	0	0		0	0	222	0	0		222	3	174	0	0		177	402
%Heavy trucks	10.0	0.0	2.8	0.0		5.4	0.0	0.0	0.0	0.0		0.0	0.0	4.7	0.0	0.0		4.7	12.5	3.9	0.0	0.0		4.0	4.3

Project ID: 22-150013-002
Location: SR S-7-18 & SR 170/Okatie Hwy
City: Ridgeland

PEAK HOURS

Day: Thursday
Date: 4/7/2022

AM

	SR S-7-18 Northbound					SR S-7-18 Southbound					SR 170/Okatie Hwy Eastbound					SR 170/Okatie Hwy Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 09:00 AM																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
7:00 AM	4	0	2	0	6	0	0	0	0	0	0	267	1	0	268	1	345	0	0	346	620
7:15 AM	1	0	1	0	2	0	0	0	0	0	0	295	1	0	296	0	336	0	0	336	634
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	295	0	1	296	0	310	0	0	310	607
7:45 AM	1	0	1	0	2	0	0	0	0	0	0	271	2	0	273	0	264	0	0	264	539
Total Volume	6	0	5	0	11	0	0	0	0	0	0	1128	4	1	1133	1	1255	0	0	1256	2400
% App. Total	54.5	0.0	45.5	0.0	100	0.0	0.0	0.0	0.0	0	0.0	99.6	0.4	0.1	100	0.1	99.9	0.0	0.0	100	
PHF					0.458										0.957					0.908	0.946
Cars, PU, Vans	5	0	5	0	10	0	0	0	0	0	0	1056	4	1	1061	0	1199	0	0	1199	2270
% Cars, PU, Vans	83.3	0.0	100.0	0.0	90.9	0.0	0.0	0.0	0.0	0.0	0.0	93.6	100.0	100.0	93.6	0.0	95.5	0.0	0.0	95.5	94.6
Heavy trucks	1	0	0	0	1	0	0	0	0	0	0	72	0	0	72	1	56	0	0	57	130
%Heavy trucks	16.7	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	6.4	100.0	4.5	0.0	0.0	4.5	5.4

PM

	SR S-7-18 Northbound					SR S-7-18 Southbound					SR 170/Okatie Hwy Eastbound					SR 170/Okatie Hwy Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 04:00 PM - 06:00 PM																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
4:00 PM	1	0	3	0	4	0	0	0	0	0	0	402	2	0	404	0	361	0	0	361	769
4:15 PM	2	0	5	0	7	0	0	0	0	0	0	429	0	0	429	1	332	0	0	333	769
4:30 PM	3	0	2	0	5	0	0	0	0	0	0	391	1	0	392	4	316	0	0	320	717
4:45 PM	0	0	2	0	2	0	0	0	0	0	0	377	1	0	378	2	288	0	0	290	670
Total Volume	6	0	12	0	18	0	0	0	0	0	0	1599	4	0	1603	7	1297	0	0	1304	2925
% App. Total	33.3	0.0	66.7	0.0	100	0.0	0.0	0.0	0.0	0	0.0	99.8	0.2	0.0	100	0.5	99.5	0.0	0.0	100	
PHF					0.643										0.934					0.903	0.951
Cars, PU, Vans	6	0	11	0	17	0	0	0	0	0	0	1560	4	0	1564	6	1273	0	0	1279	2860
% Cars, PU, Vans	100.0	0.0	91.7	0.0	94.4	0.0	0.0	0.0	0.0	0.0	0.0	97.6	100.0	0.0	97.6	85.7	98.1	0.0	0.0	98.1	97.8
Heavy trucks	0	0	1	0	1	0	0	0	0	0	0	39	0	0	39	1	24	0	0	25	65
%Heavy trucks	0.0	0.0	8.3	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.4	14.3	1.9	0.0	0.0	1.9	2.2

Prepared by NDS/ATD

VOLUME

SR S-7-18 W/O Old Baileys Cir

Day: Thursday
Date: 4/7/2022

City: Ridgeland
Project #: SC22_150014_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	252	215	467

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00					1		0		1		12:00					7		5		12	
00:15					0		0		0		12:15					8		2		10	
00:30					0		0		0		12:30					5		4		9	
00:45					0	1	0		0	1	12:45					4	24	4	15	8	39
01:00					0		0		0		13:00					5		5		10	
01:15					1		0		1		13:15					4		6		10	
01:30					0		0		0		13:30					5		4		9	
01:45					0	1	0		0	1	13:45					2	16	4	19	6	35
02:00					1		1		2		14:00					1		7		8	
02:15					0		1		1		14:15					1		4		5	
02:30					0		0		0		14:30					2		4		6	
02:45					0	1	0	2	0	3	14:45					3	7	1	16	4	23
03:00					0		0		0		15:00					4		4		8	
03:15					0		0		0		15:15					4		0		4	
03:30					0		0		0		15:30					8		2		10	
03:45					0		0		0		15:45					4	20	5	11	9	31
04:00					0		0		0		16:00					10		6		16	
04:15					0		1		1		16:15					5		3		8	
04:30					0		0		0		16:30					6		4		10	
04:45					0		0	1	0	1	16:45					13	34	5	18	18	52
05:00					0		3		3		17:00					5		3		8	
05:15					0		0		0		17:15					8		6		14	
05:30					1		1		2		17:30					6		2		8	
05:45					2	3	3	7	5	10	17:45					4	23	5	16	9	39
06:00					0		3		3		18:00					5		3		8	
06:15					1		7		8		18:15					7		2		9	
06:30					3		5		8		18:30					6		1		7	
06:45					2	6	4	19	6	25	18:45					6	24	5	11	11	35
07:00					2		7		9		19:00					4		2		6	
07:15					3		4		7		19:15					6		2		8	
07:30					6		4		10		19:30					6		2		8	
07:45					4	15	5	20	9	35	19:45					1	17	2	8	3	25
08:00					1		6		7		20:00					7		0		7	
08:15					0		5		5		20:15					3		0		3	
08:30					2		3		5		20:30					2		0		2	
08:45					0	3	2	16	2	19	20:45					3	15	0		3	15
09:00					0		4		4		21:00					0		2		2	
09:15					2		0		2		21:15					2		0		2	
09:30					2		2		4		21:30					4		1		5	
09:45					2	6	3	9	5	15	21:45					0	6	3	6	3	12
10:00					4		0		4		22:00					4		2		6	
10:15					2		2		4		22:15					1		2		3	
10:30					1		4		5		22:30					0		0		0	
10:45					6	13	1	7	7	20	22:45					1	6	0	4	1	10
11:00					1		3		4		23:00					2		1		3	
11:15					1		2		3		23:15					0		1		1	
11:30					4		3		7		23:30					0		0		0	
11:45					2	8	0	8	2	16	23:45					1	3	0	2	1	5
TOTALS						57		89		146	TOTALS						195		126		321
SPLIT %						39.0%		61.0%		31.3%	SPLIT %						60.7%		39.3%		68.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	252	215	467

AM Peak Hour			11:45	06:15	07:00	PM Peak Hour			16:00	13:15	16:00
AM Pk Volume			22	23	35	PM Pk Volume			34	21	52
Pk Hr Factor			0.688	0.821	0.875	Pk Hr Factor			0.654	0.750	0.722
7 - 9 Volume	0	0	18	36	54	4 - 6 Volume	0	0	57	34	91
7 - 9 Peak Hour			07:00	07:00	07:00	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	15	20	35	4 - 6 Pk	0	0	34	18	52
Pk Hr Factor	0.000	0.000	0.625	0.714	0.875	Pk Hr Factor	0.000	0.000	0.654	0.750	0.722

Appendix B – Trip Generation

Bailey Park Trip Generation

Trip Generation

Land Use	Intensity	Daily			AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total	In	Out
220 Townhomes (11th Edition)	300 Dwelling Units	1,998	999	999	116	28	88	150	95	55
Subtotal		**1,998**	**999**	**999**	**116**	**28**	**88**	**150**	**95**	**55**

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

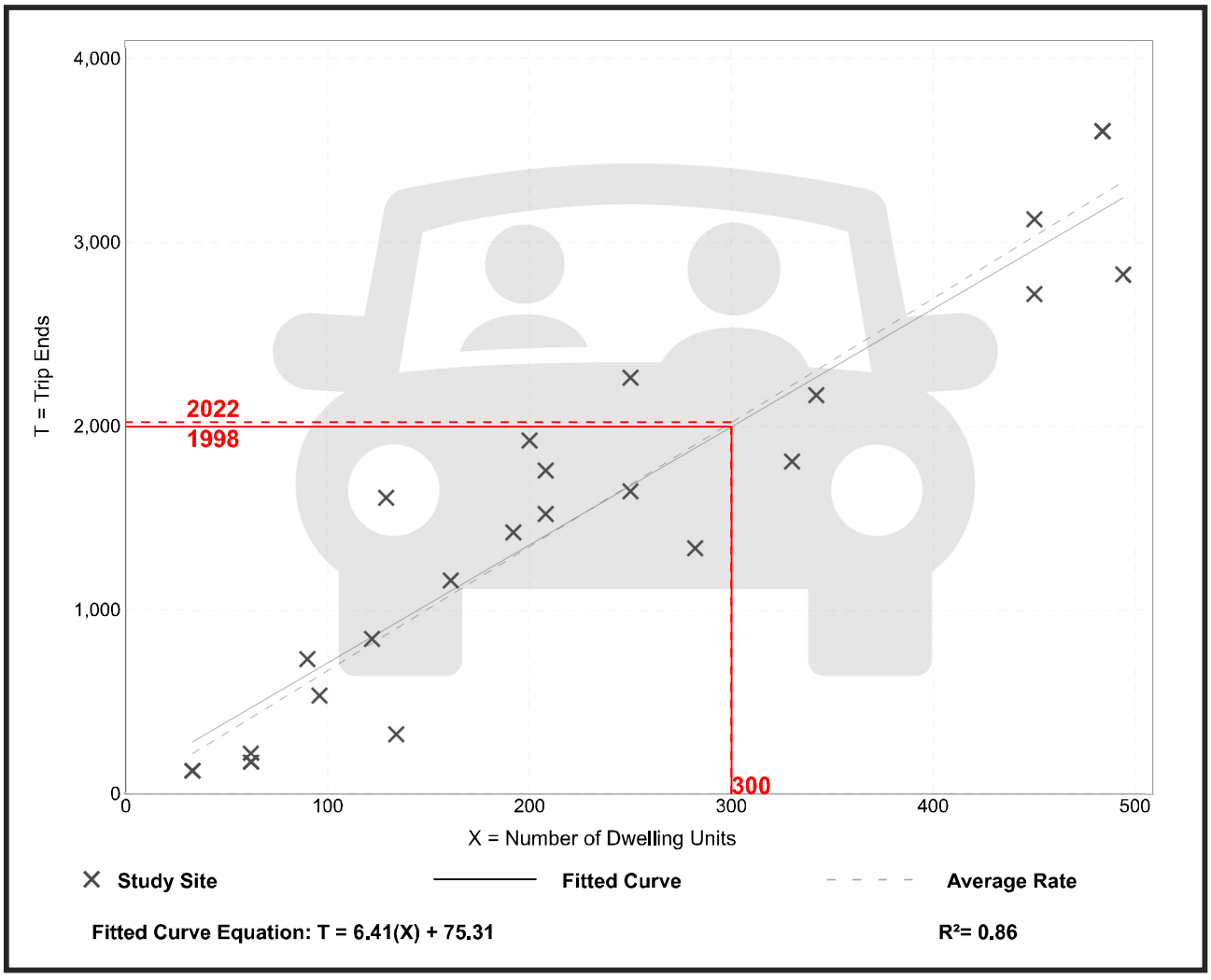
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Fitted Curve Equation: T = 6.41(X) + 75.31

R^2= 0.86

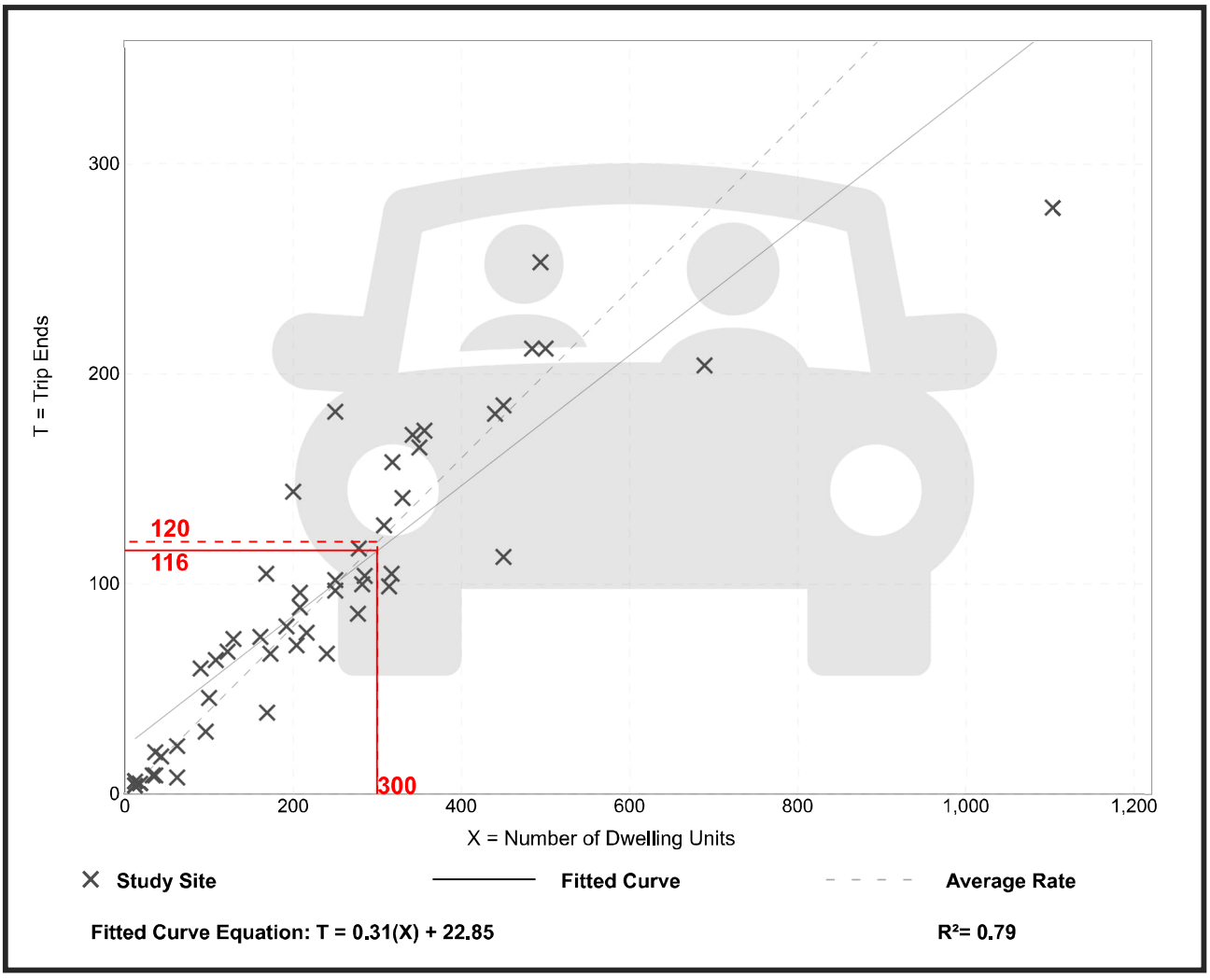
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



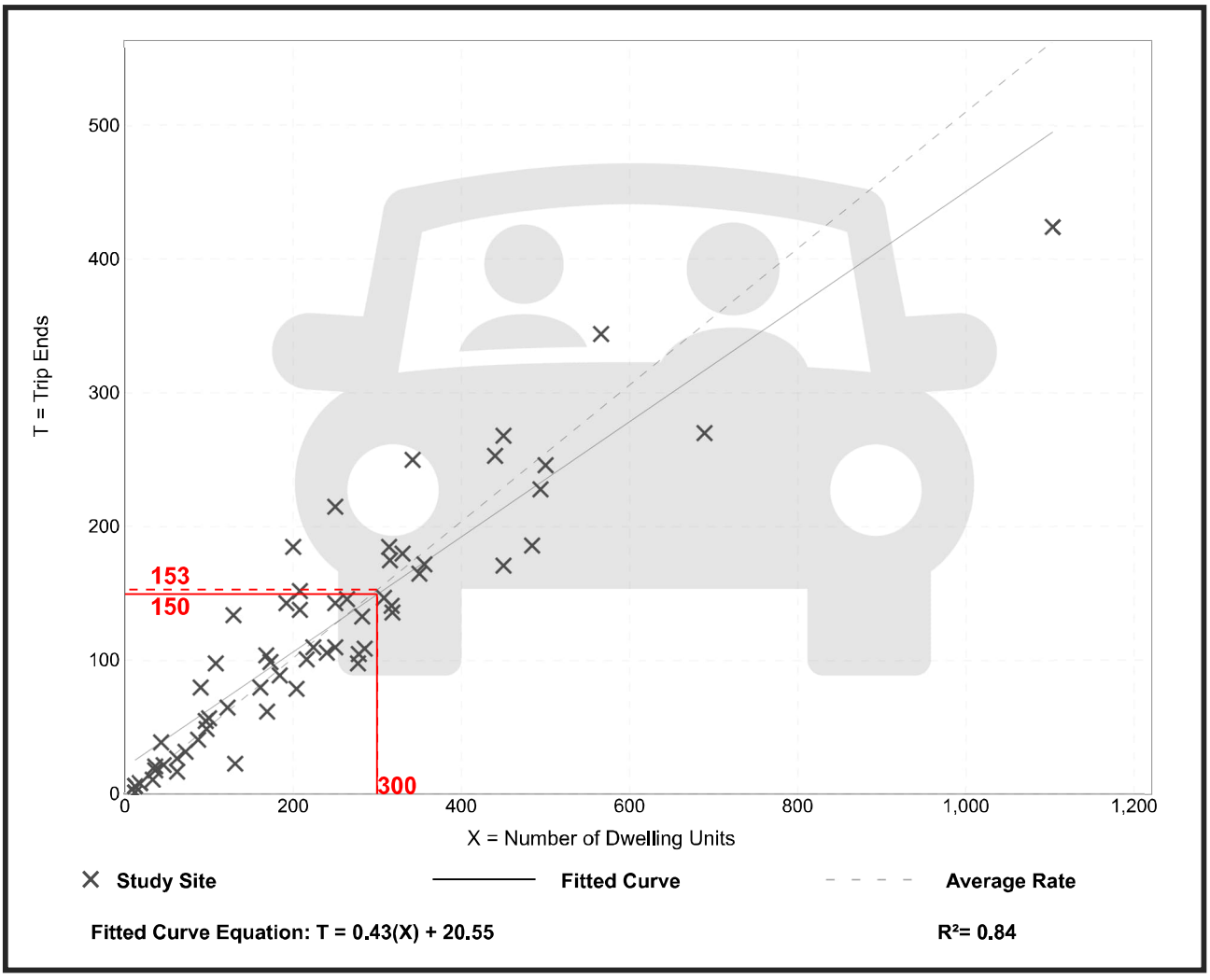
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



Appendix C – Intersection Calculation Spreadsheets

INTERSECTION VOLUME WORKSHEET

Intersection #1
SC 170 at Old Bailey Rd West

AM Peak Hour

		SC 170 Eastbound			SC 170 Westbound			Old Bailey Rd West Northbound			- Southbound		
Description		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2022	Raw Traffic Count	0	1,097	18	3	1,257	0	30	0	9			
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**1,097**	**18**	**3**	**1,257**	**0**	**30**	**0**	**9**	**0**	**0**	**0**
	Annual Growth Rate	4.0%	4.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%
	Background Growth	0	238	0	0	272	0	0	0	0	0	0	0
2027	No-Build Peak Hour Volume	**0**	**1,335**	**18**	**3**	**1,529**	**0**	**30**	**0**	**9**	**0**	**0**	**0**
	% Entering	*0%*	*60%*	*5%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	0	18	1	0	0	0	0	0	0	0	0	0
	% Exiting	*0%*	*0%*	*0%*	*0%*	*50%*	*0%*	*15%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Exiting Site Traffic	0	0	0	0	44	0	13	0	0	0	0	0
	Total Site Trips	0	18	1	0	44	0	13	0	0	0	0	0
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	0	18	1	0	44	0	13	0	0	0	0	0
2027	Build Peak Hour Volume	**0**	**1,353**	**19**	**3**	**1,573**	**0**	**43**	**0**	**9**	**0**	**0**	**0**

PM Peak Hour

		SC 170 Eastbound			SC 170 Westbound			Old Bailey Rd West Northbound			- Southbound		
Description		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2022	Raw Traffic Count	0	1,609	39	4	1,293	0	24	0	5			
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**1,609**	**39**	**4**	**1,293**	**0**	**24**	**0**	**5**	**0**	**0**	**0**
	Annual Growth Rate	4.0%	4.0%	0.0%	4.0%	4.0%	4.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%
	Background Growth	0	349	0	1	280	0	0	0	0	0	0	0
2027	No-Build Peak Hour Volume	**0**	**1,958**	**39**	**5**	**1,573**	**0**	**24**	**0**	**5**	**0**	**0**	**0**
	% Entering	*0%*	*60%*	*5%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	0	57	4	0	0	0	0	0	0	0	0	0
	% Exiting	*0%*	*0%*	*0%*	*0%*	*50%*	*0%*	*15%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Exiting Site Traffic	0	0	0	0	28	0	8	0	0	0	0	0
	Total Site Trips	0	57	4	0	28	0	8	0	0	0	0	0
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	0	57	4	0	28	0	8	0	0	0	0	0
2027	Build Peak Hour Volume	**0**	**2,015**	**43**	**5**	**1,601**	**0**	**32**	**0**	**5**	**0**	**0**	**0**

INTERSECTION VOLUME WORKSHEET

Intersection #2
SC 170 at Old Bailey Rd East

AM Peak Hour

Description		SC 170 Eastbound			SC 170 Westbound			Old Bailey Rd East Northbound			- Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2022	Raw Traffic Count	0	1,128	4	1	1,255	0	6	0	5	0	0	0
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**1,128**	**4**	**1**	**1,255**	**0**	**6**	**0**	**5**	**0**	**0**	**0**
	Annual Growth Rate	4.0%	4.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%
	Background Growth	0	244	0	0	272	0	0	0	0	0	0	0
2027	No-Build Peak Hour Volume	**0**	**1,372**	**4**	**1**	**1,527**	**0**	**6**	**0**	**5**	**0**	**0**	**0**
	% Entering	*0%*	*0%*	*0%*	*5%*	*30%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	0	0	0	1	8	0	0	0	0	0	0	0
	% Exiting	*0%*	*20%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*15%*	*0%*	*0%*	*0%*
	Exiting Site Traffic	0	18	0	0	0	0	0	0	13	0	0	0
	Total Site Trips	0	18	0	1	8	0	0	0	13	0	0	0
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	0	18	0	1	8	0	0	0	13	0	0	0
2027	Build Peak Hour Volume	**0**	**1,390**	**4**	**2**	**1,535**	**0**	**6**	**0**	**18**	**0**	**0**	**0**

PM Peak Hour

Description		SC 170 Eastbound			SC 170 Westbound			Old Bailey Rd East Northbound			- Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2022	Raw Traffic Count	0	1,599	4	7	1,297	0	6	0	12	0	0	0
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**1,599**	**4**	**7**	**1,297**	**0**	**6**	**0**	**12**	**0**	**0**	**0**
	Annual Growth Rate	4.0%	4.0%	0.0%	0.0%	4.0%	4.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%
	Background Growth	0	346	0	0	281	0	0	0	0	0	0	0
2027	No-Build Peak Hour Volume	**0**	**1,945**	**4**	**7**	**1,578**	**0**	**6**	**0**	**12**	**0**	**0**	**0**
	% Entering	*0%*	*0%*	*0%*	*5%*	*30%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	0	0	0	5	29	0	0	0	0	0	0	0
	% Exiting	*0%*	*20%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*15%*	*0%*	*0%*	*0%*
	Exiting Site Traffic	0	11	0	0	0	0	0	0	8	0	0	0
	Total Site Trips	0	11	0	5	29	0	0	0	8	0	0	0
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	0	11	0	5	29	0	0	0	8	0	0	0
2027	Build Peak Hour Volume	**0**	**1,956**	**4**	**12**	**1,607**	**0**	**6**	**0**	**20**	**0**	**0**	**0**

INTERSECTION VOLUME WORKSHEET

Intersection #3
SC 170 at Site Driveway #1

AM Peak Hour

Description		SC 170 Eastbound			SC 170 Westbound			Site Driveway #1 Northbound			- Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2022	Raw Traffic Count		1,106			1,260							
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**1,106**	**0**	**0**	**1,260**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	Background Growth	0	240	0	0	273	0	0	0	0	0	0	0
	Existing Phase Remaining Traffic												
2027	No-Build Peak Hour Volume	**0**	**1,346**	**0**	**0**	**1,533**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% Entering	*0%*	*0%*	*60%*	*30%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	0	0	18	8	0	0	0	0	0	0	0	0
	% Exiting	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*50%*	*0%*	*20%*	*0%*	*0%*	*0%*
	Exiting Site Traffic	0	0	0	0	0	0	44	0	18	0	0	0
	Total Site Trips	0	0	18	8	0	0	44	0	18	0	0	0
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	0	0	18	8	0	0	44	0	18	0	0	0
2027	Build Peak Hour Volume	**0**	**1,346**	**18**	**8**	**1,533**	**0**	**44**	**0**	**18**	**0**	**0**	**0**

PM Peak Hour

Description		SC 170 Eastbound			SC 170 Westbound			Site Driveway #1 Northbound			- Southbound		
		Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2022	Raw Traffic Count		1,614			1,297							
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**1,614**	**0**	**0**	**1,297**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Annual Growth Rate	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	Background Growth	0	350	0	0	281	0	0	0	0	0	0	0
	Existing Phase Remaining Traffic												
2027	No-Build Peak Hour Volume	**0**	**1,964**	**0**	**0**	**1,578**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% Entering	*0%*	*0%*	*60%*	*30%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	0	0	57	29	0	0	0	0	0	0	0	0
	% Exiting	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*50%*	*0%*	*20%*	*0%*	*0%*	*0%*
	Exiting Site Traffic	0	0	0	0	0	0	28	0	11	0	0	0
	Total Site Trips	0	0	57	29	0	0	28	0	11	0	0	0
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	0	0	57	29	0	0	28	0	11	0	0	0
2027	Build Peak Hour Volume	**0**	**1,964**	**57**	**29**	**1,578**	**0**	**28**	**0**	**11**	**0**	**0**	**0**

INTERSECTION VOLUME WORKSHEET

Intersection #4
Old Bailey Rd at Site Driveway #2

AM Peak Hour

Description		Old Bailey Rd Eastbound Left	Through	Right	Old Bailey Rd Westbound Left	Through	Right	- Northbound Left	Through	Right	Site Driveway #2 Southbound Left	Through	Right
2022	Raw Traffic Count		18			36							
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**18**	**0**	**0**	**36**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Annual Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2027	No-Build Peak Hour Volume	**0**	**18**	**0**	**0**	**36**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% Entering	*5%*	*0%*	*0%*	*0%*	*0%*	*5%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	1	0	0	0	0	1	0	0	0	0	0	0
	% Exiting	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*15%*	*0%*	*15%*
	Exiting Site Traffic	0	0	0	0	0	0	0	0	0	13	0	13
	Total Site Trips	1	0	0	0	0	1	0	0	0	13	0	13
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	1	0	0	0	0	1	0	0	0	13	0	13
2027	Build Peak Hour Volume	**1**	**18**	**0**	**0**	**36**	**1**	**0**	**0**	**0**	**13**	**0**	**13**

PM Peak Hour

Description		Old Bailey Rd Eastbound Left	Through	Right	Old Bailey Rd Westbound Left	Through	Right	- Northbound Left	Through	Right	Site Driveway #2 Southbound Left	Through	Right
2022	Raw Traffic Count		57			34							
	Growth Adjustment Factor	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Adjustment Amount	0	0	0	0	0	0	0	0	0	0	0	0
2022	Peak Hour Volume	**0**	**57**	**0**	**0**	**34**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Annual Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
	Background Growth	0	0	0	0	0	0	0	0	0	0	0	0
2027	No-Build Peak Hour Volume	**0**	**57**	**0**	**0**	**34**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% Entering	*5%*	*0%*	*0%*	*0%*	*0%*	*5%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
	Entering Site Traffic	4	0	0	0	0	5	0	0	0	0	0	0
	% Exiting	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*15%*	*0%*	*15%*
	Exiting Site Traffic	0	0	0	0	0	0	0	0	0	8	0	8
	Total Site Trips	4	0	0	0	0	5	0	0	0	8	0	8
	Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0
	Total External Site Traffic	4	0	0	0	0	5	0	0	0	8	0	8
2027	Build Peak Hour Volume	**4**	**57**	**0**	**0**	**34**	**5**	**0**	**0**	**0**	**8**	**0**	**8**

Appendix D – Existing Synchro and SimTraffic Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1097	18	3	1257	30	9
Future Volume (vph)	1097	18	3	1257	30	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	250		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3374	1524	1081	3438	1752	1455
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3374	1524	1081	3438	1752	1455
Link Speed (mph)	55			55	30	
Link Distance (ft)	1485			2650	1171	
Travel Time (s)	18.4			32.9	26.6	
Peak Hour Factor	0.94	0.94	0.90	0.90	0.61	0.61
Heavy Vehicles (%)	7%	6%	67%	5%	3%	11%
Adj. Flow (vph)	1167	19	3	1397	49	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1167	19	3	1397	49	15
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1097	18	3	1257	30	9
Future Vol, veh/h	1097	18	3	1257	30	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	-	275	250	-	175	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	90	90	61	61
Heavy Vehicles, %	7	6	67	5	3	11
Mvmt Flow	1167	19	3	1397	49	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1186	0	1872	584
Stage 1	-	-	-	-	1167	-
Stage 2	-	-	-	-	705	-
Critical Hdwy	-	-	5.44	-	6.86	7.12
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.87	-	3.53	3.41
Pot Cap-1 Maneuver	-	-	323	-	63	433
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	448	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	323	-	62	433
Mov Cap-2 Maneuver	-	-	-	-	216	-
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	444	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	216	433	-	-	323	-
HCM Lane V/C Ratio	0.228	0.034	-	-	0.01	-
HCM Control Delay (s)	26.5	13.6	-	-	16.3	-
HCM Lane LOS	D	B	-	-	C	-
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1128	4	1	1255	6	5
Future Volume (vph)	1128	4	1	1255	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	275		0	200
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.999					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3403	0	1444	3438	1543	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3403	0	1444	3438	1543	1615
Link Speed (mph)	55			55	30	
Link Distance (ft)	2727			1381	1408	
Travel Time (s)	33.8			17.1	32.0	
Peak Hour Factor	0.96	0.96	0.91	0.91	0.46	0.46
Heavy Vehicles (%)	6%	0%	25%	5%	17%	0%
Adj. Flow (vph)	1175	4	1	1379	13	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1179	0	1	1379	13	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1128	4	1	1255	6	5
Future Vol, veh/h	1128	4	1	1255	6	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	-	-	275	-	0	200
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	91	91	46	46
Heavy Vehicles, %	6	0	25	5	17	0
Mvmt Flow	1175	4	1	1379	13	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1179	0	1869	590
Stage 1	-	-	-	-	1177	-
Stage 2	-	-	-	-	692	-
Critical Hdwy	-	-	4.6	-	7.14	6.9
Critical Hdwy Stg 1	-	-	-	-	6.14	-
Critical Hdwy Stg 2	-	-	-	-	6.14	-
Follow-up Hdwy	-	-	2.45	-	3.67	3.3
Pot Cap-1 Maneuver	-	-	474	-	54	456
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	420	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	474	-	54	456
Mov Cap-2 Maneuver	-	-	-	-	193	-
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	419	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	193	456	-	-	474	-
HCM Lane V/C Ratio	0.068	0.024	-	-	0.002	-
HCM Control Delay (s)	25	13.1	-	-	12.6	-
HCM Lane LOS	D	B	-	-	B	-
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1609	39	4	1293	24	5
Future Volume (vph)	1609	39	4	1293	24	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	250		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1538	1805	3539	1736	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1538	1805	3539	1736	1615
Link Speed (mph)	55			55	30	
Link Distance (ft)	1485			2650	1171	
Travel Time (s)	18.4			32.9	26.6	
Peak Hour Factor	0.95	0.95	0.88	0.88	0.66	0.66
Heavy Vehicles (%)	2%	5%	0%	2%	4%	0%
Adj. Flow (vph)	1694	41	5	1469	36	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1694	41	5	1469	36	8
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1609	39	4	1293	24	5
Future Vol, veh/h	1609	39	4	1293	24	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	-	275	250	-	175	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	88	88	66	66
Heavy Vehicles, %	2	5	0	2	4	0
Mvmt Flow	1694	41	5	1469	36	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1735	0	2439	847
Stage 1	-	-	-	-	1694	-
Stage 2	-	-	-	-	745	-
Critical Hdwy	-	-	4.1	-	6.88	6.9
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.2	-	3.54	3.3
Pot Cap-1 Maneuver	-	-	368	-	~ 25	309
Stage 1	-	-	-	-	131	-
Stage 2	-	-	-	-	425	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	368	-	~ 25	309
Mov Cap-2 Maneuver	-	-	-	-	119	-
Stage 1	-	-	-	-	131	-
Stage 2	-	-	-	-	419	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	42.6
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	119	309	-	-	368	-
HCM Lane V/C Ratio	0.306	0.025	-	-	0.012	-
HCM Control Delay (s)	48	16.9	-	-	14.9	-
HCM Lane LOS	E	C	-	-	B	-
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1599	4	7	1297	6	12
Future Volume (vph)	1599	4	7	1297	6	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	275		0	200
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt						0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	0	1583	3539	1805	1495
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	0	1583	3539	1805	1495
Link Speed (mph)	55			55	30	
Link Distance (ft)	2727			1381	1408	
Travel Time (s)	33.8			17.1	32.0	
Peak Hour Factor	0.93	0.93	0.90	0.90	0.64	0.64
Heavy Vehicles (%)	2%	0%	14%	2%	0%	8%
Adj. Flow (vph)	1719	4	8	1441	9	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1723	0	8	1441	9	19
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1599	4	7	1297	6	12
Future Vol, veh/h	1599	4	7	1297	6	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	275	-	0	200
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	90	90	64	64
Heavy Vehicles, %	2	0	14	2	0	8
Mvmt Flow	1719	4	8	1441	9	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1723	0	2458	862
Stage 1	-	-	-	-	1721	-
Stage 2	-	-	-	-	737	-
Critical Hdwy	-	-	4.38	-	6.8	7.06
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.34	-	3.5	3.38
Pot Cap-1 Maneuver	-	-	314	-	26	287
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	314	-	25	287
Mov Cap-2 Maneuver	-	-	-	-	120	-
Stage 1	-	-	-	-	132	-
Stage 2	-	-	-	-	428	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	24.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	120	287	-	-	314	-
HCM Lane V/C Ratio	0.078	0.065	-	-	0.025	-
HCM Control Delay (s)	37.5	18.4	-	-	16.8	-
HCM Lane LOS	E	C	-	-	C	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-

Summary of All Intervals

Start Time	6:50
End Time	8:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	2424
Vehs Exited	2419
Starting Vehs	78
Ending Vehs	83
Travel Distance (mi)	3679
Travel Time (hr)	73.2
Total Delay (hr)	5.0
Total Stops	57
Fuel Used (gal)	108.0

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	2424
Vehs Exited	2419
Starting Vehs	78
Ending Vehs	83
Travel Distance (mi)	3679
Travel Time (hr)	73.2
Total Delay (hr)	5.0
Total Stops	57
Fuel Used (gal)	108.0

Intersection: 1: Old Bailey Rd West & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	44	108	73
Average Queue (ft)	3	27	13
95th Queue (ft)	21	72	42
Link Distance (ft)			1116
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250	175	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Old Bailey Rd East & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	25	50	31
Average Queue (ft)	1	8	6
95th Queue (ft)	8	32	26
Link Distance (ft)		1363	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	275		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Start Time	3:50
End Time	5:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	2908
Vehs Exited	2932
Starting Vehs	102
Ending Vehs	78
Travel Distance (mi)	4450
Travel Time (hr)	89.8
Total Delay (hr)	7.5
Total Stops	69
Fuel Used (gal)	130.1

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	2908
Vehs Exited	2932
Starting Vehs	102
Ending Vehs	78
Travel Distance (mi)	4450
Travel Time (hr)	89.8
Total Delay (hr)	7.5
Total Stops	69
Fuel Used (gal)	130.1

Intersection: 1: Old Bailey Rd West & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	26	113	27
Average Queue (ft)	5	37	7
95th Queue (ft)	22	93	24
Link Distance (ft)			1116
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250	175	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Old Bailey Rd East & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	26	31	54
Average Queue (ft)	4	5	14
95th Queue (ft)	19	22	41
Link Distance (ft)		1363	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	275		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Appendix E – Background 2027 Synchro and SimTraffic Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1335	18	3	1529	30	9
Future Volume (vph)	1335	18	3	1529	30	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	250		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3374	1524	1081	3438	1752	1455
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3374	1524	1081	3438	1752	1455
Link Speed (mph)	55			55	30	
Link Distance (ft)	1485			2650	1171	
Travel Time (s)	18.4			32.9	26.6	
Peak Hour Factor	0.94	0.94	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	6%	67%	5%	3%	11%
Adj. Flow (vph)	1420	19	3	1699	33	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1420	19	3	1699	33	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1335	18	3	1529	30	9
Future Vol, veh/h	1335	18	3	1529	30	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	-	275	250	-	175	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	90	90	90	90
Heavy Vehicles, %	7	6	67	5	3	11
Mvmt Flow	1420	19	3	1699	33	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1439	0	2276	710
Stage 1	-	-	-	-	1420	-
Stage 2	-	-	-	-	856	-
Critical Hdwy	-	-	5.44	-	6.86	7.12
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.87	-	3.53	3.41
Pot Cap-1 Maneuver	-	-	240	-	~ 33	356
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	374	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	240	-	~ 33	356
Mov Cap-2 Maneuver	-	-	-	-	159	-
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	370	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	29.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	159	356	-	-	240	-
HCM Lane V/C Ratio	0.21	0.028	-	-	0.014	-
HCM Control Delay (s)	33.5	15.4	-	-	20.2	-
HCM Lane LOS	D	C	-	-	C	-
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1372	4	1	1527	6	5
Future Volume (vph)	1372	4	1	1527	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	275		0	200
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt						0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3406	0	1444	3438	1543	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3406	0	1444	3438	1543	1615
Link Speed (mph)	55			55	30	
Link Distance (ft)	2727			1381	1408	
Travel Time (s)	33.8			17.1	32.0	
Peak Hour Factor	0.96	0.96	0.91	0.91	0.90	0.90
Heavy Vehicles (%)	6%	0%	25%	5%	17%	0%
Adj. Flow (vph)	1429	4	1	1678	7	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1433	0	1	1678	7	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1372	4	1	1527	6	5
Future Vol, veh/h	1372	4	1	1527	6	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	-	-	275	-	0	200
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	91	91	90	90
Heavy Vehicles, %	6	0	25	5	17	0
Mvmt Flow	1429	4	1	1678	7	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1433	0	2272	717
Stage 1	-	-	-	-	1431	-
Stage 2	-	-	-	-	841	-
Critical Hdwy	-	-	4.6	-	7.14	6.9
Critical Hdwy Stg 1	-	-	-	-	6.14	-
Critical Hdwy Stg 2	-	-	-	-	6.14	-
Follow-up Hdwy	-	-	2.45	-	3.67	3.3
Pot Cap-1 Maneuver	-	-	369	-	28	377
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	348	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	369	-	28	377
Mov Cap-2 Maneuver	-	-	-	-	140	-
Stage 1	-	-	-	-	162	-
Stage 2	-	-	-	-	347	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	24.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	140	377	-	-	369	-
HCM Lane V/C Ratio	0.048	0.015	-	-	0.003	-
HCM Control Delay (s)	32	14.7	-	-	14.8	-
HCM Lane LOS	D	B	-	-	B	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1958	39	5	1573	24	5
Future Volume (vph)	1958	39	5	1573	24	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	250		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1538	1805	3539	1736	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1538	1805	3539	1736	1615
Link Speed (mph)	55			55	30	
Link Distance (ft)	1485			2650	1171	
Travel Time (s)	18.4			32.9	26.6	
Peak Hour Factor	0.95	0.95	0.88	0.88	0.90	0.90
Heavy Vehicles (%)	2%	5%	0%	2%	4%	0%
Adj. Flow (vph)	2061	41	6	1788	27	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2061	41	6	1788	27	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1958	39	5	1573	24	5
Future Vol, veh/h	1958	39	5	1573	24	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	-	275	250	-	175	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	88	88	90	90
Heavy Vehicles, %	2	5	0	2	4	0
Mvmt Flow	2061	41	6	1788	27	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2102	0	2967	1031
Stage 1	-	-	-	-	2061	-
Stage 2	-	-	-	-	906	-
Critical Hdwy	-	-	4.1	-	6.88	6.9
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.2	-	3.54	3.3
Pot Cap-1 Maneuver	-	-	265	-	~ 11	234
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	350	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	265	-	~ 11	234
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	342	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	67.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	75	234	-	-	265	-
HCM Lane V/C Ratio	0.356	0.024	-	-	0.021	-
HCM Control Delay (s)	77.4	20.8	-	-	18.9	-
HCM Lane LOS	F	C	-	-	C	-
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1945	4	7	1578	6	12
Future Volume (vph)	1945	4	7	1578	6	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	275		0	200
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt						0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	0	1583	3539	1805	1495
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	0	1583	3539	1805	1495
Link Speed (mph)	55			55	30	
Link Distance (ft)	2727			1381	1408	
Travel Time (s)	33.8			17.1	32.0	
Peak Hour Factor	0.93	0.93	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	0%	14%	2%	0%	8%
Adj. Flow (vph)	2091	4	8	1753	7	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2095	0	8	1753	7	13
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.9%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1945	4	7	1578	6	12
Future Vol, veh/h	1945	4	7	1578	6	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	275	-	0	200
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	90	90	90	90
Heavy Vehicles, %	2	0	14	2	0	8
Mvmt Flow	2091	4	8	1753	7	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2095	0	2986	1048
Stage 1	-	-	-	-	2093	-
Stage 2	-	-	-	-	893	-
Critical Hdwy	-	-	4.38	-	6.8	7.06
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.34	-	3.5	3.38
Pot Cap-1 Maneuver	-	-	220	-	11	214
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	365	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	220	-	11	214
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	34.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	76	214	-	-	220	-
HCM Lane V/C Ratio	0.088	0.062	-	-	0.035	-
HCM Control Delay (s)	56.9	22.9	-	-	22	-
HCM Lane LOS	F	C	-	-	C	-
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.1	-

Summary of All Intervals

Start Time	6:50
End Time	8:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	2959
Vehs Exited	2936
Starting Vehs	76
Ending Vehs	99
Travel Distance (mi)	4492
Travel Time (hr)	89.9
Total Delay (hr)	7.1
Total Stops	53
Fuel Used (gal)	131.7

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	2959
Vehs Exited	2936
Starting Vehs	76
Ending Vehs	99
Travel Distance (mi)	4492
Travel Time (hr)	89.9
Total Delay (hr)	7.1
Total Stops	53
Fuel Used (gal)	131.7

Intersection: 1: Old Bailey Rd West & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	49	90	51
Average Queue (ft)	2	30	10
95th Queue (ft)	16	75	36
Link Distance (ft)			1116
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250	175	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Old Bailey Rd East & SC 170

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	54	30
Average Queue (ft)	6	6
95th Queue (ft)	29	25
Link Distance (ft)	1363	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Start Time	3:50
End Time	5:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	3673
Vehs Exited	3628
Starting Vehs	92
Ending Vehs	137
Travel Distance (mi)	5605
Travel Time (hr)	121.1
Total Delay (hr)	17.3
Total Stops	61
Fuel Used (gal)	165.4

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	3673
Vehs Exited	3628
Starting Vehs	92
Ending Vehs	137
Travel Distance (mi)	5605
Travel Time (hr)	121.1
Total Delay (hr)	17.3
Total Stops	61
Fuel Used (gal)	165.4

Intersection: 1: Old Bailey Rd West & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	25	275	381
Average Queue (ft)	2	159	113
95th Queue (ft)	12	314	373
Link Distance (ft)			1116
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250	175	
Storage Blk Time (%)		48	
Queuing Penalty (veh)		2	

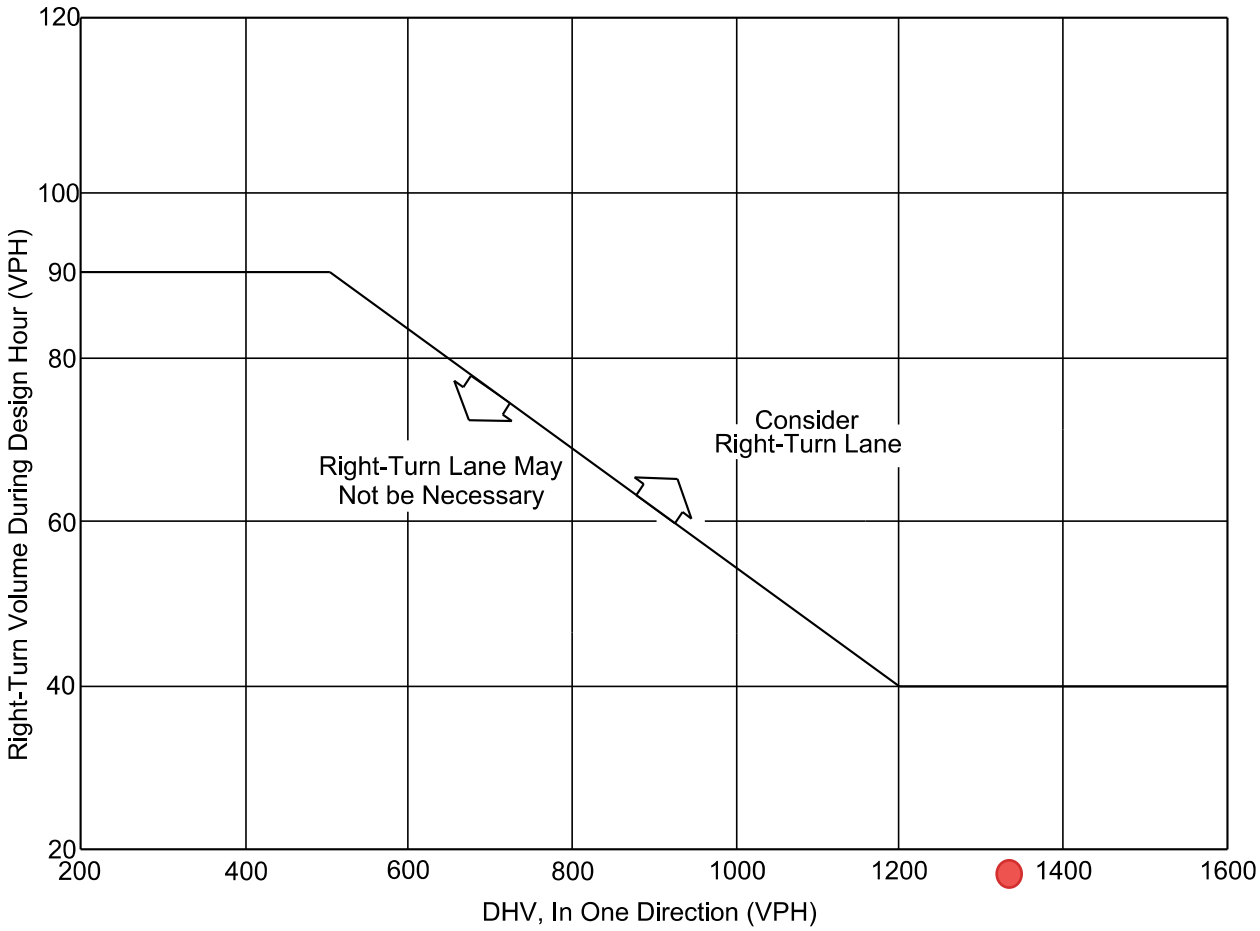
Intersection: 2: Old Bailey Rd East & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	25	31	87
Average Queue (ft)	3	3	9
95th Queue (ft)	17	17	40
Link Distance (ft)		1363	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	275		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 2

Appendix F – SCDOT Right Turn Lane Warrant Worksheet



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

AM = 1346, 18
PM = 1964, 57

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

Appendix G – Build 2027 Synchro and SimTraffic Reports

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1353	19	3	1573	43	9
Future Volume (vph)	1353	19	3	1573	43	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	250		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3374	1524	1081	3438	1752	1455
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3374	1524	1081	3438	1752	1455
Link Speed (mph)	55			55	30	
Link Distance (ft)	1485			1016	1171	
Travel Time (s)	18.4			12.6	26.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	7%	6%	67%	5%	3%	11%
Adj. Flow (vph)	1503	21	3	1748	48	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1503	21	3	1748	48	10
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1353	19	3	1573	43	9
Future Vol, veh/h	1353	19	3	1573	43	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	-	275	250	-	175	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	7	6	67	5	3	11
Mvmt Flow	1503	21	3	1748	48	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1524	0	2383	752
Stage 1	-	-	-	-	1503	-
Stage 2	-	-	-	-	880	-
Critical Hdwy	-	-	5.44	-	6.86	7.12
Critical Hdwy Stg 1	-	-	-	-	5.86	-
Critical Hdwy Stg 2	-	-	-	-	5.86	-
Follow-up Hdwy	-	-	2.87	-	3.53	3.41
Pot Cap-1 Maneuver	-	-	217	-	~ 28	334
Stage 1	-	-	-	-	169	-
Stage 2	-	-	-	-	363	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	217	-	~ 28	334
Mov Cap-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	169	-
Stage 2	-	-	-	-	358	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	37.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	145	334	-	-	217	-
HCM Lane V/C Ratio	0.33	0.03	-	-	0.015	-
HCM Control Delay (s)	41.6	16.1	-	-	21.8	-
HCM Lane LOS	E	C	-	-	C	-
HCM 95th %tile Q(veh)	1.3	0.1	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1390	4	2	1535	6	18
Future Volume (vph)	1390	4	2	1535	6	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	275		0	200
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt						0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3406	0	1444	3438	1543	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3406	0	1444	3438	1543	1615
Link Speed (mph)	55			55	30	
Link Distance (ft)	2727			1381	1408	
Travel Time (s)	33.8			17.1	32.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	0%	25%	5%	17%	0%
Adj. Flow (vph)	1544	4	2	1706	7	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1548	0	2	1706	7	20
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1390	4	2	1535	6	18
Future Vol, veh/h	1390	4	2	1535	6	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	-	-	275	-	0	200
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	0	25	5	17	0
Mvmt Flow	1544	4	2	1706	7	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1548	0	2403	774
Stage 1	-	-	-	-	1546	-
Stage 2	-	-	-	-	857	-
Critical Hdwy	-	-	4.6	-	7.14	6.9
Critical Hdwy Stg 1	-	-	-	-	6.14	-
Critical Hdwy Stg 2	-	-	-	-	6.14	-
Follow-up Hdwy	-	-	2.45	-	3.67	3.3
Pot Cap-1 Maneuver	-	-	329	-	22	346
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	341	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	329	-	22	346
Mov Cap-2 Maneuver	-	-	-	-	123	-
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	339	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	123	346	-	-	329	-
HCM Lane V/C Ratio	0.054	0.058	-	-	0.007	-
HCM Control Delay (s)	35.9	16	-	-	16	-
HCM Lane LOS	E	C	-	-	C	-
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1346	17	8	1533	44	18
Future Volume (vph)	1346	17	8	1533	44	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	150		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	1770	3539	1770	1583
Link Speed (mph)	55			55	30	
Link Distance (ft)	1016			1628	1563	
Travel Time (s)	12.6			20.2	35.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1496	19	9	1703	49	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1496	19	9	1703	49	20
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

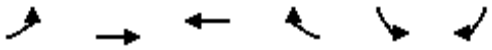
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1346	17	8	1533	44	18
Future Vol, veh/h	1346	17	8	1533	44	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1496	19	9	1703	49	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1515	0	2366	748
Stage 1	-	-	-	-	1496	-
Stage 2	-	-	-	-	870	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	437	-	~ 29	355
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	370	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	437	-	~ 28	355
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	362	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	33.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	148	355	-	-	437	-
HCM Lane V/C Ratio	0.33	0.056	-	-	0.02	-
HCM Control Delay (s)	40.9	15.7	-	-	13.4	-
HCM Lane LOS	E	C	-	-	B	-
HCM 95th %tile Q(veh)	1.3	0.2	-	-	0.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	18	36	1	13	13
Future Volume (vph)	1	18	36	1	13	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997		0.932	
Flt Protected		0.998			0.976	
Satd. Flow (prot)	0	1896	1894	0	1728	0
Flt Permitted		0.998			0.976	
Satd. Flow (perm)	0	1896	1894	0	1728	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		559	769		549	
Travel Time (s)		12.7	17.5		12.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	1	20	40	1	14	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	21	41	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	18	36	1	13	13
Future Vol, veh/h	1	18	36	1	13	13
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, %	0	0	0	0	0	0
Mvmt Flow	1	20	40	1	14	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	41	0	-	0	63	41
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	22	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1581	-	-	-	948	1036
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1581	-	-	-	947	1036
Mov Cap-2 Maneuver	-	-	-	-	947	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	1006	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1581	-	-	-	990
HCM Lane V/C Ratio	0.001	-	-	-	0.029
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	2015	43	5	1601	32	5
Future Volume (vph)	2015	43	5	1601	32	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	250		175	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1538	1805	3539	1736	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1538	1805	3539	1736	1615
Link Speed (mph)	55			55	30	
Link Distance (ft)	1485			1016	1171	
Travel Time (s)	18.4			12.6	26.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	5%	0%	2%	4%	0%
Adj. Flow (vph)	2239	48	6	1779	36	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2239	48	6	1779	36	6
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.7%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2015	43	5	1601	32	5
Future Vol, veh/h	2015	43	5	1601	32	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	-	275	250	-	175	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	5	0	2	4	0
Mvmt Flow	2239	48	6	1779	36	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2287	0	3141	1120
Stage 1	-	-	-	-	2239	-
Stage 2	-	-	-	-	902	-
Critical Hdwy	-	-	4.1	-	6.88	6.9
Critical Hdwy Stg 1	-	-	-	-	5.88	-
Critical Hdwy Stg 2	-	-	-	-	5.88	-
Follow-up Hdwy	-	-	2.2	-	3.54	3.3
Pot Cap-1 Maneuver	-	-	225	-	~ 8	204
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	225	-	~ 8	204
Mov Cap-2 Maneuver	-	-	-	-	60	-
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	342	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	115.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	60	204	-	-	225	-
HCM Lane V/C Ratio	0.593	0.027	-	-	0.025	-
HCM Control Delay (s)	129.5	23.1	-	-	21.4	-
HCM Lane LOS	F	C	-	-	C	-
HCM 95th %tile Q(veh)	2.4	0.1	-	-	0.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1956	4	12	1607	6	20
Future Volume (vph)	1956	4	12	1607	6	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	275		0	200
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt						0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	0	1583	3539	1805	1495
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	0	1583	3539	1805	1495
Link Speed (mph)	55			55	30	
Link Distance (ft)	2727			1381	1408	
Travel Time (s)	33.8			17.1	32.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	0%	14%	2%	0%	8%
Adj. Flow (vph)	2173	4	13	1786	7	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2177	0	13	1786	7	22
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1956	4	12	1607	6	20
Future Vol, veh/h	1956	4	12	1607	6	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	275	-	0	200
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	14	2	0	8
Mvmt Flow	2173	4	13	1786	7	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2177	0	3094	1089
Stage 1	-	-	-	-	2175	-
Stage 2	-	-	-	-	919	-
Critical Hdwy	-	-	4.38	-	6.8	7.06
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.34	-	3.5	3.38
Pot Cap-1 Maneuver	-	-	203	-	9	201
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	354	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	203	-	8	201
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	331	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	34
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	68	201	-	-	203	-
HCM Lane V/C Ratio	0.098	0.111	-	-	0.066	-
HCM Control Delay (s)	63.6	25.1	-	-	24	-
HCM Lane LOS	F	D	-	-	C	-
HCM 95th %tile Q(veh)	0.3	0.4	-	-	0.2	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1964	57	29	1578	28	11
Future Volume (vph)	1964	57	29	1578	28	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		150	150		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			100		100	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	1770	3539	1770	1583
Link Speed (mph)	55			55	30	
Link Distance (ft)	1016			1628	1563	
Travel Time (s)	12.6			20.2	35.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2182	63	32	1753	31	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2182	63	32	1753	31	12
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

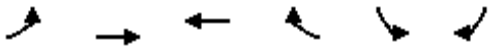
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1964	57	29	1578	28	11
Future Vol, veh/h	1964	57	29	1578	28	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	150	-	0	0
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2182	63	32	1753	31	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2245	0	3123	1091
Stage 1	-	-	-	-	2182	-
Stage 2	-	-	-	-	941	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	227	-	~ 9	210
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	340	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	227	-	~ 8	210
Mov Cap-2 Maneuver	-	-	-	-	66	-
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	292	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	79.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	66	210	-	-	227	-
HCM Lane V/C Ratio	0.471	0.058	-	-	0.142	-
HCM Control Delay (s)	101	23.2	-	-	23.5	-
HCM Lane LOS	F	C	-	-	C	-
HCM 95th %tile Q(veh)	1.9	0.2	-	-	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	4	57	34	5	8	8
Future Volume (vph)	4	57	34	5	8	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.982		0.932	
Flt Protected		0.997			0.976	
Satd. Flow (prot)	0	1894	1866	0	1728	0
Flt Permitted		0.997			0.976	
Satd. Flow (perm)	0	1894	1866	0	1728	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		559	769		549	
Travel Time (s)		12.7	17.5		12.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	4	63	38	6	9	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	67	44	0	18	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	57	34	5	8	8
Future Vol, veh/h	4	57	34	5	8	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	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	63	38	6	9	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	44	0	-	0	112	41
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	71	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1577	-	-	-	890	1036
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1577	-	-	-	887	1036
Mov Cap-2 Maneuver	-	-	-	-	887	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	957	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1577	-	-	-	956
HCM Lane V/C Ratio	0.003	-	-	-	0.019
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Summary of All Intervals

Start Time	6:50
End Time	8:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	3325
Vehs Exited	3312
Starting Vehs	85
Ending Vehs	98
Travel Distance (mi)	4596
Travel Time (hr)	94.8
Total Delay (hr)	9.1
Total Stops	171
Fuel Used (gal)	138.6

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	3325
Vehs Exited	3312
Starting Vehs	85
Ending Vehs	98
Travel Distance (mi)	4596
Travel Time (hr)	94.8
Total Delay (hr)	9.1
Total Stops	171
Fuel Used (gal)	138.6

Intersection: 1: Old Bailey Rd West & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	49	99	74
Average Queue (ft)	3	40	10
95th Queue (ft)	23	93	39
Link Distance (ft)			1116
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250	175	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Old Bailey Rd East & SC 170

Movement	NB	NB
Directions Served	L	R
Maximum Queue (ft)	71	50
Average Queue (ft)	20	18
95th Queue (ft)	51	42
Link Distance (ft)	1363	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Bailey Park #1 & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	29	88	22
Average Queue (ft)	4	32	7
95th Queue (ft)	20	71	23
Link Distance (ft)		1506	1506
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Old Bailey Rd & Bailey Park #2

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	19
95th Queue (ft)	43
Link Distance (ft)	520
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Start Time	3:50
End Time	5:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	3845
Vehs Exited	3802
Starting Vehs	118
Ending Vehs	161
Travel Distance (mi)	5616
Travel Time (hr)	139.9
Total Delay (hr)	34.8
Total Stops	182
Fuel Used (gal)	171.8

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	3845
Vehs Exited	3802
Starting Vehs	118
Ending Vehs	161
Travel Distance (mi)	5616
Travel Time (hr)	139.9
Total Delay (hr)	34.8
Total Stops	182
Fuel Used (gal)	171.8

Intersection: 1: Old Bailey Rd West & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	25	275	447
Average Queue (ft)	4	192	149
95th Queue (ft)	18	343	449
Link Distance (ft)			1116
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250	175	
Storage Blk Time (%)		69	
Queuing Penalty (veh)		3	

Intersection: 2: Old Bailey Rd East & SC 170

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	25	39	53
Average Queue (ft)	6	7	14
95th Queue (ft)	23	28	46
Link Distance (ft)		1363	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	275		200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Bailey Park #1 & SC 170

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	20	71	542	42
Average Queue (ft)	1	27	352	9
95th Queue (ft)	7	59	518	30
Link Distance (ft)			1506	1506
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150	150		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Old Bailey Rd & Bailey Park #2

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	520
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 3

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