Traffic Impact Study

Kingsley Creek - Stephenson Road Tract

Dekalb County, Georgia

Report Prepared:

August 2020

Prepared for:

Parkland Communities, Inc.

Prepared by:

Kimley-Horn and Associates, Inc.
11720 Amber Park Drive, Suite 600
Alpharetta, Georgia 30009
KHA Project #019380012

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8/21/2020

Kimley»Horn

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Kimley»Horn

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1.0 INTRODUCTION

This report presents the analysis of the anticipated traffic impacts associated with the *Kingsley Creek-Stephenson Road Tract* development, which is expected to be completed in 2026 (referred to herein as "build-out year"). This study evaluates the impact of constructing 160 single-family housing units. The approximately 45.7-acre site is located east of S Deshon Road E and south of Stephenson Road in DeKalb County, Georgia.

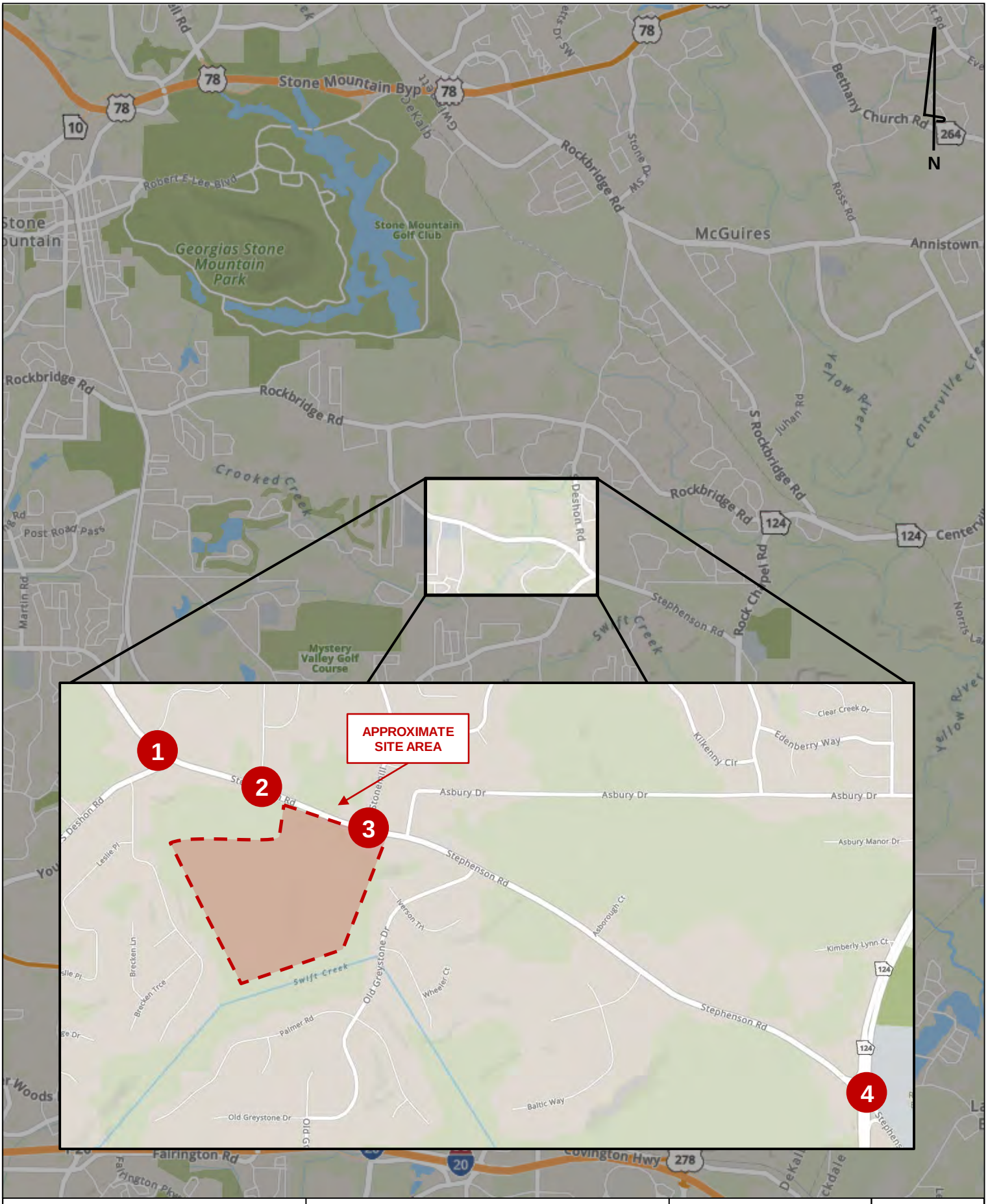
Figure 1 provides a location map of the project site. **Figure 2** provides an aerial image that captures the project site and the study roadway network. A site plan is also included in **Appendix A**.

2.0 STUDY AREA DETERMINATION

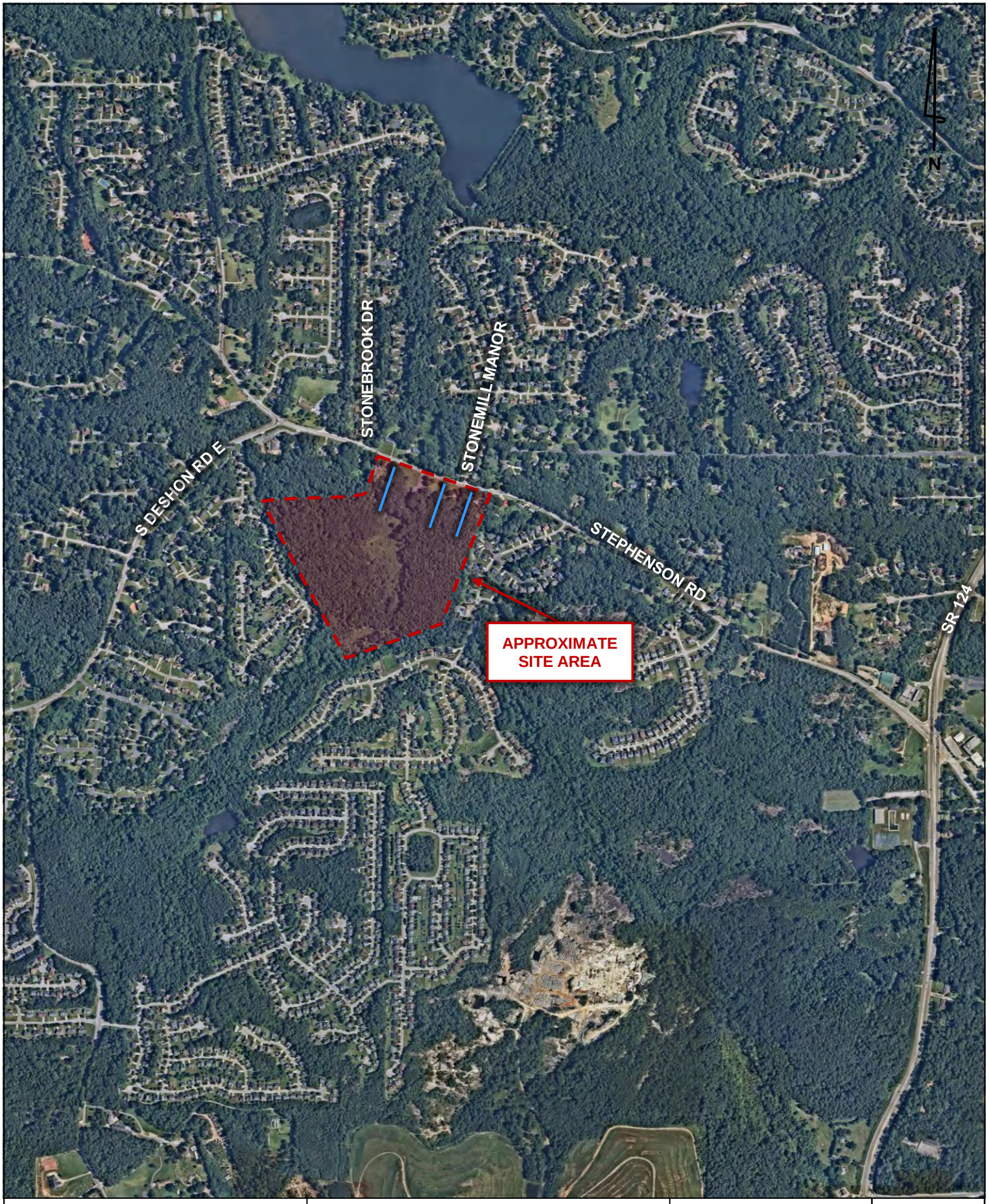
The study area consists of the following existing intersections:

1. Stephenson Road at S Deshon Road E (Signalized)
2. Stephenson Road at Stonebrook Drive (Unsignalized)
3. Stephenson Road at Stonemill Manor (Unsignalized)
4. Stephenson Road at SR 124 (Signalized)

For purposes of the traffic impact study, Stephenson Road is considered to have an east-west orientation. S Deshon Road E, Stonebrook Drive, Stonemill Manor, SR 124 and all proposed site driveways are considered to have a north-south orientation.



Kimley»Horn	**Kingsley Creek-Stephenson Road Tract Traffic Impact Study**	**Site Location Map**	**Figure 1**
			Page 2



Kimley»Horn	Kingsley Creek-Stephenson Road Tract Traffic Impact Study	Site Aerial	Figure 2
			Page 3

3.0 EXISTING TRAFFIC CONDITIONS

3.1 ROADWAY CONDITIONS

The roadways within the study network have the following characteristics:

Stephenson Road is a two-lane, major collector roadway with a posted speed limit of 45 MPH in the vicinity of the study network. A center two-way left-turn lane (TWLTL) is present along the majority of the roadway segment. GDOT counts taken along Stephenson Road west of SR 124 indicate an annual average daily traffic (AADT) of approximately 7,470 vehicles per day in 2019. Kimley-Horn collected counts from August 2020 (no school traffic and COVID-19 impacts) indicate an average daily traffic (ADT) of approximately 7,575 vehicles per day.

SR 124 is a four-lane, principal arterial roadway with turn lanes and a posted speed limit of 45 mph in the vicinity of the network. GDOT counts taken along SR124 north of Asbury Drive indicate an annual average daily traffic (AADT) of approximately 36,800 vehicles per day in 2019. Kimley-Horn collected counts from August 2020 (no school traffic and COVID-19 impacts) indicate an average daily traffic (ADT) of approximately 30,000 vehicles per day

S Deshon Road E is a two-lane, major collector roadway with a posted speed limit of 45 MPH in the vicinity of the study network.

Stonebrook Drive and Stonemill Manor are two-lane, local roadways with posted speed limits of 25 MPH in the vicinity of the study network.

3.2 VEHICULAR VOLUMES

Vehicle peak hour turning movement counts were performed at all four (4) existing study intersections. 24-hour, bi-directional tube counts were collected along Stephenson Road west of SR 124.

The peak hour turning movement counts and daily traffic counts were performed on Thursday, August 6, 2020. The AM and PM peak hours for each intersection are listed below in **Table 1**. The peak hour traffic counts were used to perform the analysis presented in this report.

Table 1: Intersection Peak Hours

Intersection	AM Peak Hour	PM Peak Hour
1. Stephenson Road at S Deshon Road E (Signalized)	7:45 AM – 8:45 AM	5:00 PM – 6:00 PM
2. Stephenson Road at Stonebrook Drive (Unsignalized)	7:45 AM – 8:45 AM	5:00 PM – 6:00 PM
3. Stephenson Road at Stonemill Manor (Unsignalized)	7:45 AM – 8:45 AM	5:00 PM – 6:00 PM
4. Stephenson Road at SR 124 (Signalized)	7:30 AM – 8:30 AM	5:00 PM – 6:00 PM

The complete traffic count data is provided in **Appendix B**.

3.3 EXISTING VOLUME ADJUSTMENT

Due to COVID-19 and traffic counts being collected when schools were not in session, the existing turning movement counts were adjusted based on historical data and engineering judgement.

Average Daily Traffic (ADT) volumes and Annual Average Daily Traffic (AADT) volumes from GDOT's Traffic Analysis & Data Application (TADA) were used to compare typical traffic volumes in the vicinity of the project site to the ADT volumes collected by Kimley-Horn. After comparing the data, growth factors were determined for the AM and PM peak hours and applied to the existing turning movement counts to use in the analysis. The volume comparison is shown in tabular format in **Table 2** and graphically in **Figure 3**, **Figure 4**, and **Figure 5**.

Table 2: Traffic Count Comparison and Adjustment Calculations

Count Station	Location	GDOT					Collected		
		2019 AADT	ADT Date	ADT	AM Peak	PM Peak	2020 ADT	AM Peak	PM Peak
089-0458	Stephenson Road (w/o Alford Road)	7660	Feb 2012	8249	835	768	6350	260	504
089-0461	Stephenson Road (w/o SR 124)	7470	Jan 2017	7668	662	626	7573	329	630
089-0161	SR 124 (n/o Asbury Road)	36800	Jan 2020	36385	2785	3273	30003	1510	2631

Difference Calculations		ADT			AM Peak			PM Peak		
		Vol	Percent	Factor	Vol	Percent	Factor	Vol	Percent	Factor
089-0458	Stephenson Road (w/o Alford Road)	-1,899	-23%	1.3	-575	-69%	3.2	-264	-34%	1.5
089-0461	Stephenson Road (w/o SR 124)	-95	-1%	1.0	-333	-50%	2.0	4	1%	1.0
089-0161	SR 124 (n/o Asbury Road)	-6,382	-18%	1.2	-1,275	-46%	1.8	-642	-20%	1.2

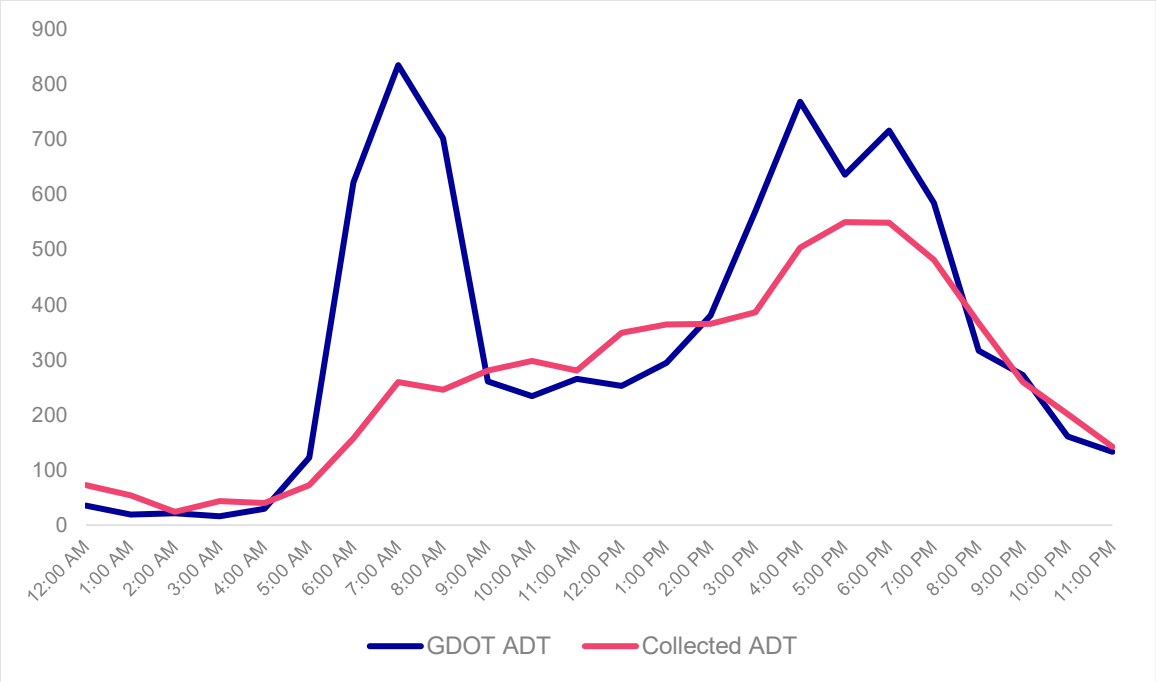


Figure 3: ADT along Stephenson Road west of Alford Road

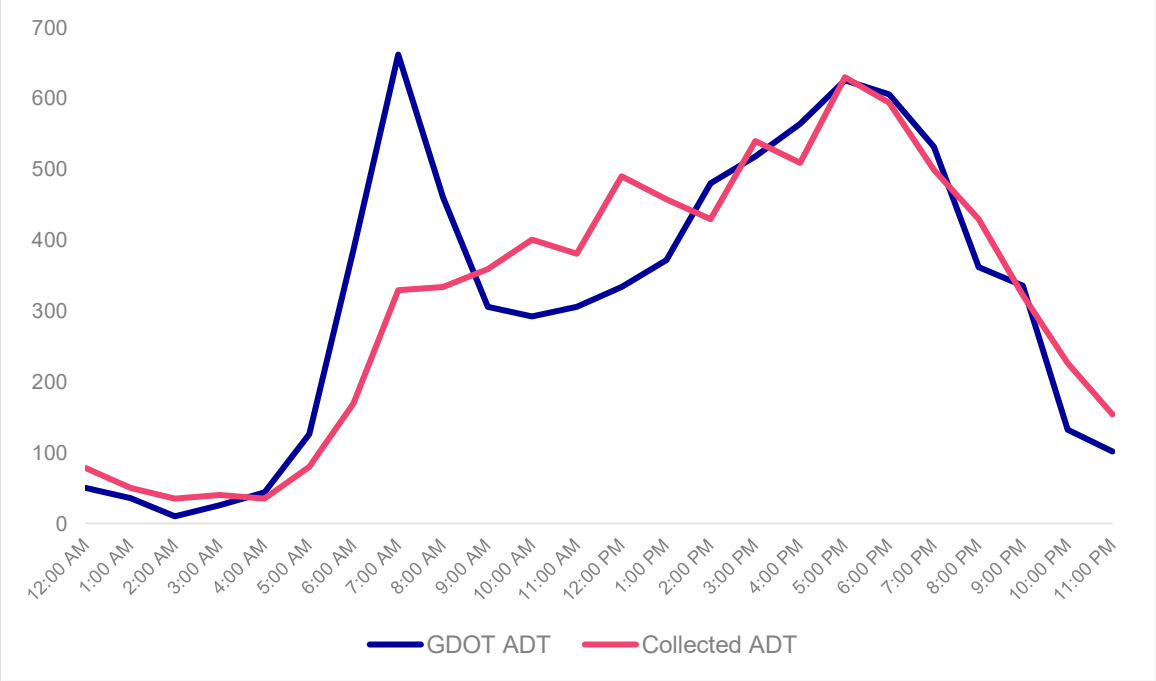


Figure 4: ADT along Stephenson Road west of SR 124

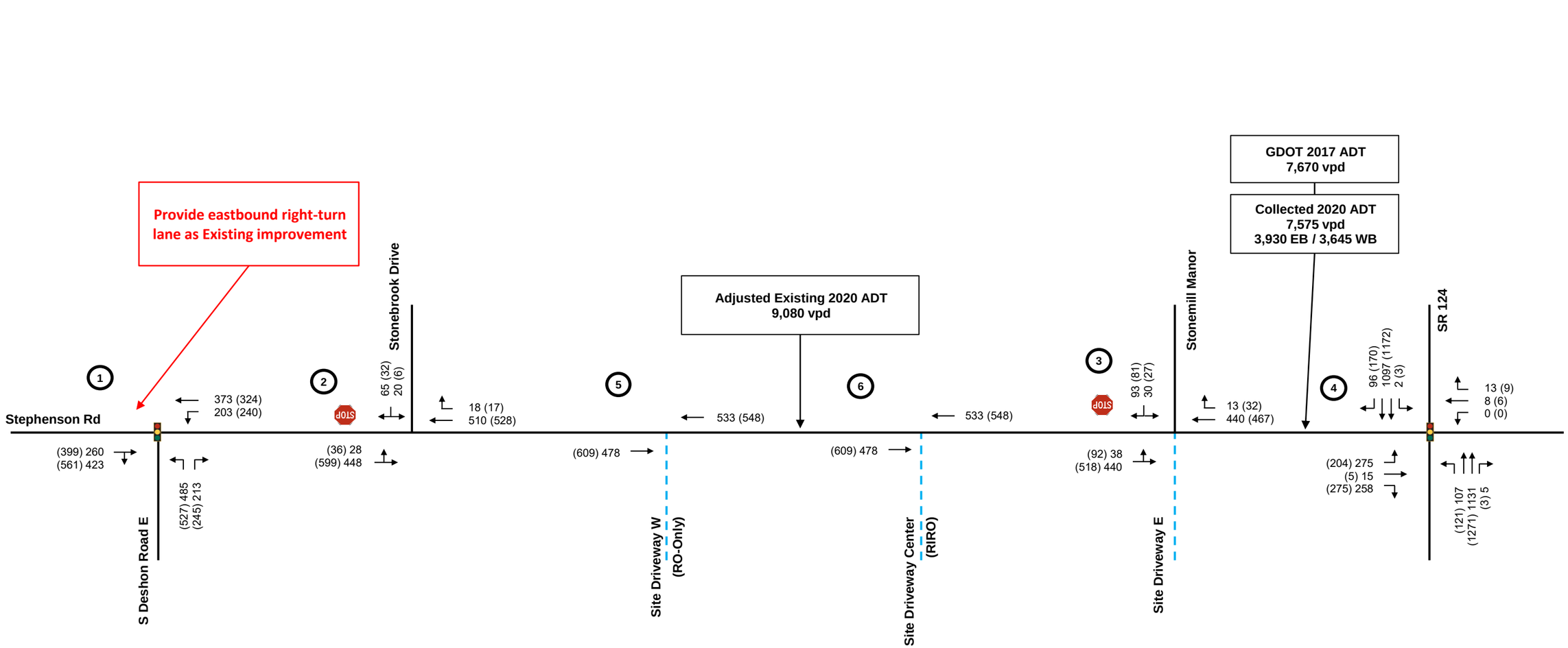
Figure 5: ADT along SR 124 north of Asbury Road

The figures above indicate that the collected AM peak volumes are currently much lower than historical volumes during the AM time period. However, the collected mid-day peak volumes are generally the same if not higher when compared to historical volumes during the mid-day time period. The collected PM peak volumes have the most variability when compared to the historical volumes during the PM time period. PM volumes along Stephenson Road are lower than historical volumes at the count station west of Alford Road and the same or higher at the count station west of SR 124. The collected PM peak volumes along SR 124 are lower than historical volumes during the PM time period.

A growth factor of 1.5 was used to adjust the AM peak hour turning movement counts along SR 124 (Intersection 4 northbound and southbound approaches). The PM peak hour turning movement counts along SR 124 (Intersection 4 northbound and southbound approaches) were not adjusted.

A growth factor of 2.5 was used to adjust the existing AM peak hour turning movement counts at all other study intersections and approaches. A growth factor of 1.5 was used to adjust the existing PM peak hour turning movement counts at all other study intersections and approaches.

Figure 6 illustrates the Existing 2020 adjusted peak hour traffic volumes at the study intersections as well as the existing roadway geometry (intersection layout).



LEGEND

- Existing Laneage
- XX — AM Peak Hour Traffic Volume
- (XX) — PM Peak Hour Traffic Volume
- Existing Traffic Signal
- Existing Stop Control
- XXX — Average Daily Traffic Volumes
- X — Intersection Reference Number

Note: School volumes are not known due to COVID. However, traffic volumes have been adjusted as described in Section 3.3.

4.0 PROJECTED BACKGROUND (NON-PROJECT) TRAFFIC

Projected background (non-project) traffic is defined as the expected traffic on the roadway network in the future year(s) absent the *Kingsley Creek-Stephenson Road Tract* development. The adjusted Existing 2020 peak hour traffic volumes were increased by 1.0% per year for six (6) years to account for the expected background growth in traffic through year 2026 build-out of the project. **Figure 4** illustrates the Projected 2026 No-Build traffic volumes for the AM and PM peak hours.

4.1 FUTURE ROADWAY / INTERSECTION PROJECTS

ARC's Atlanta Region's Plan, GDOT Statewide TIP (STIP), and DeKalb County transportation projects were researched to identify any currently programmed transportation projects within the vicinity of the proposed development that may impact the study network during the analysis period. No programmed projects were identified.

5.0 PROJECT TRAFFIC

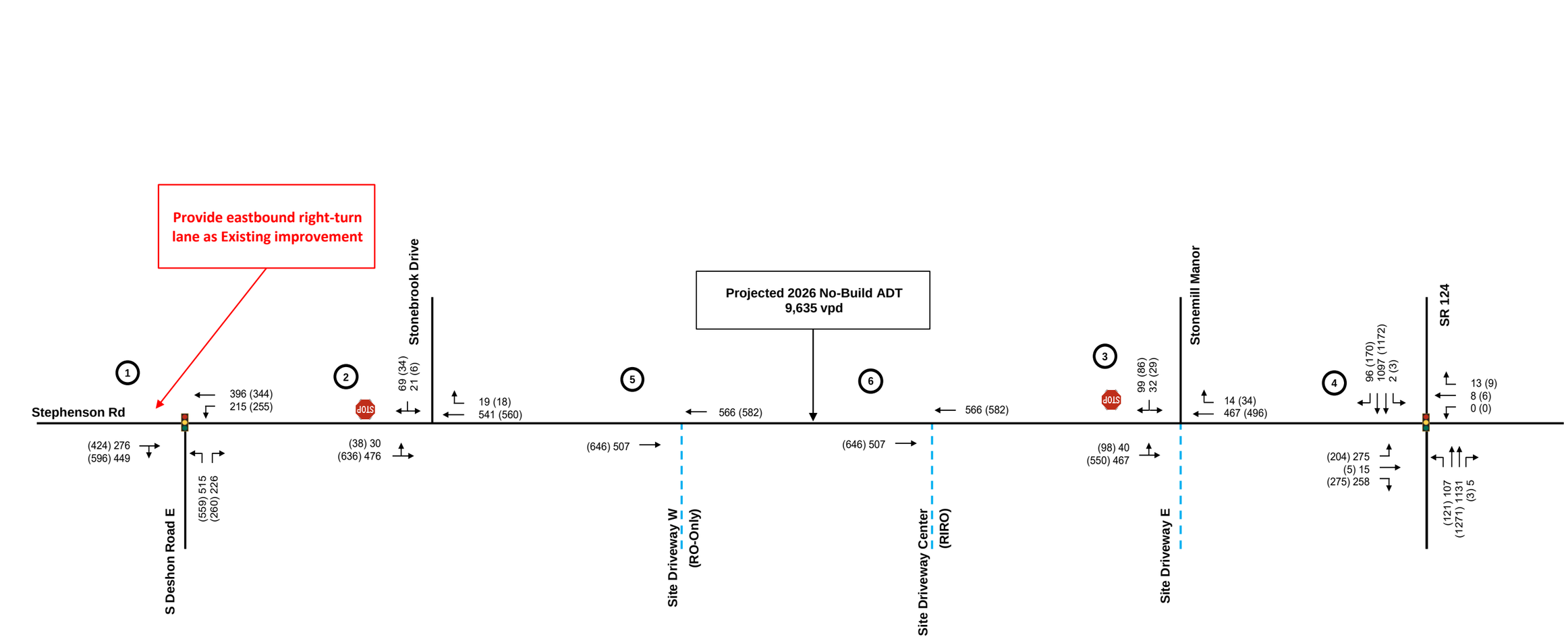
Project traffic used in this analysis is defined as the vehicle trips expected to be generated by the proposed development and the distribution and assignment of that traffic through the study roadway network. This traffic impact study evaluated the impacts of adding the new trips generated by the proposed *Kingsley Creek-Stephenson Road Tract* development.

5.1 PROJECT SITE ACCESS

Access to the site will be provided via three (3) site driveways, which are shown on the proposed site plan in **Appendix A**. A brief description of the site driveways are as follows:

- Site Driveway West – a proposed right-out only (RO-Only), side-street stop-controlled driveway with one (1) egress lane exiting the site. The driveway is located approximately 140 feet west of the Cross of Calvary Church Driveway.
- Site Driveway Center – a proposed right-in right-out (RIRO), side-street stop-controlled driveway with one (1) ingress lane entering the site and one (1) egress lane exiting the site. The driveway is located approximately 185 feet east of the Site Driveway West.
- Site Driveway East– a proposed full-movement, side-street stop-controlled driveway with two (2) ingress lanes entering the site and two (2) egress lanes exiting the site. The driveway is located approximately 220 feet east of Site Driveway Center.

The site driveways provide vehicular access to the entire development. Internal, public roadways throughout the site provide access to all residential units. Refer to the site plan in **Appendix A** for a visual representation of vehicular access and circulation throughout the proposed development.



LEGEND

→	Existing Laneage
XX	AM Peak Hour Traffic Volume
(XX)	PM Peak Hour Traffic Volume
	Existing Traffic Signal
STOP	Existing Stop Control
XXX	Average Daily Traffic Volumes
X	Intersection Reference Number

5.2 TRIP GENERATION

Gross trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition, 2017,* using equations where available. Trip generation for the proposed development was calculated based upon the following land uses:

- Land Use 210: Single-Family Detached Housing

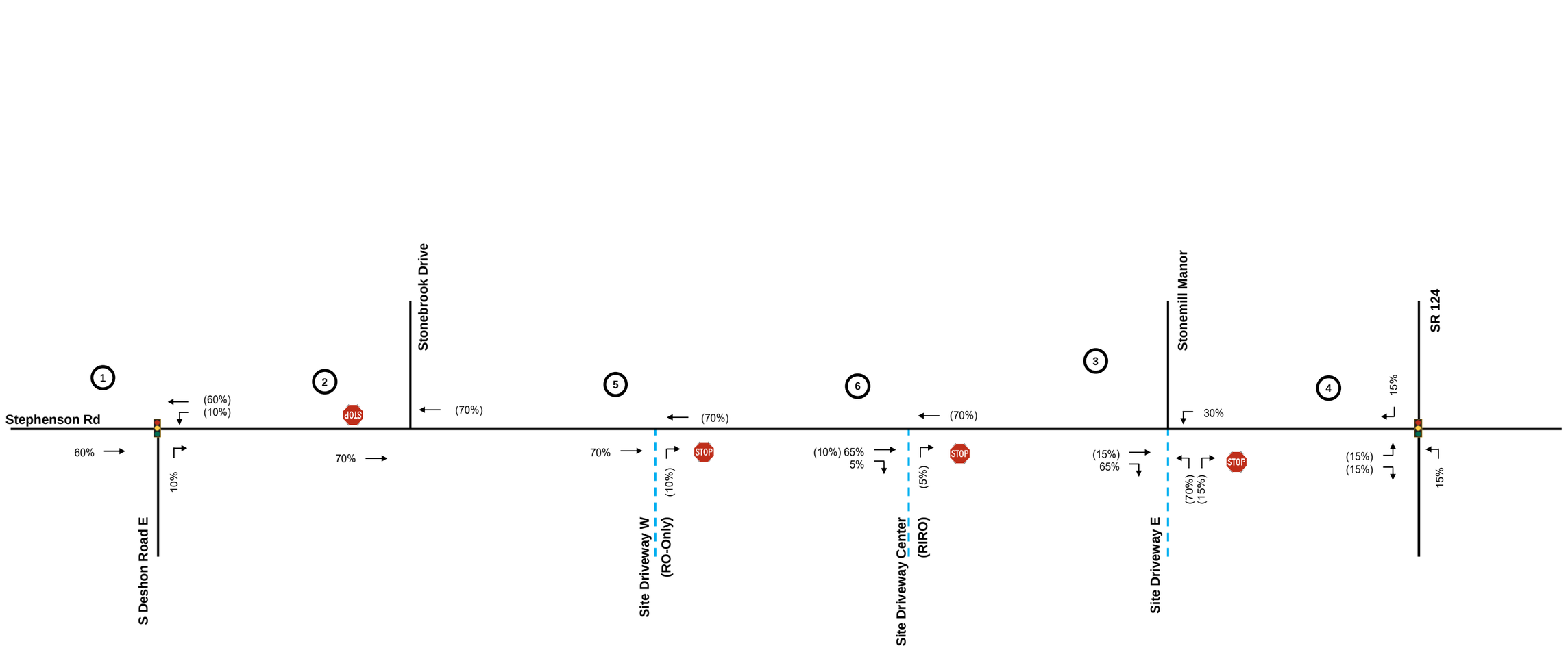
Table 3 summarizes the anticipated net trip generation for the proposed development upon full build-out (2026). **Appendix C** provides the detailed trip generation worksheet for the proposed development.

Table 3: Project Trip Generation Summary

ITE Code	Land Use	Density	Daily Traffic		AM Peak Hour		PM Peak Hour	
			Enter	Exit	Enter	Exit	Enter	Exit
210	Single-Family Housing	*160 units*	801	801	30	88	101	59
Total New Trips			**801**	**801**	**30**	**88**	**101**	**59**

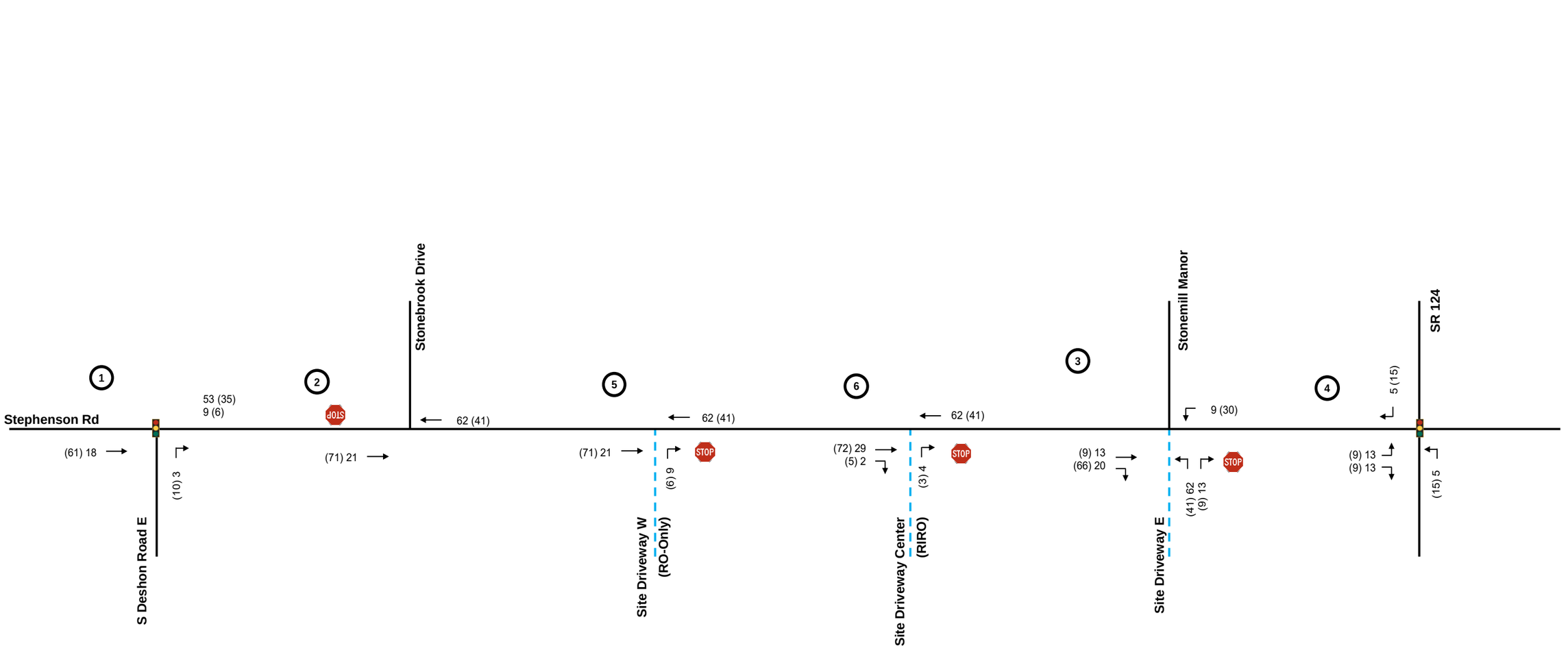
5.3 TRIP DISTRIBUTION AND ASSIGNMENT

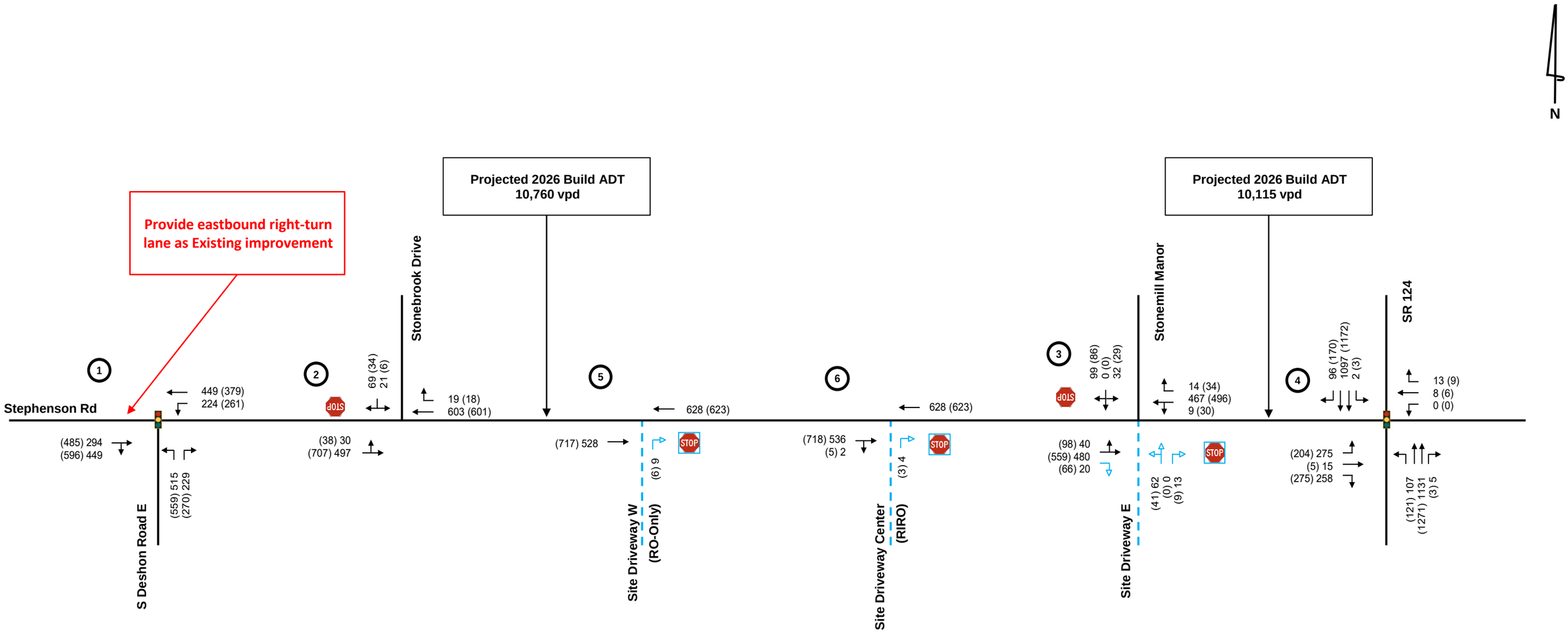
The directional distribution and assignment of adding new trips (project trips) related to the proposed development was based on a review of land uses and population densities in the area, existing travel patterns in the area, and engineering judgement. A detailed trip distribution and assignment is shown in **Figure 5**. Based on trip generation from **Table 3** and the anticipated trip distribution, new project trips were assigned to the study roadway network. **Figure 6** illustrates the new project trips distributed throughout the study network. **Figure 7** illustrates the Projected 2026 Build traffic volumes for the AM and PM peak hours. **Appendix D** provides intersection volume worksheets for all study intersections.



LEGEND

- Turning Movement
- XX % Entering Traffic
- (XX) % Exiting Traffic
- Existing Traffic Signal
- Existing Stop Control
- X Intersection Reference Number


N
Stephenson Rd
S Deshon Road E
Stonebrook Drive
Site Driveway W
(RO-Only)
Site Driveway Center
(RIRO)
Stonemill Manor
Site Driveway E
SR 124
1
2
3
4
5
6
STOP
53 (35)
9 (6)
(61) 18
(10) 3
(71) 21
62 (41)
(71) 21
(6) 9
62 (41)
(72) 29
(5) 2
(3) 4
62 (41)
(9) 13
(66) 20
9 (30)
(41) 62
(9) 13
5 (15)
(9) 13
(9) 13
(15) 5
LEGEND
Turning Movement
XX AM Peak Hour Project Trips
(XX) PM Peak Hour Project Trips
Existing Traffic Signal
Existing Stop Control
Intersection Reference Number



LEGEND

- Existing Laneage
- Proposed Build Laneage
- XX — AM Peak Hour Traffic Volume
- (XX) — PM Peak Hour Traffic Volume
- Existing Traffic Signal
- Existing Stop Control
- Proposed Stop Control
- XXX — Average Daily Traffic Volumes
- X — Intersection Reference Number

6.0 LEVEL-OF-SERVICE ANALYSIS

Level-of-service (LOS) determinations were made for the weekday AM and PM peak hours for the study network intersections using *Synchro, Version 10.* The program uses methodologies contained in the *6th Edition Highway Capacity Manual* to determine the operating characteristics of an intersection. Capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a specified period under prevailing roadway, traffic, and control conditions.

LOS is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions of a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F the worst.

LOS for signalized intersections are reported for this intersection as a whole. One or more movements at an intersection may experience a low LOS while the intersection as a whole may operate acceptably.

LOS for unsignalized intersections, with stop control on the minor streets only, are reported for the side-street approaches and major street left-turns. Low levels-of-service for side street approaches are not uncommon, as vehicles may experience delay turning onto a major roadway.

LOS analyses were performed for the AM and PM peak hours under adjusted Existing 2020 conditions, Projected 2026 No-Build conditions, and Projected 2026 Build conditions. The results of each analysis are summarized in **Table 4**. *Synchro* analysis reports are included in **Appendix E**.

Table 4: Level-of-Service Summary *LOS (Delay in Seconds)*							
Intersection	**Approach/ Movement**	**Adjusted Existing 2020**		**Projected 2026 No-Build**		**Projected 2026 Build**	
		AM Peak	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
1. Stephenson Road at S Deshon Road E (Signalized)	Overall	D (37.4)	F (88.3)	D (53.5)	F (109.2)	D (53.9)	F (121.5)
2. Stephenson Road at Stonebrook Drive (TWSC)	SB	C (16.5)	C (16.5)	C (17.7)	C (17.5)	C (19.6)	C (19.4)
	EBL	A (8.7)	A (9.0)	A (8.8)	A (9.1)	A (9.1)	A (9.3)
3. Stephenson Road at Stonemill Manor/Site Driveway East (TWSC)	SB	C (17.1)	C (21.9)	C (18.8)	D (25.4)	B (13.0)	B (13.2)
	EBL	A (8.6)	A (9.0)	A (8.7)	A (9.1)	A (8.7)	A (9.1)
	NB					F (55.8)	F (115.0)
	WBL					A (8.5)	A (8.9)
4. Stephenson Road at SR 124 (Signalized)	Overall	C (24.4)	C (23.2)	C (25.7)	C (24.6)	C (26.7)	C (25.9)
5. Stephenson Road at Site Driveway West (RO-Only)	NB					B (12.1)	B (14.5)
6. Stephenson Road at Site Driveway Center (RIRO)	NB					B (12.1)	B (14.5)

As shown in **Table 4**, the analyses indicate that all study intersections but one are projected to operate at an acceptable overall LOS during the AM and PM peak hours under adjusted Existing 2020 conditions, Projected 2026 No-Build conditions, and Projected 2026 Build conditions.

It should be noted that low levels-of-service for side street approaches are not uncommon, as vehicles may experience delay turning onto a major roadway.

The signalized intersection of Stephenson Road at S Deshon Road E operates at LOS F during the PM peak hour under adjusted Existing 2020 conditions and is projected to operate at LOS F during the PM peak hour under Projected 2026 No-Build conditions and Projected 2026 Build conditions. However, with the addition of an exclusive eastbound right turn-lane, Intersection 1 is projected to operate an acceptable LOS for all scenarios. The LOS results for the addition of an eastbound right-turn lane at Intersection 1 is shown below in **Table 5**.

Table 5: Intersection 1 Improvements Level-of-Service Summary *LOS (Delay in Seconds)*							
Intersection	**Approach/ Movement**	**Adjusted Existing 2020**		**Projected 2026 No-Build**		**Projected 2026 Build**	
		AM Peak	**PM Peak**	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
1. Stephenson Road at S Deshon Road E (Signalized)	Overall	C (24.9)	D (40.0)	C (27.0)	D (47.2)	C (26.8)	D (46.4)

7.0 ROADWAY SEGMENT CAPACITY ANALYSIS

Roadway segments can be rated for operational effectiveness in terms of LOS based on ADT. The LOS for a roadway segment follows the same pattern as intersection LOS with A being the best and F being the worst. The LOS of a roadway can vary depending on the prevailing roadway and traffic control conditions. GRTA's Generalized Annual Average Daily Volumes table was referenced to determine LOS based on ADT. The table can be found in **Appendix F**. For the purposes of this traffic impact study, Stephenson Road is assumed to be a non-state other signalized roadway with two lanes. **Table 6** summarizes the ADT volumes and LOS for the roadway segments.

Table 6: Roadway Segment Capacity Summary

Roadway Segment	Volume, vehicles per day (LOS)		
	Adjusted Existing 2020 ADT	**Projected 2026 No-Build ADT**	**Projected 2026 Build ADT**
Stephenson Road between S Deshon Road W and Site Location	9,080 *(LOS D)*	9,635 *(LOS D)*	10,760 *(LOS D)*
Stephenson Road between Site Location and SR 124	9,080 *(LOS D)*	9,635 *(LOS D)*	10,115 *(LOS D)*

Currently, both segments along Stephenson Road operate at LOS D. Under Projected 2026 No-Build conditions, both roadway segments are projected to continue to operate at LOS D. Under Projected 2026 Build conditions, the daily project trips are anticipated to follow the same trip distribution as the peak hour trips as shown in **Figure 8**. With the addition of the daily project trips, the Projected 2026 Build ADT for both the Stephenson Road between S Deshon Road E and the site location roadway segment and the Stephenson Road between the site location and SR 124 segment is projected to continue to operate at LOS D.

8.0 CONCLUSION

This traffic study evaluated the traffic impacts associated with the *Kingsley Creek-Stephenson Road Tract* development located east of S Deshon Road E and south of Stephenson Road in DeKalb County, Georgia. The development, which is approximately 45.7-acres in size, will include 160 single-family housing units.

The study network, which consists of four (4) intersections, was analyzed for the weekday AM and PM peak hours under adjusted Existing 2020 conditions, Projected 2026 No-Build conditions (six years of background traffic growth), and Projected 2026 Build conditions (six years of background traffic growth plus traffic generated by the proposed *Kingsley Creek-Stephenson Road Tract* development).

All study intersections, with the exception of the intersection of Stephenson Road at S Deshon Road E (Intersection 1), are expected to operate at an acceptable overall LOS under all future conditions. Intersection 1 currently operates at LOS F during the PM peak hour under adjusted Existing 2020 conditions. With the addition of an eastbound right-turn lane, Intersection 1 is projected to operate at an acceptable LOS under all existing and future scenarios.

The roadway segments along Stephenson Road to the east and to the west of the development are currently operating at and projected to operate at LOS D under all existing and future scenarios.

8.1 SYSTEM IMPROVEMENT RECOMMENDATIONS

Based on the results of this traffic impact study, the following system (no-build) improvements are recommended to serve the Projected 2026 No-Build conditions (Note: These are improvements needed without the development traffic):

- Stephenson Road at S Deshon Road W (Intersection 1)
    - Provide an exclusive eastbound right-turn lane.

8.2 SITE ACCESS IMPROVEMENT RECOMMENDATIONS

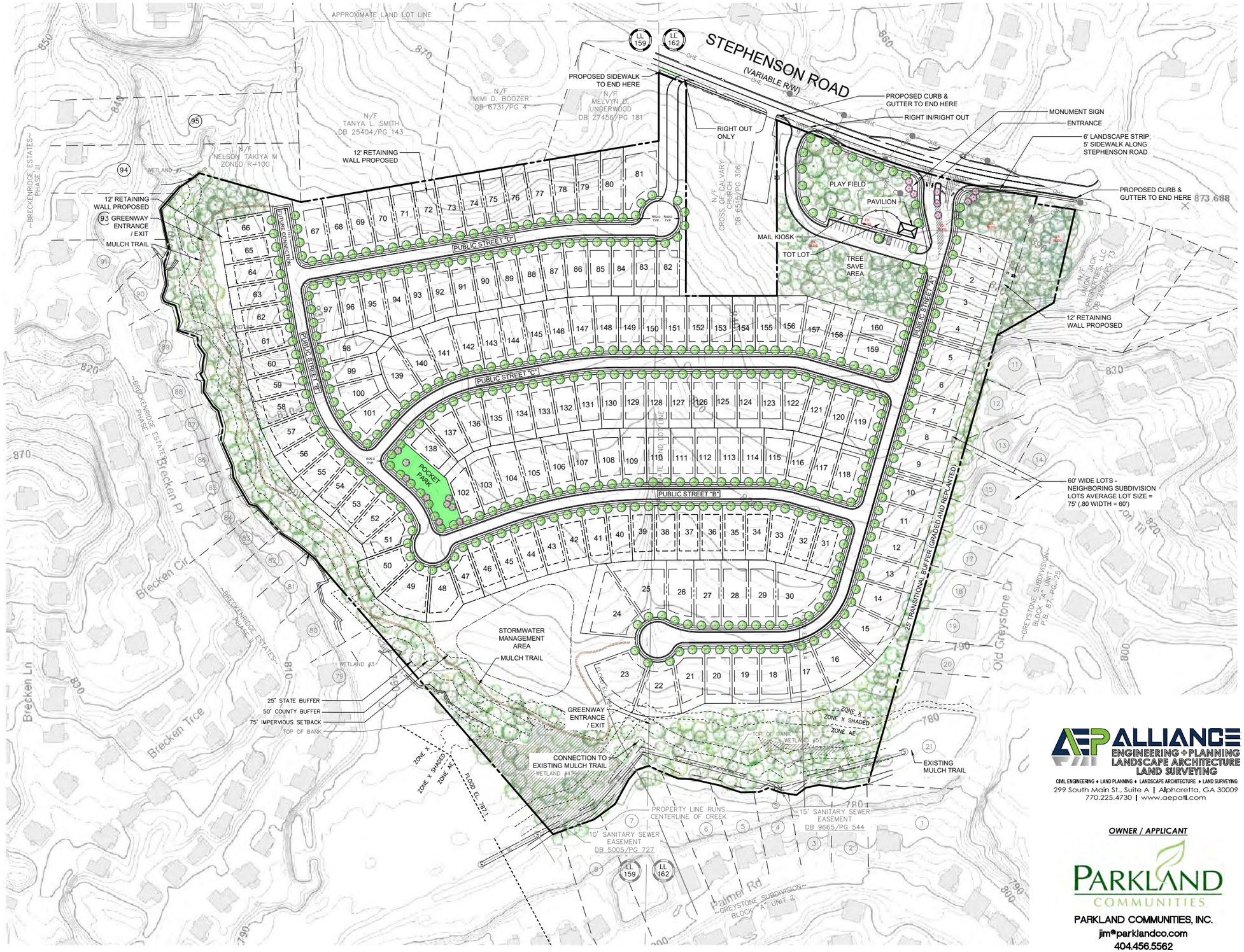
The following site access improvements are recommended to serve the *Kingsley Creek-Stephenson Road Tract* development (Note: These are improvements needed due to the proposed development traffic):

- Stephenson Road at Site Driveway West (Intersection 5)
    - On the site, construct a right-out only stop-controlled driveway with one (1) egress lane exiting the site, per the site plan.
- Stephenson Road at Site Driveway Center (Intersection 6)
    - On the site, construct a right-in right-out only stop-controlled driveway with one (1) ingress lane entering the site and one (1) egress lane exiting the site, per the site plan.
- Stephenson Road at Site Driveway East (Intersection 3)
    - Along Stephenson Road, construct one (1) eastbound right turn lane.
    - On the site, construct a conventional stop-controlled driveway with two (2) ingress lanes entering the site and two (2) egress lanes exiting the site, per the site plan.

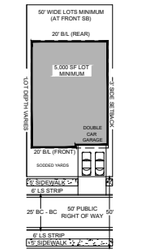
APPENDIX A

Site Plan

Kingsley Creek



LAND LOTS 159 AND 162, 16TH DISTRICT, DEKALB COUNTY, GEORGIA



TYPICAL LOT DETAIL - 1" = 50'
DETACHED FRONT ENTRY
PUBLIC STREETS "A" - "D"

DATA CHART	
GROSS ACRES:	45.662 AC. (1,989,045.37 SQ. FT.)
EXISTING ZONING:	R100
PROPOSED ZONING:	RSM
TOTAL LOTS:	160 LOTS
50' LOTS:	130 LOTS (LOTS 31 - 160)
60' LOTS:	30 LOTS (LOTS 1 - 30)
GROSS DENSITY:	3.50 U/A
MIN. UNIT HEATED AREA:	1,800 SF
BUILDING SETBACKS	
FRONT:	20' THOROUGHFARES; 20' INTERNAL (20' MIN DRIVEWAYS)
SIDE / CORNER:	SAME AS FRONT
REAR:	20'
SIDE:	3'
BETWEEN FOUNDATIONS:	10' BETWEEN FOUNDATIONS
BUFFER:	AS SHOWN
LANDSCAPE STRIP:	AS SHOWN
BUILDING HT. MAXIMUM:	35'
ADDITIONAL CALCULATIONS	
OPEN SPACE REQUIRED:	20% OR 9.13 ACRES
OPEN SPACE PROVIDED:	+/- 20.2% OR +/- 9.22 ACRES
ENHANCED REQUIRED:	10% OR 4.56 ACRES
ENHANCED PROVIDED:	10% OR 4.56 ACRES
LOT COVERAGE ALLOWED:	50% (MAXIMUM PER LOT OR TOTAL PARCEL ACREAGE)
LOT COVERAGE PROVIDED:	50.0% (PER LOT OR TOTAL PARCEL ACREAGE).
SIDEWALK PROVIDED ON SITE:	+/- 10,250 L.F.
SIDEWALK PROVIDED ALONG STEPHENSON RD:	+/- 500 L.F.
MULCH TRAIL PROVIDED:	+/- 2,000 L.F.

PARKING ANALYSIS					
LOT TYPE	GARAGE	DRIVEWAY	TOTAL PER HOUSE	TOTAL LOT	TOTAL SPACES
FRONT ENTRY	2	2	4	160	640
TOTAL PARKING SPACES REQUIRED FOR LOTS					320
AMENITY / MAIL KIOSK PARKING PROVIDED					18
TOTAL PARKING SPACES PROPOSED FOR RESIDENTIAL					668

PROPERTY OWNERS:
PID: 16 159 01 003 - MR. KING W PAUL
PID: 16 162 05 002 - WAYNE A GUNTER; VICKIE S MCGHEE
PID: 16 162 05 003 - CAPE DOROTHY LEE, HER ESTATE, ADMIN, EXECUTOR, AND HEIRS, KNOWN AND UNKNOWN

SEWER NOTE:
SEWER WILL BE A GRAVITY LINE AND CONNECT INTO THE EXISTING SEWER MANHOLE ON SITE.

WATER NOTE:
WATER IS PROVIDED BY DEKALB COUNTY.

FLOOD NOTE:
A PORTION OF THIS PROPERTY IS LOCATED IN A FEMA FLOOD PLAIN AS PER FEMA MAP NO. 13089C0113K, DATED DECEMBER 18, 2016.

REQUESTED VARIANCES:
1. GRADED AND REPLANTED BUFFERS AS SHOWN.
2. GRADING CAN BE ALLOWED WITHIN THE 75' STREAM SETBACK, BUT NOT THE 50' COUNTY BUFFER.
3. ALL HOMES TO HAVE FRONT ENTRY GARAGES AND DRIVEWAYS.
4. ALL RETAINING WALLS ARE ALLOWED TO BE UP TO 12' TALL

ALLIANCE
ENGINEERING + PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
CIVIL ENGINEERING ♦ LAND PLANNING ♦ LANDSCAPE ARCHITECTURE ♦ LAND SURVEYING
299 South Main St., Suite A | Alpharetta, GA 30009
770.225.4730 | www.aepatl.com

OWNER / APPLICANT

PARKLAND COMMUNITIES
PARKLAND COMMUNITIES, INC.
jim@parklandco.com
404.456.5562

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

NORTH

REVISED: 07/15/2020

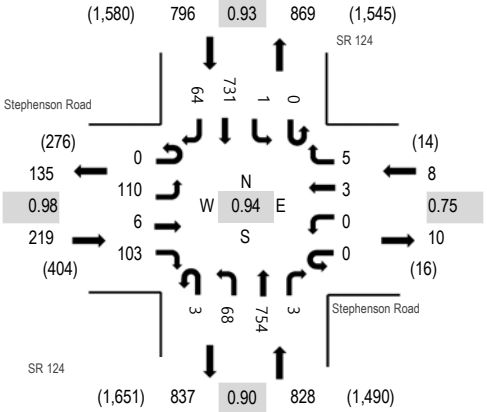
APPENDIX B

Traffic Count Data

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

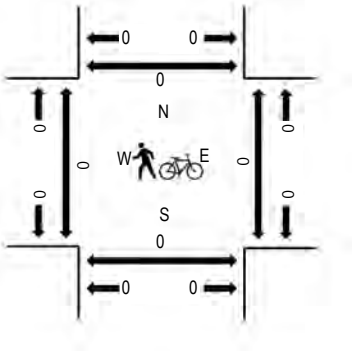
Location: 1 SR 124 & Stephenson Road AM
Date: Thursday, August 6, 2020
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				SR 124 Northbound				SR 124 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	15	0	28	0	0	0	0	1	9	170	0	0	0	145	12	380	1,755	0	0	0	0
7:15 AM	0	35	0	15	0	1	0	1	0	22	148	1	0	1	190	20	434	1,820	0	0	0	0
7:30 AM	0	30	1	24	0	0	0	2	0	18	210	1	0	0	191	14	491	1,851	0	0	0	0
7:45 AM	0	27	0	29	0	0	0	1	3	15	191	1	0	0	161	22	450	1,776	0	0	0	0
8:00 AM	0	24	3	28	0	0	2	0	0	15	162	1	0	1	197	12	445	1,733	0	0	0	0
8:15 AM	0	29	2	22	0	0	1	2	0	20	191	0	0	0	182	16	465		0	0	0	0
8:30 AM	0	20	0	26	0	0	1	0	0	21	125	1	0	0	206	16	416		0	0	0	0
8:45 AM	0	20	2	24	0	1	1	1	0	23	141	0	0	1	177	16	407		0	0	0	0

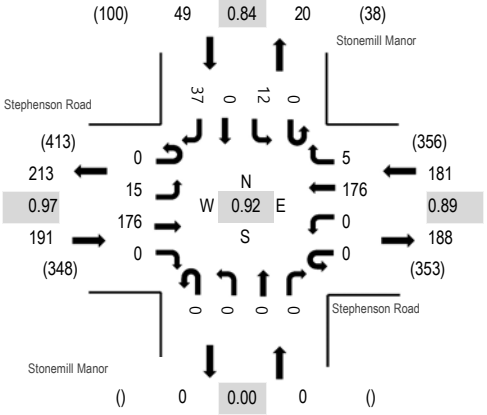
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	1	0	12	0	0	0	6	0	20
Lights	0	107	6	100	0	0	3	4	0	67	705	3	0	1	694	63	1,753
Mediums	0	2	0	3	0	0	0	1	2	1	37	0	0	0	31	1	78
Total	0	110	6	103	0	0	3	5	3	68	754	3	0	1	731	64	1,851

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

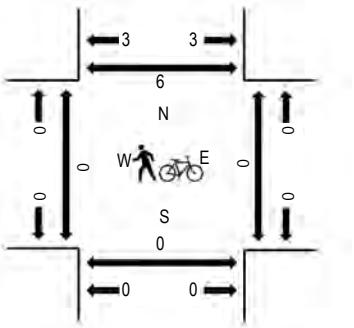
Location: 2 Stonemill Manor & Stephenson Road AM
Date: Thursday, August 6, 2020
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				Stonemill Manor Northbound				Stonemill Manor Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	3	34	0	0	0	37	0	0	0	0	0	0	3	0	5	82	391	0	0	0	1
7:15 AM	0	3	32	0	0	0	46	3	0	0	0	0	0	5	0	10	99	404	0	0	0	1
7:30 AM	0	2	41	0	0	0	39	0	0	0	0	0	0	5	0	9	96	416	0	0	0	3
7:45 AM	0	3	46	0	0	0	48	1	0	0	0	0	0	5	0	11	114	421	0	0	0	3
8:00 AM	0	2	46	0	0	0	36	2	0	0	0	0	0	3	0	6	95	413	0	0	0	0
8:15 AM	0	6	40	0	0	0	49	2	0	0	0	0	0	3	0	11	111		0	0	0	1
8:30 AM	0	4	44	0	0	0	43	0	0	0	0	0	0	1	0	9	101		0	0	0	1
8:45 AM	0	2	40	0	0	0	45	5	0	0	0	0	0	5	0	9	106		0	0	0	0

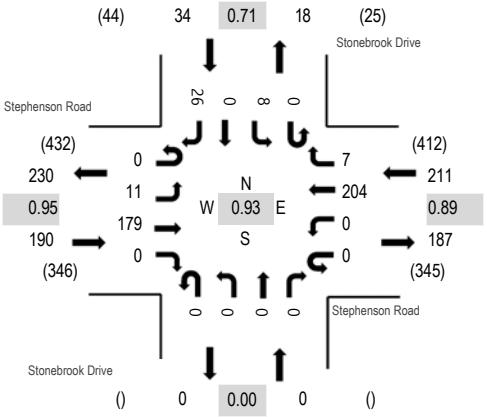
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	14	170	0	0	0	172	5	0	0	0	0	0	12	0	36	409
Mediums	0	1	6	0	0	0	4	0	0	0	0	0	0	0	0	1	12
Total	0	15	176	0	0	0	176	5	0	0	0	0	0	12	0	37	421

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

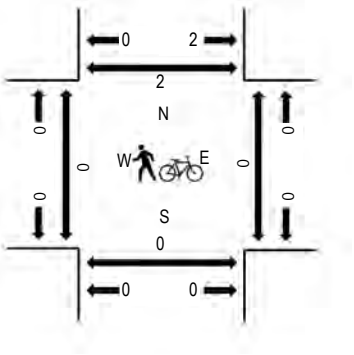
Location: 3 Stonebrook Drive & Stephenson Road AM
Date: Thursday, August 6, 2020
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				Stonebrook Drive Northbound				Stonebrook Drive Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	36	0	0	0	40	0	0	0	0	0	0	0	0	0	76	385	0	0	0	0
7:15 AM	0	1	35	0	0	0	57	1	0	0	0	0	0	1	0	0	95	405	0	0	0	1
7:30 AM	0	2	42	0	0	0	48	1	0	0	0	0	0	2	0	3	98	427	0	0	0	3
7:45 AM	0	3	47	0	0	0	55	3	0	0	0	0	0	1	0	7	116	435	0	0	0	2
8:00 AM	0	0	46	0	0	0	42	0	0	0	0	0	0	3	0	5	96	417	0	0	0	0
8:15 AM	0	3	43	0	0	0	57	2	0	0	0	0	0	4	0	8	117		0	0	0	0
8:30 AM	0	5	43	0	0	0	50	2	0	0	0	0	0	0	0	6	106		0	0	0	0
8:45 AM	0	1	39	0	0	0	53	1	0	0	0	0	0	3	0	1	98		0	0	0	0

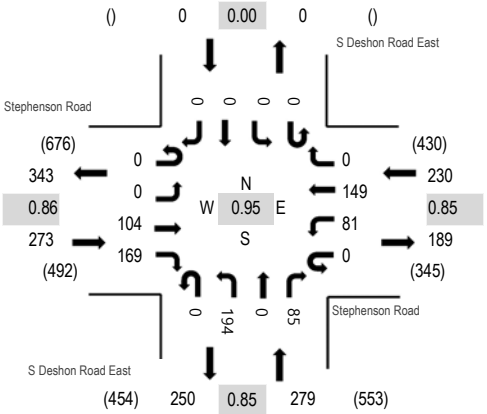
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	11	174	0	0	0	199	7	0	0	0	0	0	8	0	26	425
Mediums	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	10
Total	0	11	179	0	0	0	204	7	0	0	0	0	0	8	0	26	435

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

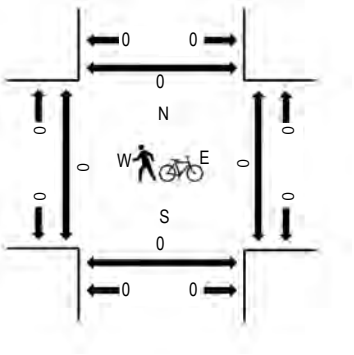
Location: 4 S Deshon Road East & Stephenson Road AM
Date: Thursday, August 6, 2020
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				S Deshon Road East Northbound				S Deshon Road East Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	23	31	0	11	33	0	0	46	0	14	0	0	0	0	158	700	0	0	0	0
7:15 AM	0	0	12	29	0	18	31	0	0	45	0	22	0	0	0	0	157	714	0	0	0	0
7:30 AM	0	0	23	37	0	16	40	0	0	41	0	23	0	0	0	0	180	758	0	0	0	0
7:45 AM	0	0	29	34	0	22	37	0	0	61	0	22	0	0	0	0	205	782	0	0	0	0
8:00 AM	0	0	20	38	0	18	29	0	0	44	0	23	0	0	0	0	172	775	0	0	0	0
8:15 AM	0	0	21	51	0	22	46	0	0	38	0	23	0	0	0	0	201		0	0	0	0
8:30 AM	0	0	34	46	0	19	37	0	0	51	0	17	0	0	0	0	204		0	0	0	0
8:45 AM	0	0	20	44	0	18	33	0	0	64	0	19	0	0	0	0	198		0	0	0	0

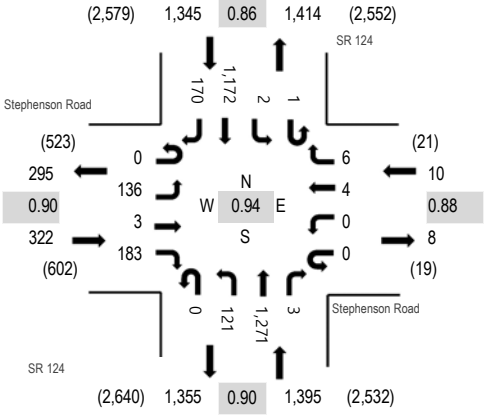
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	0	99	164	0	78	148	0	0	191	0	83	0	0	0	0	763
Mediums	0	0	5	4	0	3	1	0	0	3	0	2	0	0	0	0	18
Total	0	0	104	169	0	81	149	0	0	194	0	85	0	0	0	0	782

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

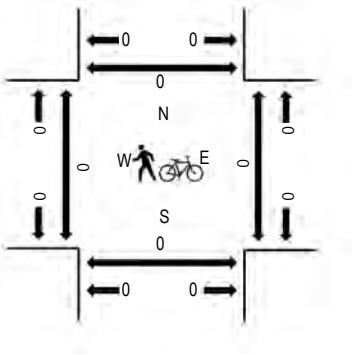
Location: 1 SR 124 & Stephenson Road PM
Date: Thursday, August 6, 2020
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				SR 124 Northbound				SR 124 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	20	1	46	0	0	1	0	0	32	262	0	0	2	260	30	654	2,662	0	0	0	0
4:15 PM	0	16	0	51	0	1	0	1	0	29	236	2	0	0	286	24	646	2,717	0	0	0	0
4:30 PM	0	51	1	46	0	1	0	3	0	29	271	2	1	0	269	36	710	2,822	0	0	0	0
4:45 PM	0	18	0	30	0	0	1	3	0	17	255	2	1	1	295	29	652	2,926	0	0	0	0
5:00 PM	0	33	1	41	0	0	1	3	0	29	288	0	0	0	270	43	709	3,072	0	0	0	0
5:15 PM	0	27	0	49	0	0	1	1	0	29	327	1	1	1	270	44	751		0	0	0	0
5:30 PM	0	41	1	47	0	0	2	0	0	42	290	0	0	0	354	37	814		0	0	0	0
5:45 PM	0	35	1	46	0	0	0	2	0	21	366	2	0	1	278	46	798		0	0	0	0

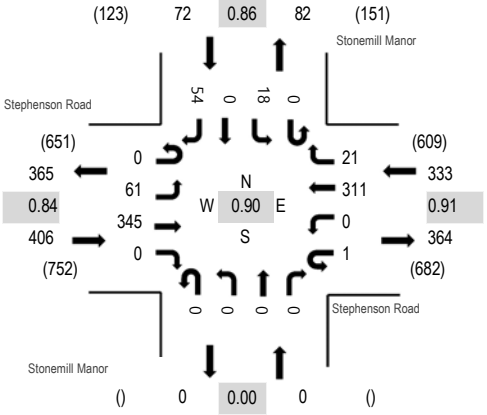
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	0	5	0	0	0	9	0	15
Lights	0	136	3	179	0	0	4	6	0	120	1,244	3	1	2	1,143	170	3,011
Mediums	0	0	0	3	0	0	0	0	0	1	22	0	0	0	20	0	46
Total	0	136	3	183	0	0	4	6	0	121	1,271	3	1	2	1,172	170	3,072

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

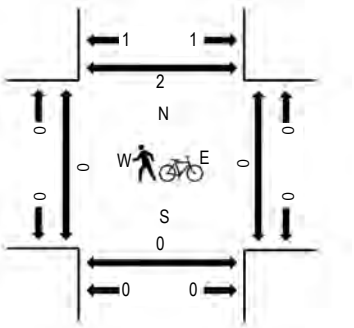
Location: 2 Stonemill Manor & Stephenson Road PM
Date: Thursday, August 6, 2020
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				Stonemill Manor Northbound				Stonemill Manor Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	10	77	0	0	0	66	8	0	0	0	0	0	5	0	7	173	673	0	0	0	0
4:15 PM	0	9	75	0	0	0	59	5	0	0	0	0	0	3	0	7	158	692	0	0	0	0
4:30 PM	0	11	81	0	0	0	73	5	0	0	0	0	0	9	0	10	189	723	0	0	0	0
4:45 PM	0	19	64	0	0	0	58	2	0	0	0	0	0	4	0	6	153	759	0	0	0	0
5:00 PM	0	8	80	0	0	0	78	5	0	0	0	0	0	2	0	19	192	811	0	0	0	1
5:15 PM	0	14	81	0	1	0	66	6	0	0	0	0	0	7	0	14	189		0	0	0	1
5:30 PM	0	23	98	0	0	0	86	5	0	0	0	0	0	5	0	8	225		0	0	0	0
5:45 PM	0	16	86	0	0	0	81	5	0	0	0	0	0	4	0	13	205		0	0	0	0

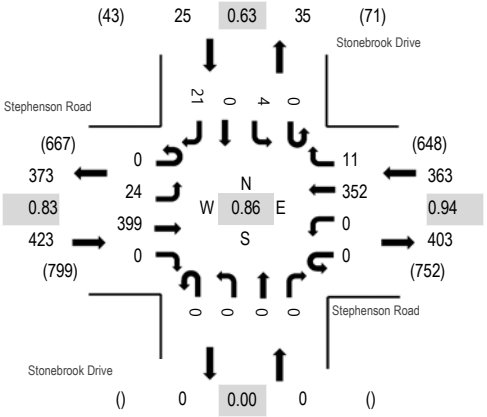
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	60	341	0	1	0	309	21	0	0	0	0	0	18	0	54	804
Mediums	0	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0	6
Total	0	61	345	0	1	0	311	21	0	0	0	0	0	18	0	54	811

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

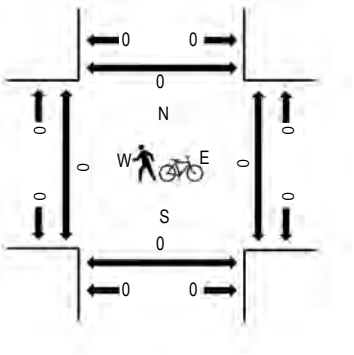
Location: 3 Stonebrook Drive & Stephenson Road PM
Date: Thursday, August 6, 2020
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				Stonebrook Drive Northbound				Stonebrook Drive Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	9	85	0	0	0	71	2	0	0	0	0	0	2	0	6	175	679	0	0	0	0
4:15 PM	0	7	87	0	0	0	63	2	0	0	0	0	0	0	0	3	162	695	0	0	0	0
4:30 PM	0	2	88	0	0	0	82	1	0	0	0	0	0	0	0	2	175	719	0	0	0	0
4:45 PM	0	12	86	0	0	0	63	1	0	0	0	0	0	1	0	4	167	779	0	0	0	0
5:00 PM	0	5	83	0	0	0	96	1	0	0	0	0	0	0	0	6	191	811	0	0	0	0
5:15 PM	0	5	101	0	0	0	74	4	0	0	0	0	0	0	0	2	186		0	0	0	0
5:30 PM	0	9	119	0	0	0	94	3	0	0	0	0	0	3	0	7	235		0	0	0	0
5:45 PM	0	5	96	0	0	0	88	3	0	0	0	0	0	1	0	6	199		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lights	0	24	395	0	0	0	350	11	0	0	0	0	0	4	0	21	805
Mediums	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5
Total	0	24	399	0	0	0	352	11	0	0	0	0	0	4	0	21	811

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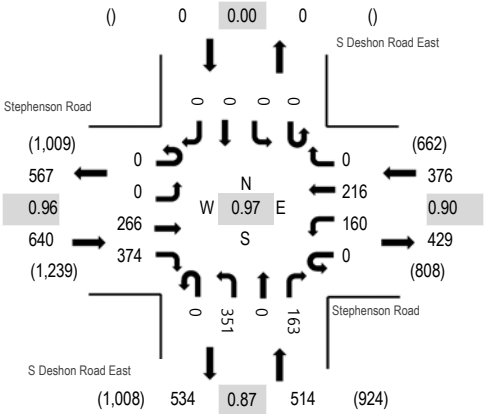
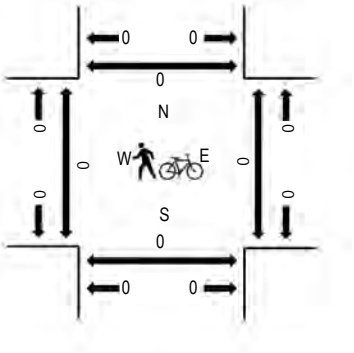
Location: 4 S Deshon Road East & Stephenson Road PM
Date: Thursday, August 6, 2020
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	Stephenson Road Eastbound				Stephenson Road Westbound				S Deshon Road East Northbound				S Deshon Road East Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	71	86	0	43	27	0	0	75	0	27	0	0	0	0	329	1,295	1	0	0	0
4:15 PM	0	0	62	87	0	24	46	0	0	68	0	29	0	0	0	0	316	1,335	0	0	0	0
4:30 PM	0	0	52	86	0	32	45	0	0	73	0	43	0	0	0	0	331	1,402	0	0	0	0
4:45 PM	0	0	67	88	0	28	41	0	0	67	0	28	0	0	0	0	319	1,453	0	0	0	0
5:00 PM	0	0	57	107	0	37	68	0	0	63	0	37	0	0	0	0	369	1,530	0	0	0	0
5:15 PM	0	0	62	89	0	39	45	0	0	108	0	40	0	0	0	0	383		0	0	0	0
5:30 PM	0	0	78	81	0	41	54	0	0	80	0	48	0	0	0	0	382		0	0	0	0
5:45 PM	0	0	69	97	0	43	49	0	0	100	0	38	0	0	0	0	396		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	3
Lights	0	0	261	363	0	160	214	0	0	346	0	163	0	0	0	0	1,507
Mediums	0	0	4	10	0	0	2	0	0	4	0	0	0	0	0	0	20
Total	0	0	266	374	0	160	216	0	0	351	0	163	0	0	0	0	1,530

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Site Code: 1
Station ID: 1
STEPHENSON ROAD WEST OF
ALFORD ROAD
Latitude: 0' 0.0000 Undefined

Start	06-Aug-20	EB		Hour Totals		WB		Hour Totals		Combined Totals	
Time	Thu	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		12	36			13	48				
12:15		10	45			7	48				
12:30		8	43			11	46				
12:45		7	43	37	167	5	40	36	182	73	349
01:00		3	49			5	34				
01:15		10	53			11	40				
01:30		9	48			7	38				
01:45		9	44	31	194	0	58	23	170	54	364
02:00		3	43			0	43				
02:15		4	49			5	42				
02:30		3	60			6	41				
02:45		2	42	12	194	1	45	12	171	24	365
03:00		6	50			1	36				
03:15		6	51			10	47				
03:30		7	52			7	50				
03:45		5	59	24	212	2	41	20	174	44	386
04:00		4	79			10	40				
04:15		3	75			6	51				
04:30		6	70			4	64				
04:45		2	68	15	292	5	57	25	212	40	504
05:00		6	79			6	51				
05:15		8	64			12	49				
05:30		8	113			14	68				
05:45		6	59	28	315	13	67	45	235	73	550
06:00		9	84			15	50				
06:15		9	72			32	67				
06:30		10	79			36	65				
06:45		10	72	38	307	36	60	119	242	157	549
07:00		19	70			45	61				
07:15		19	62			42	40				
07:30		23	79			43	54				
07:45		28	68	89	279	41	48	171	203	260	482
08:00		28	62			39	48				
08:15		20	41			33	32				
08:30		22	54			46	36				
08:45		20	48	90	205	38	46	156	162	246	367
09:00		30	42			39	34				
09:15		26	41			38	33				
09:30		33	41			38	21				
09:45		38	23	127	147	38	25	153	113	280	260
10:00		34	22			44	30				
10:15		24	29			43	27				
10:30		45	23			39	28				
10:45		36	22	139	96	33	21	159	106	298	202
11:00		32	20			34	19				
11:15		35	16			33	15				
11:30		35	21			36	14				
11:45		40	27	142	84	36	10	139	58	281	142
Total		772	2492			1058	2028			1830	4520
Percent		23.7%	76.3%			34.3%	65.7%			28.8%	71.2%
Grand Total		772	2492			1058	2028			1830	4520
Percent		23.7%	76.3%			34.3%	65.7%			28.8%	71.2%
ADT		ADT 6,350		AADT 6,350							

All Traffic Data Services

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Site Code: 2
Station ID: 2
STEPHENSON ROAD WEST OF SR 124

Latitude: 0' 0.0000 Undefined

Start Time	06-Aug-20 Thu	EB Morning	EB Afternoon	Hour Totals Morning	Hour Totals Afternoon	WB Morning	WB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	57			10	72				
12:15		10	67			11	59				
12:30		5	65			7	58				
12:45		12	49	36	238	14	63	42	252	78	490
01:00		6	74			7	49				
01:15		7	57			10	59				
01:30		4	63			6	45				
01:45		5	64	22	258	5	47	28	200	50	458
02:00		5	40			5	41				
02:15		3	56			2	48				
02:30		7	67			5	65				
02:45		7	63	22	226	1	50	13	204	35	430
03:00		7	69			5	69				
03:15		4	75			1	46				
03:30		5	66			3	71				
03:45		10	73	26	283	5	71	14	257	40	540
04:00		3	63			3	72				
04:15		3	69			8	60				
04:30		9	74			2	62				
04:45		4	53	19	259	3	56	16	250	35	509
05:00		14	72			4	71				
05:15		14	81			2	81				
05:30		12	88			5	85				
05:45		23	76	63	317	6	76	17	313	80	630
06:00		24	70			10	88				
06:15		31	72			14	82				
06:30		29	66			14	96				
06:45		32	63	116	271	15	57	53	323	169	594
07:00		44	54			24	70				
07:15		41	57			41	68				
07:30		56	58			29	61				
07:45		54	63	195	232	40	68	134	267	329	499
08:00		51	63			30	63				
08:15		50	44			41	65				
08:30		44	39			37	60				
08:45		41	40	186	186	40	56	148	244	334	430
09:00		59	40			33	41				
09:15		50	49			32	53				
09:30		55	41			44	32				
09:45		44	29	208	159	42	37	151	163	359	322
10:00		52	31			51	29				
10:15		45	32			50	37				
10:30		54	14			35	29				
10:45		73	25	224	102	41	29	177	124	401	226
11:00		56	17			41	16				
11:15		38	21			33	23				
11:30		54	20			46	29				
11:45		60	15	208	73	53	13	173	81	381	154
Total		1325	2604			966	2678			2291	5282
Percent		33.7%	66.3%			26.5%	73.5%			30.3%	69.7%
Grand Total		1325	2604			966	2678			2291	5282
Percent		33.7%	66.3%			26.5%	73.5%			30.3%	69.7%
ADT		ADT 7,573		AADT 7,573							

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Site Code: 3
Station ID: 3
SR 124 NORTH ASBURY DRIVE - HIGHTOWER TRAIL
Latitude: 0' 0.0000 Undefined

Start Time	06-Aug-20 Thu	NB Morning	NB Afternoon	Hour Totals Morning	Hour Totals Afternoon	SB Morning	SB Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		34	179			44	205				
12:15		37	189			44	189				
12:30		41	216			28	223				
12:45		38	202	150	786	42	215	158	832	308	1618
01:00		43	212			21	211				
01:15		31	207			35	206				
01:30		34	233			23	217				
01:45		20	215	128	867	27	206	106	840	234	1707
02:00		26	207			21	204				
02:15		21	244			17	218				
02:30		23	252			21	227				
02:45		18	251	88	954	13	222	72	871	160	1825
03:00		25	217			23	205				
03:15		24	260			21	251				
03:30		18	256			16	248				
03:45		42	273	109	1006	31	233	91	937	200	1943
04:00		29	224			27	272				
04:15		18	250			43	308				
04:30		43	291			43	315				
04:45		26	274	116	1039	54	275	167	1170	283	2209
05:00		56	308			49	303				
05:15		64	290			59	333				
05:30		65	334			78	383				
05:45		81	357	266	1289	120	323	306	1342	572	2631
06:00		76	357			112	316				
06:15		103	293			143	296				
06:30		168	268			141	265				
06:45		186	212	533	1130	169	265	565	1142	1098	2272
07:00		179	199			169	232				
07:15		181	208			186	231				
07:30		234	252			186	211				
07:45		197	186	791	845	178	222	719	896	1510	1741
08:00		218	188			198	182				
08:15		169	173			192	192				
08:30		166	133			196	233				
08:45		151	145	704	639	209	161	795	768	1499	1407
09:00		150	157			174	165				
09:15		156	148			183	146				
09:30		171	146			202	134				
09:45		163	124	640	575	199	118	758	563	1398	1138
10:00		170	101			187	105				
10:15		158	110			201	103				
10:30		160	94			195	84				
10:45		178	82	666	387	163	89	746	381	1412	768
11:00		179	67			209	75				
11:15		164	60			166	71				
11:30		189	73			211	69				
11:45		185	66	717	266	219	67	805	282	1522	548
Total		4908	9783			5288	10024			10196	19807
Percent		33.4%	66.6%			34.5%	65.5%			34.0%	66.0%
Grand Total		4908	9783			5288	10024			10196	19807
Percent		33.4%	66.6%			34.5%	65.5%			34.0%	66.0%
ADT		ADT 30,003		AADT 30,003							

APPENDIX C

Volume Development

(Trip Generation and Growth Rate Calculations)

Trip Generation Analysis (10th Ed. with *2nd Edition Handbook* Daily IC & *3rd Edition* AM/PM IC)
Kinglsey Creek-Stephenson Rd Tract
DeKalb County, GA

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Proposed Site Traffic								
210 Single-Family Detached Housing	160 d.u.	1,602	118	30	88	160	101	59
Gross Trips		**1,602**	**118**	**30**	**88**	**160**	**101**	**59**
Residential Trips		1,602	118	30	88	160	101	59
Mixed-Use Reductions		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Alternative Mode Reductions		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Adjusted Residential Trips		1,602	118	30	88	160	101	59
Mixed-Use Reductions - TOTAL		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Alternative Mode Reductions - TOTAL		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pass-By Reductions - TOTAL		*0*	*0*	*0*	*0*	*0*	*0*	*0*
New Trips		**1,602**	**118**	**30**	**88**	**160**	**101**	**59**
Driveway Volumes		**1,602**	**118**	**30**	**88**	**160**	**101**	**59**

Kinglsey Creek-Stephenson Rd Tract
Growth Rate Table

Source:	GDOT
Location:	Stephenson Road
	w/o Alford Road
Route #:	00510900
Route Type:	Minor Collector (Urban)
Station:	089-0458
Capacity:	

Count Year	Volume	Growth Rate
2013	7,400	
2014	7,400	0.00%
2015	7,400	0.00%
2016	7,400	0.00%
2017	7,400	0.00%
2018	7,510	1.49%

Avg. 1 Year Rates 2013-2018	**0.30%**

Source:	GDOT
Location:	Stephenson Road
	e/o Vigo Drive
Route #:	00067600
Route Type:	Minor Collector (Urban)
Station:	089-0461
Capacity:	

Count Year	Volume	Growth Rate
2013	6,810	
2014	6,810	0.00%
2015	7,090	4.11%
2016	7,260	2.40%
2017	**7,210**	-0.69%
2018	7,320	1.53%

Avg. 1 Year Rates 2013-2018	**1.45%**

Source:	GDOT
Location:	Rockbridge Road
	w/o Monteagle Trace
Route #:	00518900
Route Type:	Minor Arterial (Urban)
Station:	089-3449
Capacity:	

Count Year	Volume	Growth Rate
2013	15,100	
2014	15,100	0.00%
2015	16,200	7.28%
2016	**15,800**	-2.47%
2017	16,700	5.70%
2018	**14,100**	-15.57%

Avg. 1 Year Rates 2013-2018	**-1.36%**
Avg. 1 Year Rates 2016-2018	**-5.53%**

DeKalb County Population Annual Growth (2010-2019):

Annual Growth
1.04%

***Bolded data is from actual count years.**

CHOSEN GROWTH RATE: 1.0%

APPENDIX D

Intersection Volume Worksheets

INTERSECTION VOLUME DEVELOPMENT

Intersection #1

S Deshon Road East at Stephenson Road

AM PEAK HOUR

Description	S Deshon Road East Northbound			S Deshon Road East Southbound			Stephenson Road Eastbound			Stephenson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	194	0	85	0	0	0	0	104	169	81	149	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	3	0	2	0	0	0	0	5	4	3	1	0
Heavy Vehicle %	2%	0%	2%	0%	0%	0%	0%	5%	2%	4%	2%	0%
Peak Hour Factor		0.95			0.95			0.95			0.95	
Adjustment	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Adjusted 2020 Volumes	485	0	213	0	0	0	0	260	423	203	373	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	515	0	226	0	0	0	0	276	449	215	396	0
Project Trips												
Trip Distribution IN			10%					60%				
Trip Distribution OUT										10%	60%	
Residential Trips	0	0	3	0	0	0	0	18	0	9	53	0
Total Project Trips	0	0	3	0	0	0	0	18	0	9	53	0
2026 Buildout Total	515	0	229	0	0	0	0	294	449	224	449	0

PM PEAK HOUR

Description	S Deshon Road East Northbound			S Deshon Road East Southbound			Stephenson Road Eastbound			Stephenson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	351	0	163	0	0	0	0	266	374	160	216	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	4	0	0	0	0	0	0	4	10	0	2	0
Heavy Vehicle %	2%	0%	2%	0%	0%	0%	0%	2%	3%	2%	2%	0%
Peak Hour Factor		0.97			0.97			0.97			0.97	
Adjustment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Adjusted 2020 Volumes	527	0	245	0	0	0	0	399	561	240	324	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	559	0	260	0	0	0	0	424	596	255	344	0
Project Trips												
Trip Distribution IN			10%					60%				
Trip Distribution OUT										10%	60%	
Residential Trips	0	0	10	0	0	0	0	61	0	6	35	0
Total Project Trips	0	0	10	0	0	0	0	61	0	6	35	0
2026 Buildout Total	559	0	270	0	0	0	0	485	596	261	379	0

8/13/2020 19:54

INTERSECTION VOLUME DEVELOPMENT

Intersection #2

Stonebrook Drive at Stephenson Road

AM PEAK HOUR

Description	Stonebrook Drive Northbound Left	Through	Right	Stonebrook Drive Southbound Left	Through	Right	Stephenson Road Eastbound Left	Through	Right	Stephenson Road Westbound Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	8	0	26	11	179	0	0	204	7
Pedestrians		0			2			0			0	
Conflicting Pedestrians	0		0	0		0	2		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	5	0	0	5	0
Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	3%	0%	0%	2%	2%
Peak Hour Factor		0.93			0.93			0.93			0.93	
Adjustment	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Adjusted 2020 Volumes	0	0	0	20	0	65	28	448	0	0	510	18
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	21	0	69	30	476	0	0	541	19
Project Trips												
Trip Distribution IN								70%				
Trip Distribution OUT											70%	
Residential Trips	0	0	0	0	0	0	0	21	0	0	62	0
Total Project Trips	0	0	0	0	0	0	0	21	0	0	62	0
2026 Buildout Total	0	0	0	21	0	69	30	497	0	0	603	19

PM PEAK HOUR

Description	Stonebrook Drive Northbound Left	Through	Right	Stonebrook Drive Southbound Left	Through	Right	Stephenson Road Eastbound Left	Through	Right	Stephenson Road Westbound Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	4	0	21	24	399	0	0	352	11
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	3	0	0	2	0
Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%
Peak Hour Factor		0.86			0.86			0.86			0.86	
Adjustment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Adjusted 2020 Volumes	0	0	0	6	0	32	36	599	0	0	528	17
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	6	0	34	38	636	0	0	560	18
Project Trips												
Trip Distribution IN								70%				
Trip Distribution OUT											70%	
Residential Trips	0	0	0	0	0	0	0	71	0	0	41	0
Total Project Trips	0	0	0	0	0	0	0	71	0	0	41	0
2026 Buildout Total	0	0	0	6	0	34	38	707	0	0	601	18

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INTERSECTION VOLUME DEVELOPMENT

Intersection #3

Site Driveway E/Stonemill Manor at Stephenson Road

AM PEAK HOUR

	Site Driveway E			Stonemill Manor			Stephenson Road			Stephenson Road		
	Northbound			**Southbound**			**Eastbound**			**Westbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	12	0	37	15	176	0	0	176	5
Pedestrians		0			5			0			0	
Conflicting Pedestrians	0		0	0		0	5		0	0		0
Heavy Vehicles	0	0	0	0	0	1	1	6	0	0	4	0
Heavy Vehicle %	0%	0%	0%	2%	0%	3%	7%	3%	0%	0%	2%	2%
Peak Hour Factor		0.92			0.92			0.92			0.92	
Adjustment	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Adjusted 2020 Volumes	0	0	0	30	0	93	38	440	0	0	440	13
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	32	0	99	40	467	0	0	467	14
Project Trips												
Trip Distribution IN									65%	30%		
Trip Distribution OUT	70%		15%					15%				
Residential Trips	62	0	13	0	0	0	0	13	20	9	0	0
Total Project Trips	62	0	13	0	0	0	0	13	20	9	0	0
2026 Buildout Total	62	0	13	32	0	99	40	480	20	9	467	14

PM PEAK HOUR

	Site Driveway E			Stonemill Manor			Stephenson Road			Stephenson Road		
	Northbound			**Southbound**			**Eastbound**			**Westbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	18	0	54	61	345	0	0	311	21
Pedestrians		0			2			0			0	
Conflicting Pedestrians	0		0	0		0	2		0	0		0
Heavy Vehicles	0	0	0	0	0	0	1	3	0	0	2	0
Heavy Vehicle %	0%	0%	0%	2%	0%	2%	2%	2%	0%	0%	2%	2%
Peak Hour Factor		0.90			0.90			0.90			0.90	
Adjustment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Adjusted 2020 Volumes	0	0	0	27	0	81	92	518	0	0	467	32
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	29	0	86	98	550	0	0	496	34
Project Trips												
Trip Distribution IN									65%	30%		
Trip Distribution OUT	70%		15%					15%				
Residential Trips	41	0	9	0	0	0	0	9	66	30	0	0
Total Project Trips	41	0	9	0	0	0	0	9	66	30	0	0
2026 Buildout Total	41	0	9	29	0	86	98	559	66	30	496	34

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INTERSECTION VOLUME DEVELOPMENT

Intersection #4

SR 124 at Stephenson Road

AM PEAK HOUR

Description	SR 124 Northbound			SR 124 Southbound			Stephenson Road Eastbound			Stephenson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	71	754	3	1	731	64	110	6	103	0	3	5
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	3	37	0	0	31	1	2	0	3	0	0	1
Heavy Vehicle %	4%	5%	2%	2%	4%	2%	2%	2%	3%	0%	2%	20%
Peak Hour Factor		0.94			0.94			0.94			0.94	
Adjustment	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5
Adjusted 2020 Volumes	107	1131	5	2	1097	96	275	15	258	0	8	13
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	114	1,201	5	2	1,164	102	292	16	274	0	8	14
Project Trips												
Trip Distribution IN	15%					15%						
Trip Distribution OUT							15%		15%			
Residential Trips	5	0	0	0	0	5	13	0	13	0	0	0
Total Project Trips	5	0	0	0	0	5	13	0	13	0	0	0
2026 Buildout Total	119	1,201	5	2	1,164	107	305	16	287	0	8	14

PM PEAK HOUR

Description	SR 124 Northbound			SR 124 Southbound			Stephenson Road Eastbound			Stephenson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	121	1,271	3	3	1,172	170	136	3	183	0	4	6
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	1	22	0	0	20	0	0	0	3	0	0	0
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%	2%	2%
Peak Hour Factor		0.94			0.94			0.94			0.94	
Adjustment	1	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5	1.5
Adjusted 2020 Volumes	121	1271	3	3	1172	170	204	5	275	0	6	9
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	128	1,349	3	3	1,244	180	217	5	292	0	6	10
Project Trips												
Trip Distribution IN	15%					15%						
Trip Distribution OUT							15%		15%			
Residential Trips	15	0	0	0	0	15	9	0	9	0	0	0
Total Project Trips	15	0	0	0	0	15	9	0	9	0	0	0
2026 Buildout Total	143	1,349	3	3	1,244	195	226	5	301	0	6	10

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INTERSECTION VOLUME DEVELOPMENT

Intersection #5

Site Driveway W/ at Stephenson Road

AM PEAK HOUR

Description	Site Driveway W Northbound			Southbound			Stephenson Road Eastbound			Stephenson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	0	0	0	0	191	0	0	213	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	7	0	0	5	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	2%	0%
Peak Hour Factor		0.92			0.92			0.92			0.92	
Adjustment	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Adjusted 2020 Volumes	0	0	0	0	0	0	0	478	0	0	533	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	0	0	0	0	507	0	0	566	0
Project Trips												
Trip Distribution IN								70%				
Trip Distribution OUT			10%								70%	
Residential Trips	0	0	9	0	0	0	0	21	0	0	62	0
Total Project Trips	0	0	9	0	0	0	0	21	0	0	62	0
2026 Buildout Total	0	0	9	0	0	0	0	528	0	0	628	0

PM PEAK HOUR

Description	Site Driveway W Northbound			Southbound			Stephenson Road Eastbound			Stephenson Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	0	0	0	0	406	0	0	365	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	4	0	0	2	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Peak Hour Factor		0.90			0.90			0.90			0.90	
Adjustment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Adjusted 2020 Volumes	0	0	0	0	0	0	0	609	0	0	548	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	0	0	0	0	646	0	0	582	0
Project Trips												
Trip Distribution IN								70%				
Trip Distribution OUT			10%								70%	
Residential Trips	0	0	6	0	0	0	0	71	0	0	41	0
Total Project Trips	0	0	6	0	0	0	0	71	0	0	41	0
2026 Buildout Total	0	0	6	0	0	0	0	717	0	0	623	0

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INTERSECTION VOLUME DEVELOPMENT

Intersection #6

Site Driveway Center/ at Stephenson Road

AM PEAK HOUR

	Site Driveway Center						Stephenson Road			Stephenson Road		
	Northbound			**Southbound**			**Eastbound**			**Westbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	0	0	0	0	191	0	0	213	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	7	0	0	5	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	2%	0%
Peak Hour Factor		0.92			0.92			0.92			0.92	
Adjustment	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Adjusted 2020 Volumes	0	0	0	0	0	0	0	478	0	0	533	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	0	0	0	0	507	0	0	566	0
Project Trips												
Trip Distribution IN								65%	5%			
Trip Distribution OUT			5%					10%			70%	
Residential Trips	0	0	4	0	0	0	0	29	2	0	62	0
Total Project Trips	0	0	4	0	0	0	0	29	2	0	62	0
2026 Buildout Total	0	0	4	0	0	0	0	536	2	0	628	0

PM PEAK HOUR

	Site Driveway Center						Stephenson Road			Stephenson Road		
	Northbound			**Southbound**			**Eastbound**			**Westbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2020 Traffic Volumes	0	0	0	0	0	0	0	406	0	0	365	0
Pedestrians		0			0			0			0	
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	4	0	0	2	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Peak Hour Factor		0.90			0.90			0.90			0.90	
Adjustment	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Adjusted 2020 Volumes	0	0	0	0	0	0	0	609	0	0	548	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
2026 Background Traffic	0	0	0	0	0	0	0	646	0	0	582	0
Project Trips												
Trip Distribution IN								65%	5%			
Trip Distribution OUT			5%					10%			70%	
Residential Trips	0	0	3	0	0	0	0	72	5	0	41	0
Total Project Trips	0	0	3	0	0	0	0	72	5	0	41	0
2026 Buildout Total	0	0	3	0	0	0	0	718	5	0	623	0

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APPENDIX E

Synchro Analysis Reports

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	260	423	203	373	485	213
Future Volume (veh/h)	260	423	203	373	485	213
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1841	1870	1870	1870
Adj Flow Rate, veh/h	274	445	214	393	511	224
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	4	2	2	2
Cap, veh/h	284	461	252	1103	561	499
Arrive On Green	0.45	0.45	0.09	0.59	0.31	0.31
Sat Flow, veh/h	626	1017	1753	1870	1781	1585
Grp Volume(v), veh/h	0	719	214	393	511	224
Grp Sat Flow(s),veh/h/ln	0	1643	1753	1870	1781	1585
Q Serve(g_s), s	0.0	40.1	6.0	10.3	25.9	10.6
Cycle Q Clear(g_c), s	0.0	40.1	6.0	10.3	25.9	10.6
Prop In Lane		0.62	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	745	252	1103	561	499
V/C Ratio(X)	0.00	0.97	0.85	0.36	0.91	0.45
Avail Cap(c_a), veh/h	0	745	385	1103	672	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	25.0	21.8	10.0	31.0	25.7
Incr Delay (d2), s/veh	0.0	25.6	10.6	0.9	15.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.0	2.8	3.8	13.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	50.6	32.5	10.9	46.0	26.4
LnGrp LOS	A	D	C	B	D	C
Approach Vol, veh/h	719			607	735	
Approach Delay, s/veh	50.6			18.5	40.0	
Approach LOS	D			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		34.1	12.8	47.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		35.5	15.5	35.5
Max Q Clear Time (g_c+I1), s		12.3		27.9	8.0	42.1
Green Ext Time (p_c), s		2.3		1.7	0.3	0.0

Intersection Summary		
HCM 6th Ctrl Delay		37.4
HCM 6th LOS		D

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	448	510	18	20	65
Future Vol, veh/h	28	448	510	18	20	65
Conflicting Peds, #/hr	2	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	70	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	3	2	2	2	2
Mvmt Flow	30	482	548	19	22	70

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	569	0	-	0	1092	550
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	542	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1003	-	-	-	237	535
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1001	-	-	-	226	534
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	582	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1001	-	-	-	404
HCM Lane V/C Ratio	0.03	-	-	-	0.226
HCM Control Delay (s)	8.7	0	-	-	16.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	440	0	0	440	13	0	0	0	30	0	93
Future Vol, veh/h	38	440	0	0	440	13	0	0	0	30	0	93
Conflicting Peds, #/hr	5	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	-	-	-	-	-	70	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	3	0	0	2	2	0	0	0	2	0	3
Mvmt Flow	41	478	0	0	478	14	0	0	0	33	0	101

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	497	0	-	-	-	0			1043	-	483
Stage 1	-	-	-	-	-	-			483	-	-
Stage 2	-	-	-	-	-	-			560	-	-
Critical Hdwy	4.17	-	-	-	-	-			6.42	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	-	-
Follow-up Hdwy	2.263	-	-	-	-	-			3.518	-	3.327
Pot Cap-1 Maneuver	1042	-	0	0	-	-			254	0	582
Stage 1	-	-	0	0	-	-			620	0	-
Stage 2	-	-	0	0	-	-			572	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	1037	-	-	-	-	-			238	0	579
Mov Cap-2 Maneuver	-	-	-	-	-	-			238	0	-
Stage 1	-	-	-	-	-	-			583	0	-
Stage 2	-	-	-	-	-	-			569	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	17.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1037	-	-	-	429
HCM Lane V/C Ratio	0.04	-	-	-	0.312
HCM Control Delay (s)	8.6	0	-	-	17.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	15	258	0	8	13	107	1131	5	2	1097	96
Future Volume (veh/h)	275	15	258	0	8	13	107	1131	5	2	1097	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1856	1900	1870	1604	1841	1826	1870	1870	1841	1870
Adj Flow Rate, veh/h	293	16	274	0	9	14	114	1203	5	2	1167	102
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	3	0	2	20	4	5	2	2	4	2
Cap, veh/h	383	432	363	99	72	52	138	2299	1050	5	2051	930
Arrive On Green	0.16	0.23	0.23	0.00	0.04	0.04	0.08	0.66	0.66	0.00	0.59	0.59
Sat Flow, veh/h	1781	1870	1572	1810	1870	1359	1753	3469	1585	1781	3497	1585
Grp Volume(v), veh/h	293	16	274	0	9	14	114	1203	5	2	1167	102
Grp Sat Flow(s),veh/h/ln	1781	1870	1572	1810	1870	1359	1753	1735	1585	1781	1749	1585
Q Serve(g_s), s	20.2	0.9	21.1	0.0	0.6	1.3	8.3	23.3	0.1	0.1	26.9	3.7
Cycle Q Clear(g_c), s	20.2	0.9	21.1	0.0	0.6	1.3	8.3	23.3	0.1	0.1	26.9	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	432	363	99	72	52	138	2299	1050	5	2051	930
V/C Ratio(X)	0.76	0.04	0.76	0.00	0.13	0.27	0.82	0.52	0.00	0.42	0.57	0.11
Avail Cap(c_a), veh/h	383	583	490	244	439	319	209	2299	1050	281	2051	930
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	38.8	46.6	0.0	60.4	60.7	59.0	11.3	7.4	64.7	16.7	11.9
Incr Delay (d2), s/veh	8.9	0.0	4.5	0.0	0.8	2.7	14.7	0.9	0.0	49.4	1.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.4	8.5	0.0	0.3	0.5	4.3	8.8	0.0	0.1	10.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	38.8	51.1	0.0	61.2	63.4	73.7	12.2	7.4	114.1	17.8	12.1
LnGrp LOS	E	D	D	A	E	E	E	B	A	F	B	B
Approach Vol, veh/h		583			23			1322			1271	
Approach Delay, s/veh		53.9			62.5			17.5			17.5	
Approach LOS		D			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	90.7	0.0	34.5	14.8	80.7	25.0	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	40.5	10.5	40.5	15.5	45.5	20.5	30.5
Max Q Clear Time (g_c+I1), s	2.1	25.3	0.0	23.1	10.3	28.9	22.2	3.3
Green Ext Time (p_c), s	0.0	7.8	0.0	0.9	0.1	8.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	399	561	240	324	527	245
Future Volume (veh/h)	399	561	240	324	527	245
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	411	578	247	334	543	253
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	355	499	223	1188	490	436
Arrive On Green	0.50	0.50	0.09	0.63	0.28	0.28
Sat Flow, veh/h	703	989	1781	1870	1781	1585
Grp Volume(v), veh/h	0	989	247	334	543	253
Grp Sat Flow(s),veh/h/ln	0	1692	1781	1870	1781	1585
Q Serve(g_s), s	0.0	50.5	8.5	7.9	27.5	13.8
Cycle Q Clear(g_c), s	0.0	50.5	8.5	7.9	27.5	13.8
Prop In Lane		0.58	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	855	223	1188	490	436
V/C Ratio(X)	0.00	1.16	1.11	0.28	1.11	0.58
Avail Cap(c_a), veh/h	0	855	223	1188	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	24.8	31.8	8.1	36.3	31.3
Incr Delay (d2), s/veh	0.0	83.8	91.4	0.6	73.7	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	37.5	8.1	2.9	21.7	12.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	108.6	123.2	8.7	109.9	33.2
LnGrp LOS	A	F	F	A	F	C
Approach Vol, veh/h	989			581	796	
Approach Delay, s/veh	108.6			57.4	85.6	
Approach LOS	F			E	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		32.0	13.0	55.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		63.5		27.5	8.5	50.5
Max Q Clear Time (g_c+I1), s		9.9		29.5	10.5	52.5
Green Ext Time (p_c), s		1.9		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	88.3
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	599	528	17	6	32
Future Vol, veh/h	36	599	528	17	6	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	70	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	697	614	20	7	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	634	0	-	0	1395	614
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	781	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	949	-	-	-	156	492
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	451	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	949	-	-	-	145	492
Mov Cap-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	451	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	949	-	-	-	357
HCM Lane V/C Ratio	0.044	-	-	-	0.124
HCM Control Delay (s)	9	0	-	-	16.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

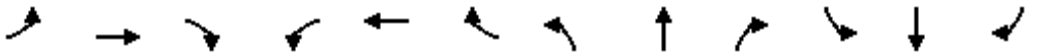
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	518	0	0	467	32	0	0	0	27	0	81
Future Vol, veh/h	92	518	0	0	467	32	0	0	0	27	0	81
Conflicting Peds, #/hr	2	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	-	-	-	-	-	70	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	0	0	2	2	0	0	0	2	0	2
Mvmt Flow	102	576	0	0	519	36	0	0	0	30	0	90

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	557	0	-	-	-	0			1301	-	521
Stage 1	-	-	-	-	-	-			521	-	-
Stage 2	-	-	-	-	-	-			780	-	-
Critical Hdwy	4.12	-	-	-	-	-			6.42	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	-	-
Follow-up Hdwy	2.218	-	-	-	-	-			3.518	-	3.318
Pot Cap-1 Maneuver	1014	-	0	0	-	-			178	0	555
Stage 1	-	-	0	0	-	-			596	0	-
Stage 2	-	-	0	0	-	-			452	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	1012	-	-	-	-	-			151	0	554
Mov Cap-2 Maneuver	-	-	-	-	-	-			151	0	-
Stage 1	-	-	-	-	-	-			507	0	-
Stage 2	-	-	-	-	-	-			451	0	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	21.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1012	-	-	-	332
HCM Lane V/C Ratio	0.101	-	-	-	0.361
HCM Control Delay (s)	9	0	-	-	21.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	5	275	0	6	9	121	1271	3	3	1172	170
Future Volume (veh/h)	204	5	275	0	6	9	121	1271	3	3	1172	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	5	293	0	6	10	129	1352	3	3	1247	181
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	337	380	322	99	72	61	154	2449	1092	7	2155	961
Arrive On Green	0.13	0.20	0.20	0.00	0.04	0.04	0.09	0.69	0.69	0.00	0.61	0.61
Sat Flow, veh/h	1781	1870	1585	1810	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	217	5	293	0	6	10	129	1352	3	3	1247	181
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1810	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	14.7	0.3	23.5	0.0	0.4	0.8	9.3	24.8	0.1	0.2	27.7	6.6
Cycle Q Clear(g_c), s	14.7	0.3	23.5	0.0	0.4	0.8	9.3	24.8	0.1	0.2	27.7	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	337	380	322	99	72	61	154	2449	1092	7	2155	961
V/C Ratio(X)	0.64	0.01	0.91	0.00	0.08	0.16	0.84	0.55	0.00	0.43	0.58	0.19
Avail Cap(c_a), veh/h	386	583	494	244	439	372	212	2449	1092	281	2155	961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	41.4	50.6	0.0	60.3	60.5	58.5	10.1	6.3	64.6	15.5	11.4
Incr Delay (d2), s/veh	3.0	0.0	14.9	0.0	0.5	1.2	18.2	0.9	0.0	36.1	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.1	10.4	0.0	0.2	0.3	5.0	9.4	0.0	0.2	11.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	41.4	65.6	0.0	60.8	61.7	76.7	11.0	6.3	100.7	16.7	11.8
LnGrp LOS	D	D	E	A	E	E	E	B	A	F	B	B
Approach Vol, veh/h		515			16			1484			1431	
Approach Delay, s/veh		59.8			61.4			16.7			16.2	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	94.1	0.0	30.9	15.8	83.3	21.4	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	40.5	10.5	40.5	15.5	45.5	20.5	30.5
Max Q Clear Time (g_c+I1), s	2.2	26.8	0.0	25.5	11.3	29.7	16.7	2.8
Green Ext Time (p_c), s	0.0	8.1	0.0	0.8	0.1	8.8	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	609	0	0	548	0	0
Future Vol, veh/h	609	0	0	548	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	677	0	0	609	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	677
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	456
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	456
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	609	0	0	548	0	0
Future Vol, veh/h	609	0	0	548	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	677	0	0	609	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	677
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	456
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	456
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	276	449	215	396	515	226
Future Volume (veh/h)	276	449	215	396	515	226
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1841	1870	1870	1870
Adj Flow Rate, veh/h	291	473	226	417	542	238
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	5	4	2	2	2
Cap, veh/h	265	431	262	1080	586	522
Arrive On Green	0.42	0.42	0.11	0.58	0.33	0.33
Sat Flow, veh/h	626	1017	1753	1870	1781	1585
Grp Volume(v), veh/h	0	764	226	417	542	238
Grp Sat Flow(s),veh/h/ln	0	1643	1753	1870	1781	1585
Q Serve(g_s), s	0.0	40.7	8.0	11.7	28.2	11.4
Cycle Q Clear(g_c), s	0.0	40.7	8.0	11.7	28.2	11.4
Prop In Lane		0.62	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	696	262	1080	586	522
V/C Ratio(X)	0.00	1.10	0.86	0.39	0.92	0.46
Avail Cap(c_a), veh/h	0	696	357	1080	658	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	27.7	26.3	11.1	31.1	25.5
Incr Delay (d2), s/veh	0.0	63.9	14.8	1.0	17.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.6	4.0	4.5	14.6	10.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	91.6	41.1	12.1	48.9	26.1
LnGrp LOS	A	F	D	B	D	C
Approach Vol, veh/h	764			643	780	
Approach Delay, s/veh	91.6			22.3	41.9	
Approach LOS	F			C	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		36.2	14.8	45.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		35.5	15.5	35.5
Max Q Clear Time (g_c+I1), s		13.7		30.2	10.0	42.7
Green Ext Time (p_c), s		2.5		1.4	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.5
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	476	541	19	21	69
Future Vol, veh/h	30	476	541	19	21	69
Conflicting Peds, #/hr	2	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	70	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	3	2	2	2	2
Mvmt Flow	32	512	582	20	23	74

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	604	0	-	0	1160	584
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	576	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	974	-	-	-	216	512
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	562	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	972	-	-	-	205	511
Mov Cap-2 Maneuver	-	-	-	-	205	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	972	-	-	-	379
HCM Lane V/C Ratio	0.033	-	-	-	0.255
HCM Control Delay (s)	8.8	0	-	-	17.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1

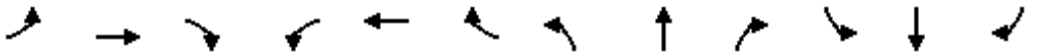
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	467	0	0	467	14	0	0	0	32	0	99
Future Vol, veh/h	40	467	0	0	467	14	0	0	0	32	0	99
Conflicting Peds, #/hr	5	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	-	-	-	-	-	70	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	3	0	0	2	2	0	0	0	2	0	3
Mvmt Flow	43	508	0	0	508	15	0	0	0	35	0	108

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	528	0	-	-	-	0			1107	-	513
Stage 1	-	-	-	-	-	-			513	-	-
Stage 2	-	-	-	-	-	-			594	-	-
Critical Hdwy	4.17	-	-	-	-	-			6.42	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	-	-
Follow-up Hdwy	2.263	-	-	-	-	-			3.518	-	3.327
Pot Cap-1 Maneuver	1014	-	0	0	-	-			233	0	559
Stage 1	-	-	0	0	-	-			601	0	-
Stage 2	-	-	0	0	-	-			552	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	1009	-	-	-	-	-			217	0	556
Mov Cap-2 Maneuver	-	-	-	-	-	-			217	0	-
Stage 1	-	-	-	-	-	-			563	0	-
Stage 2	-	-	-	-	-	-			549	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1009	-	-	-	402
HCM Lane V/C Ratio	0.043	-	-	-	0.354
HCM Control Delay (s)	8.7	0	-	-	18.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	16	274	0	8	14	114	1201	5	2	1164	102
Future Volume (veh/h)	292	16	274	0	8	14	114	1201	5	2	1164	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1856	1900	1870	1604	1841	1826	1870	1870	1841	1870
Adj Flow Rate, veh/h	311	17	291	0	9	15	121	1278	5	2	1238	109
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	3	0	2	20	4	5	2	2	4	2
Cap, veh/h	383	432	363	99	72	52	146	2299	1050	5	2036	923
Arrive On Green	0.16	0.23	0.23	0.00	0.04	0.04	0.08	0.66	0.66	0.00	0.58	0.58
Sat Flow, veh/h	1781	1870	1572	1810	1870	1359	1753	3469	1585	1781	3497	1585
Grp Volume(v), veh/h	311	17	291	0	9	15	121	1278	5	2	1238	109
Grp Sat Flow(s),veh/h/ln	1781	1870	1572	1810	1870	1359	1753	1735	1585	1781	1749	1585
Q Serve(g_s), s	20.5	0.9	22.7	0.0	0.6	1.4	8.8	25.6	0.1	0.1	29.8	4.0
Cycle Q Clear(g_c), s	20.5	0.9	22.7	0.0	0.6	1.4	8.8	25.6	0.1	0.1	29.8	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	432	363	99	72	52	146	2299	1050	5	2036	923
V/C Ratio(X)	0.81	0.04	0.80	0.00	0.13	0.29	0.83	0.56	0.00	0.42	0.61	0.12
Avail Cap(c_a), veh/h	383	583	490	243	439	319	209	2299	1050	281	2036	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	38.8	47.2	0.0	60.4	60.8	58.7	11.7	7.4	64.7	17.6	12.2
Incr Delay (d2), s/veh	12.4	0.0	6.8	0.0	0.8	3.0	16.8	1.0	0.0	49.4	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	0.4	9.3	0.0	0.3	0.5	4.6	9.7	0.0	0.1	12.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	38.9	54.0	0.0	61.2	63.7	75.5	12.7	7.4	114.1	18.9	12.4
LnGrp LOS	E	D	D	A	E	E	E	B	A	F	B	B
Approach Vol, veh/h		619			24			1404			1349	
Approach Delay, s/veh		57.4			62.8			18.1			18.5	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	90.7	0.0	34.5	15.3	80.2	25.0	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	40.5	10.5	40.5	15.5	45.5	20.5	30.5
Max Q Clear Time (g_c+I1), s	2.1	27.6	0.0	24.7	10.8	31.8	22.5	3.4
Green Ext Time (p_c), s	0.0	7.4	0.0	0.9	0.1	7.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	25.7
HCM 6th LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	424	596	255	344	559	260
Future Volume (veh/h)	424	596	255	344	559	260
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	437	614	263	355	576	268
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	355	499	223	1188	490	436
Arrive On Green	0.50	0.50	0.09	0.63	0.28	0.28
Sat Flow, veh/h	704	989	1781	1870	1781	1585
Grp Volume(v), veh/h	0	1051	263	355	576	268
Grp Sat Flow(s),veh/h/ln	0	1692	1781	1870	1781	1585
Q Serve(g_s), s	0.0	50.5	8.5	8.6	27.5	14.8
Cycle Q Clear(g_c), s	0.0	50.5	8.5	8.6	27.5	14.8
Prop In Lane		0.58	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	855	223	1188	490	436
V/C Ratio(X)	0.00	1.23	1.18	0.30	1.18	0.61
Avail Cap(c_a), veh/h	0	855	223	1188	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	24.8	31.8	8.2	36.3	31.6
Incr Delay (d2), s/veh	0.0	113.6	116.4	0.6	98.8	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	44.6	9.7	3.1	25.1	13.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	138.4	148.2	8.9	135.1	34.2
LnGrp LOS	A	F	F	A	F	C
Approach Vol, veh/h	1051			618	844	
Approach Delay, s/veh	138.4			68.2	103.0	
Approach LOS	F			E	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		32.0	13.0	55.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		63.5		27.5	8.5	50.5
Max Q Clear Time (g_c+I1), s		10.6		29.5	10.5	52.5
Green Ext Time (p_c), s		2.1		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	109.2
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	636	560	18	6	34
Future Vol, veh/h	38	636	560	18	6	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	70	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	740	651	21	7	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	672	0	-	0	1479	651
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	828	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	919	-	-	-	138	469
Stage 1	-	-	-	-	519	-
Stage 2	-	-	-	-	429	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	919	-	-	-	127	469
Mov Cap-2 Maneuver	-	-	-	-	127	-
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	429	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	17.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	919	-	-	-	334
HCM Lane V/C Ratio	0.048	-	-	-	0.139
HCM Control Delay (s)	9.1	0	-	-	17.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	550	0	0	496	34	0	0	0	29	0	86
Future Vol, veh/h	98	550	0	0	496	34	0	0	0	29	0	86
Conflicting Peds, #/hr	2	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	-	-	-	-	-	70	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16965	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	0	0	2	2	0	0	0	2	0	2
Mvmt Flow	109	611	0	0	551	38	0	0	0	32	0	96

Major/Minor	Major1			Major2					Minor2		
Conflicting Flow All	591	0	-	-	-	0			1382	-	553
Stage 1	-	-	-	-	-	-			553	-	-
Stage 2	-	-	-	-	-	-			829	-	-
Critical Hdwy	4.12	-	-	-	-	-			6.42	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-			5.42	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-			5.42	-	-
Follow-up Hdwy	2.218	-	-	-	-	-			3.518	-	3.318
Pot Cap-1 Maneuver	985	-	0	0	-	-			159	0	533
Stage 1	-	-	0	0	-	-			576	0	-
Stage 2	-	-	0	0	-	-			429	0	-
Platoon blocked, %		-			-	-					
Mov Cap-1 Maneuver	983	-	-	-	-	-			132	0	532
Mov Cap-2 Maneuver	-	-	-	-	-	-			132	0	-
Stage 1	-	-	-	-	-	-			478	0	-
Stage 2	-	-	-	-	-	-			428	0	-

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	25.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	983	-	-	-	302
HCM Lane V/C Ratio	0.111	-	-	-	0.423
HCM Control Delay (s)	9.1	0	-	-	25.4
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	-	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	5	292	0	6	10	128	1349	3	3	1244	180
Future Volume (veh/h)	217	5	292	0	6	10	128	1349	3	3	1244	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1900	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	231	5	311	0	6	11	136	1435	3	3	1323	191
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	354	400	339	103	80	68	162	2410	1075	7	2102	938
Arrive On Green	0.14	0.21	0.21	0.00	0.04	0.04	0.09	0.68	0.68	0.00	0.59	0.59
Sat Flow, veh/h	1781	1870	1585	1810	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	231	5	311	0	6	11	136	1435	3	3	1323	191
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1810	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	15.6	0.3	24.9	0.0	0.4	0.9	9.8	28.3	0.1	0.2	31.5	7.3
Cycle Q Clear(g_c), s	15.6	0.3	24.9	0.0	0.4	0.9	9.8	28.3	0.1	0.2	31.5	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	400	339	103	80	68	162	2410	1075	7	2102	938
V/C Ratio(X)	0.65	0.01	0.92	0.00	0.08	0.16	0.84	0.60	0.00	0.43	0.63	0.20
Avail Cap(c_a), veh/h	391	583	494	248	439	372	212	2410	1075	281	2102	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	40.3	50.0	0.0	59.8	60.0	58.2	11.3	6.7	64.6	17.3	12.3
Incr Delay (d2), s/veh	3.3	0.0	16.9	0.0	0.4	1.1	20.2	1.1	0.0	36.1	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.1	11.2	0.0	0.2	0.4	5.3	10.9	0.0	0.2	12.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	40.3	66.9	0.0	60.2	61.1	78.3	12.4	6.7	100.7	18.7	12.8
LnGrp LOS	D	D	E	A	E	E	E	B	A	F	B	B
Approach Vol, veh/h		547			17			1574			1517	
Approach Delay, s/veh		60.3			60.8			18.1			18.1	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	92.7	0.0	32.3	16.3	81.4	22.3	10.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	40.5	10.5	40.5	15.5	45.5	20.5	30.5
Max Q Clear Time (g_c+I1), s	2.2	30.3	0.0	26.9	11.8	33.5	17.6	2.9
Green Ext Time (p_c), s	0.0	6.9	0.0	0.9	0.1	7.7	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	646	0	0	582	0	0
Future Vol, veh/h	646	0	0	582	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	718	0	0	647	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	718
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	432
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	432
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	646	0	0	582	0	0
Future Vol, veh/h	646	0	0	582	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	718	0	0	647	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	718
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	432
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	432
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	0	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	294	449	224	449	515	229
Future Volume (veh/h)	294	449	224	449	515	229
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	309	473	236	473	542	241
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	280	428	272	1079	587	522
Arrive On Green	0.42	0.42	0.11	0.58	0.33	0.33
Sat Flow, veh/h	666	1020	1781	1870	1781	1585
Grp Volume(v), veh/h	0	782	236	473	542	241
Grp Sat Flow(s),veh/h/ln	0	1687	1781	1870	1781	1585
Q Serve(g_s), s	0.0	40.3	8.4	13.8	28.2	11.6
Cycle Q Clear(g_c), s	0.0	40.3	8.4	13.8	28.2	11.6
Prop In Lane		0.60	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	707	272	1079	587	522
V/C Ratio(X)	0.00	1.11	0.87	0.44	0.92	0.46
Avail Cap(c_a), veh/h	0	707	362	1079	658	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	27.9	26.7	11.5	31.1	25.5
Incr Delay (d2), s/veh	0.0	66.5	15.5	1.3	17.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	27.6	4.3	5.3	14.6	10.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	94.4	42.2	12.8	48.9	26.1
LnGrp LOS	A	F	D	B	D	C
Approach Vol, veh/h	782			709	783	
Approach Delay, s/veh	94.4			22.6	41.9	
Approach LOS	F			C	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		36.2	15.2	44.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		35.5	15.5	35.5
Max Q Clear Time (g_c+I1), s		15.8		30.2	10.4	42.3
Green Ext Time (p_c), s		2.9		1.5	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	497	603	19	21	69
Future Vol, veh/h	30	497	603	19	21	69
Conflicting Peds, #/hr	2	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	70	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	534	648	20	23	74

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	670	0	-	0	1248	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	598	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	920	-	-	-	191	469
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	549	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	918	-	-	-	181	468
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	548	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	918	-	-	-	342
HCM Lane V/C Ratio	0.035	-	-	-	0.283
HCM Control Delay (s)	9.1	0	-	-	19.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

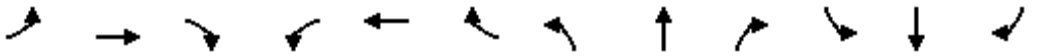
Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	480	20	9	467	14	62	0	13	32	0	99
Future Vol, veh/h	40	480	20	9	467	14	62	0	13	32	0	99
Conflicting Peds, #/hr	5	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	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	100	-	-	70	0	-	75	-	-	-
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, %	3	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	522	22	10	508	15	67	0	14	35	0	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	528	0	0	522	0	0	1198	-	522	1141	1141	513
Stage 1	-	-	-	-	-	-	608	-	-	533	533	-
Stage 2	-	-	-	-	-	-	590	-	-	608	608	-
Critical Hdwy	4.13	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.227	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1034	-	-	1044	-	-	162	0	555	178	201	561
Stage 1	-	-	-	-	-	-	483	0	-	531	525	-
Stage 2	-	-	-	-	-	-	494	0	-	483	486	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1029	-	-	1044	-	-	123	-	555	163	185	558
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	-	-	163	185	-
Stage 1	-	-	-	-	-	-	454	-	-	497	515	-
Stage 2	-	-	-	-	-	-	393	-	-	442	457	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	55.8	13
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	123	555	1029	-	-	1044	-	-	558
HCM Lane V/C Ratio	0.548	0.025	0.042	-	-	0.009	-	-	0.193
HCM Control Delay (s)	65.1	11.7	8.7	0	-	8.5	0	-	13
HCM Lane LOS	F	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.6	0.1	0.1	-	-	0	-	-	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	16	287	0	8	14	119	1201	5	2	1164	107
Future Volume (veh/h)	305	16	287	0	8	14	119	1201	5	2	1164	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1781	1856	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	324	17	305	0	9	15	127	1278	5	2	1238	114
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	8	3	3	2	2	3	2
Cap, veh/h	383	432	366	97	72	58	152	2336	1050	5	2042	918
Arrive On Green	0.16	0.23	0.23	0.00	0.04	0.04	0.09	0.66	0.66	0.00	0.58	0.58
Sat Flow, veh/h	1781	1870	1585	1781	1870	1510	1767	3526	1585	1781	3526	1585
Grp Volume(v), veh/h	324	17	305	0	9	15	127	1278	5	2	1238	114
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1510	1767	1763	1585	1781	1763	1585
Q Serve(g_s), s	20.5	0.9	23.8	0.0	0.6	1.3	9.2	24.9	0.1	0.1	29.6	4.2
Cycle Q Clear(g_c), s	20.5	0.9	23.8	0.0	0.6	1.3	9.2	24.9	0.1	0.1	29.6	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	432	366	97	72	58	152	2336	1050	5	2042	918
V/C Ratio(X)	0.85	0.04	0.83	0.00	0.13	0.26	0.83	0.55	0.00	0.42	0.61	0.12
Avail Cap(c_a), veh/h	383	583	494	240	439	354	211	2336	1050	281	2042	918
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	38.8	47.6	0.0	60.4	60.7	58.5	11.6	7.4	64.7	17.7	12.4
Incr Delay (d2), s/veh	15.9	0.0	8.8	0.0	0.8	2.3	18.1	0.9	0.0	49.4	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	0.4	10.0	0.0	0.3	0.5	4.9	9.6	0.0	0.1	12.1	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	38.9	56.5	0.0	61.2	63.0	76.6	12.5	7.4	114.1	19.1	12.7
LnGrp LOS	E	D	E	A	E	E	E	B	A	F	B	B
Approach Vol, veh/h		646			24			1410			1354	
Approach Delay, s/veh		60.6			62.3			18.3			18.7	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.8	90.7	0.0	34.5	15.7	79.8	25.0	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	40.5	10.5	40.5	15.5	45.5	20.5	30.5
Max Q Clear Time (g_c+I1), s	2.1	26.9	0.0	25.8	11.2	31.6	22.5	3.3
Green Ext Time (p_c), s	0.0	7.7	0.0	0.9	0.1	7.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	528	0	0	628	0	9
Future Vol, veh/h	528	0	0	628	0	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	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	574	0	0	683	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	574
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	518
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	518
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	518	-	-
HCM Lane V/C Ratio	0.019	-	-
HCM Control Delay (s)	12.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	536	2	0	628	0	4
Future Vol, veh/h	536	2	0	628	0	4
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	583	2	0	683	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	584
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	512
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	512
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	512	-	-	-
HCM Lane V/C Ratio	0.008	-	-	-
HCM Control Delay (s)	12.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	485	596	261	379	559	270
Future Volume (veh/h)	485	596	261	379	559	270
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	500	614	269	391	576	278
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	386	474	223	1188	490	436
Arrive On Green	0.50	0.50	0.09	0.63	0.28	0.28
Sat Flow, veh/h	764	938	1781	1870	1781	1585
Grp Volume(v), veh/h	0	1114	269	391	576	278
Grp Sat Flow(s),veh/h/ln	0	1702	1781	1870	1781	1585
Q Serve(g_s), s	0.0	50.5	8.5	9.6	27.5	15.4
Cycle Q Clear(g_c), s	0.0	50.5	8.5	9.6	27.5	15.4
Prop In Lane		0.55	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	0	859	223	1188	490	436
V/C Ratio(X)	0.00	1.30	1.20	0.33	1.18	0.64
Avail Cap(c_a), veh/h	0	859	223	1188	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	24.8	31.8	8.4	36.3	31.9
Incr Delay (d2), s/veh	0.0	142.0	126.4	0.7	98.8	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	51.6	10.3	3.5	25.1	13.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	166.7	158.2	9.2	135.1	35.0
LnGrp LOS	A	F	F	A	F	C
Approach Vol, veh/h	1114			660	854	
Approach Delay, s/veh	166.7			69.9	102.5	
Approach LOS	F			E	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		32.0	13.0	55.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		63.5		27.5	8.5	50.5
Max Q Clear Time (g_c+I1), s		11.6		29.5	10.5	52.5
Green Ext Time (p_c), s		2.3		0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay		121.5
HCM 6th LOS		F

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	707	601	18	6	34
Future Vol, veh/h	38	707	601	18	6	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	70	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	822	699	21	7	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	720	0	-	0	1609	699
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	910	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	882	-	-	-	115	440
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	393	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	882	-	-	-	104	440
Mov Cap-2 Maneuver	-	-	-	-	104	-
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	393	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	19.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	882	-	-	-	296
HCM Lane V/C Ratio	0.05	-	-	-	0.157
HCM Control Delay (s)	9.3	0	-	-	19.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

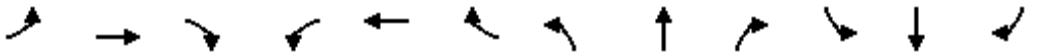
Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	559	66	30	496	34	41	0	9	29	0	86
Future Vol, veh/h	98	559	66	30	496	34	41	0	9	29	0	86
Conflicting Peds, #/hr	2	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	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	100	-	-	70	0	-	75	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	621	73	33	551	38	46	0	10	32	0	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	591	0	0	621	0	0	1523	-	621	1458	1458	553
Stage 1	-	-	-	-	-	-	839	-	-	619	619	-
Stage 2	-	-	-	-	-	-	684	-	-	839	839	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	-	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	-	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	-	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	985	-	-	960	-	-	97	0	487	107	129	533
Stage 1	-	-	-	-	-	-	360	0	-	476	480	-
Stage 2	-	-	-	-	-	-	439	0	-	360	381	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	983	-	-	960	-	-	66	-	487	86	100	532
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	-	-	86	100	-
Stage 1	-	-	-	-	-	-	294	-	-	388	455	-
Stage 2	-	-	-	-	-	-	342	-	-	288	311	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0.5	115	13.2
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	66	487	983	-	-	960	-	-	532
HCM Lane V/C Ratio	0.69	0.021	0.111	-	-	0.035	-	-	0.18
HCM Control Delay (s)	137.5	12.5	9.1	0	-	8.9	0	-	13.2
HCM Lane LOS	F	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	3	0.1	0.4	-	-	0.1	-	-	0.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	5	301	0	6	10	143	1349	3	3	1244	195
Future Volume (veh/h)	226	5	301	0	6	10	143	1349	3	3	1244	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	240	5	320	0	6	11	152	1435	3	3	1323	207
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	411	348	103	82	70	178	2390	1066	7	2050	914
Arrive On Green	0.14	0.22	0.22	0.00	0.04	0.04	0.10	0.67	0.67	0.00	0.58	0.58
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	240	5	320	0	6	11	152	1435	3	3	1323	207
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	16.2	0.3	25.7	0.0	0.4	0.9	10.9	28.8	0.1	0.2	32.6	8.3
Cycle Q Clear(g_c), s	16.2	0.3	25.7	0.0	0.4	0.9	10.9	28.8	0.1	0.2	32.6	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	364	411	348	103	82	70	178	2390	1066	7	2050	914
V/C Ratio(X)	0.66	0.01	0.92	0.00	0.07	0.16	0.86	0.60	0.00	0.43	0.65	0.23
Avail Cap(c_a), veh/h	393	583	494	246	439	372	212	2390	1066	281	2050	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	39.7	49.6	0.0	59.6	59.8	57.6	11.7	7.0	64.6	18.5	13.4
Incr Delay (d2), s/veh	3.7	0.0	17.8	0.0	0.4	1.0	24.3	1.1	0.0	36.1	1.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.1	11.6	0.0	0.2	0.4	6.1	11.1	0.0	0.2	13.5	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	39.7	67.4	0.0	60.0	60.9	81.9	12.8	7.0	100.7	20.1	14.0
LnGrp LOS	D	D	E	A	E	E	F	B	A	F	C	B
Approach Vol, veh/h		565			17			1590			1533	
Approach Delay, s/veh		60.5			60.6			19.4			19.4	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	91.9	0.0	33.0	17.5	79.5	22.8	10.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	40.5	10.5	40.5	15.5	45.5	20.5	30.5
Max Q Clear Time (g_c+I1), s	2.2	30.8	0.0	27.7	12.9	34.6	18.2	2.9
Green Ext Time (p_c), s	0.0	6.6	0.0	0.9	0.1	7.2	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↱
Traffic Vol, veh/h	717	0	0	623	0	6
Future Vol, veh/h	717	0	0	623	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	797	0	0	692	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	797
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	0	0	-	0	387
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	387
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	387	-	-
HCM Lane V/C Ratio	0.017	-	-
HCM Control Delay (s)	14.5	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	718	5	0	623	0	3
Future Vol, veh/h	718	5	0	623	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	798	6	0	692	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	801
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	384
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	384
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	384	-	-	-
HCM Lane V/C Ratio	0.009	-	-	-
HCM Control Delay (s)	14.5	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	260	423	203	373	485	213
Future Volume (veh/h)	260	423	203	373	485	213
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1841	1870	1870	1870
Adj Flow Rate, veh/h	274	445	214	393	511	224
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	2	4	2	2	2
Cap, veh/h	834	724	486	1103	561	499
Arrive On Green	0.46	0.46	0.09	0.59	0.31	0.31
Sat Flow, veh/h	1826	1585	1753	1870	1781	1585
Grp Volume(v), veh/h	274	445	214	393	511	224
Grp Sat Flow(s),veh/h/ln	1826	1585	1753	1870	1781	1585
Q Serve(g_s), s	9.0	20.0	5.7	10.3	25.9	10.6
Cycle Q Clear(g_c), s	9.0	20.0	5.7	10.3	25.9	10.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	834	724	486	1103	561	499
V/C Ratio(X)	0.33	0.62	0.44	0.36	0.91	0.45
Avail Cap(c_a), veh/h	834	724	625	1103	672	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.4	19.3	11.2	10.0	31.0	25.7
Incr Delay (d2), s/veh	1.1	3.9	0.6	0.9	15.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	7.4	2.0	3.8	13.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.4	23.2	11.8	10.9	46.0	26.4
LnGrp LOS	B	C	B	B	D	C
Approach Vol, veh/h	719			607	735	
Approach Delay, s/veh	21.0			11.2	40.0	
Approach LOS	C			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		34.1	12.5	47.5
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		35.5	15.5	35.5
Max Q Clear Time (g_c+I1), s		12.3		27.9	7.7	22.0
Green Ext Time (p_c), s		2.3		1.7	0.3	2.6

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	399	561	240	324	527	245
Future Volume (veh/h)	399	561	240	324	527	245
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	411	578	247	334	543	253
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	2	2
Cap, veh/h	949	797	429	1188	490	436
Arrive On Green	0.51	0.51	0.08	0.63	0.28	0.28
Sat Flow, veh/h	1870	1572	1781	1870	1781	1585
Grp Volume(v), veh/h	411	578	247	334	543	253
Grp Sat Flow(s),veh/h/ln	1870	1572	1781	1870	1781	1585
Q Serve(g_s), s	13.9	28.6	6.3	7.9	27.5	13.8
Cycle Q Clear(g_c), s	13.9	28.6	6.3	7.9	27.5	13.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	949	797	429	1188	490	436
V/C Ratio(X)	0.43	0.72	0.58	0.28	1.11	0.58
Avail Cap(c_a), veh/h	949	797	433	1188	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	19.2	11.1	8.1	36.3	31.3
Incr Delay (d2), s/veh	1.4	5.7	1.8	0.6	73.7	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	10.5	2.3	2.9	21.7	12.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.0	24.9	12.9	8.7	109.9	33.2
LnGrp LOS	B	C	B	A	F	C
Approach Vol, veh/h	989			581	796	
Approach Delay, s/veh	21.6			10.5	85.6	
Approach LOS	C			B	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		32.0	12.8	55.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		63.5		27.5	8.5	50.5
Max Q Clear Time (g_c+I1), s		9.9		29.5	8.3	30.6
Green Ext Time (p_c), s		1.9		0.0	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	276	449	215	396	515	226
Future Volume (veh/h)	276	449	215	396	515	226
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1841	1870	1870	1870
Adj Flow Rate, veh/h	291	473	226	417	542	238
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	2	4	2	2	2
Cap, veh/h	803	697	464	1080	586	522
Arrive On Green	0.44	0.44	0.09	0.58	0.33	0.33
Sat Flow, veh/h	1826	1585	1753	1870	1781	1585
Grp Volume(v), veh/h	291	473	226	417	542	238
Grp Sat Flow(s),veh/h/ln	1826	1585	1753	1870	1781	1585
Q Serve(g_s), s	10.2	22.9	6.4	11.7	28.2	11.4
Cycle Q Clear(g_c), s	10.2	22.9	6.4	11.7	28.2	11.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	803	697	464	1080	586	522
V/C Ratio(X)	0.36	0.68	0.49	0.39	0.92	0.46
Avail Cap(c_a), veh/h	803	697	588	1080	658	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	21.5	12.3	11.1	31.1	25.5
Incr Delay (d2), s/veh	1.3	5.3	0.8	1.0	17.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	8.7	2.3	4.5	14.6	10.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.2	26.8	13.1	12.1	48.9	26.1
LnGrp LOS	B	C	B	B	D	C
Approach Vol, veh/h	764			643	780	
Approach Delay, s/veh	23.9			12.4	41.9	
Approach LOS	C			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		36.2	13.2	46.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		35.5	15.5	35.5
Max Q Clear Time (g_c+I1), s		13.7		30.2	8.4	24.9
Green Ext Time (p_c), s		2.5		1.4	0.3	2.5

Intersection Summary		
HCM 6th Ctrl Delay		27.0
HCM 6th LOS		C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	424	596	255	344	559	260
Future Volume (veh/h)	424	596	255	344	559	260
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	437	614	263	355	576	268
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	3	2	2	2	2
Cap, veh/h	945	794	414	1188	490	436
Arrive On Green	0.50	0.50	0.09	0.63	0.28	0.28
Sat Flow, veh/h	1870	1572	1781	1870	1781	1585
Grp Volume(v), veh/h	437	614	263	355	576	268
Grp Sat Flow(s),veh/h/ln	1870	1572	1781	1870	1781	1585
Q Serve(g_s), s	15.1	31.7	6.8	8.6	27.5	14.8
Cycle Q Clear(g_c), s	15.1	31.7	6.8	8.6	27.5	14.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	945	794	414	1188	490	436
V/C Ratio(X)	0.46	0.77	0.64	0.30	1.18	0.61
Avail Cap(c_a), veh/h	945	794	414	1188	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	20.1	11.8	8.2	36.3	31.6
Incr Delay (d2), s/veh	1.6	7.2	3.2	0.6	98.8	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	11.8	2.6	3.1	25.1	13.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	27.3	15.0	8.9	135.1	34.2
LnGrp LOS	B	C	B	A	F	C
Approach Vol, veh/h	1051			618	844	
Approach Delay, s/veh	23.3			11.5	103.0	
Approach LOS	C			B	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		32.0	13.0	55.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		63.5		27.5	8.5	50.5
Max Q Clear Time (g_c+I1), s		10.6		29.5	8.8	33.7
Green Ext Time (p_c), s		2.1		0.0	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	294	449	224	449	515	229
Future Volume (veh/h)	294	449	224	449	515	229
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	309	473	236	473	542	241
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	818	693	466	1079	587	522
Arrive On Green	0.44	0.44	0.09	0.58	0.33	0.33
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	309	473	236	473	542	241
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	10.7	23.0	6.6	13.8	28.2	11.6
Cycle Q Clear(g_c), s	10.7	23.0	6.6	13.8	28.2	11.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	818	693	466	1079	587	522
V/C Ratio(X)	0.38	0.68	0.51	0.44	0.92	0.46
Avail Cap(c_a), veh/h	818	693	587	1079	658	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	21.7	12.4	11.5	31.1	25.5
Incr Delay (d2), s/veh	1.3	5.4	0.9	1.3	17.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	8.7	2.4	5.3	14.6	10.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.6	27.1	13.3	12.8	48.9	26.1
LnGrp LOS	B	C	B	B	D	C
Approach Vol, veh/h	782			709	783	
Approach Delay, s/veh	24.1			13.0	41.9	
Approach LOS	C			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.0		36.2	13.4	46.6
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		55.5		35.5	15.5	35.5
Max Q Clear Time (g_c+I1), s		15.8		30.2	8.6	25.0
Green Ext Time (p_c), s		2.9		1.5	0.4	2.6

Intersection Summary	
HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	485	596	261	379	559	270
Future Volume (veh/h)	485	596	261	379	559	270
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	500	614	269	391	576	278
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	945	800	387	1188	490	436
Arrive On Green	0.50	0.50	0.09	0.63	0.28	0.28
Sat Flow, veh/h	1870	1585	1781	1870	1781	1585
Grp Volume(v), veh/h	500	614	269	391	576	278
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1870	1781	1585
Q Serve(g_s), s	18.1	31.3	6.9	9.6	27.5	15.4
Cycle Q Clear(g_c), s	18.1	31.3	6.9	9.6	27.5	15.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	945	800	387	1188	490	436
V/C Ratio(X)	0.53	0.77	0.69	0.33	1.18	0.64
Avail Cap(c_a), veh/h	945	800	387	1188	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	20.0	13.3	8.4	36.3	31.9
Incr Delay (d2), s/veh	2.1	6.9	5.3	0.7	98.8	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	11.7	2.9	3.5	25.1	13.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.8	26.9	18.5	9.2	135.1	35.0
LnGrp LOS	B	C	B	A	F	C
Approach Vol, veh/h	1114			660	854	
Approach Delay, s/veh	23.3			13.0	102.5	
Approach LOS	C			B	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		68.0		32.0	13.0	55.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		63.5		27.5	8.5	50.5
Max Q Clear Time (g_c+I1), s		11.6		29.5	8.9	33.3
Green Ext Time (p_c), s		2.3		0.0	0.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

APPENDIX F

GRTA Generalized Annual Average Daily Volumes

TABLE 5

Generalized Annual Average Daily Volumes for Use in GRTA's DRI Review

State Two-Way Arterials

Unsignalized (Uninterrupted Flow)

Lanes /Divided	Level of Service A	B	C	D	E
2/undivided	8,900	13,900	18,900	24,800	33,100
4/divided	21,500	35,800	50,100	60,100	71,600
6/divided	32,200	53,700	75,200	90,200	107,400

Interrupted Flow

Class I (> 2 signalized intersections per mile)

Lanes /Divided	Level of Service A**	B	C	D***	E***
2/undivided	N/A	10,800	15,600	16,600	16,600
4/divided	N/A	23,500	33,200	35,000	35,000
6/divided	N/A	35,800	49,900	52,500	52,500
8/divided	N/A	45,300	61,400	64,400	64,400

Class II (2-4.5 signalized intersections per mile)

Lanes /Divided	Level of Service A**	B**	C	D	E
2/undivided	N/A	N/A	9,900	14,900	16,200
4/divided	N/A	N/A	22,900	32,500	34,300
6/divided	N/A	N/A	35,500	48,900	51,700
8/divided	N/A	N/A	44,700	60,100	63,400

Class III (> 4.5 signalized intersections per mile but not in CBD)

Lanes /Divided	Level of Service A**	B**	C	D	E
2/undivided	N/A	N/A	3,300	12,100	15,800
4/divided	N/A	N/A	7,800	27,800	33,600
6/divided	N/A	N/A	12,100	43,300	50,500
8/divided	N/A	N/A	15,300	54,200	62,100

Class IV (> 4.5 signalized intersections per mile within CBD)

Lanes /Divided	Level of Service A**	B**	C	D	E
2/undivided	N/A	N/A	3,700	13,800	15,300
4/divided	N/A	N/A	8,900	29,900	32,600
6/divided	N/A	N/A	14,000	45,500	49,000
8/divided	N/A	N/A	17,500	56,200	60,100

* This table is based on the 1997 Highway Capacity Manual and data generated by the Florida DOT. For the purposes of GRTA review this table can be used for Level of Service Analysis in Section 2.2.
** Cannot be achieved.
*** Volumes are comparable because intesection capacities have been reached.

Freeways

Group I (w/in urban area 500,000+ w/in 5 miles of CBD

Lanes	Level of Service A	B	C	D	E
4	21,200	34,300	51,500	66,200	81,700
6	32,600	52,700	79,000	101,600	125,400
8	44,500	71,800	107,800	138,600	171,100
10	55,600	89,800	134,700	173,200	213,800
12	65,200	105,400	158,100	203,200	250,900

Group II (w/in urban area 500,000+ not included in Group I)

Lanes	Level of Service A	B	C	D	E
4	20,900	32,800	49,200	62,600	74,500
6	32,100	50,400	75,600	96,200	114,500
8	43,800	68,800	103,200	131,300	156,300
10	54,700	86,000	129,000	164,200	195,400
12	64,100	100,800	151,200	192,400	229,100

Non-State Roadways (Major City/County Roads)

Lanes	Level of Service A**	B**	C	D	E
2/undivided	N/A	N/A	8,600	14,600	16,000
4/divided	N/A	N/A	19,800	31,700	33,900
6/divided	N/A	N/A	30,800	47,800	51,000

Other Signalized Roadways (Signalized Intersection Analysis)

Lanes	Level of Service A**	B**	C	D	E
2/undivided	N/A	N/A	4,800	10,900	11,900
4/divided	N/A	N/A	11,600	23,800	25,400

Adjustments (Divided/Undivided)

(Alter corresponding two-way volumes by indicated percentage)

Lanes	Median	Left Turn Bays	Adjustment Factor
2	divided	Yes	+5%
2	undivided	No	-20%
Multi	undivided	Yes	-5%
Multi	undivided	No	-25%

One-Way

(Alter corresponding two-way volumes by indicated percentage)

One-Way Lanes	Equivalent 2-Way Lanes	Adjustment Factor
2	4	-40%
3	6	-40%
4	8	-40%
5	8	-25%

SOURCE: The Florida Department of Transportation, Systems Planning Office, 605 Suwannee Street - Mail Station # 19, Tallahassee, Florida, 32399-0450
September 1998 - www.dot.state.fl.us/planning
<<<The assumptions made in the development of this table appear in the 1998 Level of Service Handbook published by Florida DOT.>>>