TRAFFIC IMPACT STUDY

For

BH 31 Schoolhouse Road, LLC
Proposed Warehouse Development

Property Located at:

31 Schoolhouse Road
Block 517.4 – Lot 21.03
Township of Franklin, Somerset County, NJ

Prepared by:

1904 Main Street
Lake Como, NJ 07719

245 Main Street, Suite #110
Chester, NJ 07930

(732) 681-0760

Corey M. Chase, PE
NJ PE License #47470

Kevin M. Savage, PE
NJ PE License #55728

March 11, 2022
Last Revised: July 18, 2022

2906-99-003T

JTT;cgh;msa

INTRODUCTION

It is proposed to construct a warehouse development on a parcel of land currently occupied by two (2) vacant light industrial/manufacturing buildings, located along the westbound side of Schoolhouse Road opposite Heller Park Lane in Franklin Township, Somerset County, New Jersey (see Figure 1 in Appendix A). The site is designated as Block 517.04 – Lot 21.03 on the Township of Franklin Tax Maps. It is proposed to raze the existing structures and construct a 74,800 SF warehouse building ("The Project"). The site is located within the B-I – Business and Industry Zoning District. Access to the site is currently provided via one (1) full-movement driveway along Schoolhouse Road opposite Heller Park Lane. It is proposed to reconstruct the existing driveway and construct an additional driveway, totaling two (2) full movement driveways along Schoolhouse Road. Parking will be provided via thirty-eight (38) on-site parking spaces. Additionally, ten (10) loading stalls will be provided.

Dynamic Traffic, LLC has been retained to prepare this study to assess the traffic impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.

- Existing traffic data was collected via manual turning movement (MTM) counts during the weekday AM and weekday PM peak periods at the intersections of:

    - Schoolhouse Road and Heller Park Lane/Site Driveway
    - Schoolhouse Road and Cottontail Lane

- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers. Site traffic was then assigned to the adjacent street system based upon the anticipated directional distribution.

- Capacity analyses were conducted for the Existing, No Build, and Build conditions for the study intersections.

- The proposed points of ingress and egress were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.

- The site plan as designed was reviewed for sufficiency in accommodating large wheel base vehicles such as delivery trucks, refuse trucks, and emergency vehicles.

- The parking layout and supply was assessed based on accepted design standards, local requirements, and demand experienced at similar developments.

EXISTING CONDITIONS

A review of the existing roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

Schoolhouse Road is an Urban Major Collector under Franklin Township jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 35 MPH to the east of Cottontail Lane and 30 MPH to the west between Randolph Road and Cottontail Lane, and the roadway provides one travel lane in each direction. Curb is provided along both sides of the roadway while sidewalk is not provided along either side of the roadway. Schoolhouse Road provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along Schoolhouse Road in the vicinity of The Project are mixed industrial and residential.

Cottontail Lane is an Urban Major Collector roadway under Franklin Township jurisdiction with a general north/south orientation. In the vicinity of the site the speed limit is unposted and the roadway provides one travel lane in each direction. Curb is provided along both sides of the roadway while sidewalk is not provided along either side of the roadway. Cottontail Lane provides a slightly curved horizontal alignment and a rolling vertical alignment. The land uses along Cottontail Lane in the vicinity of The Project are primarily industrial.

Heller Park Lane is a local roadway under Franklin Township jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 35 MPH and the roadway provides one travel lane in each direction. Curb is provided along both sides of the roadway while sidewalk is not provided along either side of the roadway. Heller Park Lane provides a relatively straight horizontal alignment and a downhill vertical alignment. The land uses along Heller Park Lane are primarily industrial.

Existing Traffic Volumes

Manual turning movement (MTM) counts were conducted on Thursday February 10, 2022 from 7:00 to 9:00 AM and from 4:30 to 6:30 PM at the following intersections:

- Schoolhouse Road and Heller Park Lane/Site Driveway
- Schoolhouse Road and Cottontail Lane

Review of the collected traffic data reveals that the weekday morning peak street hour (PSH) of the network occurs between 7:00 – 8:00 AM and the weekday evening network PSH occurs between 4:30 - 5:30 PM. Figure 2, located in Appendix A, shows the existing peak hour traffic volumes at the study intersections. All traffic counts are contained in Appendix B.

Existing Capacity Analysis

The methodology utilized in the capacity analyses is described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a "qualitative" evaluation of capacity based upon certain "quantitative" calculations related to empirical values, such as traffic volume and intersection control.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially processing these impeded movements. Table I describes the level of service ranges for unsignalized (stop controlled) intersections.

Table I
Level of Service Criteria
for Unsignalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
A	0.0 to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	greater than 50.0

All capacity analyses were performed utilizing Synchro 11 software. Table II summarizes the existing levels of service (LOS) and delays. All capacity analysis calculation worksheets are contained in Appendix C.

Table II
Existing Levels of Service

Intersection	Direction/ Movement		AM PSH	PM PSH
Schoolhouse Road & Heller Park Lane/Site Driveway	EB	LTR	-	A (8)
	WB	LTR	A (9)	A (9)
	NB	LTR	C (22)	C (17)
	SB	LTR	-	-
Schoolhouse Road & Cottontail Lane	EB	LTR	A (9)	A (9)
	SB	LR	C (22)	D (33)

A (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

The following are discussions pertaining to each of the existing intersections analyzed. It should be noted that the existing percentage of trucks and peak hour factors were used in the existing analysis.

Schoolhouse Road and Heller Park Lane/Site Driveway

Heller Park Lane and the Site driveway intersect Schoolhouse Road to form an unsignalized four-way intersection with Heller Park Lane and the Site driveway operating under stop control. Each approach provides a single shared left turn/through/right turn lane.

A review of the existing analysis reveals that all movements operate at levels of service "C" or better during the analyzed peak periods. See Table II for the individual movement levels of service and delays.

Schoolhouse Road and Cottontail Lane

Cottontail Lane intersects Schoolhouse Road to form an unsignalized T-intersection with Cottontail Lane operating under stop control. The eastbound approach of Schoolhouse Road provides a shared left turn/through lane, while the westbound approach provides a shared through/right turn lane. The southbound approach of Cottontail Lane provides a shared left turn/right turn lane.

A review of the existing analysis reveals that all movements operate at levels of service "D" or better during the analyzed peak periods. See Table II for the individual movement levels of service and delays.

FUTURE CONDITIONS

Traffic volumes and operational analyses were developed for both the Future No Build and Build conditions. The No Build conditions provide a baseline for assessing the impact of the site development traffic on the roadway system. The process of developing the No Build and Build traffic volumes and the subsequent analyses is outlined below.

Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways are expected to increase as a result of developments throughout the region. A growth rate for roadways within the study area was obtained from the NJDOT Annual Background Growth Rate Table, which indicates a growth rate of 1.75% per year.

It should be noted that there is one (1) development in the vicinity of the site that that is identified as a potential significant traffic generator, shown below. The Adjacent Development Traffic Volumes passing the site are shown on Figure 3. It was assumed that the background growth rate was adequate to account for the traffic associated with all background growth in the study area.

- A development consisting of 861,375 SF of warehouse, located at the intersection of Schoolhouse Road and Mettlers Road, is in the preliminary planning process. While the development has not yet been approved, it has been included to provide a conservative analysis. Projections of the associated traffic volumes were developed using data as published by the Institute of Transportation Engineers (ITE) publication *Trip Generation, 11th Edition* for Land Use Code (LUC) 150 - Warehousing.

Future No Build traffic volumes were developed by applying the background growth rate of 1.75% for two (2) years to the study area roadways existing traffic volumes and adding the adjacent development traffic volumes. Figure 4, in Appendix A, shows the Future No Build traffic volumes.

Traffic Generation

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code 150 – Warehousing in *Trip Generation, 11th Edition.* This publication sets forth trip generation rates based on traffic counts conducted at research sites throughout the country. The percentage of truck trips generated was prepared utilizing data from the ITE publication, *Trip Generation, 10th Edition Supplement*. Table III below summarizes the projected trip generation based on the ITE data.

Table III
Trip Generation

Trip Type		AM PSH			PM PSH		
		In	Out	Total	In	Out	Total
74,800 SF Warehouse	Automobiles	22	7	29	8	22	30
	Heavy Vehicles	3	1	4	2	3	5
	Total	**25**	**8**	**33**	**10**	**25**	**35**

In an effort to provide a conservative analysis, no credit was taken for the trips generated by the former uses on the property and all trips were considered new over vacant land.

As can be seen above, the proposed site is projected to generate 33 trips during the weekday morning peak hour and 35 trips during the weekday evening peak hours. It should be noted that the number of new trips falls below the industry accepted standard of a significant increase in traffic of 100 trips. Based on *Transportation Impact Analysis for Site Development*, published by the ITE "it is suggested that a transportation impact study be conducted whenever a proposed development will generate 100 or more added (new) trips during the adjacent roadways' peak hour or the development's peak hour." Additionally, NJDOT has determined that the same 100 vehicle threshold is considered a "significant increase in traffic," hence, it is not anticipated that The Project will have a perceptible impact on the surrounding roadway network.

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of new traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections and existing traffic patterns. Located in Appendix A, Figures 5-9 illustrate the Car Traffic Trip Distribution, Car Site Generated Volumes, Truck Traffic Trip Distribution, Truck Site Generated Volumes, and the Total Site Generated Volumes, respectively. The Total Site Generated Volumes assigned to the study area network were added to the No Build traffic volumes to generate the Build traffic volumes, which are shown in Figure 10.

Future Capacity Analysis

Operational conditions at the study intersections were analyzed under the No Build and Build conditions and are summarized in Table IV below.

Table IV
Future Levels of Service

Intersection	Direction/ Movement		AM PSH		PM PSH	
			No Build	Build	No Build	Build
Schoolhouse Road and Heller Park Lane/Western Site Driveway	EB	LTR	-	A (8)	A (9)	A (9)
	WB	LTR	A (9)	A (9)	A (9)	A (9)
	NB	LTR	D (26)	D (27)	C (20)	C (21)
	SB	LTR	-	B (11)	-	B (15)
Schoolhouse Road and Cottontail Lane	EB	LT	A (10)	A (10)	A (9)	A (9)
	SB	LR	D (25)	D (26)	E (44)	E (48)
Schoolhouse Road & Eastern Site Driveway	SB	LT	-	C (24)	-	C (24)

A (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

Schoolhouse Road and Heller Park Lane/Western Site Driveway

As designed, and with the addition of site generated traffic, each intersection movement is anticipated to operate at No Build levels of service "D" or better during the analyzed peak hours. The site driveway is calculated to operate at levels of service "B" or better which translates to a 95th percentile queue of only one (1) vehicle, which can be accommodated on site without impacting circulation. See Table IV for the individual movement levels of service and delays.

Schoolhouse Road and Cottontail Lane

With the addition of site generated traffic, each movement is anticipated to operate at No Build levels of service "E" or better during the analyzed peak hours. See Table IV for the individual movement levels of service and delays.

Schoolhouse Road and Eastern Site Driveway

The eastern site driveway is proposed to intersect Schoolhouse Road to form an unsignalized T-intersection with the southbound approach of the eastern site driveway operating under stop control. The eastbound approach of Schoolhouse Road is proposed to provide a left turn/through lane, while the westbound approach is proposed to provide a shared through/right turn lane. The southbound approach of the eastern site driveway is proposed to provide a shared left turn/right turn lane.

As designed, the driveway is anticipated to operate at levels of service "C" or better during the studied peak hours. See Table IV for the individual movement levels of service and delays.

SITE PLAN

Site Access and Circulation

The site plan was reviewed with respect to the site access and on-site circulation design. As noted previously, access to The Project will be provided via two (2) full movement driveways along Schoolhouse Road.

The newly constructed parking areas will be serviced by parking aisles with a width of 26' for passenger car circulation and 70' for truck circulation which are both consistent with generally accepted engineering design standards. These aisles will allow for two-way circulation and 90-degree parking. Review of the site plan design indicates that the site can sufficiently accommodate, within paved areas, a large wheel base vehicle, such as tractor trailers along with the automobile traffic anticipated.

Parking

The Franklin Township Ordinance sets forth a parking requirement of one (1) parking space per each 250 SF of gross floor area (GFA) for office uses and one (1) parking space per each 1,000 SF for the first 5,000 SF of gross floor area (GFA), then one (1) parking space for each 2,500 SF of GFA thereafter for warehouse uses. This equates to a total parking requirement of 38 spaces for the 74,800 SF warehouse development inclusive of 1,500 SF of ancillary office space. The site as proposed provides 38 parking spaces and thus the Ordinance is satisfied.

The *ITE Parking Generation, 5th Edition* provides an average peak parking rate of 0.39 spaces per 1,000 square feet of gross floor area for LUC 150 – Warehousing. This equates to a parking demand of 29 spaces for the proposed 74,800 SF of warehouse inclusive of ancillary office space. Therefore, the parking supply is generally consistent with ITE parking demand rates and would be sufficient to accommodate the specific operations of the site.

It is proposed to provide parking stalls with dimensions of 9'x18', which satisfy the Ordinance minimum requirement of 9'x18'. Thus, the proposed dimensions will be adequate to accommodate the anticipated site traffic.

FINDINGS & CONCLUSIONS

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed 74,800 SF warehouse development, is projected to generate 25 entering trips and 8 exiting trips during the weekday morning peak hour and 10 entering trips and 25 exiting trips during the evening peak hour. Such a level of trip generation is not considered significant.

- Access to the site is proposed to be provided via two (2) new full movement driveways along Schoolhouse Road.

- As designed and with the addition of site generated traffic, the individual intersection movements of Schoolhouse Road and Heller Park Lane/Western Site Driveway is anticipated to operate at levels of service "D" or better during the peak hours studied.

- With the addition of site generated traffic, the individual intersection movements of Schoolhouse Road and Cottontail Lane is anticipated to operate at No Build levels of service "E" or better during the peak hours studied.

- As designed, the individual intersection movements of Schoolhouse Road and the eastern site driveway is anticipated to operate at levels of service "C" or better during the peak hours studied.

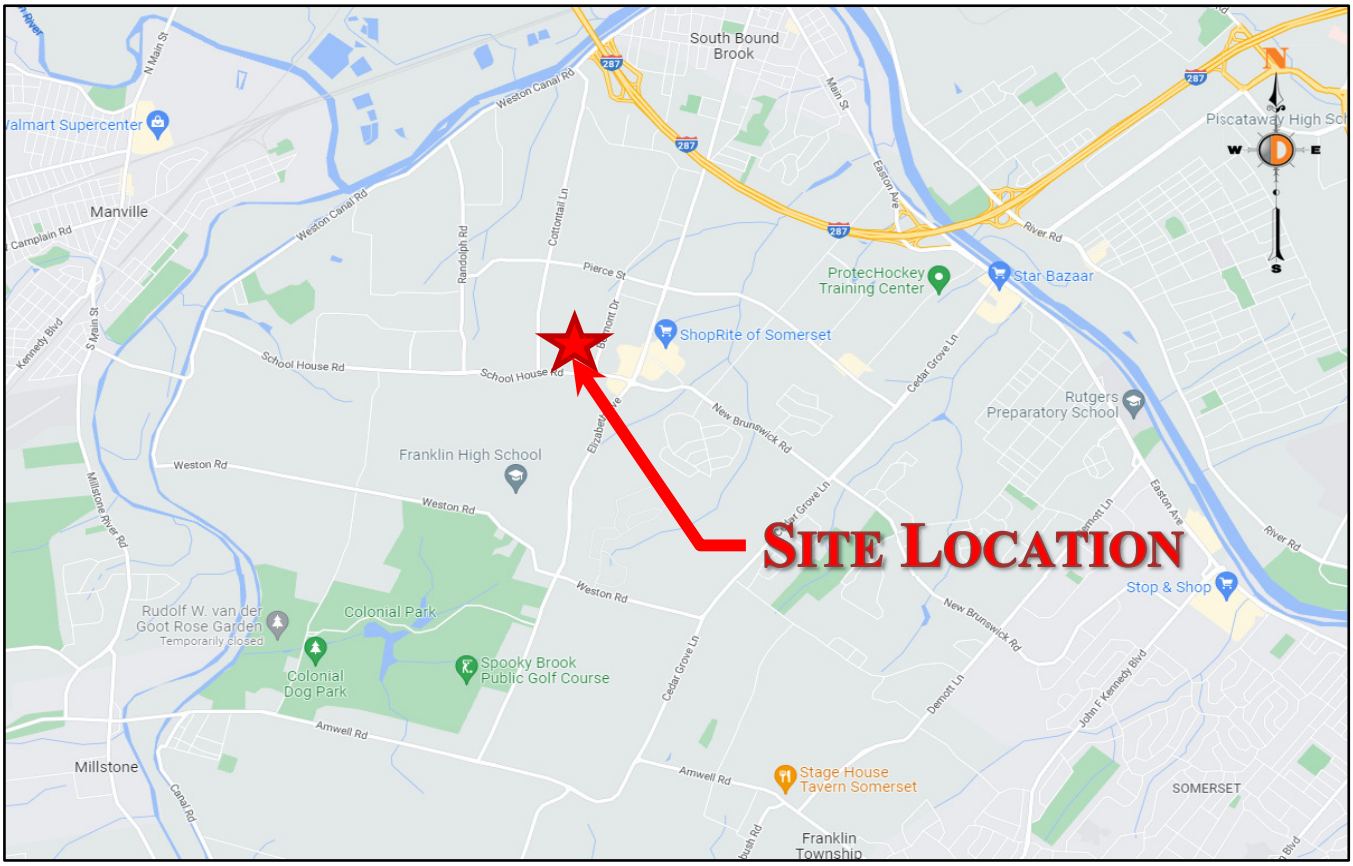
- As proposed, The Project's site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles and large wheel base vehicles.

- The proposed parking supply and design is sufficient to support the projected demand.

Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic, LLC that the adjacent street system of the Township of Franklin will not experience any significant degradation in operating conditions with the construction of The Project. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project's needs.

Appendix A
Traffic Volume Figures



Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

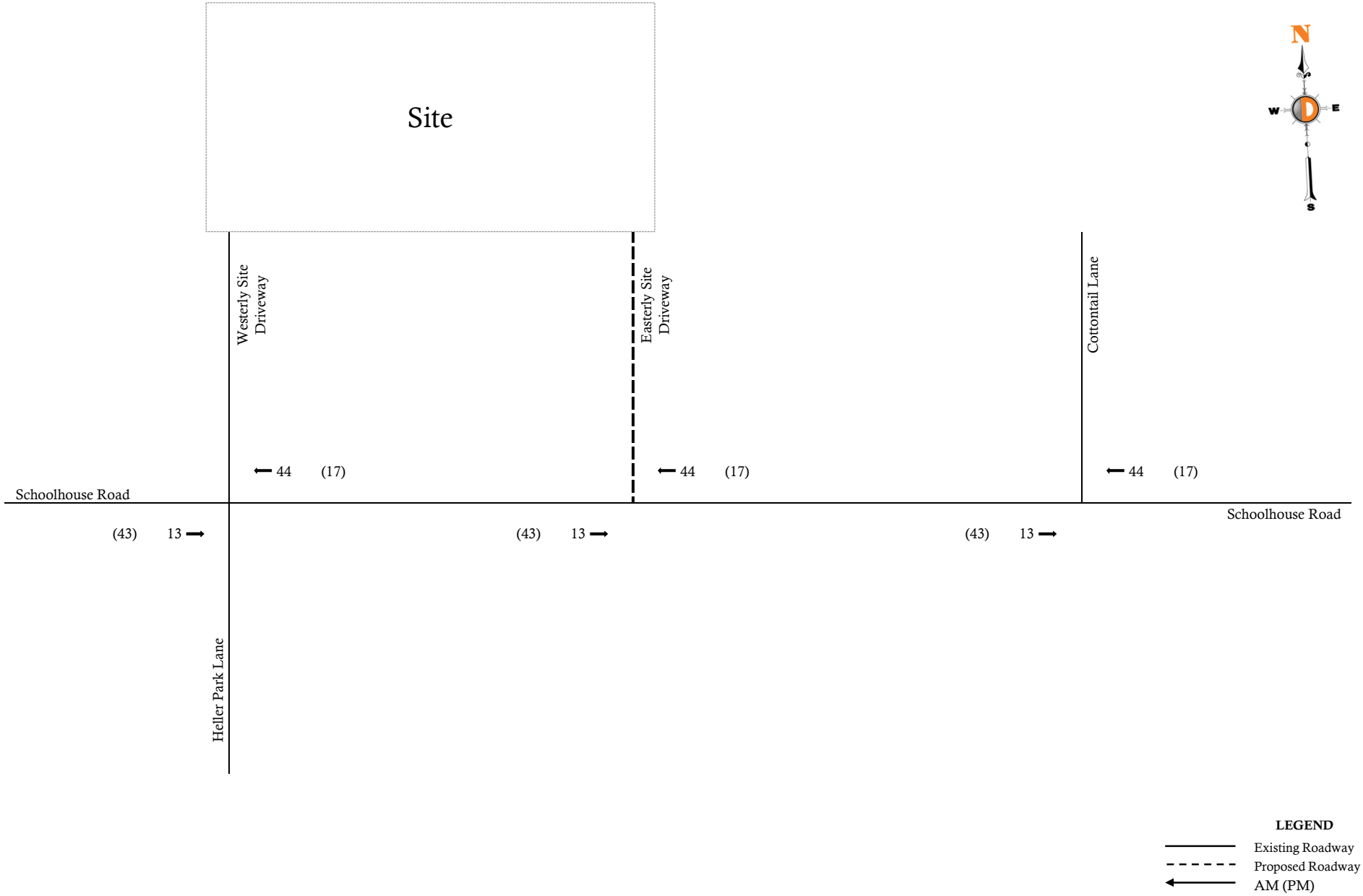
Figure 1

Site Location Map

Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

Figure 2

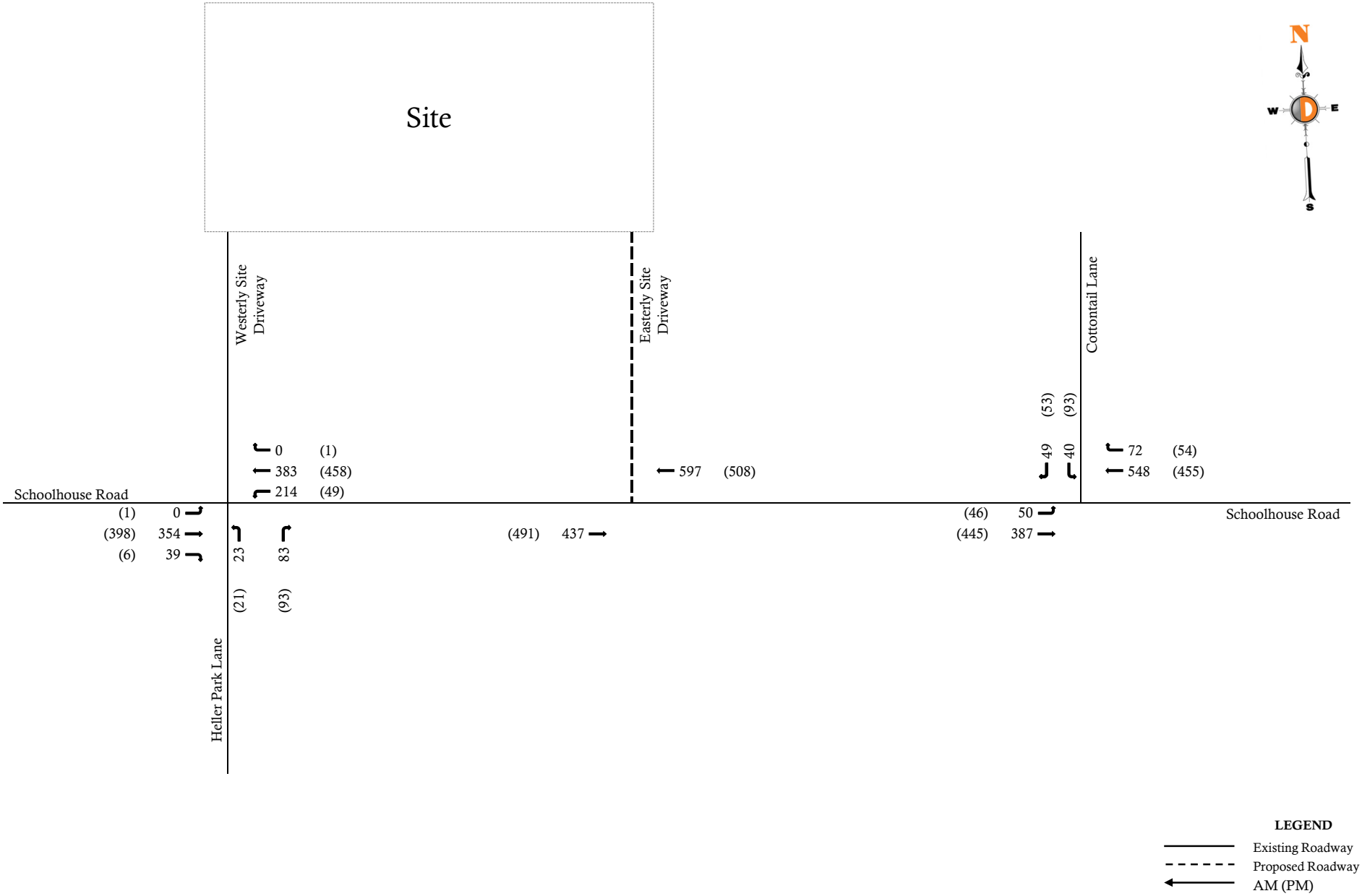
Existing Traffic Volumes



Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

Figure 3

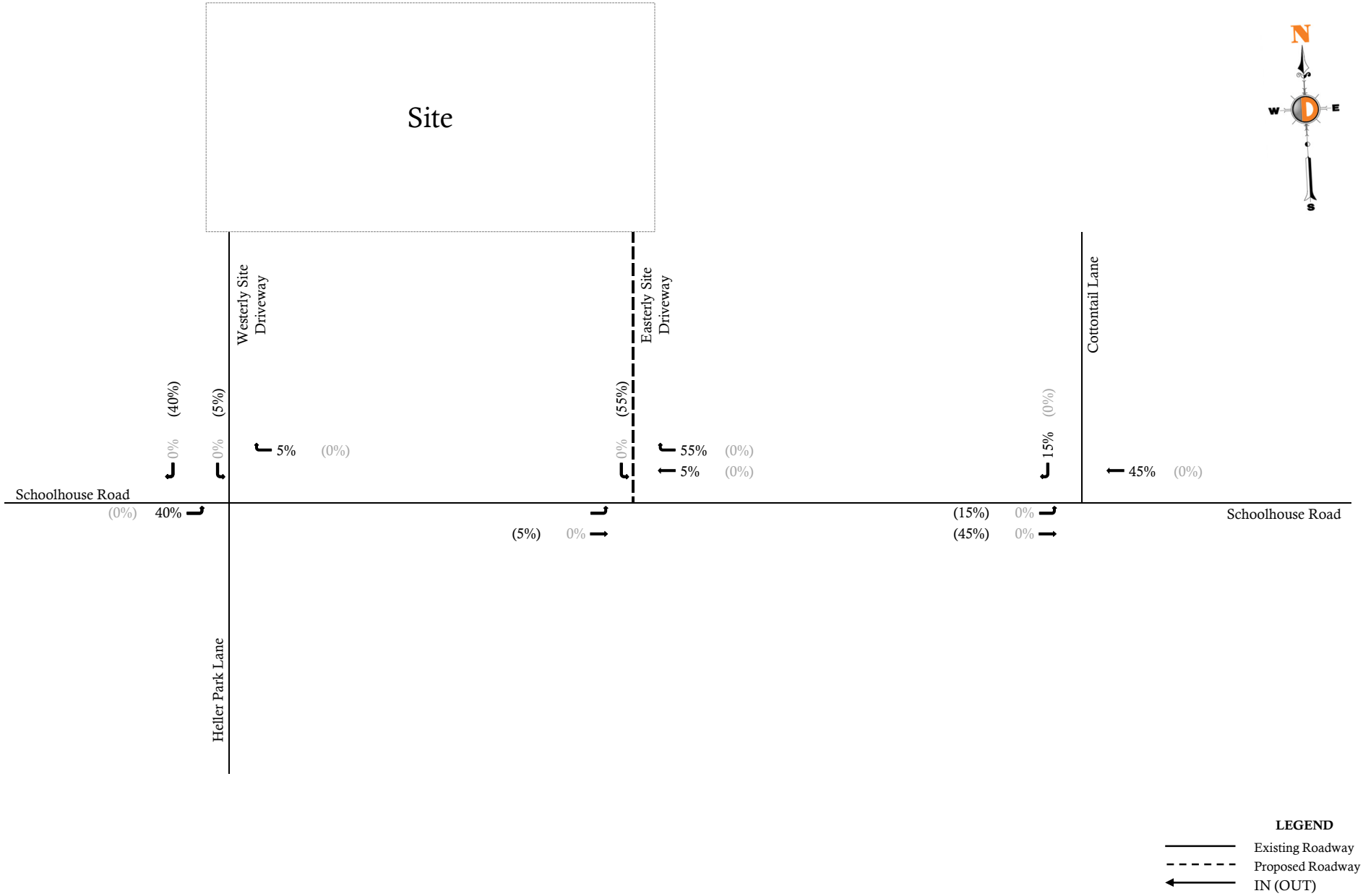
Adjacent Development Traffic Volumes [Link Franklin]

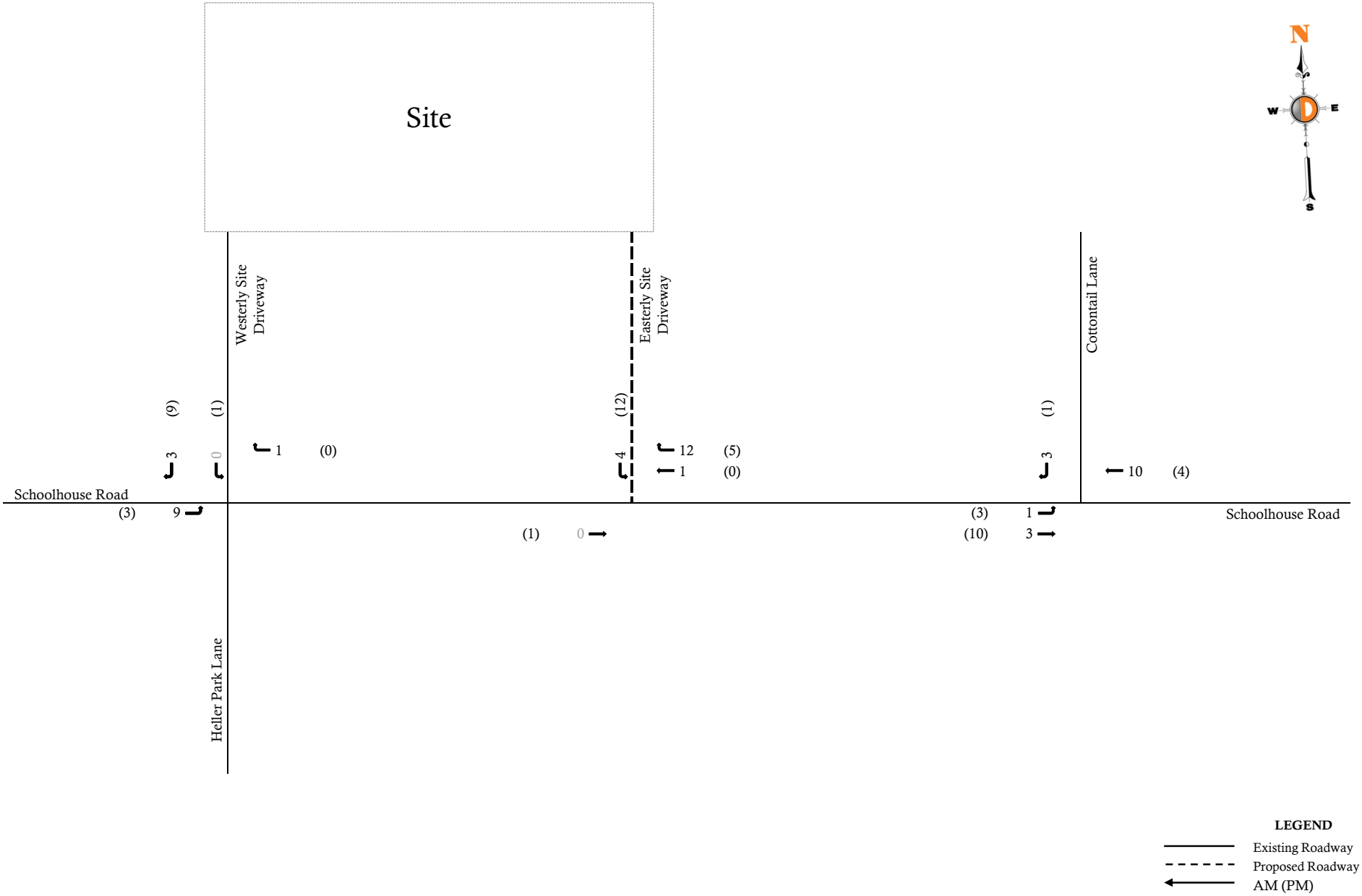


Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

Figure 4

No Build Traffic Volumes

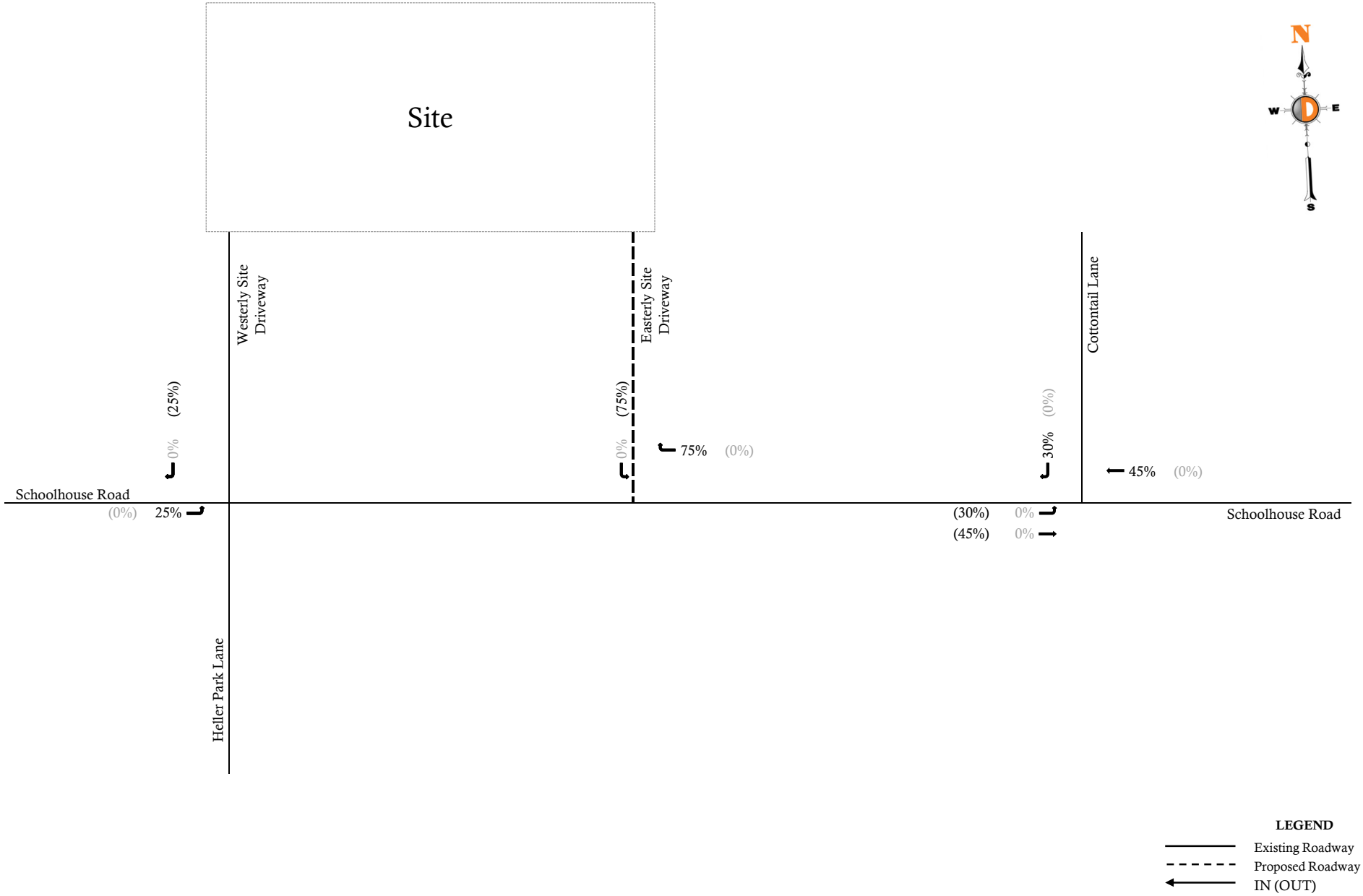

Site
N
W
E
S
Westerly Site Driveway
Easterly Site Driveway
Cottontail Lane
Heller Park Lane
Schoolhouse Road
Schoolhouse Road
(40%)
0%
(5%)
0%
5%
(0%)
(55%)
0%
55%
(0%)
5%
(0%)
(0%)
15%
45%
(0%)
(0%)
40%
(5%)
0%
(15%)
0%
(45%)
0%
LEGEND
Existing Roadway
Proposed Roadway
IN (OUT)



Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

Figure 6

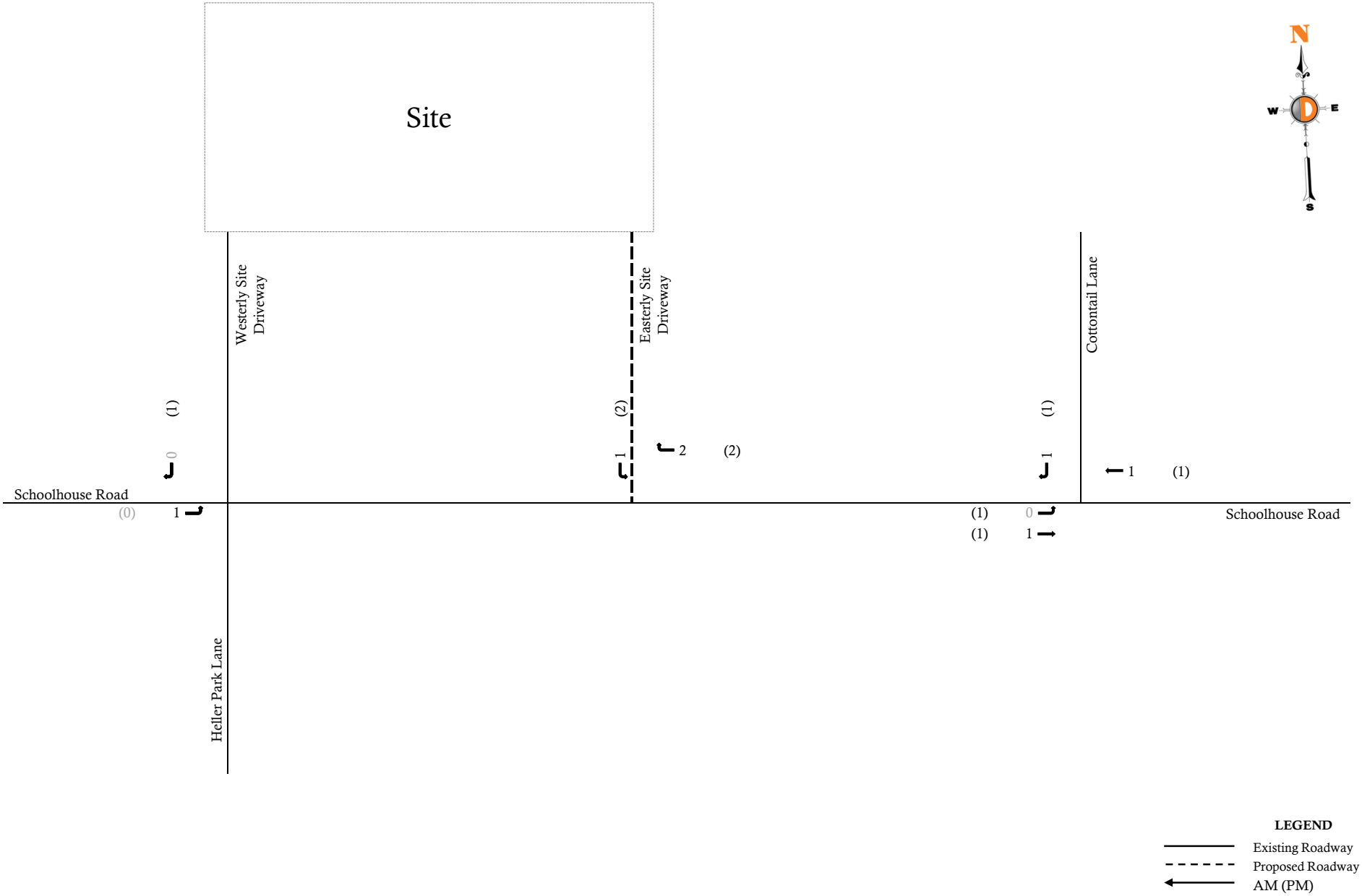
Car Site Generated Trips



Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

Figure 7

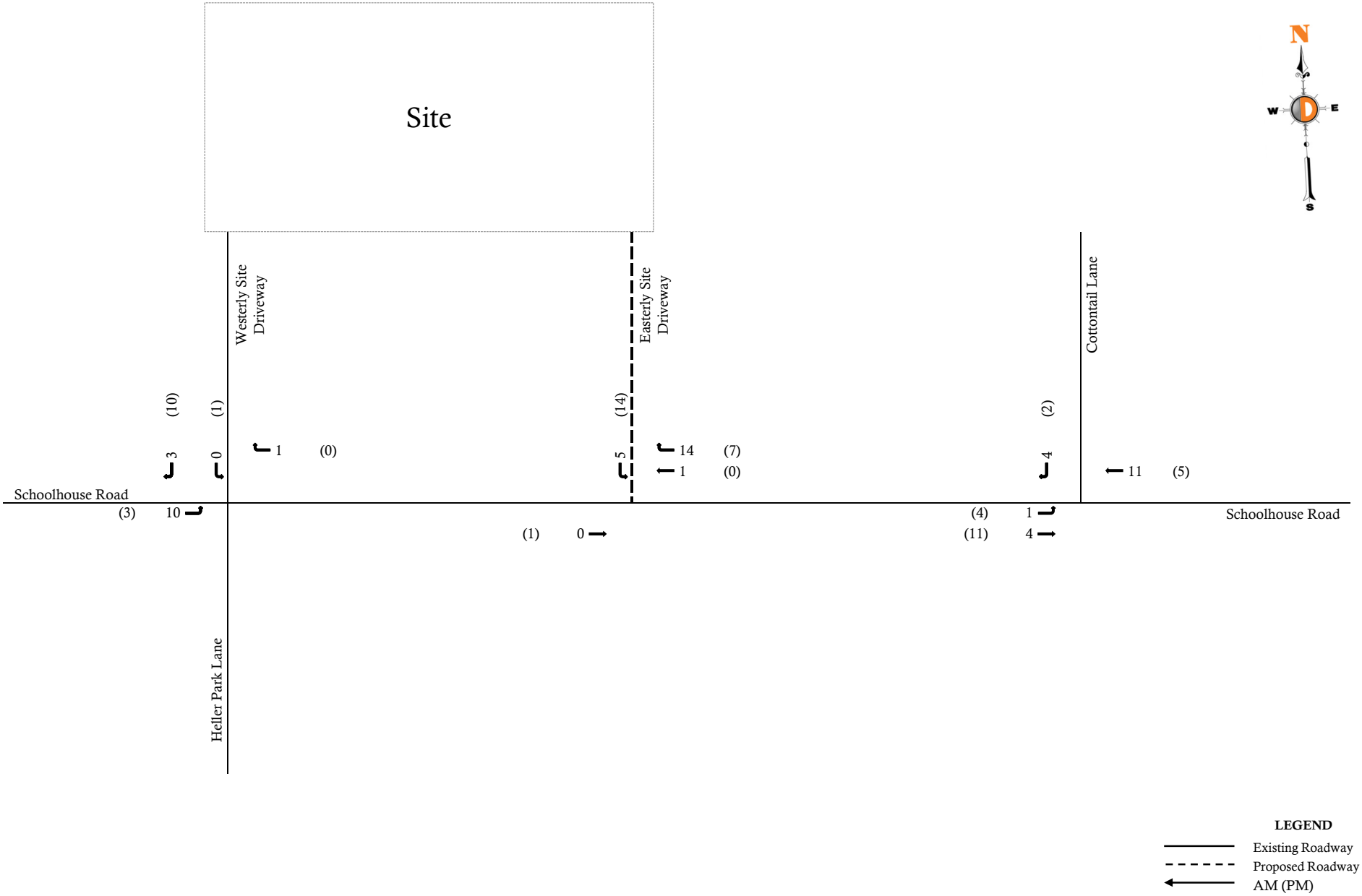
Percent Distribution (Truck Trips)



Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

Figure 8

Truck Site Generated Trips



Proposed Warehouse Development
Traffic Impact Study
2906-99-003T

Figure 9

Total Site Generated Trips


Site
N
W
E
S
Westerly Site Driveway
Easterly Site Driveway
Cottontail Lane
Heller Park Lane
Schoolhouse Road
Schoolhouse Road
(10)
(1)
(14)
(55)
(93)
3
0
1 (1)
383 (458)
214 (49)
5
14 (7)
598 (508)
53
40
72 (54)
559 (460)
(4) 10
(398) 354
(6) 39
23
(21)
83
(93)
(492) 437
(50) 51
(456) 391
LEGEND
Existing Roadway
Proposed Roadway
AM (PM)

Appendix B
Project Information

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719
245 Main Street - Suite #110, Chester, NJ 07930
732681-0760

E/W: Schoohouse Road
N/S: Heller Park Lane
Town/County: Franklin/Somerset
Job #: 2906-99-003T

File Name : Schoolhouse Road and Heller Park Lane - AMPM
Site Code : 00000000
Start Date : 2/10/2022
Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

	Schoolhouse Road Eastbound					Schoolhouse Road Westbound					Heller Park Lane Northbound					Heller Park Lane Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	48	14	0	62	77	91	0	0	168	4	0	27	0	31	0	0	0	0	0	261
07:15 AM	0	58	15	0	73	73	82	0	0	155	9	0	39	0	48	0	0	0	0	0	276
07:30 AM	0	100	4	0	104	25	73	0	0	98	8	0	7	0	15	0	0	0	0	0	217
07:45 AM	0	123	5	0	128	32	68	0	0	100	1	0	7	0	8	0	0	0	0	0	236
Total	0	329	38	0	367	207	314	0	0	521	22	0	80	0	102	0	0	0	0	0	990
08:00 AM	0	89	3	0	92	16	64	0	0	80	3	0	6	0	9	0	0	0	0	0	181
08:15 AM	0	109	7	0	116	23	65	0	0	88	2	0	4	0	6	0	0	0	0	0	210
08:30 AM	0	92	3	0	95	18	74	0	0	92	1	0	8	0	9	0	0	0	0	0	196
08:45 AM	0	87	3	0	90	14	55	0	0	69	0	0	2	0	2	0	0	0	0	0	161
Total	0	377	16	0	393	71	258	0	0	329	6	0	20	0	26	0	0	0	0	0	748
*** BREAK ***																					
04:30 PM	0	73	1	0	74	10	111	1	0	122	4	0	24	0	28	0	0	0	0	0	224
04:45 PM	0	92	2	0	94	11	92	0	0	103	5	0	11	0	16	0	0	0	1	1	214
Total	0	165	3	0	168	21	203	1	0	225	9	0	35	0	44	0	0	0	1	1	438
05:00 PM	0	101	3	0	104	17	106	0	1	124	8	0	43	0	51	0	0	0	0	0	279
05:15 PM	1	68	0	0	69	9	106	0	0	115	3	0	12	0	15	0	0	0	0	0	199
05:30 PM	0	66	2	0	68	6	97	0	0	103	14	0	22	0	36	0	0	0	0	0	207
05:45 PM	0	65	4	0	69	9	93	0	0	102	4	0	12	0	16	1	0	0	0	1	188
Total	1	300	9	0	310	41	402	0	1	444	29	0	89	0	118	1	0	0	0	1	873
06:00 PM	0	107	1	0	108	7	93	0	0	100	3	0	19	0	22	0	0	0	0	0	230
06:15 PM	0	81	0	0	81	13	68	0	0	81	1	0	14	0	15	0	0	0	0	0	177
Grand Total	1	1359	67	0	1427	360	1338	1	1	1700	70	0	257	0	327	1	0	0	1	2	3456
Apprch %	0.1	95.2	4.7	0		21.2	78.7	0.1	0.1		21.4	0	78.6	0		50	0	0	50		
Total %	0	39.3	1.9	0	41.3	10.4	38.7	0	0	49.2	2	0	7.4	0	9.5	0	0	0	0	0.1	
Cars	1	1320	64	0	1385	312	1287	1	1	1601	63	0	224	0	287	1	0	0	1	2	3275
% Cars	100	97.1	95.5	0	97.1	86.7	96.2	100	100	94.2	90	0	87.2	0	87.8	100	0	0	100	100	94.8
Trucks (SU)	0	25	2	0	27	23	40	0	0	63	5	0	18	0	23	0	0	0	0	0	113
% Trucks (SU)	0	1.8	3	0	1.9	6.4	3	0	0	3.7	7.1	0	7	0	7	0	0	0	0	0	3.3
Trucks (TT)	0	14	1	0	15	25	11	0	0	36	2	0	15	0	17	0	0	0	0	0	68
% Trucks (TT)	0	1	1.5	0	1.1	6.9	0.8	0	0	2.1	2.9	0	5.8	0	5.2	0	0	0	0	0	2

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719
245 Main Street - Suite #110, Chester, NJ 07930
732-681-0760

E/W: Schoolhouse Road
N/S: Cottontail Lane
Town/County: Franklin/Somerset
Job #: 2906-99-003T

File Name : Schoolhouse Road & Cottontail Lane - AM
Site Code : 00000000
Start Date : 2/10/2022
Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

	Schoolhouse Road Eastbound					Schoolhouse Road Westbound					Cottontail Lane Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	10	59	0	0	69	0	145	12	0	157	17	0	16	0	33	259
07:15 AM	11	85	0	0	96	0	156	13	0	169	7	0	12	0	19	284
07:30 AM	9	85	1	0	95	0	92	20	0	112	4	0	12	0	16	223
07:45 AM	18	110	5	0	133	0	94	25	0	119	11	0	7	0	18	270
Total	48	339	6	0	393	0	487	70	0	557	39	0	47	0	86	1036
08:00 AM	15	77	0	0	92	0	78	37	0	115	15	0	6	0	21	228
08:15 AM	7	100	0	0	107	0	78	25	0	103	7	0	5	0	12	222
08:30 AM	13	90	0	0	103	0	85	22	0	107	10	0	9	0	19	229
08:45 AM	11	79	0	0	90	0	54	21	0	75	16	0	10	0	26	191
Total	46	346	0	0	392	0	295	105	0	400	48	0	30	0	78	870
Grand Total	94	685	6	0	785	0	782	175	0	957	87	0	77	0	164	1906
Apprch %	12	87.3	0.8	0		0	81.7	18.3	0		53	0	47	0		
Total %	4.9	35.9	0.3	0	41.2	0	41	9.2	0	50.2	4.6	0	4	0	8.6	
Cars	77	655	6	0	738	0	744	161	0	905	75	0	56	0	131	1774
% Cars	81.9	95.6	100	0	94	0	95.1	92	0	94.6	86.2	0	72.7	0	79.9	93.1
Trucks (SU)	5	14	0	0	19	0	11	9	0	20	5	0	8	0	13	52
% Trucks (SU)	5.3	2	0	0	2.4	0	1.4	5.1	0	2.1	5.7	0	10.4	0	7.9	2.7
Trucks (TT)	12	16	0	0	28	0	27	5	0	32	7	0	13	0	20	80
% Trucks (TT)	12.8	2.3	0	0	3.6	0	3.5	2.9	0	3.3	8	0	16.9	0	12.2	4.2

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719
245 Main Street - Suite #110, Chester, NJ 07930
732681-0760

E/W: Schoolhouse Road
N/S: Cottontail Lane
Town/County: Franklin/Somerset
Job #: 2906-99-003T

File Name : Schoolhouse Road & Cottontail Lane - PM
Site Code : 00000000
Start Date : 2/10/2022
Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

	Schoolhouse Road Eastbound					Schoolhouse Road Westbound					Cottontail Lane Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:30 PM	8	84	0	0	92	0	110	10	0	120	22	0	15	0	37	249
04:45 PM	15	95	0	0	110	0	97	16	0	113	16	0	13	0	29	252
Total	23	179	0	0	202	0	207	26	0	233	38	0	28	0	66	501
05:00 PM	13	124	0	0	137	0	100	15	0	115	33	0	13	0	46	298
05:15 PM	8	83	0	0	91	0	116	11	0	127	19	0	10	0	29	247
05:30 PM	7	79	0	0	86	0	100	5	0	105	21	0	8	0	29	220
05:45 PM	13	72	0	0	85	0	94	19	0	113	15	0	6	0	21	219
Total	41	358	0	0	399	0	410	50	0	460	88	0	37	0	125	984
06:00 PM	4	117	0	0	121	0	84	10	0	94	18	0	15	0	33	248
06:15 PM	10	88	0	0	98	0	74	7	0	81	14	0	6	0	20	199
Grand Total	78	742	0	0	820	0	775	93	0	868	158	0	86	0	244	1932
Apprch %	9.5	90.5	0	0		0	89.3	10.7	0		64.8	0	35.2	0		
Total %	4	38.4	0	0	42.4	0	40.1	4.8	0	44.9	8.2	0	4.5	0	12.6	
Cars	59	716	0	0	775	0	747	90	0	837	153	0	60	0	213	1825
% Cars	75.6	96.5	0	0	94.5	0	96.4	96.8	0	96.4	96.8	0	69.8	0	87.3	94.5
Trucks (SU)	10	16	0	0	26	0	11	3	0	14	2	0	8	0	10	50
% Trucks (SU)	12.8	2.2	0	0	3.2	0	1.4	3.2	0	1.6	1.3	0	9.3	0	4.1	2.6
Trucks (TT)	9	10	0	0	19	0	17	0	0	17	3	0	18	0	21	57
% Trucks (TT)	11.5	1.3	0	0	2.3	0	2.2	0	0	2	1.9	0	20.9	0	8.6	3

Appendix C
Capacity Analysis

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	329	38	207	327	0	22	0	80	0	0	0
Future Vol, veh/h	0	329	38	207	327	0	22	0	80	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	4	0	2	7	0	18	0	12	0	0	0
Mvmt Flow	0	366	42	230	363	0	24	0	89	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	363	0	0	408	0	0	1210	1210	387	1255	1231	363
Stage 1	-	-	-	-	-	-	387	387	-	823	823	-
Stage 2	-	-	-	-	-	-	823	823	-	432	408	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.28	6.5	6.32	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.28	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.28	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.662	4	3.408	3.5	4	3.3
Pot Cap-1 Maneuver	1207	-	-	1151	-	-	148	184	640	150	179	686
Stage 1	-	-	-	-	-	-	605	613	-	371	391	-
Stage 2	-	-	-	-	-	-	345	391	-	606	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1207	-	-	1151	-	-	119	138	640	104	134	686
Mov Cap-2 Maneuver	-	-	-	-	-	-	119	138	-	104	134	-
Stage 1	-	-	-	-	-	-	605	613	-	371	293	-
Stage 2	-	-	-	-	-	-	259	293	-	522	600	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.5	21.6	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	329	1207	-	-	1151	-	-	-
HCM Lane V/C Ratio	0.344	-	-	-	0.2	-	-	-
HCM Control Delay (s)	21.6	0	-	-	8.9	0	-	0
HCM Lane LOS	C	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	1.5	0	-	-	0.7	-	-	-

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	1	343	6	47	426	1	20	0	90	0	0	0
Future Vol, veh/h	1	343	6	47	426	1	20	0	90	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	5	17	45	3	0	10	0	9	0	0	0
Mvmt Flow	1	418	7	57	520	1	24	0	110	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	521	0	0	425	0	0	1059	1059	422	1114	1062	521
Stage 1	-	-	-	-	-	-	424	424	-	635	635	-
Stage 2	-	-	-	-	-	-	635	635	-	479	427	-
Critical Hdwy	4.1	-	-	4.55	-	-	7.2	6.5	6.29	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.605	-	-	3.59	4	3.381	3.5	4	3.3
Pot Cap-1 Maneuver	1056	-	-	938	-	-	195	226	617	187	225	559
Stage 1	-	-	-	-	-	-	592	590	-	470	476	-
Stage 2	-	-	-	-	-	-	453	476	-	571	589	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1056	-	-	938	-	-	182	206	617	143	205	559
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	206	-	143	205	-
Stage 1	-	-	-	-	-	-	591	589	-	470	435	-
Stage 2	-	-	-	-	-	-	414	435	-	469	588	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	17.1	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	430	1056	-	-	938	-	-	-
HCM Lane V/C Ratio	0.312	0.001	-	-	0.061	-	-	-
HCM Control Delay (s)	17.1	8.4	0	-	9.1	0	-	0
HCM Lane LOS	C	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	1.3	0	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	354	39	214	383	0	23	0	83	0	0	0
Future Vol, veh/h	0	354	39	214	383	0	23	0	83	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	4	0	2	7	0	18	0	12	0	0	0
Mvmt Flow	0	393	43	238	426	0	26	0	92	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	426	0	0	436	0	0	1317	1317	415	1363	1338	426
Stage 1	-	-	-	-	-	-	415	415	-	902	902	-
Stage 2	-	-	-	-	-	-	902	902	-	461	436	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.28	6.5	6.32	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.28	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.28	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.662	4	3.408	3.5	4	3.3
Pot Cap-1 Maneuver	1144	-	-	1124	-	-	124	159	616	126	154	633
Stage 1	-	-	-	-	-	-	584	596	-	335	359	-
Stage 2	-	-	-	-	-	-	311	359	-	584	583	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1144	-	-	1124	-	-	97	115	616	84	111	633
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	115	-	84	111	-
Stage 1	-	-	-	-	-	-	584	596	-	335	260	-
Stage 2	-	-	-	-	-	-	225	260	-	497	583	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.2	26.2	0
HCM LOS			D	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	285	1144	-	-	1124	-	-	-
HCM Lane V/C Ratio	0.413	-	-	-	0.212	-	-	-
HCM Control Delay (s)	26.2	0	-	-	9.1	0	-	0
HCM Lane LOS	D	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	1.9	0	-	-	0.8	-	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	398	6	49	458	1	21	0	93	0	0	0
Future Vol, veh/h	1	398	6	49	458	1	21	0	93	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	5	17	45	3	0	10	0	9	0	0	0
Mvmt Flow	1	485	7	60	559	1	26	0	113	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	560	0	0	492	0	0	1171	1171	489	1227	1174	560
Stage 1	-	-	-	-	-	-	491	491	-	680	680	-
Stage 2	-	-	-	-	-	-	680	680	-	547	494	-
Critical Hdwy	4.1	-	-	4.55	-	-	7.2	6.5	6.29	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.605	-	-	3.59	4	3.381	3.5	4	3.3
Pot Cap-1 Maneuver	1021	-	-	882	-	-	163	194	565	157	193	532
Stage 1	-	-	-	-	-	-	544	552	-	444	454	-
Stage 2	-	-	-	-	-	-	428	454	-	525	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1021	-	-	882	-	-	151	175	565	116	174	532
Mov Cap-2 Maneuver	-	-	-	-	-	-	151	175	-	116	174	-
Stage 1	-	-	-	-	-	-	543	551	-	444	409	-
Stage 2	-	-	-	-	-	-	386	409	-	419	549	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.9	20.1	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	375	1021	-	-	882	-	-	-
HCM Lane V/C Ratio	0.371	0.001	-	-	0.068	-	-	-
HCM Control Delay (s)	20.1	8.5	0	-	9.4	0	-	0
HCM Lane LOS	C	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	1.7	0	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	10	354	39	214	383	1	23	0	83	0	0	3
Future Vol, veh/h	10	354	39	214	383	1	23	0	83	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	10	4	0	2	6	0	17	0	12	50	0	0
Mvmt Flow	11	393	43	238	426	1	26	0	92	0	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	427	0	0	436	0	0	1341	1340	415	1386	1361	427
Stage 1	-	-	-	-	-	-	437	437	-	903	903	-
Stage 2	-	-	-	-	-	-	904	903	-	483	458	-
Critical Hdwy	4.2	-	-	4.12	-	-	7.27	6.5	6.32	7.6	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.27	5.5	-	6.6	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.27	5.5	-	6.6	5.5	-
Follow-up Hdwy	2.29	-	-	2.218	-	-	3.653	4	3.408	3.95	4	3.3
Pot Cap-1 Maneuver	1091	-	-	1124	-	-	120	154	616	95	150	632
Stage 1	-	-	-	-	-	-	570	583	-	274	359	-
Stage 2	-	-	-	-	-	-	312	359	-	484	570	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1091	-	-	1124	-	-	93	110	616	63	107	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	110	-	63	107	-
Stage 1	-	-	-	-	-	-	563	575	-	270	259	-
Stage 2	-	-	-	-	-	-	224	259	-	406	563	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	3.2	27.3	10.7
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	277	1091	-	-	1124	-	-	632
HCM Lane V/C Ratio	0.425	0.01	-	-	0.212	-	-	0.005
HCM Control Delay (s)	27.3	8.3	0	-	9.1	0	-	10.7
HCM Lane LOS	D	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2	0	-	-	0.8	-	-	0

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	398	6	49	458	1	21	0	93	1	0	10
Future Vol, veh/h	4	398	6	49	458	1	21	0	93	1	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	4	17	45	3	0	10	0	9	0	0	10
Mvmt Flow	5	485	7	60	559	1	26	0	113	1	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	560	0	0	492	0	0	1185	1179	489	1235	1182	560
Stage 1	-	-	-	-	-	-	499	499	-	680	680	-
Stage 2	-	-	-	-	-	-	686	680	-	555	502	-
Critical Hdwy	4.1	-	-	4.55	-	-	7.2	6.5	6.29	7.1	6.5	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.605	-	-	3.59	4	3.381	3.5	4	3.39
Pot Cap-1 Maneuver	1021	-	-	882	-	-	160	192	565	155	191	513
Stage 1	-	-	-	-	-	-	539	547	-	444	454	-
Stage 2	-	-	-	-	-	-	425	454	-	520	545	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1021	-	-	882	-	-	144	172	565	114	171	513
Mov Cap-2 Maneuver	-	-	-	-	-	-	144	172	-	114	171	-
Stage 1	-	-	-	-	-	-	535	543	-	441	409	-
Stage 2	-	-	-	-	-	-	374	409	-	413	541	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.9	20.7	14.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	367	1021	-	-	882	-	-	389
HCM Lane V/C Ratio	0.379	0.005	-	-	0.068	-	-	0.034
HCM Control Delay (s)	20.7	8.5	0	-	9.4	0	-	14.6
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.7	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	361	487	70	39	47
Future Vol, veh/h	48	361	487	70	39	47
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	91	91	91	91	91	91
Heavy Vehicles, %	23	5	5	3	10	17
Mvmt Flow	53	397	535	77	43	52

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	612	0	-	0	1077	574
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	503	-
Critical Hdwy	4.33	-	-	-	6.5	6.37
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.407	-	-	-	3.59	3.453
Pot Cap-1 Maneuver	873	-	-	-	234	491
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	591	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	873	-	-	-	216	491
Mov Cap-2 Maneuver	-	-	-	-	216	-
Stage 1	-	-	-	-	505	-
Stage 2	-	-	-	-	591	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	21.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	873	-	-	-	311
HCM Lane V/C Ratio	0.06	-	-	-	0.304
HCM Control Delay (s)	9.4	0	-	-	21.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.3

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	389	423	52	90	51
Future Vol, veh/h	44	389	423	52	90	51
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	88	88	88	88	88	88
Heavy Vehicles, %	27	4	5	6	4	37
Mvmt Flow	50	442	481	59	102	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	540	0	-	0	1053	511
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	542	-
Critical Hdwy	4.37	-	-	-	6.44	6.57
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.443	-	-	-	3.536	3.633
Pot Cap-1 Maneuver	914	-	-	-	248	499
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	579	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	914	-	-	-	230	499
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	579	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	32.5
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	914	-	-	-	286
HCM Lane V/C Ratio	0.055	-	-	-	0.56
HCM Control Delay (s)	9.2	0	-	-	32.5
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	3.2

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	387	548	72	40	49
Future Vol, veh/h	50	387	548	72	40	49
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	91	91	91	91	91	91
Heavy Vehicles, %	23	5	5	3	10	17
Mvmt Flow	55	425	602	79	44	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	681	0	-	0	1177	642
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	535	-
Critical Hdwy	4.33	-	-	-	6.5	6.37
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.407	-	-	-	3.59	3.453
Pot Cap-1 Maneuver	821	-	-	-	203	448
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	571	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	821	-	-	-	185	448
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	571	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	25.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	821	-	-	-	273
HCM Lane V/C Ratio	0.067	-	-	-	0.358
HCM Control Delay (s)	9.7	0	-	-	25.4
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1.6

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	445	455	54	93	53
Future Vol, veh/h	46	445	455	54	93	53
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	88	88	88	88	88	88
Heavy Vehicles, %	27	4	5	6	4	37
Mvmt Flow	52	506	517	61	106	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	578	0	-	0	1158	548
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	610	-
Critical Hdwy	4.37	-	-	-	6.44	6.57
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.443	-	-	-	3.536	3.633
Pot Cap-1 Maneuver	883	-	-	-	215	475
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	538	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	883	-	-	-	197	475
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	538	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	43.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	883	-	-	-	250
HCM Lane V/C Ratio	0.059	-	-	-	0.664
HCM Control Delay (s)	9.3	0	-	-	43.9
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	4.2

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	391	559	72	40	53
Future Vol, veh/h	51	391	559	72	40	53
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	91	91	91	91	91	91
Heavy Vehicles, %	22	5	5	10	10	17
Mvmt Flow	56	430	614	79	44	58

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	693	0	-	0	1196	654
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	542	-
Critical Hdwy	4.32	-	-	-	6.5	6.37
Critical Hdwy Stg 1	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	5.5	-
Follow-up Hdwy	2.398	-	-	-	3.59	3.453
Pot Cap-1 Maneuver	816	-	-	-	198	441
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	567	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	816	-	-	-	180	441
Mov Cap-2 Maneuver	-	-	-	-	180	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	567	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	26
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	816	-	-	-	272
HCM Lane V/C Ratio	0.069	-	-	-	0.376
HCM Control Delay (s)	9.7	0	-	-	26
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1.7

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	456	460	54	93	55
Future Vol, veh/h	50	456	460	54	93	55
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	88	88	88	88	88	88
Heavy Vehicles, %	26	4	5	6	4	38
Mvmt Flow	57	518	523	61	106	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	584	0	-	0	1186	554
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	632	-
Critical Hdwy	4.36	-	-	-	6.44	6.58
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.434	-	-	-	3.536	3.642
Pot Cap-1 Maneuver	883	-	-	-	207	469
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	526	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	883	-	-	-	188	469
Mov Cap-2 Maneuver	-	-	-	-	188	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	526	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	48
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	883	-	-	-	242
HCM Lane V/C Ratio	0.064	-	-	-	0.695
HCM Control Delay (s)	9.4	0	-	-	48
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	4.6

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	437	598	14	5	0
Future Vol, veh/h	0	437	598	14	5	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, %	0	5	5	14	20	0
Mvmt Flow	0	486	664	16	6	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	680	0	-	0	1158	672
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	486	-
Critical Hdwy	4.1	-	-	-	6.6	6.2
Critical Hdwy Stg 1	-	-	-	-	5.6	-
Critical Hdwy Stg 2	-	-	-	-	5.6	-
Follow-up Hdwy	2.2	-	-	-	3.68	3.3
Pot Cap-1 Maneuver	922	-	-	-	200	459
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	922	-	-	-	200	459
Mov Cap-2 Maneuver	-	-	-	-	200	-
Stage 1	-	-	-	-	475	-
Stage 2	-	-	-	-	583	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	922	-	-	-	200
HCM Lane V/C Ratio	-	-	-	-	0.028
HCM Control Delay (s)	0	-	-	-	23.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	492	508	7	14	0
Future Vol, veh/h	0	492	508	7	14	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	86	86	86	86	86	86
Heavy Vehicles, %	0	5	7	29	14	0
Mvmt Flow	0	572	591	8	16	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	599	0	-	0	1167	595
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	572	-
Critical Hdwy	4.1	-	-	-	6.54	6.2
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	5.54	-
Follow-up Hdwy	2.2	-	-	-	3.626	3.3
Pot Cap-1 Maneuver	988	-	-	-	203	508
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	988	-	-	-	203	508
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	542	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	24.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	988	-	-	-	203
HCM Lane V/C Ratio	-	-	-	-	0.08
HCM Control Delay (s)	0	-	-	-	24.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.3