Traffic Impact Study

Proposed CareOne at Lawrence 3641 Route 206 (Lawrence Road)

Lawrence Township, Mercer County, New Jersey



Prepared for:



CareOne Management, LLC 173 Bridge Plaza N, Fort Lee, NJ 07024

May 27, 2022



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T&M Project Number COMG-00001

Table of Contents

Introduction	1
Existing Traffic Conditions	2
Roadways	
Intersections	
Traffic Volume Collection	
Traffic Volume Adjustments	
No-Build Traffic Conditions	3
Background Growth	
Adjacent Development	
No-Build Condition	
Full-Build Traffic Conditions	
Site Driveway Intersections	5
Site Trip Generation	
Site Trip Distribution	6
Full-Build Condition	
Level of Service	
Capacity Analysis	
Interpretation of Results	
Site Plan	
Site Access and Circulation	<u>c</u>
Pedestrian Accommodation	10
Parking Analysis	10
Summary and Conclusion	11

Introduction

This Traffic Impact Study has been prepared on behalf of CareOne Management, LLC in association with the Site Plan application for a proposed 113,931 SF GFA (170 bed) assisted living facility, also referred to as CareOne at Lawrence, located at the southwest quadrant of the intersection between Route 206 & Province Line Road in Lawrence Township, Mercer County, New Jersey. The proposed site will take place of an existing site which is currently occupied by one historic single-family detached home. The existing historic home will be relocated to the northern end of the site and the parcel will be subdivided as shown on the Site Plans. A Study Area Map can be found in **Exhibit 1** of **Appendix A** contained within this report.

The approximate location of the site can be seen in **Figure 1** below.

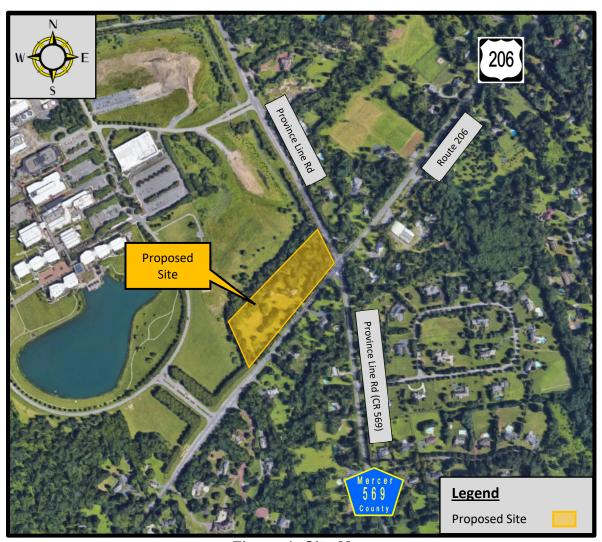


Figure 1: Site Map

Existing Traffic ConditionsRoadways

Route 206 is classified as an Urban Principal Arterial roadway with a general north-south orientation under the jurisdiction of the New Jersey Department of Transportation (NJDOT). The roadway provides a two-lane undivided section which widens to provide dedicated left-turn lanes at Province Line Road with varying shoulder widths between 0' and 8'. The speed limit is posted at 45 MPH within the study area. The existing land use along Route 206 in this region consists primarily of residential homes except for a gardening center to the northeast and the Bristol Myers Squibb pharmaceutical campus to the west.

Province Line Road (CR 569) is classified as an Urban Minor Arterial roadway with a general east-west orientation under the jurisdiction of Mercer County east of Route 206. The roadway provides a two-lane undivided section which widens to provide dedicated left-turn lanes at Route 206 with no striped shoulders. The speed limit is posted at 35 MPH within the study area. The existing land use along Province Line Road (CR 569) in this region consists entirely of residential homes.

Province Line Road is classified as a Local Urban roadway with a general east-west orientation under the jurisdiction of Lawrence Township west of Route 206. The roadway provides a two-lane undivided section which widens to provide dedicated left-turn lanes at Route 206 with no striped shoulders. The speed limit is posted at 35 MPH within the study area. The existing land use along Province Line Road in this region consists primarily of residential homes except for the Bristol Myers Squibb pharmaceutical campus to the south.

Intersections

The intersection of **Route 206 & Province Line Road (CR 569)** is a four-leg signalized intersection which operates on a three-phase cycle that provides a lead left phase for the Province Line Road (CR 569) approaches. A 90-second background cycle length is provided during both the AM and PM peak hours. This traffic signal is coordinated with the traffic signal at Carter Road located approximately 1 mile to the south. All four intersection approaches provide one dedicated left turn lane and one shared thru/right-turn lane. The traffic signal at this intersection is maintained by NJDOT.

Traffic Volume Collection

A traffic count program was conducted in April 2022 to establish the existing traffic patterns in the area. Manual turning movement counts (TMCs) were performed at the intersection of Route 206 & Province Line Road (CR 569) on Tuesday, April 12, 2022. The AM peak hour occurred from 7:30 AM to 8:30 AM and the PM peak hour occurred from 4:30 PM to 5:30 PM.

Traffic Volume Adjustments

Although the actual impacts of the Coronavirus Pandemic are undetermined at this time, it appears the 2022 traffic count data is slightly lower than typical pre-pandemic levels. Historic traffic count data was obtained from NJDOT's traffic monitoring program (web application) and compared against the 2022 data to establish differences between the two data sets. The historic data includes a 2018 ATR obtained along Route 206 at a location approximately 2000' south of Province Line Road (CR 529) and a 2018 ATR obtained along Province Line Road (CR 529) at a location approximately 1250' east of Route 206. The approximate location of these historic ATRs are shown on the Study Area Map which can be found in **Exhibit 1** of **Appendix A** contained within this report.

The 2022 traffic volumes were found to be generally lower than pre-pandemic levels. In order to conservatively establish existing volumes, all 2022 approach volumes were increased by the percent difference between the two data sets during the respective peak hours, rounded up to the nearest 5%. The adjustment factors utilized in the analysis can be seen in **Table 1** below.

Table 1: Existing 2022 Volume Adjustment Factors

Intercection Approach	Adjustme	ent Factor
Intersection Approach	AM Peak Hour	PM Peak Hour
Northbound	25%	0%
Southbound	0%	25%
Eastbound	70%	50%
Westbound	30%	45%

Note: An adjustment factor of 0% indicates the 2022 traffic count for that approach was greater than historic data.

The Existing 2022 Traffic Volumes can be found in **Exhibit 2A** while the Adjusted Existing 2022 Traffic Volumes can be found in **Exhibit 2B** of **Appendix A** contained within this report. Additionally, the 2022 Traffic Count Data and 2018 Historic Traffic Count Data can be found in **Appendix B** contained within this report.

No-Build Traffic Conditions

Background Growth

Background growth accounts for anticipated increases in traffic volumes due to growing population and development in the surrounding region. The annual background growth rate in New Jersey is typically determined using the NJDOT Access Permit - Annual Background Growth Rate Table which specifies applicable growth rates based on roadway classification and project location. NJDOT states that the values in this table are applicable for short-term projections in the 1-year to 3-year range. The proposed site has a projected build year of 2024 (2 years), a short-term projection which is

supported by the NJDOT growth rate table. The background growth rates for the adjacent roadway system can be seen summarized in **Table 2** below.

Table 2: Background Growth Rate of Adjacent Roadways

Roadway	Classification	Region	NJDOT Annual Background Growth Rate
Route 206	Urban Principal Arterial	Mercer County	1.00%
Province Line Road (CR 569)	Urban Minor Arterial	Mercer County	1.00%
Province Line Road	Urban Local	Mercer County	1.00%
		Average:	1.00%

The average annual background growth rate of 1.00% was compounded annually for 2 years to produce a background growth factor of 0.020. The adjusted existing 2022 traffic volumes were multiplied by the background growth factor to develop the background growth volumes. The Incremental Background Growth Traffic Volumes can be found in **Exhibit 3** of **Appendix A** contained within this report.

Adjacent Development

Trips associated with nearby approved developments have the potential to impact traffic conditions at the project study locations. For this reason, adjacent developments must be considered in the analysis of future traffic conditions.

A single approved development located within the vicinity of the proposed site has been identified in discussion with Lawrence Township. The adjacent approved development is described as follows:

 Premiere Dental Arts, a 3,000 SF GFA Medical Office (dentistry) located in the southeast quadrant of the intersection between Route 206 & Province Line Road (CR 569)

It is noted that the approved dental office is set to take place of a chiropractor office that previously operated out of the existing 3,000 SF GFA building located within the site. The trip generation of the approved dental office will be equal to that of the existing chiropractor office, since both building uses are defined by the ITE land use Medical-Dental Office Building (L.U. 720). Therefore, no new trips are associated with the approved dental office. Furthermore, all site trips associated with the existing chiropractor office have already been accounted for in the adjusted 2022 traffic volumes.

No-Build Condition

The no-build condition represents projected future traffic conditions, excluding construction and occupancy of the proposed site. The no-build condition volumes include existing traffic volumes, background growth volumes, and adjacent development volumes only. The 2024 No-Build Traffic Volumes can be found in **Exhibit 4** of **Appendix A** contained within this report.

Full-Build Traffic Conditions

Site Driveway Intersections

The proposed intersection of **Route 206 & Site Driveway #1** is a three-leg unsignalized intersection. The east movement (Site Driveway #1) is stop controlled, whereas the north-south movements (Route 206) are free flowing. This driveway will provide right-turn ingress and right/left-turn egress with use of a channelizing splitter island to prohibit left-turn ingress. The northbound approach provides one thru lane, the southbound approach provides one shared thru/right-turn lane, and the eastbound approach provides one right/left-turn lane. It is noted that the Route 206 southbound shoulder will be widened to 8' along the site frontage to improve driveway access and sight distances.

The proposed intersection of **Province Line Road & Site Driveway #2** is a three-leg unsignalized intersection. The north movement (Site Driveway #1) is stop controlled, whereas the east-west movements (Province Line Road) are free flowing. This driveway will provide full ingress and egress site access. The northbound approach provides one shared right/left-turn lane, the eastbound approach provides one shared thru/right-turn lane, and the westbound approach provides one shared left-turn/thru lane.

Site Trip Generation

The trip generation for the proposed site has been estimated using the latest trip generation rates provided within the Trip Generation Manual, 11th Edition, as published by the Institute of Transportation Engineers (ITE). This Manual presents regression formulas which can be used to estimate the number of trips generated by various land uses. Accordingly, the ITE land use definition which best describes the proposed site is Assisted Living (L.U. 254).

The proposed trip generation can be seen summarized in **Table 3** below. The ITE land use description has also been provided for reference.

Table 3: Trip Generation

ITE L.U.						WEE	KDAY		
CODE	LAND USE	AMOUNT	UNITS	AM	PEAK HO	OUR	PM	PEAK HO	OUR
CODE				IN	OUT	TOTAL	IN	OUT	TOTAL
254	Assisted Living	170	Beds	18	13	31	16	25	41
		GRAN	D TOTAL:	18	13	31	16	25	41

Note: Trip generation based on regression formulas published in the ITE Trip Generation Manual, 11th Edition.

Assisted Living (L.U. 254)

"An assisted living complex is a residential setting that provides either routine general protective oversight or assistance with activities necessary for independent living to persons with mental or physical limitations. The typical resident has difficulty managing in an independent living arrangement but does not require nursing home care. Its centralized services typically include dining, housekeeping, social and physical activities, medication administration, and communal transportation..."

It is noted that the existing historic home located within the proposed site is set to be relocated to the northern end of the site. There are no new trips associated with the relocation of this existing single-family home.

Site Trip Distribution

Regional trip distribution percentages for the proposed site have been established based on existing traffic volume patterns, surrounding population densities, the proposed land use, and the proximity other major roadways within the area. The established regional distribution can be seen in **Table 4** below.

Table 4: Regional Distribution

To and From	Percent Distributions
Route 206 (North)	30%
Route 206 (South)	35%
Province Line Road (East)	20%
Province Line Road (West)	15%
Total:	100%

The ingress and egress movements were taken as equal but opposite in direction when projecting the regional distribution to the study intersections. The resultant Percent Distribution can be found in **Exhibit 5** of **Appendix A** contained within this report.

Proposed site volumes were established at each study intersection by projecting the site trip generation onto the surrounding road network using the percent distributions identified in Table 4. The Site Volumes can be found in **Exhibit 6** of **Appendix A** contained within this report.

Full-Build Condition

The full-build Condition represents projected future conditions, including the construction and occupancy of the proposed site. The full-build condition volumes include existing traffic volumes, background growth volumes, adjacent development volumes, and proposed site volumes. The 2024 Full-Build Traffic Volumes can be found in **Exhibit 7** of **Appendix A** contained within this report.

Level of Service

A level of service (LOS) analysis is used to examine and quantify traffic conditions. For a signalized intersection, LOS A describes operations with a delay of 10 or less seconds per vehicle, while LOS F describes operations with a delay in excess of 80 seconds per vehicle. For a stop-controlled intersection, LOS A describes operations with a delay of 10 or less seconds per vehicle, while LOS F describes operations with a delay in excess of 50 seconds per vehicle.

Capacity Analysis

McTrans's HCS 2010 traffic analysis software package was used to perform a capacity analysis at the following intersections for the 2024 No-Build and 2024 Full-Build conditions:

- Route 206 & Province Line Road (CR 569)
- Route 206 & Site Driveway #1
- Province Line Road & Site Driveway #2

A capacity analysis level of service summary table that includes the future 2024 No-Build and 2024 Full-Build conditions can be seen in **Table 5** below. Additionally, all supporting analysis output files can be found in **Appendix D** contained within this report.

Table 5: Level of Service Summary Table

				2		D-BUILD)	20		L-BUIL DITION	.D
	INTERSECTION	APPROACH	LANE GROUP	AM	РН	PM	РН	AM	РН	PM	РН
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
		EB	L	30.8	С	26.6	С	30.6	С	26.7	С
(0		LB	T/R	41.7	D	62.7	Е	41.0	D	64.4	Е
SIGNALIZED INTERSECTIONS		WB	L	27.6	С	27.4	С	27.4	С	27.4	С
SIGNALIZED TERSECTION	Route 206 &	***	T/R	52.2	D	39.5	D	52.9	D	40.5	D
IAL	Province Line Road	NB	L	16.8	В	22.0	С	17.3	В	22.5	С
IGN ER	(CR 569)	ND	T/R	25.5	С	14.6	В	26.3	С	14.7	В
N		SB	L	53.8	D	22.1	С	56.5	E	22.4	С
			T/R	12.8	В	17.3	В	13.1	В	17.4	В
		Overall	-	30.9	С	30.6	С	31.4	С	31.1	С
O		EB	L/R					18.2	С	16.7	С
LE NS	Route 206 &	NB	Т			ot Exist i		0.0	Α	0.0	Α
일 등	Site Driveway #1	SB	T/R	N	o-Build	Conditio	on	0.0	Α	0.0	Α
F S		Overall	-					-	-	-	-
STOP-CONTROLLED INTERSECTIONS		EB	T/R					0.0	Α	0.0	Α
P-C	Province Line Road &	WB	L/T	_		t Exist i		7.8	Α	8.3	Α
D N	Site Driveway #2	NB	L/T/R	N	o-Build	Conditio	on	11.4	В	12.6	В
(I)		Overall	-					-	-	-	-

Interpretation of Results

Route 206 & Province Line Road (CR 569) (Signalized)

AM Peak Hour

All intersection approaches operate at or near no-build levels of service during full-build conditions while maintaining a LOS E or better with the greatest increase in delay of +2.7 seconds occurring at the southbound approach left-turn movement.

PM Peak Hour

All intersection approaches operate at or near no-build levels of service during full-build conditions while maintaining a LOS E or better with the greatest increase in delay of +1.7 seconds occurring at the eastbound approach shared thru/right-turn movement.

Mitigation

Mitigation is not recommended at this intersection, as all approach movements operate at acceptable levels of service with minimal increases in vehicle delay of less than 3 seconds during the peak hours.

Route 206 & Site Driveway #1 (Stop-Controlled)

AM Peak Hour

All intersection approaches operate at LOS C or better during full-build conditions.

PM Peak Hour

All intersection approaches operate at LOS B or better during full-build conditions.

<u>Mitigation</u>

The existing Route 206 southbound shoulder will be widened to 8' along the site frontage to better facilitate ingress/egress right-turn movements and improve sight distances at the Site Driveway #1 intersection. It is noted that this site frontage improvement is not required from a capacity standpoint but rather to enhance safety and ease of access along the State highway.

Province Line Road & Site Driveway #2 (Stop-Controlled)

AM Peak Hour

All intersection approaches operate at LOS B or better during the AM peak hour under the full-build condition.

PM Peak Hour

All intersection approaches operate at LOS B or better during the PM peak hour under the full-build condition.

Mitigation

Mitigation is not recommended at this intersection, as all approach movements operate at acceptable levels of service.

Site Plan

Site Access and Circulation

Site access is accommodated through two (2) primary site driveways. Site Driveway #1 is located along the western side of Route 206 and provides right-turn ingress and right/left-turn egress with use of a channelizing splitter island to prohibit left-turn ingress. Site Driveway #2 is located along the southern side of Province Line Road and provides full access.

Site circulation has been reviewed to ensure safe and efficient access to and from the proposed site. Vehicle circulation is accommodated through 24' wide, two-way drive isles which circulate around the perimeter of the proposed building and through the parking lots. Both site driveways and the internal circulation roadways can accommodate a Township Fire Truck design vehicle. The proposed site and roadway layout is shown on the site plans found in **Appendix C** contained within this report.

Pedestrian Accommodation

Sidewalk connections are provided around the perimeter of the proposed building with a connection into the existing shared-use path located along Province Line Road at the north end of the site. The proposed sidewalk creates accessible routes between the proposed building and the existing pedestrian networks located along Province Line Road. The proposed sidewalk layout is shown on the site plans found in **Appendix C** contained within this report.

Parking Analysis

The proposed assisted living facility supplies a total of 126 on-site parking spaces. All of these on-site parking spaces will be provided via at-grade parking lots. It is noted that 3 additional parking spaces will be provided for the historic residential home via a private driveway. For the purpose of this analysis, the parking spaces associated with the residential home have been excluded. A review of the Lawrence Township Ordinance requirement, the Residential Site Improvement Standards requirement, and the ITE Parking Generation Manual peak period parking demand can be found below.

Lawrence Township Ordinance (Section 530.C.2)

Requirement:

Land Use: Nursing Home

1.00 parking spaces per 2 beds

1.00 spaces * (170 / 2 Beds) = 85

85 parking spaces required

Residential Site Improvement Standards (RSIS) (Section 5:21-4.14.f)

Requirement:

Land Use: Assisted Living 0.50 parking spaces per bed 0.50 spaces * (170 Beds) = 85

85 parking spaces required

ITE Parking Generation Manual, 5th Edition (85th Percentile Rate)

Peak Period Parking Demand:

Land Use: Assisted Living (L.U. 254)

0.58 parking spaces per bed

0.58 spaces * (170 Beds) = 99

99 parking space peak period demand

Based on the information presented above, the proposed 126 on-site parking spaces satisfy the Township Ordinance requirement, satisfy the RSIS requirement, and exceed the ITE 85th percentile peak period parking demand. It is noted that the parking supply

expected to adequately accommodate all site-related parking needs.

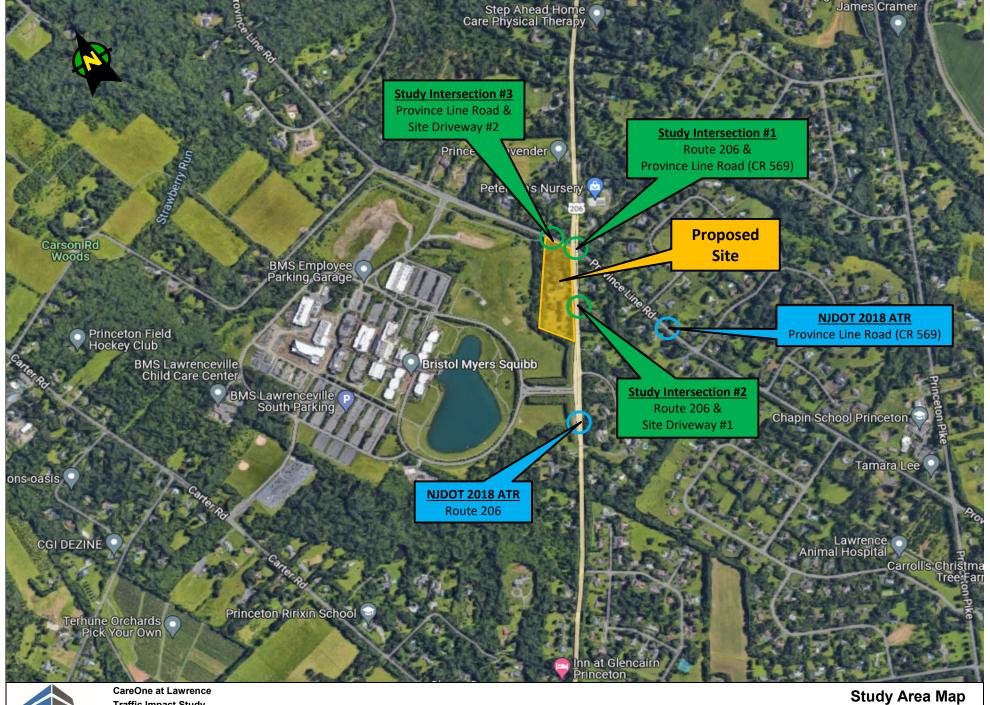
for the proposed site has been designed to meet current market conditions, requiring slightly more spaces than required by the RSIS. As a result, the proposed site is

Summary and Conclusion

This Traffic Impact Study concludes that the proposed site can be constructed without significant impact to the adjacent roadway network. Key findings of this report are summarized as follows:

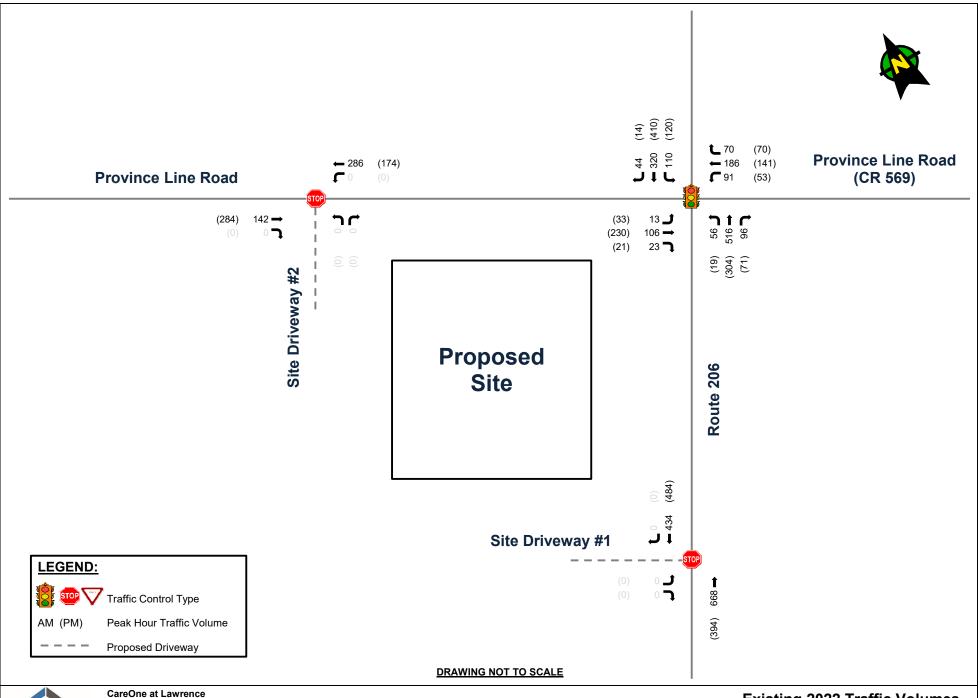
- The proposed site includes a 113,931 SF GFA (170 bed) assisted living facility located in the southwest corner of the intersection between Route 206 & Province Line Road (CR 569) in West Windsor Township, Mercer County, New Jersey
- The proposed site is estimated to generate 31 new vehicle trips during the AM peak hour and 41 new vehicle trips during the PM peak hour
- Site access is provided through two primary driveways:
 - Driveway #1 is located along Route 206 and provides right-turn ingress and right/left-turn egress with use of a channelizing splitter island to prohibit left-turn ingress
 - Driveway #2 is located along Province Line Road and provides full access
- All studied intersections will operate at or near no-build levels of service during full-build conditions with minimal increase in vehicle delay of less than +3 seconds at any approach
- Proposed off-site improvements include widening of the existing Route 206 southbound shoulder to 8' along the site frontage to better facilitate ingress/egress right-turn movements and improve sight distances at the Site Driveway #1 intersection
- The proposed 126 on-site parking spaces satisfy the Township Ordinance requirement, satisfy the RSIS requirement, and exceed the ITE 85th percentile peak period parking demand

Appendix AExhibits



Traffic Impact Study

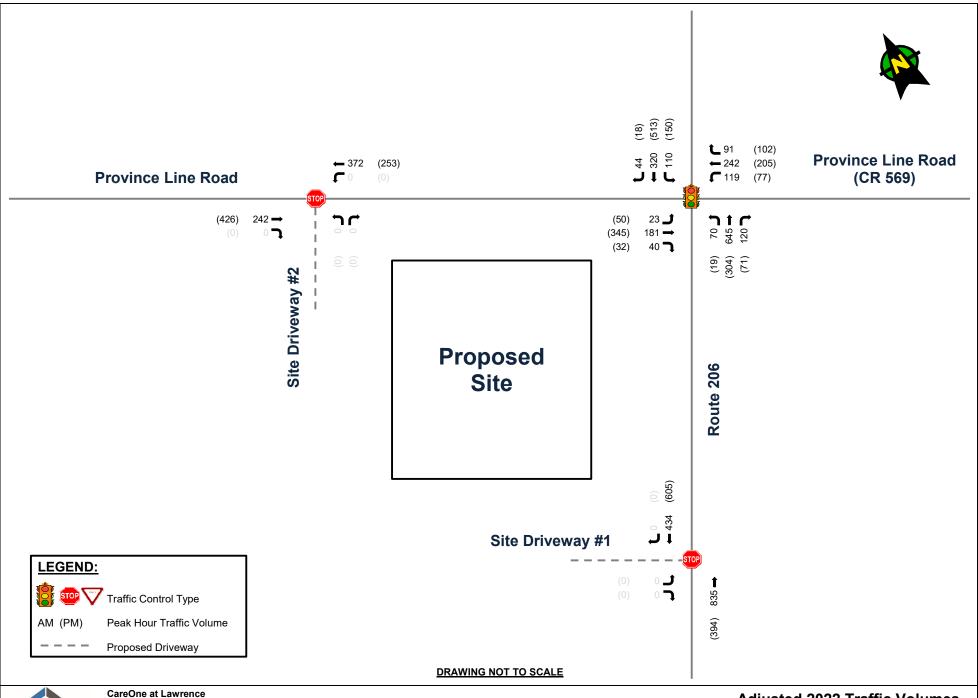
Study Area Map
Exhibit 1





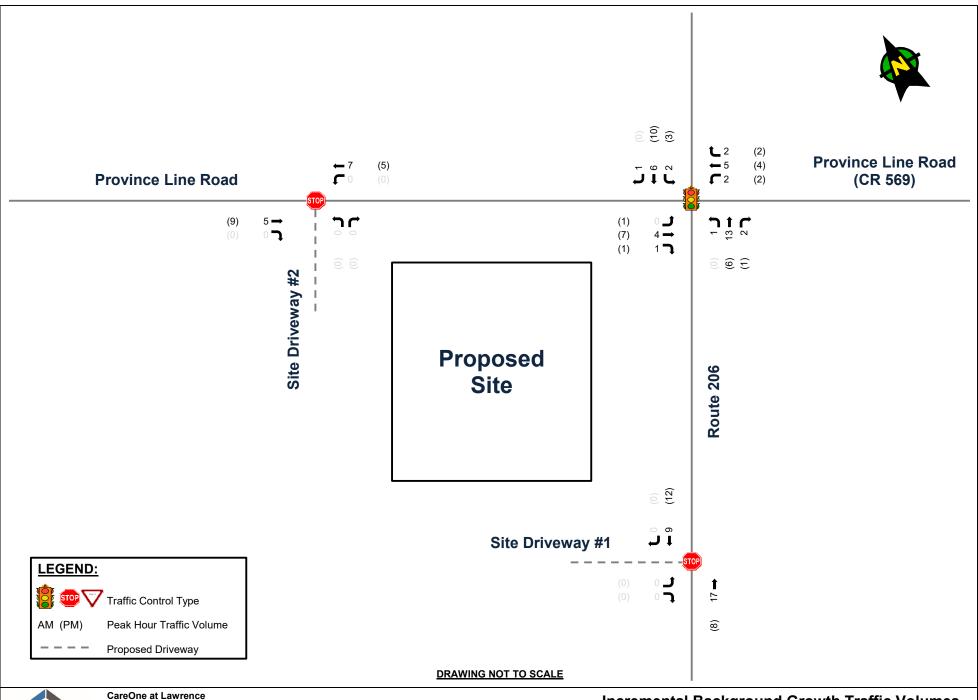
CareOne at Lawrence Traffic Impact Study Existing 2022 Traffic Volumes

Exhibit 2A





CareOne at Lawrence Traffic Impact Study Adjusted 2022 Traffic Volumes
Exhibit 2B

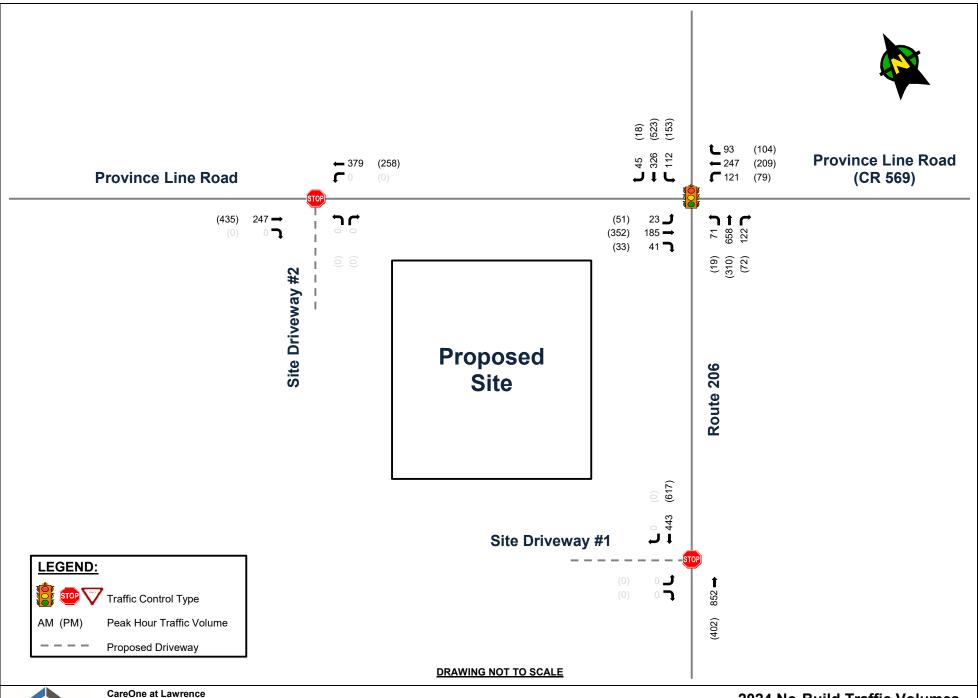




Traffic Impact Study

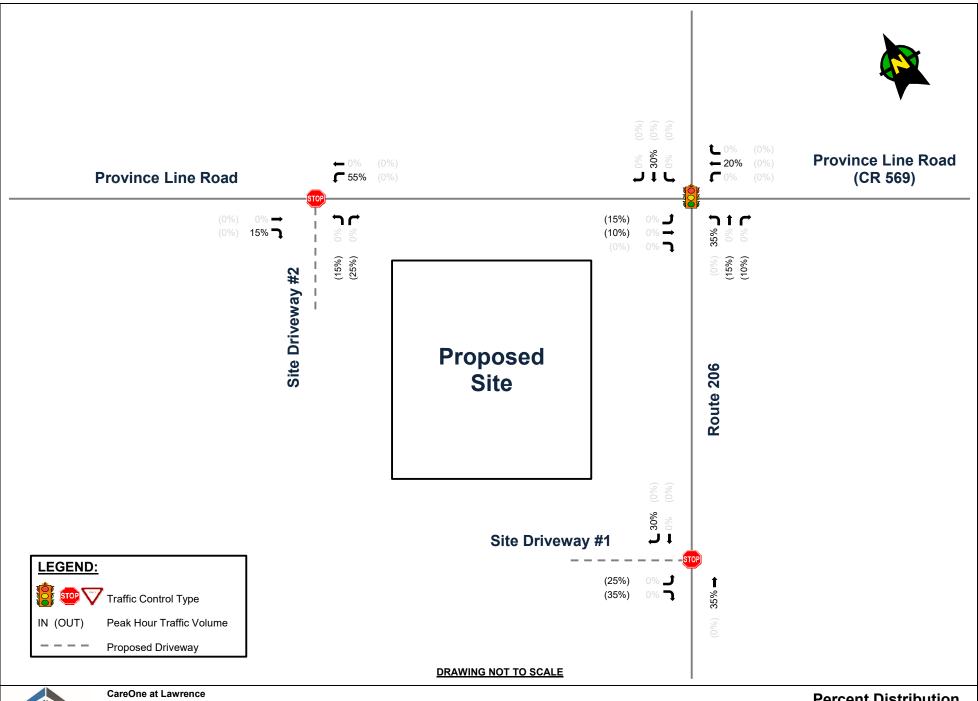
Incremental Background Growth Traffic Volumes

Exhibit 3





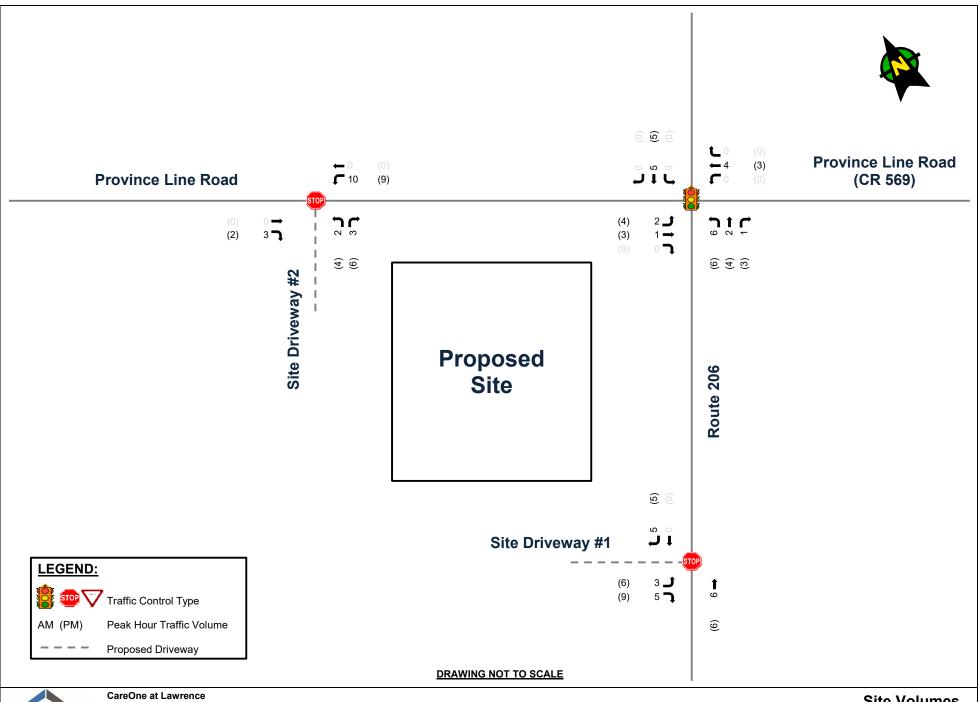
CareOne at Lawrence Traffic Impact Study 2024 No-Build Traffic Volumes





Traffic Impact Study

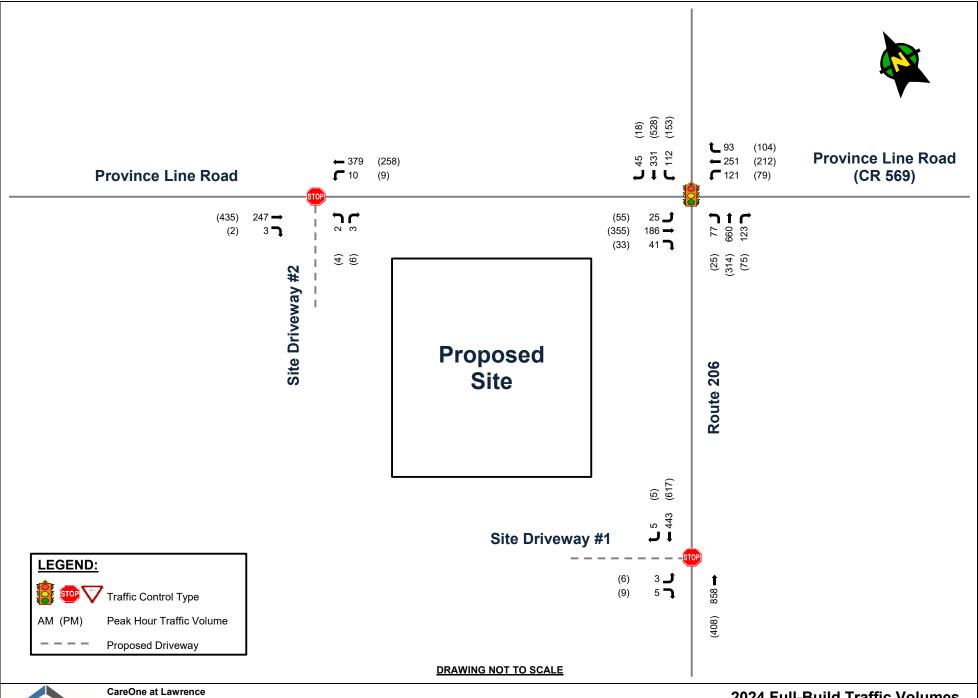
Percent Distribution
Exhibit 5





Traffic Impact Study

Site Volumes
Exhibit 6





CareOne at Lawrence Traffic Impact Study 2024 Full-Build Traffic Volumes

Exhibit 7

Appendix BTraffic Counts



TechniQuest Corporation 32 Jefferson Plaza Princeton, NJ 08540

Phone: 732.274.9500, Fax: 732.274.9510 www.techniquestcorporation.com

> File Name: 2022-019-01 Site Code : 2022-019-01

Start Date : 4/12/2022

Page No : 1

Groups Printed- Cars & Light Trucks - Medium Trucks - Heavy Trucks

			US 206				Prov	rinceline	Road				US 206				Prov	rinceline	Road		
		Ş	outhbou	nd			V	Vestbour	nd			Ŋ	Northbou	nd				astboun	d		
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	6	51	1	0	58	22	18	12	0	52	7	75	4	0	86	4	30	0	0	34	230
07:15 AM	12	55	5	0	72	6	27	22	0	55	10	118	8	0	136	7	27	3	1	38	301
07:30 AM	14	67	9	0	90	16	51	21	0	88	12	148	10	0	170	3	31	2	0	36	384
07:45 AM	20	79	8	0	107	26	42	15	0	83	19	158	34	0	211	3	26	7	0	36	437
Total	52	252	23	0	327	70	138	70	0	278	48	499	56	0	603	17	114	12	1	144	1352
08:00 AM	32	94	15	0	141	24	46	17	0	87	10	124	30	0	164	5	27	9	0	41	433
08:15 AM	32 44	94 80	12	0	136	24 25	46 47	17	0	89	15	86	22	0	123	2	22	5	0	29	433 377
08:30 AM	23	88	14	0	125	28	47 45	17	0	88	10	82	21	0	110	2	13	4	0	19	342
08:45 AM	23 16	50	8	1	75	26 26	45 43	16	0	85	3	o∠ 107	22	0	132	4	15	4 5	0	24	342 316
Total	115	312	49	1	477	103	<u>43_</u> 181	65	0	349	<u>3</u>	399	95	0	529	13	77	23	0	113	1468
TOtal	113	312	49	'	4//	103	101	03	U	349	33	399	95	U	329	13	11	23	U	113	1400
					1															,	
04:00 PM	44	104	6	0	154	15	20	10	0	45	3	61	16	0	80	8	57	8	0	73	352
04:15 PM	25	103	5	0	133	20	34	10	0	64	3	63	26	0	92	6	57	13	0	76	365
04:30 PM	26	98	2	0	126	15	35	18	0	68	2	71	32	0	105	11	57	2	0	70	369
04:45 PM	26	113	2	0	141	17	41	20	0	78	3	83	10	0	96	10	52	5	0	67	382
Total	121	418	15	0	554	67	130	58	0	255	11	278	84	0	373	35	223	28	0	286	1468
05:00 PM	35	82	1	0	118	10	36	16	0	62	7	73	17	0	97	6	59	6	0	71	348
05:15 PM	33	117	9	Ö	159	11	29	16	0	56	7	77	12	Ö	96	6	62	8	Ö	76	387
05:30 PM	43	118	2	0	163	11	32	12	0	55	6	65	12	0	83	7	41	7	0	55	356
05:45 PM	37	92	5	0	134	15	30	17	0	62	2	59	16	0	77	15	42	4	0	61	334
Total	148	409	17	0	574	47	127	61	0	235	22	274	57	0	353	34	204	25	0	263	1425
One of Tetal	400	1201	404	4	4000	007	F70	054	0	4447	440	4.450	202	0	4050	00	640	00		000	F740
Grand Total	436	1391	104	1	1932	287	576	254	0	1117	116	1450	292	0	1858	99	618	88	1	806	5713
Apprch % Total %	22.6	72	5.4	0.1	22.0	25.7	51.6	22.7	0	40.0	6.2	78	15.7	0	20.5	12.3	76.7	10.9	0.1	444	
	7.6 425	24.3 1275	1.8 96	<u>0</u> 0	33.8	5	10.1 568	4.4 242	0	19.6 1094	<u>2</u> 110	25.4 1320	<u>5.1</u> 284	0	32.5 1714	1.7 94	10.8 611	1.5	<u> </u>	14.1 788	5392
Cars & Light Trucks	425 97.5	91.7	96 92.3	0	1796 93	284 99	98.6	95.3	0	97.9	94.8	91	284 97.3	0	92.2	94 94.9	98.9	83 94.3	0	788 97.8	5392 94.4
% Cars & Light Trucks Medium Trucks	97.5 11	83	92.3 8	<u>U</u>	103	<u>99</u> 3	<u>96.6</u> 8	<u>95.3_</u> 11	0	22	<u>94.6</u> 6	<u>91</u> 87	<u>97.3</u> 5	0	92.2	94.9 5	<u>96.9</u> 7	94.3 5	1	97.8 18	241
	2.5	63 6	7.7	100	5.3	ن 1	1.4	4.3	0	22	5.2	6	5 1.7	0	5.3	5.1	1.1	5.7	100	2.2	
% Medium Trucks Heavy Trucks	<u>2.5</u> 0	33	0	100	33	0	0	<u>4.3</u> 1	0		5.2 0	<u>6_</u> 43	3	0	5.3 46	<u>5.1</u> 0	1.1	<u>5.7</u>	100	<u> </u>	4.2 80
	0	33 2.4	0	0	1.7	0	0	0.4	0	0.1	0	43 3	3	0	- 1	0	0	0	0	0	1.4
% Heavy Trucks	U	∠.4	U	U	1.7	U	U	0.4	U	0.1	U	3	1	U	2.5	U	U	U	U	0	1.4



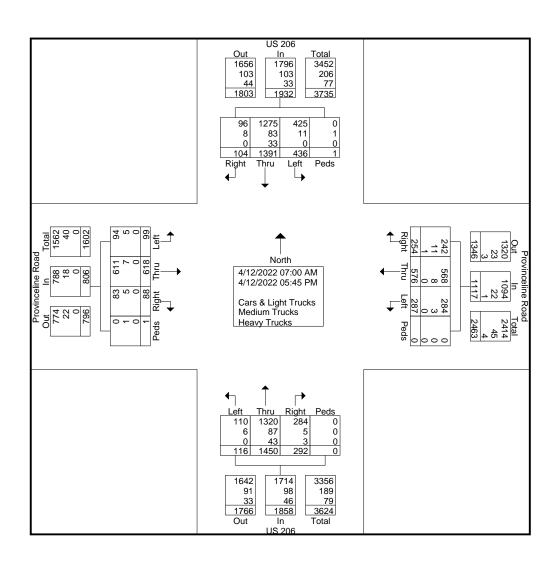
TechniQuest Corporation 32 Jefferson Plaza

Princeton, NJ 08540

Phone: 732.274.9500, Fax: 732.274.9510 www.techniquestcorporation.com

> File Name: 2022-019-01 Site Code : 2022-019-01 Start Date : 4/12/2022

Page No : 2





TechniQuest Corporation 32 Jefferson Plaza Princeton, NJ 08540

Phone: 732.274.9500, Fax: 732.274.9510 www.techniquestcorporation.com

> File Name: 2022-019-01 Site Code : 2022-019-01

Start Date : 4/12/2022

Page No : 3

		ş	US 206 outhbour					rinceline Vestbou				Ņ	US 206 Iorthboui					vinceline Eastbour			
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
Peak Hour Analys	is From 0	7:00 AM	to 08:45	AM - Pe	eak 1 of 1																
Peak Hour for Ent	ire Interse	ection Be	gins at 0	7:30 AM	Ι .																
07:30 AM	14	67	9	0	90	16	51	21	0	88	12	148	10	0	170	3	31	2	0	36	384
07:45 AM	20	79	8	0	107	26	42	15	0	83	19	158	34	0	211	3	26	7	0	36	437
08:00 AM	32	94	15	0	141	24	46	17	0	87	10	124	30	0	164	5	27	9	0	41	433
08:15 AM	44	80	12	0	136	25	47	17	0	89	15	86	22	0	123	2	22	5	0	29	377
Total Volume	110	320	44	0	474	91	186	70	0	347	56	516	96	0	668	13	106	23	0	142	1631
% App. Total	23.2	67.5	9.3	0		26.2	53.6	20.2	0		8.4	77.2	14.4	0		9.2	74.6	16.2	0		
PHF	.625	.851	.733	.000	.840	.875	.912	.833	.000	.975	.737	.816	.706	.000	.791	.650	.855	.639	.000	.866	.933
Peak Hour Analys Peak Hour for Ent																					
04:30 PM	26	98	2	0	126	15	35	18	0	68	2	71	32	0	105	11	57	2	0	70	369
04:45 PM	26	113	2	0	141	17	41	20	0	78	3	83	10	0	96	10	52	5	0	67	382
05:00 PM	35	82	1	0	118	10	36	16	0	62	7	73	17	0	97	6	59	6	0	71	348
05:15 PM	33	117	9	0	159	11	29	16	0	56	7	77	12	0	96	6	62	8	0	76	387
Total Volume	120	410	14	0	544	53	141	70	0	264	19	304	71	0	394	33	230	21	0	284	1486
% App. Total	22.1	75.4	2.6	0		20.1	53.4	26.5	0		4.8	77.2	18	0		11.6	81	7.4	0		
PHF	.857	.876	.389	.000	.855	.779	.860	.875	.000	.846	.679	.916	.555	.000	.938	.750	.927	.656	.000	.934	.960

Short-term Hourly Traffic Volume for 01/19/2018 to 01/25/2018

Site names: 5-7-072, Disabled American Veterans Highway-50.96,00000206__

County: MERCER

Funct Class:

Urban Principal Arterial - Other

Location: BET RT 569, FACKLER RD & PROVINCE LIN

Seasonal Factor Grp: rg3_3U
Daily Factor Grp: rg3_3U
Axle Factor Grp: rg3_3U
rg3_3U

Growth Factor Grp: rg3_3U

	Su	ın, Jan 14	, 2018	Мс	n, Jan 15	, 2018	Tu	ie, Jan 16,	2018	We	d, Jan 17	2018	Th	u, Jan 18	, 2018	Fri,	Jan 19,	2018	Sa	t, Jan 20,	2018
	Road	Ν	S	Road	N	S	Road	N	S	Road	N	S	Road	Z	S	Road	N	S	Road	N	S
00:00																43	15	28	62	18	
01:00																17	3	14	33	12	
02:00																7	3	4	22	5	17
03:00																15	9	6	14	7	. 7
04:00																41	29	12	36		17
05:00																166	130	36	54	39	15
06:00																432	316		147	111	
07:00																1,068	789	279	231	126	105
08:00																984	675	309	464	274	190
09:00																690	431	259	503	271	
10:00																600	302	298	571	274	297
11:00																614	302	312	640	301	339
12:00																709	350	359	600	285	315
13:00																635	296	339	626	329	297
14:00																761	344	417	600	264	
15:00																916	337	579	578	251	327
16:00																958	332	626	639	283	
17:00																935	346	589	579	285	294 254 184 168 174 153 95 4,273
18:00																667	303	364	441	187	254
19:00																477	199	278	344	160	184
20:00																340	130	210	288	120	168
21:00																291	84	207	277	103	174
22:00																206	67	139	260	107	153
23:00																161	57	104	150	55	95
Total																11,733	5,849	5,884	8,159	3,886	
AM Peak Vol																1,068	789	312	640	301	339
AM Peak Fct																1	1	1	1	1	1
AM Peak Hr																7: 00	7: 00	11: 00	11: 00	11: 00	11: 00
PM Peak Vol																958	350	626	639	329	356
PM Peak Fct																1	1	1	1	1	1
PM Peak Hr																16: 00	12: 00	16: 00	16: 00	13: 00	16: 00
Seasonal Fct																1.064	1.064	1.064	1.064	1.064	1.064
Daily Fct																.881	.881	.881	1.171	1.171	1.171
Axle Fct																.490	.490	.490	.490	.490	
Pulse Fct																2.000	2.000	2.000	2.000	2.000	2.000

Created 06/01/2018 12:23 PM ROAD AADT 11,060 NDIR AADT 5,641 PDIR AADT 5,419 DV03S: Page 1 of 2

Short-term Hourly Traffic Volume for 01/19/2018 to 01/25/2018

Site names: 5-7-072, Disabled American Veterans Highway-50.96,00000206__

County: MERCER

Funct Class:

Urban Principal Arterial - Other

Location: BET RT 569, FACKLER RD & PROVINCE LIN

Seasonal Factor Grp: rg3_3U
Daily Factor Grp: rg3_3U

Axle Factor Grp: rg3_3U
Growth Factor Grp: rg3_3U

[Sun,	Jan 21,	2018	Mor	n, Jan 22, 2	2018	Tue	e, Jan 23, 2	2018	Wed	, Jan 24,	2018	Th	u, Jan 25, 2	2018	Fr	i, Jan 26,	2018	Sa	at, Jan 27,	2018
	Road	N	S	Road	N	S	Road	N	S	Road	N	S	Road	N	S	Road	N	S	Road	N	S
00:00	72	19	53	31	16	15	47	18	29	35	12	23	40	11	29						
01:00	34	15	19	13	7	6	8	1	7	24	6	18	15	7	8						
02:00	23	11	12	13	10	3	18	9	9	8	3	5	17	9	8						
03:00	13	7	6	23	15	8	24	15	9	14	10	4	13	7	6						
04:00	25	15	10	50	32	18	53	34	19	46	34	12	52	39	13						
05:00	24	21	3	179	130	49	163	127	36	154	113	41	138	100	38						
06:00	75	56	19	484	349	135	480	367	113	525	390	135	499	365	134						
07:00	163	98	65	1,072	788	284	1,158	853	305	1,133	817	316	1,073	811	262						
08:00	254	159	95	1,100	741	359	1,101	730	371	1,116	769	347	1,125	750	375						
09:00	385	208	177	698	438	260	739	471	268	771	471	300	693	432	261						
10:00	498	248	250	605	295	310	544	269	275	597	295	302	536	311	225						
11:00	580	258	322	608	278	330	549	280	269	592	283	309	640	333	307						
12:00	618	298	320	648	286	362	572	288	284	671	293	378	639	330	309						
13:00	615	292	323	615	285	330	567	277	290	681	318	363	729	348	381						
14:00	723	319	404	765	324	441	732	354	378	739	314	425	800	353	447						
15:00	577	244	333	924	348	576	936	323	613	924	334	590	1,017	398	619						
16:00	584	258	326	994	324	670	1,091	372	719	1,028	341	687	1,026	364	662						
17:00	445	203	242	1,054	409	645	1,000	359	641	1,048	381	667	1,162	442	720						
18:00	344	135	209	704	279	425	710	297	413	677	264	413	706	298	408						
19:00	255	110	145	385	137	248	428	169	259	427	171	256	519	176	343						
20:00	194	74	120	302	101	201	369	127	242	332	136	196	403	148	255						
21:00	136	47	89	218	67	151	275	95	180	268	80	188	259	80	179						
22:00	125	57	68	116	35	81	112	38	74	155	57	98	144	46	98						
23:00	66	31	35	83	27	56	85	28	57	96	28	68	82	25	57						
Total	6,828	3,183	3,645	11,684	5,721	5,963	11,761	5,901	5,860	12,061	5,920	6,141	12,327	6,183	6,144						
AM Peak Vol	580	258	322	1,100	788	359	1,158	853	371	1,133	817	347	1,125	811	375						
AM Peak Fct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
AM Peak Hr	11: 00	11: 00	11: 00	8: 00	7: 00	8: 00	7: 00	7: 00	8: 00	7: 00	7: 00	8: 00	8: 00	7: 00	8: 00						
PM Peak Vol	723	319	404	1,054	409	670	1,091	372	719	1,048	381	687	1,162	442	720						
PM Peak Fct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
PM Peak Hr	14: 00	14: 00	14: 00	17: 00	17: 00	16: 00	16: 00	16: 00	16: 00	17: 00	17: 00	16: 00	17: 00	17: 00	17: 00						
Seasonal Fct	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064						
Daily Fct	1.365	1.365	1.365	1.045	1.045	1.045	.938	.938	.938	.900	.900	.900	.887	.887	.887						
Axle Fct	.490	.490	.490	.490	.490	.490	.490	.490	.490	.490	.490	.490	.490	.490	.490						
Pulse Fct	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000						

Created 06/01/2018 12:23 PM ROAD AADT 11,060 NDIR AADT 5,641 PDIR AADT 5,419 DV03S: Page 2 of 2

Short-term Hourly Traffic Volume for 11/26/2018 to 12/02/2018

Site names: 5-8-071,PROVINCE LINE RD-.61,11071391__

Funct Class: Urban Minor Arterial
Location: BET BUCKINGHAM DR & US 206

MERCER

County:

Seasonal Factor Grp: rg3_4U
Daily Factor Grp: rg3_4U
Axle Factor Grp: rg3_4U
Growth Factor Grp: rg3_4U

	Su	n, Nov 25,	, 2018	Mor	n, <u>Nov</u> 26,		Tue	, Nov 27,		Wed	, Nov 28,	2018	Thu,	Nov 29,		Fri,	Nov 30,	2018	Sa	at, Dec 1, 2	2018
	Road	W	□E □	Road	W	E	Road	W	E	Road	W	E	Road	W	E	Road	W	E	Road	W	E
00:00				10	9	1	14	8	6	13	3	10	16	8	8	12	4	8	24	8	16
01:00				4	1	3	4	3	1	8	7	1	4	0	4	6	5	1	13	5	8
02:00				1	1	0	4	3	1	7	5	2	2	0	2	9	5	4	7	5	2
03:00				0	0	0	3	1	2	5	2	3	3	3	0	3	2	1	3	3	0
04:00				10	5	5	17	7	10	12	4	8	12	6	6	10	5	5	4	2	2
05:00				62	39	23	76	54	22	63	40	23	54	37	17	54	40	14	25	12	13
06:00				242	169	73	295	202	93	255	162	93	265	170	95	227	147	80	51	28	23
07:00				678	373	305	745	418	327	724	413	311	696	391	305	593	332	261	125	63	62
08:00				867	512	355	960	489	471	954	534	420	935	528	407	693	392	301	209	79	130
09:00				553	352	201	635	376	259	616	374	242	595	360	235	521	310	211	316		192
10:00				358	183	175	415	195	220	427	205	222	421	196	225	356	170	186	416	195	221
11:00				421	206	215	452	212	240	459	195	264	580	248	332	473	224	249	482	239	243
12:00				452	241	211	586	273	313	569	293	276	598	292	306	487	253	234	487	234	253
13:00				464	266	198	522	269	253	514	268	246	542	322	220	494	278	216	479	248	231
14:00				485	274	211	571	275	296	545	279	266	528	256	272	521	287	234	461	235	226
15:00				691	286	405	881	334	547	780	301	479	788	267	521	620	264	356	488	271	217
16:00				730	276	454	954	423	531	841	342	499	810	285	525	687	309	378	398	224	174
17:00				700	274	426	872	472	400	837	378	459	819	358	461	728	295	433	354	199	155
18:00				497	252	245	598	282	316	562	256	306	532	224	308	471	209	262	330	192	138
19:00				294	152	142	307	157	150	311	162	149	288	137	151	289	149	140	192	110	82
20:00				162	95	67	191	111	80	218	81	137	193	111	82	175	110	65	131	83	48
21:00				118	67	51	115	69	46	136	74	62	121	70	51	152	75		124		56
22:00				52	24	28	63	32	31	75	32	43	65	36	29	90	53	37	89	38	51
23:00				36	14	22	32	15	17	31	10	21	40	14	26	55	16	39	68	30	38
Total				7,887	4,071	3,816	9,312	4,680	4,632	8,962	4,420	4,542	8,907	4,319	4,588	7,726	3,934	3,792	5,276	2,695	2,581
AM Peak Vol				867	512	355	960	489	471	954	534	420	935	528	407	693	392	301	482	239	243
AM Peak Fct				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AM Peak Hr				8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	8: 00	11: 00	11: 00	11: 00
PM Peak Vol				730	286	454	954	472	547	841	378	499	819	358	525	728	309	433	488	271	253
PM Peak Fct				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
PM Peak Hr				16: 00	15: 00	16: 00	16: 00	17: 00	15: 00	16: 00	17: 00	16: 00	17: 00	17: 00	16: 00	17: 00	16: 00	17: 00	15: 00	15: 00	12: 00
Seasonal Fct				1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.019	1.044	1.044	1.044
Daily Fct				.960	.960	.960	.940	.940	.940	.905	.905	.905	.962	.962	.962	.939	.939	.939	1.178	1.178	1.178
Axle Fct				.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.488	.489	.489	.489
Pulse Fct				2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000

Created 12/13/2018 6:31 PM ROAD AADT 7,432 NDIR AADT 3,691 PDIR AADT 3,741 DV03S: Page 1 of 2

Short-term Hourly Traffic Volume for 11/26/2018 to 12/02/2018

5-8-071,PROVINCE LINE RD-.61,11071391___ Site names:

MERCER Funct Class: **Urban Minor Arterial**

County:

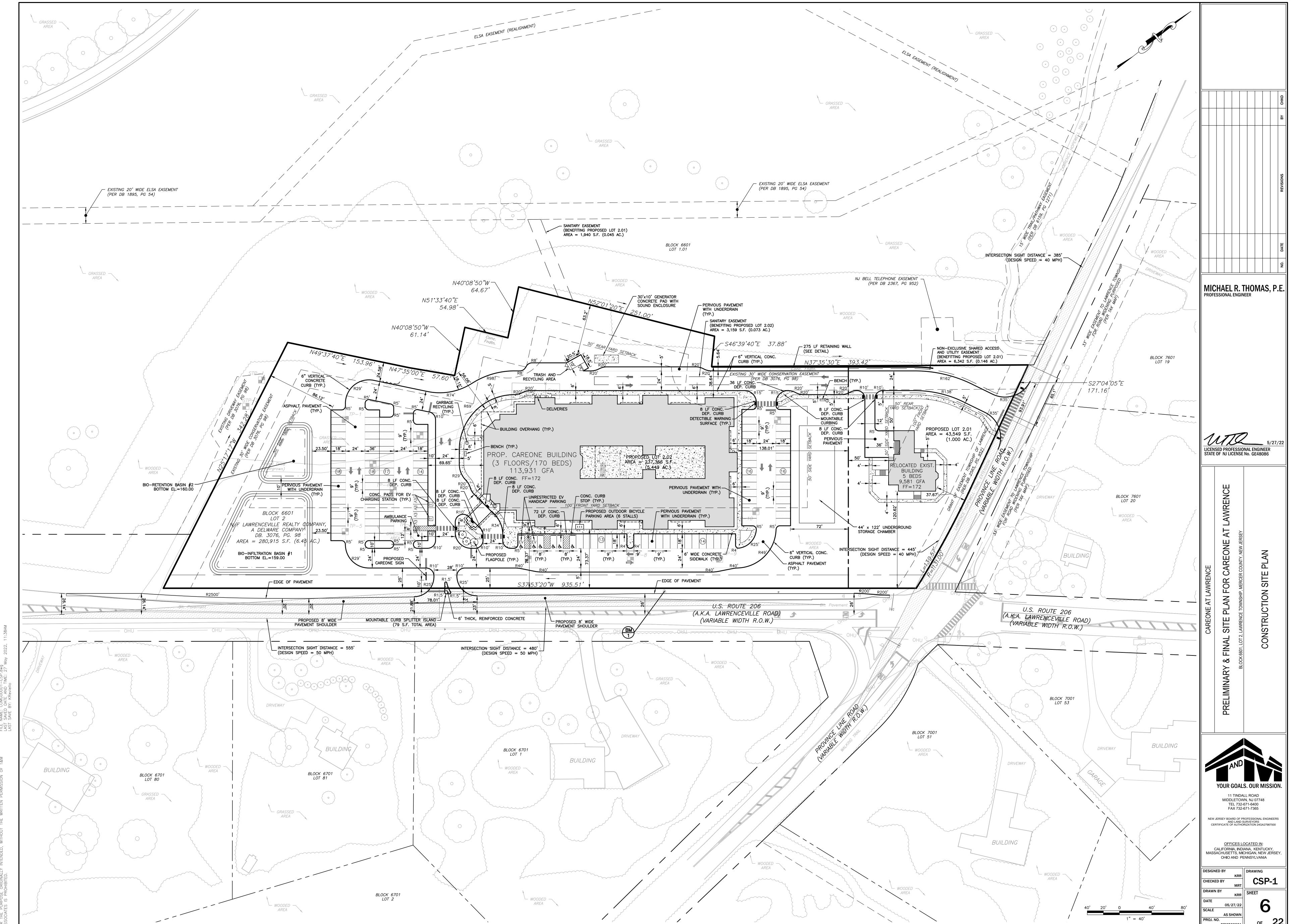
BET BUCKINGHAM DR & US 206 Location:

rg3_4U Seasonal Factor Grp: Daily Factor Grp: rg3_4U Axle Factor Grp: rg3_4U Growth Factor Grp: rg3_4U

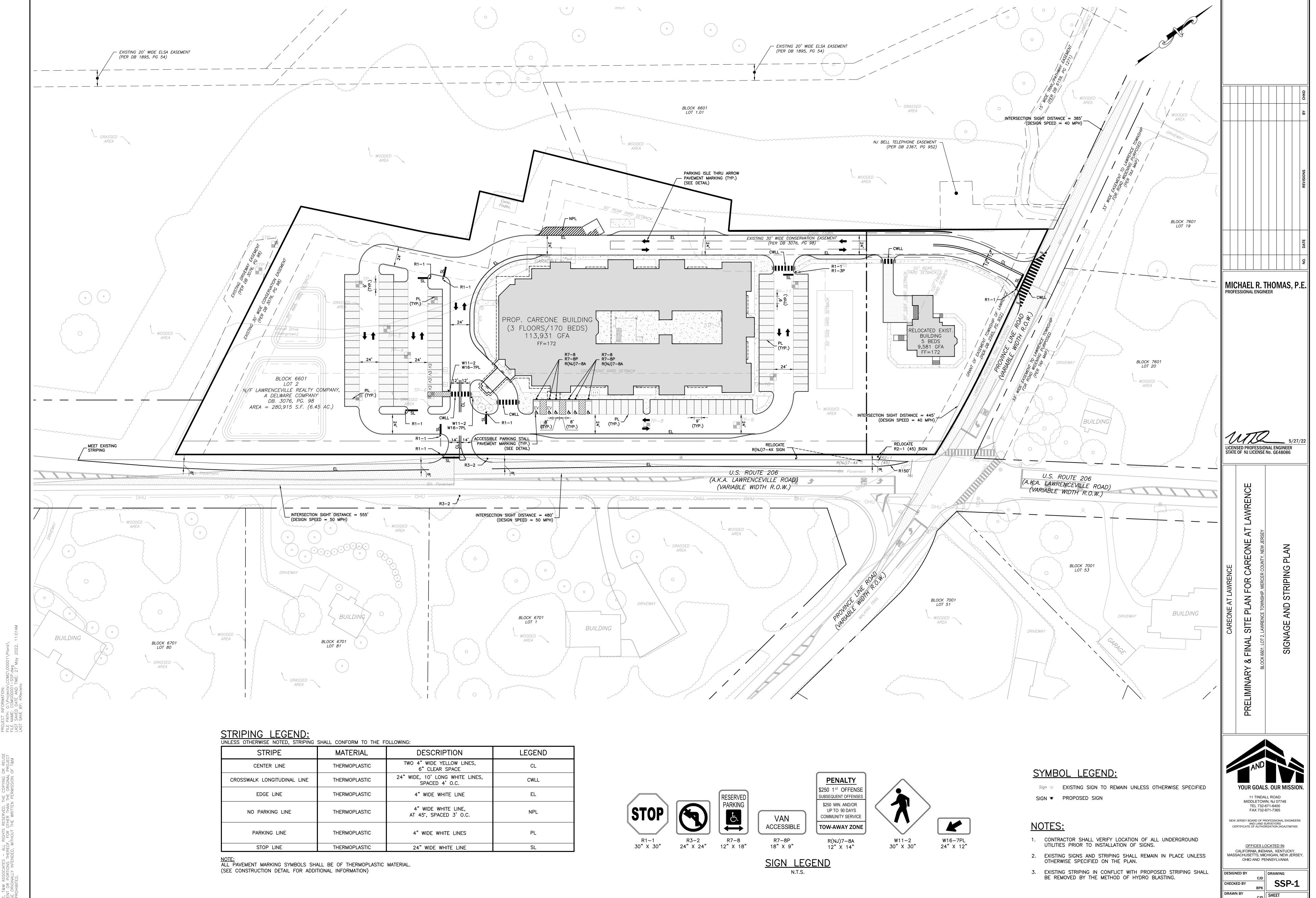
	Sur	n, Dec 2, 2	2018	Мо	on, Dec 3,	2018	Tu	ıe, Dec 4,	2018	W	ed, Dec 5	2018	Th	nu, Dec 6,	2018	F	ri, Dec 7,	2018	Sa	at, Dec 8, 2	2018
	Road	W	E	Road	W	E	Road	W	E	Road	W	E	Road	W	E	Road	W	E	Road	W	E
00:00	30	13	17																		
01:00	19	10	9																		
02:00	8	6	2																		
03:00	2	2	0																		
04:00	1	1	0																		
05:00	13	9	4																		
06:00	32	14	18																		
07:00	62	23	39																		
08:00	115	56	59																		
09:00	210	92	118																		
10:00	317	132	185																		
11:00	405	165	240																		
12:00	423	197	226																		
13:00	479	247	232																		
14:00	430	224	206																		
15:00	416	245	171																		
16:00	353	194	159																		
17:00	280	160	120																		
18:00	199	131	68																		
19:00	159	89	70																		
20:00	99	63	36																		
21:00	47	31	16																		
22:00	35	21	14																		
23:00	22	10	12																		
Total	4,156	2,135	2,021																		
AM Peak Vol	405	165	240																		
AM Peak Fct	1	1	1																		
AM Peak Hr	11: 00	11: 00	11: 00																		
PM Peak Vol	479	247	232																		
PM Peak Fct	1	1	1																		
PM Peak Hr	13: 00	13: 00	13: 00																		
Seasonal Fct	1.044	1.044	1.044																		
Daily Fct	1.329	1.329	1.329																		
Axle Fct	.489	.489	.489																		
Pulse Fct	2.000	2.000	2.000																		

ROAD AADT 7,432 NDIR AADT 3,691 PDIR AADT 3,741 DV03S: Page 2 of 2

Appendix CSite Plans



PROJECT II FILE PATH: FILE NAME: LAST SAVEI LAST SAVE



05/27/22

1" = 40'

AS SHOWN

Appendix DAnalysis Output

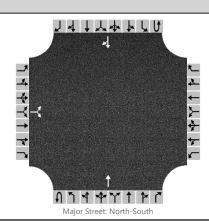
		HCS 2	010 S	ignali	zed I	nters	ectior	n Re	sults S	umm	ary				
General Inform	nation								Intersec			on		4741	þa l _a
Agency		T&M Associates							Duration		0.25		_9	* *	t_
Analyst		CJD		-		5/12/2			Area Ty	ре	Other		<i>≛</i>		<u>*</u> <u>*</u>
Jurisdiction		Lawrence Township)	Time F	Period	No-Bu Peak	uild - AN Hour	1	PHF		0.93		**************************************	₩ E 8	
Urban Street		Study Intersection #	# 1	Analys	sis Year	2024			Analysis	Period	1> 7:0	00		5 to	
Intersection		Rt 206 & Province I	Line Rd	File Na	ame	No-B	uild_AM	_Rt 20)6 & Prov	/ince Lir	ıe Rd.xı	ıs	*	4 1 4 Y	7
Project Descrip	tion	CareOne at Lawrer	nce												
Demand Inform	nation				EB			W	D.	7	NB			SB	
Approach Move				L	T	R	L	T		L	T	R	L	T	R
Demand (v), v				23	185	41	121	24	_	71	658	122	112	326	45
Demand (v), v	Domana (v), voim						121	24	7 93	7 1	030	122	112	320	40
Signal Informa	tion				ĮĮ.		5	<u>J</u> ,	2	T					
Cycle, s	90.0	Reference Phase	2		l sm	, M	7 2	Ħ	§			4	Ψ		↔ .
Offset, s						2.3	4.6	15.	6 0.0	0.0		1		3	Y 4
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		3.0	0.0	4.0		0.0				→	→
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	0.0	2.0	0.0	0.0		5	6	7	8
								-						_	
Timer Results				EBI	-	EBT	WB	L	WBT	NB	<u> </u>	NBT	SBI	-	SBT
Assigned Phase	<u>e</u>			7	_	4	3	_	8	-	_	2			6
Case Number				1.1	-	4.0	1.1	_	4.0		-	6.0			6.0
Phase Duration	<u> </u>	\ -		7.3	_	21.6	11.9	-	26.1		_	56.5	_		56.5
Change Period				5.0	-	6.0	5.0	-	6.0	-	-	7.0	_		7.0
Max Allow Head		·		3.1	_	3.1	3.1	_	3.1		_	0.0	_		0.0
Queue Clearan		, - ,		3.0	-	13.3	7.1	_	19.7	-	-	0.0	-		0.0
Green Extension		(<i>g</i> e), S		0.0	_	1.00	0.0	_	0.5 1.00	-		0.0	_		0.0
Phase Call Proba				0.40	_	0.41	1.00	_	1.00	-	-				
Max Out 1 Toba	Dility			0.00	,	0.41	1.00		1.00						
Movement Gro	oup Res	ults			EB			WB			NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move	ment			7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow I	Rate (v), veh/h		25	243		130	366		76	839		120	399	
		ow Rate (s), veh/h/l	ln	1810	1840		1810	1811		1001	1812		666	1823	
Queue Service				1.0	11.3		5.1	17.7		4.3	34.9		14.7	11.3	
Cycle Queue C		e Time (<i>g c</i>), s		1.0	11.3		5.1	17.7		15.6	34.9		49.5	11.3	
Green Ratio (g				0.20	0.17		0.27	0.22		0.55	0.55		0.55	0.55	
Capacity (c), v		4: - / V /		132	319		273	405		505	997		189	1004	
Volume-to-Capa		. ,	\	0.188		_	0.477	0.90		0.151	0.841		0.639	0.398	
	• ,	/In(95 th percentile) eh/In(95 th percent		19.5 0.8	9.3		97.4 3.9	364. 14.6		43.3	503.7		149.7 6.0	186.3 7.5	
	<u> </u>	RQ) (95 th percent		0.00	0.00		0.00	0.00	_	0.00	0.00		0.00	0.00	
Uniform Delay			tilo)	30.6	35.4		27.1	34.0		16.1	16.9		38.4	11.6	
Incremental De	` '			0.3	6.3		0.5	18.3		0.6	8.5		15.4	1.2	
	Initial Queue Delay (d 3), s/veh						0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (·		0.0 30.8	0.0 41.7		27.6	52.2		16.8	25.5		53.8	12.8	
	evel of Service (LOS)						С	D		В	С		D	В	
	Approach Delay, s/veh / LOS					D	45.8	3	D	24.7	7	С	22.3	3	С
Intersection De	tersection Delay, s/veh / LOS					3(0.9						С		
					EB										
	ultimodal Results							WB			NB			SB	
Pedestrian LOS				2.3	_	В	2.3	-	В	2.2		В	2.2	_	В
Bicycle LOS So	ore / LC	JS		0.9		Α	1.3		Α	2.0		Α	1.3		Α

		HCS 2	010 S	ignali	zed I	nters	ectior	n Re	sults	Summ	ary				
General Inform	nation									ction Inf		on	_	4 / 4 7 4 1	þa l _a
Agency		T&M Associates							Duratio		0.25		_1		P_
Analyst		CJD		-		5/12/2			Area Ty	ре	Other				<u>≛</u> <u>-</u> ≵_
Jurisdiction		Lawrence Township)	Time F	Period	No-Bu Peak	uild - PM Hour	1	PHF		0.96		♦	w‡E 8	∠ - †
Urban Street		Study Intersection a	# 1	Analys	sis Year	2024			Analysi	s Period	1> 7:0	00		ች to	
Intersection		Rt 206 & Province	Line Rd	File Na	ame	No-B	uild_PM	_Rt 20)6 & Pro	vince Lir	ne Rd.xı	ıs	*	 4 4 Y	h (*
Project Descrip	tion	CareOne at Lawrer	nce												
Demand Inform	notion				EB			W	D		NB			SB	
Approach Move				L	T	R	L	T	-	L	T	R	L	T	R
Demand (v), v				51	352	33	79	20	_	_	310	72	153	523	18
Bemand (v), v	Domana (v), voim						13	20	9 10-	15	310	12	100	020	10
Signal Informa	tion				JI.		5	<u>J</u> ,	2	T					
Cycle, s	90.0	Reference Phase	2		511	, P	7	7	§				Ψ.		- ⇔ .
Offset, s						3.7	0.8	20.	.5 0.0	0.0		1		3	X 4
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		3.0	0.0	4.0						→	→
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.0	2.0	0.0	2.0	0.0	0.0		5	6	7	8
Timer Results				EBI	-	EBT	WB	L	WBT	NB	L	NBT	SBI	-	SBT
Assigned Phase	<u>e</u>			7	_	4	3	_	8	-	_	2	_	_	6
Case Number				1.1	_	4.0	1.1	_	4.0	-		6.0	_		6.0
Phase Duration	<u> </u>	\ -		8.7	_	26.5	9.5	-	27.3	-		54.0			54.0
Change Period				5.0	-	6.0	5.0	-	6.0	-	-	7.0		-	7.0
Max Allow Head		·		3.1	_	3.1	3.1	_	3.1	-	_	0.0		_	0.0
Queue Clearan		, - ,		4.0	_	21.0	5.1	_	17.3	-	-	0.0		_	0.0
Green Extension		(<i>g</i> e), S		0.0 0.74	_	1.00	0.0	_	1.00	+		0.0	-		0.0
Phase Call Proba				0.72	_	1.00	0.87	_	0.64	-	-			-	
Max Out 1 Toba	Dility			0.00	,	1.00	0.50	,	0.04	_					
Movement Gro	oup Res	ults			EB			WB			NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	T	R	L	Т	R
Assigned Move	ment			7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow I	Rate (v), veh/h		53	401		82	326		20	398		159	564	
		ow Rate (s), veh/h/	ln	1810	1871	<u> </u>	1810	1793		860	1802		1002	1852	
Queue Service				2.0	19.0		3.1	15.3	_	1.5	12.2		10.4	18.8	
Cycle Queue C		e Time (<i>g c</i>), s		2.0	19.0	-	3.1	15.3	_	20.2	12.2		22.6	18.8	
Green Ratio (g				0.27	0.23	-	0.28	0.24	_	0.52	0.52		0.52	0.52	
Capacity (c), v		4:- ()()		202	427	-	187	425		350	941		468	967	
Volume-to-Capa			\	0.263		_	0.440	0.76		0.057	0.423		0.341	0.583	
	• ,	In (95 th percentile) ch/ln (95 th percent		37.9 1.5	431.4 17.3		59.2	291.i	_	13.5	200.6		109.8	293.1	
	<u> </u>	RQ) (95 th percen		0.00	0.00		0.00	0.00	_	0.00	0.00		0.00	0.00	
Uniform Delay (, ,		26.4	34.1		26.8	32.0		21.7	13.2		20.1	14.8	
Incremental De	` '			0.3	28.6		0.6	7.5		0.3	1.4		2.0	2.6	
	Initial Queue Delay (d 3), s/veh						0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay (<u>, </u>		0.0 26.6	0.0 62.7		27.4	39.5		22.0	14.6		22.1	17.3	
	evel of Service (LOS)						С	D		С	В		С	В	
Approach Delay	approach Delay, s/veh / LOS					E	37.	1	D	14.9	9	В	18.4	1	В
Intersection De	tersection Delay, s/veh / LOS					3(0.6						С		
	ultimodal Results				EB			WB			NB			SB	
Pedestrian LOS				2.3	-	В	2.3	-	В	2.3		В	2.3	_	В
Bicycle LOS So	ore / LC	JS		1.2		Α	1.2		Α	1.2		Α	1.7		Α

HCS 2010 Signalized Intersection Results Summary 14144161 Intersection Information **General Information** Agency T&M Associates Duration, h 0.25 CJD Analyst Analysis Date 5/12/2022 Area Type Other PHF 0.93 Jurisdiction Lawrence Township Time Period Full-Build - AM Peak Hour **Urban Street** Study Intersection #1 Analysis Year 2024 1> 7:00 Analysis Period Intersection Rt 206 & Province Line Rd File Name Full-Build AM Rt 206 & Province Line Rd.xus **Project Description** CareOne at Lawrence **Demand Information** EΒ WB NB SB Approach Movement L R L R L R L R 25 121 93 660 112 331 45 186 41 251 77 123 Demand (v), veh/h Л., **Signal Information** Cycle, s 90.0 Reference Phase 2 Offset, s 0 Reference Point End Green 49.2 2.4 15.9 0.0 0.0 4.4 Uncoordinated No Simult. Gap E/W On Yellow 5.0 3.0 0.0 4.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 2.0 2.0 0.0 2.0 0.0 0.0 **Timer Results EBL EBT WBL WBT NBL NBT** SBL SBT **Assigned Phase** 7 4 3 8 2 6 Case Number 1.1 4.0 1.1 4.0 6.0 6.0 Phase Duration, s 7.4 21.9 11.9 26.3 56.2 56.2 Change Period, (Y+Rc), s 5.0 6.0 5.0 6.0 7.0 7.0 Max Allow Headway (MAH), s 3.1 3.1 3.1 3.1 0.0 0.0 Queue Clearance Time (g_s), s 3.1 13.3 7.1 19.9 0.7 0.4 Green Extension Time (g_e), s 0.0 0.0 0.0 0.0 1.00 Phase Call Probability 0.49 0.96 1.00 Max Out Probability 0.00 0.41 1.00 1.00 SB **Movement Group Results** EΒ **WB** NB Approach Movement L Т R L Т R L Т R R ı **Assigned Movement** 7 4 14 3 5 2 12 6 16 8 18 1 27 244 120 404 Adjusted Flow Rate (v), veh/h 130 370 83 842 1810 Adjusted Saturation Flow Rate (s), veh/h/ln 1810 1840 1812 996 1812 664 1823 Queue Service Time (g_s), s 1.1 11.3 5.1 17.9 4.7 35.4 13.8 11.6 Cycle Queue Clearance Time (g_c), s 1.1 11.3 5.1 17.9 16.4 35.4 49.2 11.6 Green Ratio (g/C) 0.20 0.18 0.27 0.23 0.55 0.55 0.55 0.55 409 134 325 277 497 991 182 998 Capacity (c), veh/h Volume-to-Capacity Ratio (X) 0.200 0.751 0.471 0.904 0.167 0.850 0.661 0.405 370.6 154.2 Back of Queue (Q), ft/ln (95 th percentile) 21 231.8 97.1 48.3 514.7 191.1 Back of Queue (Q), veh/ln (95 th percentile) 8.0 9.3 3.9 14.8 1.9 20.6 6.2 7.6 Queue Storage Ratio (RQ) (95 th percentile) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 35.2 17.2 Uniform Delay (d 1), s/veh 30.3 27.0 33.9 16.6 39.1 11.9 Incremental Delay (d 2), s/veh 0.3 5.9 0.5 19.0 0.7 9.0 17.3 1.2 Initial Queue Delay (d 3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 30.6 41.0 27.4 52.9 17.3 26.3 56.5 Control Delay (d), s/veh 13.1 Level of Service (LOS) С D С D В С F В Approach Delay, s/veh / LOS 40.0 D 46.3 25.5 С 23.0 С D Intersection Delay, s/veh / LOS 31.4 С **Multimodal Results** FB WB NB SB Pedestrian LOS Score / LOS 2.3 2.2 В 2.3 В В 2.2 В Bicycle LOS Score / LOS 0.9 Α 1.3 Α 2.0 В 1.4 Α

HCS 2010 Signalized Intersection Results Summary 14144161 Intersection Information **General Information** Agency T&M Associates Duration, h 0.25 CJD Analyst Analysis Date 5/12/2022 Area Type Other Full-Build - PM PHF 0.96 Jurisdiction Lawrence Township Time Period Peak Hour **Urban Street** Study Intersection #1 Analysis Year 2024 1> 7:00 Analysis Period Intersection Rt 206 & Province Line Rd File Name Full-Build PM Rt 206 & Province Line Rd.xus **Project Description** CareOne at Lawrence **Demand Information** EΒ WB NB SB Approach Movement L R L R L R L R 55 33 79 104 75 153 528 355 212 25 314 18 Demand (v), veh/h Л., **Signal Information** Cycle, s 90.0 Reference Phase 2 Offset, s 0 Reference Point End Green 47.0 3.8 0.7 20.5 0.0 0.0 Uncoordinated No Simult. Gap E/W On Yellow 5.0 3.0 0.0 4.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 2.0 2.0 0.0 2.0 0.0 0.0 **Timer Results EBL EBT WBL WBT NBL NBT** SBL SBT **Assigned Phase** 7 4 3 8 2 6 Case Number 1.1 4.0 1.1 4.0 6.0 6.0 Phase Duration, s 8.8 26.5 9.5 27.2 54.0 54.0 Change Period, (Y+Rc), s 5.0 6.0 5.0 6.0 7.0 7.0 Max Allow Headway (MAH), s 3.1 3.1 3.1 3.1 0.0 0.0 Queue Clearance Time (g_s), s 4.1 21.1 5.1 17.5 0.0 0.7 Green Extension Time (g_e), s 0.0 0.0 0.0 0.0 1.00 Phase Call Probability 0.76 0.87 1.00 Max Out Probability 0.06 1.00 0.33 0.75 SB **Movement Group Results** EΒ **WB** NB Approach Movement L Т R L Т R L Т R R ı **Assigned Movement** 7 4 14 3 8 18 5 2 12 6 16 1 404 82 329 26 159 Adjusted Flow Rate (v), veh/h 57 405 569 996 Adjusted Saturation Flow Rate (s), veh/h/ln 1810 1871 1810 1794 856 1800 1852 2.1 Queue Service Time (g_s), s 19.1 3.1 15.5 1.9 12.5 10.6 19.1 Cycle Queue Clearance Time (g_c), s 2.1 19.1 3.1 15.5 21.0 12.5 23.0 19.1 Green Ratio (g/C) 0.27 0.23 0.28 0.24 0.52 0.52 0.52 0.52 422 200 427 185 346 940 462 967 Capacity (c), veh/h Volume-to-Capacity Ratio (X) 0.286 0.947 0.445 0.780 0.075 0.431 0.345 0.588 297.3 110.8 296.6 Back of Queue (Q), ft/ln (95 th percentile) 40.8 439.4 59.3 18.1 204.4 17.6 2.4 Back of Queue (Q), veh/ln (95 th percentile) 1.6 11.9 0.7 8.2 4.4 11.9 Queue Storage Ratio (RQ) (95 th percentile) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 26.4 34.2 32.2 13.3 20.3 Uniform Delay (d 1), s/veh 26.8 22.0 14.8 Incremental Delay (d 2), s/veh 0.3 30.2 0.6 8.3 0.4 1.4 2.0 2.6 Initial Queue Delay (d 3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 26.7 64.4 27.4 40.5 22.5 14.7 22.4 17.4 Control Delay (d), s/veh Level of Service (LOS) С Ε С D С В С В Approach Delay, s/veh / LOS 59.7 Ε 37.9 15.2 В 18.5 В D Intersection Delay, s/veh / LOS 31.1 С **Multimodal Results** FB WB NB SB Pedestrian LOS Score / LOS 2.3 2.3 В 2.3 В В 2.3 В Bicycle LOS Score / LOS 1.2 Α 1.2 Α 1.2 Α 1.7 Α

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	CJD	Intersection	Rt 206 & Site Dwy #1
Agency/Co.	T&M Associates	Jurisdiction	Lawrence Township
Date Performed	5/13/2022	East/West Street	Site Driveway #1
Analysis Year	2024	North/South Street	Route 206
Time Analyzed	Full-Build - AM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	CareOne at Lawrence		



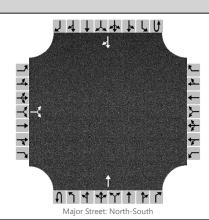
Vehicle Volumes and Adjustments

Approach		Eastb	ound		Westbound					North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR								Т					TR
Volume (veh/h)		3		5							858				443	5
Percent Heavy Vehicles		3		0												
Proportion Time Blocked																
Right Turn Channelized		N	lo		No No No											
Median Type	Undivided															

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)			8							
Capacity			281							
v/c Ratio			0.03							
95% Queue Length			0.1							
Control Delay (s/veh)			18.2							
Level of Service (LOS)			С							
Approach Delay (s/veh)		18.2								
Approach LOS	С									

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	CJD	Intersection	Rt 206 & Site Dwy #1
Agency/Co.	T&M Associates	Jurisdiction	Lawrence Township
Date Performed	5/13/2022	East/West Street	Site Driveway #1
Analysis Year	2024	North/South Street	Route 206
Time Analyzed	Full-Build - PM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	CareOne at Lawrence		



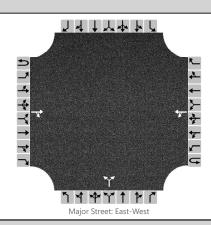
Vehicle Volumes and Adjustments

Approach		Eastb	ound		Westbound					North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR								Т					TR
Volume (veh/h)		6		9							408				617	5
Percent Heavy Vehicles		3		0												
Proportion Time Blocked																
Right Turn Channelized		N	lo	No No No												
Median Type	Undivided															

Delay, Queue Length, and Level of Service

J									
Flow Rate (veh/h)		17							
Capacity		324							
v/c Ratio		0.05							
95% Queue Length		0.2							
Control Delay (s/veh)		16.7							
Level of Service (LOS)		С							
Approach Delay (s/veh)	16.7								
Approach LOS	С								

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	CJD	Intersection	Prov. Line & Site Dwy #2
Agency/Co.	T&M Associates	Jurisdiction	Lawrence Township
Date Performed	5/13/2022	East/West Street	Province Line Road
Analysis Year	2024	North/South Street	Site Driveway #2
Time Analyzed	Full-Build - AM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	CareOne at Lawrence		



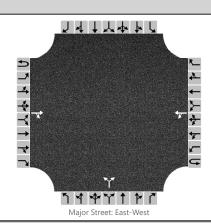
Vehicle Volumes and Adjustments

Approach		Eastb	ound		Westbound					North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	T	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			247	3		10	379			2		3				
Percent Heavy Vehicles						0				0		0				
Proportion Time Blocked																
Right Turn Channelized		N	lo	No No No												
Median Type	Undivided															

Delay, Queue Length, and Level of Service

Delay, Quede Length, and	elay, Queue Length, and Level of Service													
Flow Rate (veh/h)						423					5			
Capacity						1304					566			
v/c Ratio						0.32					0.01			
95% Queue Length						0.0					0.0			
Control Delay (s/veh)						7.8					11.4			
Level of Service (LOS)						А					В			
Approach Delay (s/veh)						0.	.3			11	.4			
Approach LOS										I	3			

	HCS 2010 Two-Way Stop C	ontrol Summary Re	eport
General Information		Site Information	
Analyst	CJD	Intersection	Prov. Line & Site Dwy #2
Agency/Co.	T&M Associates	Jurisdiction	Lawrence Township
Date Performed	5/13/2022	East/West Street	Province Line Road
Analysis Year	2024	North/South Street	Site Driveway #2
Time Analyzed	Full-Build - PM Peak Hour	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	CareOne at Lawrence		



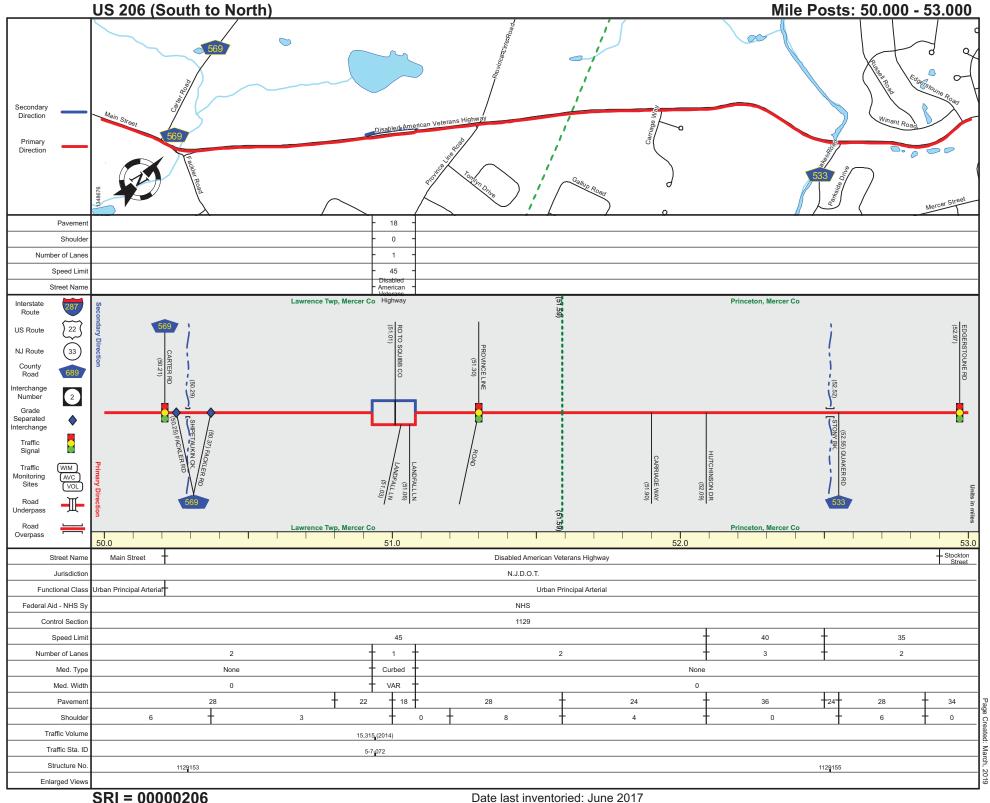
Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	Т	R	U	L	Т	R	U	L	T	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			435	2		9	258			4		6				
Percent Heavy Vehicles						0				0		0				
Proportion Time Blocked																
Right Turn Channelized	No				No No No											
Median Type	Undivided															

Delay, Queue Length, and Level of Service

Flow Rate (veh/h)					290					11			
Capacity					1098					485			
v/c Ratio					0.26					0.02			
95% Queue Length					0.0					0.1			
Control Delay (s/veh)					8.3					12.6			
Level of Service (LOS)					А					В			
Approach Delay (s/veh)			0.4		12.6								
Approach LOS						В							

Appendix ESupporting Documents



NJDOT ACCESS PERMIT ANNUAL BACKGROUND GROWTH RATE TABLE

Valid for NJDOT Access Permits submitted April 2019 - April 2021

		Functional Classification											
			RUR	AL		URBAN							
		Other Principal	Minor	Major	Minor				Principal	Minor			
COUNTY	Interstate	Arterial	Arterial	Collector	Collector	Local	Interstate	Freeway	Arterial	Arterial	Collector	Local	
ATLANTIC	N/A	1.00%	1.50%	1.00%	1.00%	2.75%	N/A	1.00%	1.00%	1.00%	1.75%	1.00%	
BERGEN	N/A	N/A	N/A	N/A	N/A	N/A	2.50%	2.00%	1.50%	2.50%	1.00%	1.00%	
BURLINGTON	1.50%	1.75%	1.00%	1.25%	1.00%	1.25%	2.00%	2.00%	1.00%	1.50%	1.50%	1.00%	
CAMDEN	1.50%	1.25%	1.00%	1.25%	1.00%	1.00%	2.25%	1.75%	1.00%	1.00%	2.25%	1.00%	
CAPE MAY	N/A	1.50%	2.25%	1.00%	2.25%	1.25%	N/A	1.00%	1.00%	1.00%	1.00%	1.00%	
CUMBERLAND	N/A	1.00%	1.00%	1.00%	1.00%	2.00%	N/A	1.00%	1.00%	1.25%	1.25%	1.00%	
ESSEX	N/A	N/A	N/A	N/A	N/A	N/A	2.00%	3.00%	1.00%	2.00%	1.00%	1.50%	
GLOUCESTER	1.50%	1.25%	1.00%	1.25%	1.75%	1.00%	2.50%	1.75%	1.00%	1.00%	2.25%	1.50%	
HUDSON	N/A	N/A	N/A	N/A	N/A	N/A	1.00%	1.00%	1.00%	1.00%	1.00%	1.50%	
HUNTERDON	1.00%	1.00%	1.00%	2.00%	1.00%	1.00%	2.25%	2.00%	1.25%	1.00%	2.50%	1.00%	
MERCER	1.50%	1.00%	1.75%	1.50%	1.00%	1.00%	1.50%	2.50%	1.00%	1.00%	1.00%	1.00%	
MIDDLESEX	1.00%	1.00%	1.75%	1.25%	1.00%	1.00%	1.50%	2.00%	1.00%	1.00%	1.00%	1.00%	
MONMOUTH	1.50%	2.25%	1.00%	1.00%	1.00%	1.75%	1.00%	1.75%	1.25%	1.00%	2.50%	1.00%	
MORRIS	1.25%	3.00%	1.00%	1.25%	2.50%	1.25%	1.50%	1.00%	1.00%	1.50%	1.00%	1.00%	
OCEAN	1.00%	1.00%	1.00%	1.75%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.50%	
PASSAIC	N/A	N/A	N/A	N/A	N/A	N/A	1.00%	1.00%	1.00%	1.00%	2.00%	1.00%	
SALEM	1.50%	1.00%	1.00%	1.00%	1.50%	3.00%	2.00%	1.50%	1.25%	1.00%	1.00%	2.00%	
SOMERSET	2.00%	1.00%	1.75%	1.00%	1.50%	1.00%	1.75%	2.25%	1.25%	1.00%	1.75%	1.00%	
SUSSEX	1.00%	1.00%	1.75%	1.50%	1.50%	1.25%	1.00%	1.00%	1.00%	1.50%	1.50%	1.75%	
UNION	N/A	N/A	N/A	N/A	N/A	N/A	1.25%	1.50%	1.00%	1.00%	1.00%	1.00%	
WARREN	1.00%	1.00%	1.00%	1.00%	1.00%	1.25%	2.25%	1.00%	1.00%	1.00%	1.00%	1.00%	

NOTE: For use in short term (within 1-3 years) background growth ONLY.

Example: Assume existing condition is 1,500 peak hour trips and the applicable growth rate is 2%. The multiplication factor for 2% compounded for 3 years is 1.0612. The three-year peak hour forecast is 1,591.8, or 1,592 peak hour trips. $[1592 = 1500(1 + 0.02)^3 = 1500(1.0612)]$

Future Growth (compounded) = Present Growth * (1+Growth Rate) # of years

Assisted Living

(254)

Vehicle Trip Ends vs: Beds

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

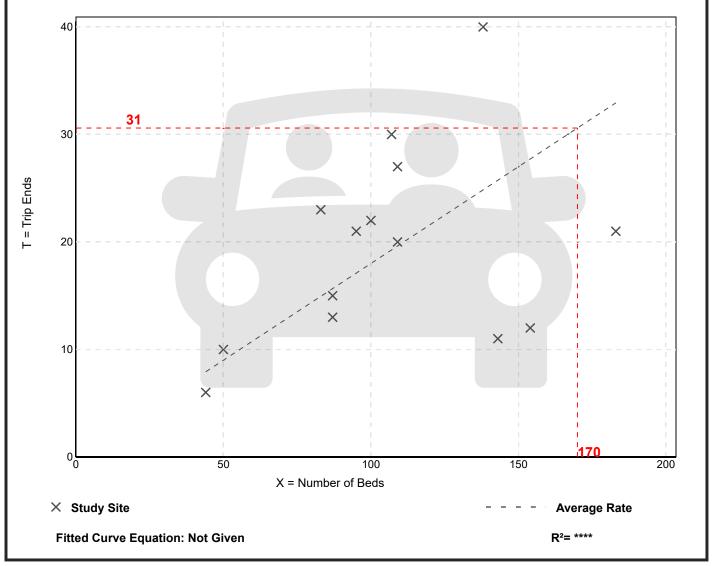
Number of Studies: 14 Avg. Num. of Beds: 106

Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.18	0.08 - 0.29	0.08

Data Plot and Equation



Assisted Living

(254)

Vehicle Trip Ends vs: Beds

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 14 Avg. Num. of Beds: 106

Directional Distribution: 39% entering, 61% exiting

Vehicle Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.24	0.11 - 0.34	0.07

Data Plot and Equation

