TRAFFIC IMPACT STUDY
FOR
PROPOSED RESIDENTIAL DEVELOPMENT ON ELLIOTT ROAD

CITY OF POWDER SPRINGS

COBB COUNTY, GEORGIA

Prepared for:

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October 16, 2024
A & R Project # 24-151

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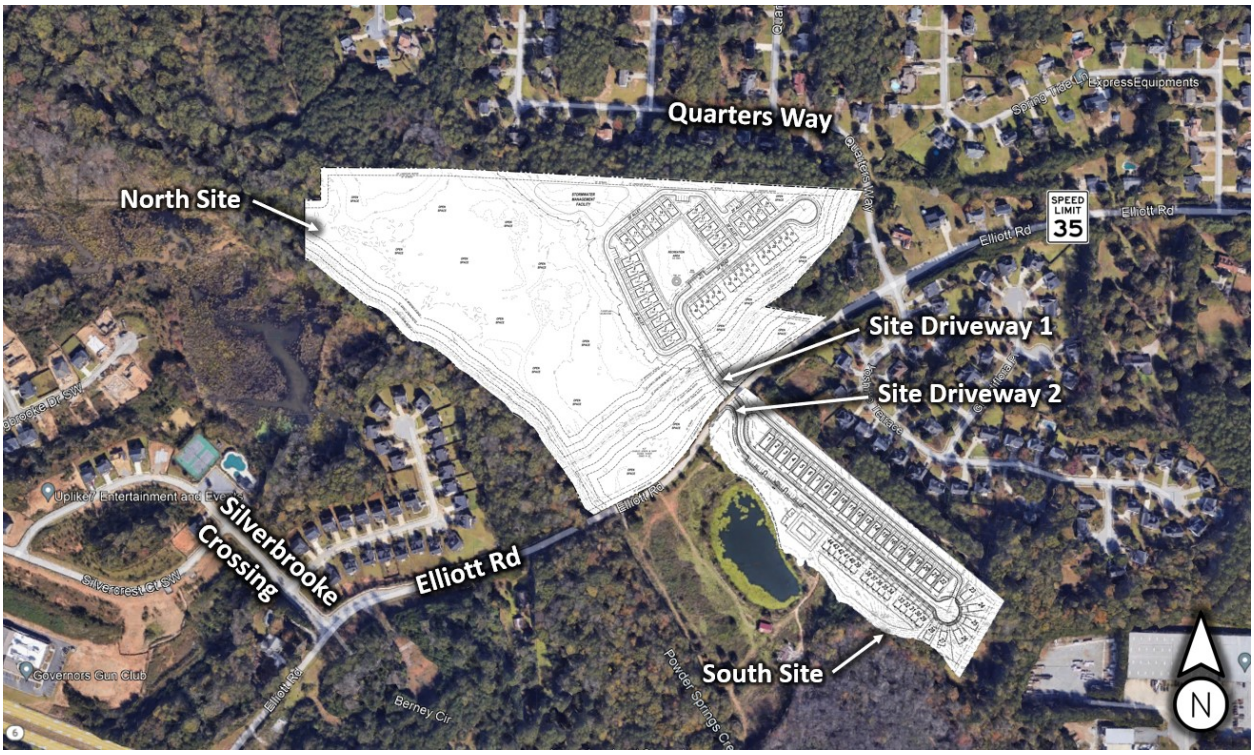
1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact from the proposed residential development that will be located on Elliott Road in the City of Powder Springs, Georgia. The traffic analysis includes evaluation of the current operations and future conditions with the traffic generated by the development. The proposed development will consist of two separate sections to the north and south of Elliott Road. The north site consists of 24 units of single family detached housing and 16 townhomes. The south site consists of 28 units of single family detached housing and 16 townhomes.



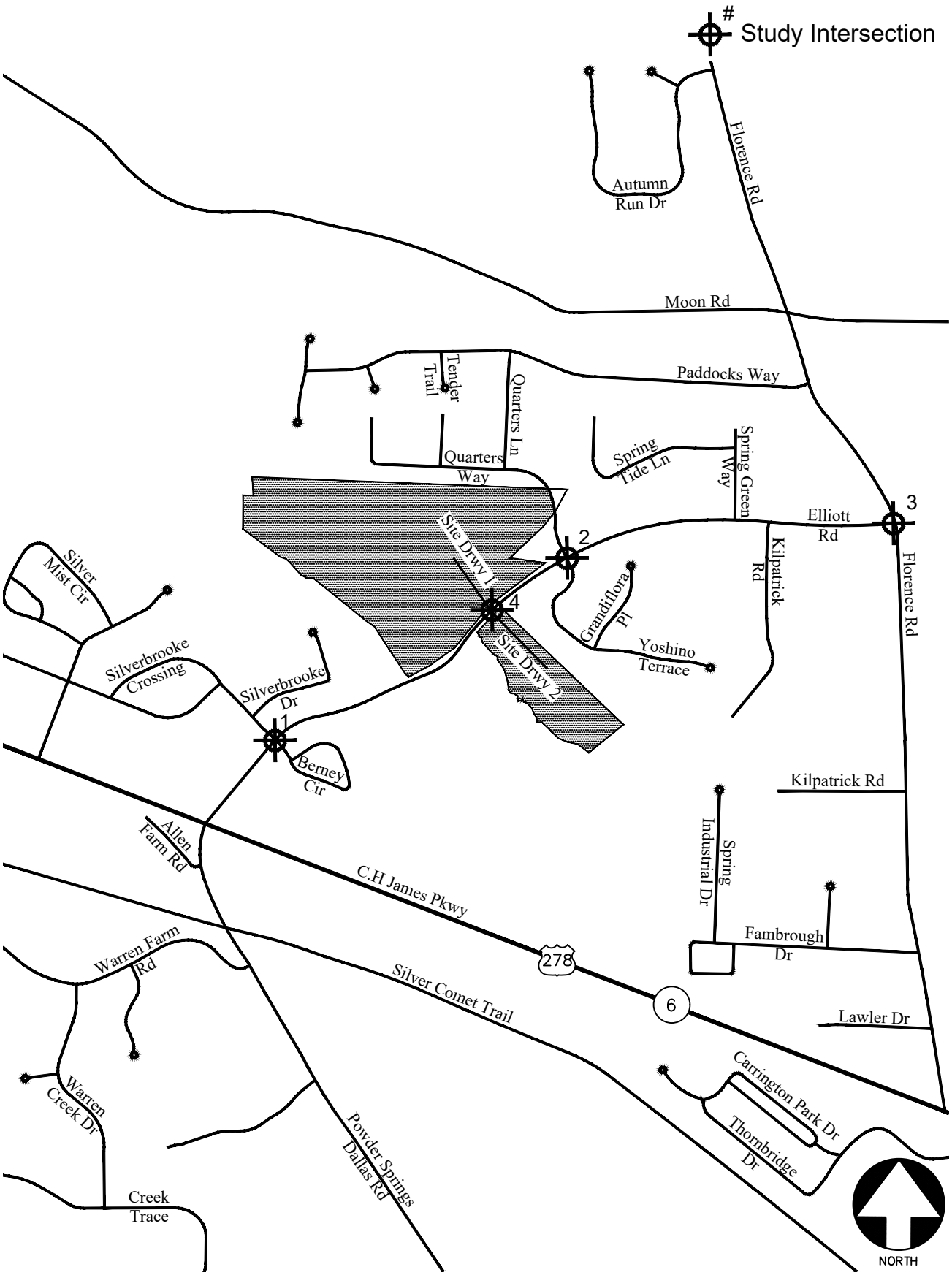
The development proposes access at the following locations (both driveways will be aligned):

- Site Driveway 1 (North Section): Full access driveway on Elliott Road
- Site Driveway 2 (South Section): Full access driveway on Elliott Road

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the intersections of:

1. Elliott Road at Silverbrooke Crossing / Berney Circle
2. Elliott Road at Quarters Way / Yoshino Terrace
3. Elliott Road at Florence Road

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network are shown in Figure 1.



LOCATION MAP FIGURE 1

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2.0 EXISTING FACILITIES / CONDITIONS

2.1 Roadway Facilities

The following is a brief description of each of the roadway facilities located in proximity to the site:

2.1.1 Elliott Road

Elliott Road is an east-west, two-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site.

2.1.2 Florence Road

Florence Road is a north-south, two-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site.

2.1.3 Silverbrooke Crossing

Silverbrooke Crossing is a north-south, two-lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

2.1.4 Berney Circle

Berney Circle is a north-south, two-lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

2.1.5 Quarters Way

Quarters Way is a north-south, two-lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

2.1.6 Yoshino Terrace

Yoshino Terrace is a north-south, two-lane, undivided roadway in the vicinity of the site.

3.0 STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board's Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

3.1 Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level of service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume to capacity ratio greater than 1 is designated as "F" regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Level of service is assigned a letter designation from "A" through "F". Level of service "A" indicates excellent operations with little delay to motorists, while level of service "F" exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 – LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	**v/c > 1.0**
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for Major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6th edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersection.

TABLE 2 – LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle) *	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	**v/c > 1.0**
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6th edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual *cycle failures* (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

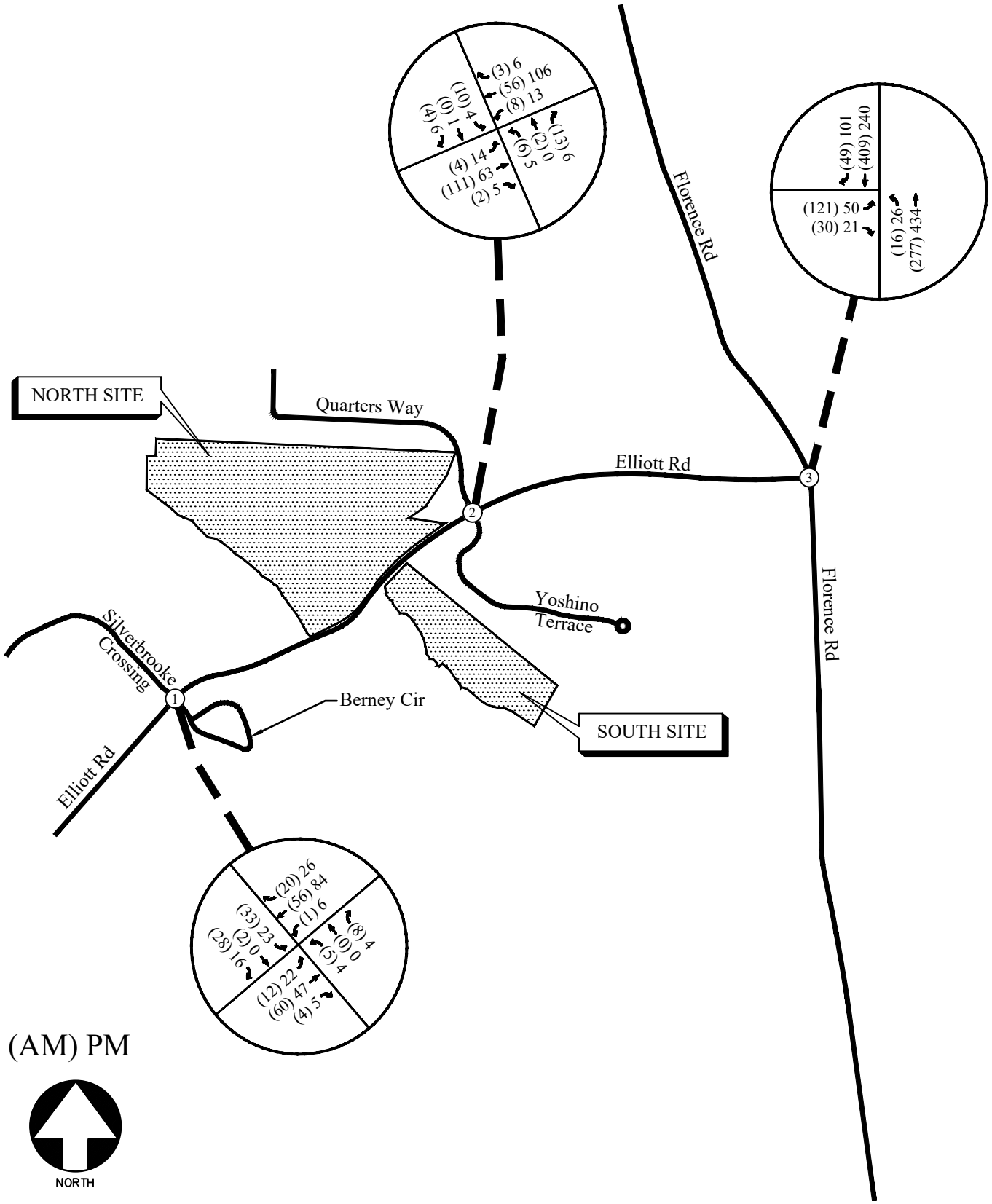
4.0 EXISTING 2024 TRAFFIC ANALYSIS

4.1 Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

1. Elliott Road at Silverbrooke Crossing / Berney Circle
2. Elliott Road at Quarters Way / Yoshino Terrace
3. Elliott Road at Florence Road

Turning movement counts were collected on Tuesday, August 6, 2024. All turning movement counts were recorded during the AM and PM peak hours between 7:00am to 9:00am and 4:00pm to 6:00pm, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.



EXISTING WEEKDAY PEAK-HOUR VOLUMES FIGURE 2

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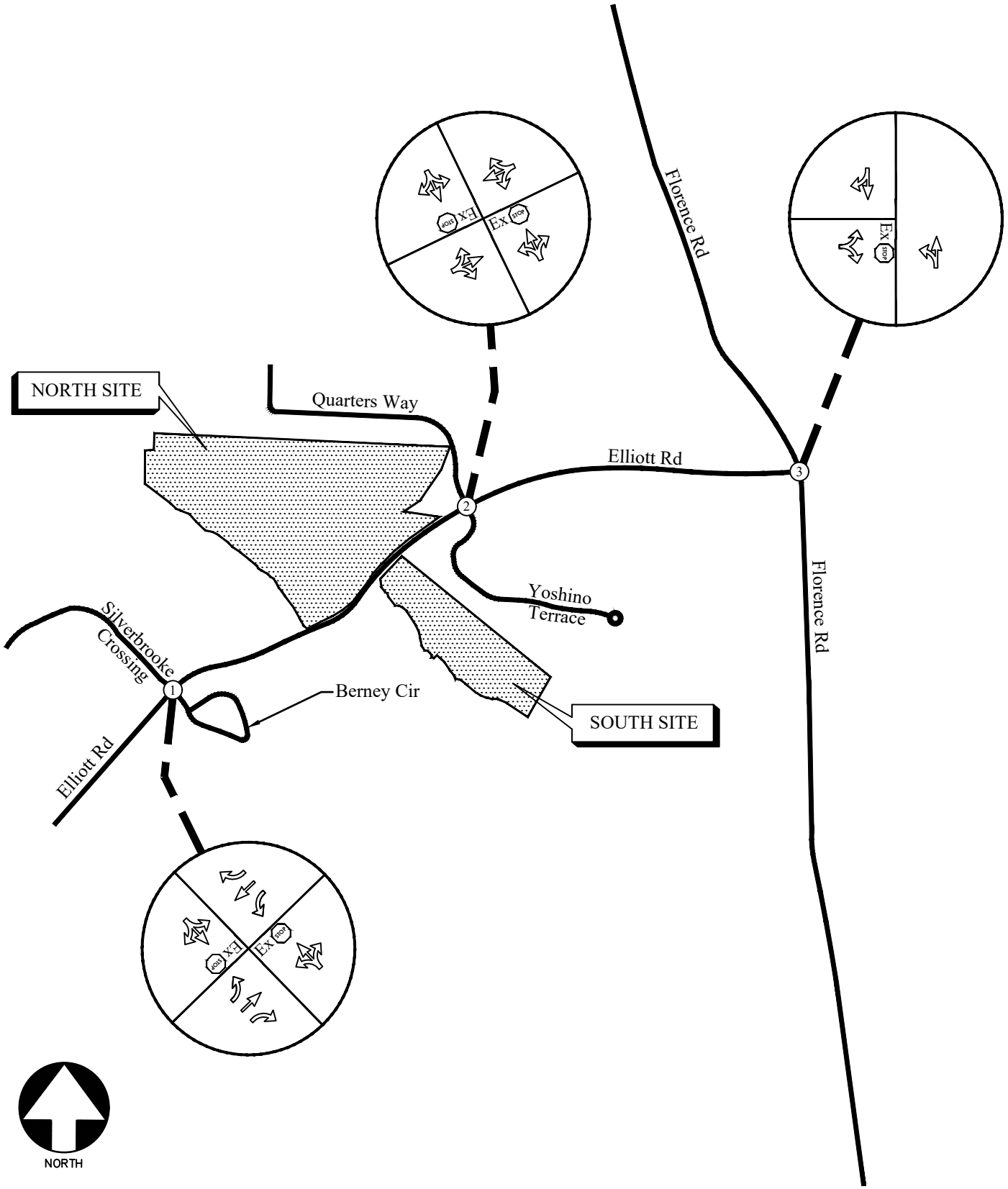

EXISTING TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 3

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4.2 Existing Traffic Operations

Existing 2024 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

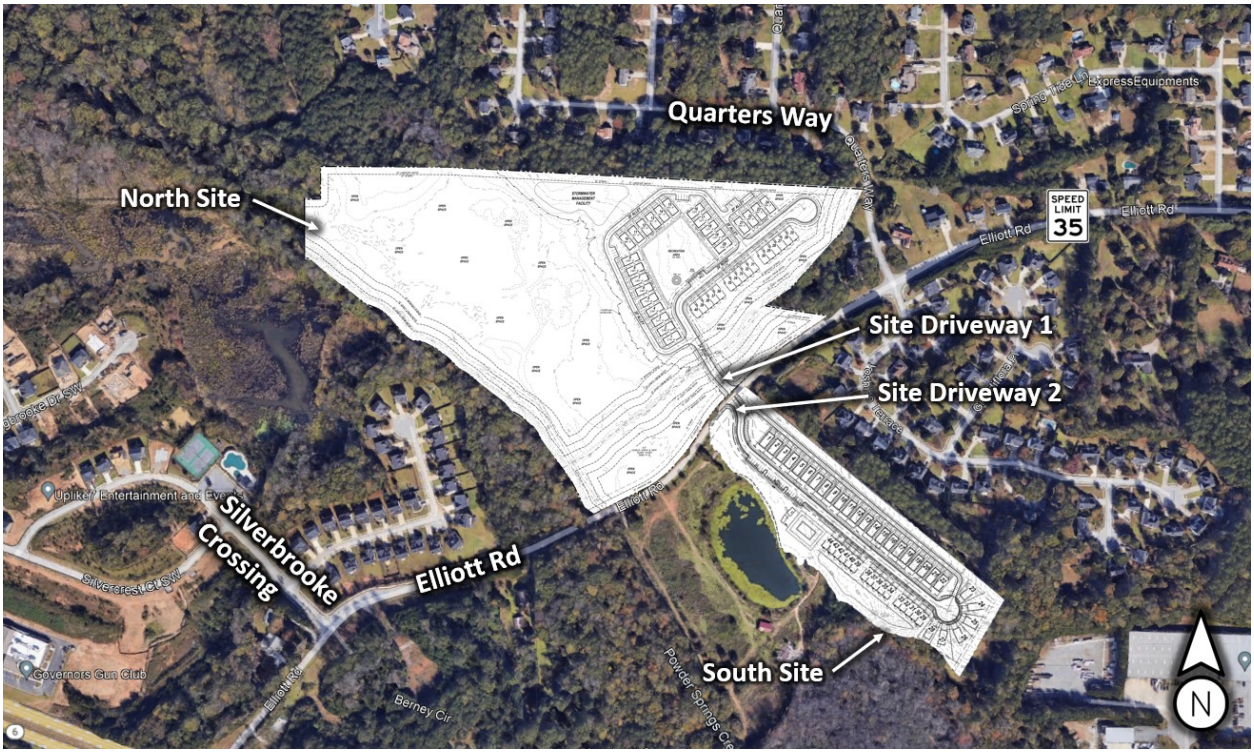
TABLE 3 – EXISTING INTERSECTION OPERATIONS

	Intersection	Traffic Control	LOS (Delay)	
			AM Peak Hour	PM Peak Hour
1	**Elliott Rd @ Berney Cir/ Silverbrooke Crossing** -Eastbound Left -Westbound Left -Northbound Approach -Southbound Approach	Stop Controlled on NB and SB Approaches	 A (7.4) A (7.4) A (9.2) A (9.7)	 A (7.5) A (7.3) A (9.5) A (9.8)
2	**Elliott Rd @ Quarters Way / Yoshino Terrace** -Eastbound Left -Westbound Left -Northbound Approach -Southbound Approach	Stop Controlled on NB and SB Approaches	 A (7.4) A (7.5) A (9.5) A (9.8)	 A (7.5) A (7.4) A (9.5) A (9.7)
3	**Elliott Rd @ Florence Rd** -Eastbound Approach -Northbound Left	Stop Controlled on EB Approach	 C (20.6) A (8.4)	 C (15.6) A (8.0)

The results of the existing traffic operations analysis indicate that the stop-controlled approaches at all the un-signalized study intersections are operating at levels-of-service “C” or better in both the AM and PM peak hours.

5.0 PROPOSED DEVELOPMENT

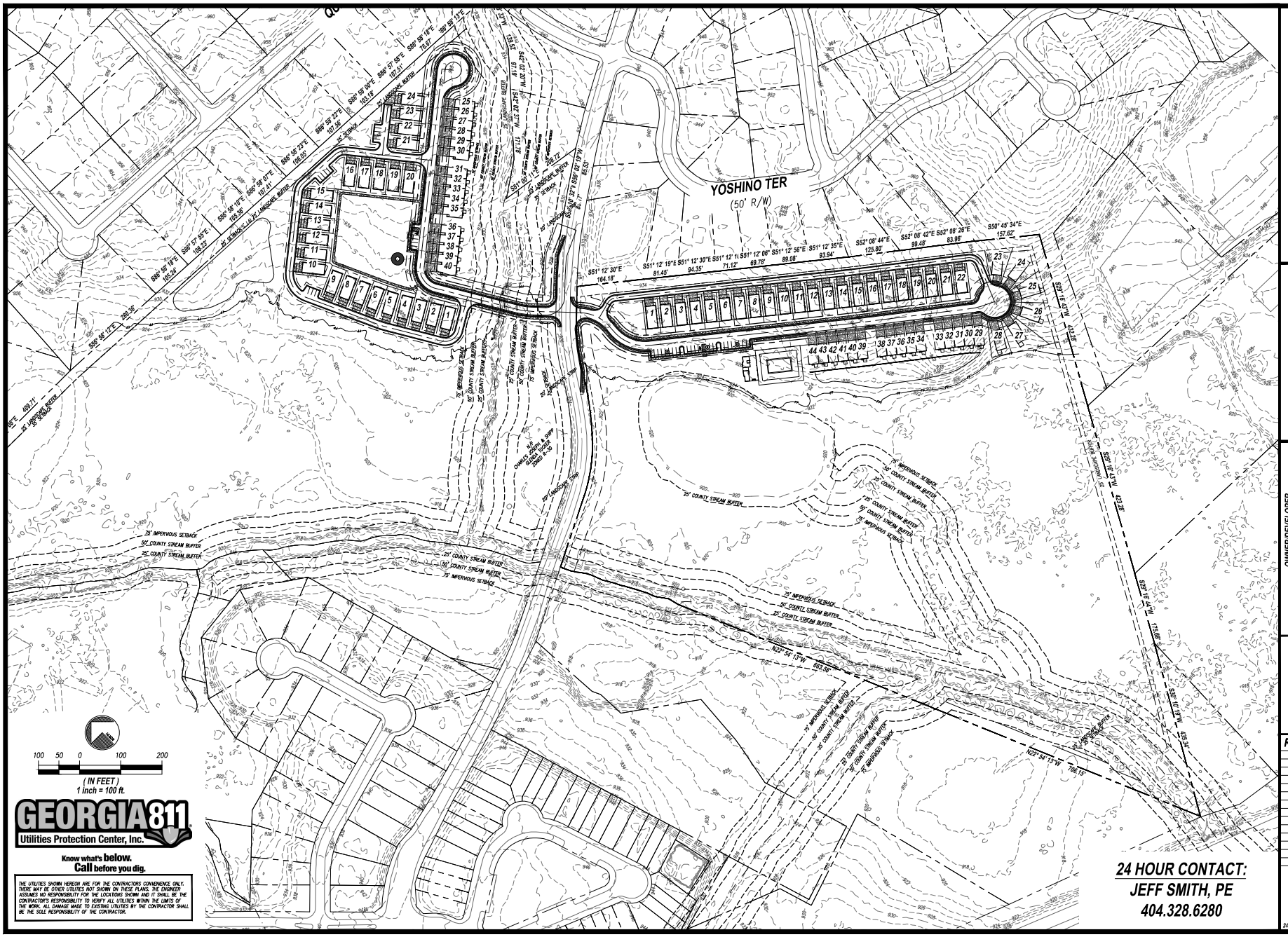
The proposed development will consist of two separate sections to the north and south of Elliott Road. The north site consists of 24 units of single family detached housing and 16 townhomes. The south site consists of 28 units of single family detached housing and 16 townhomes.



The development proposes access at the following locations (both driveways will be aligned):

- Site Driveway 1 (North Section): Full access driveway on Elliott Road
- Site Driveway 2 (South Section): Full access driveway on Elliott Road

A site plan is shown in Figure 4.



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ZONING PLAN

ELLIOTT ROAD SUBDIVISION

LAND LOTS 598, 599, 660, & 661
19TH DISTRICT
CITY OF POWDER SPRINGS, GEORGIA

OWNER/DEVELOPER
TRATON HOMES
720 KENNESAW AVENUE
MARIETTA, GA 30060
PHONE: 678.303.2134

REVISIONS

OVERALL LAND PLAN

LP8

24004 LP8.DWG

5.1 Trip Generation

Trip generation estimates for the project were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE Land Uses: *210 – Single-Family Detached Housing and215 – Single-Family Attached Housing.* The calculated total trip generation for the proposed development is shown in Table 4A and 4B.

TABLE 4A – TRIP GENERATION (NORTH SECTION)

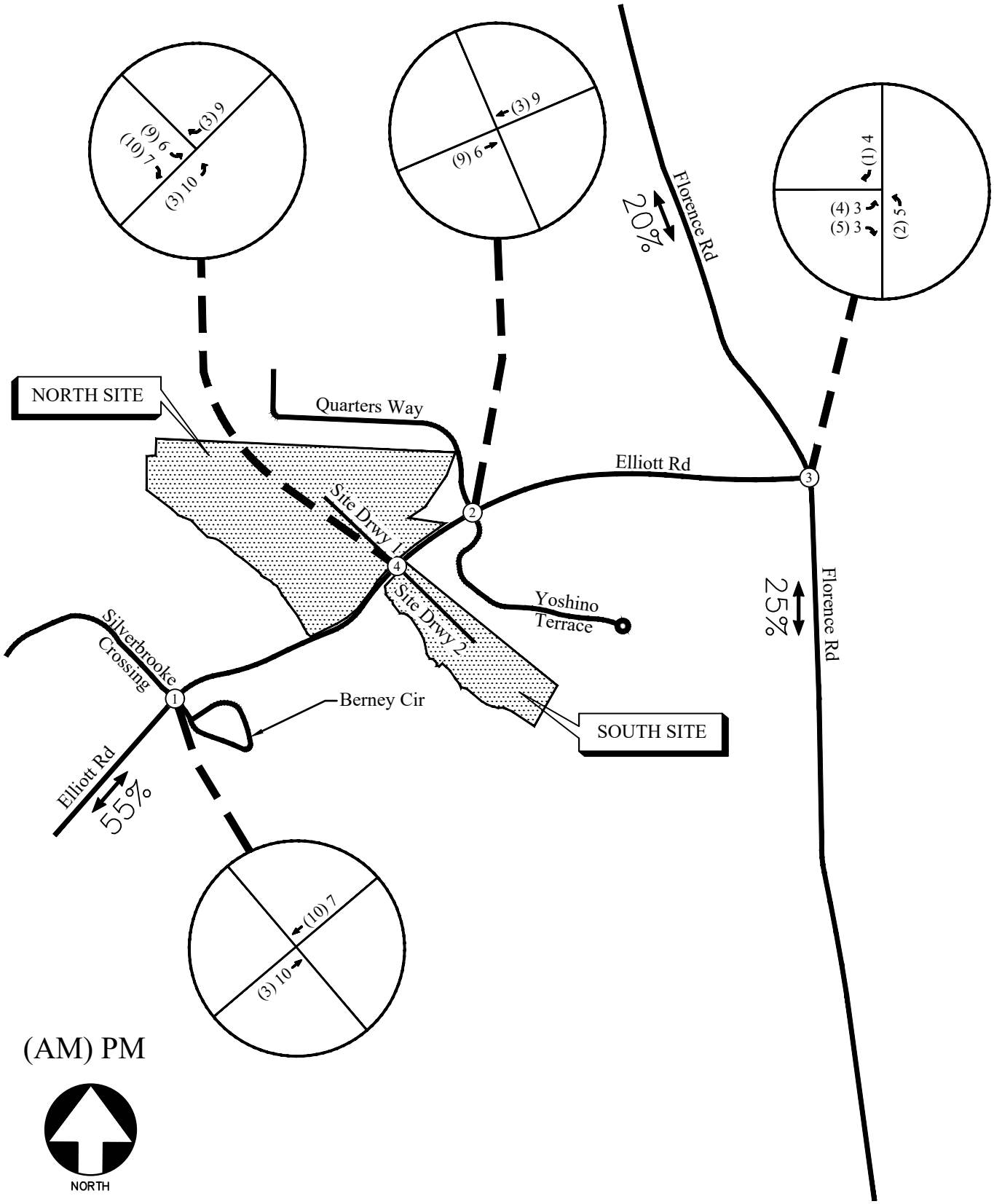
Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-Way
ITE 210 – Single-Family Detached Housing	24 units	4	13	17	14	9	23	226
ITE 215 – Single-Family Attached Housing	16 units	2	6	8	5	4	9	115
Total Trips		**6**	**19**	**25**	**19**	**13**	**32**	**341**

TABLE 4B – TRIP GENERATION (SOUTH SECTION)

Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-Way
ITE 210 – Single-Family Detached Housing	28 units	5	15	20	17	9	26	264
ITE 215 – Single-Family Attached Housing	16 units	2	6	8	5	4	9	115
Total Trips		**7**	**21**	**28**	**22**	**13**	**35**	**379**

5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Table 4A and 4B, were assigned to the study area intersections based on this distribution. The outer-leg distribution and AM/PM peak hour new traffic generated by the north and south sites are shown in Figure 5 and 6, respectively.



TRIP DISTRIBUTION AND NEW SITE-GENERATED (NORTH SECTION) WEEKDAY PEAK HOUR VOLUMES

FIGURE 5

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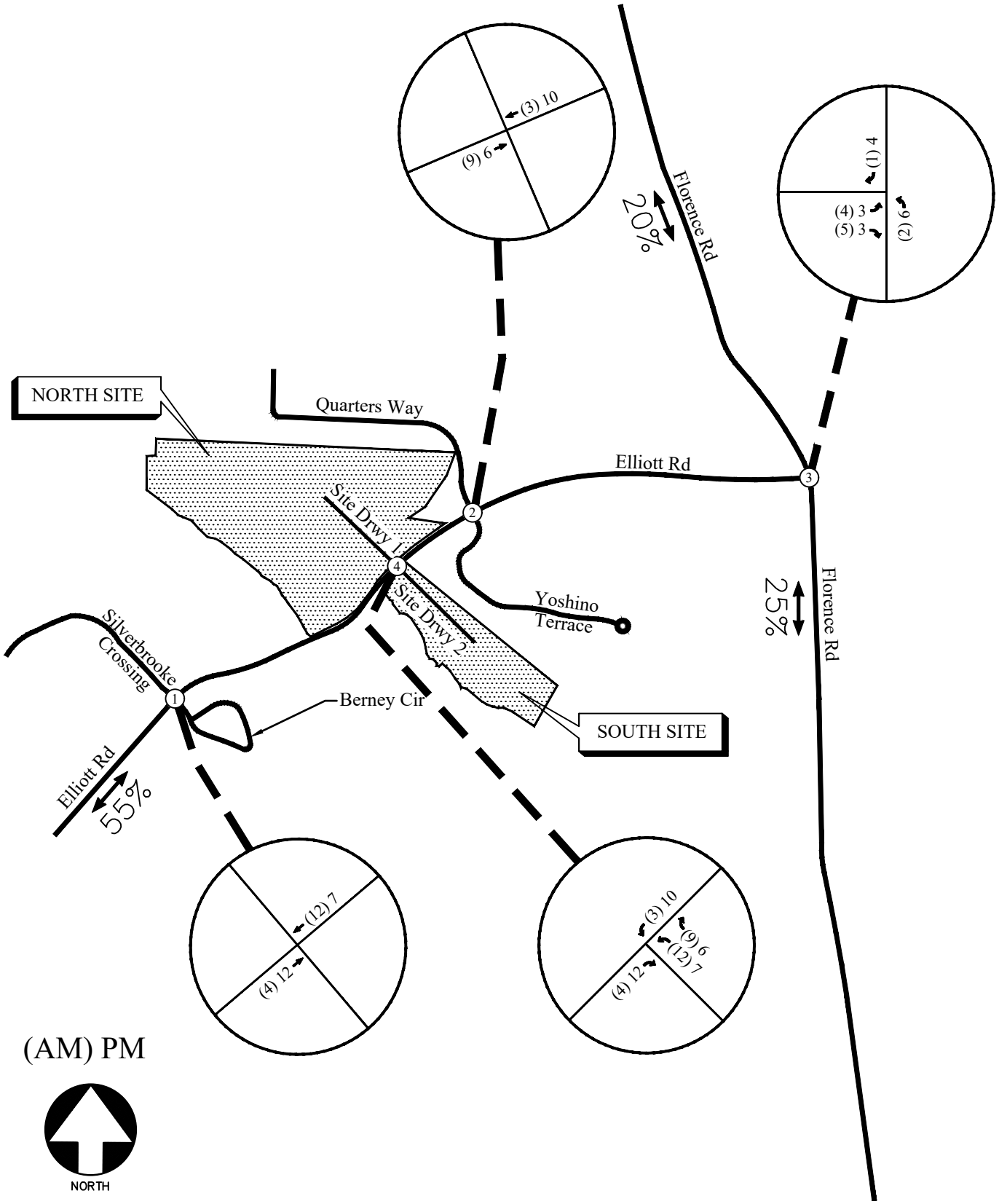

TRIP DISTRIBUTION AND NEW SITE-GENERATED (SOUTH SECTION) WEEKDAY PEAK HOUR VOLUMES

FIGURE 6

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6.0 FUTURE 2026 TRAFFIC ANALYSIS

The future 2026 traffic operations are analysed for the "Build" and "No-Build" conditions.

6.1 Future "No-Build" Conditions

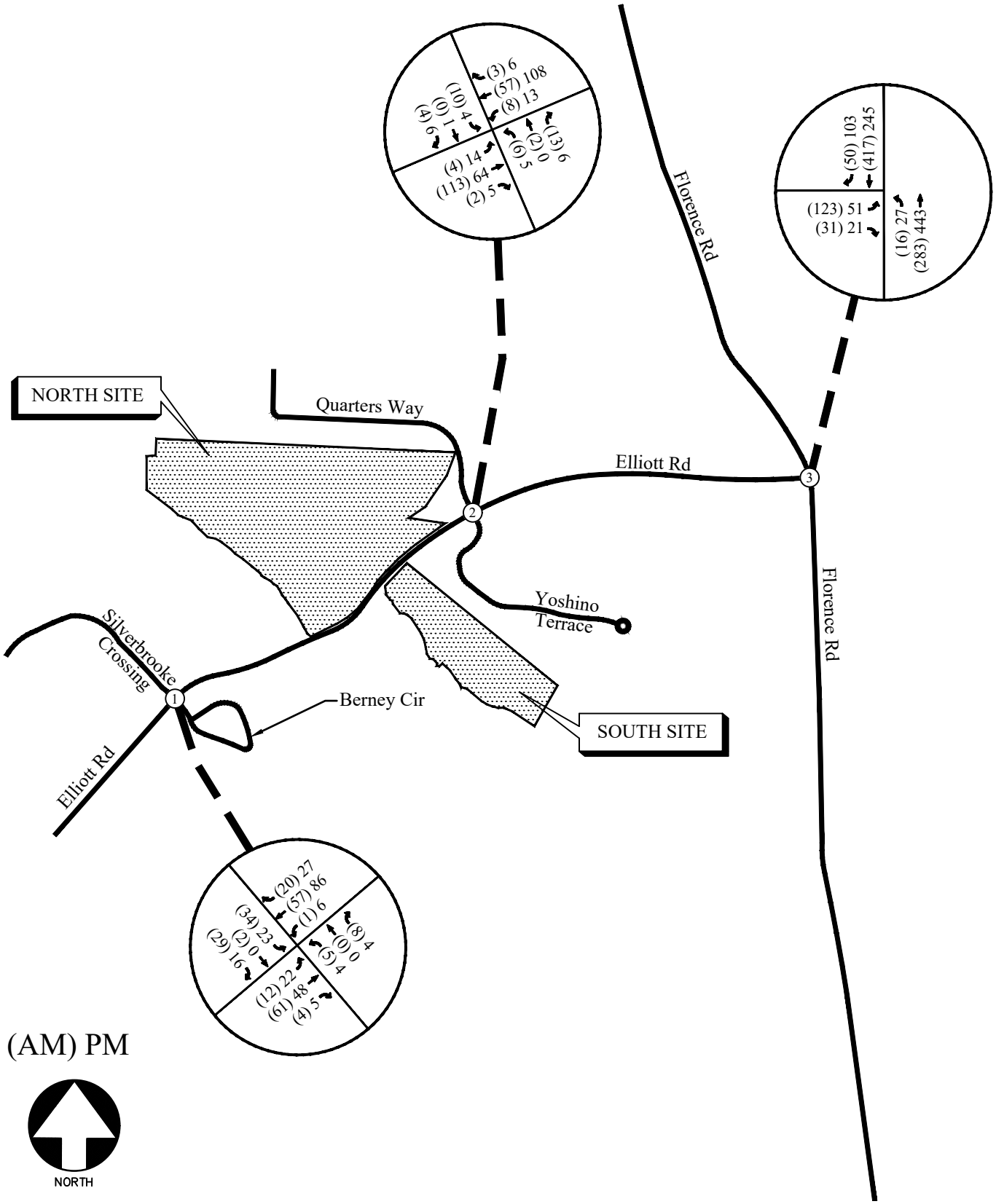
The "No-Build" (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future "No-Build" volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of through traffic.

6.1.1 Annual Traffic Growth

In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last five (2018-2019 and 2021-2023) years revealed growth of approximately 1% in the area was used in the analysis. This growth factor was applied to the existing traffic volumes between collector and arterial roadways to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future "No-Build" volumes on the roadway are shown in Figure 7.

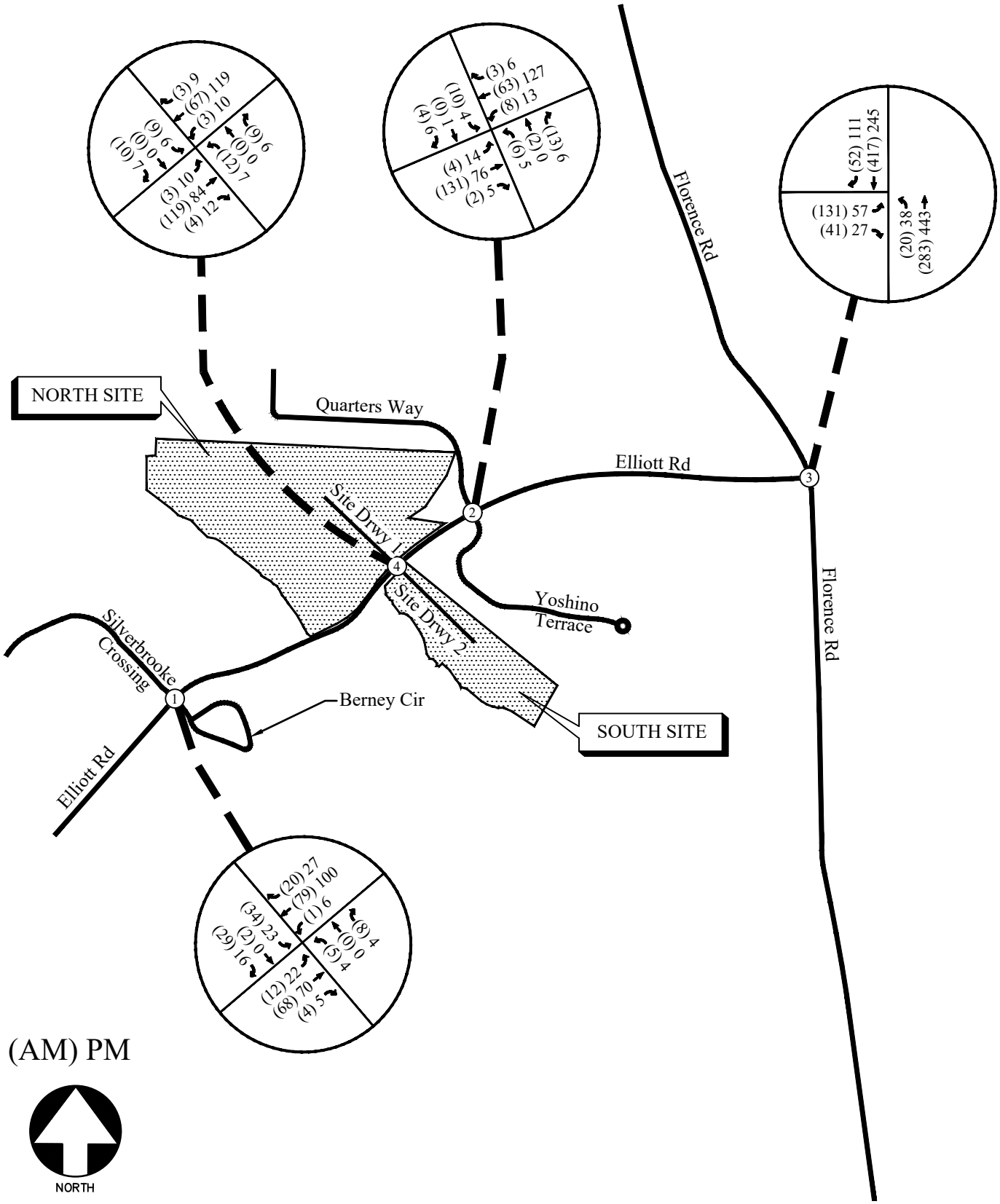
6.2 Future "Build" Conditions

The "Build" or development conditions include the estimated background traffic from the "No-Build" conditions plus the added traffic from the proposed development. In order to evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5 and 6) were added to base traffic volumes (Figure 7) to calculate the future traffic volumes after the construction of the development. These total future "Build" traffic volumes are shown in Figure 8.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 7

A&R Engineering Inc.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 8

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6.3 Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for all site driveways per GDOT standards. The analyses below are based off the trip distribution included in Section 5.2. According to the trip distribution, the 24-hour two-way volume entering and exiting the entire site for north section is 341 vehicles and for south section is 317 vehicles.

6.3.1 Left Turn Lane Analysis

For a two-lane roadway with an AADT less than 6,000 vehicles and a posted speed limit of 35 mph, the daily site-generated traffic left-turn movements threshold to warrant a turn lane is 300 left-turning vehicles a day. The projected left turn volumes per day at the site driveways are shown in Table 5 below.

TABLE 5 – GDOT REQUIREMENTS FOR LEFT TURN LANES

Intersection	Left Turn Traffic (% total entering)	Left Turn Volume (vehicles/day)	Roadway Speed / # Lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants Met?
Elliot Road @ Site Driveway 1 (North Section)	55%	**94** (Total Trips) ÷ 2 × 0.55 = (341) ÷ 2 x 0.55 = 94	35 mph / 2-Lane / < 6,000	300	No
Elliot Road @ Site Driveway 2 (South Section)	45%	**71** (Total Trips) ÷ 2 × 0.45 = (317) ÷ 2 x 0.45 = 71	35 mph / 2-Lane / < 6,000	300	No

Left turn lanes on Elliot Road are not required at Site Driveway 1 and Site Driveway 2.

6.3.2 Deceleration Turn Lane Analysis

For a two-lane roadway with an AADT less than 6,000 vehicles and a posted speed limit of 25 mph, the daily site-generated traffic right turns movements threshold to warrant a deceleration lane is 200 right-turning vehicles a day. For a Four-lane roadway with an AADT greater than or equal to 10,000 vehicles and a posted speed limit of 40 mph, the daily site-generated traffic right turns movements threshold to warrant a deceleration lane is 75 right-turning vehicles a day. The projected daily right turn volumes at the site driveways are shown in Table 6.

TABLE 6 – GDOT REQUIREMENTS FOR DECELERATION LANES

Intersection	Right Turn Traffic (% total entering)	Right Turn Volume (vehicles/day)	Roadway Speed / # Lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants Met?
Elliot Road @ Site Driveway 1 (North Section)	45%	**77** (Total Trips) ÷ 2 × 0.45 = (341) ÷ 2 x 0.45 = 77	35 mph / 2-Lane / < 6,000	200	No
Elliot Road @ Site Driveway 2 (South Section)	55%	**87** (Total Trips) ÷ 2 × 0.55 = (317) ÷ 2 x 0.55 = 87	35 mph / 2-Lane / < 6,000	200	No

Deceleration lanes on Elliot Road are not required at Site Driveway 1 and Site Driveway 2.

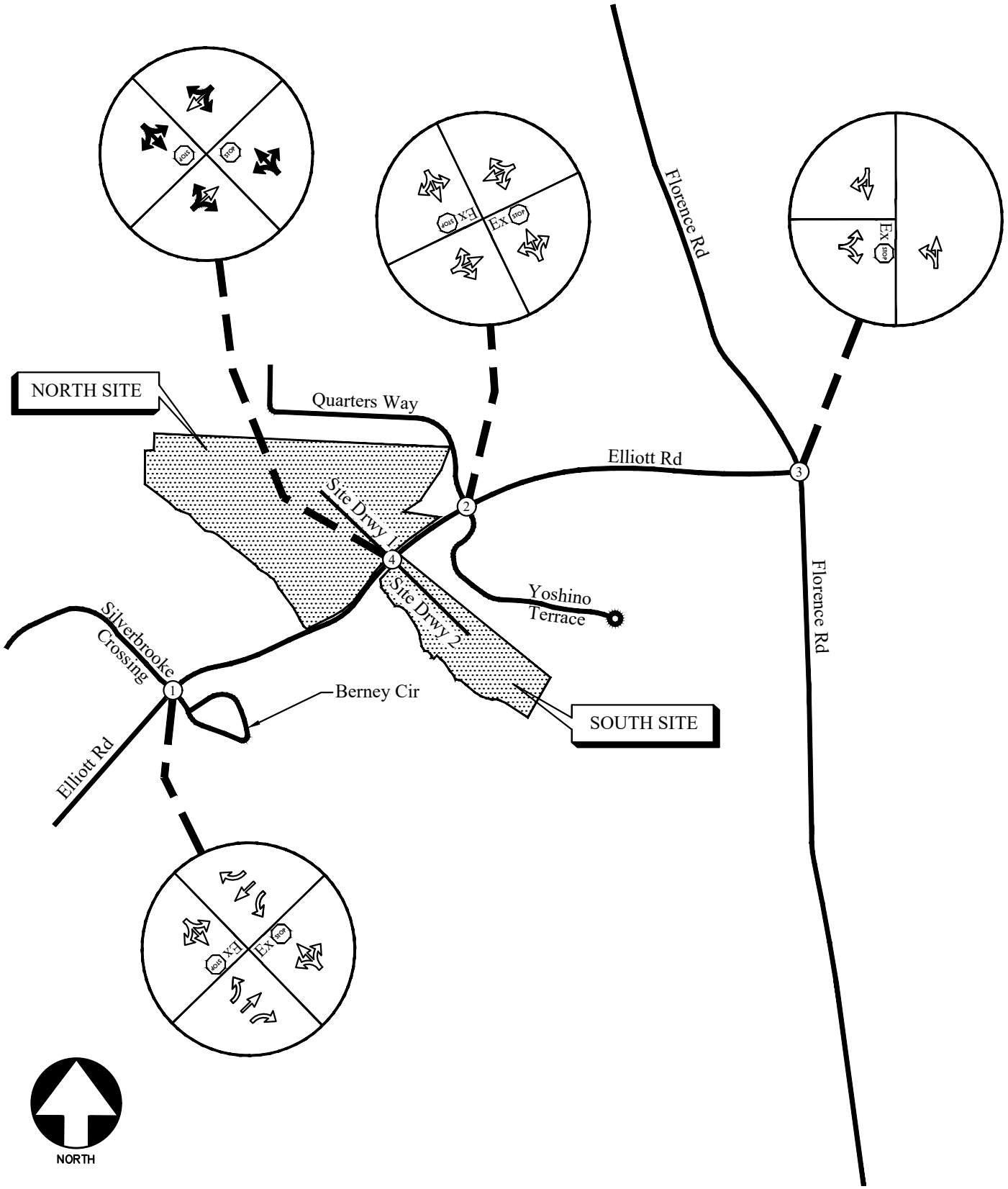
6.4 Future Traffic Operations

The future "No-Build" and "Build" traffic operations were analysed using the volumes in Figure 7 and Figure 8, respectively. The results of the future traffic operations analysis are shown below in Table 5. Recommendations on traffic control and lane geometry are shown in Figure 9.

TABLE 5 – FUTURE INTERSECTION OPERATIONS

	Intersection	Future Condition: LOS (Delay)			
		NO-BUILD		BUILD	
		AM Peak	PM Peak	AM Peak	PM Peak
1	**Elliott Rd @ Berney Cir/ Silverbrooke Crossing**				
	-Eastbound Left	A (7.4)	A (7.5)	A (7.5)	A (7.6)
	-Westbound Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
	-Northbound Approach	A (9.3)	A (9.5)	A (9.4)	A (9.8)
	-Southbound Approach	A (9.7)	A (9.9)	A (9.9)	B (10.1)
2	**Elliott Rd @ Quarters Way / Yoshino Terrace**				
	-Eastbound Left	A (7.4)	A (7.5)	A (7.4)	A (7.5)
	-Westbound Left	A (7.5)	A (7.4)	A (7.5)	A (7.4)
	-Northbound Approach	A (9.5)	A (9.5)	A (9.7)	A (9.7)
	-Southbound Approach	A (9.8)	A (9.7)	B (10.0)	A (9.9)
3	**Elliott Rd @ Florence Rd**				
	-Eastbound Approach	C (21.3)	C (16.0)	C (22.6)	C (16.7)
	-Northbound Left	A (8.4)	A (8.1)	A (8.4)	A (8.1)
4	**Elliott Rd @ Site Drwy 1/Site Drwy 2**				
	-Eastbound Left			A (7.4)	A (7.5)
	-Westbound Left	-	-	A (7.5)	A (7.4)
	-Northbound Approach (South Site)			A (9.7)	A (9.8)
	-Southbound Approach (North Site)			A (9.4)	A (9.7)

The results of the future "No-Build" and "Build" conditions traffic analyses indicate that a majority of the approaches at the unsignalized study intersections will operate at a level of service of "A" during the AM and PM peak hours. The eastbound approach of Elliot Road and Florence Road will operate at a level of service "C" in the "No-Build" and "Build" conditions. It is not unusual for stop sign-controlled intersections to operate at a lower level of service due to the time gap that is required between vehicles on Florence Street for vehicles at the eastbound approach to enter the intersection.



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 9

A&R Engineering Inc.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed residential development located at Elliott Road in the city of Powder Springs, Cobb County, Georgia. The development will consist of two separate sections to the north and south of Elliott Road. The north site consists of 24 units of single family detached housing and 16 townhomes. The south site consists of 28 units of single family detached housing and 16 townhomes.

The development proposes access at the following locations (both driveways will be aligned):

- Site Driveway 1 (North Site): Full access driveway on Elliott Road
- Site Driveway 2 (South Site): Full access driveway on Elliott Road

Existing and future operations after completion of the project were analysed at the intersections of:

1. Elliott Road at Silverbrooke Crossing / Berney Circle
2. Elliott Road at Quarters Way / Yoshino Terrace
3. Elliott Road at Florence Road
4. Elliott Road at Site Driveway 1 (North Site) / Site Driveway 2 (South Site)

The analysis included the evaluation of future operations for "No-Build" and "Build" conditions, with the differences between "No-Build" and "Build" accounting for an increase in traffic due to the proposed development. The results of future "No-Build" and "Build" conditions traffic analyses indicate that the stop-controlled approaches at all un-signalized intersections will be operating at levels of service "C" or better in both AM and PM peak hours. Based on the analysis, the proposed development will have minimal impact on traffic operations in the study network.

7.1 Recommendations for Site Access Configuration

The following access configurations are recommended at the proposed site driveway intersections:

- Site Driveway 1 (North Site): Full access driveway on Elliott Road, aligned with Site Driveway 2
    - One entering lane and one exiting lane
    - Stop-sign controlled on the driveway approach with Elliott Road remaining free flow
    - Left turn lane and deceleration lane are not required per GDOT standards for entering traffic on Elliott Road
    - Provide adequate sight distance per AASHTO standards

- Site Driveway 2 (South Site): Full access driveway on Elliott Road, aligned with Site Driveway 1
    - One entering lane and one exiting lane
    - Stop-sign controlled on the driveway approach with Elliott Road remaining free flow
    - Left turn lane and deceleration lane are not required per GDOT standards for entering traffic on Elliott Road
    - Provide adequate sight distance per AASHTO standards

Appendix

EXISTING INTERSECTION TRAFFIC COUNTS

A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Quarters Way
7-9 am | 4-6 pm

File Name : 20240296
Site Code : 20240296
Start Date : 08-06-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Yoshino Terrace Northbound				Quarters Way Southbound				Elliott Rd Eastbound				Elliott Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	5	6	2	0	0	2	3	22	0	25	0	4	0	4	37
07:15 AM	3	0	3	6	4	0	1	5	1	24	0	25	3	8	1	12	48
07:30 AM	2	0	2	4	2	0	2	4	0	26	1	27	0	13	1	14	49
07:45 AM	1	0	4	5	0	0	0	0	1	32	1	34	1	18	1	20	59
Total	7	0	14	21	8	0	3	11	5	104	2	111	4	43	3	50	193
08:00 AM	0	2	4	6	4	0	1	5	2	29	0	31	4	17	0	21	63
08:15 AM	0	0	2	2	0	0	0	0	0	13	2	15	3	13	3	19	36
08:30 AM	1	1	3	5	2	0	2	4	1	15	1	17	0	21	2	23	49
08:45 AM	3	0	0	3	0	0	0	0	1	12	3	16	2	8	0	10	29
Total	4	3	9	16	6	0	3	9	4	69	6	79	9	59	5	73	177
*** BREAK ***																	
04:00 PM	1	0	1	2	0	1	1	2	1	16	1	18	4	30	0	34	56
04:15 PM	3	0	0	3	1	0	4	5	2	10	3	15	2	18	0	20	43
04:30 PM	2	0	0	2	1	0	1	2	3	17	1	21	4	26	2	32	57
04:45 PM	2	0	0	2	0	0	1	1	3	19	1	23	2	35	2	39	65
Total	8	0	1	9	2	1	7	10	9	62	6	77	12	109	4	125	221
05:00 PM	0	0	0	0	2	0	3	5	1	11	1	13	3	26	2	31	49
05:15 PM	1	0	6	7	1	1	1	3	7	16	2	25	4	19	0	23	58
05:30 PM	0	0	2	2	0	0	2	2	1	8	2	11	4	13	1	18	33
05:45 PM	3	0	5	8	1	0	2	3	2	12	3	17	2	25	3	30	58
Total	4	0	13	17	4	1	8	13	11	47	8	66	13	83	6	102	198
Grand Total	23	3	37	63	20	2	21	43	29	282	22	333	38	294	18	350	789
Apprch %	36.5	4.8	58.7		46.5	4.7	48.8		8.7	84.7	6.6		10.9	84	5.1		
Total %	2.9	0.4	4.7	8	2.5	0.3	2.7	5.4	3.7	35.7	2.8	42.2	4.8	37.3	2.3	44.4	

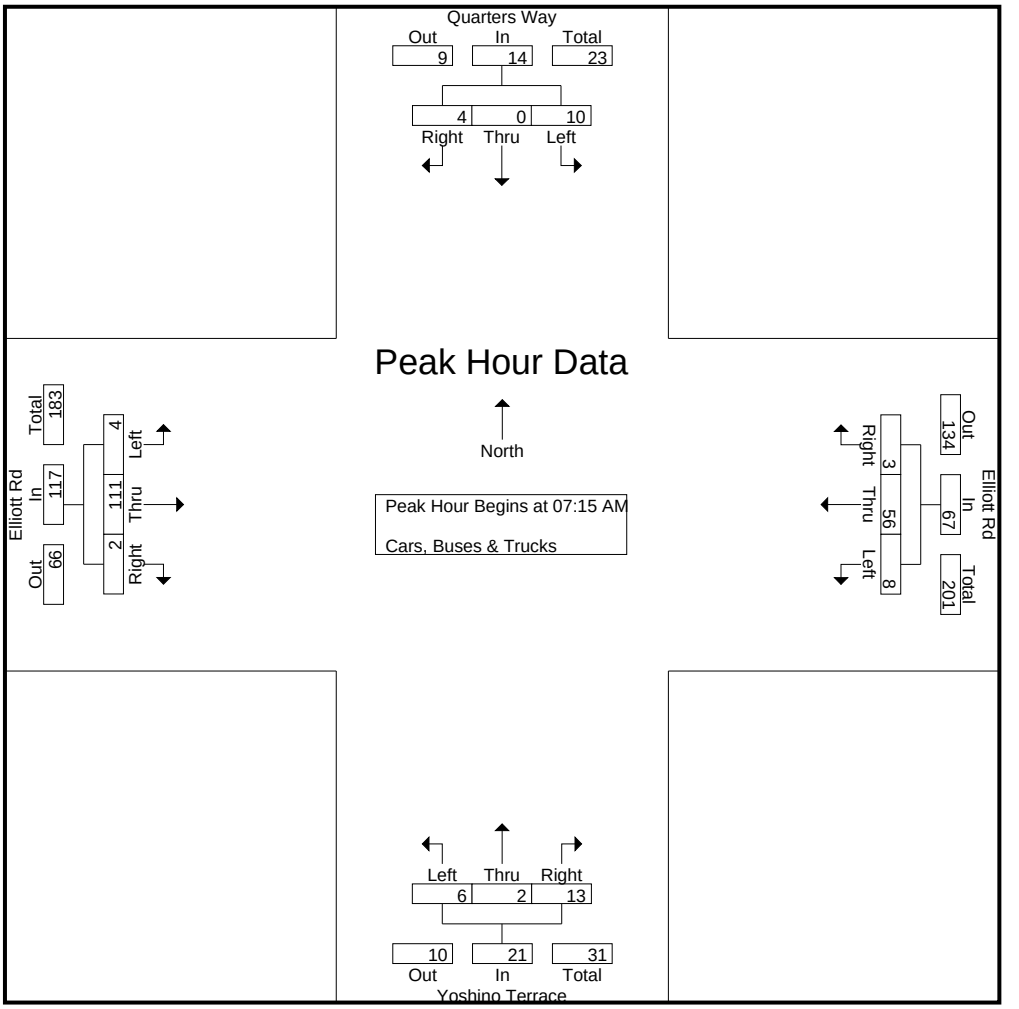
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Quarters Way
7-9 am | 4-6 pm

File Name : 20240296
Site Code : 20240296
Start Date : 08-06-2024
Page No : 2

	Yoshino Terrace Northbound				Quarters Way Southbound				Elliott Rd Eastbound				Elliott Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**3**	0	3	**6**	**4**	0	1	**5**	1	24	0	25	3	8	**1**	12	48
07:30 AM	2	0	2	4	2	0	**2**	4	0	26	**1**	27	0	13	1	14	49
07:45 AM	1	0	**4**	5	0	0	0	0	1	**32**	1	**34**	1	**18**	1	20	59
08:00 AM	0	**2**	4	6	4	0	1	5	**2**	29	0	31	**4**	17	0	**21**	**63**
Total Volume	6	2	13	21	10	0	4	14	4	111	2	117	8	56	3	67	219
% App. Total	28.6	9.5	61.9		71.4	0	28.6		3.4	94.9	1.7		11.9	83.6	4.5		
PHF	.500	.250	.813	.875	.625	.000	.500	.700	.500	.867	.500	.860	.500	.778	.750	.798	.869



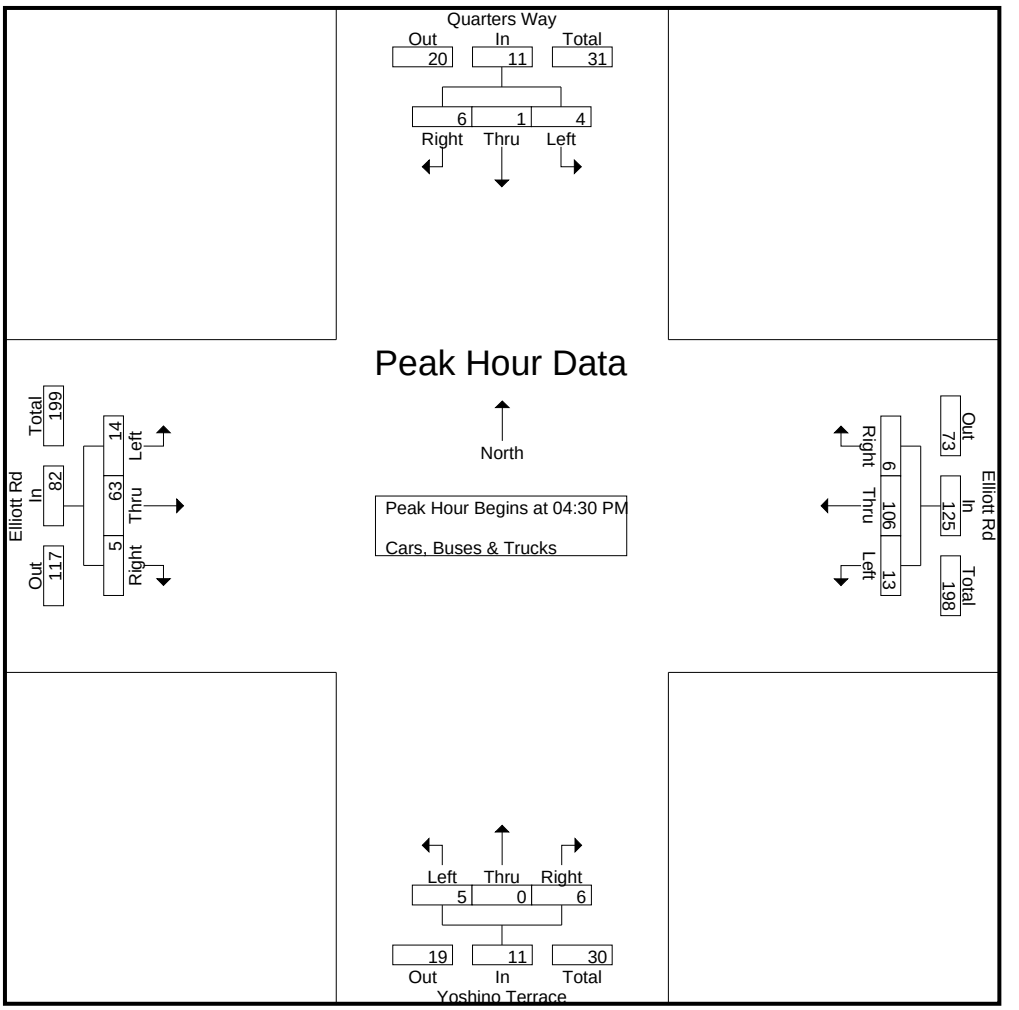
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Quarters Way
7-9 am | 4-6 pm

File Name : 20240296
Site Code : 20240296
Start Date : 08-06-2024
Page No : 3

	Yoshino Terrace Northbound				Quarters Way Southbound				Elliott Rd Eastbound				Elliott Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**2**	0	0	2	1	0	1	2	3	17	1	21	**4**	26	**2**	32	57
04:45 PM	2	0	0	2	0	0	1	1	3	**19**	1	23	2	**35**	2	**39**	**65**
05:00 PM	0	0	0	0	**2**	0	**3**	**5**	1	11	1	13	3	26	2	31	49
05:15 PM	1	0	**6**	**7**	1	**1**	1	3	**7**	16	**2**	**25**	4	19	0	23	58
Total Volume	5	0	6	11	4	1	6	11	14	63	5	82	13	106	6	125	229
% App. Total	45.5	0	54.5		36.4	9.1	54.5		17.1	76.8	6.1		10.4	84.8	4.8		
PHF	.625	.000	.250	.393	.500	.250	.500	.550	.500	.829	.625	.820	.813	.757	.750	.801	.881



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Florence Road
7-9 am | 4-6 pm

File Name : 20240297
Site Code : 20240297
Start Date : 08-06-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Florence Road Northbound				Florence Road Southbound				Elliott Road Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	72	0	75	0	76	5	81	27	0	4	31	0	0	0	0	187
07:15 AM	3	74	0	77	0	78	8	86	29	0	9	38	0	0	0	0	201
07:30 AM	3	66	0	69	0	112	16	128	30	0	9	39	0	0	0	0	236
07:45 AM	5	68	0	73	0	116	11	127	31	0	7	38	0	0	0	0	238
Total	14	280	0	294	0	382	40	422	117	0	29	146	0	0	0	0	862
08:00 AM	5	69	0	74	0	103	14	117	31	0	5	36	0	0	0	0	227
08:15 AM	4	74	0	78	0	81	15	96	13	0	6	19	0	0	0	0	193
08:30 AM	0	80	0	80	0	102	15	117	15	0	5	20	0	0	0	0	217
08:45 AM	2	56	0	58	0	63	11	74	8	0	6	14	0	0	0	0	146
Total	11	279	0	290	0	349	55	404	67	0	22	89	0	0	0	0	783
*** BREAK ***																	
04:00 PM	3	101	0	104	0	75	22	97	8	0	8	16	0	0	0	0	217
04:15 PM	8	93	0	101	0	64	17	81	11	0	0	11	0	0	0	0	193
04:30 PM	8	108	0	116	0	63	26	89	14	0	3	17	0	0	0	0	222
04:45 PM	6	112	0	118	0	53	35	88	12	0	5	17	0	0	0	0	223
Total	25	414	0	439	0	255	100	355	45	0	16	61	0	0	0	0	855
05:00 PM	6	108	0	114	0	58	21	79	9	0	9	18	0	0	0	0	211
05:15 PM	6	106	0	112	0	66	19	85	15	0	4	19	0	0	0	0	216
05:30 PM	9	114	0	123	0	54	19	73	8	0	1	9	0	0	0	0	205
05:45 PM	12	119	0	131	0	55	23	78	15	0	4	19	0	0	0	0	228
Total	33	447	0	480	0	233	82	315	47	0	18	65	0	0	0	0	860
Grand Total	83	1420	0	1503	0	1219	277	1496	276	0	85	361	0	0	0	0	3360
Apprch %	5.5	94.5	0		0	81.5	18.5		76.5	0	23.5		0	0	0		
Total %	2.5	42.3	0	44.7	0	36.3	8.2	44.5	8.2	0	2.5	10.7	0	0	0	0	

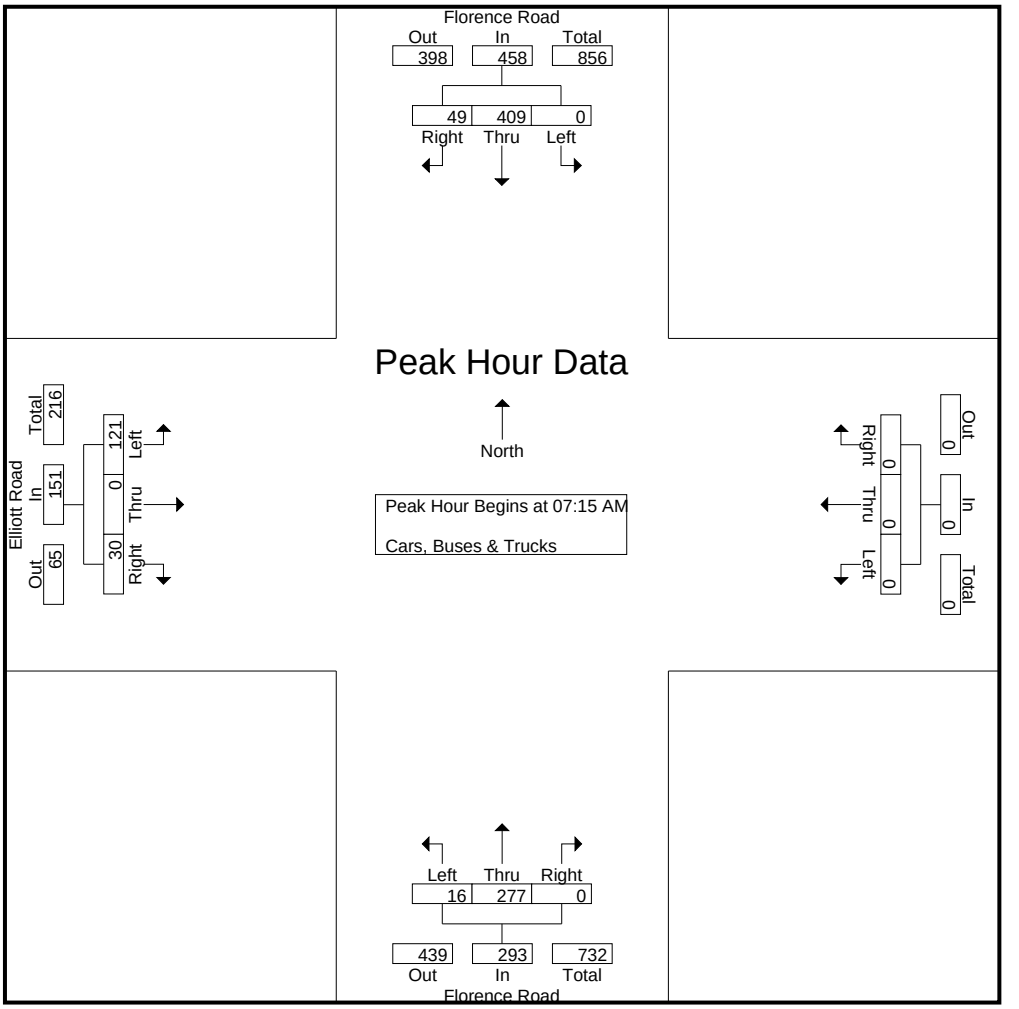
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Florence Road
7-9 am | 4-6 pm

File Name : 20240297
Site Code : 20240297
Start Date : 08-06-2024
Page No : 2

	Florence Road Northbound				Florence Road Southbound				Elliott Road Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	**74**	0	**77**	0	78	8	86	29	0	**9**	38	0	0	0	0	201
07:30 AM	3	66	0	69	0	112	**16**	**128**	30	0	9	**39**	0	0	0	0	236
07:45 AM	**5**	68	0	73	0	**116**	11	127	**31**	0	7	38	0	0	0	0	**238**
08:00 AM	5	69	0	74	0	103	14	117	31	0	5	36	0	0	0	0	227
Total Volume	16	277	0	293	0	409	49	458	121	0	30	151	0	0	0	0	902
% App. Total	5.5	94.5	0		0	89.3	10.7		80.1	0	19.9		0	0	0		
PHF	.800	.936	.000	.951	.000	.881	.766	.895	.976	.000	.833	.968	.000	.000	.000	.000	.947



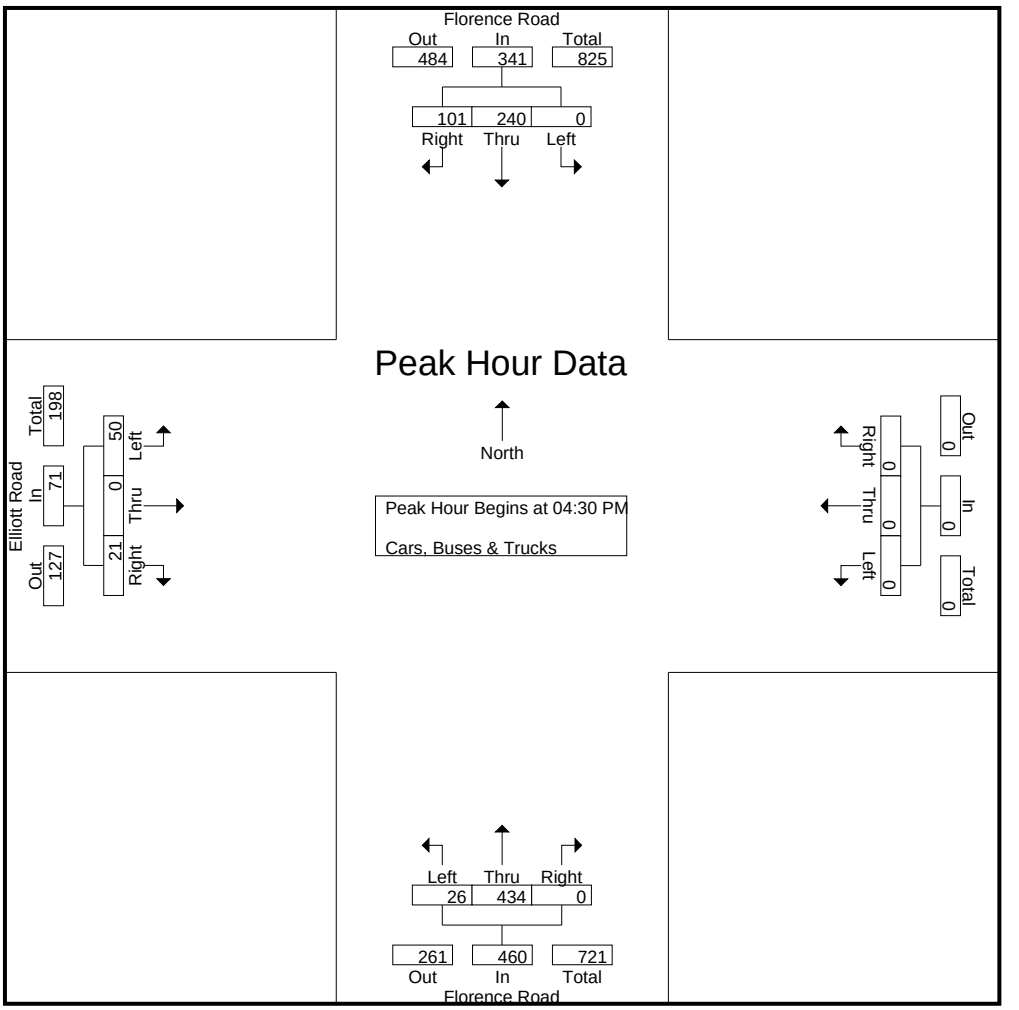
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Florence Road
7-9 am | 4-6 pm

File Name : 20240297
Site Code : 20240297
Start Date : 08-06-2024
Page No : 3

	Florence Road Northbound				Florence Road Southbound				Elliott Road Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**8**	108	0	116	0	63	26	**89**	14	0	3	17	0	0	0	0	222
04:45 PM	6	**112**	0	**118**	0	53	**35**	88	12	0	5	17	0	0	0	0	**223**
05:00 PM	6	108	0	114	0	58	21	79	9	0	**9**	18	0	0	0	0	211
05:15 PM	6	106	0	112	0	**66**	19	85	**15**	0	4	**19**	0	0	0	0	216
Total Volume	26	434	0	460	0	240	101	341	50	0	21	71	0	0	0	0	872
% App. Total	5.7	94.3	0		0	70.4	29.6		70.4	0	29.6		0	0	0		
PHF	.813	.969	.000	.975	.000	.909	.721	.958	.833	.000	.583	.934	.000	.000	.000	.000	.978



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Silverbrook Crossing
7-9 am | 4-6 pm

File Name : 20240298
Site Code : 20240298
Start Date : 08-06-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Berney Cir Northbound				Silverbrook Crossing Southbound				Elliott Road Eastbound				Elliott Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	8	0	3	11	0	18	0	18	0	5	2	7	36
07:15 AM	2	0	2	4	8	0	9	17	2	16	1	19	0	10	4	14	54
07:30 AM	1	0	1	2	11	1	9	21	1	18	0	19	0	15	7	22	64
07:45 AM	0	0	3	3	9	0	10	19	5	22	1	28	0	16	4	20	70
Total	3	0	6	9	36	1	31	68	8	74	2	84	0	46	17	63	224
08:00 AM	3	0	1	4	5	0	4	9	1	9	0	10	0	12	3	15	38
08:15 AM	1	0	3	4	8	1	5	14	5	11	3	19	1	13	6	20	57
08:30 AM	2	0	0	2	7	0	3	10	1	8	0	9	0	7	4	11	32
08:45 AM	1	0	1	2	3	0	5	8	4	8	0	12	1	10	1	12	34
Total	7	0	5	12	23	1	17	41	11	36	3	50	2	42	14	58	161
*** BREAK ***																	
04:00 PM	1	0	0	1	5	0	4	9	3	12	0	15	1	22	6	29	54
04:15 PM	1	0	1	2	2	0	3	5	7	12	1	20	0	19	6	25	52
04:30 PM	1	0	2	3	10	0	6	16	4	15	1	20	3	22	7	32	71
04:45 PM	1	0	1	2	6	0	3	9	8	8	3	19	2	21	7	30	60
Total	4	0	4	8	23	0	16	39	22	47	5	74	6	84	26	116	237
05:00 PM	3	0	3	6	5	0	2	7	2	16	2	20	0	11	5	16	49
05:15 PM	1	0	0	1	3	0	2	5	6	9	2	17	1	17	5	23	46
05:30 PM	0	1	0	1	2	0	3	5	5	13	5	23	0	16	6	22	51
05:45 PM	1	0	1	2	6	0	5	11	8	13	1	22	2	17	14	33	68
Total	5	1	4	10	16	0	12	28	21	51	10	82	3	61	30	94	214
Grand Total	19	1	19	39	98	2	76	176	62	208	20	290	11	233	87	331	836
Apprch %	48.7	2.6	48.7		55.7	1.1	43.2		21.4	71.7	6.9		3.3	70.4	26.3		
Total %	2.3	0.1	2.3	4.7	11.7	0.2	9.1	21.1	7.4	24.9	2.4	34.7	1.3	27.9	10.4	39.6	

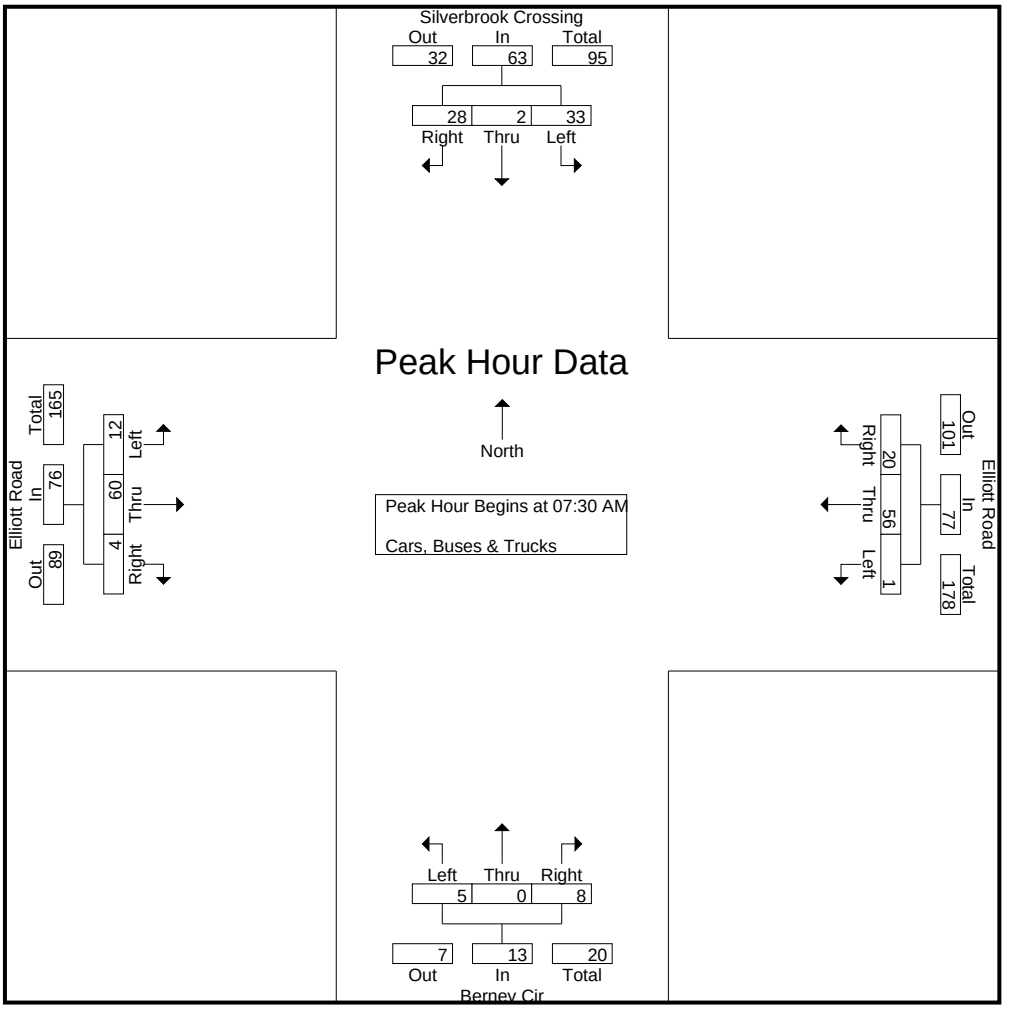
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Silverbrook Crossing
7-9 am | 4-6 pm

File Name : 20240298
Site Code : 20240298
Start Date : 08-06-2024
Page No : 2

	Berney Cir Northbound				Silverbrook Crossing Southbound				Elliott Road Eastbound				Elliott Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	0	1	2	**11**	**1**	9	**21**	1	18	0	19	0	15	**7**	**22**	64
07:45 AM	0	0	**3**	3	9	0	**10**	19	**5**	**22**	1	**28**	0	**16**	4	20	**70**
08:00 AM	**3**	0	1	**4**	5	0	4	9	1	9	0	10	0	12	3	15	38
08:15 AM	1	0	3	4	8	1	5	14	5	11	**3**	19	**1**	13	6	20	57
Total Volume	5	0	8	13	33	2	28	63	12	60	4	76	1	56	20	77	229
% App. Total	38.5	0	61.5		52.4	3.2	44.4		15.8	78.9	5.3		1.3	72.7	26		
PHF	.417	.000	.667	.813	.750	.500	.700	.750	.600	.682	.333	.679	.250	.875	.714	.875	.818



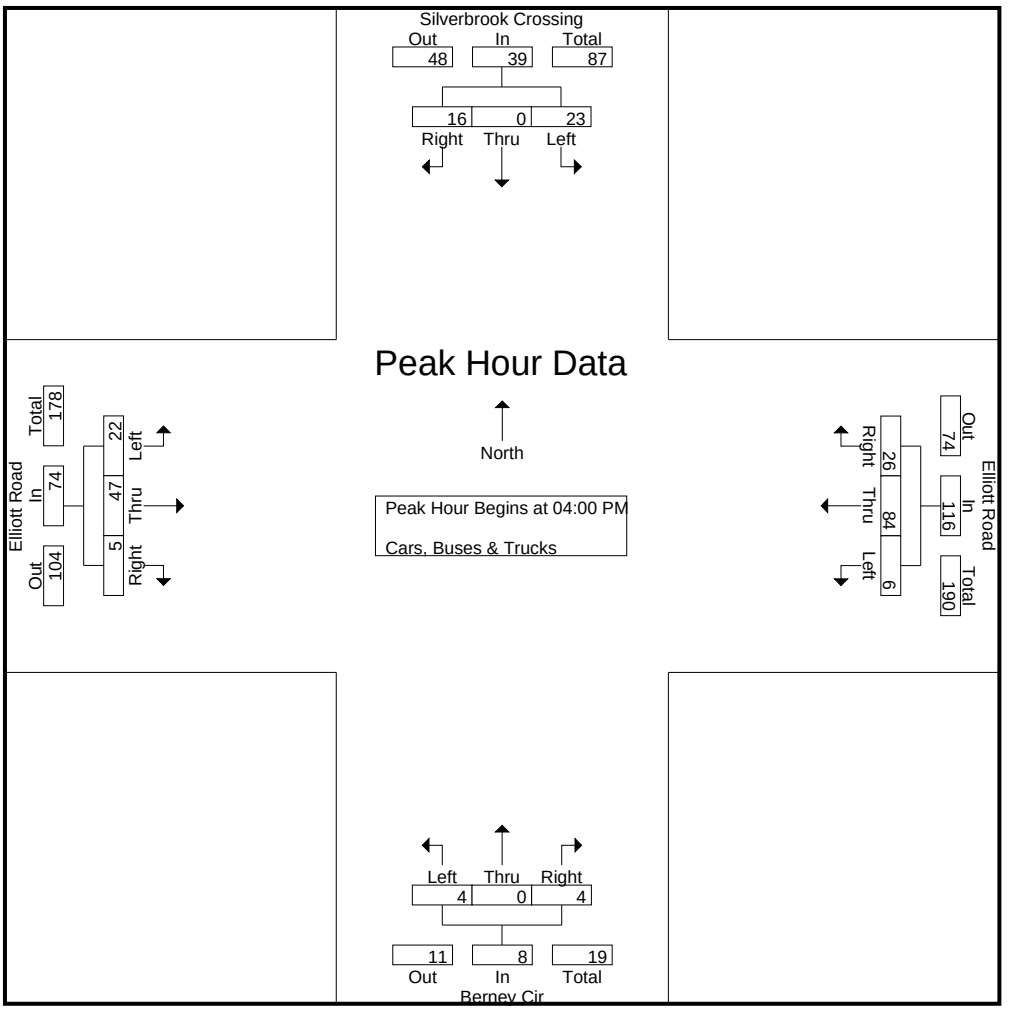
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Elliott Road @ Silverbrook Crossing
7-9 am | 4-6 pm

File Name : 20240298
Site Code : 20240298
Start Date : 08-06-2024
Page No : 3

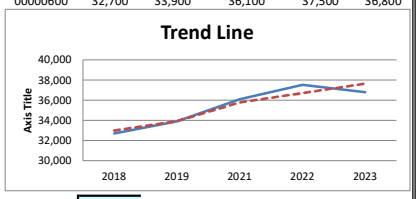
	Berney Cir Northbound				Silverbrook Crossing Southbound				Elliott Road Eastbound				Elliott Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	0	1	5	0	4	9	3	12	0	15	1	**22**	6	29	54
04:15 PM	1	0	1	2	2	0	3	5	7	12	1	**20**	0	19	6	25	52
04:30 PM	1	0	**2**	**3**	**10**	0	**6**	**16**	4	**15**	1	20	**3**	22	**7**	**32**	**71**
04:45 PM	1	0	1	2	6	0	3	9	**8**	8	**3**	19	2	21	7	30	60
Total Volume	4	0	4	8	23	0	16	39	22	47	5	74	6	84	26	116	237
% App. Total	50	0	50		59	0	41		29.7	63.5	6.8		5.2	72.4	22.4		
PHF	1.00	.000	.500	.667	.575	.000	.667	.609	.688	.783	.417	.925	.500	.955	.929	.906	.835



LINEAR REGRESSION OF DAILY TRAFFIC

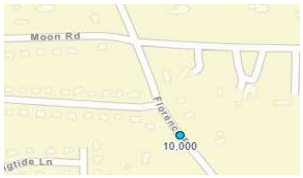
Location	Growth Rate	R Squared	Station ID	Route	2018	2019	2021	2022	2023
C H James Pkwy (East of Powder Springs Dallas Rd)	3.4%	0.91	067-2332	00000600	32,700	33,900	36,100	37,500	36,800
Florence Rd (South of Moon Rd)	-3.3%	0.66	067-3017	00208300	11,100	11,300	11,100	9,750	10,000
New Macland Rd (South of Weston Dr)	-1.6%	0.18	067-2578	00095317	10,700	9,260	9,220	9,600	9,740
Richard D Sailors Pkwy (Southeast of old Lost Mountain Rd)	-1.0%	0.61	067-2576	00095317	27,100	27,300	27,200	26,100	26,300
Powder Springs Dallas Rd (Southeast of C H James Pkwy)	6.2%	0.77	067-0261	00451617	7,290	8,230	8,200	8,530	9,910
Weighted Average	**1.0%**	0.93	Sum of Count Stations =		88,890	89,990	91,820	91,480	92,750

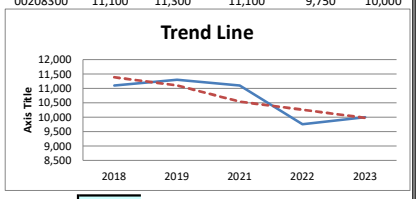
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
C H James Pkwy (East of Powder Springs Dallas Rd)	067-2332	00000600	32,700	33,900	36,100	37,500	36,800



Growth Rate	3.4%	Intercept	-1,844,228	Slope	930.23
Trend Line	32,981	33,912	35,772	36,702	37,633

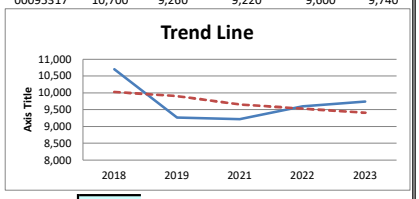
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
Florence Rd (South of Moon Rd)	067-3017	00208300	11,100	11,300	11,100	9,750	10,000





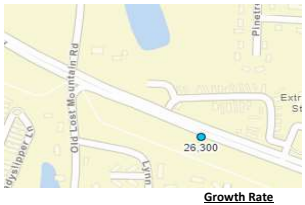
Growth Rate	-3.3%	Intercept	580,412	Slope	-281.98
Trend Line	11,383	11,101	10,537	10,255	9,973

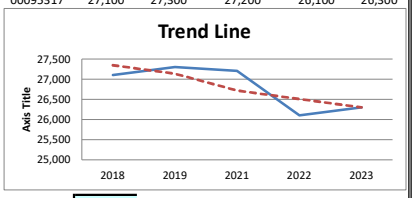
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
New Macland Rd (South of Weston Dr)	067-2578	00095317	10,700	9,260	9,220	9,600	9,740



Growth Rate	-1.6%	Intercept	260,164	Slope	-123.95
Trend Line	10,026	9,902	9,654	9,530	9,407

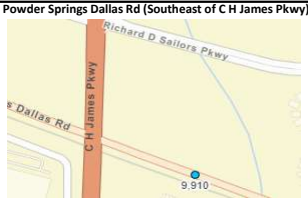
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
Richard D Sailors Pkwy (Southeast of old Lost Mountain Rd)	067-2576	00095317	27,100	27,300	27,200	26,100	26,300

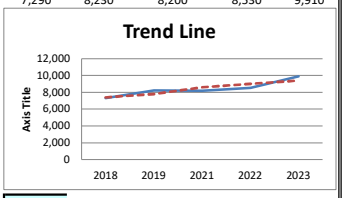




Growth Rate	-1.0%	Intercept	449,716	Slope	-209.30
Trend Line	27,344	27,135	26,716	26,507	26,298

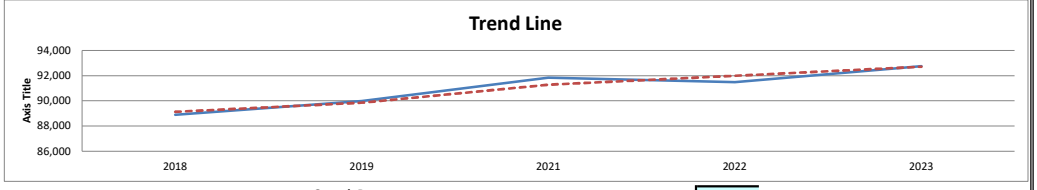
Location	Traffic Counter	RCLINK	2018	2019	2021	2022	2023
Powder Springs Dallas Rd (Southeast of C H James Pkwy)	067-0261	00451617	7,290	8,230	8,200	8,530	9,910





Growth Rate	6.2%	Intercept	-800,278	Slope	400.23
Trend Line	7,391	7,792	8,592	8,992	9,393

Weighted Average	2018	2019	2021	2022	2023
Sum of Count Stations	88,890	89,990	91,820	91,480	92,750



Growth Rate	1.0%	Intercept	-1,354,213	Slope	715.23
Trend Line	89,126	89,842	91,272	91,987	92,703

EXISTING INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	60	4	1	56	20	5	0	8	33	2	28
Future Vol, veh/h	12	60	4	1	56	20	5	0	8	33	2	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	130	155	-	155	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	73	5	1	68	24	6	0	10	40	2	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	78	0	0	203	197	73	181	178	68
Stage 1	-	-	-	-	-	-	103	103	-	70	70	-
Stage 2	-	-	-	-	-	-	100	94	-	111	108	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1503	-	-	1520	-	-	755	699	989	781	716	995
Stage 1	-	-	-	-	-	-	903	810	-	940	837	-
Stage 2	-	-	-	-	-	-	906	817	-	894	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1503	-	-	1520	-	-	721	691	989	767	708	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	721	691	-	767	708	-
Stage 1	-	-	-	-	-	-	894	802	-	931	836	-
Stage 2	-	-	-	-	-	-	872	816	-	876	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.1	9.2	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	865	1503	-	-	1520	-	-	851
HCM Lane V/C Ratio	0.018	0.01	-	-	0.001	-	-	0.09
HCM Control Delay (s)	9.2	7.4	-	-	7.4	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	111	2	8	56	3	6	2	13	10	0	4
Future Vol, veh/h	4	111	2	8	56	3	6	2	13	10	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	128	2	9	64	3	7	2	15	11	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	67	0	0	130	0	0	225	224	129	232	224	66
Stage 1	-	-	-	-	-	-	139	139	-	84	84	-
Stage 2	-	-	-	-	-	-	86	85	-	148	140	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1535	-	-	1455	-	-	730	675	921	723	675	998
Stage 1	-	-	-	-	-	-	864	782	-	924	825	-
Stage 2	-	-	-	-	-	-	922	824	-	855	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1535	-	-	1455	-	-	721	668	921	704	668	998
Mov Cap-2 Maneuver	-	-	-	-	-	-	721	668	-	704	668	-
Stage 1	-	-	-	-	-	-	861	779	-	920	820	-
Stage 2	-	-	-	-	-	-	912	819	-	835	778	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.9	9.5	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	826	1535	-	-	1455	-	-	769
HCM Lane V/C Ratio	0.029	0.003	-	-	0.006	-	-	0.021
HCM Control Delay (s)	9.5	7.4	0	-	7.5	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	121	30	16	277	409	49
Future Vol, veh/h	121	30	16	277	409	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	127	32	17	292	431	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	783	457	483	0	-	0
Stage 1	457	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	362	604	1080	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	355	604	1080	-	-	-
Mov Cap-2 Maneuver	355	-	-	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	731	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.6	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1080	-	387	-	-
HCM Lane V/C Ratio	0.016	-	0.411	-	-
HCM Control Delay (s)	8.4	0	20.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	2	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	47	5	6	84	26	4	0	4	23	0	16
Future Vol, veh/h	22	47	5	6	84	26	4	0	4	23	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	130	155	-	155	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	57	6	7	101	31	5	0	5	28	0	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	132	0	0	63	0	0	251	257	57	232	232	101
Stage 1	-	-	-	-	-	-	111	111	-	115	115	-
Stage 2	-	-	-	-	-	-	140	146	-	117	117	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1453	-	-	1540	-	-	702	647	1009	723	668	954
Stage 1	-	-	-	-	-	-	894	804	-	890	800	-
Stage 2	-	-	-	-	-	-	863	776	-	888	799	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1453	-	-	1540	-	-	676	631	1009	707	652	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	676	631	-	707	652	-
Stage 1	-	-	-	-	-	-	877	789	-	873	796	-
Stage 2	-	-	-	-	-	-	842	772	-	867	784	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.4	9.5	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	1453	-	-	1540	-	-	791
HCM Lane V/C Ratio	0.012	0.018	-	-	0.005	-	-	0.059
HCM Control Delay (s)	9.5	7.5	-	-	7.3	-	-	9.8
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	63	5	13	106	6	5	0	6	4	1	6
Future Vol, veh/h	14	63	5	13	106	6	5	0	6	4	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	72	6	15	120	7	6	0	7	5	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	127	0	0	78	0	0	265	264	75	265	264	124
Stage 1	-	-	-	-	-	-	107	107	-	154	154	-
Stage 2	-	-	-	-	-	-	158	157	-	111	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1459	-	-	1520	-	-	688	641	986	688	641	927
Stage 1	-	-	-	-	-	-	898	807	-	848	770	-
Stage 2	-	-	-	-	-	-	844	768	-	894	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1459	-	-	1520	-	-	671	627	986	672	627	927
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	627	-	672	627	-
Stage 1	-	-	-	-	-	-	888	798	-	839	762	-
Stage 2	-	-	-	-	-	-	827	760	-	878	795	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.8	9.5	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	813	1459	-	-	1520	-	-	785
HCM Lane V/C Ratio	0.015	0.011	-	-	0.01	-	-	0.016
HCM Control Delay (s)	9.5	7.5	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	21	26	434	240	101
Future Vol, veh/h	50	21	26	434	240	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	21	27	443	245	103

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	794	297	348	0	-	0
Stage 1	297	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	357	742	1211	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	346	742	1211	-	-	-
Mov Cap-2 Maneuver	346	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	611	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.6	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1211	-	411	-	-
HCM Lane V/C Ratio	0.022	-	0.176	-	-
HCM Control Delay (s)	8	0	15.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

FUTURE "NO-BUILD" INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	48	5	6	86	27	4	0	4	23	0	16
Future Vol, veh/h	22	48	5	6	86	27	4	0	4	23	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	130	155	-	155	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	58	6	7	104	33	5	0	5	28	0	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	137	0	0	64	0	0	256	263	58	236	236	104
Stage 1	-	-	-	-	-	-	112	112	-	118	118	-
Stage 2	-	-	-	-	-	-	144	151	-	118	118	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1447	-	-	1538	-	-	697	642	1008	718	665	951
Stage 1	-	-	-	-	-	-	893	803	-	887	798	-
Stage 2	-	-	-	-	-	-	859	772	-	887	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1447	-	-	1538	-	-	671	627	1008	702	649	951
Mov Cap-2 Maneuver	-	-	-	-	-	-	671	627	-	702	649	-
Stage 1	-	-	-	-	-	-	876	788	-	870	794	-
Stage 2	-	-	-	-	-	-	838	768	-	866	783	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.4	9.5	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	806	1447	-	-	1538	-	-	786
HCM Lane V/C Ratio	0.012	0.018	-	-	0.005	-	-	0.06
HCM Control Delay (s)	9.5	7.5	-	-	7.4	-	-	9.9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	64	5	13	108	6	5	0	6	4	1	6
Future Vol, veh/h	14	64	5	13	108	6	5	0	6	4	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	73	6	15	123	7	6	0	7	5	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	79	0	0	269	268	76	269	268	127
Stage 1	-	-	-	-	-	-	108	108	-	157	157	-
Stage 2	-	-	-	-	-	-	161	160	-	112	111	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1519	-	-	684	638	985	684	638	923
Stage 1	-	-	-	-	-	-	897	806	-	845	768	-
Stage 2	-	-	-	-	-	-	841	766	-	893	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1519	-	-	666	623	985	668	623	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	666	623	-	668	623	-
Stage 1	-	-	-	-	-	-	886	796	-	835	760	-
Stage 2	-	-	-	-	-	-	824	758	-	876	794	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.8	9.5	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	809	1455	-	-	1519	-	-	780
HCM Lane V/C Ratio	0.015	0.011	-	-	0.01	-	-	0.016
HCM Control Delay (s)	9.5	7.5	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	51	21	27	443	245	103
Future Vol, veh/h	51	21	27	443	245	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	21	28	452	250	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	811	303	355	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	349	737	1204	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	338	737	1204	-	-	-
Mov Cap-2 Maneuver	338	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1204	-	401	-	-
HCM Lane V/C Ratio	0.023	-	0.183	-	-
HCM Control Delay (s)	8.1	0	16	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	61	4	1	57	20	5	0	8	34	2	29
Future Vol, veh/h	12	61	4	1	57	20	5	0	8	34	2	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	130	155	-	155	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	74	5	1	70	24	6	0	10	41	2	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	94	0	0	79	0	0	207	200	74	184	181	70
Stage 1	-	-	-	-	-	-	104	104	-	72	72	-
Stage 2	-	-	-	-	-	-	103	96	-	112	109	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1500	-	-	1519	-	-	751	696	988	777	713	993
Stage 1	-	-	-	-	-	-	902	809	-	938	835	-
Stage 2	-	-	-	-	-	-	903	815	-	893	805	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1500	-	-	1519	-	-	716	688	988	763	705	993
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	688	-	763	705	-
Stage 1	-	-	-	-	-	-	893	801	-	929	834	-
Stage 2	-	-	-	-	-	-	868	814	-	875	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.1	9.3	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	862	1500	-	-	1519	-	-	849
HCM Lane V/C Ratio	0.018	0.01	-	-	0.001	-	-	0.093
HCM Control Delay (s)	9.3	7.4	-	-	7.4	-	-	9.7
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	113	2	8	57	3	6	2	13	10	0	4
Future Vol, veh/h	4	113	2	8	57	3	6	2	13	10	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	130	2	9	66	3	7	2	15	11	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	69	0	0	132	0	0	229	228	131	236	228	68
Stage 1	-	-	-	-	-	-	141	141	-	86	86	-
Stage 2	-	-	-	-	-	-	88	87	-	150	142	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1532	-	-	1453	-	-	726	671	919	718	671	995
Stage 1	-	-	-	-	-	-	862	780	-	922	824	-
Stage 2	-	-	-	-	-	-	920	823	-	853	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1532	-	-	1453	-	-	717	664	919	699	664	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	717	664	-	699	664	-
Stage 1	-	-	-	-	-	-	859	777	-	918	819	-
Stage 2	-	-	-	-	-	-	910	818	-	833	776	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.9	9.5	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	823	1532	-	-	1453	-	-	764
HCM Lane V/C Ratio	0.029	0.003	-	-	0.006	-	-	0.021
HCM Control Delay (s)	9.5	7.4	0	-	7.5	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	123	31	16	283	417	50
Future Vol, veh/h	123	31	16	283	417	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	33	17	298	439	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	798	466	492	0	-	0
Stage 1	466	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	355	597	1071	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	348	597	1071	-	-	-
Mov Cap-2 Maneuver	348	-	-	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.3	0.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1071	-	380	-	-
HCM Lane V/C Ratio	0.016	-	0.427	-	-
HCM Control Delay (s)	8.4	0	21.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	2.1	-	-

FUTURE "BUILD" INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	68	4	1	79	20	5	0	8	34	2	29
Future Vol, veh/h	12	68	4	1	79	20	5	0	8	34	2	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	130	155	-	155	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	83	5	1	96	24	6	0	10	41	2	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	120	0	0	88	0	0	242	235	83	219	216	96
Stage 1	-	-	-	-	-	-	113	113	-	98	98	-
Stage 2	-	-	-	-	-	-	129	122	-	121	118	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1468	-	-	1508	-	-	712	666	976	737	682	960
Stage 1	-	-	-	-	-	-	892	802	-	908	814	-
Stage 2	-	-	-	-	-	-	875	795	-	883	798	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1468	-	-	1508	-	-	679	659	976	724	674	960
Mov Cap-2 Maneuver	-	-	-	-	-	-	679	659	-	724	674	-
Stage 1	-	-	-	-	-	-	883	794	-	899	813	-
Stage 2	-	-	-	-	-	-	840	794	-	865	790	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.1	9.4	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	835	1468	-	-	1508	-	-	811
HCM Lane V/C Ratio	0.019	0.01	-	-	0.001	-	-	0.098
HCM Control Delay (s)	9.4	7.5	-	-	7.4	-	-	9.9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	131	2	8	63	3	6	2	13	10	0	4
Future Vol, veh/h	4	131	2	8	63	3	6	2	13	10	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	151	2	9	72	3	7	2	15	11	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	153	0	0	256	255	152	263	255	74
Stage 1	-	-	-	-	-	-	162	162	-	92	92	-
Stage 2	-	-	-	-	-	-	94	93	-	171	163	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1524	-	-	1428	-	-	697	649	894	690	649	988
Stage 1	-	-	-	-	-	-	840	764	-	915	819	-
Stage 2	-	-	-	-	-	-	913	818	-	831	763	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1524	-	-	1428	-	-	688	642	894	671	642	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	642	-	671	642	-
Stage 1	-	-	-	-	-	-	837	761	-	911	813	-
Stage 2	-	-	-	-	-	-	902	812	-	811	760	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.8	9.7	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	796	1524	-	-	1428	-	-	739
HCM Lane V/C Ratio	0.03	0.003	-	-	0.006	-	-	0.022
HCM Control Delay (s)	9.7	7.4	0	-	7.5	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	131	41	20	283	417	52
Future Vol, veh/h	131	41	20	283	417	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	138	43	21	298	439	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	807	467	494	0	-	0
Stage 1	467	-	-	-	-	-
Stage 2	340	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	351	596	1070	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	721	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	343	596	1070	-	-	-
Mov Cap-2 Maneuver	343	-	-	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	721	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.6	0.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1070	-	382	-	-
HCM Lane V/C Ratio	0.02	-	0.474	-	-
HCM Control Delay (s)	8.4	0	22.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	2.5	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	119	4	3	67	3	12	0	9	9	0	10
Future Vol, veh/h	3	119	4	3	67	3	12	0	9	9	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	129	4	3	73	3	13	0	10	10	0	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	76	0	0	133	0	0	223	219	131	223	220	75
Stage 1	-	-	-	-	-	-	137	137	-	81	81	-
Stage 2	-	-	-	-	-	-	86	82	-	142	139	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1523	-	-	1452	-	-	733	679	919	733	678	986
Stage 1	-	-	-	-	-	-	866	783	-	927	828	-
Stage 2	-	-	-	-	-	-	922	827	-	861	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1523	-	-	1452	-	-	723	676	919	723	675	986
Mov Cap-2 Maneuver	-	-	-	-	-	-	723	676	-	723	675	-
Stage 1	-	-	-	-	-	-	864	781	-	925	826	-
Stage 2	-	-	-	-	-	-	910	825	-	850	780	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.3	9.7	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	796	1523	-	-	1452	-	-	841
HCM Lane V/C Ratio	0.029	0.002	-	-	0.002	-	-	0.025
HCM Control Delay (s)	9.7	7.4	0	-	7.5	0	-	9.4
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	70	5	6	100	27	4	0	4	23	0	16
Future Vol, veh/h	22	70	5	6	100	27	4	0	4	23	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	130	155	-	155	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	84	6	7	120	33	5	0	5	28	0	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	153	0	0	90	0	0	298	305	84	278	278	120
Stage 1	-	-	-	-	-	-	138	138	-	134	134	-
Stage 2	-	-	-	-	-	-	160	167	-	144	144	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1428	-	-	1505	-	-	654	608	975	674	630	931
Stage 1	-	-	-	-	-	-	865	782	-	869	785	-
Stage 2	-	-	-	-	-	-	842	760	-	859	778	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1428	-	-	1505	-	-	629	593	975	658	615	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	629	593	-	658	615	-
Stage 1	-	-	-	-	-	-	849	767	-	852	781	-
Stage 2	-	-	-	-	-	-	821	756	-	839	763	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.7	0.3	9.8	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	765	1428	-	-	1505	-	-	748
HCM Lane V/C Ratio	0.013	0.019	-	-	0.005	-	-	0.063
HCM Control Delay (s)	9.8	7.6	-	-	7.4	-	-	10.1
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	76	5	13	127	6	5	0	6	4	1	6
Future Vol, veh/h	14	76	5	13	127	6	5	0	6	4	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	86	6	15	144	7	6	0	7	5	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	92	0	0	303	302	89	303	302	148
Stage 1	-	-	-	-	-	-	121	121	-	178	178	-
Stage 2	-	-	-	-	-	-	182	181	-	125	124	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1430	-	-	1503	-	-	649	611	969	649	611	899
Stage 1	-	-	-	-	-	-	883	796	-	824	752	-
Stage 2	-	-	-	-	-	-	820	750	-	879	793	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1430	-	-	1503	-	-	632	597	969	633	597	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	632	597	-	633	597	-
Stage 1	-	-	-	-	-	-	872	786	-	814	744	-
Stage 2	-	-	-	-	-	-	804	742	-	862	783	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.7	9.7	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	780	1430	-	-	1503	-	-	750
HCM Lane V/C Ratio	0.016	0.011	-	-	0.01	-	-	0.017
HCM Control Delay (s)	9.7	7.5	0	-	7.4	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	57	27	38	443	245	111
Future Vol, veh/h	57	27	38	443	245	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	28	39	452	250	113

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	837	307	363	0	-	0
Stage 1	307	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	337	733	1196	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	322	733	1196	-	-	-
Mov Cap-2 Maneuver	322	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	590	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	0.6	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1196	-	393	-	-
HCM Lane V/C Ratio	0.032	-	0.218	-	-
HCM Control Delay (s)	8.1	0	16.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	10	84	12	10	119	9	7	0	6	6	0	7
Future Vol, veh/h	10	84	12	10	119	9	7	0	6	6	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	91	13	11	129	10	8	0	7	7	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	139	0	0	104	0	0	280	281	98	279	282	134
Stage 1	-	-	-	-	-	-	120	120	-	156	156	-
Stage 2	-	-	-	-	-	-	160	161	-	123	126	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1445	-	-	1488	-	-	672	627	958	673	627	915
Stage 1	-	-	-	-	-	-	884	796	-	846	769	-
Stage 2	-	-	-	-	-	-	842	765	-	881	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1445	-	-	1488	-	-	659	617	958	660	617	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	659	617	-	660	617	-
Stage 1	-	-	-	-	-	-	877	790	-	839	763	-
Stage 2	-	-	-	-	-	-	828	759	-	868	786	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.5	9.8	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	770	1445	-	-	1488	-	-	777
HCM Lane V/C Ratio	0.018	0.008	-	-	0.007	-	-	0.018
HCM Control Delay (s)	9.8	7.5	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

TRAFFIC VOLUME WORKSHEETS

24-151 Res Dev at Elliot Road, Powder Springs, GA - TIS

Traffic Volumes

A&R Engineering
October 2024

1. Elliott Rd @ Silverbrooke Cr

A.M. Peak Hour

	Berney Circle **Northbound**					Silverbrooke Crossing **Southbound**					Elliott Road **Eastbound**					Elliott Road **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	5	0	8	13		33	2	28	63		12	60	4	76		1	56	20	77
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	5	0	8	13		34	2	29	65		12	61	4	77		1	57	20	78
North Section Trips:	0	0	0	0		0	0	0	0		0	3	0	3		0	10	0	10
South Section Trips:	0	0	0	0		0	0	0	0		0	4	0	4		0	12	0	12
Future 2026 Traffic Volumes:	5	0	8	13		34	2	29	65		12	68	4	84		1	79	20	100

P.M. Peak Hour

	Berney Circle **Northbound**					Silverbrooke Crossing **Southbound**					Elliott Road **Eastbound**					Elliott Road **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	4	0	4	8		23	0	16	39		22	47	5	74		6	84	26	116
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	4	0	4	8		23	0	16	39		22	48	5	75		6	86	27	119
North Section Trips:	0	0	0	0		0	0	0	0		0	10	0	10		0	7	0	7
South Section Trips:	0	0	0	0		0	0	0	0		0	12	0	12		0	7	0	7
Future 2026 Traffic Volumes:	4	0	4	8		23	0	16	39		22	70	5	97		6	100	27	133

24-151 Res Dev at Elliot Road, Powder Springs, GA - TIS

Traffic Volumes

A&R Engineering
October 2024

2. Elliott Rd @ Quarters Way

A.M. Peak Hour

	Yoshino Terrace **Northbound**					Quarters Way **Southbound**					Elliott Road **Eastbound**					Elliott Road **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	6	2	13	21		10	0	4	14		4	111	2	117		8	56	3	67
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	6	2	13	21		10	0	4	14		4	113	2	119		8	57	3	68
North Section Trips:	0	0	0	0		0	0	0	0		0	9	0	9		0	3	0	3
South Section Trips:	0	0	0	0		0	0	0	0		0	9	0	9		0	3	0	3
Future 2026 Traffic Volumes:	6	2	13	21		10	0	4	14		4	131	2	137		8	63	3	74

P.M. Peak Hour

	Yoshino Terrace **Northbound**					Quarters Way **Southbound**					Elliott Road **Eastbound**					Elliott Road **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	5	0	6	11		4	1	6	11		14	63	5	82		13	106	6	125
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	5	0	6	11		4	1	6	11		14	64	5	83		13	108	6	127
North Section Trips:	0	0	0	0		0	0	0	0		0	6	0	6		0	9	0	9
South Section Trips:	0	0	0	0		0	0	0	0		0	6	0	6		0	10	0	10
Future 2026 Traffic Volumes:	5	0	6	11		4	1	6	11		14	76	5	95		13	127	6	146

24-151 Res Dev at Elliot Road, Powder Springs, GA - TIS

Traffic Volumes

A&R Engineering
October 2024

3. Elliott Rd @ Florence Rd

A.M. Peak Hour

	Florence Road **Northbound**					Florence Road **Southbound**					Elliott Road **Eastbound**					- **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	16	277	0	293		0	409	49	458		121	0	30	151		0	0	0	0
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	16	283	0	299		0	417	50	467		123	0	31	154		0	0	0	0
North Section Trips:	2	0	0	2		0	0	1	1		4	0	5	9		0	0	0	0
South Section Trips:	2	0	0	2		0	0	1	1		4	0	5	9		0	0	0	0
Future 2026 Traffic Volumes:	20	283	0	303		0	417	52	469		131	0	41	172		0	0	0	0

P.M. Peak Hour

	Florence Road **Northbound**					Florence Road **Southbound**					Elliott Road **Eastbound**					- **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	26	434	0	460		0	240	101	341		50	0	21	71		0	0	0	0
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	27	443	0	470		0	245	103	348		51	0	21	72		0	0	0	0
North Section Trips:	5	0	0	5		0	0	4	4		3	0	3	6		0	0	0	0
South Section Trips:	6	0	0	6		0	0	4	4		3	0	3	6		0	0	0	0
Future 2026 Traffic Volumes:	38	443	0	481		0	245	111	356		57	0	27	84		0	0	0	0

24-151 Res Dev at Elliot Road, Powder Springs, GA - TIS

Traffic Volumes

A&R Engineering
October 2024

4. Elliott Rd @ Site Drwy 1-2

A.M. Peak Hour

	Site Driveway 2 (South Site) **Northbound**					Site Driveway 1 (North Site) **Southbound**					Elliott Road **Eastbound**					Elliott Road **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	0	0	0	0		0	0	0	0		0	117	0	117		0	66	0	66
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	0	0	0	0		0	0	0	0		0	119	0	119		0	67	0	67
North Section Trips:	0	0	0	0		9	0	10	19		3	0	0	3		0	0	3	3
South Section Trips:	12	0	9	21		0	0	0	0		0	0	4	4		3	0	0	3
Future 2026 Traffic Volumes:	12	0	9	21		9	0	10	19		3	119	4	126		3	67	3	73

P.M. Peak Hour

	Site Driveway 2 (South Site) **Northbound**					Site Driveway 1 (North Site) **Southbound**					Elliott Road **Eastbound**					Elliott Road **Westbound**			
Condition	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot
Existing 2024 Traffic Counts:	0	0	0	0		0	0	0	0		0	82	0	82		0	117	0	117
Growth Factor (%):	1	1	1			1	1	1			1	1	1			1	1	1	
No-Build 2026 Volumes:	0	0	0	0		0	0	0	0		0	84	0	84		0	119	0	119
North Section Trips:	0	0	0	0		6	0	7	13		10	0	0	10		0	0	9	9
South Section Trips:	7	0	6	13		0	0	0	0		0	0	12	12		10	0	0	10
Future 2026 Traffic Volumes:	7	0	6	13		6	0	7	13		10	84	12	106		10	119	9	138