

Traffic Engineering, Transportation Planning & Design

277 White Horse Pike, Suite 203, Atco, NJ 08004
P: 609-714-0400 F: 609-714-9944 www.sallc.org

David R. Shropshire, PE, PP
A Andrew Feranda, PE, PTOE, CME
Randal C. Barranger, PE
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December 20, 2021

Mr. Joseph McElwee
CSH Old Tappan, LLC
1275 Pennsylvania Avenue
NW 2nd Floor
Washington, DC 20004

(via email: joe.mcelwee@cshpe.com)

Re: **Traffic Engineering Assessment**
CSH – Old Tappan
Borough of Old Tappan, Bergen County, NJ
SA Project No. 21020

Dear Mr. McElwee:

In response to your request, Shropshire Associates LLC has prepared a traffic engineering assessment to evaluate the impact of the traffic to be generated by the proposed assisted living facility with up to 100 beds. The proposed residence is located along westbound Old Tappan Road in the Borough of Old Tappan, Bergen County, New Jersey (Figure 1). Access to the development is proposed via one (1) full-movement driveway along westbound Old Tappan Road creating a fourth leg to the existing Old Tappan Road and Vandervoort Avenue stop-controlled intersection. Currently the site is developed with a single family dwelling and a freestanding barn.

Existing Conditions

A field reconnaissance was conducted in the vicinity of the site to determine the features of the adjacent roadway network within the study area. A description of the roadways and intersections are provided below.

In the vicinity of the site, **Old Tappan Road (CR 110)** is a two-lane roadway that is under the jurisdiction of Bergen County and is classified¹ as an Urban Minor Arterial. Old Tappan Road consists of one lane in each direction and has an approximate cartway width of 28'. There are minimum shoulders along both directions of Old Tappan Road along the site frontage and signs for No Stopping or Standing. The posted speed limit along Old Tappan Road is 35 MPH. Along the site frontage, Old Tappan Road has a continuous No Passing Zone. There are sidewalks in each direction along the site frontage. For the purpose of this study, Old Tappan Road is assumed to extend in a general east-west direction.

In the vicinity of the site, **Leonard Drive** is a two-lane local roadway that consists of one lane in each direction and has an approximate cartway width of 30'. The posted speed limit along Leonard Drive is 25 MPH. For the purpose of this study, Leonard Drive is assumed to extend in a general north-south direction.

¹ NJDOT Straight Line Diagrams

In the vicinity of the site, **Vandervoort Avenue** (Holbrook Court) is a two-lane local roadway that consists of one lane in each direction and has an approximate cartway width of 30'. The posted speed limit along Vandervoort Avenue is 25 MPH. For the purpose of this study, Vandervoort Avenue is assumed to extend in a general north-south direction.

The **Old Tappan Road/Leonard Drive** intersection is a T-shaped intersection that is stop-controlled along the northbound Leonard Drive approach. All approaches to the intersection consist of one lane for all permitted movements.

The **Old Tappan Road/Vandervoort Avenue** intersection is a T-shaped intersection that is stop-controlled along the northbound Vandervoort Avenue approach. All approaches to the intersection consist of one lane for all permitted movements.

Traffic Counts

To determine the amount of traffic on the adjacent roadway network, manual turning movement counts (MTMC) were conducted at the study intersections on Thursday, February 25, 2021 during the weekday AM (7:00 AM - 9:00 AM) and weekday PM (2:00 PM – 6:00 PM) peak periods. A summary of the traffic counts can be found in the appendix to this assessment and the existing volumes are illustrated on Figure 2. The weekday AM peak traffic hour occurred between 7:30 AM to 8:30 AM and the weekday PM peak traffic hour occurred between 4:45 PM and 5:45 PM.

In order to account for the effects of the Covid-19 pandemic on current traffic conditions, traffic counts performed by the New Jersey Department of Transportation (NJDOT) in August of 2019 along Old Tappan Road in the vicinity of Leonard Drive were reviewed and analyzed. Based on the counts performed by NJDOT, adjustments were made to the counts that were conducted by our firm in February of this year. The adjusted existing volumes are shown on Figure 3 with the NJDOT count data attached in the appendix.

Future Conditions

As indicated above, the proposal is to construct a 100-bed assisted living facility on the site. The development is expected to be fully built-out and occupied by 2023. It can be expected that the traffic volumes along the adjacent roadway network will increase as a result of other developments in the area of the site and general area traffic growth. Based on the *Annual Background Growth Table* prepared by the New Jersey Department of Transportation (NJDOT), a 2.50% annual traffic growth is projected along Old Tappan Road and a 1.00% annual traffic growth is projected along Leonard Drive and Vandervoort Avenue. By applying a 2.50% and 1.00% annual growth rate to the respective 2021 roadway volumes, the 2023 No-Build volumes were estimated and are indicated on Figure 4.

Trip Generation

The amount of traffic to be generated by the proposed assisted living development can best be estimated based on data published by the Institute of Transportation Engineers (ITE). ITE has compiled data from thousands of studies for various land uses, independent variables and study periods, and published the results in *Trip Generation, 10th Edition*. The proposed development is most similar to ITE Land Use 254: Assisted Living. It should be noted that the trip generation is based upon the number of beds in the facility, which is anticipated to be

approximately 100-beds. Table 1 below indicates the total traffic to be generated by the development based on the ITE trip generation data (the trip generation worksheets are attached for reference).

Table 1 ITE Trip Generation – Assisted Living						
Land Use	Weekday AM Peak			Weekday PM Peak		
	In	Out	Total	In	Out	Total
Assisted Living (100 beds)	12	7	19	10	16	26

The traffic to be generated by the proposed development during the peak hours must then be distributed to the adjacent street network in a manner which the employees and residents can reasonably be expected to travel. The site traffic was assigned to the street network based on the existing distribution of traffic along the adjacent street network, as illustrated on Figure 5. The resulting site traffic assignment is illustrated on Figure 6. The site traffic was then added to the 2023 No-Build traffic volumes (Figure 4) to project the 2023 Build traffic volumes, which are illustrated on Figure 7.

Operational Analysis

In order to measure the quality of the traffic flow for the adjacent roadway, capacity analysis for the study locations were performed based upon the methods outlined in the *Highway Capacity Manual*. Capacity analysis is a procedure used to estimate the ability of the roadway network to carry traffic. Capacity analyses are performed based on a Level of Service methodology. Level of Service (LOS) is a qualitative measure that characterizes the operational conditions of a roadway or intersection based on the perceptions by motorists and passengers. Levels of Service are defined for each type of facility (i.e. freeways, highways, signalized intersections, unsignalized intersections). These Levels of Service range from LOS A to LOS F, with a LOS A representing the best operating conditions and a LOS F representing the worst operating conditions. The Level of Service criteria for unsignalized and signalized intersections is summarized in Table 2.

Table 2 Level of Service Criteria		
Level of Service	Unsignalized Delay (sec)	Signalized Delay (sec)
A	≤ 10	≤ 10
B	$> 10 \text{ and } \leq 15$	$> 10 \text{ and } \leq 20$
C	$> 15 \text{ and } \leq 25$	$> 20 \text{ and } \leq 35$
D	$> 25 \text{ and } \leq 35$	$> 35 \text{ and } \leq 55$
E	$> 35 \text{ and } \leq 50$	$> 55 \text{ and } \leq 80$
F	> 50	> 80

The Level of Service for an unsignalized intersection is determined based on the average control delay associated with each minor movement (i.e. yielding left-turn movements from the major roads and stop-controlled movements from the minor approaches). The Levels of Service for signalized intersections are classified in terms of delay, which is based on the extent of driver discomfort and frustration, fuel consumption and lost travel time. The delay experienced by a motorist consists of many factors that relate to control, geometrics, and traffic. Some of these

factors include the quality of progression, traffic signal cycle length, the green ratio, and the volume-to-capacity ratio.

The operating conditions at the study intersections and the proposed site access were evaluated using the above-described methodology and the latest Synchro software. The Existing, No-Build, and Build Levels of Service are illustrated on Figures 8, 9 and 10; respectively. The detailed capacity analyses worksheets for the intersection analyses are attached to this assessment with a description of the operating conditions summarized below.

Old Tappan Road (CR 110) and Leonard Drive Intersection

Under the existing conditions, the westbound Old Tappan Road left-turn movements operate with a LOS A during the weekday AM and weekday PM peak hours. The northbound Leonard Drive shared left-turn/right-turn movements operate with a LOS B during the weekday AM and weekday PM peak hours. Under both the No-Build and Build conditions, all movements at the intersection will continue to operate with existing levels of service with the exception of the northbound Leonard Drive shared left-turn/right-turn movements, which will operate with a LOS C during the weekday AM and weekday PM peak hours.

Old Tappan Road and Vandervoort Avenue and Site Driveway Intersection

Under the existing conditions, the westbound Old Tappan Road left-turn movements operate with a LOS A during the weekday AM and weekday PM peak hours. The northbound Vandervoort Avenue shared left-turn/right-turn movements operate with a LOS C during the weekday AM and weekday PM peak hours. Under the No-Build conditions, all movements at the intersection will continue to operate with existing levels of service.

Under the Build conditions, a new stop-controlled full-movement site driveway will be constructed as the fourth leg to the intersection. Both the eastbound and westbound Old Tappan Road left-turn movements will operate with a LOS A during the weekday AM and weekday PM peak hours. Both the northbound Vandervoort Avenue and southbound Site Driveway shared left-turn/through/right-turn movements will operate with a LOS C during the weekday AM and weekday PM peak hours. As a result, there is no change in the operation conditions anticipated from the trips to be generated by the proposed assisted living residence. Level of Service C is generally considered an acceptable operating condition. During the weekday peak hours, the proposed site will generate approximately 2% of the total 2023 projected traffic volume at the intersection.

Conclusion

The traffic generated by the proposed assisted living facility development will have an insignificant impact on the adjacent street network based upon the following results from this traffic engineering assessment:

- Based upon the current ITE trip generation rates, the proposed assisted living facility development will generate approximately 19 total trips during the weekday AM peak hour and approximately 26 total trips during the weekday PM peak hour.



- The traffic resulting from the proposed assisted living facility development will cause no changes in the No-Build levels of service at the Old Tappan Road and Vandervoort Avenue and Site Driveway study location during the weekday AM and weekday PM peak hours.
- The traffic resulting from the proposed assisted living facility development will cause no changes to the individual levels of service at the Old Tappan Road and Leonard Drive stop-controlled intersection.

Should you have any questions or require any additional information, please feel free to contact us.

Sincerely,
Shropshire Associates LLC

A handwritten signature in black ink, appearing to read "David R. Shropshire".

David R. Shropshire, P.E., P.P.

Professional Engineer
N.J. License No. 33943

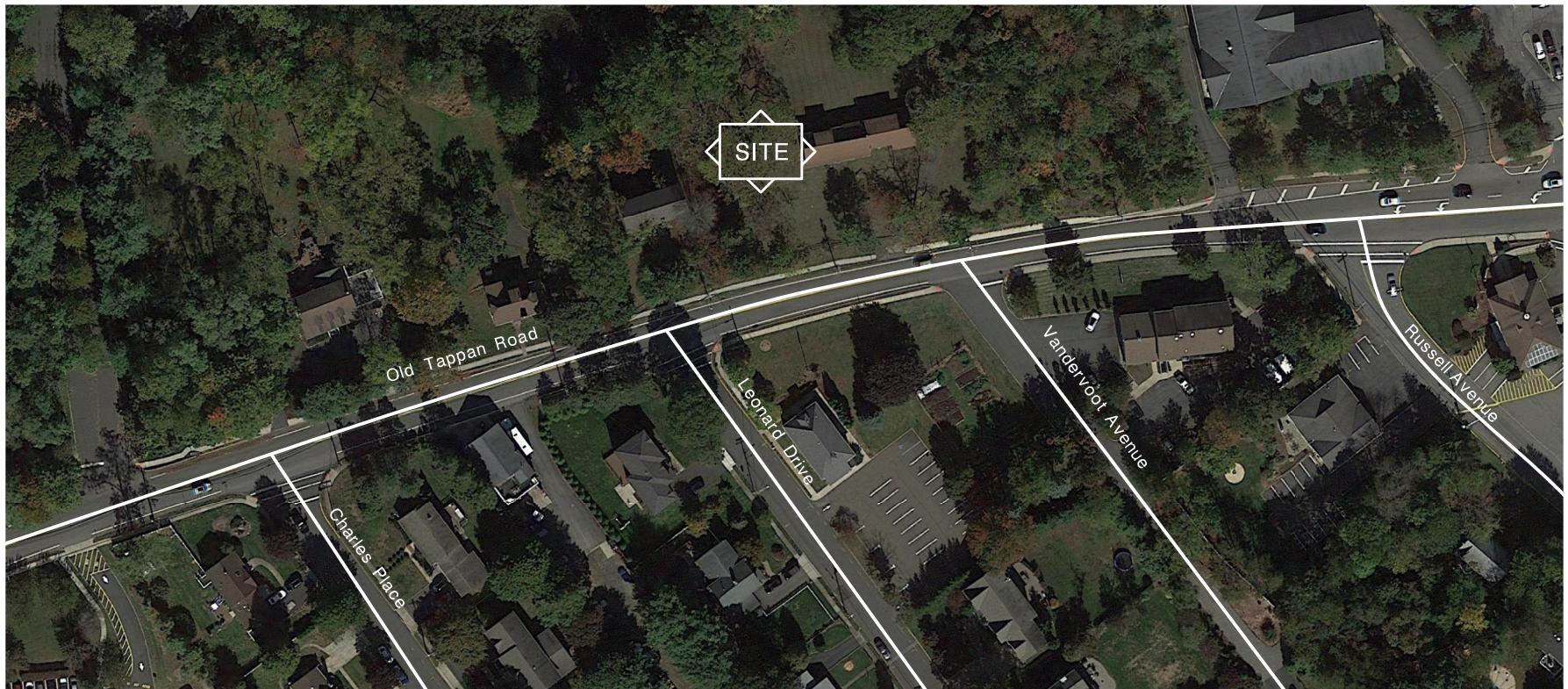
DRS/jab
Attachments

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Shropshire Associates LLC

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FIGURE 1
SITE LOCATION MAP



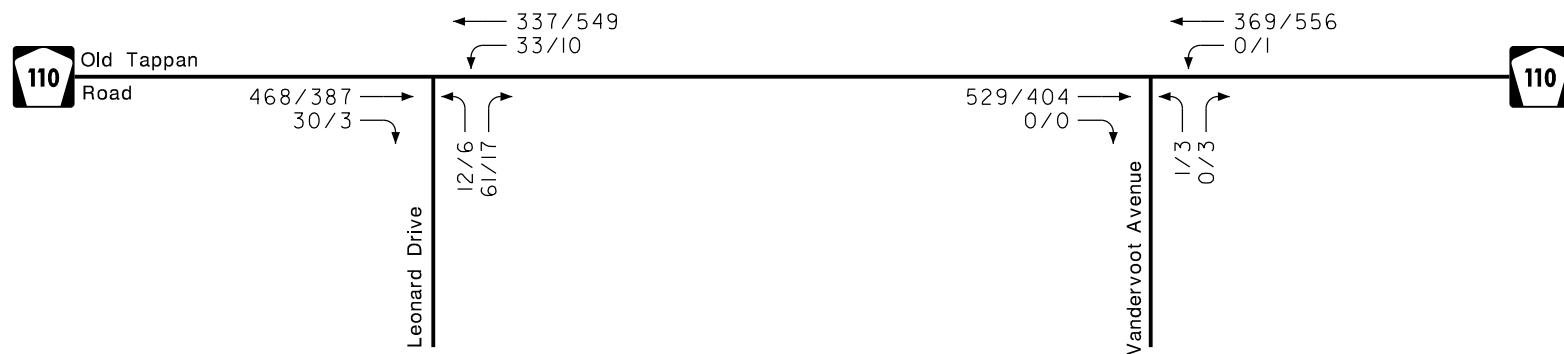
CSH Old Tappan

Borough of Old Tappan, Bergen County, New Jersey
December 2021

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FIGURE 2
 EXISTING VOLUMES



CSH Old Tappan
 Borough of Old Tappan, Bergen County, New Jersey
 December 2021

AM/PM PEAK HOUR

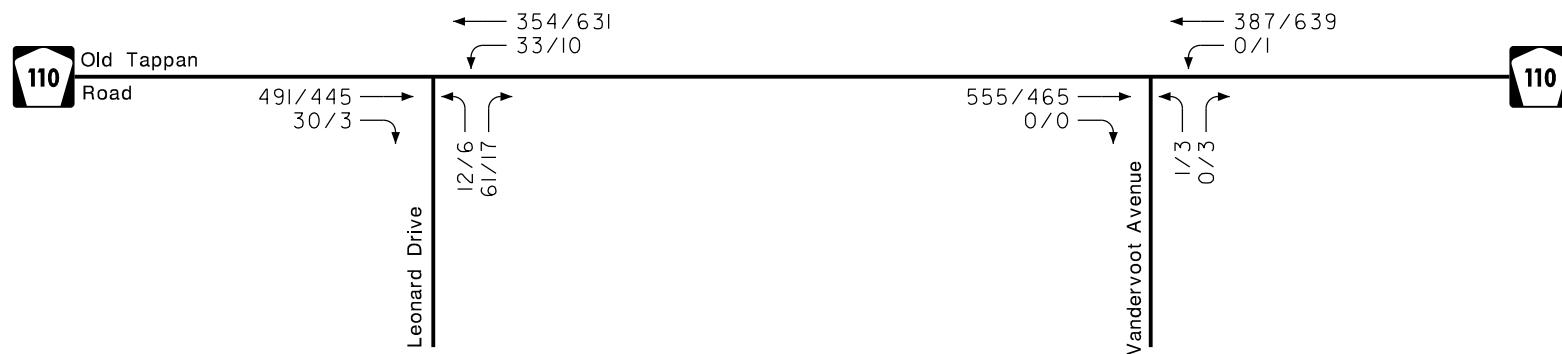
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FIGURE 3
 EXISTING VOLUMES (ADJUSTED)



CSH Old Tappan
 Borough of Old Tappan, Bergen County, New Jersey
 December 2021

AM/PM PEAK HOUR

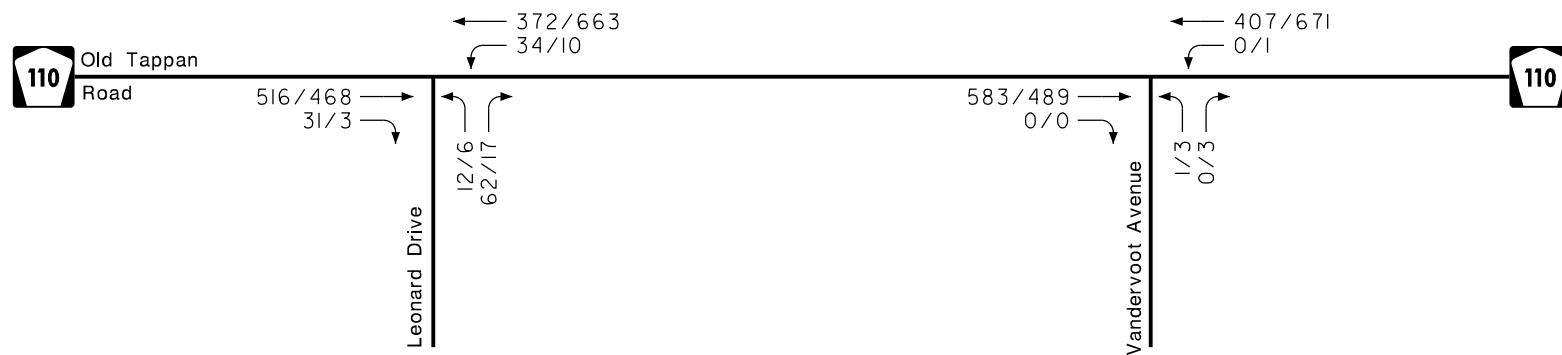
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FIGURE 4
 NO-BUILD VOLUMES



CSH Old Tappan
 Borough of Old Tappan, Bergen County, New Jersey
 December 2021

AM/PM PEAK HOUR

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FIGURE 5
TRIP DISTRIBUTION



CSH Old Tappan
Borough of Old Tappan, Bergen County, New Jersey
December 2021

AM/PM PEAK HOUR

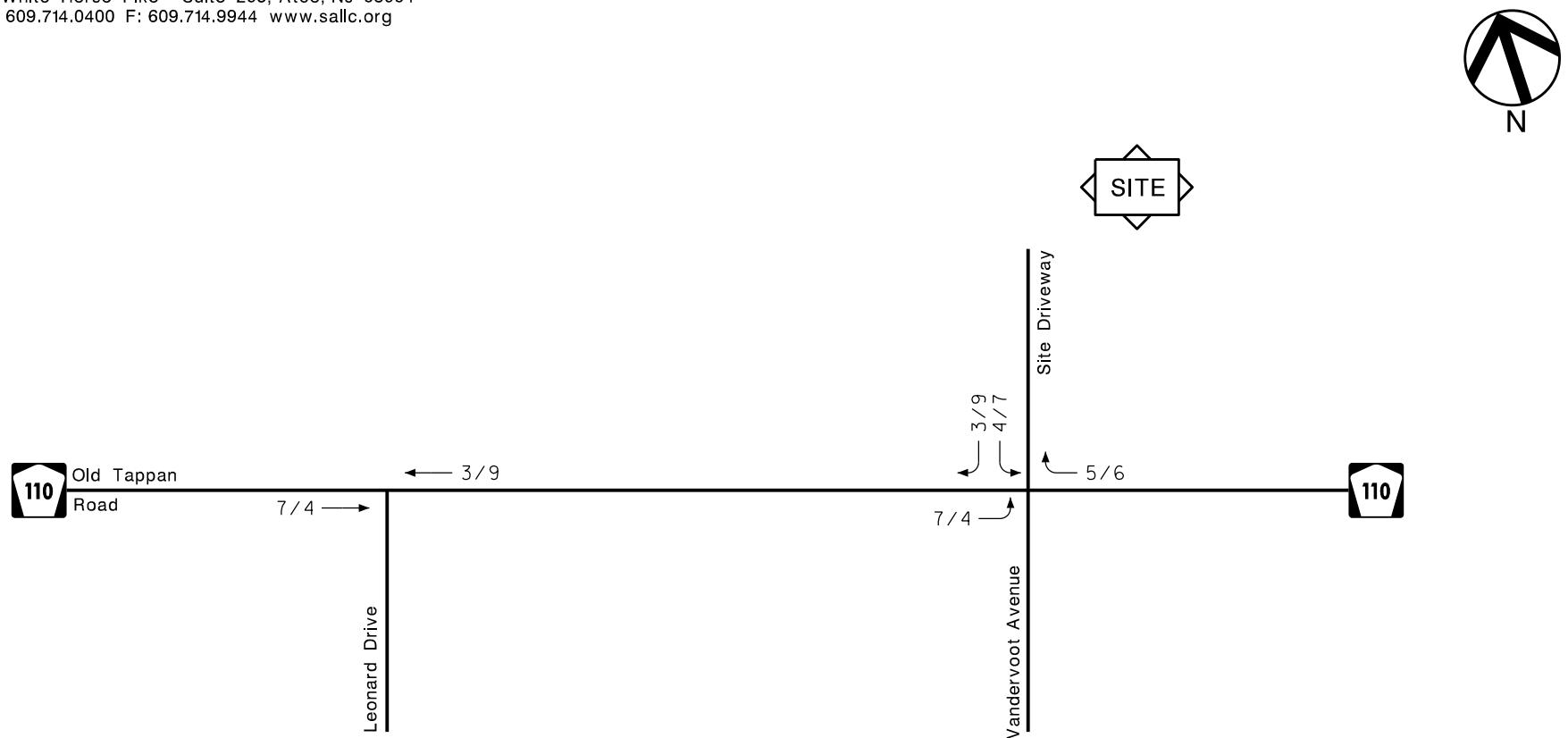
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FIGURE 6
 SITE TRAFFIC



CSH Old Tappan
 Borough of Old Tappan, Bergen County, New Jersey
 December 2021

AM/PM PEAK HOUR

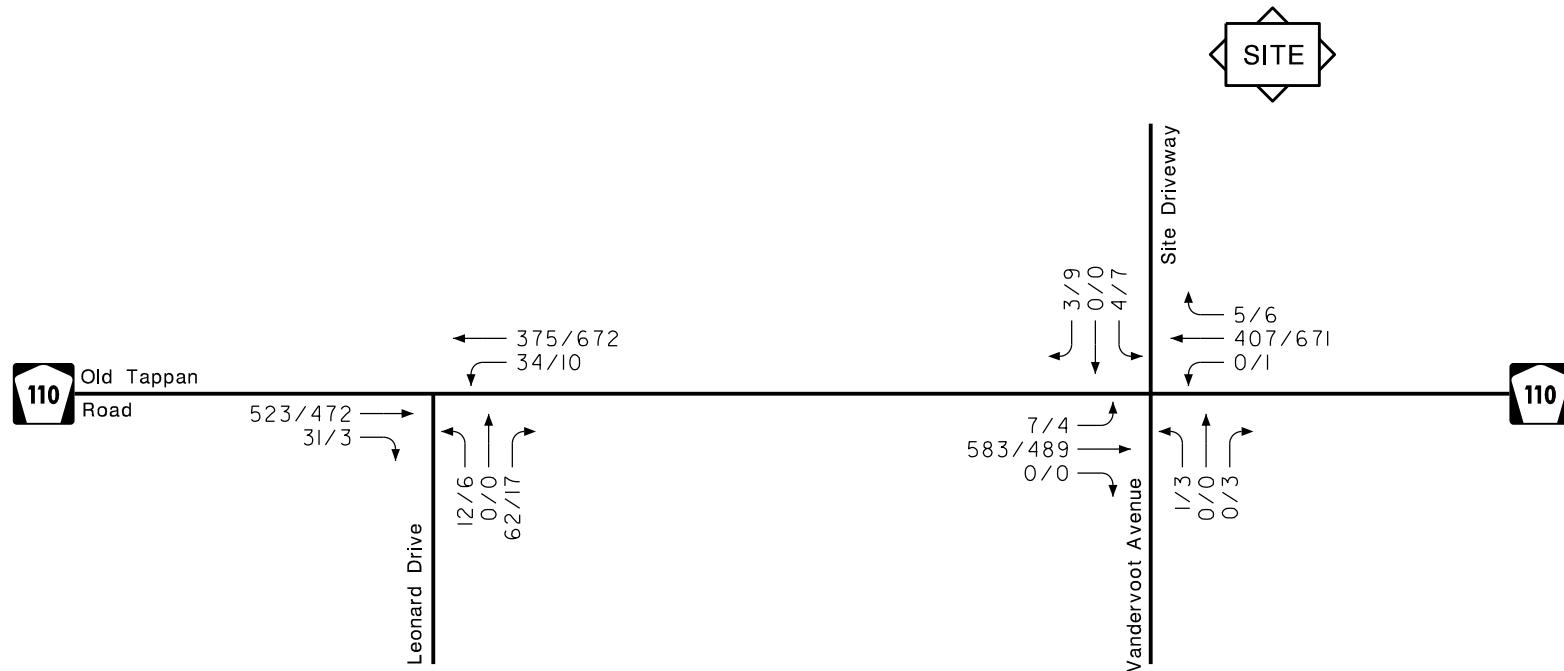
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FIGURE 7
 BUILD VOLUMES



CSH Old Tappan
 Borough of Old Tappan, Bergen County, New Jersey
 December 2021

AM/PM PEAK HOUR

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FIGURE 8
EXISTING LEVELS OF SERVICE



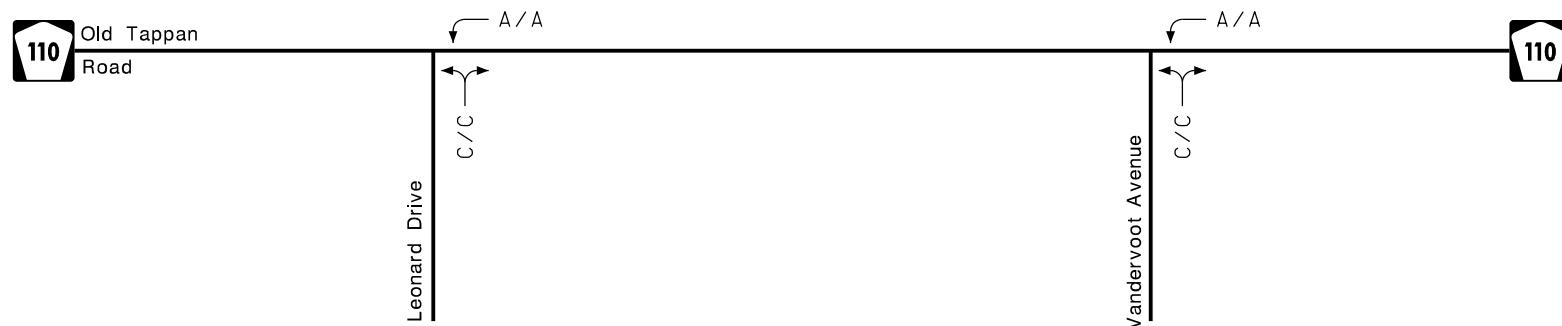
CSH Old Tappan
Borough of Old Tappan, Bergen County, New Jersey
December 2021

AM/PM PEAK HOUR

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FIGURE 9
NO-BUILD LEVELS OF SERVICE



CSH Old Tappan
Borough of Old Tappan, Bergen County, New Jersey
December 2021

AM/PM PEAK HOUR

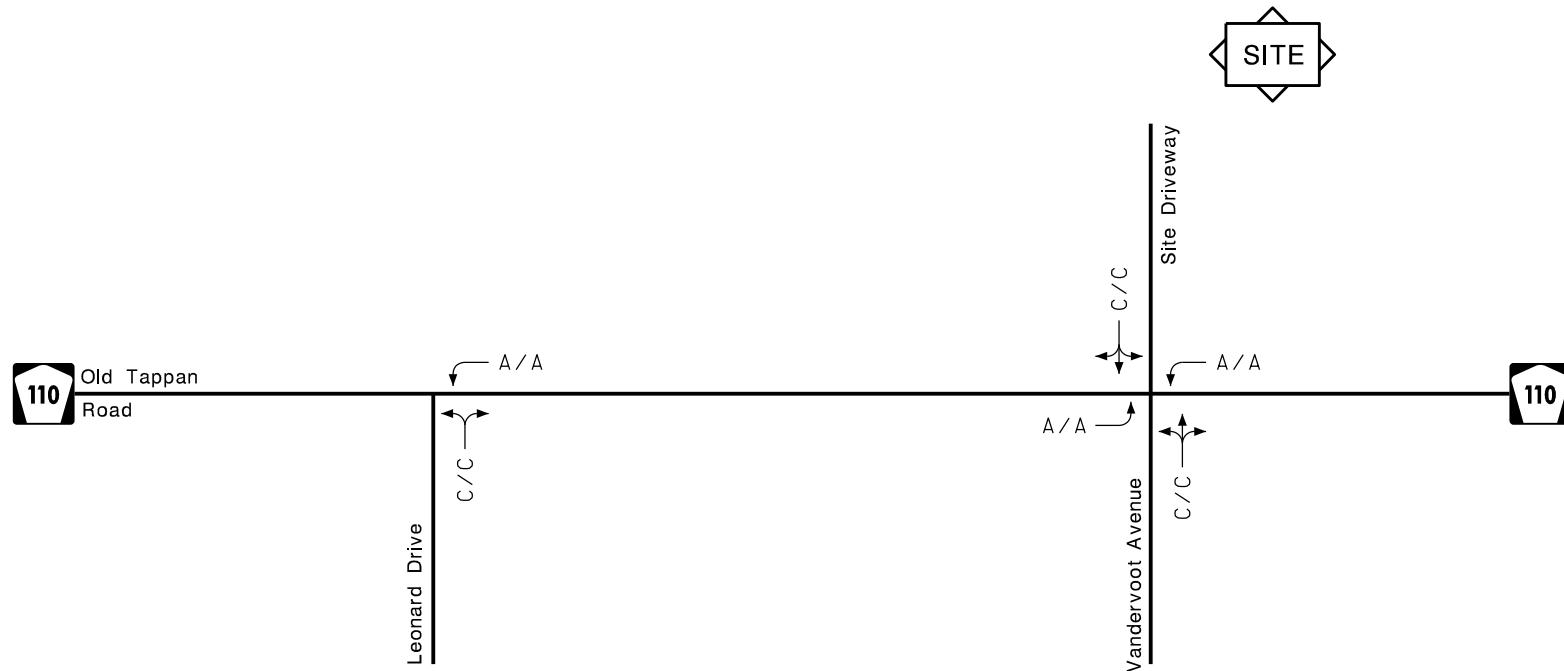
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FIGURE 10
 BUILD LEVELS OF SERVICE



CSH Old Tappan
 Borough of Old Tappan, Bergen County, New Jersey
 December 2021

AM/PM PEAK HOUR

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SA Project No. 21020

Mile Posts: 2.000 - 5.000**BERGEN COUNTY 110 II (West to East)**

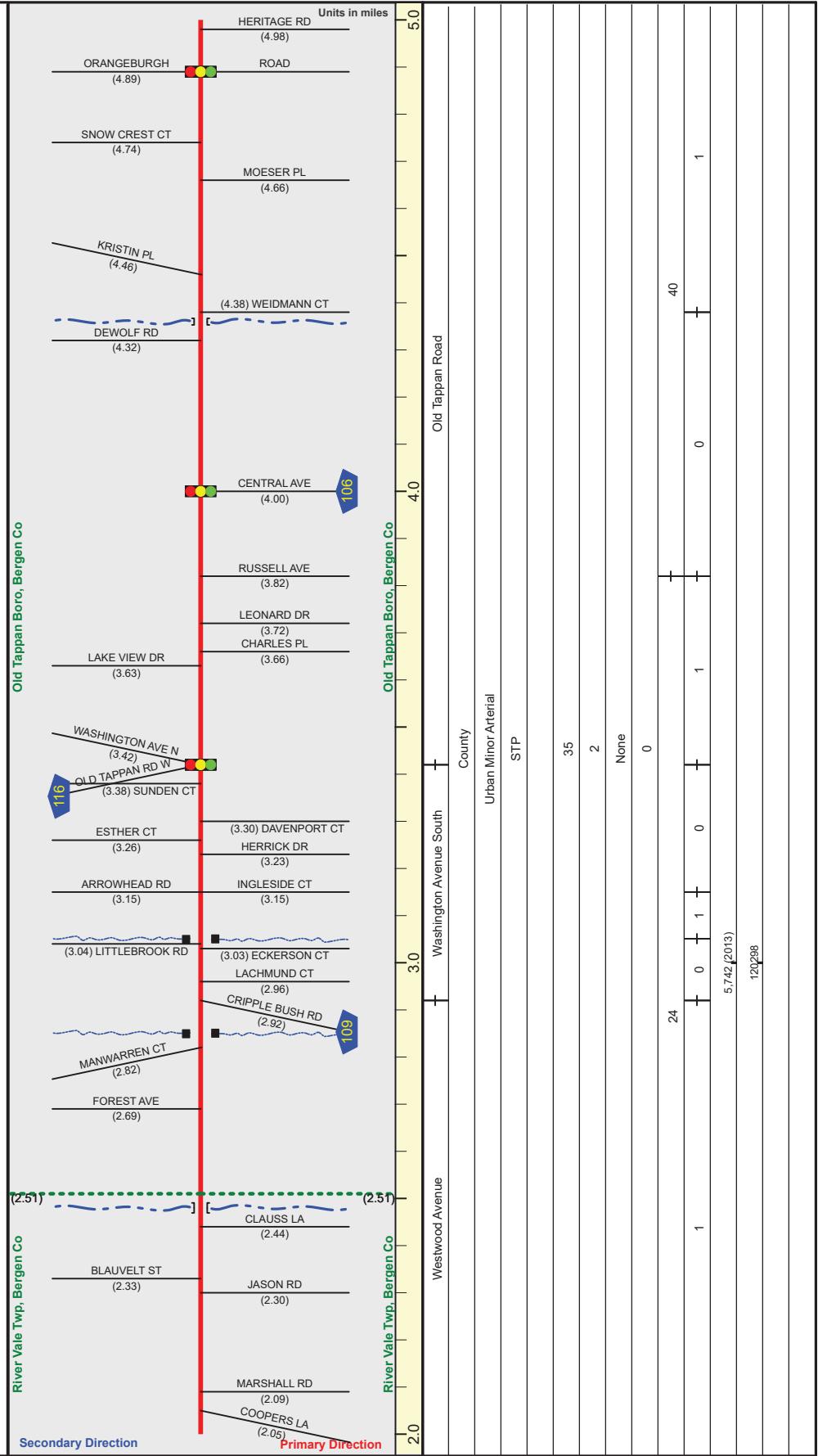
Pavement

Shoulder

Number of Lanes

Speed Limit

Street Name	Interstate Route	US Route	NJ Route	County Road	Interchange Number	Grade Separated Interchange	Traffic Signal	Traffic Monitoring Sites	Road Underpass	Road Overpass	Control Section	Jurisdiction	Functional Class	Federal Aid - NHS Sy
287	22	33	639	2			WIM	AVC	VOL					



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: 9

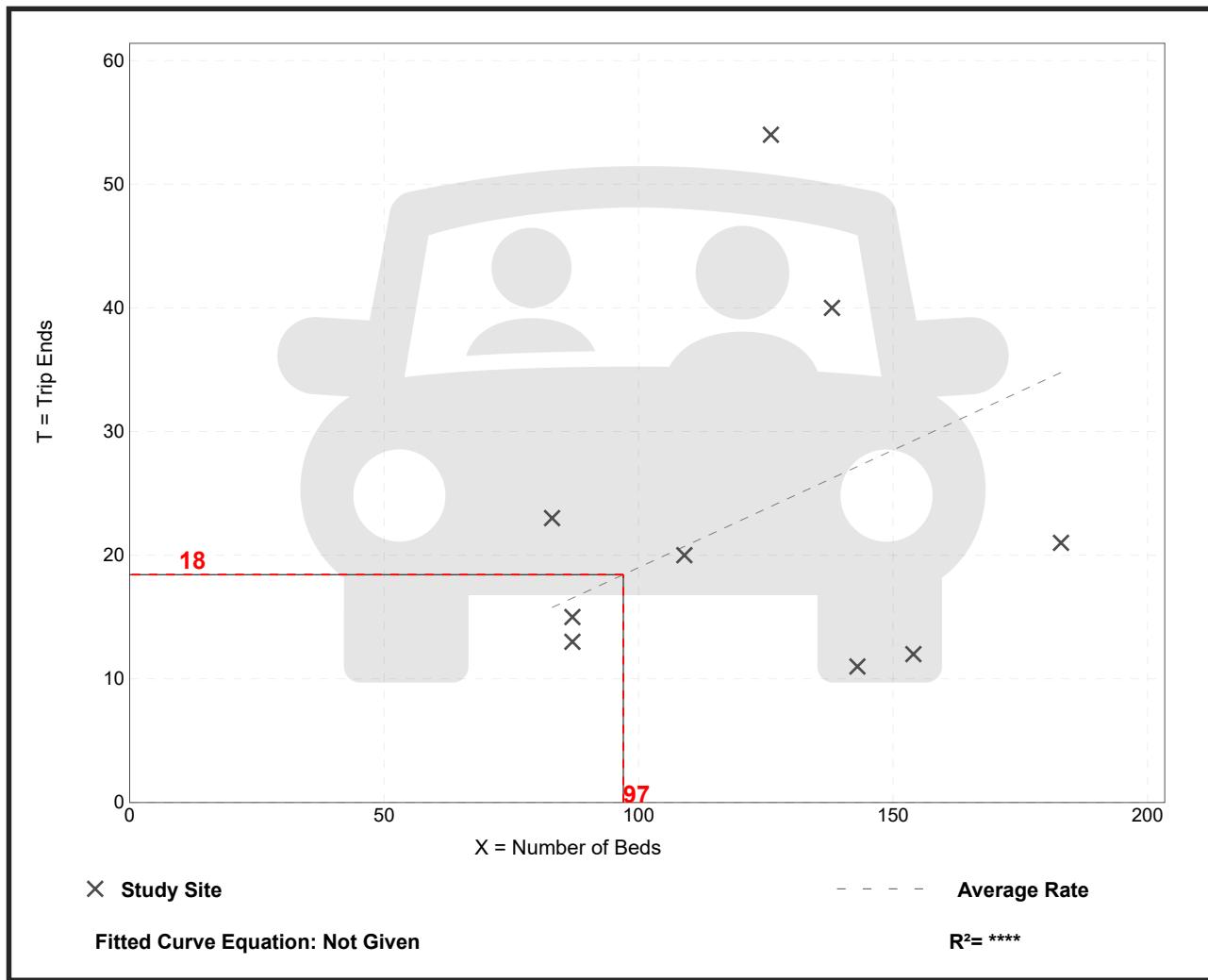
Avg. Num. of Beds: 123

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.19	0.08 - 0.43	0.12

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: 9

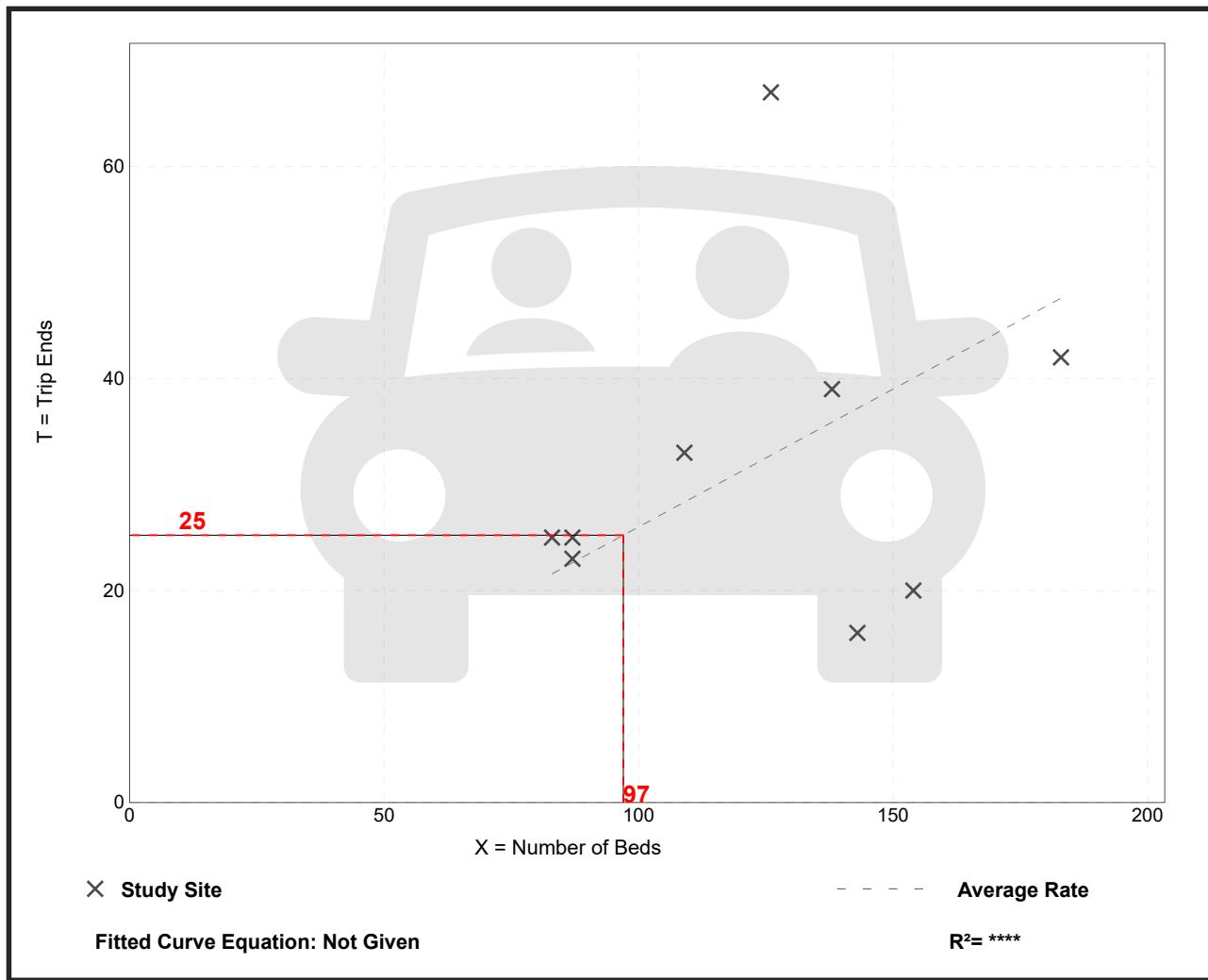
Avg. Num. of Beds: 123

Directional Distribution: 38% entering, 62% exiting

Vehicle Trip Generation per Bed

Average Rate	Range of Rates	Standard Deviation
0.26	0.11 - 0.53	0.13

Data Plot and Equation



Shropshire Associates LLC

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Atco, NJ 08004

N/S Route: Leonard Dr.
E/W Route: Old Tappan Rd.
Old Tappan/Bergen County/NJ
Thurs/Clear/EM/D4-2584

File Name : 21020001
Site Code : 21020001
Start Date : 2/25/2021
Page No : 1

Groups Printed- Unshifted - Heavy Vehicles - Vandervoort Ave. N/B

	Old Tappan Rd. Westbound			Leonard Dr. Northbound			Old Tappan Rd. Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
07:00 AM	35	2	37	1	0	1	0	55	55	93
07:15 AM	48	0	48	0	1	1	1	94	95	144
07:30 AM	63	0	63	2	0	2	0	98	98	163
07:45 AM	65	1	66	1	2	3	0	128	128	197
Total	211	3	214	4	3	7	1	375	376	597
08:00 AM	120	16	136	21	6	27	15	101	116	279
08:15 AM	89	16	105	37	4	41	15	141	156	302
08:30 AM	75	1	76	5	1	6	1	79	80	162
08:45 AM	64	3	67	4	4	8	2	76	78	153
Total	348	36	384	67	15	82	33	397	430	896
*** BREAK ***										
02:00 PM	83	3	86	2	1	3	0	63	63	152
02:15 PM	93	0	93	0	0	0	1	98	99	192
02:30 PM	110	0	110	1	1	2	1	95	96	208
02:45 PM	105	2	107	2	2	4	0	67	67	178
Total	391	5	396	5	4	9	2	323	325	730
03:00 PM	91	1	92	4	2	6	1	91	92	190
03:15 PM	95	3	98	2	2	4	2	85	87	189
03:30 PM	87	2	89	2	0	2	0	97	97	188
03:45 PM	127	1	128	2	1	3	2	88	90	221
Total	400	7	407	10	5	15	5	361	366	788
04:00 PM	79	0	79	2	1	3	2	75	77	159
04:15 PM	101	1	102	4	1	5	2	70	72	179
04:30 PM	107	3	110	1	0	1	1	90	91	202
04:45 PM	153	2	155	4	0	4	1	110	111	270
Total	440	6	446	11	2	13	6	345	351	810
05:00 PM	151	4	155	5	3	8	0	90	90	253
05:15 PM	145	0	145	6	2	8	2	86	88	241
05:30 PM	100	4	104	2	1	3	0	101	101	208
05:45 PM	114	2	116	2	1	3	0	82	82	201
Total	510	10	520	15	7	22	2	359	361	903
Grand Total	2300	67	2367	112	36	148	49	2160	2209	4724
Apprch %	97.2	2.8		75.7	24.3		2.2	97.8		
Total %	48.7	1.4	50.1	2.4	0.8	3.1	1	45.7	46.8	
Unshifted %	2277	64	2341	109	30	139	48	2132	2180	4660
% Unshifted	99	95.5	98.9	97.3	83.3	93.9	98	98.7	98.7	98.6
Heavy Vehicles %	23	0	23	0	0	0	0	28	28	51
% Heavy Vehicles	1	0	1	0	0	0	0	1.3	1.3	1.1
Vandervoort Ave. N/B %	0	3	3	3	6	9	1	0	1	13
% Vandervoort Ave. N/B	0	4.5	0.1	2.7	16.7	6.1	2	0	0	0.3

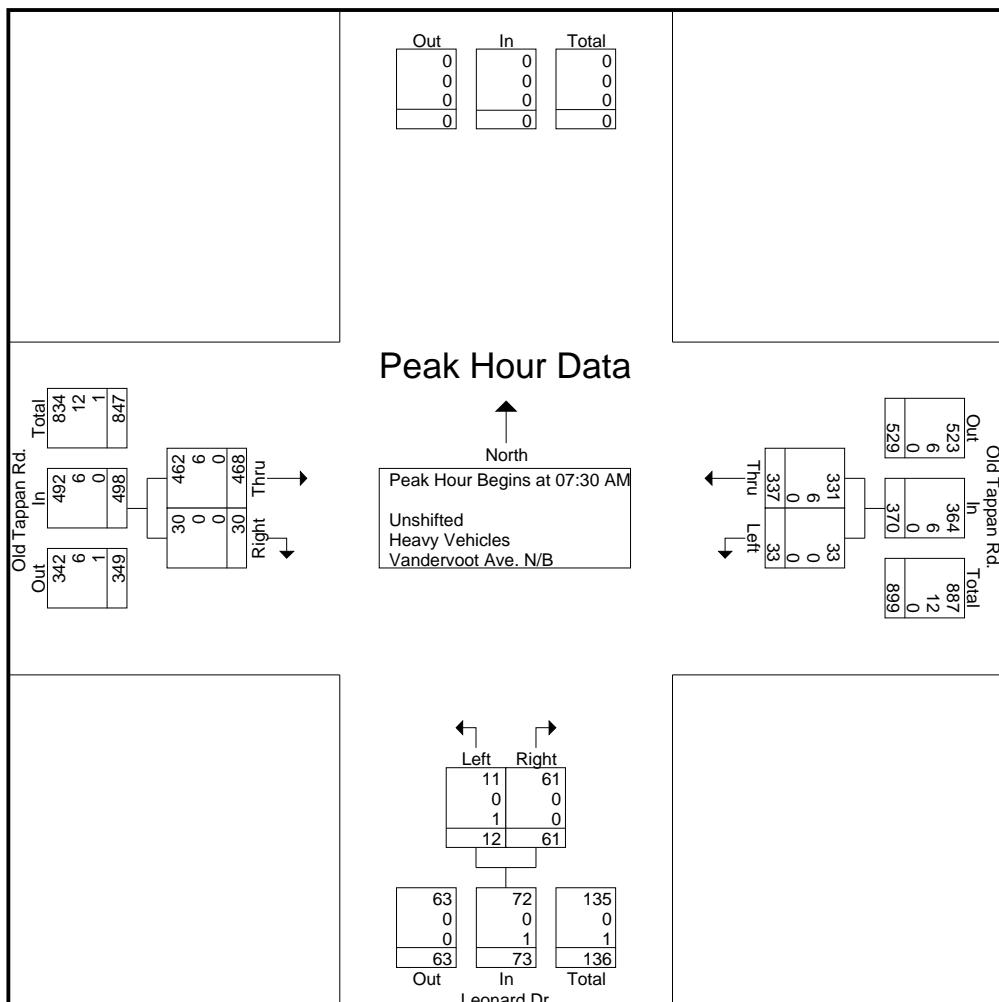
Shropshire Associates LLC

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Atco, NJ 08004

N/S Route: Leonard Dr.
E/W Route: Old Tappan Rd.
Old Tappan/Bergen County/NJ
Thurs/Clear/EM/D4-2584

File Name : 21020001
Site Code : 21020001
Start Date : 2/25/2021
Page No : 2

	Old Tappan Rd. Westbound			Leonard Dr. Northbound			Old Tappan Rd. Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 02:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	63	0	63	2	0	2	0	98	98	163
07:45 AM	65	1	66	1	2	3	0	128	128	197
08:00 AM	120	16	136	21	6	27	15	101	116	279
08:15 AM	89	16	105	37	4	41	15	141	156	302
Total Volume	337	33	370	61	12	73	30	468	498	941
% App. Total	91.1	8.9		83.6	16.4		6	94		
PHF	.702	.516	.680	.412	.500	.445	.500	.830	.798	.779
Unshifted	331	33	364	61	11	72	30	462	492	928
% Unshifted	98.2	100	98.4	100	91.7	98.6	100	98.7	98.8	98.6
Heavy Vehicles	6	0	6	0	0	0	0	6	6	12
% Heavy Vehicles	1.8	0	1.6	0	0	0	0	1.3	1.2	1.3
Vandervoort Ave. N/B	0	0	0	0	1	1	0	0	0	1
% Vandervoort Ave. N/B	0	0	0	0	8.3	1.4	0	0	0	0.1



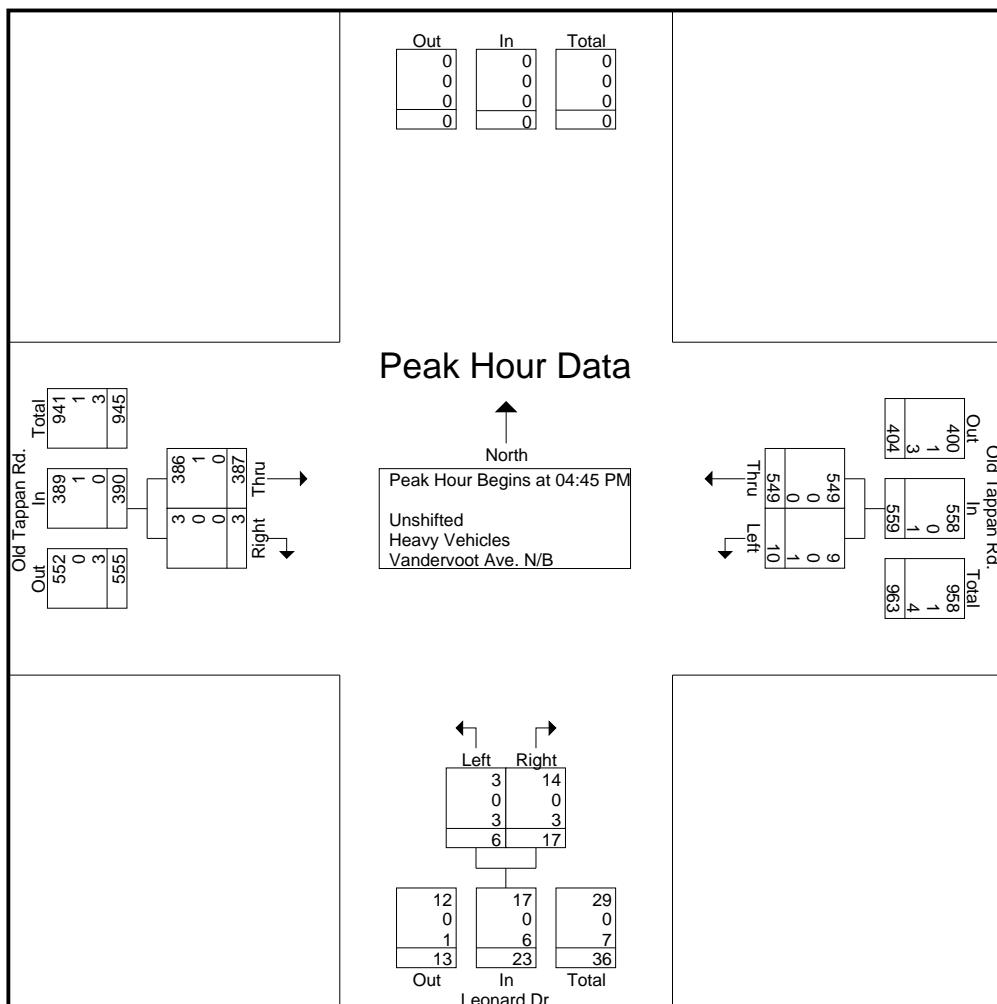
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File Name : 21020001
Site Code : 21020001
Start Date : 2/25/2021
Page No : 3

	Old Tappan Rd. Westbound				Leonard Dr. Northbound				Old Tappan Rd. Eastbound			
Start Time	Thru	Left	App. Total		Right	Left	App. Total		Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 08:45 AM to 05:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 04:45 PM												
04:45 PM	153	2	155		4	0	4		1	110	111	270
05:00 PM	151	4	155		5	3	8		0	90	90	253
05:15 PM	145	0	145		6	2	8		2	86	88	241
05:30 PM	100	4	104		2	1	3		0	101	101	208
Total Volume	549	10	559		17	6	23		3	387	390	972
% App. Total	98.2	1.8			73.9	26.1			0.8	99.2		
PHF	.897	.625	.902		.708	.500	.719		.375	.880	.878	.900
Unshifted	549	9	558		14	3	17		3	386	389	964
% Unshifted	100	90.0	99.8		82.4	50.0	73.9		100	99.7	99.7	99.2
Heavy Vehicles	0	0	0		0	0	0		0	1	1	1
% Heavy Vehicles	0	0	0		0	0	0		0	0.3	0.3	0.1
Vandervoort Ave. N/B	0	1	1		3	3	6		0	0	0	7
% Vandervoort Ave. N/B	0	10.0	0.2		17.6	50.0	26.1		0	0	0	0.7



New Jersey Department of Transportation

Short-term Hourly Traffic Volume for 08/13/2019 to 08/19/2019

Site names: 160253,CO 110 II Old Tappan Rd-3.72,020001102
 County: BERGEN
 Funct Class: Urban Minor Arterial
 Location: Bet Charles Pl and Leonard Dr

Seasonal Factor Grp: rg1_4U
 Daily Factor Grp: rg1_4U
 Axle Factor Grp: rg1_4U
 Growth Factor Grp: rg1_4U

	Sun, Aug 11, 2019			Mon, Aug 12, 2019			Tue, Aug 13, 2019			Wed, Aug 14, 2019			Thu, Aug 15, 2019			Fri, Aug 16, 2019			Sat, Aug 17, 2019		
	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W
00:00							44	21	23	60	27	33	46	19	27	55	24	31	107	52	55
01:00							29	16	13	31	15	16	17	8	9	22	14	8	33	12	21
02:00							16	7	9	9	2	7	16	5	11	19	3	16	29	18	11
03:00							16	11	5	12	7	5	11	6	5	14	8	6	25	15	10
04:00							50	29	21	39	17	22	30	16	14	39	20	19	20	12	8
05:00							131	104	27	111	76	35	109	73	36	104	63	41	55	33	22
06:00							394	275	119	349	208	141	334	214	120	316	205	111	174	112	62
07:00							702	480	222	683	410	273	654	422	232	598	339	259	329	203	126
08:00							857	522	335	915	578	337	860	512	348	842	531	311	506	307	199
09:00							697	384	313	850	526	324	821	465	356	816	455	361	594	294	300
10:00							675	308	367	737	353	384	757	410	347	753	394	359	697	322	375
11:00							730	371	359	711	346	365	772	353	419	798	369	429	774	338	436
12:00							854	470	384	818	382	436	859	381	478	866	407	459	804	346	458
13:00							739	378	361	783	385	398	825	348	477	848	386	462	813	344	469
14:00							791	429	362	852	492	360	882	380	502	963	424	539	741	349	392
15:00							825	380	445	869	465	404	916	410	506	972	413	559	706	305	401
16:00							920	431	489	904	424	480	1,011	443	568	1,014	434	580	748	345	403
17:00							1,087	518	569	1,007	420	587	1,110	444	666	1,066	430	636	696	350	346
18:00							826	456	370	879	417	462	874	403	471	842	377	465	621	320	301
19:00							646	317	329	717	378	339	709	348	361	690	357	333	527	266	261
20:00							487	260	227	512	278	234	515	224	291	500	281	219	451	226	225
21:00							286	150	136	338	187	151	337	152	185	392	212	180	378	208	170
22:00							196	87	109	214	105	109	219	101	118	247	132	115	250	143	107
23:00							89	46	43	99	52	47	130	65	65	197	90	107	159	90	69
Total							12,087	6,450	5,637	12,499	6,550	5,949	12,814	6,202	6,612	12,973	6,368	6,605	10,237	5,010	5,227
AM Peak Vol							857	526	370	940	606	384	891	528	419	843	531	429	774	348	436
AM Peak Fct							.94	.92	.826	.894	.907	.787	.87	.904	.788	.836	.935	.789	.908	.87	.879
AM Peak Hr							8: 00	7: 45	9: 30	8: 15	8: 15	10: 00	8: 15	8: 15	11: 00	8: 45	8: 00	11: 00	11: 00	10: 45	11: 00
PM Peak Vol							1,087	518	572	1,015	510	587	1,112	461	666	1,077	459	645	834	373	484
PM Peak Fct							.95	.852	.856	.881	.931	.785	.955	.887	.895	.935	.918	.896	.923	.797	.871
PM Peak Hr							17: 00	17: 00	16: 45	16: 30	14: 30	17: 00	16: 45	16: 30	17: 00	16: 45	14: 30	16: 30	12: 30	13: 30	12: 30
Seasonal Fct							1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030	1.030
Daily Fct							.894	.894	.894	.882	.882	.882	.880	.880	.880	.908	.908	1.478	1.478	1.478	1.478
Axle Fct							.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495
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	

New Jersey Department of Transportation

Short-term Hourly Traffic Volume for 08/13/2019 to 08/19/2019

Site names: 160253,CO 110 II Old Tappan Rd-3.72,020001102
 County: BERGEN
 Funct Class: Urban Minor Arterial
 Location: Bet Charles Pl and Leonard Dr

Seasonal Factor Grp: rg1_4U
 Daily Factor Grp: rg1_4U
 Axle Factor Grp: rg1_4U
 Growth Factor Grp: rg1_4U

	Sun, Aug 18, 2019			Mon, Aug 19, 2019			Tue, Aug 20, 2019			Wed, Aug 21, 2019			Thu, Aug 22, 2019			Fri, Aug 23, 2019			Sat, Aug 24, 2019		
	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W	Road	E	W
00:00		121	72	49	47	23	24														
01:00		66	38	28	16	5	11														
02:00		29	22	7	12	7	5														
03:00		21	12	9	20	13	7														
04:00		14	13	1	48	29	19														
05:00		18	14	4	112	82	30														
06:00		99	78	21	360	251	109														
07:00		191	119	72	697	472	225														
08:00		324	194	130	827	492	335														
09:00		449	233	216	725	391	334														
10:00		616	292	324	661	326	335														
11:00		668	300	368	699	272	427														
12:00		683	307	376	777	301	476														
13:00		691	305	386	736	301	435														
14:00		749	335	414	762	267	495														
15:00		625	278	347	779	334	445														
16:00		642	303	339	908	339	569														
17:00		628	266	362	981	368	613														
18:00		581	305	276	804	327	477														
19:00		472	229	243	646	267	379														
20:00		403	210	193	459	211	248														
21:00		234	135	99	272	126	146														
22:00		171	82	89	173	85	88														
23:00		125	61	64	127	61	66														
Total		8,620	4,203	4,417	11,648	5,350	6,298														
AM Peak Vol		683	336	368	846	500	427														
AM Peak Fct		.829	.816	.786	.92	.919	.834														
AM Peak Hr		10: 45	10: 30	11: 00	8: 15	8: 15	11: 00														
PM Peak Vol		749	335	430	981	368	634														
PM Peak Fct		.909	.941	.888	.951	.929	.938														
PM Peak Hr		14: 00	14: 00	14: 15	17: 00	17: 00	16: 30														
Seasonal Fct		1.030	1.030	1.030	1.030	1.030	1.030														
Daily Fct		1.743	1.743	1.743	.960	.960	.960														
Axle Fct		.495	.495	.495	.495	.495	.495														
Pulse Fct		2.000	2.000	2.000	2.000	2.000	2.000														

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↔	↓	↔	↑	↓
Traffic Vol, veh/h	491	30	33	354	12	61
Future Vol, veh/h	491	30	33	354	12	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	534	33	36	385	13	66
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	567	0	1008	551
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1005	-	267	534
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	638	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1005	-	255	534
Mov Cap-2 Maneuver	-	-	-	-	255	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	609	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.7	14.6			
HCM LOS			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	453	-	-	1005	-	
HCM Lane V/C Ratio	0.175	-	-	0.036	-	
HCM Control Delay (s)	14.6	-	-	8.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↔	↔		
Traffic Vol, veh/h	555	0	0	387	1	0
Future Vol, veh/h	555	0	0	387	1	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	603	0	0	421	1	0
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	603	0	1024	603
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	421	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	975	-	261	499
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	662	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	975	-	261	499
Mov Cap-2 Maneuver	-	-	-	-	261	-
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	662	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	18.9			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	261	-	-	975	-	
HCM Lane V/C Ratio	0.004	-	-	-	-	
HCM Control Delay (s)	18.9	-	-	0	-	
HCM Lane LOS	C	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↔	↔		
Traffic Vol, veh/h	445	3	10	631	6	17
Future Vol, veh/h	445	3	10	631	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	484	3	11	686	7	18
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	487	0	1194	486
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	708	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1076	-	206	581
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	488	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1076	-	202	581
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	480	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.1	14.9			
HCM LOS			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	390	-	-	1076	-	
HCM Lane V/C Ratio	0.064	-	-	0.01	-	
HCM Control Delay (s)	14.9	-	-	8.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↓	↔		
Traffic Vol, veh/h	465	0	1	639	3	3
Future Vol, veh/h	465	0	1	639	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	505	0	1	695	3	3
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	505	0	1202	505
Stage 1	-	-	-	-	505	-
Stage 2	-	-	-	-	697	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1060	-	204	567
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	494	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1060	-	204	567
Mov Cap-2 Maneuver	-	-	-	-	204	-
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	493	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	17.3			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	300	-	-	1060	-	
HCM Lane V/C Ratio	0.022	-	-	0.001	-	
HCM Control Delay (s)	17.3	-	-	8.4	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↔	↔	↑	↑	↔
Traffic Vol, veh/h	516	31	34	372	12	62
Future Vol, veh/h	516	31	34	372	12	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	561	34	37	404	13	67
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	595	0	1056	578
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	478	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	981	-	250	516
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	624	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	981	-	238	516
Mov Cap-2 Maneuver	-	-	-	-	238	-
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	593	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.7	15.2			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	434	-	-	981	-	
HCM Lane V/C Ratio	0.185	-	-	0.038	-	
HCM Control Delay (s)	15.2	-	-	8.8	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
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Lane Configurations						
Traffic Vol, veh/h	583	0	0	407	1	0
Future Vol, veh/h	583	0	0	407	1	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	634	0	0	442	1	0

Major/Minor	Major1	Major2	Minor1	
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Conflicting Flow All	0	0	634	0	1076	634
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	442	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	949	-	243	479
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	648	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	949	-	243	479
Mov Cap-2 Maneuver	-	-	-	-	243	-
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	648	-

Approach	EB	WB	NB
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HCM Control Delay, s	0	0	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	243	-	-	949	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	19.9	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↔	↔		
Traffic Vol, veh/h	468	3	10	663	6	17
Future Vol, veh/h	468	3	10	663	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	509	3	11	721	7	18
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	512	0	1254	511
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	743	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1053	-	190	563
Stage 1	-	-	-	-	602	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1053	-	187	563
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	602	-
Stage 2	-	-	-	-	462	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.1	15.5			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	369	-	-	1053	-	
HCM Lane V/C Ratio	0.068	-	-	0.01	-	
HCM Control Delay (s)	15.5	-	-	8.5	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↓	↔		
Traffic Vol, veh/h	489	0	1	671	3	3
Future Vol, veh/h	489	0	1	671	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	532	0	1	729	3	3
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	532	0	1263	532
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	731	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1036	-	187	547
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	476	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1036	-	187	547
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	589	-
Stage 2	-	-	-	-	475	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0	18.2			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	279	-	-	1036	-	
HCM Lane V/C Ratio	0.023	-	-	0.001	-	
HCM Control Delay (s)	18.2	-	-	8.5	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	1.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	523	31	34	375	12	62
Future Vol, veh/h	523	31	34	375	12	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	568	34	37	408	13	67
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	602	0	1067	585
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	482	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	975	-	246	511
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	975	-	234	511
Mov Cap-2 Maneuver	-	-	-	-	234	-
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	591	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.7	15.3			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	429	-	-	975	-	
HCM Lane V/C Ratio	0.187	-	-	0.038	-	
HCM Control Delay (s)	15.3	-	-	8.8	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	587	0	0	407	5	1	0	0	4	0	3
Future Vol, veh/h	7	587	0	0	407	5	1	0	0	4	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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	638	0	0	442	5	1	0	0	4	0	3

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	447	0	0	638	0	0	1100	1101	638	1099	1099	445
Stage 1	-	-	-	-	-	-	654	654	-	445	445	-
Stage 2	-	-	-	-	-	-	446	447	-	654	654	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1113	-	-	946	-	-	190	212	477	190	212	613
Stage 1	-	-	-	-	-	-	456	463	-	592	575	-
Stage 2	-	-	-	-	-	-	591	573	-	456	463	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1113	-	-	946	-	-	187	210	477	188	210	613
Mov Cap-2 Maneuver	-	-	-	-	-	-	187	210	-	188	210	-
Stage 1	-	-	-	-	-	-	451	458	-	585	575	-
Stage 2	-	-	-	-	-	-	588	573	-	451	458	-

Approach	EB	WB		NB		SB						
HCM Control Delay, s	0.1	0		24.4		18.9						
HCM LOS				C		C						
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Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	187	1113	-	-	946	-	-	267				
HCM Lane V/C Ratio	0.006	0.007	-	-	-	-	-	0.028				
HCM Control Delay (s)	24.4	8.3	0	-	0	-	-	18.9				
HCM Lane LOS	C	A	A	-	A	-	-	C				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↔	↔		
Traffic Vol, veh/h	472	3	10	672	6	17
Future Vol, veh/h	472	3	10	672	6	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	513	3	11	730	7	18
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	516	0	1267	515
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	752	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1050	-	186	560
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	466	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1050	-	183	560
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	458	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.1	15.6			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	364	-	-	1050	-	
HCM Lane V/C Ratio	0.069	-	-	0.01	-	
HCM Control Delay (s)	15.6	-	-	8.5	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	496	0	1	671	6	3	0	3	7	0	9
Future Vol, veh/h	4	496	0	1	671	6	3	0	3	7	0	9
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	539	0	1	729	7	3	0	3	8	0	10

Major/Minor	Major1	Major2		Minor1		Minor2						
Conflicting Flow All	736	0	0	539	0	0	1287	1285	539	1284	1282	733
Stage 1	-	-	-	-	-	-	547	547	-	735	735	-
Stage 2	-	-	-	-	-	-	740	738	-	549	547	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	870	-	-	1029	-	-	141	165	542	142	165	421
Stage 1	-	-	-	-	-	-	521	517	-	411	425	-
Stage 2	-	-	-	-	-	-	409	424	-	520	517	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	870	-	-	1029	-	-	137	164	542	140	164	421
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	164	-	140	164	-
Stage 1	-	-	-	-	-	-	517	513	-	408	424	-
Stage 2	-	-	-	-	-	-	399	423	-	513	513	-

Approach	EB	WB		NB		SB		
HCM Control Delay, s	0.1	0		21.9		22.4		
HCM LOS				C		C		
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Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	219	870	-	-	1029	-	-	224
HCM Lane V/C Ratio	0.03	0.005	-	-	0.001	-	-	0.078
HCM Control Delay (s)	21.9	9.2	0	-	8.5	0	-	22.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2