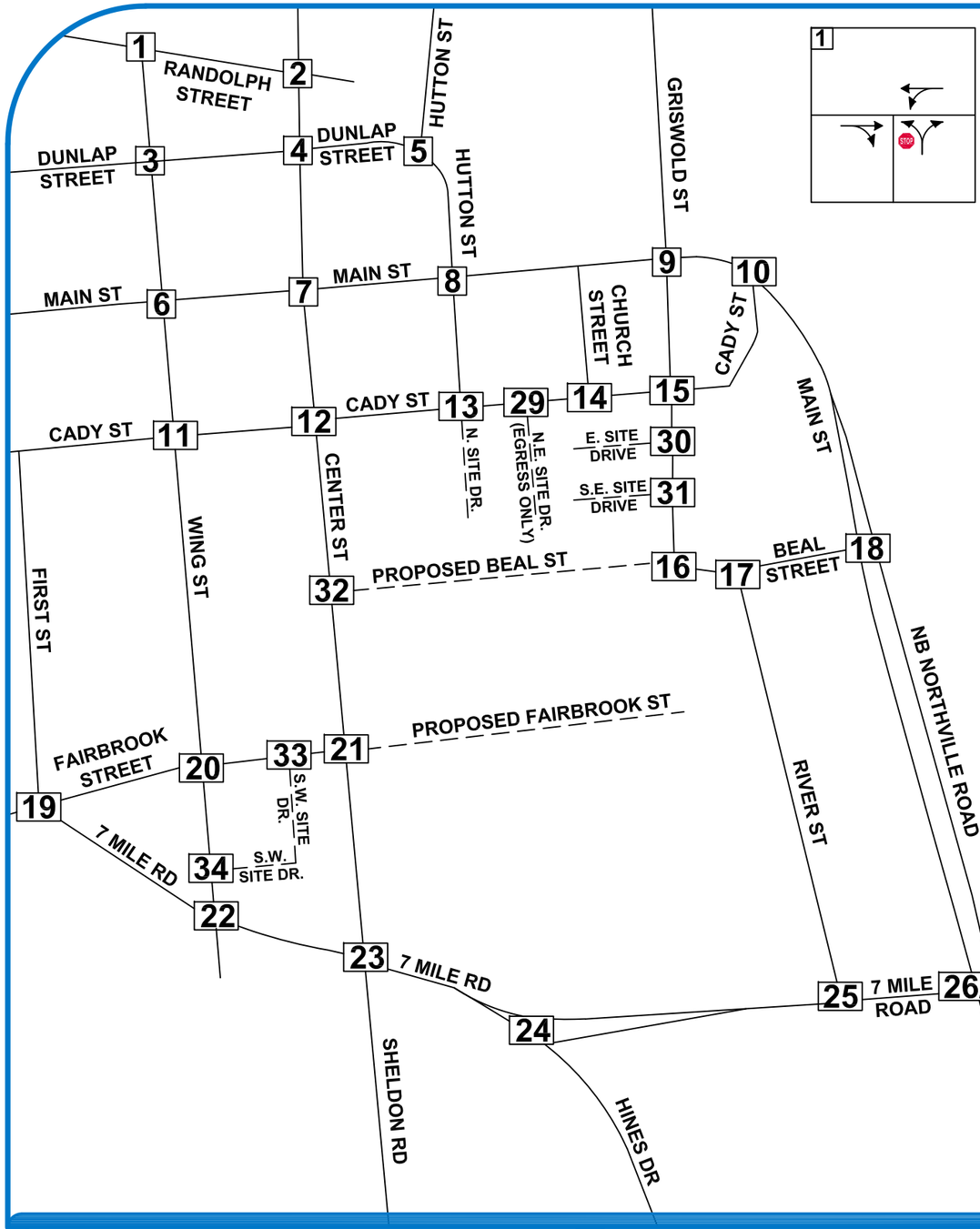
Appendix A

BACKGROUND INFORMATION



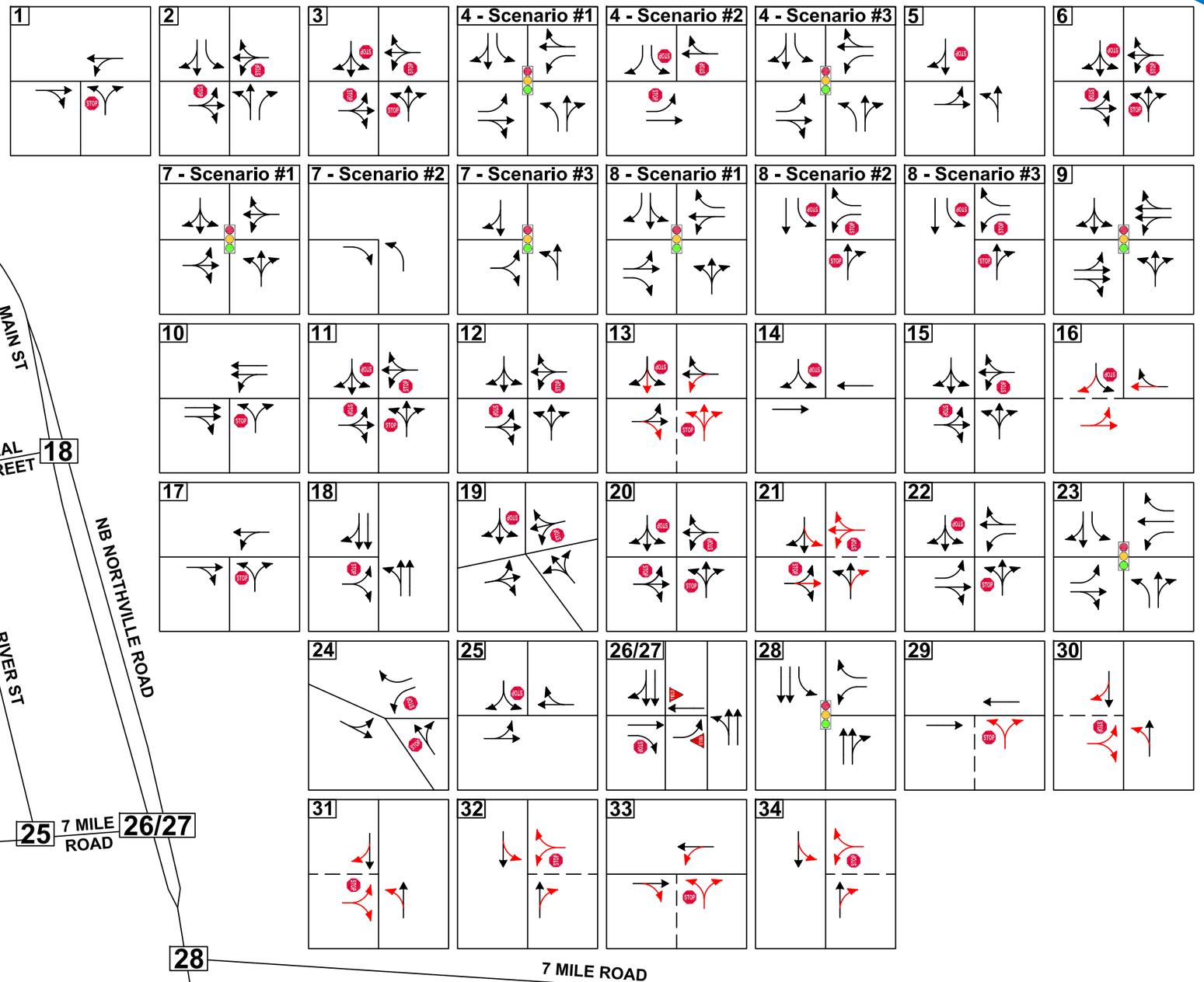


FIGURE 2
LANE USE AND TRAFFIC CONTROL

NORTHVILLE DOWNS TIS - NORTHVILLE, MI

LEGEND

- ROADS
- PROPOSED ROADS
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION
- EXISTING LANE USE
- PROPOSED LANE USE

NORTH

SCALE: NOT TO SCALE

F&V

Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5RA SW

File Name : TMC_1 Main & Center_5-15-18
Site Code : TMC_1
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Center Street Southbound					Mian Street Westbound					Center Street Northbound					Mian Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	1	126	7	5	139	2	9	8	0	19	8	57	1	0	66	11	18	4	1	34	258
07:15 AM	3	81	3	2	89	4	18	7	1	30	7	96	1	1	105	5	25	5	0	35	259
07:30 AM	1	86	7	2	96	3	14	12	1	30	9	115	0	2	126	9	22	9	0	40	292
07:45 AM	5	98	5	3	111	5	15	12	1	33	6	132	2	2	142	4	22	8	0	34	320
Total	10	391	22	12	435	14	56	39	3	112	30	400	4	5	439	29	87	26	1	143	1129
08:00 AM	7	82	13	1	103	7	15	7	0	29	7	96	1	2	106	5	34	8	2	49	287
08:15 AM	7	72	6	0	85	8	15	13	0	36	7	89	2	0	98	3	26	20	0	49	268
08:30 AM	5	82	6	3	96	6	15	12	0	33	8	106	0	1	115	3	32	9	3	47	291
08:45 AM	5	80	7	2	94	6	21	12	1	40	10	104	5	5	124	6	25	9	3	43	301
Total	24	316	32	6	378	27	66	44	1	138	32	395	8	8	443	17	117	46	8	188	1147
*** BREAK ***																					
04:00 PM	10	76	6	9	101	19	27	11	7	64	24	100	2	7	133	7	27	7	9	50	348
04:15 PM	7	105	6	4	122	9	37	11	2	59	11	122	4	5	142	5	32	9	11	57	380
04:30 PM	8	118	4	8	138	11	32	17	1	61	16	116	3	9	144	10	19	9	12	50	393
04:45 PM	4	123	6	4	137	20	39	18	4	81	10	120	2	6	138	6	21	8	5	40	396
Total	29	422	22	25	498	59	135	57	14	265	61	458	11	27	557	28	99	33	37	197	1517
05:00 PM	9	130	7	8	154	9	36	23	7	75	6	141	2	7	156	7	30	13	1	51	436
05:15 PM	7	134	5	12	158	13	24	26	7	70	6	131	4	11	152	10	28	7	9	54	434
05:30 PM	6	137	6	9	158	16	23	20	6	65	8	133	1	10	152	9	35	4	8	56	431
05:45 PM	1	114	8	12	135	21	32	26	4	83	8	118	6	16	148	7	15	9	8	39	405
Total	23	515	26	41	605	59	115	95	24	293	28	523	13	44	608	33	108	33	26	200	1706
Grand Total	86	1644	102	84	1916	159	372	235	42	808	151	1776	36	84	2047	107	411	138	72	728	5499
Apprch %	4.5	85.8	5.3	4.4		19.7	46	29.1	5.2		7.4	86.8	1.8	4.1		14.7	56.5	19	9.9		
Total %	1.6	29.9	1.9	1.5	34.8	2.9	6.8	4.3	0.8	14.7	2.7	32.3	0.7	1.5	37.2	1.9	7.5	2.5	1.3	13.2	
Pass Cars	86	1612	101	0	1799	159	367	234	0	760	150	1740	35	0	1925	106	407	136	0	649	5133
% Pass Cars	100	98.1	99	0	93.9	100	98.7	99.6	0	94.1	99.3	98	97.2	0	94	99.1	99	98.6	0	89.1	93.3
Single Units	0	32	1	0	33	0	5	1	0	6	1	34	1	0	36	1	3	2	0	6	81
% Single Units	0	1.9	1	0	1.7	0	1.3	0.4	0	0.7	0.7	1.9	2.8	0	1.8	0.9	0.7	1.4	0	0.8	1.5
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0.2	0	0	0.1	0.1
Peds	0	0	0	84	84	0	0	0	42	42	0	0	0	84	84	0	0	0	72	72	282
% Peds	0	0	0	100	4.4	0	0	0	100	5.2	0	0	0	100	4.1	0	0	0	100	9.9	5.1

TDC Traffic Comments: Signalized intersection with ped. signals for all quadrants. No push buttons. Video VCU camera was located within SW intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www:tdccounts.com

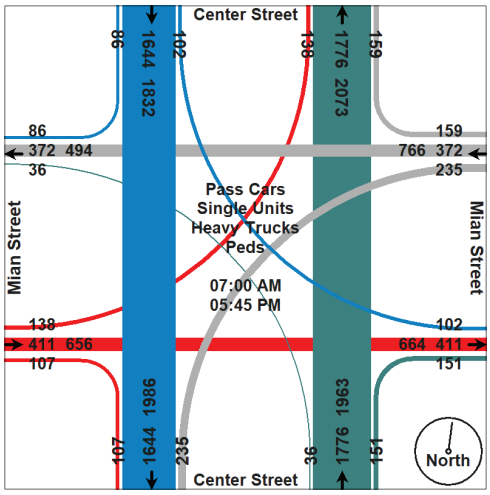
Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5RA SW

File Name : TMC_1 Main & Center_5-15-18
Site Code : TMC_1
Start Date : 5/15/2018
Page No : 2



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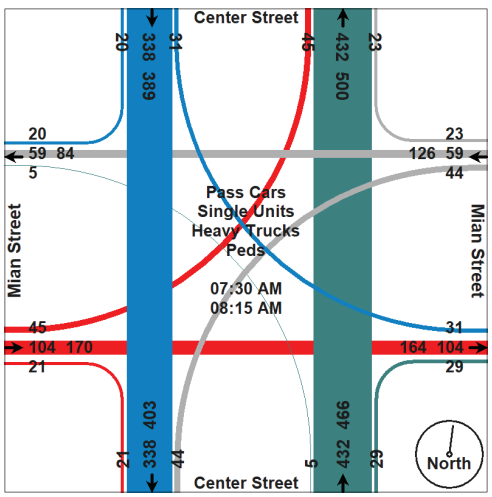
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5RA SW

File Name : TMC_1 Main & Center_5-15-18
Site Code : TMC_1
Start Date : 5/15/2018
Page No : 3

	Center Street Southbound				Mian Street Westbound				Center Street Northbound				Mian Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	86	7	94	3	14	12	29	**9**	115	0	124	**9**	22	9	40	287
07:45 AM	5	**98**	5	**108**	5	**15**	12	32	6	**132**	**2**	**140**	4	22	8	34	**314**
08:00 AM	**7**	82	**13**	102	7	15	7	29	7	96	1	104	5	**34**	8	47	282
08:15 AM	7	72	6	85	**8**	15	**13**	**36**	7	89	2	98	3	26	**20**	**49**	268
Total Volume	20	338	31	389	23	59	44	126	29	432	5	466	21	104	45	170	1151
% App. Total	5.1	86.9	8		18.3	46.8	34.9		6.2	92.7	1.1		12.4	61.2	26.5		
PHF	.714	.862	.596	.900	.719	.983	.846	.875	.806	.818	.625	.832	.583	.765	.563	.867	.916
Pass Cars	20	326	31	377	23	57	44	124	29	417	5	451	21	103	44	168	1120
% Pass Cars	100	96.4	100	96.9	100	96.6	100	98.4	100	96.5	100	96.8	100	99.0	97.8	98.8	97.3
Single Units	0	12	0	12	0	2	0	2	0	15	0	15	0	1	1	2	31
% Single Units	0	3.6	0	3.1	0	3.4	0	1.6	0	3.5	0	3.2	0	1.0	2.2	1.2	2.7
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586.786-5407

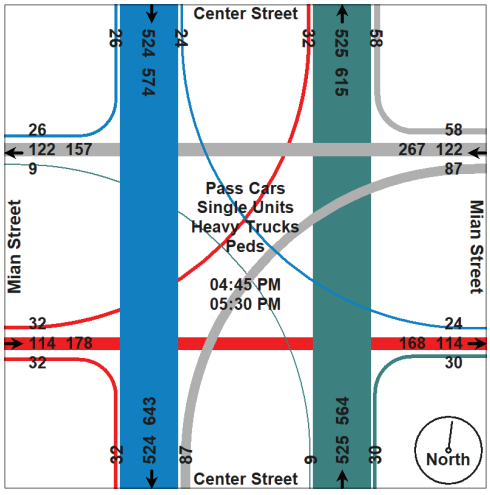
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5RA SW

File Name : TMC_1 Main & Center_5-15-18
Site Code : TMC_1
Start Date : 5/15/2018
Page No : 4

	Center Street Southbound				Mian Street Westbound				Center Street Northbound				Mian Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	4	123	6	133	**20**	**39**	18	**77**	**10**	120	2	132	6	21	8	35	377
05:00 PM	**9**	130	**7**	146	9	36	23	68	6	**141**	2	**149**	7	30	**13**	**50**	**413**
05:15 PM	7	134	5	146	13	24	**26**	63	6	131	**4**	141	**10**	28	7	45	395
05:30 PM	6	**137**	6	**149**	16	23	20	59	8	133	1	142	9	**35**	4	48	398
Total Volume	26	524	24	574	58	122	87	267	30	525	9	564	32	114	32	178	1583
% App. Total	4.5	91.3	4.2		21.7	45.7	32.6		5.3	93.1	1.6		18	64	18		
PHF	.722	.956	.857	.963	.725	.782	.837	.867	.750	.931	.563	.946	.800	.814	.615	.890	.958
Pass Cars	26	521	24	571	58	122	87	267	30	525	9	564	32	112	32	176	1578
% Pass Cars	100	99.4	100	99.5	100	100	100	100	100	100	100	100	100	98.2	100	98.9	99.7
Single Units	0	3	0	3	0	0	0	0	0	0	0	0	0	2	0	2	5
% Single Units	0	0.6	0	0.5	0	0	0	0	0	0	0	0	0	1.8	0	1.1	0.3
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

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Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5DV SW

File Name : TMC_2 Main & Hutton_5-15-18
Site Code : TMC_2
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Hutton Street Southbound					Main Street Westbound					Hutton Street Northbound					Main Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	3	0	27	1	31	12	18	0	0	30	2	3	0	1	6	0	31	0	0	31	98
07:15 AM	1	2	29	4	36	16	21	1	1	39	8	2	2	0	12	1	32	1	0	34	121
07:30 AM	0	0	41	1	42	37	27	1	0	65	6	2	2	2	12	1	33	1	0	35	154
07:45 AM	2	2	40	0	44	22	30	3	0	55	5	8	2	0	15	1	38	0	0	39	153
Total	6	4	137	6	153	87	96	5	1	189	21	15	6	3	45	3	134	2	0	139	526
08:00 AM	2	2	40	1	45	24	27	1	2	54	3	2	0	5	10	1	45	2	1	49	158
08:15 AM	5	2	38	0	45	27	29	3	0	59	6	2	1	2	11	1	35	1	0	37	152
08:30 AM	2	3	41	2	48	39	32	1	2	74	11	2	1	2	16	2	38	3	0	43	181
08:45 AM	4	2	50	6	62	39	32	2	0	73	6	6	4	5	21	4	30	1	0	35	191
Total	13	9	169	9	200	129	120	7	4	260	26	12	6	14	58	8	148	7	1	164	682
*** BREAK ***																					
04:00 PM	5	0	50	6	61	63	60	3	7	133	4	10	0	7	21	1	43	10	3	57	272
04:15 PM	3	3	41	3	50	52	49	0	1	102	1	10	2	3	16	5	40	8	4	57	225
04:30 PM	5	5	39	2	51	65	53	4	2	124	3	8	1	1	13	10	26	4	3	43	231
04:45 PM	4	4	62	3	73	81	73	3	6	163	4	7	3	5	19	1	34	1	7	43	298
Total	17	12	192	14	235	261	235	10	16	522	12	35	6	16	69	17	143	23	17	200	1026
05:00 PM	2	4	66	2	74	74	65	1	1	141	4	9	3	3	19	4	36	4	4	48	282
05:15 PM	4	3	45	6	58	64	58	2	1	125	3	6	1	5	15	1	36	1	7	45	243
05:30 PM	4	0	65	4	73	68	55	4	0	127	4	4	2	10	20	5	43	1	6	55	275
05:45 PM	10	5	57	5	77	67	68	3	0	138	2	3	3	11	19	2	29	5	2	38	272
Total	20	12	233	17	282	273	246	10	2	531	13	22	9	29	73	12	144	11	19	186	1072
Grand Total	56	37	731	46	870	750	697	32	23	1502	72	84	27	62	245	40	569	43	37	689	3306
Apprch %	6.4	4.3	84	5.3		49.9	46.4	2.1	1.5		29.4	34.3	11	25.3		5.8	82.6	6.2	5.4		
Total %	1.7	1.1	22.1	1.4	26.3	22.7	21.1	1	0.7	45.4	2.2	2.5	0.8	1.9	7.4	1.2	17.2	1.3	1.1	20.8	
Pass Cars	56	33	727	0	816	742	693	32	0	1467	71	84	27	0	182	40	566	43	0	649	3114
% Pass Cars	100	89.2	99.5	0	93.8	98.9	99.4	100	0	97.7	98.6	100	100	0	74.3	100	99.5	100	0	94.2	94.2
Single Units	0	4	4	0	8	8	4	0	0	12	1	0	0	0	1	0	3	0	0	3	24
% Single Units	0	10.8	0.5	0	0.9	1.1	0.6	0	0	0.8	1.4	0	0	0	0.4	0	0.5	0	0	0.4	0.7
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	46	46	0	0	0	23	23	0	0	0	62	62	0	0	0	37	37	168
% Peds	0	0	0	100	5.3	0	0	0	100	1.5	0	0	0	100	25.3	0	0	0	100	5.4	5.1

TDC Traffic Comments: Signalized intersection with ped. signals for all quadrants. No push buttons. Video VCU camera was located within SW intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

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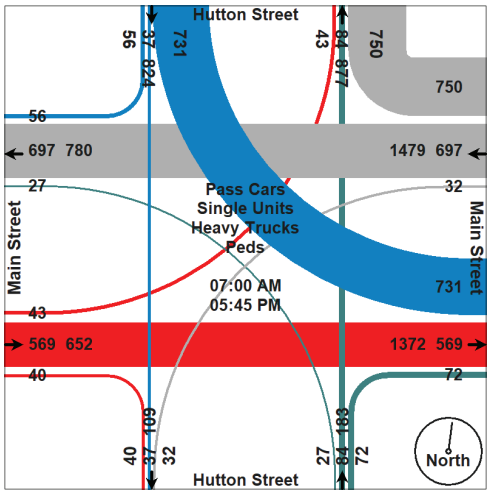
Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5DV SW

File Name : TMC_2 Main & Hutton_5-15-18
Site Code : TMC_2
Start Date : 5/15/2018
Page No : 2



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

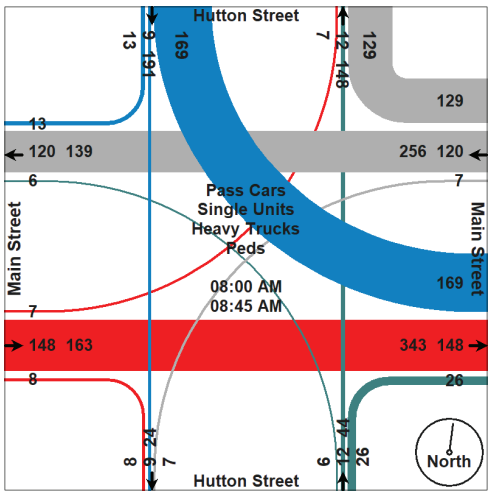
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5DV SW

File Name : TMC_2 Main & Hutton_5-15-18
Site Code : TMC_2
Start Date : 5/15/2018
Page No : 3

	Hutton Street Southbound				Main Street Westbound				Hutton Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	2	2	40	44	24	27	1	52	3	2	0	5	1	**45**	2	**48**	149
08:15 AM	**5**	2	38	45	27	29	**3**	59	6	2	1	9	1	35	1	37	150
08:30 AM	2	**3**	41	46	**39**	**32**	1	72	**11**	2	1	14	2	38	**3**	43	175
08:45 AM	4	2	**50**	**56**	39	32	2	**73**	6	**6**	**4**	**16**	**4**	30	1	35	**180**
Total Volume	13	9	169	191	129	120	7	256	26	12	6	44	8	148	7	163	654
% App. Total	6.8	4.7	88.5	0	50.4	46.9	2.7	0	59.1	27.3	13.6	0	4.9	90.8	4.3	0	0
PHF	.650	.750	.845	.853	.827	.938	.583	.877	.591	.500	.375	.688	.500	.822	.583	.849	.908
Pass Cars	13	8	166	187	126	118	7	251	26	12	6	44	8	148	7	163	645
% Pass Cars	100	88.9	98.2	97.9	97.7	98.3	100	98.0	100	100	100	100	100	100	100	100	98.6
Single Units	0	1	3	4	3	2	0	5	0	0	0	0	0	0	0	0	9
% Single Units	0	11.1	1.8	2.1	2.3	1.7	0	2.0	0	0	0	0	0	0	0	0	1.4
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

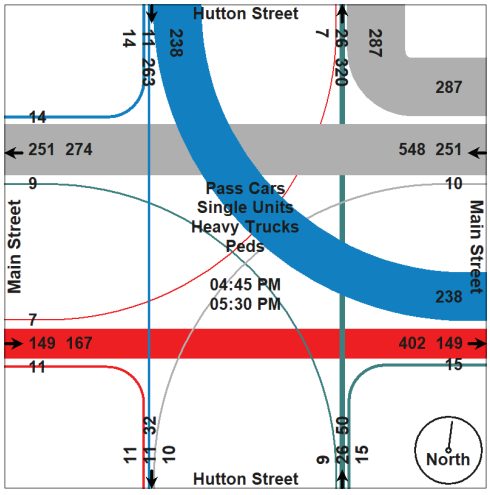
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 5DV SW

File Name : TMC_2 Main & Hutton_5-15-18
Site Code : TMC_2
Start Date : 5/15/2018
Page No : 4

	Hutton Street Southbound				Main Street Westbound				Hutton Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	**4**	62	70	**81**	**73**	3	**157**	**4**	7	**3**	14	1	34	1	36	**277**
05:00 PM	2	4	**66**	**72**	74	65	1	140	4	**9**	3	**16**	4	36	**4**	44	272
05:15 PM	4	3	45	52	64	58	2	124	3	6	1	10	1	36	1	38	224
05:30 PM	4	0	65	69	68	55	**4**	127	4	4	2	10	**5**	**43**	1	**49**	255
Total Volume	14	11	238	263	287	251	10	548	15	26	9	50	11	149	7	167	1028
% App. Total	5.3	4.2	90.5		52.4	45.8	1.8		30	52	18		6.6	89.2	4.2		
PHF	.875	.688	.902	.913	.886	.860	.625	.873	.938	.722	.750	.781	.550	.866	.438	.852	.928
Pass Cars	14	11	238	263	285	251	10	546	15	26	9	50	11	149	7	167	1026
% Pass Cars	100	100	100	100	99.3	100	100	99.6	100	100	100	100	100	100	100	100	99.8
Single Units	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
% Single Units	0	0	0	0	0.7	0	0	0.4	0	0	0	0	0	0	0	0	0.2
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 24L NE

File Name : TMC_3 Main & Griswold_5-15-18
Site Code : TMC_3
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Griswold Street Southbound					Main Street Westbound					Griswold Street Northbound					Main Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	17	10	13	0	40	15	22	0	0	37	3	16	2	3	24	0	26	12	2	40	141
07:15 AM	23	13	21	0	57	18	28	1	0	47	1	21	3	3	28	0	36	20	4	60	192
07:30 AM	30	8	23	0	61	21	34	0	0	55	0	42	6	2	50	2	33	19	2	56	222
07:45 AM	29	17	21	0	67	33	35	0	0	68	1	36	3	1	41	1	44	14	2	61	237
Total	99	48	78	0	225	87	119	1	0	207	5	115	14	9	143	3	139	65	10	217	792
08:00 AM	22	10	18	1	51	28	41	0	0	69	3	43	1	1	48	3	46	21	0	70	238
08:15 AM	28	9	14	0	51	27	39	1	0	67	1	40	0	0	41	0	36	23	2	61	220
08:30 AM	30	11	19	0	60	29	46	0	1	76	3	38	2	0	43	2	32	16	1	51	230
08:45 AM	24	10	28	0	62	32	59	0	0	91	3	31	1	0	35	5	48	26	1	80	268
Total	104	40	79	1	224	116	185	1	1	303	10	152	4	1	167	10	162	86	4	262	956
*** BREAK ***																					
04:00 PM	31	15	35	0	81	42	96	3	0	141	2	23	9	3	37	5	63	19	2	89	348
04:15 PM	29	15	41	0	85	49	67	1	0	117	3	31	7	0	41	4	47	25	0	76	319
04:30 PM	38	10	37	0	85	55	89	4	0	148	7	46	5	3	61	2	44	14	1	61	355
04:45 PM	44	16	49	0	109	52	101	0	4	157	5	34	10	3	52	2	63	22	4	91	409
Total	142	56	162	0	360	198	353	8	4	563	17	134	31	9	191	13	217	80	7	317	1431
05:00 PM	53	18	40	0	111	57	96	0	1	154	3	55	9	2	69	9	68	23	1	101	435
05:15 PM	47	21	46	0	114	76	81	2	0	159	2	56	8	0	66	1	54	20	0	75	414
05:30 PM	39	27	57	2	125	70	92	0	0	162	6	47	6	3	62	4	71	32	4	111	460
05:45 PM	54	30	42	2	128	72	84	0	1	157	0	45	10	2	57	4	54	23	1	82	424
Total	193	96	185	4	478	275	353	2	2	632	11	203	33	7	254	18	247	98	6	369	1733
Grand Total	538	240	504	5	1287	676	1010	12	7	1705	43	604	82	26	755	44	765	329	27	1165	4912
Apprch %	41.8	18.6	39.2	0.4		39.6	59.2	0.7	0.4		5.7	80	10.9	3.4		3.8	65.7	28.2	2.3		
Total %	11	4.9	10.3	0.1	26.2	13.8	20.6	0.2	0.1	34.7	0.9	12.3	1.7	0.5	15.4	0.9	15.6	6.7	0.5	23.7	
Pass Cars	533	237	491	0	1261	649	1003	12	0	1664	43	599	82	0	724	44	759	324	0	1127	4776
% Pass Cars	99.1	98.8	97.4	0	98	96	99.3	100	0	97.6	100	99.2	100	0	95.9	100	99.2	98.5	0	96.7	97.2
Single Units	5	3	11	0	19	26	7	0	0	33	0	4	0	0	4	0	6	5	0	11	67
% Single Units	0.9	1.2	2.2	0	1.5	3.8	0.7	0	0	1.9	0	0.7	0	0	0.5	0	0.8	1.5	0	0.9	1.4
Heavy Trucks	0	0	2	0	2	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	4
% Heavy Trucks	0	0	0.4	0	0.2	0.1	0	0	0	0.1	0	0.2	0	0	0.1	0	0	0	0	0	0.1
Peds	0	0	0	5	5	0	0	0	7	7	0	0	0	26	26	0	0	0	27	27	65
% Peds	0	0	0	100	0.4	0	0	0	100	0.4	0	0	0	100	3.4	0	0	0	100	2.3	1.3

TDC Traffic Comments: Signalized intersection with push button ped. signals for all quadrants. Video VCU camera was located within SE intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www:tdccounts.com

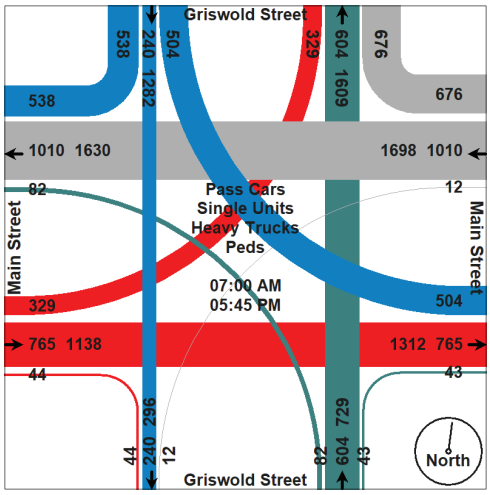
Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 24L NE

File Name : TMC_3 Main & Griswold_5-15-18
Site Code : TMC_3
Start Date : 5/15/2018
Page No : 2



Traffic Data Collection, LLC

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Phone: 586.786-5407

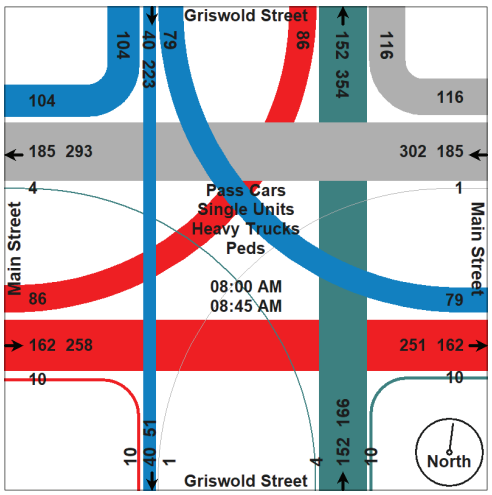
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 24L NE

File Name : TMC_3 Main & Griswold_5-15-18
Site Code : TMC_3
Start Date : 5/15/2018
Page No : 3

	Griswold Street Southbound				Main Street Westbound				Griswold Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	22	10	18	50	28	41	0	69	**3**	**43**	1	**47**	3	46	21	70	236
08:15 AM	28	9	14	51	27	39	**1**	67	1	40	0	41	0	36	23	59	218
08:30 AM	**30**	**11**	19	60	29	46	0	75	3	38	**2**	43	2	32	16	50	228
08:45 AM	24	10	**28**	**62**	**32**	**59**	0	**91**	3	31	1	35	**5**	**48**	**26**	**79**	**267**
Total Volume	104	40	79	223	116	185	1	302	10	152	4	166	10	162	86	258	949
% App. Total	46.6	17.9	35.4		38.4	61.3	0.3		6	91.6	2.4		3.9	62.8	33.3		
PHF	.867	.909	.705	.899	.906	.784	.250	.830	.833	.884	.500	.883	.500	.844	.827	.816	.889
Pass Cars	102	38	76	216	108	182	1	291	10	151	4	165	10	160	85	255	927
% Pass Cars	98.1	95.0	96.2	96.9	93.1	98.4	100	96.4	100	99.3	100	99.4	100	98.8	98.8	98.8	97.7
Single Units	2	2	3	7	8	3	0	11	0	1	0	1	0	2	1	3	22
% Single Units	1.9	5.0	3.8	3.1	6.9	1.6	0	3.6	0	0.7	0	0.6	0	1.2	1.2	1.2	2.3
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586.786-5407

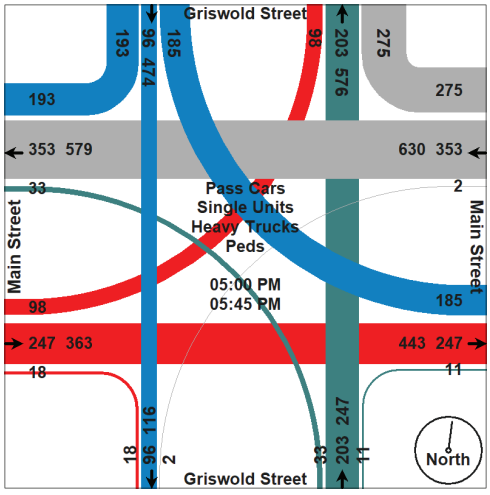
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 24L NE

File Name : TMC_3 Main & Griswold_5-15-18
Site Code : TMC_3
Start Date : 5/15/2018
Page No : 4

	Griswold Street Southbound				Main Street Westbound				Griswold Street Northbound				Main Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	53	18	40	111	57	**96**	0	153	3	55	9	**67**	**9**	68	23	100	431
05:15 PM	47	21	46	114	**76**	81	**2**	159	2	**56**	8	66	1	54	20	75	414
05:30 PM	39	27	**57**	123	70	92	0	**162**	**6**	47	6	59	4	**71**	**32**	**107**	**451**
05:45 PM	**54**	**30**	42	**126**	72	84	0	156	0	45	**10**	55	4	54	23	81	418
Total Volume	193	96	185	474	275	353	2	630	11	203	33	247	18	247	98	363	1714
% App. Total	40.7	20.3	39		43.7	56	0.3		4.5	82.2	13.4		5	68	27		
PHF	.894	.800	.811	.940	.905	.919	.250	.972	.458	.906	.825	.922	.500	.870	.766	.848	.950
Pass Cars	192	96	182	470	272	352	2	626	11	201	33	245	18	244	97	359	1700
% Pass Cars	99.5	100	98.4	99.2	98.9	99.7	100	99.4	100	99.0	100	99.2	100	98.8	99.0	98.9	99.2
Single Units	1	0	3	4	3	1	0	4	0	2	0	2	0	3	1	4	14
% Single Units	0.5	0	1.6	0.8	1.1	0.3	0	0.6	0	1.0	0	0.8	0	1.2	1.0	1.1	0.8
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 61E SE

File Name : TMC_4 Cady & Center_5-15-18
Site Code : TMC_4
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Center Street Southbound					Cady Street Westbound					Center Street Northbound					Cady Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	3	143	1	0	147	4	1	21	0	26	17	64	2	0	83	1	1	0	0	2	258
07:15 AM	1	93	3	0	97	3	5	9	0	17	24	107	4	0	135	3	1	0	0	4	253
07:30 AM	1	103	0	2	106	1	6	14	0	21	43	119	6	1	169	2	0	0	0	2	298
07:45 AM	2	112	1	0	115	1	4	15	0	20	36	140	6	0	182	1	2	1	1	5	322
Total	7	451	5	2	465	9	16	59	0	84	120	430	18	1	569	7	4	1	1	13	1131
08:00 AM	1	93	1	0	95	1	4	6	0	11	51	107	11	0	169	6	5	0	0	11	286
08:15 AM	5	77	5	0	87	1	2	8	1	12	40	96	3	0	139	2	5	0	0	7	245
08:30 AM	4	94	1	0	99	3	5	11	1	20	37	104	10	0	151	6	3	2	6	17	287
08:45 AM	4	82	12	2	100	5	3	9	0	17	45	113	5	0	163	2	6	2	4	14	294
Total	14	346	19	2	381	10	14	34	2	60	173	420	29	0	622	16	19	4	10	49	1112
*** BREAK ***																					
04:00 PM	8	81	8	4	101	3	6	8	0	17	13	116	6	0	135	11	2	3	4	20	273
04:15 PM	7	113	4	2	126	4	3	11	0	18	19	127	4	2	152	6	1	1	2	10	306
04:30 PM	13	139	5	5	162	9	4	10	1	24	33	117	6	2	158	12	9	4	4	29	373
04:45 PM	8	143	5	0	156	3	3	10	1	17	20	125	8	1	154	9	6	0	3	18	345
Total	36	476	22	11	545	19	16	39	2	76	85	485	24	5	599	38	18	8	13	77	1297
05:00 PM	15	149	3	7	174	8	3	11	0	22	34	131	2	0	167	11	4	3	3	21	384
05:15 PM	3	165	1	4	173	3	3	14	1	21	30	134	8	0	172	5	4	1	0	10	376
05:30 PM	13	154	3	11	181	2	1	14	0	17	28	128	8	0	164	7	5	5	10	27	389
05:45 PM	6	142	2	1	151	6	4	18	0	28	29	119	7	2	157	6	3	2	0	11	347
Total	37	610	9	23	679	19	11	57	1	88	121	512	25	2	660	29	16	11	13	69	1496
Grand Total	94	1883	55	38	2070	57	57	189	5	308	499	1847	96	8	2450	90	57	24	37	208	5036
Apprch %	4.5	91	2.7	1.8		18.5	18.5	61.4	1.6		20.4	75.4	3.9	0.3		43.3	27.4	11.5	17.8		
Total %	1.9	37.4	1.1	0.8	41.1	1.1	1.1	3.8	0.1	6.1	9.9	36.7	1.9	0.2	48.6	1.8	1.1	0.5	0.7	4.1	
Pass Cars	93	1847	52	0	1992	57	57	188	0	302	495	1804	92	0	2391	86	57	24	0	167	4852
% Pass Cars	98.9	98.1	94.5	0	96.2	100	100	99.5	0	98.1	99.2	97.7	95.8	0	97.6	95.6	100	100	0	80.3	96.3
Single Units	1	36	2	0	39	0	0	1	0	1	3	40	4	0	47	3	0	0	0	3	90
% Single Units	1.1	1.9	3.6	0	1.9	0	0	0.5	0	0.3	0.6	2.2	4.2	0	1.9	3.3	0	0	0	1.4	1.8
Heavy Trucks	0	0	1	0	1	0	0	0	0	0	1	3	0	0	4	1	0	0	0	1	6
% Heavy Trucks	0	0	1.8	0	0	0	0	0	0	0	0.2	0.2	0	0	0.2	1.1	0	0	0	0.5	0.1
Peds	0	0	0	38	38	0	0	0	5	5	0	0	0	8	8	0	0	0	37	37	88
% Peds	0	0	0	100	1.8	0	0	0	100	1.6	0	0	0	100	0.3	0	0	0	100	17.8	1.7

TDC Traffic Comments: Nons-signalized intersection, Cady St. is all-way stop controlled for Center St. Video VCU camera was located within SE intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www.tdccounts.com

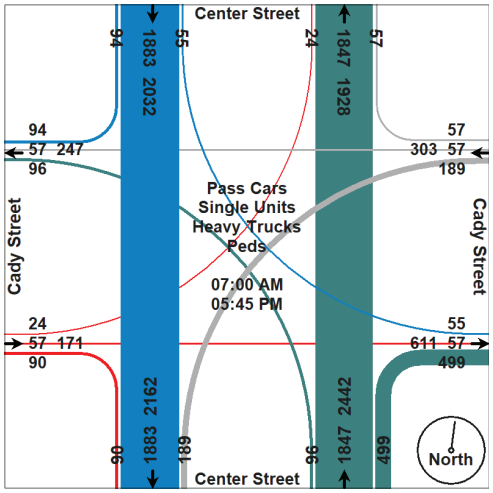
Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 61E SE

File Name : TMC_4 Cady & Center_5-15-18
Site Code : TMC_4
Start Date : 5/15/2018
Page No : 2



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

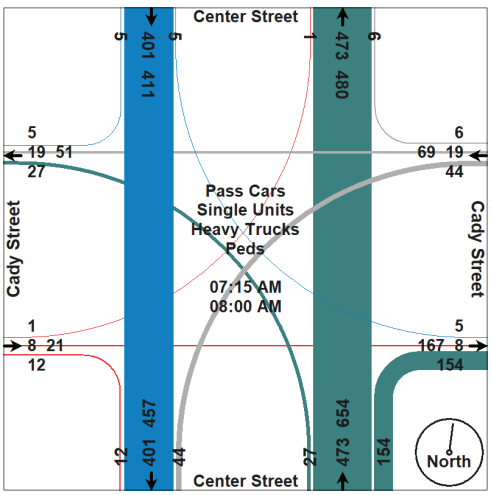
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 61E SE

File Name : TMC_4 Cady & Center_5-15-18
Site Code : TMC_4
Start Date : 5/15/2018
Page No : 3

	Center Street Southbound				Cady Street Westbound				Center Street Northbound				Cady Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	93	**3**	97	**3**	5	9	17	24	107	4	135	3	1	0	4	253
07:30 AM	1	103	0	104	1	**6**	14	**21**	43	119	6	168	2	0	0	2	295
07:45 AM	**2**	**112**	1	**115**	1	4	**15**	20	36	**140**	6	**182**	1	2	**1**	4	**321**
08:00 AM	1	93	1	95	1	4	6	11	**51**	107	**11**	169	**6**	**5**	0	**11**	286
Total Volume	5	401	5	411	6	19	44	69	154	473	27	654	12	8	1	21	1155
% App. Total	1.2	97.6	1.2		8.7	27.5	63.8		23.5	72.3	4.1		57.1	38.1	4.8		
PHF	.625	.895	.417	.893	.500	.792	.733	.821	.755	.845	.614	.898	.500	.400	.250	.477	.900
Pass Cars	5	392	4	401	6	19	44	69	153	458	26	637	12	8	1	21	1128
% Pass Cars	100	97.8	80.0	97.6	100	100	100	100	99.4	96.8	96.3	97.4	100	100	100	100	97.7
Single Units	0	9	0	9	0	0	0	0	0	15	1	16	0	0	0	0	25
% Single Units	0	2.2	0	2.2	0	0	0	0	0	3.2	3.7	2.4	0	0	0	0	2.2
Heavy Trucks	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	2
% Heavy Trucks	0	0	20.0	0.2	0	0	0	0	0.6	0	0	0.2	0	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

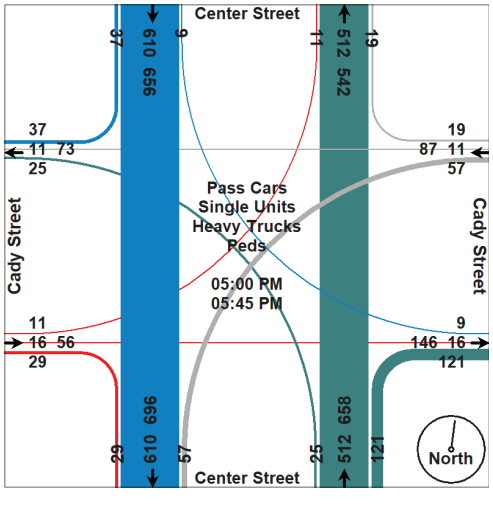
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 61E SE

File Name : TMC_4 Cady & Center_5-15-18
Site Code : TMC_4
Start Date : 5/15/2018
Page No : 4

	Center Street Southbound				Cady Street Westbound				Center Street Northbound				Cady Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**15**	149	**3**	167	**8**	3	11	22	**34**	131	2	167	**11**	4	3	**18**	**374**
05:15 PM	3	**165**	1	169	3	3	14	20	30	**134**	**8**	**172**	5	4	1	10	371
05:30 PM	13	154	3	**170**	2	1	14	17	28	128	8	164	7	**5**	**5**	17	368
05:45 PM	6	142	2	150	6	**4**	**18**	**28**	29	119	7	155	6	3	2	11	344
Total Volume	37	610	9	656	19	11	57	87	121	512	25	658	29	16	11	56	1457
% App. Total	5.6	93	1.4		21.8	12.6	65.5		18.4	77.8	3.8		51.8	28.6	19.6		
PHF	.617	.924	.750	.965	.594	.688	.792	.777	.890	.955	.781	.956	.659	.800	.550	.778	.974
Pass Cars	37	608	9	654	19	11	57	87	119	510	23	652	27	16	11	54	1447
% Pass Cars	100	99.7	100	99.7	100	100	100	100	98.3	99.6	92.0	99.1	93.1	100	100	96.4	99.3
Single Units	0	2	0	2	0	0	0	0	2	2	2	6	2	0	0	2	10
% Single Units	0	0.3	0	0.3	0	0	0	0	1.7	0.4	8.0	0.9	6.9	0	0	3.6	0.7
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_5 Cady & Hutton_5-15-18
Site Code : TMC_5
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Hutton Street Southbound				Cady Street Westbound				Cady Street Eastbound				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	4	25	0	29	13	3	0	16	45
07:15 AM	2	0	0	2	5	17	0	22	17	9	0	26	50
07:30 AM	1	0	2	3	6	21	0	27	35	9	0	44	74
07:45 AM	2	1	0	3	7	18	0	25	30	8	0	38	66
Total	5	1	2	8	22	81	0	103	95	29	0	124	235
08:00 AM	1	2	1	4	0	11	1	12	42	11	1	54	70
08:15 AM	0	1	2	3	2	12	0	14	33	7	0	40	57
08:30 AM	1	1	0	2	6	21	1	28	30	9	0	39	69
08:45 AM	2	1	1	4	8	24	1	33	37	19	0	56	93
Total	4	5	4	13	16	68	3	87	142	46	1	189	289
*** BREAK ***													
04:00 PM	2	0	2	4	9	14	0	23	22	7	0	29	56
04:15 PM	0	1	1	2	5	15	1	21	28	7	0	35	58
04:30 PM	4	2	4	10	6	20	0	26	36	10	0	46	82
04:45 PM	2	0	1	3	8	19	0	27	32	4	0	36	66
Total	8	3	8	19	28	68	1	97	118	28	0	146	262
05:00 PM	5	1	0	6	8	20	0	28	36	11	0	47	81
05:15 PM	0	4	1	5	6	17	0	23	36	7	2	45	73
05:30 PM	2	1	2	5	10	21	0	31	32	6	0	38	74
05:45 PM	3	4	0	7	9	26	0	35	28	12	0	40	82
Total	10	10	3	23	33	84	0	117	132	36	2	170	310
Grand Total	27	19	17	63	99	301	4	404	487	139	3	629	1096
Apprch %	42.9	30.2	27		24.5	74.5	1		77.4	22.1	0.5		
Total %	2.5	1.7	1.6	5.7	9	27.5	0.4	36.9	44.4	12.7	0.3	57.4	
Pass Cars	26	19	0	45	99	300	0	399	482	137	0	619	1063
% Pass Cars	96.3	100	0	71.4	100	99.7	0	98.8	99	98.6	0	98.4	97
Single Units	1	0	0	1	0	1	0	1	3	2	0	5	7
% Single Units	3.7	0	0	1.6	0	0.3	0	0.2	0.6	1.4	0	0.8	0.6
Heavy Trucks	0	0	0	0	0	0	0	0	2	0	0	2	2
% Heavy Trucks	0	0	0	0	0	0	0	0	0.4	0	0	0.3	0.2
Peds	0	0	17	17	0	0	4	4	0	0	3	3	24
% Peds	0	0	100	27	0	0	100	1	0	0	100	0.5	2.2

TDC Traffic Comments: Non-signalized "T" intersection. Hutton St. is stop controll for Cady St. Video VCU camera was located within SW intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www:tdccounts.com

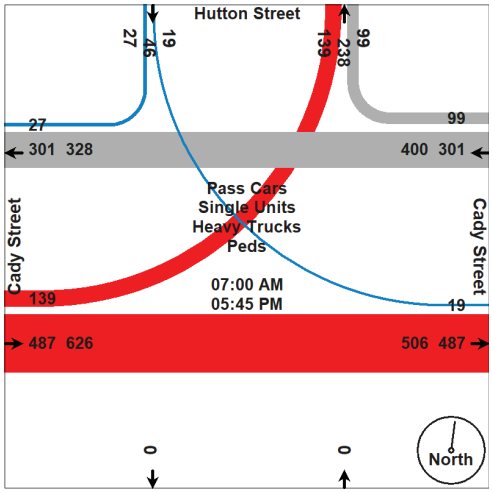
Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_5 Cady & Hutton_5-15-18
Site Code : TMC_5
Start Date : 5/15/2018
Page No : 2



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586 786-5407

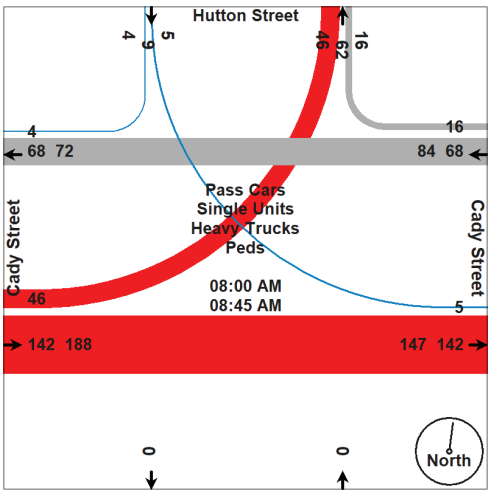
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_5 Cady & Hutton_5-15-18
Site Code : TMC_5
Start Date : 5/15/2018
Page No : 3

	Hutton Street Southbound			Cady Street Westbound			Cady Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	1	**2**	**3**	0	11	11	**42**	11	53	67
08:15 AM	0	1	1	2	12	14	33	7	40	55
08:30 AM	1	1	2	6	21	27	30	9	39	68
08:45 AM	**2**	1	3	**8**	**24**	**32**	37	**19**	**56**	**91**
Total Volume	4	5	9	16	68	84	142	46	188	281
% App. Total	44.4	55.6		19	81		75.5	24.5		
PHF	.500	.625	.750	.500	.708	.656	.845	.605	.839	.772
Pass Cars	3	5	8	16	67	83	141	45	186	277
% Pass Cars	75.0	100	88.9	100	98.5	98.8	99.3	97.8	98.9	98.6
Single Units	1	0	1	0	1	1	1	1	2	4
% Single Units	25.0	0	11.1	0	1.5	1.2	0.7	2.2	1.1	1.4
Heavy Trucks	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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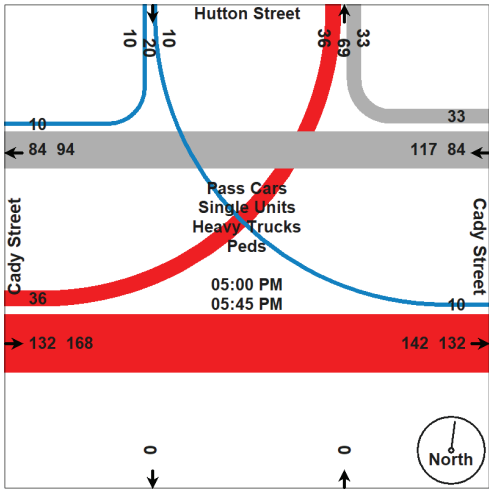
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_5 Cady & Hutton_5-15-18
Site Code : TMC_5
Start Date : 5/15/2018
Page No : 4

	Hutton Street Southbound			Cady Street Westbound			Cady Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**5**	1	6	8	20	28	**36**	11	**47**	81
05:15 PM	0	**4**	4	6	17	23	36	7	43	70
05:30 PM	2	1	3	**10**	21	31	32	6	38	72
05:45 PM	3	4	**7**	9	**26**	**35**	28	**12**	40	**82**
Total Volume	10	10	20	33	84	117	132	36	168	305
% App. Total	50	50		28.2	71.8		78.6	21.4		
PHF	.500	.625	.714	.825	.808	.836	.917	.750	.894	.930
Pass Cars	10	10	20	33	84	117	130	36	166	303
% Pass Cars	100	100	100	100	100	100	98.5	100	98.8	99.3
Single Units	0	0	0	0	0	0	0	0	0	0
% Single Units	0	0	0	0	0	0	0	0	0	0
Heavy Trucks	0	0	0	0	0	0	2	0	2	2
% Heavy Trucks	0	0	0	0	0	0	1.5	0	1.2	0.7
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 4SY NW

File Name : TMC_6 Cady & Griswold_5-15-18
Site Code : TMC_6
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Griswold Street Southbound					Cady Street Westbound					Griswold Street Northbound					Cady Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	8	1	1	0	10	0	0	0	0	0	0	7	2	0	9	2	4	11	1	18	37
07:15 AM	8	5	0	0	13	0	1	1	0	2	0	5	1	0	6	6	2	21	0	29	50
07:30 AM	5	4	0	0	9	0	0	0	1	1	0	9	2	0	11	6	1	39	0	46	67
07:45 AM	10	3	0	0	13	0	0	0	0	0	0	4	2	0	6	6	5	35	1	47	66
Total	31	13	1	0	45	0	1	1	1	3	0	25	7	0	32	20	12	106	2	140	220
08:00 AM	6	9	1	0	16	1	2	0	0	3	0	4	3	0	7	6	4	41	1	52	78
08:15 AM	7	0	1	4	12	0	1	0	0	1	1	8	1	0	10	5	2	35	0	42	65
08:30 AM	11	2	0	1	14	1	1	0	0	2	2	3	7	0	12	4	3	39	1	47	75
08:45 AM	13	5	0	0	18	0	0	0	0	0	3	3	6	0	12	4	9	34	1	48	78
Total	37	16	2	5	60	2	4	0	0	6	6	18	17	0	41	19	18	149	3	189	296
*** BREAK ***																					
04:00 PM	7	11	0	0	18	1	3	0	0	4	1	9	6	0	16	9	2	16	0	27	65
04:15 PM	11	12	2	0	25	2	2	1	0	5	2	18	2	0	22	8	5	17	0	30	82
04:30 PM	9	13	1	0	23	2	3	0	0	5	0	24	4	0	28	9	3	31	1	44	100
04:45 PM	7	12	2	0	21	1	4	1	0	6	0	15	7	0	22	7	5	30	1	43	92
Total	34	48	5	0	87	6	12	2	0	20	3	66	19	0	88	33	15	94	2	144	339
05:00 PM	13	18	0	0	31	2	1	0	0	3	0	26	4	0	30	12	3	34	0	49	113
05:15 PM	11	16	2	0	29	3	1	3	0	7	1	30	5	0	36	7	2	30	0	39	111
05:30 PM	17	22	1	0	40	2	2	0	0	4	2	21	8	0	31	7	2	32	0	41	116
05:45 PM	16	15	1	0	32	3	2	0	0	5	0	23	7	0	30	5	2	26	3	36	103
Total	57	71	4	0	132	10	6	3	0	19	3	100	24	0	127	31	9	122	3	165	443
Grand Total	159	148	12	5	324	18	23	6	1	48	12	209	67	0	288	103	54	471	10	638	1298
Apprch %	49.1	45.7	3.7	1.5		37.5	47.9	12.5	2.1		4.2	72.6	23.3	0		16.1	8.5	73.8	1.6		
Total %	12.2	11.4	0.9	0.4	25	1.4	1.8	0.5	0.1	3.7	0.9	16.1	5.2	0	22.2	7.9	4.2	36.3	0.8	49.2	
Pass Cars	158	146	12	0	316	18	23	5	0	46	12	209	67	0	288	103	54	466	0	623	1273
% Pass Cars	99.4	98.6	100	0	97.5	100	100	83.3	0	95.8	100	100	100	0	100	100	100	98.9	0	97.6	98.1
Single Units	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	0	0	5	0	5	9
% Single Units	0.6	1.4	0	0	0.9	0	0	16.7	0	2.1	0	0	0	0	0	0	0	1.1	0	0.8	0.7
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	5	5	0	0	0	1	1	0	0	0	0	0	0	0	0	10	10	16
% Peds	0	0	0	100	1.5	0	0	0	100	2.1	0	0	0	0	0	0	0	0	100	1.6	1.2

TDC Traffic Comments: Non-signalized intersection. Cady St. is stop controlled for Griswold St. Video VCU camera was located within NW intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www.tdccounts.com

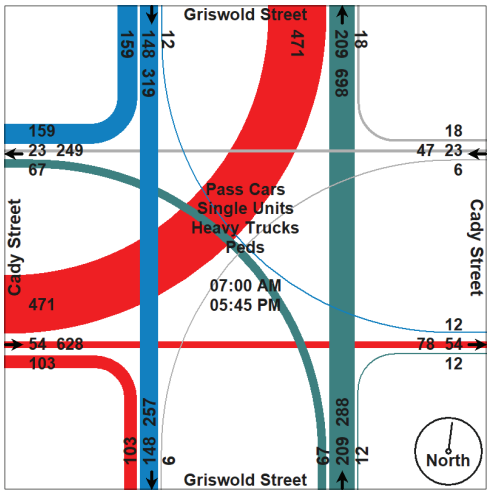
Phone: 586.786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 4SY NW

File Name : TMC_6 Cady & Griswold_5-15-18
Site Code : TMC_6
Start Date : 5/15/2018
Page No : 2



Traffic Data Collection, LLC

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Phone: 586.786-5407

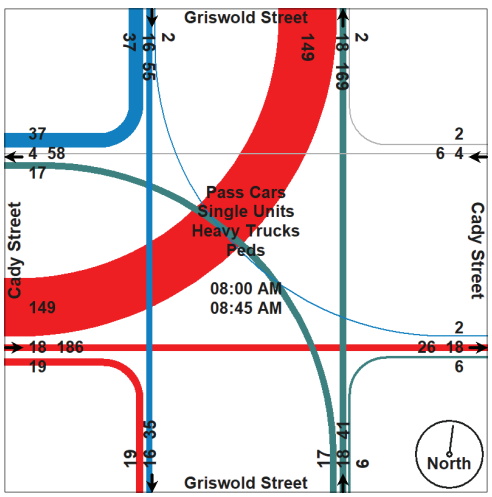
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 4SY NW

File Name : TMC_6 Cady & Griswold_5-15-18
Site Code : TMC_6
Start Date : 5/15/2018
Page No : 3

	Griswold Street Southbound				Cady Street Westbound				Griswold Street Northbound				Cady Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	6	**9**	**1**	16	**1**	**2**	0	**3**	0	4	3	7	**6**	4	**41**	**51**	**77**
08:15 AM	7	0	1	8	0	1	0	1	1	**8**	1	10	5	2	35	42	61
08:30 AM	11	2	0	13	1	1	0	2	2	3	**7**	**12**	4	3	39	46	73
08:45 AM	**13**	5	0	**18**	0	0	0	0	**3**	3	6	12	4	**9**	34	47	77
Total Volume	37	16	2	55	2	4	0	6	6	18	17	41	19	18	149	186	288
% App. Total	67.3	29.1	3.6		33.3	66.7	0		14.6	43.9	41.5		10.2	9.7	80.1	0	0
PHF	.712	.444	.500	.764	.500	.500	.000	.500	.500	.563	.607	.854	.792	.500	.909	.912	.935
Pass Cars	36	15	2	53	2	4	0	6	6	18	17	41	19	18	148	185	285
% Pass Cars	97.3	93.8	100	96.4	100	100	0	100	100	100	100	100	100	100	99.3	99.5	99.0
Single Units	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	3
% Single Units	2.7	6.3	0	3.6	0	0	0	0	0	0	0	0	0	0	0.7	0.5	1.0
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

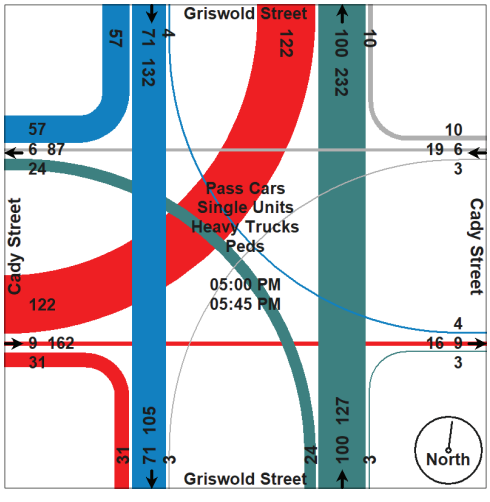
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 4SY NW

File Name : TMC_6 Cady & Griswold_5-15-18
Site Code : TMC_6
Start Date : 5/15/2018
Page No : 4

	Griswold Street Southbound				Cady Street Westbound				Griswold Street Northbound				Cady Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	13	18	0	31	2	1	0	3	0	26	4	30	**12**	**3**	**34**	**49**	113
05:15 PM	11	16	**2**	29	**3**	1	**3**	**7**	1	**30**	5	**36**	7	2	30	39	111
05:30 PM	**17**	**22**	1	**40**	2	**2**	0	4	**2**	21	**8**	31	7	2	32	41	**116**
05:45 PM	16	15	1	32	3	2	0	5	0	23	7	30	5	2	26	33	100
Total Volume	57	71	4	132	10	6	3	19	3	100	24	127	31	9	122	162	440
% App. Total	43.2	53.8	3		52.6	31.6	15.8		2.4	78.7	18.9		19.1	5.6	75.3		
PHF	.838	.807	.500	.825	.833	.750	.250	.679	.375	.833	.750	.882	.646	.750	.897	.827	.948
Pass Cars	57	71	4	132	10	6	3	19	3	100	24	127	31	9	120	160	438
% Pass Cars	100	100	100	100	100	100	100	100	100	100	100	100	100	100	98.4	98.8	99.5
Single Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
% Single Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	1.2	0.5
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 2Z4 NE

File Name : TMC_7 Beal & Griswold_5-15-18
Site Code : TMC_7
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Griswold Street Southbound				Beal Street Westbound				Beal Street Eastbound				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	3	1	4	7	0	0	7	0	0	0	0	11
07:15 AM	0	12	0	12	5	1	0	6	0	1	0	1	19
07:30 AM	0	10	0	10	11	0	0	11	0	0	0	0	21
07:45 AM	0	9	1	10	4	0	0	4	0	1	0	1	15
Total	0	34	2	36	27	1	0	28	0	2	0	2	66
08:00 AM	2	13	1	16	6	0	0	6	1	1	0	2	24
08:15 AM	0	5	0	5	9	3	0	12	1	1	0	2	19
08:30 AM	0	6	1	7	11	1	0	12	1	1	1	3	22
08:45 AM	0	9	1	10	11	0	0	11	0	1	0	1	22
Total	2	33	3	38	37	4	0	41	3	4	1	8	87
*** BREAK ***													
04:00 PM	3	16	3	22	12	0	0	12	1	5	0	6	40
04:15 PM	2	19	3	24	18	2	0	20	6	6	0	12	56
04:30 PM	3	20	3	26	19	2	0	21	4	8	0	12	59
04:45 PM	5	13	3	21	18	0	0	18	3	5	0	8	47
Total	13	68	12	93	67	4	0	71	14	24	0	38	202
05:00 PM	4	26	3	33	26	1	0	27	4	5	0	9	69
05:15 PM	0	26	0	26	27	1	0	28	3	7	0	10	64
05:30 PM	5	24	0	29	27	1	0	28	5	4	0	9	66
05:45 PM	3	18	0	21	23	0	0	23	6	5	0	11	55
Total	12	94	3	109	103	3	0	106	18	21	0	39	254
Grand Total	27	229	20	276	234	12	0	246	35	51	1	87	609
Apprch %	9.8	83	7.2		95.1	4.9	0		40.2	58.6	1.1		
Total %	4.4	37.6	3.3	45.3	38.4	2	0	40.4	5.7	8.4	0.2	14.3	
Pass Cars	27	226	0	253	234	11	0	245	34	51	0	85	583
% Pass Cars	100	98.7	0	91.7	100	91.7	0	99.6	97.1	100	0	97.7	95.7
Single Units	0	3	0	3	0	1	0	1	1	0	0	1	5
% Single Units	0	1.3	0	1.1	0	8.3	0	0.4	2.9	0	0	1.1	0.8
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	20	20	0	0	0	0	0	0	1	1	21
% Peds	0	0	100	7.2	0	0	0	0	0	0	100	1.1	3.4

TDC Traffic Comments: Non-signalized "T" intersection. Griswold St. is stop controlled for Beal St. Video VCU camera was located within NE intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www:tdccounts.com

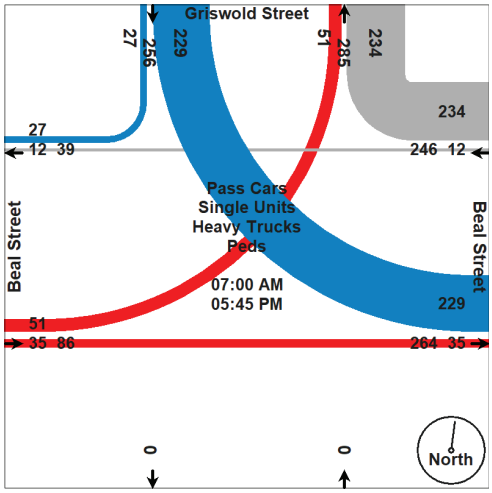
Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 2Z4 NE

File Name : TMC_7 Beal & Griswold_5-15-18
Site Code : TMC_7
Start Date : 5/15/2018
Page No : 2



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Traffic Study Performed For:

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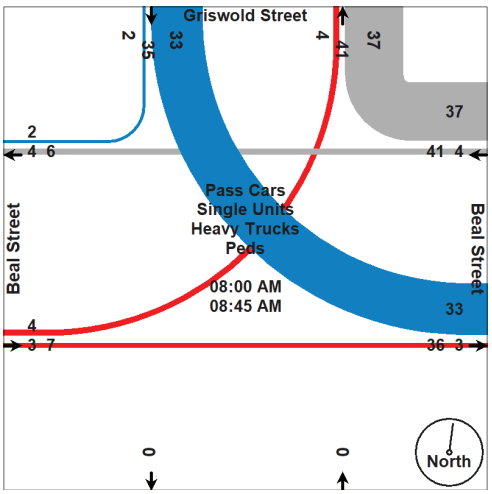
Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 2Z4 NE

File Name : TMC_7 Beal & Griswold_5-15-18
Site Code : TMC_7
Start Date : 5/15/2018
Page No : 3

	Griswold Street Southbound			Beal Street Westbound			Beal Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**2**	**13**	**15**	6	0	6	**1**	**1**	**2**	**23**
08:15 AM	0	5	5	9	**3**	**12**	1	1	2	19
08:30 AM	0	6	6	**11**	1	12	1	1	2	20
08:45 AM	0	9	9	11	0	11	0	1	1	21
Total Volume	2	33	35	37	4	41	3	4	7	83
% App. Total	5.7	94.3		90.2	9.8		42.9	57.1		
PHF	.250	.635	.583	.841	.333	.854	.750	1.00	.875	.902
Pass Cars	2	32	34	37	4	41	2	4	6	81
% Pass Cars	100	97.0	97.1	100	100	100	66.7	100	85.7	97.6
Single Units	0	1	1	0	0	0	1	0	1	2
% Single Units	0	3.0	2.9	0	0	0	33.3	0	14.3	2.4
Heavy Trucks	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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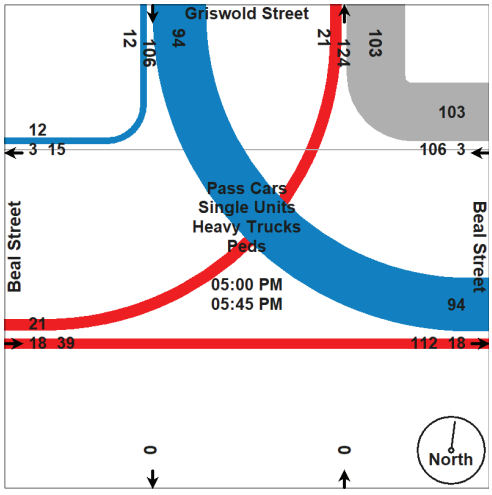
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 2Z4 NE

File Name : TMC_7 Beal & Griswold_5-15-18
Site Code : TMC_7
Start Date : 5/15/2018
Page No : 4

	Griswold Street Southbound			Beal Street Westbound			Beal Street Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	4	**26**	**30**	26	**1**	27	4	5	9	**66**
05:15 PM	0	26	26	**27**	1	**28**	3	**7**	10	64
05:30 PM	**5**	24	29	27	1	28	5	4	9	66
05:45 PM	3	18	21	23	0	23	**6**	5	**11**	55
Total Volume	12	94	106	103	3	106	18	21	39	251
% App. Total	11.3	88.7		97.2	2.8		46.2	53.8		
PHF	.600	.904	.883	.954	.750	.946	.750	.750	.886	.951
Pass Cars	12	94	106	103	3	106	18	21	39	251
% Pass Cars	100	100	100	100	100	100	100	100	100	100
Single Units	0	0	0	0	0	0	0	0	0	0
% Single Units	0	0	0	0	0	0	0	0	0	0
Heavy Trucks	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3CU NW

File Name : TMC_8 Beal & River_5-15-18
Site Code : TMC_8
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Beal Street Westbound				River Street Northbound				Beal Street Eastbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:00 AM	2	0	0	2	1	6	0	7	0	3	0	3	12
07:15 AM	2	1	0	3	1	4	0	5	7	5	0	12	20
07:30 AM	6	1	0	7	1	5	0	6	1	9	0	10	23
07:45 AM	3	0	0	3	1	2	1	4	2	6	0	8	15
Total	13	2	0	15	4	17	1	22	10	23	0	33	70
08:00 AM	2	0	0	2	3	4	0	7	6	9	1	16	25
08:15 AM	7	2	0	9	1	5	0	6	2	4	0	6	21
08:30 AM	6	3	0	9	4	6	0	10	4	3	0	7	26
08:45 AM	5	1	1	7	0	5	0	5	3	6	0	9	21
Total	20	6	1	27	8	20	0	28	15	22	1	38	93
*** BREAK ***													
04:00 PM	5	2	0	7	2	7	0	9	7	11	0	18	34
04:15 PM	6	2	0	8	1	11	1	13	10	15	2	27	48
04:30 PM	5	1	1	7	1	16	1	18	9	15	0	24	49
04:45 PM	5	0	3	8	0	13	0	13	9	7	0	16	37
Total	21	5	4	30	4	47	2	53	35	48	2	85	168
05:00 PM	3	1	3	7	4	24	0	28	14	16	0	30	65
05:15 PM	4	2	0	6	1	25	0	26	18	11	0	29	61
05:30 PM	3	1	0	4	2	24	0	26	13	14	0	27	57
05:45 PM	5	0	3	8	2	18	1	21	17	9	0	26	55
Total	15	4	6	25	9	91	1	101	62	50	0	112	238
*** BREAK ***													
Grand Total	69	17	11	97	25	175	4	204	122	143	3	268	569
Apprch %	71.1	17.5	11.3		12.3	85.8	2		45.5	53.4	1.1		
Total %	12.1	3	1.9	17	4.4	30.8	0.7	35.9	21.4	25.1	0.5	47.1	
Pass Cars	68	17	0	85	24	174	0	198	120	141	0	261	544
% Pass Cars	98.6	100	0	87.6	96	99.4	0	97.1	98.4	98.6	0	97.4	95.6
Single Units	1	0	0	1	1	1	0	2	2	2	0	4	7
% Single Units	1.4	0	0	1	4	0.6	0	1	1.6	1.4	0	1.5	1.2
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	11	11	0	0	4	4	0	0	3	3	18
% Peds	0	0	100	11.3	0	0	100	2	0	0	100	1.1	3.2

TDC Traffic Comments: Non-signalized "T" intersection. River St.is stop controlled for Beal St. Video VCU camera was located within NW intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www:tdccounts.com

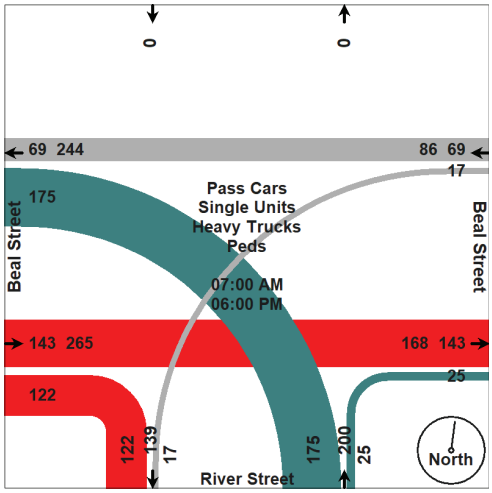
Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3CU NW

File Name : TMC_8 Beal & River_5-15-18
Site Code : TMC_8
Start Date : 5/15/2018
Page No : 2



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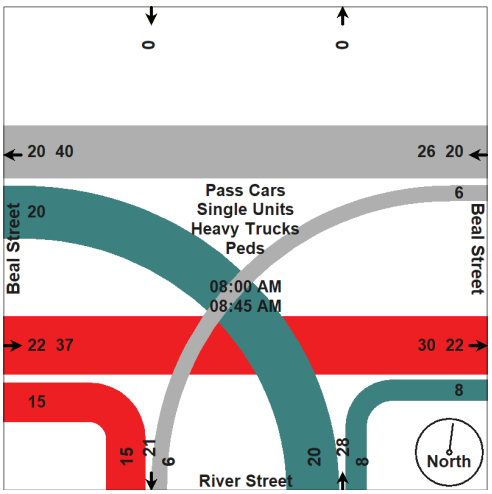
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3CU NW

File Name : TMC_8 Beal & River_5-15-18
Site Code : TMC_8
Start Date : 5/15/2018
Page No : 3

	Beal Street Westbound			River Street Northbound			Beal Street 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 11:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	2	0	2	3	4	7	**6**	**9**	**15**	24
08:15 AM	**7**	2	**9**	1	5	6	2	4	6	21
08:30 AM	6	**3**	9	**4**	**6**	**10**	4	3	7	**26**
08:45 AM	5	1	6	0	5	5	3	6	9	20
Total Volume	20	6	26	8	20	28	15	22	37	91
% App. Total	76.9	23.1		28.6	71.4		40.5	59.5		
PHF	.714	.500	.722	.500	.833	.700	.625	.611	.617	.875
Pass Cars	20	6	26	7	19	26	14	21	35	87
% Pass Cars	100	100	100	87.5	95.0	92.9	93.3	95.5	94.6	95.6
Single Units	0	0	0	1	1	2	1	1	2	4
% Single Units	0	0	0	12.5	5.0	7.1	6.7	4.5	5.4	4.4
Heavy Trucks	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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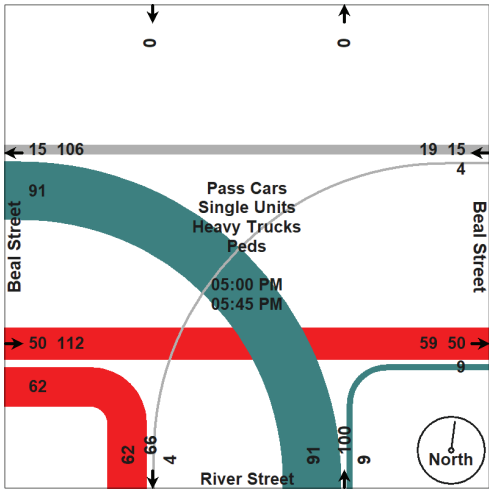
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3CU NW

File Name : TMC_8 Beal & River_5-15-18
Site Code : TMC_8
Start Date : 5/15/2018
Page No : 4

	Beal Street Westbound			River Street Northbound			Beal Street Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	3	1	4	**4**	24	**28**	14	**16**	**30**	**62**
05:15 PM	4	**2**	**6**	1	**25**	26	**18**	11	29	61
05:30 PM	3	1	4	2	24	26	13	14	27	57
05:45 PM	**5**	0	5	2	18	20	17	9	26	51
Total Volume	15	4	19	9	91	100	62	50	112	231
% App. Total	78.9	21.1		9	91		55.4	44.6		
PHF	.750	.500	.792	.563	.910	.893	.861	.781	.933	.931
Pass Cars	15	4	19	9	91	100	62	50	112	231
% Pass Cars	100	100	100	100	100	100	100	100	100	100
Single Units	0	0	0	0	0	0	0	0	0	0
% Single Units	0	0	0	0	0	0	0	0	0	0
Heavy Trucks	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 2Z4 NW

File Name : TMC_9 Center & Fairbrook_5-15-18
Site Code : TMC_9
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Center Street Southbound				Center Street Northbound				Fairbrook Street Eastbound				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
07:00 AM	1	167	0	168	79	1	0	80	10	2	0	12	260
07:15 AM	0	102	0	102	141	4	0	145	1	1	0	2	249
07:30 AM	0	117	0	117	173	2	0	175	3	1	0	4	296
07:45 AM	0	130	0	130	186	4	0	190	3	4	0	7	327
Total	1	516	0	517	579	11	0	590	17	8	0	25	1132
08:00 AM	2	104	0	106	173	3	0	176	5	3	0	8	290
08:15 AM	1	89	0	90	136	4	0	140	7	2	0	9	239
08:30 AM	2	112	0	114	156	0	0	156	3	0	1	4	274
08:45 AM	0	96	0	96	168	4	0	172	3	2	2	7	275
Total	5	401	0	406	633	11	0	644	18	7	3	28	1078
*** BREAK ***													
04:00 PM	3	115	0	118	149	11	0	160	6	3	1	10	288
04:15 PM	3	126	0	129	168	23	0	191	6	1	2	9	329
04:30 PM	4	164	0	168	177	42	0	219	4	1	2	7	394
04:45 PM	1	162	1	164	173	27	0	200	3	1	1	5	369
Total	11	567	1	579	667	103	0	770	19	6	6	31	1380
05:00 PM	3	173	0	176	179	31	0	210	7	0	0	7	393
05:15 PM	0	192	0	192	173	20	0	193	5	2	1	8	393
05:30 PM	1	173	0	174	173	17	0	190	3	1	0	4	368
05:45 PM	7	166	0	173	178	27	0	205	9	1	2	12	390
Total	11	704	0	715	703	95	0	798	24	4	3	31	1544
Grand Total	28	2188	1	2217	2582	220	0	2802	78	25	12	115	5134
Apprch %	1.3	98.7	0		92.1	7.9	0		67.8	21.7	10.4		
Total %	0.5	42.6	0	43.2	50.3	4.3	0	54.6	1.5	0.5	0.2	2.2	
Pass Cars	27	2149	0	2176	2541	218	0	2759	78	24	0	102	5037
% Pass Cars	96.4	98.2	0	98.2	98.4	99.1	0	98.5	100	96	0	88.7	98.1
Single Units	0	38	0	38	38	2	0	40	0	1	0	1	79
% Single Units	0	1.7	0	1.7	1.5	0.9	0	1.4	0	4	0	0.9	1.5
Heavy Trucks	1	1	0	2	3	0	0	3	0	0	0	0	5
% Heavy Trucks	3.6	0	0	0.1	0.1	0	0	0.1	0	0	0	0	0.1
Peds	0	0	1	1	0	0	0	0	0	0	12	12	13
% Peds	0	0	100	0	0	0	0	0	0	0	100	10.4	0.3

TDC Traffic Comments: Non-signalized "T" intersection. Fairbrook St. is stop controlled for Center St.. Video VCU camera was located within SW intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

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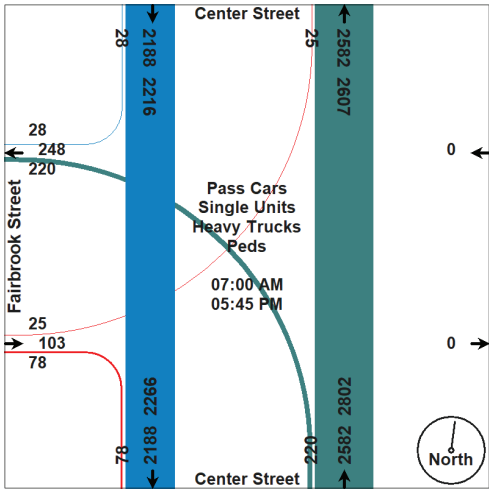
Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 2Z4 NW

File Name : TMC_9 Center & Fairbrook_5-15-18
Site Code : TMC_9
Start Date : 5/15/2018
Page No : 2



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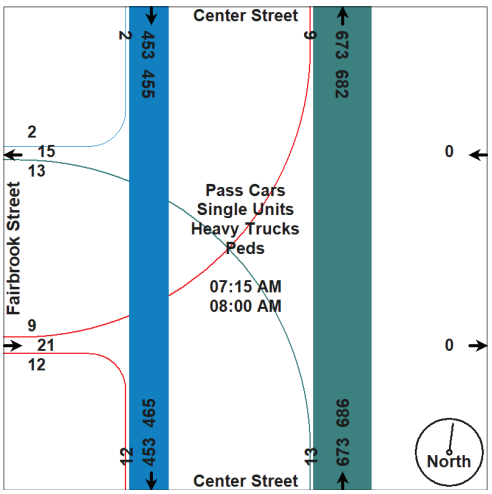
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 2Z4 NW

File Name : TMC_9 Center & Fairbrook_5-15-18
Site Code : TMC_9
Start Date : 5/15/2018
Page No : 3

	Center Street Southbound			Center Street Northbound			Fairbrook Street Eastbound			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	102	102	141	**4**	145	1	1	2	249
07:30 AM	0	117	117	173	2	175	3	1	4	296
07:45 AM	0	**130**	**130**	**186**	4	**190**	3	**4**	7	**327**
08:00 AM	**2**	104	106	173	3	176	**5**	3	**8**	290
Total Volume	2	453	455	673	13	686	12	9	21	1162
% App. Total	0.4	99.6		98.1	1.9		57.1	42.9		
PHF	.250	.871	.875	.905	.813	.903	.600	.563	.656	.888
Pass Cars	2	444	446	658	12	670	12	8	20	1136
% Pass Cars	100	98.0	98.0	97.8	92.3	97.7	100	88.9	95.2	97.8
Single Units	0	9	9	14	1	15	0	1	1	25
% Single Units	0	2.0	2.0	2.1	7.7	2.2	0	11.1	4.8	2.2
Heavy Trucks	0	0	0	1	0	1	0	0	0	1
% Heavy Trucks	0	0	0	0.1	0	0.1	0	0	0	0.1
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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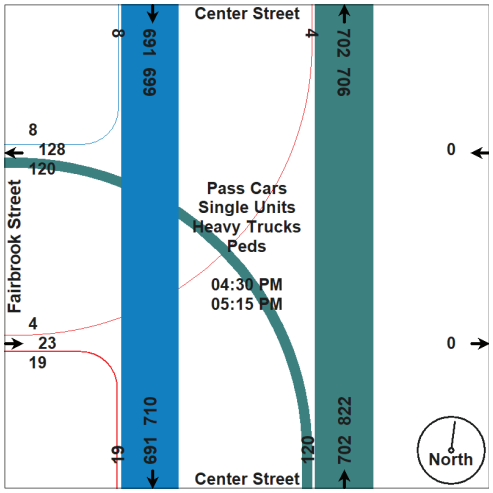
File Name : TMC_9 Center & Fairbrook_5-15-18
Site Code : TMC_9
Start Date : 5/15/2018
Page No : 4

	Center Street Southbound			Center Street Northbound			Fairbrook Street Eastbound			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**4**	164	168	177	**42**	**219**	4	1	5	392
04:45 PM	1	162	163	173	27	200	3	1	4	367
05:00 PM	3	173	176	**179**	31	210	**7**	0	**7**	**393**
05:15 PM	0	**192**	**192**	173	20	193	5	**2**	7	392
Total Volume	8	691	699	702	120	822	19	4	23	1544
% App. Total	1.1	98.9		85.4	14.6		82.6	17.4		
PHF	.500	.900	.910	.980	.714	.938	.679	.500	.821	.982
Pass Cars	8	688	696	697	120	817	19	4	23	1536
% Pass Cars	100	99.6	99.6	99.3	100	99.4	100	100	100	99.5
Single Units	0	2	2	4	0	4	0	0	0	6
% Single Units	0	0.3	0.3	0.6	0	0.5	0	0	0	0.4
Heavy Trucks	0	1	1	1	0	1	0	0	0	2
% Heavy Trucks	0	0.1	0.1	0.1	0	0.1	0	0	0	0.1
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 4PU SW

File Name : TMC_10 7Mile & Center_Sheldon_5-15-18
Site Code : TMC_10
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

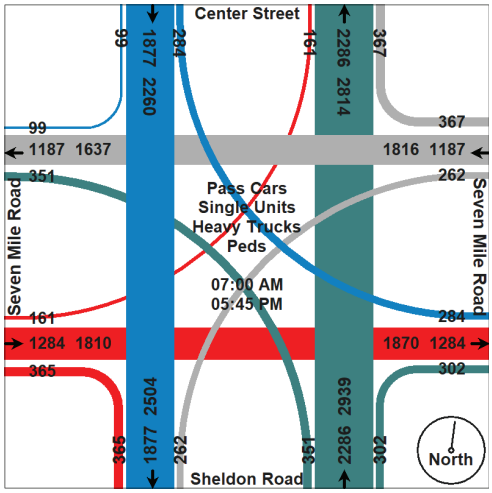
	Center Street Southbound					Seven Mile Road Westbound					Sheldon Road Northbound					Seven Mile Road Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	1	159	11	0	171	5	36	19	0	60	7	67	6	0	80	47	81	6	0	134	445
07:15 AM	3	84	16	0	103	15	28	12	0	55	22	124	17	0	163	14	90	6	0	110	431
07:30 AM	6	97	18	0	121	23	31	13	0	67	21	140	10	1	172	14	92	12	0	118	478
07:45 AM	0	112	24	0	136	18	44	5	0	67	17	161	10	0	188	32	106	12	0	150	541
Total	10	452	69	0	531	61	139	49	0	249	67	492	43	1	603	107	369	36	0	512	1895
08:00 AM	6	82	18	0	106	21	45	5	1	72	12	139	20	0	171	12	130	15	0	157	506
08:15 AM	4	76	15	0	95	17	31	9	0	57	17	110	10	0	137	21	99	12	0	132	421
08:30 AM	7	88	19	0	114	17	43	7	0	67	21	136	12	0	169	14	77	9	1	101	451
08:45 AM	3	85	13	0	101	24	36	6	0	66	12	127	17	1	157	20	74	16	2	112	436
Total	20	331	65	0	416	79	155	27	1	262	62	512	59	1	634	67	380	52	3	502	1814
*** BREAK ***																					
04:00 PM	6	95	9	0	110	23	82	16	0	121	15	128	30	0	173	15	52	12	0	79	483
04:15 PM	11	109	19	0	139	22	91	20	0	133	16	161	29	0	206	15	57	11	0	83	561
04:30 PM	7	134	17	0	158	25	111	21	0	157	16	189	29	1	235	19	51	8	0	78	628
04:45 PM	10	139	31	0	180	29	109	22	0	160	21	159	39	0	219	29	65	10	0	104	663
Total	34	477	76	0	587	99	393	79	0	571	68	637	127	1	833	78	225	41	0	344	2335
05:00 PM	8	155	10	0	173	35	129	27	0	191	28	166	28	0	222	21	77	10	0	108	694
05:15 PM	9	160	25	0	194	34	131	29	1	195	25	154	28	0	207	32	82	7	0	121	717
05:30 PM	9	155	19	0	183	21	116	26	1	164	34	166	24	0	224	37	84	6	0	127	698
05:45 PM	9	147	20	1	177	38	124	25	1	188	18	159	42	0	219	23	67	9	0	99	683
Total	35	617	74	1	727	128	500	107	3	738	105	645	122	0	872	113	310	32	0	455	2792
Grand Total	99	1877	284	1	2261	367	1187	262	4	1820	302	2286	351	3	2942	365	1284	161	3	1813	8836
Apprch %	4.4	83	12.6	0		20.2	65.2	14.4	0.2		10.3	77.7	11.9	0.1		20.1	70.8	8.9	0.2		
Total %	1.1	21.2	3.2	0	25.6	4.2	13.4	3	0	20.6	3.4	25.9	4	0	33.3	4.1	14.5	1.8	0	20.5	
Pass Cars	97	1857	269	0	2223	355	1172	259	0	1786	296	2252	345	0	2893	359	1265	160	0	1784	8686
% Pass Cars	98	98.9	94.7	0	98.3	96.7	98.7	98.9	0	98.1	98	98.5	98.3	0	98.3	98.4	98.5	99.4	0	98.4	98.3
Single Units	2	20	15	0	37	11	14	2	0	27	5	32	5	0	42	5	15	0	0	20	126
% Single Units	2	1.1	5.3	0	1.6	3	1.2	0.8	0	1.5	1.7	1.4	1.4	0	1.4	1.4	1.2	0	0	1.1	1.4
Heavy Trucks	0	0	0	0	0	1	1	1	0	3	1	2	1	0	4	1	4	1	0	6	13
% Heavy Trucks	0	0	0	0	0	0.3	0.1	0.4	0	0.2	0.3	0.1	0.3	0	0.1	0.3	0.3	0.6	0	0.3	0.1
Peds	0	0	0	1	1	0	0	0	4	4	0	0	0	3	3	0	0	0	3	3	11
% Peds	0	0	0	100	0	0	0	0	100	0.2	0	0	0	100	0.1	0	0	0	100	0.2	0.1

TDC Traffic Comments: Skewed signalized intersection with ped. signals for all quadrants, no push buttons. Trail X-ing for NB approach leg. Video VCU camera was located within SW intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC
www:tdccounts.com
Phone: 586 786-5407
Traffic Study Performed For:
Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 4PU SW

File Name : TMC_10 7Mile & Center_Sheldon_5-15-18
Site Code : TMC_10
Start Date : 5/15/2018
Page No : 2



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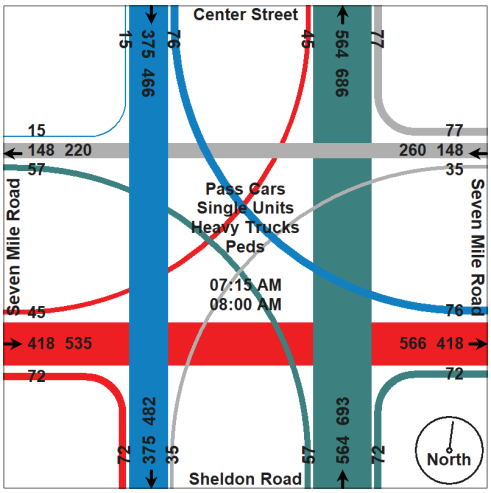
Count By Miovision Video VCU 4PU SW

File Name : TMC_10 7Mile & Center_Sheldon_5-15-18
Site Code : TMC_10
Start Date : 5/15/2018
Page No : 3

	Center Street Southbound				Seven Mile Road Westbound				Sheldon Road Northbound				Seven Mile Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	3	84	16	103	15	28	12	55	**22**	124	17	163	14	90	6	110	431
07:30 AM	**6**	97	18	121	**23**	31	**13**	67	21	140	10	171	14	92	12	118	477
07:45 AM	0	**112**	**24**	**136**	18	44	5	67	17	**161**	10	**188**	**32**	106	12	150	**541**
08:00 AM	6	82	18	106	21	**45**	5	**71**	12	139	**20**	171	12	**130**	**15**	**157**	505
Total Volume	15	375	76	466	77	148	35	260	72	564	57	693	72	418	45	535	1954
% App. Total	3.2	80.5	16.3		29.6	56.9	13.5		10.4	81.4	8.2		13.5	78.1	8.4		
PHF	.625	.837	.792	.857	.837	.822	.673	.915	.818	.876	.713	.922	.563	.804	.750	.852	.903
Pass Cars	14	369	74	457	73	144	34	251	70	550	56	676	71	412	45	528	1912
% Pass Cars	93.3	98.4	97.4	98.1	94.8	97.3	97.1	96.5	97.2	97.5	98.2	97.5	98.6	98.6	100	98.7	97.9
Single Units	1	6	2	9	4	4	1	9	1	14	1	16	1	4	0	5	39
% Single Units	6.7	1.6	2.6	1.9	5.2	2.7	2.9	3.5	1.4	2.5	1.8	2.3	1.4	1.0	0	0.9	2.0
Heavy Trucks	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3
% Heavy Trucks	0	0	0	0	0	0	0	0	1.4	0	0	0.1	0	0.5	0	0.4	0.2
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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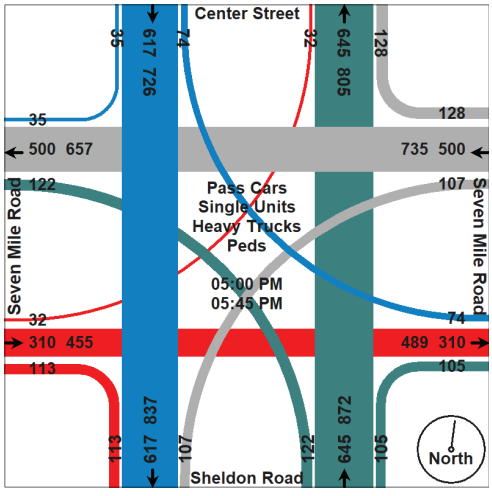
Phone: 586 786-5407
Traffic Study Performed For:
Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 4PU SW

File Name : TMC_10 7Mile & Center_Sheldon_5-15-18
Site Code : TMC_10
Start Date : 5/15/2018
Page No : 4

	Center Street Southbound				Seven Mile Road Westbound				Sheldon Road Northbound				Seven Mile Road Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	8	155	10	173	35	129	27	191	28	**166**	28	222	21	77	**10**	108	694
05:15 PM	**9**	**160**	**25**	**194**	34	**131**	**29**	**194**	25	154	28	207	32	82	7	121	**716**
05:30 PM	9	155	19	183	21	116	26	163	**34**	166	24	**224**	**37**	**84**	6	**127**	697
05:45 PM	9	147	20	176	**38**	124	25	187	18	159	**42**	219	23	67	9	99	681
Total Volume	35	617	74	726	128	500	107	735	105	645	122	872	113	310	32	455	2788
% App. Total	4.8	85	10.2		17.4	68	14.6		12	74	14		24.8	68.1	7		
PHF	.972	.964	.740	.936	.842	.954	.922	.947	.772	.971	.726	.973	.764	.923	.800	.896	.973
Pass Cars	35	614	73	722	128	498	107	733	103	643	120	866	112	306	31	449	2770
% Pass Cars	100	99.5	98.6	99.4	100	99.6	100	99.7	98.1	99.7	98.4	99.3	99.1	98.7	96.9	98.7	99.4
Single Units	0	3	1	4	0	2	0	2	2	2	1	5	1	3	0	4	15
% Single Units	0	0.5	1.4	0.6	0	0.4	0	0.3	1.9	0.3	0.8	0.6	0.9	1.0	0	0.9	0.5
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	3
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0.8	0.1	0	0.3	3.1	0.4	0.1
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 1US NE

File Name : TMC_11 7Mile & Hines_5-15-18
Site Code : TMC_11
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Seven Mile Road Southbound				Seven Mile Road Westbound				Edward Hines Drive Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:00 AM	40	58	0	98	44	0	0	44	1	14	0	15	157
07:15 AM	43	86	0	129	38	4	0	42	5	15	0	20	191
07:30 AM	52	79	0	131	45	2	0	47	2	27	0	29	207
07:45 AM	51	95	0	146	43	3	0	46	6	25	0	31	223
Total	186	318	0	504	170	9	0	179	14	81	0	95	778
08:00 AM	57	102	0	159	41	2	0	43	5	26	0	31	233
08:15 AM	40	91	0	131	34	1	0	35	1	23	0	24	190
08:30 AM	36	80	0	116	50	2	0	52	2	21	0	23	191
08:45 AM	28	71	0	99	42	4	0	46	3	22	0	25	170
Total	161	344	0	505	167	9	0	176	11	92	0	103	784
*** BREAK ***													
04:00 PM	15	66	0	81	79	4	0	83	4	39	0	43	207
04:15 PM	32	65	0	97	106	4	0	110	9	41	0	50	257
04:30 PM	18	61	0	79	118	11	0	129	12	58	0	70	278
04:45 PM	45	72	0	117	99	9	0	108	11	59	5	75	300
Total	110	264	0	374	402	28	0	430	36	197	5	238	1042
05:00 PM	36	80	0	116	124	7	0	131	15	79	0	94	341
05:15 PM	58	73	0	131	101	17	0	118	18	82	0	100	349
05:30 PM	55	82	0	137	96	20	0	116	17	72	0	89	342
05:45 PM	30	75	0	105	121	6	0	127	14	71	0	85	317
Total	179	310	0	489	442	50	0	492	64	304	0	368	1349
Grand Total	636	1236	0	1872	1181	96	0	1277	125	674	5	804	3953
Apprch %	34	66	0		92.5	7.5	0		15.5	83.8	0.6		
Total %	16.1	31.3	0	47.4	29.9	2.4	0	32.3	3.2	17.1	0.1	20.3	
Pass Cars	627	1210	0	1837	1154	96	0	1250	125	671	0	796	3883
% Pass Cars	98.6	97.9	0	98.1	97.7	100	0	97.9	100	99.6	0	99	98.2
Single Units	9	22	0	31	24	0	0	24	0	3	0	3	58
% Single Units	1.4	1.8	0	1.7	2	0	0	1.9	0	0.4	0	0.4	1.5
Heavy Trucks	0	4	0	4	3	0	0	3	0	0	0	0	7
% Heavy Trucks	0	0.3	0	0.2	0.3	0	0	0.2	0	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0	5	5	5
% Peds	0	0	0	0	0	0	0	0	0	0	100	0.6	0.1

TDC Traffic Comments: Non-signalized skewed intersection. NB Hines Drive is stop controlled & WB Seven Mile to go SB is also stop controlled. Video VCU camera was located within NE intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www:tdccounts.com

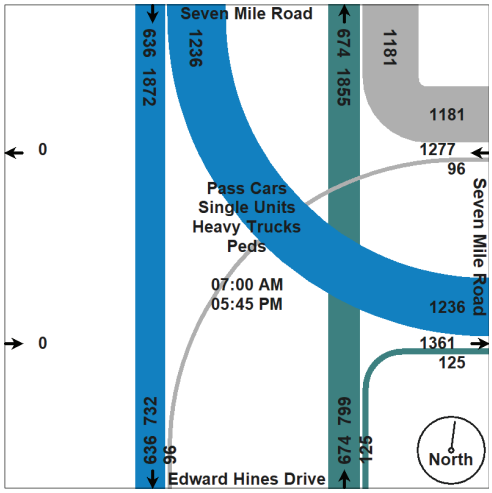
Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 1US NE

File Name : TMC_11 7Mile & Hines_5-15-18
Site Code : TMC_11
Start Date : 5/15/2018
Page No : 2



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586.786-5407

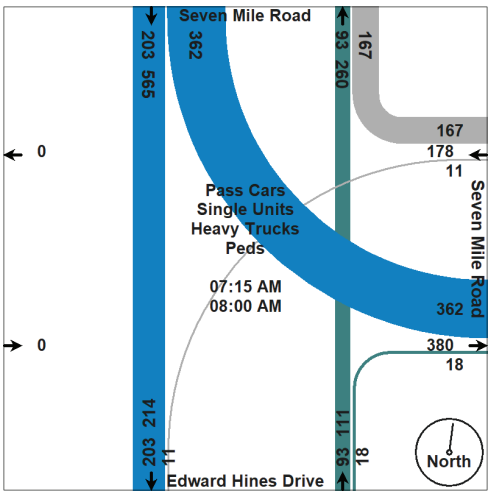
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 1US NE

File Name : TMC_11 7Mile & Hines_5-15-18
Site Code : TMC_11
Start Date : 5/15/2018
Page No : 3

	Seven Mile Road Southbound			Seven Mile Road Westbound			Edward Hines Drive Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	43	86	129	38	**4**	42	5	15	20	191
07:30 AM	52	79	131	**45**	2	**47**	2	**27**	29	207
07:45 AM	51	95	146	43	3	46	**6**	25	**31**	223
08:00 AM	**57**	**102**	**159**	41	2	43	5	26	31	**233**
Total Volume	203	362	565	167	11	178	18	93	111	854
% App. Total	35.9	64.1		93.8	6.2		16.2	83.8		
PHF	.890	.887	.888	.928	.688	.947	.750	.861	.895	.916
Pass Cars	203	354	557	160	11	171	18	90	108	836
% Pass Cars	100	97.8	98.6	95.8	100	96.1	100	96.8	97.3	97.9
Single Units	0	6	6	6	0	6	0	3	3	15
% Single Units	0	1.7	1.1	3.6	0	3.4	0	3.2	2.7	1.8
Heavy Trucks	0	2	2	1	0	1	0	0	0	3
% Heavy Trucks	0	0.6	0.4	0.6	0	0.6	0	0	0	0.4
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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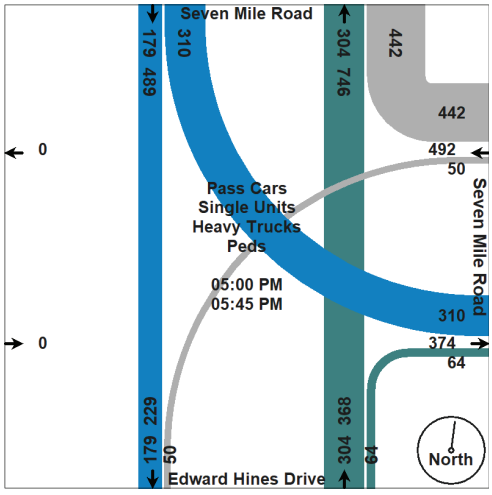
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 1US NE

File Name : TMC_11 7Mile & Hines_5-15-18
Site Code : TMC_11
Start Date : 5/15/2018
Page No : 4

	Seven Mile Road Southbound			Seven Mile Road Westbound			Edward Hines Drive Northbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	36	80	116	**124**	7	**131**	15	79	94	341
05:15 PM	**58**	73	131	101	17	118	**18**	**82**	**100**	**349**
05:30 PM	55	**82**	**137**	96	**20**	116	17	72	89	342
05:45 PM	30	75	105	121	6	127	14	71	85	317
Total Volume	179	310	489	442	50	492	64	304	368	1349
% App. Total	36.6	63.4		89.8	10.2		17.4	82.6		
PHF	.772	.945	.892	.891	.625	.939	.889	.927	.920	.966
Pass Cars	179	305	484	440	50	490	64	304	368	1342
% Pass Cars	100	98.4	99.0	99.5	100	99.6	100	100	100	99.5
Single Units	0	5	5	2	0	2	0	0	0	7
% Single Units	0	1.6	1.0	0.5	0	0.4	0	0	0	0.5
Heavy Trucks	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3HT SE

File Name : TMC_12 7Mile & River_5-15-18
Site Code : TMC_12
Start Date : 5/15/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	River Street Southbound				Seven Mile Road Westbound				Seven Mile Road Eastbound				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	1	0	0	1	3	48	0	51	50	4	2	56	108
07:15 AM	7	1	0	8	2	30	0	32	89	7	0	96	136
07:30 AM	6	0	1	7	4	41	0	45	77	4	2	83	135
07:45 AM	2	1	0	3	0	44	0	44	95	7	0	102	149
Total	16	2	1	19	9	163	0	172	311	22	4	337	528
08:00 AM	3	3	0	6	1	41	0	42	98	8	0	106	154
08:15 AM	2	0	0	2	3	33	3	39	88	4	2	94	135
08:30 AM	4	2	3	9	4	49	0	53	80	4	0	84	146
08:45 AM	4	1	2	7	0	40	1	41	68	6	3	77	125
Total	13	6	5	24	8	163	4	175	334	22	5	361	560
*** BREAK ***													
04:00 PM	4	5	1	10	4	78	0	82	63	6	0	69	161
04:15 PM	8	3	1	12	4	105	0	109	62	13	1	76	197
04:30 PM	5	7	0	12	5	124	0	129	57	15	2	74	215
04:45 PM	8	3	3	14	4	102	0	106	71	11	5	87	207
Total	25	18	5	48	17	409	0	426	253	45	8	306	780
05:00 PM	15	2	0	17	7	116	0	123	69	25	0	94	234
05:15 PM	18	1	0	19	5	102	0	107	65	22	0	87	213
05:30 PM	12	2	0	14	9	100	0	109	80	22	1	103	226
05:45 PM	13	4	0	17	4	116	0	120	73	15	0	88	225
Total	58	9	0	67	25	434	0	459	287	84	1	372	898
Grand Total	112	35	11	158	59	1169	4	1232	1185	173	18	1376	2766
Apprch %	70.9	22.2	7		4.8	94.9	0.3		86.1	12.6	1.3		
Total %	4	1.3	0.4	5.7	2.1	42.3	0.1	44.5	42.8	6.3	0.7	49.7	
Pass Cars	109	35	0	144	57	1143	0	1200	1158	171	0	1329	2673
% Pass Cars	97.3	100	0	91.1	96.6	97.8	0	97.4	97.7	98.8	0	96.6	96.6
Single Units	3	0	0	3	2	22	0	24	22	2	0	24	51
% Single Units	2.7	0	0	1.9	3.4	1.9	0	1.9	1.9	1.2	0	1.7	1.8
Heavy Trucks	0	0	0	0	0	4	0	4	5	0	0	5	9
% Heavy Trucks	0	0	0	0	0	0.3	0	0.3	0.4	0	0	0.4	0.3
Peds	0	0	11	11	0	0	4	4	0	0	18	18	33
% Peds	0	0	100	7	0	0	100	0.3	0	0	100	1.3	1.2

TDC Traffic Comments: Non-signalized "T intersection. River St. is stop controllled for Seven Mile Road. Trail Xing at west leg of intersection. Video VCU camera was located within SE intersection quadrant. Note: Peds. are excluded from peak hour reports.

Traffic Data Collection, LLC

www:tdccounts.com

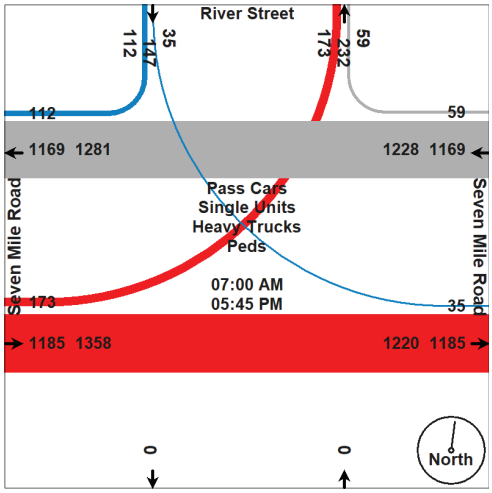
Phone: 586 786-5407

Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3HT SE

File Name : TMC_12 7Mile & River_5-15-18
Site Code : TMC_12
Start Date : 5/15/2018
Page No : 2



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Phone: 586 786-5407

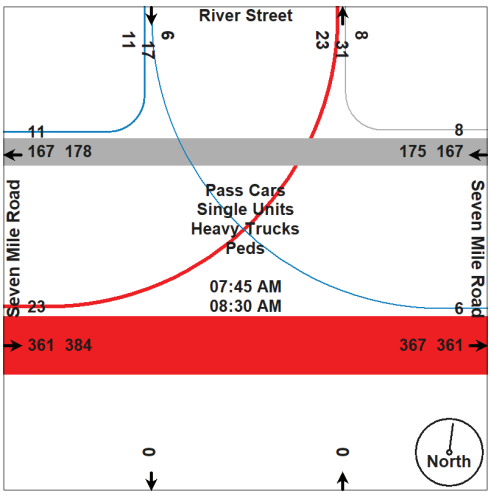
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3HT SE

File Name : TMC_12 7Mile & River_5-15-18
Site Code : TMC_12
Start Date : 5/15/2018
Page No : 3

	River Street Southbound			Seven Mile Road Westbound			Seven Mile Road Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	2	1	3	0	44	44	95	7	102	149
08:00 AM	3	**3**	**6**	1	41	42	**98**	**8**	**106**	**154**
08:15 AM	2	0	2	3	33	36	88	4	92	130
08:30 AM	**4**	2	6	**4**	**49**	**53**	80	4	84	143
Total Volume	11	6	17	8	167	175	361	23	384	576
% App. Total	64.7	35.3		4.6	95.4		94	6		
PHF	.688	.500	.708	.500	.852	.825	.921	.719	.906	.935
Pass Cars	10	6	16	7	159	166	355	23	378	560
% Pass Cars	90.9	100	94.1	87.5	95.2	94.9	98.3	100	98.4	97.2
Single Units	1	0	1	1	7	8	6	0	6	15
% Single Units	9.1	0	5.9	12.5	4.2	4.6	1.7	0	1.6	2.6
Heavy Trucks	0	0	0	0	1	1	0	0	0	1
% Heavy Trucks	0	0	0	0	0.6	0.6	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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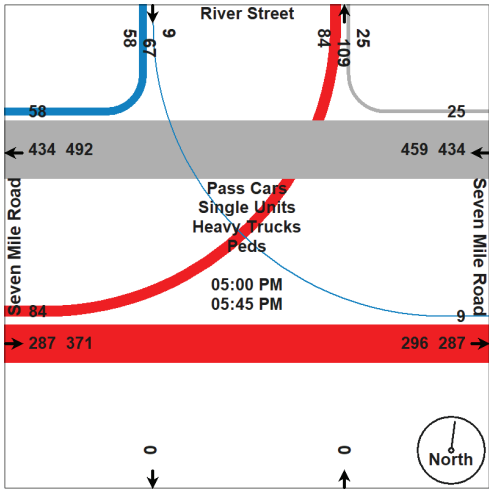
Traffic Study Performed For:

Fleis &VandenBrink

Project: Northville Down TIS
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 70's
Count By Miovision Video VCU 3HT SE

File Name : TMC_12 7Mile & River_5-15-18
Site Code : TMC_12
Start Date : 5/15/2018
Page No : 4

	River Street Southbound			Seven Mile Road Westbound			Seven Mile Road Eastbound			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	15	2	17	7	**116**	**123**	69	**25**	94	**234**
05:15 PM	**18**	1	**19**	5	102	107	65	22	87	213
05:30 PM	12	2	14	**9**	100	109	**80**	22	**102**	225
05:45 PM	13	**4**	17	4	116	120	73	15	88	225
Total Volume	58	9	67	25	434	459	287	84	371	897
% App. Total	86.6	13.4		5.4	94.6		77.4	22.6		
PHF	.806	.563	.882	.694	.935	.933	.897	.840	.909	.958
Pass Cars	58	9	67	24	431	455	282	83	365	887
% Pass Cars	100	100	100	96.0	99.3	99.1	98.3	98.8	98.4	98.9
Single Units	0	0	0	1	3	4	5	1	6	10
% Single Units	0	0	0	4.0	0.7	0.9	1.7	1.2	1.6	1.1
Heavy Trucks	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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Phone: 586 786-5407

Traffic Study Performed For:

Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 24L SE

File Name : TMC_1 Northville & Beal_10-18-18
Site Code : TMC_1
Start Date : 10/18/2018
Page No : 1

4 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Northville Road Southbound				Northville Road Northbound				7 Mile Road Eastbound				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
07:00 AM	4	62	0	66	34	0	0	34	2	0	0	2	102
07:15 AM	3	52	0	55	50	2	0	52	6	2	0	8	115
07:30 AM	2	58	0	60	55	1	0	56	7	0	0	7	123
07:45 AM	0	66	0	66	81	3	0	84	6	1	0	7	157
Total	9	238	0	247	220	6	0	226	21	3	0	24	497
08:00 AM	2	63	0	65	67	2	0	69	3	1	0	4	138
08:15 AM	1	74	0	75	79	2	0	81	5	1	0	6	162
08:30 AM	2	71	0	73	87	4	0	91	7	4	0	11	175
08:45 AM	0	81	0	81	93	3	0	96	6	0	0	6	183
Total	5	289	0	294	326	11	0	337	21	6	0	27	658
*** BREAK ***													
04:00 PM	3	96	0	99	137	5	0	142	12	0	3	15	256
04:15 PM	1	86	0	87	155	1	0	156	10	1	0	11	254
04:30 PM	1	93	0	94	170	2	0	172	10	1	1	12	278
04:45 PM	3	124	0	127	156	4	0	160	8	1	1	10	297
Total	8	399	0	407	618	12	0	630	40	3	5	48	1085
05:00 PM	1	126	0	127	156	3	0	159	12	2	1	15	301
05:15 PM	1	123	0	124	181	4	0	185	12	4	1	17	326
05:30 PM	1	118	0	119	172	1	0	173	12	2	0	14	306
05:45 PM	1	110	0	111	170	0	0	170	0	0	0	0	281
Total	4	477	0	481	679	8	0	687	36	8	2	46	1214
Grand Total	26	1403	0	1429	1843	37	0	1880	118	20	7	145	3454
Apprch %	1.8	98.2	0		98	2	0		81.4	13.8	4.8		
Total %	0.8	40.6	0	41.4	53.4	1.1	0	54.4	3.4	0.6	0.2	4.2	
Pass Cars	26	1390	0	1416	1815	37	0	1852	117	19	0	136	3404
% Pass Cars	100	99.1	0	99.1	98.5	100	0	98.5	99.2	95	0	93.8	98.6
Single Units	0	11	0	11	22	0	0	22	1	1	0	2	35
% Single Units	0	0.8	0	0.8	1.2	0	0	1.2	0.8	5	0	1.4	1
Heavy Trucks	0	2	0	2	6	0	0	6	0	0	0	0	8
% Heavy Trucks	0	0.1	0	0.1	0.3	0	0	0.3	0	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0	7	7	7
% Peds	0	0	0	0	0	0	0	0	0	0	100	4.8	0.2

TDC Traffic Comments: Non-signalized intersection. Northville Road is a divided roadway. Video VCU camera was located within SE intersection quadrant. Note: Peds. are excluded from peak hour reports. Traffic study was performed for Northville Traffic Impact Study for Fleis & Vandenbrink.

Traffic Data Collection, LLC

www:tdccounts.com

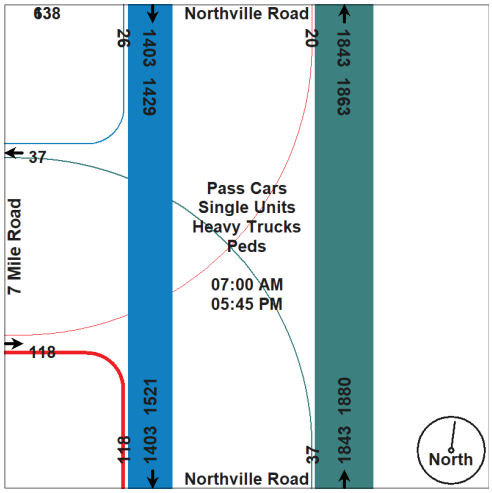
Phone: 586 786-5407

Traffic Study Performed For:

Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 24L SE

File Name : TMC_1 Northville & Beal_10-18-18
Site Code : TMC_1
Start Date : 10/18/2018
Page No : 2



Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586.786-5407

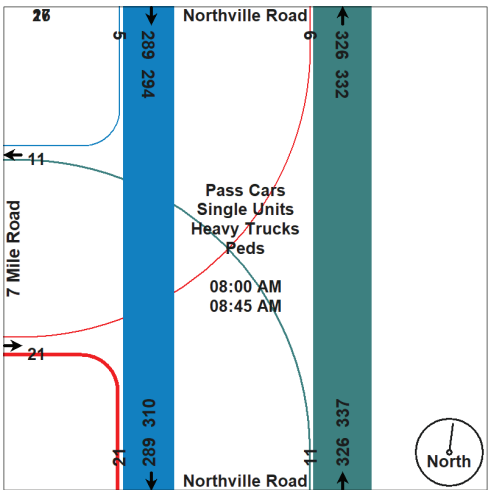
Traffic Study Performed For:

Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:4 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 24L SE

File Name : TMC_1 Northville & Beal_10-18-18
Site Code : TMC_1
Start Date : 10/18/2018
Page No : 3

	Northville Road Southbound			Northville Road Northbound			7 Mile Road Eastbound			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	**2**	63	65	67	2	69	3	1	4	138
08:15 AM	1	74	75	79	2	81	5	1	6	162
08:30 AM	2	71	73	87	**4**	91	**7**	**4**	**11**	175
08:45 AM	0	**81**	**81**	**93**	3	**96**	6	0	6	**183**
Total Volume	5	289	294	326	11	337	21	6	27	658
% App. Total	1.7	98.3		96.7	3.3		77.8	22.2		
PHF	.625	.892	.907	.876	.688	.878	.750	.375	.614	.899
Pass Cars	5	284	289	316	11	327	21	5	26	642
% Pass Cars	100	98.3	98.3	96.9	100	97.0	100	83.3	96.3	97.6
Single Units	0	5	5	9	0	9	0	1	1	15
% Single Units	0	1.7	1.7	2.8	0	2.7	0	16.7	3.7	2.3
Heavy Trucks	0	0	0	1	0	1	0	0	0	1
% Heavy Trucks	0	0	0	0.3	0	0.3	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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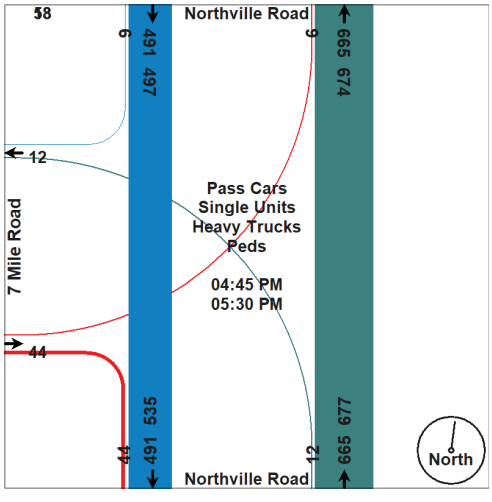
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 24L SE

File Name : TMC_1 Northville & Beal_10-18-18
Site Code : TMC_1
Start Date : 10/18/2018
Page No : 4

	Northville Road Southbound			Northville Road Northbound			7 Mile Road Eastbound			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**3**	124	**127**	156	**4**	160	8	1	9	296
05:00 PM	1	**126**	127	156	3	159	**12**	2	14	300
05:15 PM	1	123	124	**181**	4	**185**	12	**4**	**16**	**325**
05:30 PM	1	118	119	172	1	173	12	2	14	306
Total Volume	6	491	497	665	12	677	44	9	53	1227
% App. Total	1.2	98.8		98.2	1.8		83	17		
PHF	.500	.974	.978	.919	.750	.915	.917	.563	.828	.944
Pass Cars	6	486	492	660	12	672	44	9	53	1217
% Pass Cars	100	99.0	99.0	99.2	100	99.3	100	100	100	99.2
Single Units	0	3	3	4	0	4	0	0	0	7
% Single Units	0	0.6	0.6	0.6	0	0.6	0	0	0	0.6
Heavy Trucks	0	2	2	1	0	1	0	0	0	3
% Heavy Trucks	0	0.4	0.4	0.2	0	0.1	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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Phone: 586 786-5407

Traffic Study Performed For:

Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_2 Northville & 7Mile_N_10-18-18
Site Code : TMC_2
Start Date : 10/18/2018
Page No : 1

8 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning, 11:00 AM - 1:00 PM mid-day & 2:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Northville Road Southbound				Northville Road Northbound				7 Mile Road Eastbound				
Start Time	Right	Thru	U-Turns	App. Total	Thru	Left	U-Turns	App. Total	Right	Left	Peds	App. Total	Int. Total
07:00 AM	13	57	2	72	28	31	0	59	54	6	0	60	191
07:15 AM	9	52	1	62	43	25	0	68	54	5	0	59	189
07:30 AM	8	61	3	72	53	29	1	83	67	5	0	72	227
07:45 AM	9	67	1	77	71	43	0	114	72	9	0	81	272
Total	39	237	7	283	195	128	1	324	247	25	0	272	879
08:00 AM	12	60	0	72	63	37	1	101	64	9	0	73	246
08:15 AM	10	70	0	80	67	50	0	117	86	14	0	100	297
08:30 AM	15	66	3	84	79	33	0	112	71	14	0	85	281
08:45 AM	15	68	1	84	98	32	1	131	62	5	0	67	282
Total	52	264	4	320	307	152	2	461	283	42	0	325	1106
*** BREAK ***													
11:00 AM	9	76	2	87	78	47	1	126	68	8	0	76	289
11:15 AM	9	65	0	74	92	48	1	141	44	9	0	53	268
11:30 AM	12	61	1	74	89	49	1	139	53	7	0	60	273
11:45 AM	16	72	4	92	84	57	0	141	58	11	0	69	302
Total	46	274	7	327	343	201	3	547	223	35	0	258	1132
12:00 PM	12	81	1	94	74	52	0	126	68	9	0	77	297
12:15 PM	19	58	0	77	81	68	1	150	68	13	0	81	308
12:30 PM	19	87	0	106	83	62	2	147	56	6	0	62	315
12:45 PM	14	82	0	96	105	56	1	162	62	16	0	78	336
Total	64	308	1	373	343	238	4	585	254	44	0	298	1256
*** BREAK ***													
02:00 PM	8	77	2	87	74	62	0	136	51	2	0	53	276
02:15 PM	11	71	1	83	72	47	1	120	50	14	0	64	267
02:30 PM	12	93	2	107	87	66	1	154	48	11	0	59	320
02:45 PM	13	94	1	108	100	71	0	171	57	12	0	69	348
Total	44	335	6	385	333	246	2	581	206	39	0	245	1211
03:00 PM	20	78	1	99	128	74	0	202	62	10	0	72	373
03:15 PM	14	93	2	109	130	83	0	213	48	4	0	52	374
03:30 PM	6	94	1	101	117	58	0	175	68	18	0	86	362
03:45 PM	23	84	0	107	129	78	0	207	60	9	0	69	383
Total	63	349	4	416	504	293	0	797	238	41	0	279	1492
04:00 PM	18	93	1	112	135	92	1	228	46	10	0	56	396
04:15 PM	22	80	1	103	127	83	0	210	60	20	0	80	393
04:30 PM	22	91	2	115	155	88	0	243	63	17	0	80	438
04:45 PM	25	96	3	124	156	102	0	258	66	11	0	77	459
Total	87	360	7	454	573	365	1	939	235	58	0	293	1686
05:00 PM	32	116	0	148	160	114	1	275	70	13	0	83	506
05:15 PM	27	116	1	144	169	99	0	268	64	15	0	79	491
05:30 PM	29	109	0	138	163	86	3	252	57	17	0	74	464
05:45 PM	22	111	2	135	168	85	0	253	71	17	0	88	476
Total	110	452	3	565	660	384	4	1048	262	62	0	324	1937
Grand Total	505	2579	39	3123	3258	2007	17	5282	1948	346	0	2294	10699
Apprch %	16.2	82.6	1.2		61.7	38	0.3		84.9	15.1	0		
Total %	4.7	24.1	0.4	29.2	30.5	18.8	0.2	49.4	18.2	3.2	0	21.4	

Traffic Data Collection, LLC

www:tdccounts.com

Phone: 586 786-5407

Traffic Study Performed For:

Fleis & Vandenbrink

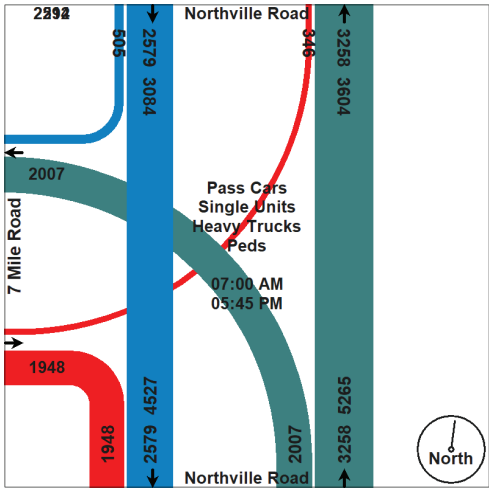
Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_2 Northville & 7Mile_N_10-18-18
Site Code : TMC_2
Start Date : 10/18/2018
Page No : 2

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Northville Road Southbound				Northville Road Northbound				7 Mile Road Eastbound				
	Right	Thru	U-Turns	App. Total	Thru	Left	U-Turns	App. Total	Right	Left	Peds	App. Total	Int. Total
Pass Cars	499	2542	39	3080	3201	1956	17	5174	1895	334	0	2229	10483
% Pass Cars	98.8	98.6	100	98.6	98.3	97.5	100	98	97.3	96.5	0	97.2	98
Single Units	6	30	0	36	50	41	0	91	34	10	0	44	171
% Single Units	1.2	1.2	0	1.2	1.5	2	0	1.7	1.7	2.9	0	1.9	1.6
Heavy Trucks	0	7	0	7	7	10	0	17	19	2	0	21	45
% Heavy Trucks	0	0.3	0	0.2	0.2	0.5	0	0.3	1	0.6	0	0.9	0.4
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0

TDC Traffic Comments: Non-signalized intersection. Video VCU camera was located within SW intersection quadrant. Note: Peds. are excluded from peak hour reports. Traffic study was performed for Northville Traffic Impact Study for Fleis & Vandenbrink.



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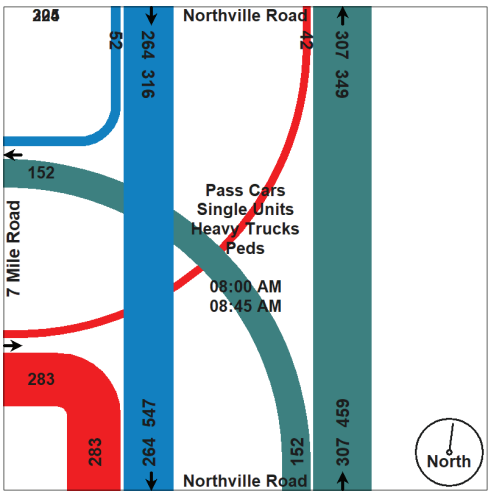
Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_2 Northville & 7Mile_N_10-18-18
Site Code : TMC_2
Start Date : 10/18/2018
Page No : 3

	Northville Road Southbound			Northville Road Northbound			7 Mile Road Eastbound			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	12	60	72	63	37	100	64	9	73	245
08:15 AM	10	**70**	80	67	**50**	117	**86**	**14**	**100**	**297**
08:30 AM	**15**	66	81	79	33	112	71	14	85	278
08:45 AM	15	68	**83**	**98**	32	**130**	62	5	67	280
Total Volume	52	264	316	307	152	459	283	42	325	1100
% App. Total	16.5	83.5		66.9	33.1		87.1	12.9		
PHF	.867	.943	.952	.783	.760	.883	.823	.750	.813	.926
Pass Cars	52	260	312	299	139	438	279	40	319	1069
% Pass Cars	100	98.5	98.7	97.4	91.4	95.4	98.6	95.2	98.2	97.2
Single Units	0	3	3	7	11	18	2	1	3	24
% Single Units	0	1.1	0.9	2.3	7.2	3.9	0.7	2.4	0.9	2.2
Heavy Trucks	0	1	1	1	2	3	2	1	3	7
% Heavy Trucks	0	0.4	0.3	0.3	1.3	0.7	0.7	2.4	0.9	0.6
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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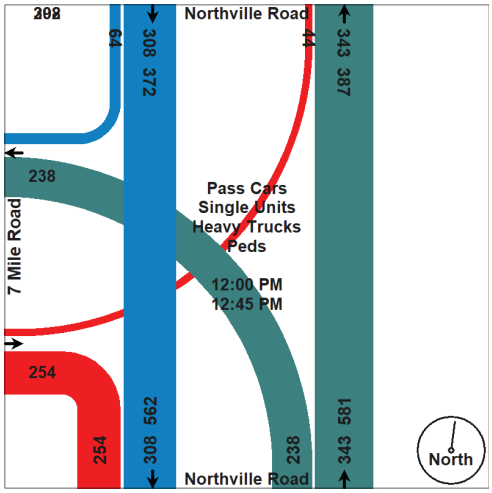
Traffic Study Performed For:

Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_2 Northville & 7Mile_N_10-18-18
Site Code : TMC_2
Start Date : 10/18/2018
Page No : 4

	Northville Road Southbound			Northville Road Northbound			7 Mile Road Eastbound			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	12	81	93	74	52	126	**68**	9	77	296
12:15 PM	**19**	58	77	81	**68**	149	68	13	**81**	307
12:30 PM	19	**87**	**106**	83	62	145	56	6	62	313
12:45 PM	14	82	96	**105**	56	**161**	62	**16**	78	**335**
Total Volume	64	308	372	343	238	581	254	44	298	1251
% App. Total	17.2	82.8		59	41		85.2	14.8		
PHF	.842	.885	.877	.817	.875	.902	.934	.688	.920	.934
Pass Cars	62	304	366	339	235	574	247	43	290	1230
% Pass Cars	96.9	98.7	98.4	98.8	98.7	98.8	97.2	97.7	97.3	98.3
Single Units	2	3	5	3	3	6	5	0	5	16
% Single Units	3.1	1.0	1.3	0.9	1.3	1.0	2.0	0	1.7	1.3
Heavy Trucks	0	1	1	1	0	1	2	1	3	5
% Heavy Trucks	0	0.3	0.3	0.3	0	0.2	0.8	2.3	1.0	0.4
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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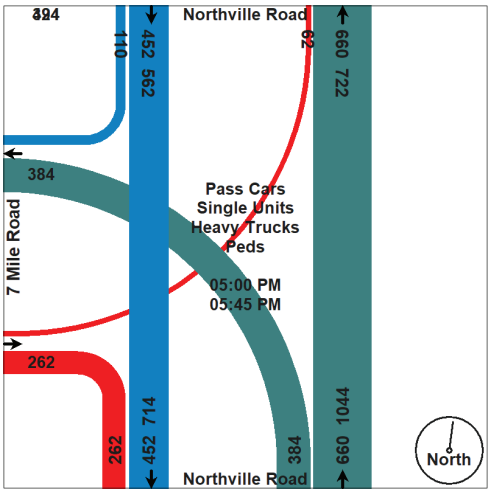
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 6H3 SW

File Name : TMC_2 Northville & 7Mile_N_10-18-18
Site Code : TMC_2
Start Date : 10/18/2018
Page No : 5

	Northville Road Southbound			Northville Road Northbound			7 Mile Road Eastbound			
Start Time	Right	Thru	App. Total	Thru	Left	App. Total	Right	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**32**	**116**	**148**	160	**114**	**274**	70	13	83	**505**
05:15 PM	27	116	143	**169**	99	268	64	15	79	490
05:30 PM	29	109	138	163	86	249	57	**17**	74	461
05:45 PM	22	111	133	168	85	253	**71**	17	**88**	474
Total Volume	110	452	562	660	384	1044	262	62	324	1930
% App. Total	19.6	80.4		63.2	36.8		80.9	19.1		
PHF	.859	.974	.949	.976	.842	.953	.923	.912	.920	.955
Pass Cars	109	448	557	654	380	1034	257	61	318	1909
% Pass Cars	99.1	99.1	99.1	99.1	99.0	99.0	98.1	98.4	98.1	98.9
Single Units	1	3	4	6	3	9	3	1	4	17
% Single Units	0.9	0.7	0.7	0.9	0.8	0.9	1.1	1.6	1.2	0.9
Heavy Trucks	0	1	1	0	1	1	2	0	2	4
% Heavy Trucks	0	0.2	0.2	0	0.3	0.1	0.8	0	0.6	0.2
Peds	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0



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Traffic Study Performed For:

Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 5DW SE

File Name : TMC_3 Northville & 7Mile_S_10-18-18
Site Code : TMC_3
Start Date : 10/18/2018
Page No : 1

8 Hour traffic study was conducted during typical weekday (Tuesday-Thursday) from 7:00 AM - 9:00 AM morning, 11:00 AM - 1:00 PM mid-day & 2:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Northville Road Southbound					7 Mile Road Westbound					Northville Road Northbound					Monro Brakes Dw. Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	1	39	65	0	105	37	0	39	0	76	41	29	0	0	70	0	0	0	0	0	251
07:15 AM	1	42	71	0	114	29	0	32	0	61	42	41	0	0	83	0	0	0	0	0	258
07:30 AM	1	44	78	0	123	36	1	61	0	98	49	44	0	0	93	1	0	0	0	1	315
07:45 AM	0	42	91	0	133	55	1	75	0	131	70	61	0	0	131	0	0	0	0	0	395
Total	3	167	305	0	475	157	2	207	0	366	202	175	0	0	377	1	0	0	0	1	1219
08:00 AM	2	36	87	0	125	40	2	48	0	90	73	61	0	0	134	0	1	0	0	1	350
08:15 AM	1	49	108	0	158	61	0	63	0	124	72	56	0	0	128	2	0	0	0	2	412
08:30 AM	1	42	91	0	134	47	0	57	0	104	68	64	0	0	132	0	0	0	0	0	370
08:45 AM	0	57	77	0	134	52	0	43	0	95	60	77	0	0	137	0	0	0	0	0	366
Total	4	184	363	0	551	200	2	211	0	413	273	258	0	0	531	2	1	0	0	3	1498
*** BREAK ***																					
11:00 AM	1	56	94	0	151	76	0	39	0	115	42	53	0	0	95	0	0	0	0	0	361
11:15 AM	0	30	80	0	110	60	0	40	0	100	49	80	0	0	129	0	0	0	0	0	339
11:30 AM	0	44	71	0	115	77	1	35	0	113	38	63	0	0	101	0	0	0	0	0	329
11:45 AM	0	49	75	0	124	83	0	33	0	116	41	52	0	0	93	0	0	0	0	0	333
Total	1	179	320	0	500	296	1	147	0	444	170	248	0	0	418	0	0	0	0	0	1362
12:00 PM	0	56	86	0	142	81	0	40	0	121	67	47	0	0	114	0	0	0	0	0	377
12:15 PM	0	49	87	0	136	93	0	45	0	138	54	51	0	0	105	0	0	0	0	0	379
12:30 PM	0	46	96	0	142	98	0	40	0	138	49	53	0	0	102	0	0	0	0	0	382
12:45 PM	1	49	90	0	140	93	0	60	0	153	52	69	0	0	121	1	0	0	0	1	415
Total	1	200	359	0	560	365	0	185	0	550	222	220	0	0	442	1	0	0	0	1	1553
*** BREAK ***																					
02:00 PM	0	55	73	0	128	79	0	52	0	131	45	63	0	0	108	1	0	0	0	1	368
02:15 PM	2	52	75	0	129	84	0	39	0	123	48	37	0	0	85	0	0	0	0	0	337
02:30 PM	0	61	74	0	135	95	0	56	0	151	59	62	0	0	121	0	0	0	0	0	407
02:45 PM	1	67	81	0	149	106	0	50	0	156	43	64	0	0	107	0	0	0	0	0	412
Total	3	235	303	0	541	364	0	197	0	561	195	226	0	0	421	1	0	0	0	1	1524
03:00 PM	0	61	80	0	141	119	0	53	0	172	53	84	1	0	138	0	0	1	0	1	452
03:15 PM	1	63	72	0	136	89	0	52	0	141	65	126	0	0	191	0	0	0	0	0	468
03:30 PM	1	77	83	0	161	92	0	54	0	146	60	81	0	0	141	0	0	0	0	0	448
03:45 PM	0	60	72	0	132	121	0	55	0	176	67	81	0	0	148	0	0	0	0	0	456
Total	2	261	307	0	570	421	0	214	0	635	245	372	1	0	618	0	0	1	0	1	1824
04:00 PM	0	69	72	0	141	119	0	70	0	189	59	111	0	0	170	0	0	0	0	0	500
04:15 PM	1	61	77	0	139	115	0	62	0	177	73	93	1	0	167	0	0	0	0	0	483
04:30 PM	0	69	98	0	167	141	1	83	0	225	76	105	0	0	181	3	0	0	0	3	576
04:45 PM	1	77	80	0	158	133	0	73	0	206	75	123	0	0	198	1	0	0	0	1	563
Total	2	276	327	0	605	508	1	288	0	797	283	432	1	0	716	4	0	0	0	4	2122
05:00 PM	2	98	88	0	188	136	0	81	0	217	75	130	0	0	205	0	0	1	0	1	611
05:15 PM	0	93	84	0	177	133	1	65	0	199	89	122	0	0	211	0	0	0	0	0	587
05:30 PM	2	87	76	0	165	120	0	77	0	197	88	113	0	0	201	6	0	0	0	6	569
05:45 PM	0	83	91	0	174	121	0	75	0	196	85	113	0	0	198	0	0	0	0	0	568
Total	4	361	339	0	704	510	1	298	0	809	337	478	0	0	815	6	0	1	0	7	2335
Grand Total	20	1863	2623	0	4506	2821	7	1747	0	4575	1927	2409	2	0	4338	15	1	2	0	18	13437
Approch %	0.4	41.3	58.2	0		61.7	0.2	38.2	0		44.4	55.5	0	0		83.3	5.6	11.1	0		
Total %	0.1	13.9	19.5	0	33.5	21	0.1	13	0	34	14.3	17.9	0	0	32.3	0.1	0	0	0	0.1	

Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

Traffic Study Performed For:

Fleis & Vandenbrink

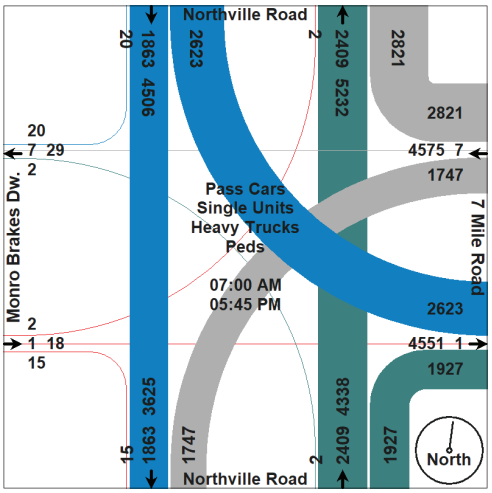
Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 5DW SE

File Name : TMC_3 Northville & 7Mile_S_10-18-18
Site Code : TMC_3
Start Date : 10/18/2018
Page No : 2

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	Northville Road Southbound					7 Mile Road Westbound					Northville Road Northbound					Monro Brakes Dw. Eastbound					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Pass Cars	19	1831	2569	0	4419	2771	6	1706	0	4483	1875	2351	2	0	4228	15	1	2	0	18	13148
% Pass Cars	95	98.3	97.9	0	98.1	98.2	85.7	97.7	0	98	97.3	97.6	100	0	97.5	100	100	100	0	100	97.8
Single Units	1	26	38	0	65	37	1	24	0	62	42	52	0	0	94	0	0	0	0	0	221
% Single Units	5	1.4	1.4	0	1.4	1.3	14.3	1.4	0	1.4	2.2	2.2	0	0	2.2	0	0	0	0	0	1.6
Heavy Trucks	0	6	16	0	22	13	0	17	0	30	10	6	0	0	16	0	0	0	0	0	68
% Heavy Trucks	0	0.3	0.6	0	0.5	0.5	0	1	0	0.7	0.5	0.2	0	0	0.4	0	0	0	0	0	0.5
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TDC Traffic Comments: Signalized "T" intersection, no ped. signals. NTOR overhead case sign for NB approach. Video VCU camera was located within SE intersection quadrant. Note: Peds. are excluded from peak hour reports. Traffic study was performed for Northville Traffic Impact Study for Fleis & Vandenbrink.



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

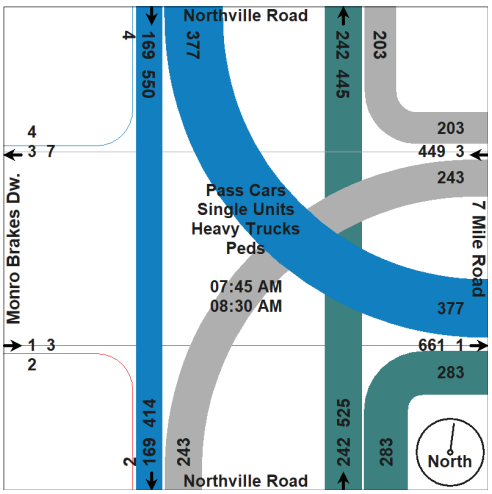
Traffic Study Performed For:

Fleis & Vandenbrink

Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 5DW SE

File Name : TMC_3 Northville & 7Mile_S_10-18-18
Site Code : TMC_3
Start Date : 10/18/2018
Page No : 3

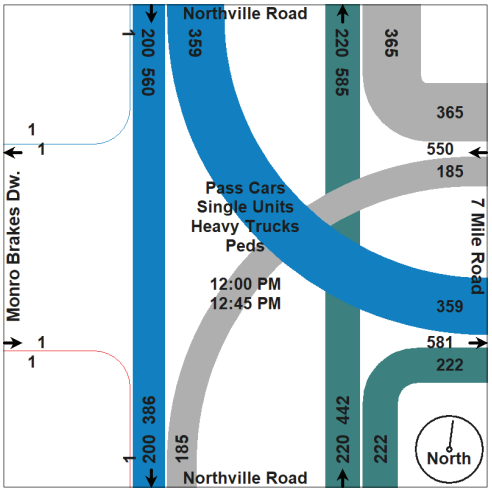
	Northville Road Southbound				7 Mile Road Westbound				Northville Road Northbound				Monro Brakes Dw. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	42	91	133	55	1	**75**	**131**	70	61	0	131	0	0	0	0	395
08:00 AM	**2**	36	87	125	40	**2**	48	90	**73**	61	0	**134**	0	**1**	0	1	350
08:15 AM	1	**49**	**108**	**158**	**61**	0	63	124	72	56	0	128	**2**	0	0	**2**	**412**
08:30 AM	1	42	91	134	47	0	57	104	68	**64**	0	132	0	0	0	0	370
Total Volume	4	169	377	550	203	3	243	449	283	242	0	525	2	1	0	3	1527
% App. Total	0.7	30.7	68.5		45.2	0.7	54.1		53.9	46.1	0		66.7	33.3	0		
PHF	.500	.862	.873	.870	.832	.375	.810	.857	.969	.945	.000	.979	.250	.250	.000	.375	.927
Pass Cars	4	167	375	546	198	3	236	437	274	232	0	506	2	1	0	3	1492
% Pass Cars	100	98.8	99.5	99.3	97.5	100	97.1	97.3	96.8	95.9	0	96.4	100	100	0	100	97.7
Single Units	0	2	2	4	1	0	4	5	7	7	0	14	0	0	0	0	23
% Single Units	0	1.2	0.5	0.7	0.5	0	1.6	1.1	2.5	2.9	0	2.7	0	0	0	0	1.5
Heavy Trucks	0	0	0	0	4	0	3	7	2	3	0	5	0	0	0	0	12
% Heavy Trucks	0	0	0	0	2.0	0	1.2	1.6	0.7	1.2	0	1.0	0	0	0	0	0.8
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 5DW SE

File Name : TMC_3 Northville & 7Mile_S_10-18-18
Site Code : TMC_3
Start Date : 10/18/2018
Page No : 4

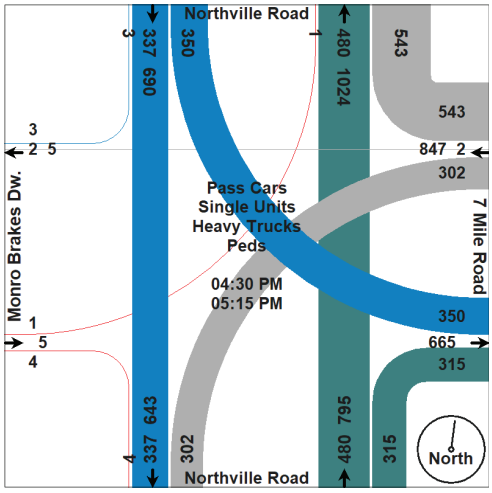
	Northville Road Southbound				7 Mile Road Westbound				Northville Road Northbound				Monro Brakes Dw. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	**56**	86	**142**	81	0	40	121	**67**	47	0	114	0	0	0	0	377
12:15 PM	0	49	87	136	93	0	45	138	54	51	0	105	0	0	0	0	379
12:30 PM	0	46	**96**	142	**98**	0	40	138	49	53	0	102	0	0	0	0	382
12:45 PM	**1**	49	90	140	93	0	**60**	**153**	52	**69**	0	**121**	**1**	0	0	**1**	**415**
Total Volume	1	200	359	560	365	0	185	550	222	220	0	442	1	0	0	1	1553
% App. Total	0.2	35.7	64.1		66.4	0	33.6		50.2	49.8	0		100	0	0		
PHF	.250	.893	.935	.986	.931	.000	.771	.899	.828	.797	.000	.913	.250	.000	.000	.250	.936
Pass Cars	1	198	351	550	361	0	179	540	214	217	0	431	1	0	0	1	1522
% Pass Cars	100	99.0	97.8	98.2	98.9	0	96.8	98.2	96.4	98.6	0	97.5	100	0	0	100	98.0
Single Units	0	1	6	7	3	0	4	7	5	2	0	7	0	0	0	0	21
% Single Units	0	0.5	1.7	1.3	0.8	0	2.2	1.3	2.3	0.9	0	1.6	0	0	0	0	1.4
Heavy Trucks	0	1	2	3	1	0	2	3	3	1	0	4	0	0	0	0	10
% Heavy Trucks	0	0.5	0.6	0.5	0.3	0	1.1	0.5	1.4	0.5	0	0.9	0	0	0	0	0.6
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Project: Northville Traffic Impact Study
Study:8 Hr. Video Turning Movement Count
Weather: Sunny/Cldy. Dry Deg's 50's
Count By Miovision Video VCU 5DW SE

File Name : TMC_3 Northville & 7Mile_S_10-18-18
Site Code : TMC_3
Start Date : 10/18/2018
Page No : 5

	Northville Road Southbound				7 Mile Road Westbound				Northville Road Northbound				Monro Brakes Dw. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	69	**98**	167	**141**	**1**	**83**	**225**	76	105	0	181	**3**	0	0	**3**	576
04:45 PM	1	77	80	158	133	0	73	206	75	123	0	198	1	0	0	1	563
05:00 PM	**2**	**98**	88	**188**	136	0	81	217	75	**130**	0	205	0	0	**1**	1	**611**
05:15 PM	0	93	84	177	133	1	65	199	**89**	122	0	**211**	0	0	0	0	587
Total Volume	3	337	350	690	543	2	302	847	315	480	0	795	4	0	1	5	2337
% App. Total	0.4	48.8	50.7		64.1	0.2	35.7		39.6	60.4	0		80	0	20		
PHF	.375	.860	.893	.918	.963	.500	.910	.941	.885	.923	.000	.942	.333	.000	.250	.417	.956
Pass Cars	3	332	343	678	537	2	302	841	311	473	0	784	4	0	1	5	2308
% Pass Cars	100	98.5	98.0	98.3	98.9	100	100	99.3	98.7	98.5	0	98.6	100	0	100	100	98.8
Single Units	0	3	4	7	4	0	0	4	4	7	0	11	0	0	0	0	22
% Single Units	0	0.9	1.1	1.0	0.7	0	0	0.5	1.3	1.5	0	1.4	0	0	0	0	0.9
Heavy Trucks	0	2	3	5	2	0	0	2	0	0	0	0	0	0	0	0	7
% Heavy Trucks	0	0.6	0.9	0.7	0.4	0	0	0.2	0	0	0	0	0	0	0	0	0.3
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Wing & Randolph - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886942, Location: 42.433, -83.484894

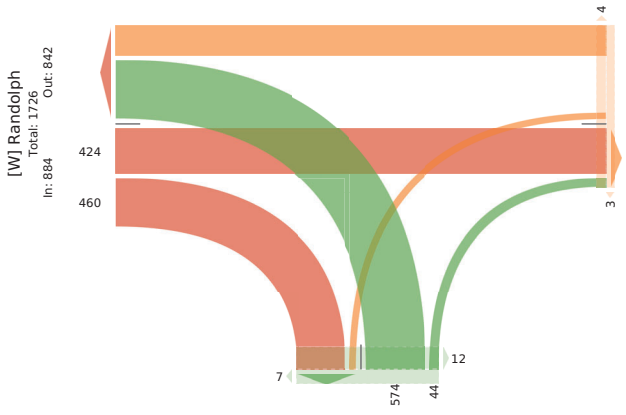
GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Randolph Eastbound					Randolph Westbound					Wing Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:00AM	6	17	0	**23**	0	1	4	0	**5**	0	22	1	0	**23**	1	**51**
7:15AM	17	19	0	**36**	0	0	8	0	**8**	0	24	2	0	**26**	0	**70**
7:30AM	14	19	0	**33**	0	0	7	0	**7**	1	33	0	0	**33**	2	**73**
7:45AM	23	32	0	**55**	0	3	22	0	**25**	0	30	1	0	**31**	0	**111**
Hourly Total	60	87	0	**147**	0	4	41	0	**45**	1	109	4	0	**113**	3	**305**
8:00AM	13	35	0	**48**	0	1	26	0	**27**	0	17	3	0	**20**	0	**95**
8:15AM	22	34	0	**56**	0	0	3	0	**3**	0	18	2	0	**20**	0	**79**
8:30AM	35	22	0	**57**	0	1	5	0	**6**	0	22	2	0	**24**	0	**87**
8:45AM	30	27	0	**57**	0	0	14	0	**14**	0	20	5	0	**25**	0	**96**
Hourly Total	100	118	0	**218**	0	2	48	0	**50**	0	77	12	0	**89**	0	**357**
4:00PM	26	16	0	**42**	0	2	29	0	**31**	0	37	5	0	**42**	2	**115**
4:15PM	20	19	0	**39**	0	3	14	0	**17**	0	35	7	0	**42**	0	**98**
4:30PM	16	16	0	**32**	0	2	21	0	**23**	0	60	0	0	**60**	1	**115**
4:45PM	49	47	0	**96**	0	1	23	0	**24**	0	66	4	0	**70**	0	**190**
Hourly Total	111	98	0	**209**	0	8	87	0	**95**	0	198	16	0	**214**	3	**518**
5:00PM	47	35	0	**82**	0	1	29	0	**30**	0	54	1	0	**55**	4	**167**
5:15PM	39	54	0	**93**	0	0	26	0	**26**	2	52	5	0	**57**	1	**176**
5:30PM	37	28	0	**65**	0	2	17	0	**19**	2	37	1	0	**38**	6	**122**
5:45PM	30	40	0	**70**	0	1	20	0	**21**	2	47	5	0	**52**	2	**143**
Hourly Total	153	157	0	**310**	0	4	92	0	**96**	6	190	12	0	**202**	13	**608**
Total	424	460	0	**884**	0	18	268	0	**286**	7	574	44	0	**618**	19	**1788**
% Approach	48.0%	52.0%	0%	-	-	6.3%	93.7%	0%	-	-	92.9%	7.1%	0%	-	-	-
% Total	23.7%	25.7%	0%	**49.4%**	-	1.0%	15.0%	0%	**16.0%**	-	32.1%	2.5%	0%	**34.6%**	-	-
Lights	423	450	0	**873**	-	18	263	0	**281**	-	562	41	0	**603**	-	1757
% Lights	99.8%	97.8%	0%	**98.8%**	-	100%	98.1%	0%	**98.3%**	-	97.9%	93.2%	0%	**97.6%**	-	98.3%
Single-Unit Trucks	0	2	0	**2**	-	0	1	0	**1**	-	3	1	0	**4**	-	7
% Single-Unit Trucks	0%	0.4%	0%	**0.2%**	-	0%	0.4%	0%	**0.3%**	-	0.5%	2.3%	0%	**0.6%**	-	0.4%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	1	5	0	**6**	-	0	1	0	**1**	-	4	2	0	**6**	-	13
% Buses	0.2%	1.1%	0%	**0.7%**	-	0%	0.4%	0%	**0.3%**	-	0.7%	4.5%	0%	**1.0%**	-	0.7%
Bicycles on Road	0	3	0	**3**	-	0	3	0	**3**	-	5	0	0	**5**	-	11
% Bicycles on Road	0%	0.7%	0%	**0.3%**	-	0%	1.1%	0%	**1.0%**	-	0.9%	0%	0%	**0.8%**	-	0.6%
Pedestrians	-	-	-	-	0	-	-	-	-	7	-	-	-	-	17	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	89.5%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	10.5%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Randolph - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886942, Location: 42.433, -83.484894

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Out: 478 In: 618
Total: 1096
[S] Wing

GEWALT HAMILTON ASSOCIATES, INC.

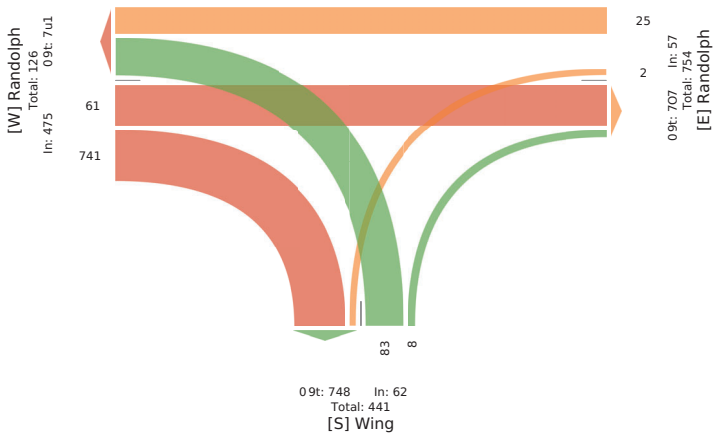
LdRmsBeBbo7Gev nfi Hnl s6tRr F CCRcsnteCDrc.
82M5RdeCl EBi e : dsne, Vedr Rr Hs6tC, Da , 80081, k U

a ei : sdectsRr	wnr BRRpS EnCtbRur B				wnr BRRpS WeCtbRur B				Wsr i NRttSbRur B				
Tsl e	T	w	k	**F pp**	LeB*	a	T	k	**F pp**	LeB*	a	w	k	**F pp**	LeB*	**Dt**
2021-10-19 (7AMF l	23	32	0	**M4**	0	3	22	0	**2M**	0	30	1	0	**31**	0	**111**
47b0F l	13	3M	0	**A4**	0	1	28	0	**2(**	0	1(	3	0	**20**	0	**9M**
47l MF l	22	3A	0	**M8**	0	0	3	0	**3**	0	14	2	0	**20**	0	**(9**
4730F l	3M	22	0	**Mj**	0	1	M	0	**8**	0	22	2	0	**2A**	0	**4(**
TRtn6	93	123	0	**218**	0	M	M8	0	**81**	0	4(	4	0	**9M**	0	**3(2**
% F ppRncS	A3.1%	M8.9%	0%	**-**	-	4.2%	91.4%	0%	**-**	-	91.8%	4.A%	0%	**-**	-	-
% TRtn6	2M0%	33.1%	0%	**M.1%**	-	1.3%	1M1%	0%	**18.A%**	-	23.A%	2.2%	0%	**2MM%**	-	-
LH5	0.88A	0.4(9	-	**0.9A(**	-	0.A1 (	0.M4	-	**0.M8M**	-	0.(2M	0.88(	-	**0.(88**	-	0.434
a si StC	92	114	0	**210**	-	M	MM	0	**80**	-	43	4	0	**91**	-	381
% a si StC	94.9%	9M9%	0%	**9(.2%**	-	100%	94.2%	0%	**94.A%**	-	9MA%	100%	0%	**9M4%**	-	9(.0%
Usr i 6e-k r st TducgC	0	0	0	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	1
% Usr i 6e-k r st TducgC	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	1.1%	0%	0%	**1.1%**	-	0.3%
F dscu6nteB TducgC	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% F dscu6nteB TducgC	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
y uCeC	1	M	0	**8**	-	0	1	0	**1**	-	3	0	0	**3**	-	10
% y uCeC	1.1%	A1%	0%	**2.4%**	-	0%	1.4%	0%	**1.8%**	-	3.A%	0%	0%	**3.2%**	-	2.(%
y scoc6eCRr wRnB	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% y scoc6eCRr wRnB	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
LeBeCdcknr C	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% LeBeCdcknr C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
y scoc6eCRr) dRCCv nfg	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% y scoc6eCRr) dRCCv nfg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*LeBeCdcknr Cnr B y scoc6eCRr) dRCCv nfg. a 7a eft, w7wsi St, T7TSdu, k 7k -Tudr

Wing & Randolph - TMC
Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeChn si StC, Usr i 6e-k r st TducgC, F dscu6nteB TducgC, y uCeC,
LeBeCdcknr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfgP
F 6l l Rme l er tC
D 74489A2, a RcntsRr 7A2.A33, -43.A4A49A

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeBbo7Gev nfi Hnl s6tRr F CCRcsnteCDrc.
82M5RdeCl EBi e : dsne, Vedr Rr Hs6tC, Da , 80081, k U



Wing & Randolph - TMC
Tue Oct 19, 2021
Fl FeLn gh(h7 Fl A7(h7 Fl MAO - e4LPFeLn 6) u4
CPPa Flsses gl SLr ts, k SlUtePBdSt T4ucns, C4tScuRLtey T4ucns, o uses, Feyest4SLds, o StRcRes) d w) Ly, o StRcRes) d a 4) ssv LPhM
CPPl) - emedts
ID(: : 89h2, i) cLrS) d(h2.h33, A 3.h: h: 9h

GEWALT HAMILTON ASSOCIATES, INC.

F4) - Syey bR(Gev LPt 6 LmSPt) d Css) cSLtes Idc.
827 H) 4est 5 yUe D4Se, E e4t) d 6 SPBs, Ii , 80081, Bk

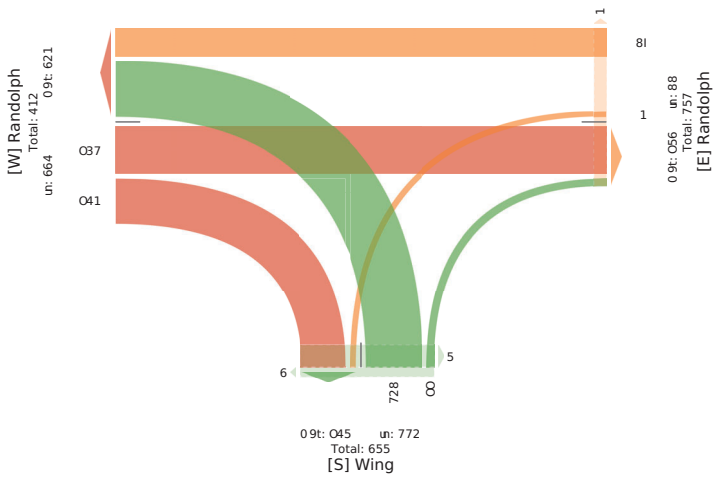
i eU DSlectSyd	wLdy) PAr 5 Lstb) udy					wLdy) PAr p estb) udy					p SlU W) 4r b) udy					
TSne	T	w	B	**CW**	FeyN	i	T	B	**CW**	FeyN	i	w	B	**CW**	FeyN	**Idt**
2021A10A19 h(h7Fl	h9	h*	0	**98**	0	1	23	0	**2h**	0	88	h	0	***0**	0	**190**
7(00Fl	h*	37	0	**: 2**	0	1	29	0	**30**	0	7h	1	0	**77**	h	**18***
7(17Fl	39	7h	0	**93**	0	0	28	0	**28**	2	72	7	0	**7***	1	**1*8**
7(30Fl	3*	2:	0	**87**	0	2	1*	0	**19**	2	3*	1	0	**3:**	8	**122**
T) tLP	1*2	18h	0	**338**	0	h	97	0	**99**	h	209	11	0	**220**	11	**877**
% CVWtj Lcr	71.2%	h: .: %	0%	**A**	A	h.0%	98.0%	0%	**A**	A	97.0%	7.0%	0%	**A**	A	A
% T) tLP	28.3%	27.0%	0%	**71.3%**	A	0.8%	1h.7%	0%	**17.1%**	A	31.9%	1.*%	0%	**33.8%**	A	A
F6 H	0.: *:	0.*79	A	**0.: 8***	A	0.700	0.: 02	A	**0.: 0:**	A	0.*: h	0.770	A	**0.**9**	A	0.: 73
i SLr ts	1*2	180	0	**332**	A	h	93	0	**9***	A	208	10	0	**218**	A	8h7
% i SLr ts	100%	9*.8%	0%	**9: .: %**	A	100%	9*.9%	0%	**9: .0%**	A	9: .8%	90.9%	0%	**9: .2%**	A	9: .7%
k SlUtePBdSt T4ucns	0	1	0	**1**	A	0	0	0	**0**	A	1	0	0	**1**	A	2
% k SlUtePBdSt T4ucns	0%	0.8%	0%	**0.3%**	A	0%	0%	0%	**0%**	A	0.7%	0%	0%	**0.7%**	A	0.3%
C4tScuRLtey T4ucns	0	0	0	**0**	A	0	0	0	**0**	A	0	0	0	**0**	A	0
% C4tScuRLtey T4ucns	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%
o uses	0	0	0	**0**	A	0	0	0	**0**	A	0	1	0	**1**	A	1
% o uses	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%	9.1%	0%	**0.7%**	A	0.2%
o StRcRes) d w) Ly	0	3	0	**3**	A	0	2	0	**2**	A	2	0	0	**2**	A	*
% o StRcRes) d w) Ly	0%	1.: %	0%	**0.9%**	A	0%	2.1%	0%	**2.0%**	A	1.0%	0%	0%	**0.9%**	A	1.1%
Feyest4SLds	A	A	A	A	0	A	A	A	A	h	A	A	A	A	10	
% Feyest4SLds	A	A	A	A	A	A	A	A	A	100%	A	A	A	A	90.9%	A
o StRcRes) d a 4) ssv LIh	A	A	A	A	0	A	A	A	A	0	A	A	A	A	1	
% o StRcRes) d a 4) ssv LIh	A	A	A	A	A	A	A	A	A	0%	A	A	A	A	9.1%	A

NFeyest4SLds Ldy o StRcRes) d a 4) ssv LIh. i (i eft, w(wSLr t, T(Tr 4u, B(BAf u4d

Wing & Randolph - TMC
Tue Oct 19, 2021
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886942, Location: 42.433, -83.484894

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Randolph & Center - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 88694. , Location: 4234. 2774, -8. 348. 249

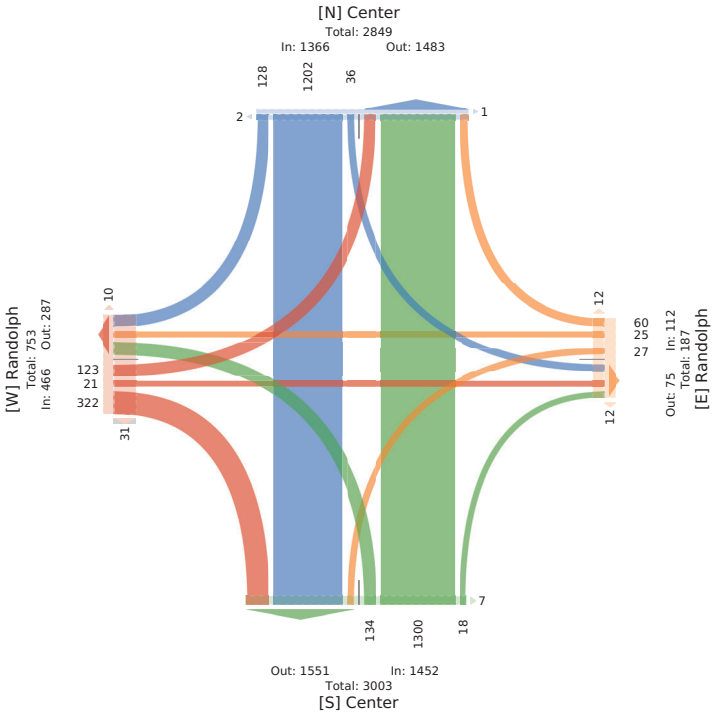
GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Randolph Eastbound							Randolph Westbound							Center Northbound							Center Southbound						
Time	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	2	0	5	0	7	0	91	0	0	0	0	0	0	91	.	. 9	1	0	4.	0	91	1	.8	2	0	41	0	91
7:15AM	6	0	12	0	18	0	112	0	0	0	0	0	0	112	5	47	0	0	52	0	112	0	. 9	.	0	42	0	112
7:. 0AM	.	0	12	0	15	0	14.	0	0	0	0	0	0	14.	.	56	1	0	60	2	14.	2	62	4	0	68	0	14.
7:45AM	6	0	18	0	24	0	254	0	0	2	0	2	0	254	2	87	0	0	89	0	254	1	116	22	0	1. 9	0	254
Hourly Total	17	0	47	0	64	0	600	0	0	2	0	2	0	600	1.	229	2	0	244	2	600	4	255	. 1	0	290	0	600
8:00AM	6	0	9	0	15	1	249	1	0	0	0	1	1	249	7	75	0	0	82	0	249	1	1. 1	19	0	151	0	249
8:15AM	1	0	21	0	22	2	189	2	0	1	0	.	1	189	2	85	1	0	88	0	189	1	74	1	0	76	0	189
8:. 0AM	7	2	28	0	.7	2	155	1	0	2	0	.	2	155	4	60	0	0	64	0	155	2	47	2	0	51	0	155
8:45AM	10	1	24	0	.5	4	19.	2	2	2	0	6	1	19.	10	58	1	0	69	0	19.	.	76	4	0	8.	0	19.
Hourly Total	24	.	82	0	109	9	786	6	2	5	0	1.	5	786	2.	278	2	0	. 0.	0	786	7	.28	.26	0	. 61	0	786
4:00PM	12	1	18	0	. 1	7	280	1	5	9	0	15	5	280	16	116	2	0	1. 4	0	280	2	88	10	0	100	1	280
4:15PM	9	.	17	0	29		225	1	2	5	0	8	1	225	7	78	1	0	86	0	225	.	91	8	0	102	0	225
4:. 0PM	2	0	15	0	17	6	242	5	.	5	0	1.	1	242	15	98	2	0	115	0	242	4	84	9	0	97	0	242
4:45PM	19	2	. 1	0	52	1	252	1	0	9	0	10	0	252	1.	108	1	0	122	0	252	0	55	1.	0	68	0	252
Hourly Total	42	6	81	0	129	17	999	8	10	28	0	46	7	999	51	400	6	0	457	0	999	9	.18	40	0	. 67	1	999
5:00PM	14	.	. 2	0	49	4	221	4	.	7	0	14	2	221	15	85	2	0	102	1	221	2	46	8	0	56	0	221
5:15PM	11	2	. 1	0	44	2	249	.	5	5	0	1.	.	249	10	117	1	0	128	0	249	2	52	10	0	64	0	249
5:. 0PM	7	7	2.	0	. 7	6	270	4	1	6	0	11	4	270	10	99	.	0	112	4	270	5	96	9	0	110	2	270
5:45PM	8	0	26	0	. 4		271	2	4	7	0	1.	.	271	12	92	2	0	106	0	271	7	107	4	0	118	0	271
Hourly Total	40	12	112	0	164	15	1011	1.	1.	25	0	51	12	1011	47	. 9.	8	0	448	5	1011	16	. 01	. 1	0	. 48	2	1011
Total	12.	21	. 22	0	**466**	41	. . 96	27	25	60	0	**112**	24	. . 96	1. 4	1. 00	18	0	**1452**	7	. . 96	. 6	1202	128	0	**1. 66**		. . 96
% Approach	26. 8%	4. 5%	69. 3%	0%	**-**	-	-	24. 3%	22. 3 %	5. 6%	0%	**-**	-	-	9. 2%	89. 5%	1. 2%	0%	**-**	-	-	2. 6%	88. 0%	9. 4%	0%	**-**	-	-
% Total	. 6%	0. 6%	9. 3%	0%	**1. 3%**	-	-	0. 8%	0. 3%	1. 8%	0%	**. 3 %**	-	-	. 9%	. 8. 3 %	0. 5%	0%	**42. 8%**	-	-	1. 3 %	. 5. 4%	. 8%	0%	**40. 2%**	-	-
Lights	120	21	21	0	**462**	-	. . 47	26	25	60	0	**111**	-	. . 47	1. 1	1279	18	0	**1428**	-	. . 47	. 6	1185	125	0	**1. 46**	-	. . 47
% Lights	97. 6%	100%	97. 7%	0%	**99. 1%**	-	98. 6%	96. 3 %	100%	100%	0%	**99. 1%**	-	98. 6%	97. 8%	98. 4%	100%	0%	**98. 3 %**	-	98. 6%	100%	98. 6%	97. 7%	0%	**98. 5%**	-	98. 6%
Single-Unit Trucks	1	0	0	0	**1**	-	22	0	0	0	0	**0**	-	22	1	11	0	0	**12**	-	22	0	8	1	0	**9**	-	22
% Single-Unit Trucks	0. 8%	0%	0%	0%	**0. 2%**	-	0. 6%	0%	0%	0%	0%	**0%**	-	0. 6%	0. 7%	0. 8%	0%	0%	**0. 8%**	-	0. 6%	0%	0. 7%	0. 8%	0%	**0. 7%**	-	0. 6%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	0%	**0%**	-	0%
Buses	2	0	1	0	.	-	1.	1	0	0	0	**1**	-	1.	1	4	0	0	**5**	-	1.	0	4	0	0	**4**	-	1.
% Buses	1. 6%	0%	0. 3 %	0%	**0. 6%**	-	0. 4%	. 3%	0%	0%	0%	**0. 3%**	-	0. 4%	0. 3%	0. 3 %	0%	0%	**0. 3 %**	-	0. 4%	0%	0. 3 %	0%	0%	**0. 3 %**	-	0. 4%
Bicycles on Road	0	0	0	0	**0**	-	14	0	0	0	0	**0**	-	14	1	6	0	0	**7**	-	14	0	5	2	0	**7**	-	14
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0. 4%	0%	0%	0%	0%	**0%**	-	0. 4%	0. 3%	0. 5%	0%	0%	**0. 5%**	-	0. 4%	0%	0. 4%	1. 6%	0%	**0. 5%**	-	0. 4%
Pedestrians	-	-	-	-	-	. .		-	-	-	-	-	2.		-	-	-	-	-	6		-	-	-	-	-	-	
% Pedestrians	-	-	-	-	- 80. 3%			-	-	-	-	- 95. 8%			-	-	-	-	- 85. 7%			-	-	-	-	- 100%		
Bicycles on Crosswalk	-	-	-	-	-	8		-	-	-	-	-	1		-	-	-	-	-	1		-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	- 19. 5%			-	-	-	-	- 42. 9%			-	-	-	-	- 14. 3 %			-	-	-	-	- 0%		

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Randolph & Center - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 88694. , Location: 4234. 2774, -8. 348. 249

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Randolph & Center - TMC
Tue Oct 19, 2021
F l Leng h(7AM F l - 47AM F l P
F 6) 6nCCeChn si StC, Usr i 6e-k r st TducgC, F dcscu6nteB TducgC, y uCeC, LeBeCtdcnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfg.P
F 6) l Rnne l er tC.
D 7 4 4 8 9 A , a RcntsRr 7 A 2 3 A 2 ((A, -4. 3 4. 2 A 9

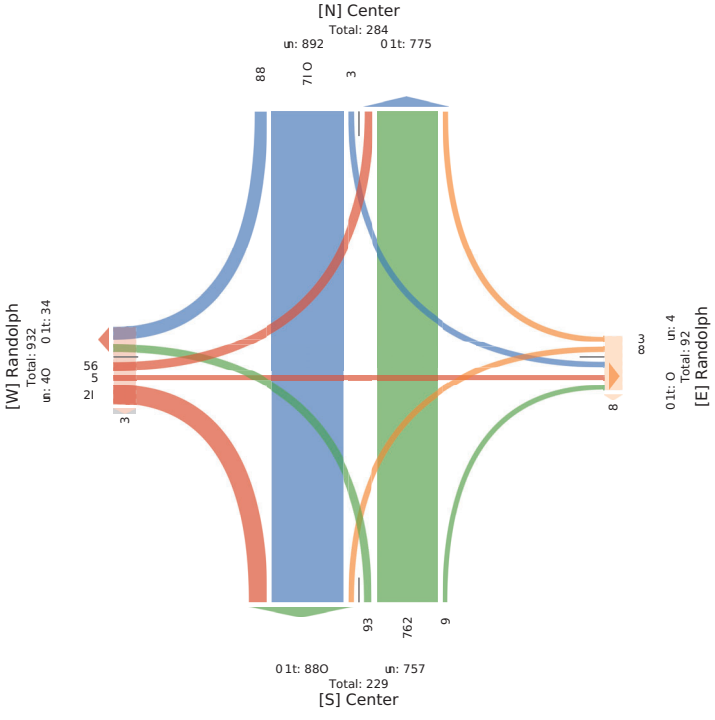
GEWALT HAMILTON ASSOCIATES, INC.
LdRnnBeBbo7Gev n6 Hnl s6fRr F CCRcsnteCDc3
82M5 RdeCt EBi e : dnne, Vedr Rr Hs6fC, Da , 80081, k U

a ei : sdectsRr	wnr BR6pS EnCtbRur B						wnr BR6pS WeCtbRur B						) er ted NRdSbRur B						) er ted URurSbRur B						
Tsi e	a	T	w	k	F pp	LeB*	a	T	w	k	F pp	LeB*	a	T	w	k	F pp	LeB*	a	T	w	k	F pp	LeB*	D t
2021-10-19 (7AM F l	8	0	14	0	**2A**	0	0	0	2	0	**2**	0	2	4(	0	0	**49**	0	1	118	22	0	**1. 9**	0	**2MA**
4 7 00 F l	8	0	9	0	**1M**	1	1	0	0	0	**1**	1	(	(M	0	0	**42**	0	1	1. 1	19	0	**1M**	0	**2A9**
47 1 M F l	1	0	21	0	**22**	2	2	0	1	0	.	1	2	4M	1	0	**44**	0	1	(A	1	0	**(8**	0	**149**
47. 0 F l	(	2	24	0	**. (**	2	1	0	2	0	.	2	A	80	0	0	**8A**	0	2	A(	. 2	0	**M**	0	**1MA**
TRn6	20	2	(8	0	**94**	M	A	0	M	0	**9**	A	1M	. 0(	1	0	**. 2.**	0	M	. 84	AA	0	**Al(**	0	**4A(**
% F ppdRnCS	20. 8%	2. 0%	((. 8%	0%	**-**	-	AA. 8%	0%	M. 8%	0%	**-**	-	A8. 8%	9M. 0%	03 %	0%	**-**	-	13. 2%	44. 2%	10. 8%	0%	**-**	-	-
% TRn6	2. 8%	0. 2%	9. 0%	0%	**11. 8%**	-	0. 3M%	0%	0. 8%	0%	**1. 3%**	-	13. 4%	. 8. 2%	0. 1%	0%	**. 4. 3%**	-	0. 8%	A 3%	M. 2%	0%	**A9. 2%**	-	-
LH5	0(1A 0. 2M	0	0. 8(9	-	**0. 8 8 2**	-	0. 3M 0	-	0. 8 2 M	-	**- 0. 1 M**	-	0. 3M. 8	0. 8 4 2	0. 2 M	0	**- 0. 9 0(**	-	0. 8 2 M	0 1 00	0. 3M 0	-	**0. 8 4 9**	-	0. 8 1. .
a si StC	20	2	(M	0	**9(**	-	A	0	M	0	**9**	-	1A	. 01	1	0	**. 1 8**	-	M	. 80	AA	0	**A 0 9**	-	4. 1
% a si StC	100%	100%	94. 1 %	0%	**99. 0%**	-	100%	0%	100%	0%	**100%**	-	9. 3 %	94. 0%	100%	0%	**9(1. 8%**	-	100%	9(1. 8%	100%	0%	**94. 1%**	-	94. 1%
Usr i 6e-k r st TducgC	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	M	0	0	**M**	-	0	A	0	0	**A**	-	9
% Usr i 6e-k r st TducgC	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	1. 8%	0%	0%	**1. M%**	-	0%	1. 1%	0%	0%	**1. 0%**	-	1. 1%
F dscu6nteB TducgC	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% F dscu6nteB TducgC	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
y uCeC	0	0	1	0	**1**	-	0	0	0	0	**0**	-	1	1	0	0	**2**	-	0	.	0	0	**.**	-	8
% y uCeC	0%	0%	1. 3 %	0%	**1. 0%**	-	0%	0%	0%	0%	**0%**	-	8. 3 %	0. 3 %	0%	0%	**0. 8%**	-	0%	0. 3%	0%	0%	**0. 1 %**	-	0. 1 %
y scoc6eCRr wRnB	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	1
% y scoc6eCRr wRnB	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0. 3 %	0%	0%	**0. 2%**	-	0. 1 %
LeBeCtdcnr C	-	-	-	-	-	A	-	-	-	-	-	A	-	-	-	-	-	0	-	-	-	-	-	0	
% LeBeCtdcnr C	-	-	-	-	- 40. 0%		-	-	-	-	- 100%		-	-	-	-	-		-	-	-	-	-		
y scoc6eCRr) dRCCv nfg	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% y scoc6eCRr) dRCCv nfg	-	-	-	-	- 20. 0%		-	-	-	-	- 0%		-	-	-	-	-		-	-	-	-	-		

*LeBeCtdcnr Cnr B y scoc6eCRr) dRCCv nfg 3a 7a eft, w7 wsi St, T7 TSdu, k 7k -Tudr

Randolph & Center - TMC
Tue Oct 19, 2021
F l Leng h(7AM F l - 47AM F l P
F 6) 6nCCeChn si StC, Usr i 6e-k r st TducgC, F dcscu6nteB TducgC, y uCeC, LeBeCtdcnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfg.P
F 6) l Rnne l er tC
D 7 4 4 8 9 A , a RcntsRr 7 A 2 3 A 2 ((A, -4. 3 4. 2 A 9

GEWALT HAMILTON ASSOCIATES, INC.
LdRnnBeBbo7Gev n6 Hnl s6fRr F CCRcsnteCDc3
82M5 RdeCt EBi e : dnne, Vedr Rr Hs6fC, Da , 80081, k U



Randolph & Center - TMC

Tue Oct 19, 2021
Fl FeLn gh Fl (7 Fl A(OM4-L4l FeLn P 6u-
) 4l C4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteB T-ucna, y uaea, FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 4l l 6Mev ekta
nh D : 798. , s 6cLti6kDB23B. 2bb8, (: . 3B: . 289

GEWALT HAMILTON ASSOCIATES, INC.
F-6MBeB GoDHewL4 P Lv i46k) aa6ciLtea nhc3
72h 56-eat EBSe I -iMv, Ve-k6k P i4a, ns , 70071, d r

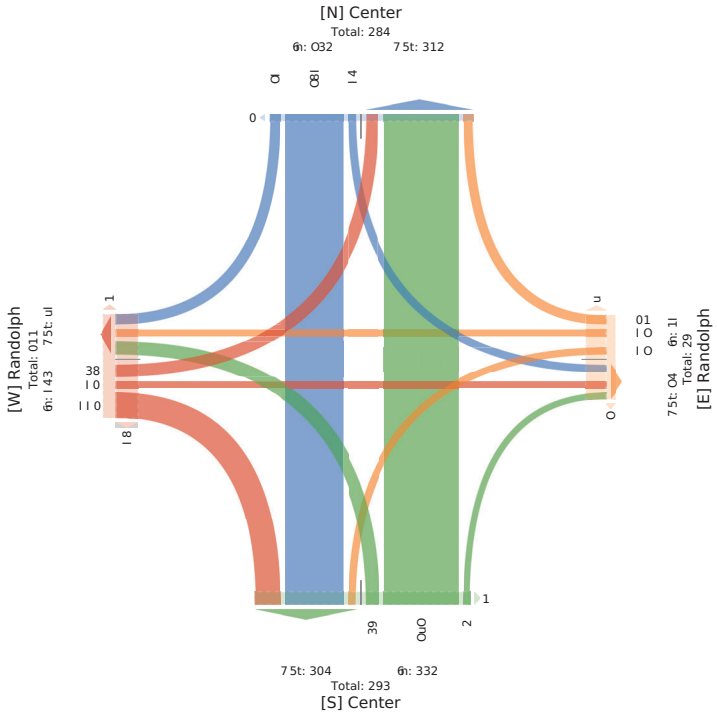
s eS t i-ectl6k	R1kB64pU ELatG6ukB						R1kB64pU WeatG6ukB						Cekte- N6-tUG6ukB						Cekte- r 6utUG6ukB						
Tiv e	s	T	R	d	) pp	FeB*	s	T	R	d	) pp	FeB*	s	T	R	d	) pp	FeB*	s	T	R	d	) pp	FeB*	nkt
2021(10(19 h00F1	18	.	. 2	0	89	8	8	.	b	0	18	2	1h	: h	2	0	102	1	2	87	:	0	h7	0	221
h0hFl	11	2	. 1	0	88	2	.	h	h	0	1.	.	10	11b	1	0	12:	0	2	h2	10	0	78	0	289
hD0F1	b	b	2.	0	. b	7	8	1	7	0	11	8	10	99	.	0	112	8	h	97	9	0	110	2	2b0
h0hFl	:	0	27	0	. 8		2	8	b	0	1.	.	12	92	2	0	107	0	b	10b	8	0	11:	0	2b1
T6tL4	80	12	112	0	**178**	1h	1.	1.	2h	0	**h1**	12	8b	. 9.	:	0	**88:**	h	17	. 01	. 1	0	**. 8:**	2	**1011**
%) pp-6LcU	28.8%	b3 %	7: 3 %	0%	**(**	(	2h.h%	2h.h%	89.0%	0%	**(**	(	103.h%	: b.h%	13 %	0%	**(**	(	8.7%	: 7.h%	: 3%	0%	**(**	(	(
% T6tL4	83.0%	1.2%	11.3%	0%	**17.2%**	(	13 %	13 %	2.h%	0%	**h.0%**	(	8.7%	. : 3%	03 %	0%	**883 %**	(	1.7%	293 %	. 3 %	0%	**. 8.8%**	(	(
FP 5	03.b18	03.29	03 hh	(	**03 . b**	(	03 1.	0.7h0	03 9.	(	**03.911**	(	03.b7b	03 29	0.77b	(	**03 b0**	(	03.hb1	0.797	03 . .	(	**03.b29**	(	0.92.
s iSUta	80	12	112	0	**178**	(	1.	1.	2h	0	**h1**	(	87	. : :	:	0	**882**	(	17	29h	. 0	0	**. 81**	(	99:
% s iSUta	100%	100%	100%	0%	**100%**	(	100%	100%	100%	0%	**100%**	(	9h.9%	9: 3%	100%	0%	**9: 3%**	(	100%	9: 10%	97.3 %	0%	**9: 3%**	(	9: 3%
r ikS4e(d kit T-ucna	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	.	0	0	**.**	(	.
% r ikS4e(d kit T-ucna	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	1.0%	0%	0%	**0.9%**	(	0.3 %
) -ticu4LteB T-ucna	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
%) -ticu4LteB T-ucna	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%
y uaea	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
% y uaea	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%
y icoc4ea 6k R6LB	0	0	0	0	**0**	(	0	0	0	0	**0**	(	1	h	0	0	**7**	(	0	.	1	0	**8**	(	10
% y icoc4ea 6k R6LB	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	23%	13 %	0%	0%	**13 %**	(	0%	1.0%	. 2%	0%	**1.3%**	(	1.0%
FeBeat-iLka	(	(	(	(	(	9	(	(	(	(	(	11	(	(	(	(	(	8	(	(	(	(	(	2	
% FeBeat-iLka	(	(	(	(	(70.0%		(	(	(	(	(91.3%		(	(	(	(	(: 0.0%		(	(	(	(	(100%		(
y icoc4ea 6k C-6aawL4n	(	(	(	(	(	7	(	(	(	(	(	1	(	(	(	(	(	1	(	(	(	(	(	0	
% y icoc4ea 6k C-6aawL4n	(	(	(	(	(80.0%		(	(	(	(	(: 3 %		(	(	(	(	(20.0%		(	(	(	(	(0%		(

*FeBeat-iLka IkB y icoc4ea 6k C-6aawL4n3s Ds eft, RDRiSU, TDTU-u, d Dtl (Tu-k

Randolph & Center - TMC

Tue Oct 19, 2021
Fl FeLn gh Fl (7 Fl A(OM4-L4l FeLn P 6u-
) 4l C4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteB T-ucna, y uaea, FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 4l l 6Mev ekta
nh D : 798. , s 6cLti6kDB23B. 2bb8, (: . 3B: . 289

GEWALT HAMILTON ASSOCIATES, INC.
F-6MBeB GoDHewL4 P Lv i46k) aa6ciLtea nhc3
72h 56-eat EBSe I -iMv, Ve-k6k P i4a, ns , 70071, d r



Wing & Dunlap - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886941, Location: 42.432119, -83.484794

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

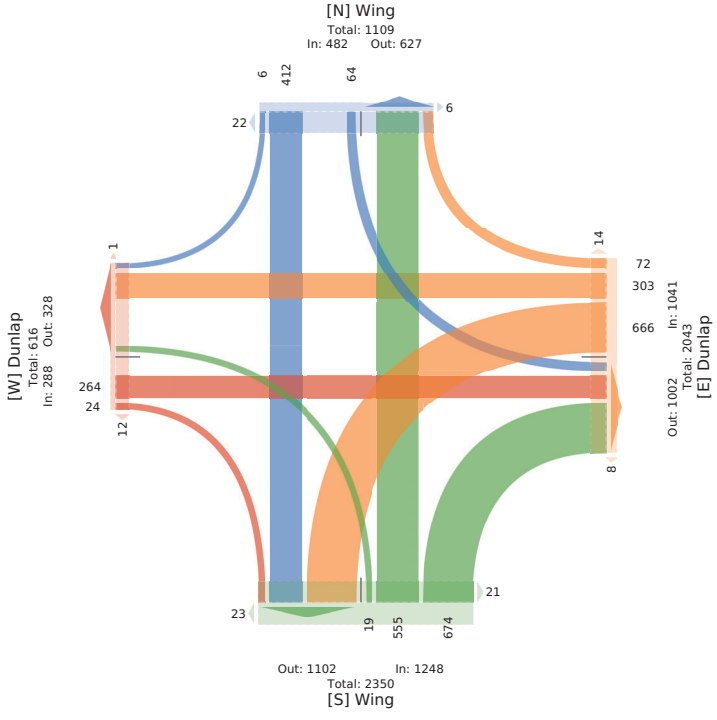
Leg Direction	Dunlap Eastbound						Dunlap Westbound						Wing Northbound						Wing Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	6	1	0	**7**	0	24	6	2	0	**32**	1	0	21	15	0	**36**	0	1	17	0	0	**18**	0	**93**
7:15AM	0	12	0	0	**12**	0	24	12	2	0	**38**	0	0	23	23	0	**46**	1	1	16	0	0	**17**	0	**113**
7:30AM	0	15	0	0	**15**	0	33	8	3	0	**44**	1	0	30	18	0	**48**	1	3	19	0	0	**22**	0	**129**
7:45AM	0	25	0	0	**25**	1	72	14	3	0	**89**	0	1	30	47	0	**78**	1	3	32	0	0	**35**	0	**227**
Hourly Total	0	58	1	0	**59**	1	153	40	10	0	**203**	2	1	104	103	0	**208**	3	8	84	0	0	**92**	0	**562**
8:00AM	0	17	1	0	**18**	0	66	25	3	0	**94**	0	2	16	46	0	**64**	2	3	33	0	0	**36**	0	**212**
8:15AM	0	20	0	0	**20**	0	35	12	2	0	**49**	0	1	19	50	0	**70**	1	3	31	0	0	**34**	0	**173**
8:30AM	0	15	0	0	**15**	0	28	13	4	0	**45**	1	2	19	30	0	**51**	1	4	18	0	0	**22**	1	**133**
8:45AM	0	17	2	0	**19**	1	39	20	3	0	**62**	2	1	24	32	0	**57**	0	5	23	0	0	**28**	3	**166**
Hourly Total	0	69	3	0	**72**	1	168	70	12	0	**250**	3	6	78	158	0	**242**	4	15	105	0	0	**120**	4	**684**
4:00PM	0	23	4	0	**27**	1	49	28	4	0	**81**	3	0	37	54	0	**91**	1	1	18	0	0	**19**	6	**218**
4:15PM	0	11	0	0	**11**	5	52	20	5	0	**77**	0	0	39	39	0	**78**	7	4	17	0	0	**21**	1	**187**
4:30PM	0	12	2	0	**14**	1	35	28	9	0	**72**	0	1	53	59	0	**113**	7	2	14	2	0	**18**	2	**217**
4:45PM	0	19	3	0	**22**	1	31	19	8	0	**58**	0	2	61	54	0	**117**	4	7	39	1	0	**47**	1	**244**
Hourly Total	0	65	9	0	**74**	8	167	95	26	0	**288**	3	3	190	206	0	**399**	19	14	88	3	0	**105**	10	**866**
5:00PM	0	16	1	0	**17**	0	31	17	5	0	**53**	5	4	51	49	0	**104**	0	3	33	2	0	**38**	4	**212**
5:15PM	0	21	6	0	**27**	2	40	28	6	0	**74**	4	2	52	61	0	**115**	9	8	48	0	0	**56**	4	**272**
5:30PM	0	18	2	0	**20**	0	47	25	2	0	**74**	2	3	37	47	0	**87**	4	4	26	1	0	**31**	3	**212**
5:45PM	0	17	2	0	**19**	1	60	28	11	0	**99**	3	0	43	50	0	**93**	5	12	28	0	0	**40**	3	**251**
Hourly Total	0	72	11	0	**83**	3	178	98	24	0	**300**	14	9	183	207	0	**399**	18	27	135	3	0	**165**	14	**947**
Total	0	264	24	0	**288**	13	666	303	72	0	**1041**	22	19	555	674	0	**1248**	44	64	412	6	0	**482**	28	**3059**
% Approach	0%	91.7%	8.3%	0%	**-**	-	64.0%	29.1%	6.9%	0%	**-**	-	1.5%	44.5%	54.0%	0%	**-**	-	13.3%	85.5%	1.2%	0%	**-**	-	-
% Total	0%	8.6%	0.8%	0%	**9.4%**	-	21.8%	9.9%	2.4%	0%	**34.0%**	-	0.6%	18.1%	22.0%	0%	**40.8%**	-	2.1%	13.5%	0.2%	0%	**15.8%**	-	-
Lights	0	261	23	0	**284**	-	662	299	72	0	**1033**	-	19	540	664	0	**1223**	-	64	400	6	0	**470**	-	3010
% Lights	0%	98.9%	95.8%	0%	**98.6%**	-	99.4%	98.7%	100%	0%	**99.2%**	-	100%	97.3%	98.5%	0%	**98.0%**	-	100%	97.1%	100%	0%	**97.5%**	-	98.4%
Single-Unit Trucks	0	0	0	0	**0**	-	2	1	0	0	**3**	-	0	3	7	0	**10**	-	0	2	0	0	**2**	-	15
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0.3%	0.3%	0%	0%	**0.3%**	-	0%	0.5%	1.0%	0%	**0.8%**	-	0%	0.5%	0%	0%	**0.4%**	-	0.5%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	1	0	0	**1**	-	0	1	0	0	**1**	-	0	6	2	0	**8**	-	0	5	0	0	**5**	-	15
% Buses	0%	0.4%	0%	0%	**0.3%**	-	0%	0.3%	0%	0%	**0.1%**	-	0%	1.1%	0.3%	0%	**0.6%**	-	0%	1.2%	0%	0%	**1.0%**	-	0.5%
Bicycles on Road	0	2	1	0	**3**	-	2	2	0	0	**4**	-	0	6	1	0	**7**	-	0	5	0	0	**5**	-	19
% Bicycles on Road	0%	0.8%	4.2%	0%	**1.0%**	-	0.3%	0.7%	0%	0%	**0.4%**	-	0%	1.1%	0.1%	0%	**0.6%**	-	0%	1.2%	0%	0%	**1.0%**	-	0.6%
Pedestrians	-	-	-	-	-	13	-	-	-	-	-	22	-	-	-	-	-	44	-	-	-	-	-	25	
% Pedestrians	-	-	-	-	-	- 100%	-	-	-	-	-	- 100%	-	-	-	-	-	- 100%	-	-	-	-	-	- 89.3%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	- 10.7%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Dunlap - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886941, Location: 42.432119, -83.484794

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



GEWALT HAMILTON ASSOCIATES, INC.

| | | |

Dunlap & Center - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886944, Location: 42.432191, -83.483249

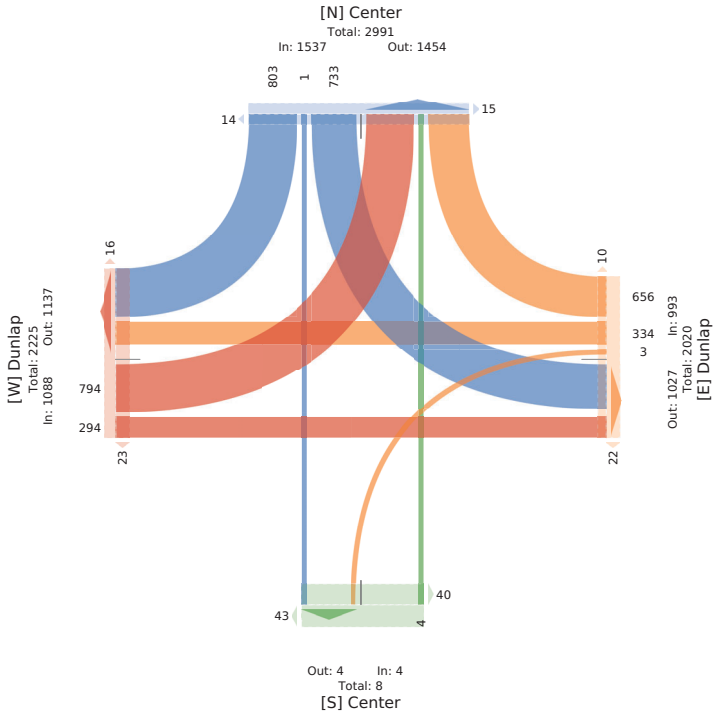
GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg / Direction	Dunlap Eastbound							Dunlap Westbound							Center Northbound							Center Southbound						
Time	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	19	5	0	0	24	0	99	0	8	25	0	33	0	99	0	0	0	0	0	2	99	18	0	24	0	42	0	99
7:15AM	28	10	0	0	38	0	127	0	13	24	0	37	2	127	0	0	0	0	0	1	127	25	0	27	0	52	0	127
7:30AM	30	7	0	0	37	0	147	0	10	30	0	40	0	147	0	0	0	0	0	1	147	29	0	41	0	70	0	147
7:45AM	60	14	0	0	74	0	245	0	9	31	0	40	1	245	0	0	0	0	0	1	245	47	0	84	0	131	0	245
Hourly Total	137	36	0	0	173	0	618	0	40	110	0	150	3	618	0	0	0	0	0	5	618	119	0	176	0	295	0	618
8:00AM	50	17	0	0	67	1	251	0	10	31	0	41	1	251	0	0	0	0	0	0	251	54	0	89	0	143	0	251
8:15AM	61	16	0	0	77	1	209	0	9	26	0	35	1	209	0	0	0	0	0	2	209	46	1	50	0	97	0	209
8:30AM	35	18	0	0	53	1	177	0	18	30	0	48	1	177	0	0	0	0	0	1	177	44	0	32	0	76	1	177
8:45AM	34	19	0	0	53	2	210	1	20	34	0	55	0	210	0	0	0	0	0	1	210	54	0	48	0	102	1	210
Hourly Total	180	70	0	0	250	5	847	1	57	121	0	179	3	847	0	0	0	0	0	4	847	198	1	219	0	418	2	847
4:00PM	70	25	0	0	95	4	304	2	35	64	0	101	6	304	0	0	0	0	0	13	304	55	0	53	0	108	4	304
4:15PM	44	20	0	0	64	3	241	0	29	42	0	71	3	241	0	1	0	0	1	7	241	49	0	56	0	105	2	241
4:30PM	60	24	0	0	84	4	267	0	28	54	0	82	2	267	0	0	0	0	0	7	267	53	0	48	0	101	1	267
4:45PM	60	24	0	0	84	1	258	0	27	62	0	89	0	258	0	0	0	0	0	10	258	47	0	38	0	85	0	258
Hourly Total	234	93	0	0	327	12	1070	2	119	222	0	343	11	1070	0	1	0	0	1	37	1070	204	0	195	0	399	7	1070
5:00PM	61	17	0	0	78	4	230	0	28	43	0	71	2	230	0	2	0	0	2	8	230	48	0	31	0	79	6	230
5:15PM	69	27	0	0	96	3	271	0	31	55	0	86	3	271	0	1	0	0	1	5	271	38	0	50	0	88	2	271
5:30PM	59	23	0	0	82	11	284	0	25	54	0	79	5	284	0	0	0	0	0	18	284	63	0	60	0	123	7	284
5:45PM	54	28	0	0	82	4	302	0	34	51	0	85	5	302	0	0	0	0	0	6	302	63	0	72	0	135	5	302
Hourly Total	243	95	0	0	338	22	1087	0	118	203	0	321	15	1087	0	3	0	0	3	37	1087	212	0	213	0	425	20	1087
Total	794	294	0	0	**1088**	39	**3622**	3	334	656	0	**993**	32	**3622**	0	4	0	0	**4**	83	**3622**	733	1	803	0	**1537**	29	**3622**
% Approach	73.0%	27.0%	0%	0%	-	-	-	0.3%	33.6%	66.1%	0%	-	-	-	0%	100%	0%	0%	-	-	-	47.7%	0.1%	52.2%	0%	-	-	-
% Total	21.9%	8.1%	0%	0%	**30.0%**	-	-	0.1%	9.2%	18.1%	0%	**27.4%**	-	-	0%	0.1%	0%	0%	**0.1%**	-	-	20.2%	0%	22.2%	0%	**42.4%**	-	-
Lights	783	290	0	0	**1073**	-	-	0	330	647	0	**977**	-	-	0	0	0	0	**0**	-	-	723	0	797	0	**1520**	-	3570
% Lights	98.6%	98.6%	0%	0%	**98.6%**	-	-	0%	98.8%	98.6%	0%	**98.4%**	-	-	0%	0%	0%	0%	**0%**	-	-	98.6%	0%	99.3%	0%	**98.9%**	-	98.6%
Single-Unit Trucks	8	1	0	0	**9**	-	-	0	2	5	0	**7**	-	-	0	0	0	0	**0**	-	-	4	0	3	0	**7**	-	23
% Single-Unit Trucks	1.0%	0.3%	0%	0%	**0.8%**	-	-	0%	0.6%	0.8%	0%	**0.7%**	-	-	0%	0%	0%	0%	**0%**	-	-	0.5%	0%	0.4%	0%	**0.5%**	-	0.6%
Articulated Trucks	0	0	0	0	**0**	-	-	0	0	0	0	**0**	-	-	0	0	0	0	**0**	-	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	-	0%	0%	0%	0%	**0%**	-	-	0%	0%	0%	0%	**0%**	-	-	0%	0%	0%	0%	**0%**	-	0%
Buses	3	0	0	0	**3**	-	-	0	0	1	0	**1**	-	-	0	0	0	0	**0**	-	-	4	0	1	0	**5**	-	9
% Buses	0.4%	0%	0%	0%	**0.3%**	-	-	0%	0%	0.2%	0%	**0.1%**	-	-	0%	0%	0%	0%	**0%**	-	-	0.5%	0%	0.1%	0%	**0.3%**	-	0.2%
Bicycles on Road	0	3	0	0	**3**	-	-	3	2	3	0	**8**	-	-	0	4	0	0	**4**	-	-	2	1	2	0	**5**	-	20
% Bicycles on Road	0%	1.0%	0%	0%	**0.3%**	-	-	100%	0.6%	0.5%	0%	**0.8%**	-	-	0%	100%	0%	0%	**100%**	-	-	0.3%	100%	0.2%	0%	**0.3%**	-	0.6%
Pedestrians	-	-	-	-	-	35	-	-	-	-	-	-	31	-	-	-	-	-	-	71	-	-	-	-	-	24	-
% Pedestrians	-	-	-	-	-	- 89.7%	-	-	-	-	-	-	- 96.9%	-	-	-	-	-	-	- 85.5%	-	-	-	-	-	- 82.8%	-
Bicycles on Crosswalk	-	-	-	-	-	4	-	-	-	-	-	-	1	-	-	-	-	-	-	12	-	-	-	-	-	5	-
% Bicycles on Crosswalk	-	-	-	-	-	- 10.3%	-	-	-	-	-	-	- 3.1%	-	-	-	-	-	-	- 14.5%	-	-	-	-	-	- 17.2%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dunlap & Center - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886944, Location: 42.432191, -83.483249

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Dunlap & Center - TMC
Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeChn si StC, Usr i 6e-k r s: TducgC, F dscucGnteB TducgC, y uCeC,
LeBeCdcnr C, y scocGeCRr wRnB, y scocGeCRr) dRCCv nGgP
F 6l Rme l er tC
D 74489AA, a RcntsRr 7A2. A32191, -43. A432A9

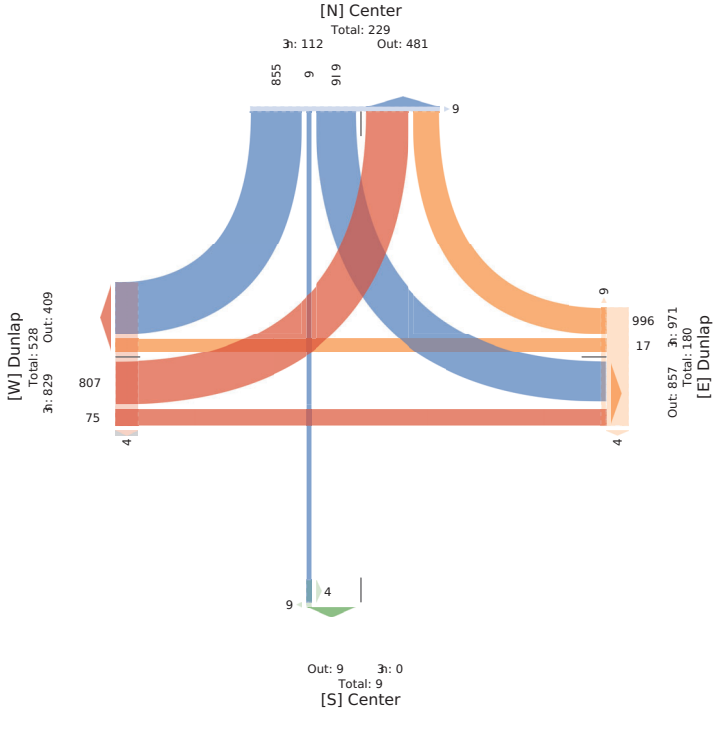
GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB bo7Gev n6 Hnl s6lRr F CCRcsnteCDc.
82M5RdeCl EBi e : dsne, Vedr Rr Hs6fC, Da , 80081, k U

a ei / : sdectsRr	: ur 6ip EnCbRur B							: ur 6ip WeCbRur B							) er ted NRdSbRur B							) er ted URurSbRur B						
Tsl e	a	T	w	k	Fpp	LeB*	Dt	a	T	w	k	Fpp	LeB*	Dt	a	T	w	k	Fpp	LeB*	Dt	a	T	w	k	Fpp	LeB*	Dt
2021-10-19 (7AMF1	80	1A	0	0	(A	0		0	9	31	0	A0	1		0	0	0	0	0	1		A(	0	4A	0	131	0	2AM
4700F1	M	1(	0	0	8(	1		0	10	31	0	Al	1		0	0	0	0	0	0		MA	0	49	0	1A3	0	2M
47tMF1	81	18	0	0	((	1		0	9	28	0	3M	1		0	0	0	0	0	2		A8	1	M	0	9(	0	209
4730F1	3M	14	0	0	M	1		0	14	30	0	A4	1		0	0	0	0	0	1		AA	0	32	0	(8	1	1((
TRn6	208	8M	0	0	**2(1**	3		0	A8	114	0	**18A**	A		0	0	0	0	**0**	A		191	1	2MM	0	**AA(**	1	**442**
% FppRncS	(8.0%	2A0%	0%	0%	**-**	-		0%	24.0%	(2.0%	0%	**-**	-		0%	0%	0%	0%	**-**	-		A2.(%	0.2%	M.0%	0%	**-**	-	-
% TRn6	23.A%	(.A%	0%	0%	**30.(%**	-		0%	M2%	13.A%	0%	**14.8%**	-		0%	0%	0%	0%	**0%**	-		21.(%	0.1%	24.9%	0%	**M.(%**	-	-
LH5	0.4AA	0.903	-	-	**0.440**	-		-	0.839	0.9N2	-	**0.4MA**	-		-	-	-	-	**-**	-		0.44A	-	0.(18	-	**0.(40**	-	0.4((
a si StC	203	8A	0	0	**28(**	-		0	A8	11A	0	**180**	-		0	0	0	0	**0**	-		14A	0	2MA	0	**A34**	-	48M
% a si StC	94.M%	94.M%	0%	0%	**94.M%**	-		0%	100%	98.8%	0%	**9(.8%**	-		0%	0%	0%	0%	**-**	-		98.3%	0%	99.8%	0%	**94.0%**	-	94.1%
Usr i 6e-k r s: TducgC	3	1	0	0	**A**	-		0	0	3	0	**3**	-		0	0	0	0	**0**	-		3	0	1	0	**A**	-	11
% Usr i 6e-k r s: TducgC	1.M%	1.M%	0%	0%	**1.M%**	-		0%	0%	2.M%	0%	**1.4%**	-		0%	0%	0%	0%	**-**	-		1.8%	0%	0.A%	0%	**0.9%**	-	1.2%
F dscuGnteB TducgC	0	0	0	0	**0**	-		0	0	0	0	**0**	-		0	0	0	0	**0**	-		0	0	0	0	**0**	-	0
% F dscuGnteB TducgC	0%	0%	0%	0%	**0%**	-		0%	0%	0%	0%	**0%**	-		0%	0%	0%	0%	**-**	-		0%	0%	0%	0%	**0%**	-	0%
y uCeC	0	0	0	0	**0**	-		0	0	1	0	**1**	-		0	0	0	0	**0**	-		A	0	0	0	**A**	-	M
% y uCeC	0%	0%	0%	0%	**0%**	-		0%	0%	0.4%	0%	**0.8%**	-		0%	0%	0%	0%	**-**	-		2.1%	0%	0%	0%	**0.9%**	-	0.8%
y scocGeCRr wRnB	0	0	0	0	**0**	-		0	0	0	0	**0**	-		0	0	0	0	**0**	-		0	1	0	0	**1**	-	1
% y scocGeCRr wRnB	0%	0%	0%	0%	**0%**	-		0%	0%	0%	0%	**0%**	-		0%	0%	0%	0%	**-**	-		0%	100%	0%	0%	**0.2%**	-	0.1%
LeBeCdcnr C	-	-	-	-	-	3		-	-	-	-	-	A		-	-	-	-	-	3		-	-	-	-	-	1	
% LeBeCdcnr C	-	-	-	-	-	- 100%		-	-	-	-	-	- 100%		-	-	-	-	-	- (M0%		-	-	-	-	-	- 100%	-
y scocGeCRr) dRCCv nGg	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	1		-	-	-	-	-	0	
% y scocGeCRr) dRCCv nGg	-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	- 2M0%		-	-	-	-	-	0%	-

*LeBeCdcnr Cnr B y scocGeCRr) dRCCv nGg. a 7a eft, w7wsi St, T7T Sdu, k 7k -Tudr

Dunlap & Center - TMC
Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeChn si StC, Usr i 6e-k r s: TducgC, F dscucGnteB TducgC, y uCeC,
LeBeCdcnr C, y scocGeCRr wRnB, y scocGeCRr) dRCCv nGgP
F 6l Rme l er tC
D 74489AA, a RcntsRr 7A2. A32191, -43. A432A9

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB bo7Gev n6 Hnl s6lRr F CCRcsnteCDc.
82M5RdeCl EBi e : dsne, Vedr Rr Hs6fC, Da , 80081, k U



Dunlap & Center - TMC

Tue Oct 19, 2021

Fl FeLn gh Fl (7 Fl A(OM-L4lFeLn P 6u-
) 4lC4Laaea gs iSUla, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea,
FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 4l1 6M4v ekta
mh D: : 7988, s 6cIi16kD82.832191, (: 3.8: 3289

GEWALT HAMILTON ASSOCIATES, INC.

F-6MBeBboDGewL4 P Lv i46k) aa6ciLtea mkc.
72h H6-eat 5BSe I -iM, E e-k6k P i4a, ns , 70071, d r

s eS l i-ect6k	I uk4LV 5Latb6ukB						I uk4LV p eatb6ukB						Cekte- W6-tUb6ukB						Cekte- r 6utUb6ukB						
Tiv e	s	T	R	d	) W	FeBN	s	T	R	d	) W	FeBN	s	T	R	d	) W	FeBN	s	T	R	d	) W	FeBN	int
2021(10(19 hl00Fl	71	1*	0	0	*:	8	0	2:	83	0	*1	2	0	2	0	0	2	:	8:	0	31	0	*9	7	230
hDhFl	79	2*	0	0	97	3	0	31	hh	0	: 7	3	0	1	0	0	1	h	3:	0	h0	0	: :	2	2*1
hl0Fl	h9	23	0	0	: 2	11	0	2h	h8	0	*9	h	0	0	0	0	0	1:	73	0	70	0	123	*	2: 8
hlhFl	h8	2:	0	0	: 2	8	0	38	h1	0	: h	h	0	0	0	0	0	7	73	0	*2	0	13h	h	302
T6tL4	283	9h	0	0	**33:**	22	0	11:	203	0	**321**	1h	0	3	0	0	**3**	3*	212	0	213	0	**82h**	20	**10: ***
%) W-6LcU	*1.9%	2: .1%	0%	0%	**(**	(	0%	37.: %	73.2%	0%	**(**	(	0%	100%	0%	0%	**(**	(	89.9%	0%	h0.1%	0%	**(**	(	(
% T6tL4	22.8%	: .*%	0%	0%	**31.1%**	(	0%	10.9%	1: .*%	0%	**29.h%**	(	0%	0.3%	0%	0%	**0.3%**	(	19.h%	0%	19.7%	0%	**39.1%**	(	(
FP H	0.: 0	0.: 8:		(	**0.: : 0**	(	(0.: 70	0.909		(	**0.922**	(	(	(	(	(	**(**	(	0.: 3*		(0.*33		**0.*: 1**	(	0.: 92
s iSUla	283	9h	0	0	**33:**	(	0	11*	200	0	**31***	(	0	0	0	0	**0**	(	211	0	210	0	**821**	(	10*7
% s iSUla	100%	100%	0%	0%	**100%**	(	0%	99.2%	9: .h%	0%	**9: .: %**	(	0%	0%	0%	0%	**0%**	(	99.h%	0%	9: .7%	0%	**99.1%**	(	99.0%
r ikS4e(d kit T-ucna	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	1	0	**1**	(	1
% r ikS4e(d kit T-ucna	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0.h%	0%	**0.2%**	(	0.1%
) -ticu4LteBT-ucna	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
%) -ticu4LteBT-ucna	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%
y uaea	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
% y uaea	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%
y icoc4ea 6k R6LB	0	0	0	0	**0**	(	0	1	3	0	**8**	(	0	3	0	0	**3**	(	1	0	2	0	**3**	(	10
% y icoc4ea 6k R6LB	0%	0%	0%	0%	**0%**	(	0%	0.: %	1.h%	0%	**1.2%**	(	0%	100%	0%	0%	**100%**	(	0.h%	0%	0.9%	0%	**0.*%**	(	0.9%
FeBeat-iLka	(	(	(	(	(	21	(	(	(	(	(	1h	(	(	(	(	(	32	(	(	(	(	(	1h	
% FeBeat-iLka	(	(	(	(	(	9h.h%	(	(	(	(	(	100%	(	(	(	(	(	: 7.h%	(	(	(	(	(	*h.0%	(
y icoc4ea 6k C-6aawL4n	(	(	(	(	(	1	(	(	(	(	(	0	(	(	(	(	(	h	(	(	(	(	(	h	
% y icoc4ea 6k C-6aawL4n	(	(	(	(	(	8.h%	(	(	(	(	(	0%	(	(	(	(	(	13.h%	(	(	(	(	(	2h.0%	(

Ne FeBeat-iLka LkB y icoc4ea 6k C-6aawL4n. s Ds eft, RDRiSUi, TDlTU-u, d Dl (Tu-k

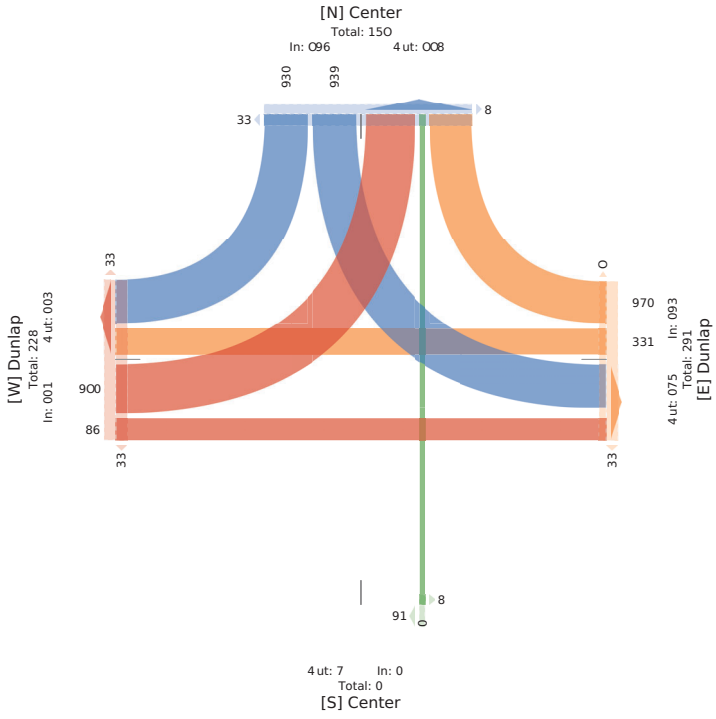
Dunlap & Center - TMC

Tue Oct 19, 2021

PM Peak (4 PM : 5 PM- : O) evarr Peak l Hnv
o rr AraCCeC(s li gtC, hlSi re:n Slt TvuckC, o vtlcurateUTvuckC, d uCeC,
PeUeCMaSC, d lcBcreCHS y HnU, d lcBcreCHS AvHCCRark-
o rr MHJ ewe StC
mh D885966, s HcatIHSD62.632191, :83.683269

GEWALT HAMILTON ASSOCIATES, INC.

PvhJ ILeUbBDGeRart l awIttHS o CCHelateCrSc.
524 FHaeCl EUi e I vl) e, VevSHS l InrC, ns , 50051, n h



Hutton & Dunlap - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886949, Location: 42.432251, -83.48131

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Dunlap Eastbound					Dunlap Westbound					Hutton Southbound					
Time	L	T	U	App	Ped*	T	R	U	App	Ped*	L	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	19	0	**19**	0	25	5	0	**30**	0	5	0	0	**5**	0	**54**
7:15AM	1	30	0	**31**	0	33	7	0	**40**	0	10	2	0	**12**	1	**83**
7:30AM	1	35	0	**36**	1	39	15	0	**54**	0	5	0	0	**5**	1	**95**
7:45AM	0	50	0	**50**	0	40	13	0	**53**	1	11	0	0	**11**	1	**114**
Hourly Total	2	134	0	**136**	1	137	40	0	**177**	1	31	2	0	**33**	3	**346**
8:00AM	2	59	0	**61**	0	40	14	0	**54**	0	10	0	0	**10**	0	**125**
8:15AM	1	60	0	**61**	2	33	12	0	**45**	2	9	2	0	**11**	0	**117**
8:30AM	1	54	0	**55**	2	54	10	0	**64**	2	13	2	0	**15**	0	**134**
8:45AM	0	65	0	**65**	1	48	21	0	**69**	1	16	3	0	**19**	0	**153**
Hourly Total	4	238	0	**242**	5	175	57	0	**232**	5	48	7	0	**55**	0	**529**
4:00PM	4	67	0	**71**	14	93	21	0	**114**	2	18	3	0	**21**	14	**206**
4:15PM	1	61	0	**62**	3	64	17	0	**81**	2	19	3	0	**22**	1	**165**
4:30PM	6	65	0	**71**	2	91	22	0	**113**	3	20	1	0	**21**	2	**205**
4:45PM	3	59	0	**62**	1	85	25	0	**110**	3	22	4	0	**26**	2	**198**
Hourly Total	14	252	0	**266**	20	333	85	0	**418**	10	79	11	0	**90**	19	**774**
5:00PM	3	54	0	**57**	0	69	33	0	**102**	1	16	4	0	**20**	8	**179**
5:15PM	2	57	0	**59**	4	82	27	0	**109**	4	17	2	0	**19**	2	**187**
5:30PM	1	70	0	**71**	11	74	19	0	**93**	3	27	6	0	**33**	4	**197**
5:45PM	4	76	0	**80**	8	83	18	0	**101**	0	17	2	0	**19**	6	**200**
Hourly Total	10	257	0	**267**	23	308	97	0	**405**	8	77	14	0	**91**	20	**763**
Total	30	881	0	**911**	49	953	279	0	**1232**	24	235	34	0	**269**	42	**2412**
% Approach	3.3%	96.7%	0%	**-**	-	77.4%	22.6%	0%	**-**	-	87.4%	12.6%	0%	**-**	-	-
% Total	1.2%	36.5%	0%	**37.8%**	-	39.5%	11.6%	0%	**51.1%**	-	9.7%	1.4%	0%	**11.2%**	-	-
Lights	28	869	0	**897**	-	941	276	0	**1217**	-	232	32	0	**264**	-	2378
% Lights	93.3%	98.6%	0%	**98.5%**	-	98.7%	98.9%	0%	**98.8%**	-	98.7%	94.1%	0%	**98.1%**	-	98.6%
Single-Unit Trucks	0	4	0	**4**	-	7	2	0	**9**	-	1	0	0	**1**	-	14
% Single-Unit Trucks	0%	0.5%	0%	**0.4%**	-	0.7%	0.7%	0%	**0.7%**	-	0.4%	0%	0%	**0.4%**	-	0.6%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	4	0	**4**	-	1	0	0	**1**	-	0	0	0	**0**	-	5
% Buses	0%	0.5%	0%	**0.4%**	-	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0.2%
Bicycles on Road	2	4	0	**6**	-	4	1	0	**5**	-	2	2	0	**4**	-	15
% Bicycles on Road	6.7%	0.5%	0%	**0.7%**	-	0.4%	0.4%	0%	**0.4%**	-	0.9%	5.9%	0%	**1.5%**	-	0.6%
Pedestrians	-	-	-	-	42	-	-	-	-	20	-	-	-	-	36	
% Pedestrians	-	-	-	-	85.7%	-	-	-	-	83.3%	-	-	-	-	85.7%	-
Bicycles on Crosswalk	-	-	-	-	7	-	-	-	-	4	-	-	-	-	6	
% Bicycles on Crosswalk	-	-	-	-	14.3%	-	-	-	-	16.7%	-	-	-	-	14.3%	-

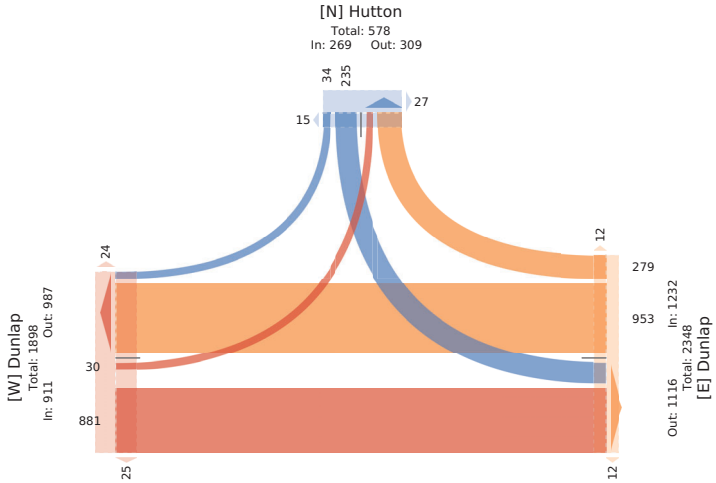
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton & Dunlap - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886949, Location: 42.4322b1, -83.48131

GEWALT HAMILTON ASSOCIATES, INC.

Provided Gy: Hewalt 5 amilton Associates Inc.
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US



GEWALT HAMILTON ASSOCIATES, INC.

Wing & Center - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886940, Location: 42.431021, -83.48468b

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc.
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US

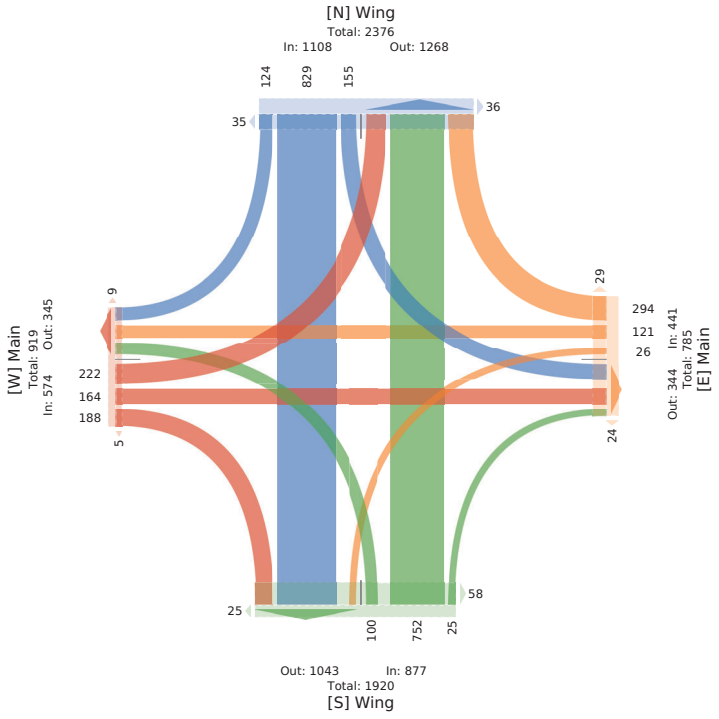
Leg Direction	Main EastGound						Main p estGound						p ing WorthGound						p ing SouthGound						
Time	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	Int
2021-10-19 7:00AM	4	10	4	0	**18**	0	0	2	8	0	**10**	1	2	24	1	0	**27**	1	6	33	4	0	**43**	2	**98**
7:1bAM	6	b	2	0	**13**	1	0	4	8	0	**12**	0	2	33	2	0	**37**	2	4	36	2	0	**42**	3	**104**
7:30AM	9	4	3	0	**16**	0	2	8	10	0	**20**	1	b	30	1	0	**36**	4	6	41	4	0	**b1**	2	**123**
7:4bAM	18	7	10	0	**3b**	0	1	b	2b	0	**31**	0	2	38	2	0	**42**	4	1b	71	14	0	**100**	0	**208**
5 ourly Total	37	26	19	0	**82**	1	3	19	b1	0	**73**	2	11	12b	6	0	**142**	11	31	1ff1	24	0	**236**	7	**b33**
8:00AM	24	1b	16	0	**bb**	0	0	13	12	0	**2b**	0	1	33	0	0	**34**	3	13	72	16	0	**101**	0	**21b**
8:1bAM	21	17	10	0	**48**	1	0	7	18	0	**2b**	0	4	33	1	0	**38**	3	11	49	7	0	**67**	2	**178**
8:30AM	14	14	13	0	**41**	2	1	4	8	0	**13**	0	7	34	1	0	**42**	1	7	38	1	0	**46**	7	**142**
8:4bAM	11	9	13	0	**33**	0	0	4	20	0	**24**	3	b	29	1	0	**3b**	3	9	4b	9	0	**63**	2	**1bb**
5 ourly Total	70	bb	b2	0	**177**	3	1	28	b8	0	**87**	3	17	129	3	0	**149**	10	40	204	33	0	**277**	11	**690**
4:00PM	16	8	11	0	**3b**	0	2	7	22	0	**31**	b	10	b2	3	0	**6b**	7	10	b7	3	0	**70**	4	**201**
4:1bPM	7	12	10	0	**29**	2	4	9	22	0	**3b**	4	6	48	2	0	**b6**	b	11	b6	7	0	**74**	1	**194**
4:30PM	16	9	16	0	**41**	1	b	8	19	0	**32**	2	10	81	1	0	**92**	2	8	38	8	0	**b4**	3	**219**
4:4bPM	13	9	20	0	**42**	1	1	b	3b	0	**41**	3	8	73	1	0	**82**	9	b	b8	11	0	**74**	8	**239**
5 ourly Total	b2	38	b7	0	**147**	4	12	29	98	0	**139**	14	34	2b4	7	0	**29b**	23	34	209	29	0	**272**	16	**8b3**
b:00PM	16	1b	2b	0	**b6**	1	3	10	18	0	**31**	9	6	63	4	0	**73**	8	9	48	b	0	**62**	3	**222**
b:1bPM	19	10	10	0	**39**	2	4	14	30	0	**48**	6	13	70	0	0	**83**	8	11	77	8	0	**96**	10	**266**
b:30PM	17	10	14	0	**41**	3	1	13	14	0	**28**	4	6	b6	b	0	**67**	13	18	42	14	0	**74**	16	**210**
b:4bPM	11	10	11	0	**32**	0	2	8	2b	0	**3b**	1b	13	bb	0	0	**68**	10	12	68	11	0	**91**	8	**226**
5 ourly Total	63	4b	60	0	**168**	6	10	4b	87	0	**142**	34	38	244	9	0	**291**	39	b0	23b	38	0	**323**	37	**924**
Total	222	164	188	0	**b74**	14	26	121	294	0	**441**	b3	100	7b2	2b	0	**877**	83	1bb	829	124	0	**1108**	71	**3000**
% ANNtoach	38.7%	28.6%	32.8%	0%	**-**	-	b.9%	27.4%	66.7%	0%	**-**	-	11.4%	8b.7%	2.9%	0%	**-**	-	14.0%	74.8%	11.2%	0%	**-**	-	-
% Total	7.4%	b.b%	6.3%	0%	**19.1%**	-	0.9%	4.0%	9.8%	0%	**14.7%**	-	3.3%	2b.1%	0.8%	0%	**29.2%**	-	b.2%	27.6%	4.1%	0%	**36.9%**	-	-
Lights	220	1b6	18b	0	**b61**	-	26	11b	290	0	**431**	-	99	732	24	0	**8bb**	-	1b3	814	122	0	**1089**	-	2936
% Lights	99.1%	9b.1%	98.4%	0%	**97.7%**	-	100%	9b.0%	98.6%	0%	**97.7%**	-	99.0%	97.3%	96.0%	0%	**97.b%**	-	98.7%	98.2%	98.4%	0%	**98.3%**	-	97.9%
Single-Unit Trucks	1	0	0	0	**1**	-	0	2	3	0	**b**	-	0	6	0	0	**6**	-	1	2	2	0	**b**	-	17
% Single-Unit Trucks	0.b%	0%	0%	0%	**0.2%**	-	0%	1.7%	1.0%	0%	**1.1%**	-	0%	0.8%	0%	0%	**0.7%**	-	0.6%	0.2%	1.6%	0%	**0.b%**	-	0.6%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	b	1	0	**6**	-	0	2	1	0	**3**	-	1	7	0	0	**8**	-	0	6	0	0	**6**	-	23
% Buses	0%	3.0%	0.b%	0%	**1.0%**	-	0%	1.7%	0.3%	0%	**0.7%**	-	1.0%	0.9%	0%	0%	**0.9%**	-	0%	0.7%	0%	0%	**0.b%**	-	0.8%
Bicycles on Road	1	3	2	0	**6**	-	0	2	0	0	**2**	-	0	6	1	0	**7**	-	1	7	0	0	**8**	-	23
% Bicycles on Road	0.b%	1.8%	1.1%	0%	**1.0%**	-	0%	1.7%	0%	0%	**0.b%**	-	0%	0.8%	4.0%	0%	**0.8%**	-	0.6%	0.8%	0%	0%	**0.7%**	-	0.8%
Pedestrians	-	-	-	-	-	14	-	-	-	-	-	46	-	-	-	-	-	77	-	-	-	-	-	69	
% Pedestrians	-	-	-	-	-	- 100%	-	-	-	-	-	- 86.8%	-	-	-	-	-	- 92.8%	-	-	-	-	-	- 97.2%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	6	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	- 13.2%	-	-	-	-	-	- 7.2%	-	-	-	-	-	- 2.8%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Wing & Center - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886940, Location: 42.431021, -83.48468b

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc.
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US



Wing & Center - TMC

Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeCha si StC, Usr i 6e-k r st TducgC, F dscu6niteB TducgC, y uCeC, LeBeCtdsnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfgP
F 6l Rme ert C
D 74489A0, a RcntsRr 7A2. A31021, -43. A4A84M

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB bo7Gev n6 Hnl s6Rr F CCRcsnteCDc.
82M5RdeCt EBi e : dsne, Vedr Rr Hs6C, Da , 80081, k U

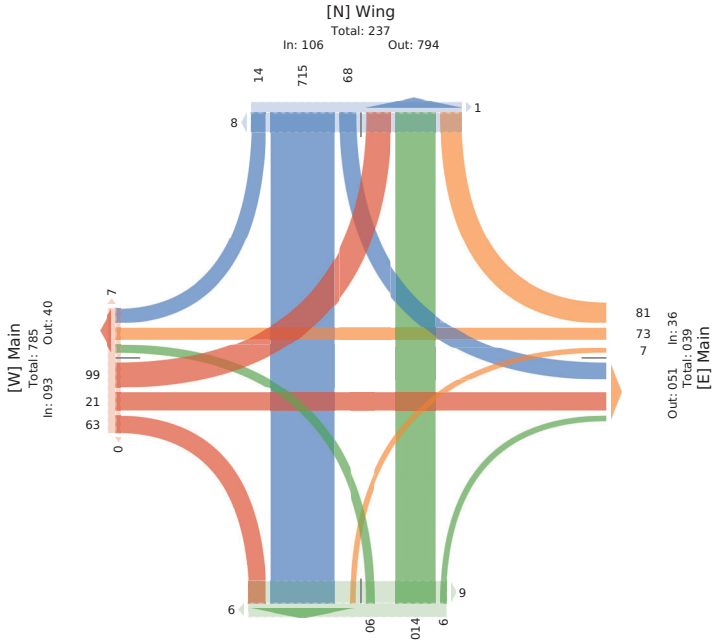
a ei : sdectsRr	l nsr EstCbRur B						l nsr p eCbRur B						p sr i WRdtSbRur B						p sr i URutSbRur B						
Tsl e	a	T	w	k	F NN	LeP*	a	T	w	k	F NN	LeP*	a	T	w	k	F NN	LeP*	a	T	w	k	F NN	LeP*	Dt
2021-10-19 (7AMF l	14	(	10	0	**3M**	0	1	M	2M	0	**31**	0	2	34	2	0	**A2**	A	1M	(1	1A	0	**100**	0	**204**
4700F1	2A	1M	18	0	**MM**	0	0	13	12	0	**2M**	0	1	33	0	0	**3A**	3	13	(2	18	0	**101**	0	**21M**
47AMF l	21	1(	10	0	**A4**	1	0	(	14	0	**2M**	0	A	33	1	0	**34**	3	11	A9	(	0	**8(**	2	**1(4**
4750F1	1A	1A	13	0	**Al**	2	1	A	4	0	**13**	0	(	3A	1	0	**A2**	1	(	34	1	0	**A8**	(	**1A2**
TRm6	((	M8	A9	0	**1(9**	3	2	29	83	0	**9A**	0	1A	134	A	0	**1M8**	11	A8	230	34	0	**31A**	9	**(A3**
% F NNRmcS	A3.0%	29.8%	2(.A%	0%	**-**	-	2.1%	30.9%	8(.0%	0%	**-**	-	9.0%	44.M%	2.8%	0%	**-**	-	1A.8%	(3.2%	12.1%	0%	**-**	-	-
% TRm6	10.A%	(.1%	8.8%	0%	**2A.1%**	-	0.3%	3.9%	4.M%	0%	**12.(%**	-	1.9%	14.8%	0.M%	0%	**21.0%**	-	8.2%	31.0%	M1%	0%	**A2.3%**	-	-
LH5	0.402	0.((9	0.(88	-	**0.41A**	-	0.M0	0.M4	0.830	-	**0.(M**	-	0.M0	0.904	0.M0	-	**0.929**	-	0.(8(	0.(99	0.M A	-	**0.(((**	-	0.48A
a si StC	((	M	A4	0	**1(8**	-	2	24	82	0	**92**	-	13	132	A	0	**1A9**	-	A8	22M	34	0	**309**	-	(28
% a si StC	100%	98.2%	94.0%	0%	**94.3%**	-	100%	98.8%	94.A%	0%	**9(.9%**	-	92.9%	9M.(%	100%	0%	**9MM%**	-	100%	9(.4%	100%	0%	**94.A%**	-	9(.(%
Uri 6e-k r st TducgC	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	3
% Uri 6e-k r st TducgC	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	2.2%	0%	0%	**1.9%**	-	0%	0%	0%	0%	**0%**	-	0.A%
F dscu6niteB TducgC	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	1
% F dscu6niteB TducgC	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.(%	0%	0%	**0.8%**	-	0%	0%	0%	0%	**0%**	-	0.1%
y uCeC	0	2	1	0	**3**	-	0	1	1	0	**2**	-	1	2	0	0	**3**	-	0	M	0	0	**M**	-	13
% y uCeC	0%	3.4%	2.0%	0%	**1.(%**	-	0%	3.A%	1.8%	0%	**2.1%**	-	(.1%	1.A%	0%	0%	**1.9%**	-	0%	2.2%	0%	0%	**1.8%**	-	1.(%
y scoc6eCRr wRnB	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% y scoc6eCRr wRnB	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
LeBeCtdsnr C	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	11	-	-	-	-	-	9	
% LeBeCtdsnr C	-	-	-	-	-	- 100%	-	-	-	-	-	-	-	-	-	-	-	- 100%	-	-	-	-	-	- 100%	-
y scoc6eCRr) dRCCv nfg	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% y scoc6eCRr) dRCCv nfg	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*LeBeCtdsnr Cnr B y scoc6eCRr) dRCCv nfg. a 7a eft, w7wsi St, T7TSdu, k 7k -Tudr

Wing & Center - TMC

Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeCha si StC, Usr i 6e-k r st TducgC, F dscu6niteB TducgC, y uCeC, LeBeCtdsnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfgP
F 6l Rme ert C
D 74489A0, a RcntsRr 7A2. A31021, -43. A4A84M

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB bo7Gev n6 Hnl s6Rr F CCRcsnteCDc.
82M5RdeCt EBi e : dsne, Vedr Rr Hs6C, Da , 80081, k U



Wing & Center - TMC

Tue Oct 19, 2021

Fl FeLn gh(70 Fl AM70 Fl - AO4eBf66FeLn) CuP

a 6ls tLi i ei gS'lkti, dUr 6eAy Bt TBucni, a Rt'uGzeo TBucni, Rui ei, Feoei t RUB3,

Rt'wc6ei CBs v CLo, Rt'wc6ei CBs IGi i mLn6n-

a 6sl CAel e Bti

D (88. 9h0, SCzLrUCD(h23h71021, A873h8h. 8M

GEWALT HAMILTON ASSOCIATES, INC.

FRC4Udeo bw(GemLti) LI UtCBa i i CcUIrei IDc3

. 2MHCPei t 5 o r e : Rde, E e FCB) U6i, D5, . 00. 1, y d

Ser : UrectUB	l LUB 5LitbCuBo						l LUB V ei tbCuBo						V Ur p CRkbCuBo						V Ur dCurkbCuBo						
TUI e	S	T	v	y	a V0V	FeoN	S	T	v	y	a V0V	FeoN	S	T	v	y	a V0V	FeoN	S	T	v	y	a V0V	FeoN	DR
2021A0.A19 h(70F1	1.	9	1.	0	**h1**	1	M	8	19	0	**72**	2	10	81	1	0	**92**	2	8	78	8	0	**Nh**	7	**219**
h(hMF1	17	9	20	0	**h2**	1	1	M	7M	0	**h1**	7	8	*7	1	0	**82**	9	M	M8	11	0	***h**	8	**279**
M(0F1	1.	1M	2M	0	**M**	1	7	10	18	0	**71**	9	.	.7	h	0	***7**	8	9	h8	M	0	**. 2**	7	**222**
M(1MF1	19	10	10	0	**79**	2	h	1h	70	0	**h8**	.	17	*0	0	0	**87**	8	11	**	8	0	**9.**	10	**2. .**
TCUL6	. h	h7	*1	0	**1*8**	M	17	7*	102	0	**1M2**	20	7*	28*	.	0	**770**	2*	77	221	72	0	**28.**	2h	**9h.**
% a V0VCLck	7. 30%	2h2%	79 3%	0%	**A**	A	83 %	2h3%	. *3%	0%	**A**	A	112%	8*10%	13 8%	0%	**A**	A	113%	**3%	113%	0%	**A**	A	A
% TCUL6	. 38%	h3M%	*3M6	0%	**183%**	A	13h%	73%	103%	0%	**1. 3%**	A	73%	703%	03 %	0%	**7h3%**	A	73M%	273h%	73h%	0%	**703%**	A	A
F) H	0329	03* . 9	03*29	A	**031.**	A	03 M	03 92	03*29	A	**0307**	A	03*12	0399	03**M	A	**0390**	A	03*M	03*77	03*2*	A	**03*M**	A	0395h
Sl(kti	. 2	79	*0	0	**1*1**	A	17	7.	100	0	**1h9**	A	7*	282	.	0	**72M**	A	77	21.	72	0	**281**	A	92.
% Sl(kti	9. 3%	903%	983 %	0%	**9. 3%**	A	100%	9*3%	983%	0%	**983%**	A	100%	983%	100%	0%	**983%**	A	100%	9*3%	100%	0%	**983%**	A	9*3%
dUr 6eAy Bt(TBucni	1	0	0	0	**1**	A	0	0	2	0	**2**	A	0	0	0	0	**0**	A	0	1	0	0	**1**	A	h
% dUr 6eAy Bt(TBucni	13 %	0%	0%	0%	**03 %**	A	0%	0%	23%	0%	**13%**	A	0%	0%	0%	0%	**0%**	A	0%	03M%	0%	0%	**03%**	A	03h%
a IRt'uGzeo TBucni	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0
% a IRt'uGzeo TBucni	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%
Rui ei	0	1	0	0	**1**	A	0	0	0	0	**0**	A	0	2	0	0	**2**	A	0	0	0	0	**0**	A	7
% Rui ei	0%	23%	0%	0%	**03 %**	A	0%	0%	0%	0%	**0%**	A	0%	03%	0%	0%	**03 %**	A	0%	0%	0%	0%	**0%**	A	03%
Rt'wc6ei CBs v CLo	1	7	1	0	**M**	A	0	1	0	0	**1**	A	0	7	0	0	**7**	A	0	h	0	0	**h**	A	17
% Rt'wc6ei CBs v CLo	13 %	*3%	13h%	0%	**23%**	A	0%	23%	0%	0%	**03%**	A	0%	13%	0%	0%	**03%**	A	0%	13%	0%	0%	**13%**	A	13h%
Feoei t RUB3	A	A	A	A	A	M	A	A	A	A	A	1*	A	A	A	A	A	2M	A	A	A	A	A	2h	
% Feoei t RUB3	A	A	A	A	A100%		A	A	A	A	A8M0%		A	A	A	A	A923 %		A	A	A	A	A100%		A
Rt'wc6ei CBs IGi i mLn6n	A	A	A	A	A	0	A	A	A	A	A	7	A	A	A	A	A	2	A	A	A	A	A	0	
% Rt'wc6ei CBs IGi i mLn6n	A	A	A	A	A	0%	A	A	A	A	A1M0%		A	A	A	A	A *3h%		A	A	A	A	A	0%	A

N Feoei t RUB3 LBo Rt'wc6ei CBs IGi i mLn6n3S (Seft, v (v t'kti, T(TkRu, y (y ATuB3

Wing & Center - TMC

Tue Oct 19, 2021

PM Peak (4:50 PM -) :50 PMv - Or elaHPeak o Aul

CHHs IdLLeL (i ghStL, ngLhId-d Ug TluckL, CItgculdteB TluckL, y uLeL,

PeBeLtIguLL, y g:RcIdLAUwAuB, y g:RcIdLAUs lALLmaIkIv

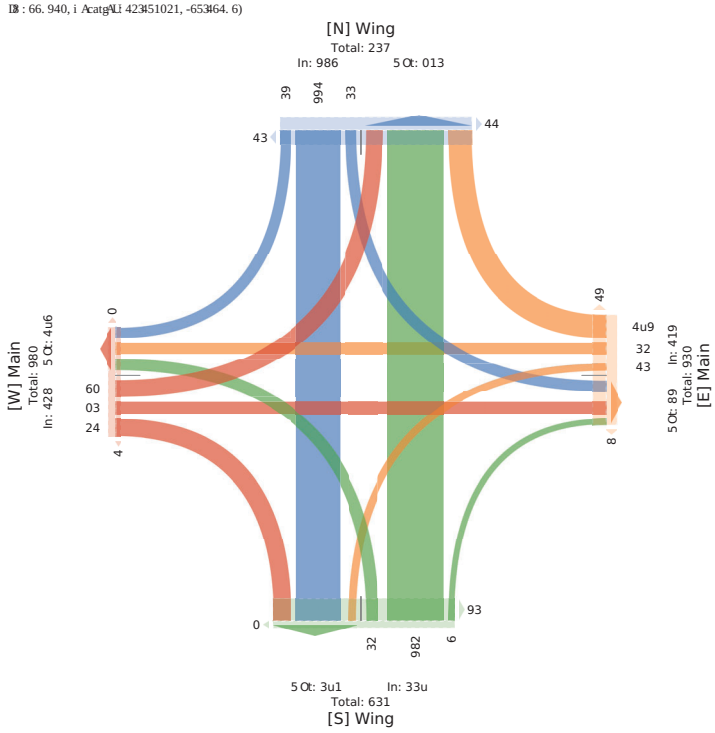
CHHMAr el eLL

D8 : 66. 940, i AcatgAL: 423451021, -6534 64. 6)

GEWALT HAMILTON ASSOCIATES, INC.

PlArgBeBbR Gemaldo al gdAUCLLAcgteL D3

. 2) FAIeIt EBhe 8 lgre, VelUAUo gBL, D , . 00. 1, d n



Main & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 8869. 3, Location: 42b4. 1073, -8. b48. 227

GEWALT HAMILTON ASSOCIATES, INC.

Provided Gy: Hewalt 5 amilton Associates Incb

623 Forest Edge Drive, Vernon 5 ills, IL, 60061, US

Leg Direction	Main EastGound						Main p estGound						Center WorthGound						Center SouthGound						
Time	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	**Int**
2021-10-19 7:00AM	0	0	16	0	**16**	1	0	0	0	0	**0**	0	12	0	0	0	**12**	1	0	0	0	0	**0**	2	**28**
7:13AM	0	0	9	1	**10**	0	0	0	0	0	**0**	0	18	0	0	0	**18**	2	0	0	0	0	**0**	3	**28**
7:. 0AM	0	1	8	0	**9**	2	0	1	0	0	**1**	1	21	0	0	0	**21**	4	0	0	0	0	**0**	-	**. 1**
7:43AM	0	0	23	0	**23**	0	0	0	2	0	**2**	0	. 6	1	0	0	**. 7**	3	0	0	0	0	**0**	-	**64**
5 ourly Total	0	1	38	1	**60**	-	0	1	2	0	-	1	87	1	0	0	**88**	12	0	0	0	0	**0**	1.	**131**
8:00AM	0	0	. 4	0	**. 4**	1	0	0	0	0	**0**	1	. 0	0	0	0	**. 0**	-	0	0	0	0	**0**	1	**64**
8:13AM	0	0	. 2	0	**. 2**	1	0	0	0	0	**0**	.	. 1	0	0	0	**. 1**	1	0	1	0	0	**1**	4	**64**
8:. 0AM	0	0	22	0	**22**	1	0	0	0	0	**0**	2	14	0	0	0	**14**	7	0	0	0	0	**0**	8	**. 6**
8:43AM	0	0	19	0	**19**	1	0	0	0	0	**0**	4	. 1	0	0	0	**. 1**	4	0	1	0	0	**1**	3	**31**
5 ourly Total	0	0	107	0	**107**	4	0	0	0	0	**0**	10	106	0	0	0	**106**	13	0	2	0	0	**2**	18	**213**
4:00PM	0	0	22	1	**2.**	2	0	0	0	0	**0**	26	. 1	1	0	0	**. 2**	2	0	2	0	0	**2**	27	**37**
4:13PM	0	0	26	0	**26**	7	0	0	1	0	**1**	20	4.	1	0	0	**44**	13	0	0	0	0	**0**	20	**71**
4:. 0PM	1	1	14	0	**16**	4	0	0	0	0	**0**	14	. 3	0	0	0	**. 3**	17	0	0	0	0	**0**	17	**31**
4:43PM	0	0	18	0	**18**	8	0	0	0	0	**0**	21	49	2	0	0	**31**	1.	0	0	0	0	**0**	16	**69**
5 ourly Total	1	1	80	1	**8.**	21	0	0	1	0	**1**	81	138	4	0	0	**162**	47	0	2	0	0	**2**	80	**248**
3:00PM	0	0	27	0	**27**	1.	0	0	0	0	**0**	21	. .	0	0	0	**. .**	12	0	0	0	0	**0**	28	**60**
3:13PM	1	0	24	0	**23**	3	0	1	0	0	**1**	48	32	0	0	0	**32**	. 2	0	0	0	0	**0**	28	**78**
3:. 0PM	0	0	. 0	0	**. 0**	11	0	0	0	0	**0**	. 3	. 8	0	0	0	**. 8**	24	0	0	0	0	**0**	26	**68**
3:43PM	0	0	29	0	**29**	6	0	1	0	0	**1**	. 8	. 9	0	0	0	**. 9**	16	0	0	0	0	**0**	33	**69**
5 ourly Total	1	0	110	0	**111**	. 3	0	2	0	0	**2**	142	162	0	0	0	**162**	84	0	0	0	0	**0**	1. 7	**273**
Total	2	2	. 33	2	**. 61**	6.	0	.	.	0	**6**	2. 4	31.	3	0	0	**318**	138	0	4	0	0	**4**	248	**889**
% ANNoach	0h6%	0h6%	98h %	0h6%	-	-	0%	30h8%	30h8%	0%	-	-	99h0%	1h0%	0%	0%	-	-	0%	100%	0%	0%	-	-	-
% Total	0h2%	0h2%	. 98h%	0h2%	**40h6%**	-	0%	0h %	0h %	0%	**0h9%**	-	37h2%	0h6%	0%	0%	**38h %**	-	0%	0h4%	0%	0%	**0h4%**	-	-
Lights	0	0	. 46	2	**. 48**	-	0	0	0	0	**0**	-	303	0	0	0	**303**	-	0	0	0	0	**0**	-	83.
% Lights	0%	0%	97h2%	100%	**96h4%**	-	0%	0%	0%	0%	**0%**	-	98h4%	0%	0%	0%	**97h2%**	-	0%	0%	0%	0%	**0%**	-	96h0%
Single-Unit Trucks	0	0	2	0	**2**	-	0	0	0	0	**0**	-	4	0	0	0	**4**	-	0	0	0	0	**0**	-	6
% Single-Unit Trucks	0%	0%	0h6%	0%	**0h6%**	-	0%	0%	0%	0%	**0%**	-	0h8%	0%	0%	0%	**0h8%**	-	0%	0%	0%	0%	**0%**	-	0h5%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1	0	0	0	**1**	-	0	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0h2%	0%	0%	0%	**0h2%**	-	0%	0%	0%	0%	**0%**	-	0h1%
Buses	0	0	4	0	**4**	-	0	0	0	0	**0**	-	.	0	0	0	.	-	0	0	0	0	**0**	-	7
% Buses	0%	0%	1h1%	0%	**1h1%**	-	0%	0%	0%	0%	**0%**	-	0h6%	0%	0%	0%	**0h6%**	-	0%	0%	0%	0%	**0%**	-	0h8%
Bicycles on Road	2	2	.	0	**7**	-	0	.	.	0	**6**	-	0	3	0	0	**3**	-	0	4	0	0	**4**	-	22
% Bicycles on Road	100%	100%	0h8%	0%	**19%**	-	0%	100%	100%	0%	**100%**	-	0%	100%	0%	0%	**1h9%**	-	0%	100%	0%	0%	**100%**	-	2h8%
Pedestrians	-	-	-	-	-	6.	-	-	-	-	-	229	-	-	-	-	-	136	-	-	-	-	-	243	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	97h9%	-	-	-	-	-	98h2%	-	-	-	-	-	98h8%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	2h4%	-	-	-	-	-	1h %	-	-	-	-	-	1h2%	-

*Pedestrians and Bicycles on Crosswalkb L: Left, R: Right, T: Thru, U: U-Turn

Main & Center - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

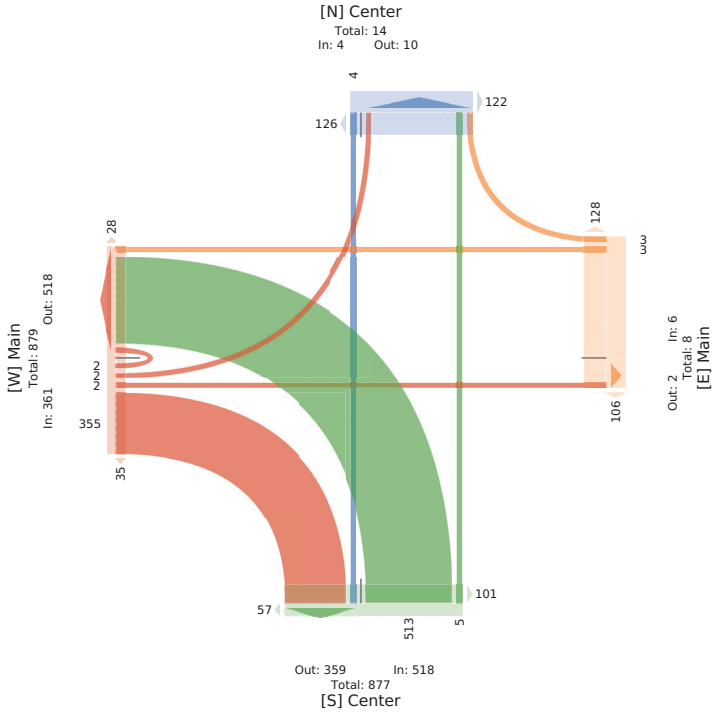
All Movements

ID: 8869. 3, Location: 42b4. 1073, -8. b48. 227

GEWALT HAMILTON ASSOCIATES, INC.

Provided Gy: Hewalt 5 amilton Associates Incb

623 Forest Edge Drive, Vernon 5 ills, IL, 60061, US



GEWALT HAMILTON ASSOCIATES, INC.

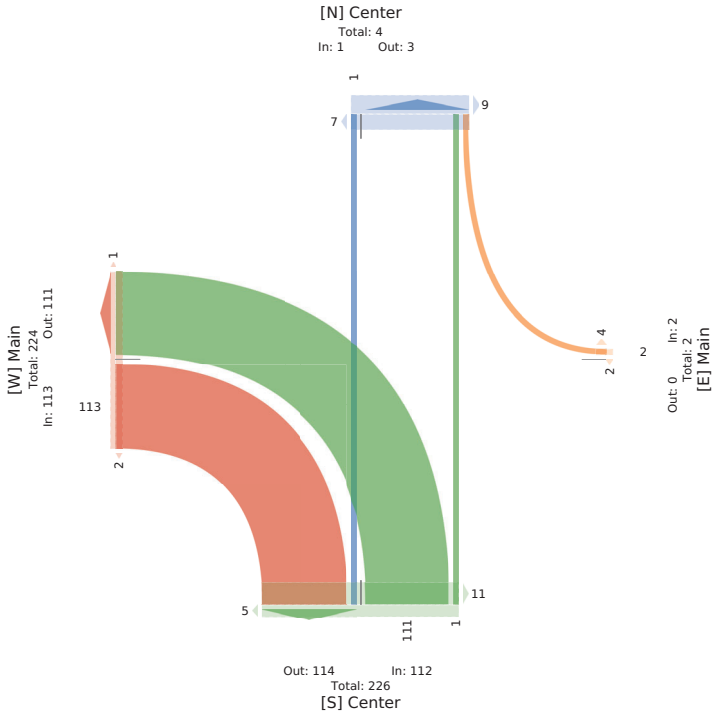
LdRmsBeBbo7Gev n6 Hnl s6tRr F CCRcsnteCDrc3
82M5RdeCl EBi e : dsne, Vedr Rr Hs6C, Da , 80081, k U

a ei : sdectsRr	l nsr EnCdbRur B					l nsr p eCdbRur B					) er ted WRdtSbRur B					) er ted URurSbRur B					
Tsl e	a	T	w	k	F NN	LeB*	a	T	w	k	F NN	LeB*	a	T	w	k	F NN	LeB*	a	T	w	k	F NN	LeB*	l0t
2021-10-19 (7AMF1	0	0	2M	0	**2M**	0	0	0	2	0	**2**	0	. 8	1	0	0	**. (**	M	0	0	0	0	**0**	.	**8A**
4700F1	0	0	. A	0	**. A**	1	0	0	0	0	**0**	1	. 0	0	0	0	**. 0**	.	0	0	0	0	**0**	1	**8A**
47tMF1	0	0	. 2	0	**. 2**	1	0	0	0	0	**0**	.	. 1	0	0	0	**. 1**	1	0	1	0	0	**1**	A	**8A**
47.0F1	0	0	22	0	**22**	1	0	0	0	0	**0**	2	1A	0	0	0	**1A**	(	0	0	0	0	**0**	4	**. 8**
TRn6	0	0	11.	0	**11.**	.	0	0	2	0	**2**	8	111	1	0	0	**112**	18	0	1	0	0	**1**	18	**224**
% F NNRncS	0%	0%	100%	0%	**-**	-	0%	0%	100%	0%	**-**	-	993l %	03P%	0%	0%	**-**	-	0%	100%	0%	0%	**-**	-	-
% TRn6	0%	0%	A93l %	0%	**A93l %**	-	0%	0%	03P%	0%	**03P%**	-	A43(%	03P%	0%	0%	**A93l %**	-	0%	03P%	0%	0%	**03P%**	-	-
LH5	-	-	03l. 1	-	**03l. 1**	-	-	-	-	-	**-**	-	03((1	-	-	-	**03((1**	-	-	-	-	-	**-**	-	03l(M
a si StC	0	0	110	0	**110**	-	0	0	0	0	**0**	-	109	0	0	0	**109**	-	0	0	0	0	**0**	-	219
% a si StC	0%	0%	9(3 %	0%	**9(3 %**	-	0%	0%	0%	0%	**0%**	-	943P%	0%	0%	0%	**9(3 %**	-	0%	0%	0%	0%	**0%**	-	983l%
Usr i 6e-k r st TducgC	0	0	1	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Usr i 6e-k r st TducgC	0%	0%	03P%	0%	**03P%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	03l%
F dscu6nteB TducgC	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% F dscu6nteB TducgC	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
y uCeC	0	0	2	0	**2**	-	0	0	0	0	**0**	-	2	0	0	0	**2**	-	0	0	0	0	**0**	-	A
% y uCeC	0%	0%	13l%	0%	**13l%**	-	0%	0%	0%	0%	**0%**	-	13l%	0%	0%	0%	**13l%**	-	0%	0%	0%	0%	**0%**	-	13l%
y scoc6eCRr wRnB	0	0	0	0	**0**	-	0	0	2	0	**2**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	A
% y scoc6eCRr wRnB	0%	0%	0%	0%	**0%**	-	0%	0%	100%	0%	**100%**	-	0%	100%	0%	0%	**03P%**	-	0%	100%	0%	0%	**100%**	-	13l%
LeBeCdsnr C	-	-	-	-	-	.	-	-	-	-	-	8	-	-	-	-	-	1M	-	-	-	-	-	1A	
% LeBeCdsnr C	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	9. 3l%	-	-	-	-	-	4(3M%	-
y scoc6eCRr) dRCCv nfg	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	
% y scoc6eCRr) dRCCv nfg	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	83 %	-	-	-	-	-	123M%	-

*LeBeCdsnr Cnr B y scoc6eCRr) dRCCv nfg3a 7a eft, w7wsi St, T7TSdu, k 7k -Tudr

GEWALT HAMILTON ASSOCIATES, INC.

LdRmsBeBbo7Gev n6 Hnl s6tRr F CCRcsnteCDrc3
82M5RdeCl EBi e : dsne, Vedr Rr Hs6C, Da , 80081, k U



GEWALT HAMILTON ASSOCIATES, INC.

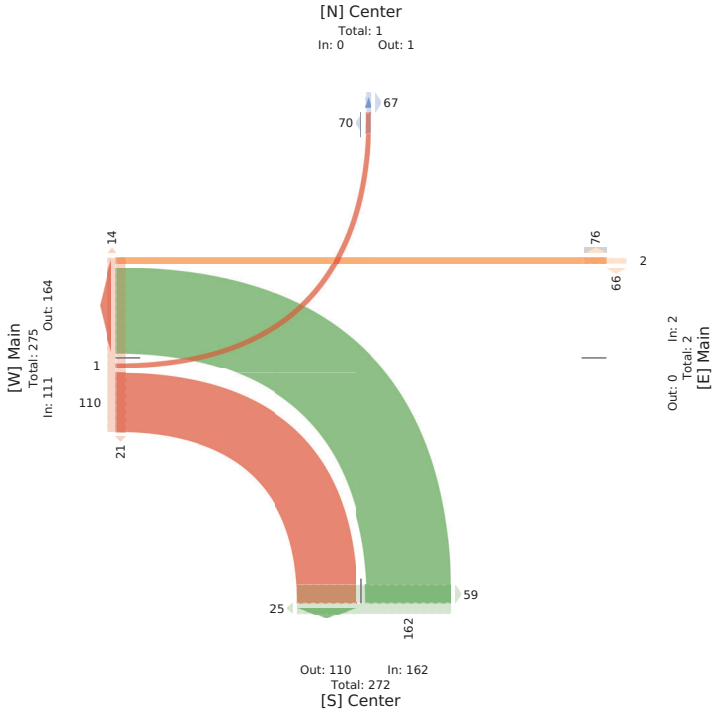
F-6MBeB GoDHewL4 P Lv i46k) aa6ciLtea nkc3
72h 56-eat EBSe I -iM4, Ve-k6k P i44h, ns , 70071, d r

s eS I i-ect i6k	l Lik ELatGukB						l Lik p eatGukB						Cekte- W6-tUGukB						Cekte- r 6utUGukB						
Tiv e	s	T	R	d	) NN	FeB*	s	T	R	d	) NN	FeB*	s	T	R	d	) NN	FeB*	s	T	R	d	) NN	FeB*	nkt
2021(10(19 hl0F1	0	0	2b	0	**2b**	18	0	0	0	0	**0**	21	88	0	0	0	**88**	12	0	0	0	0	**0**	2:	**70**
hDhF1	1	0	2.	0	**2h**	h	0	1	0	0	**1**	. :	h2	0	0	0	**h2**	82	0	0	0	0	**0**	2:	**h:**
hl0F1	0	0	80	0	**80**	11	0	0	0	0	**0**	8h	8:	0	0	0	**8:**	2.	0	0	0	0	**0**	27	**7:**
hDhF1	0	0	29	0	**29**	7	0	1	0	0	**1**	8:	89	0	0	0	**89**	17	0	0	0	0	**0**	hh	**79**
T6tL4	1	0	110	0	**111**	8h	0	2	0	0	**2**	1. 2	172	0	0	0	**172**	: .	0	0	0	0	**0**	18b	**2hh**
%) NN6LcU	03P%	0%	993l %	0%	**(**	(	0%	100%	0%	0%	**(**	(	100%	0%	0%	0%	**(**	(	0%	0%	0%	0%	**(**	(	(
% T6tL4	03 %	0%	. 03P%	0%	**. 03 %**	(	0%	03P%	0%	0%	**03P%**	(	h: 3P%	0%	0%	0%	**h: 3P%**	(	0%	0%	0%	0%	**0%**	(	(
FP 5	(	(	03l00	(	**03l00**	(	(	(	(	(	**(**	(	03hb9	(	(	(	**03hb9**	(	(	(	(	(	**(**	(	03l12
s iSUa	0	0	10b	0	**10b**	(	0	0	0	0	**0**	(	170	0	0	0	**170**	(	0	0	0	0	**0**	(	27b
% s iSUa	0%	0%	9b3l%	0%	**973 %**	(	0%	0%	0%	0%	**0%**	(	9: 3 %	0%	0%	0%	**9: 3 %**	(	0%	0%	0%	0%	**(**	(	9b3l%
r ikSde(d kit T-ucna	0	0	1	0	**1**	(	0	0	0	0	**0**	(	2	0	0	0	**2**	(	0	0	0	0	**0**	(	8
% r ikSde(d kit T-ucna	0%	0%	03P%	0%	**03P%**	(	0%	0%	0%	0%	**0%**	(	13l%	0%	0%	0%	**13l%**	(	0%	0%	0%	0%	**(**	(	13l%
) -ticu4LteB T-ucna	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
%) -ticu4LteB T-ucna	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**(**	(	0%
y uaea	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
% y uaea	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**(**	(	0%
y icoc4ea 6k R6LB	1	0	2	0	**8**	(	0	2	0	0	**2**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	h
% y icoc4ea 6k R6LB	100%	0%	13 %	0%	**23h%**	(	0%	100%	0%	0%	**100%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**(**	(	13 %
FeBeat-iLka	(	(	(	(	(	8h	(	(	(	(	(	1. 0	(	(	(	(	(	: 8	(	(	(	(	(	187	
% FeBeat-iLka	(	(	(	(	(	100%	(	(	(	(	(	9: 3%	(	(	(	(	(	9: 3 %	(	(	(	(	(	993l%	(
y icoc4ea 6k C-6aawL4h	(	(	(	(	(	0	(	(	(	(	(	2	(	(	(	(	(	1	(	(	(	(	(	1	
% y icoc4ea 6k C-6aawL4h	(	(	(	(	(	0%	(	(	(	(	(	13 %	(	(	(	(	(	13l%	(	(	(	(	(	03h%	(

*FeBeat-iLka LkB y icoc4ea 6k C-6aawL4h3s Ds eft, RDRiSUi, TDI'U-u, d Dtl (Tu-k

GEWALT HAMILTON ASSOCIATES, INC.

F-6MBeB GoDHewL4 P Lv i46k) aa6ciLtea nkc3
72h 56-eat EBSe I -iM4, Ve-k6k P i44h, ns , 70071, d r



Main & Northville - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 4, Location: 423l. 1204, -8. 3l8100b

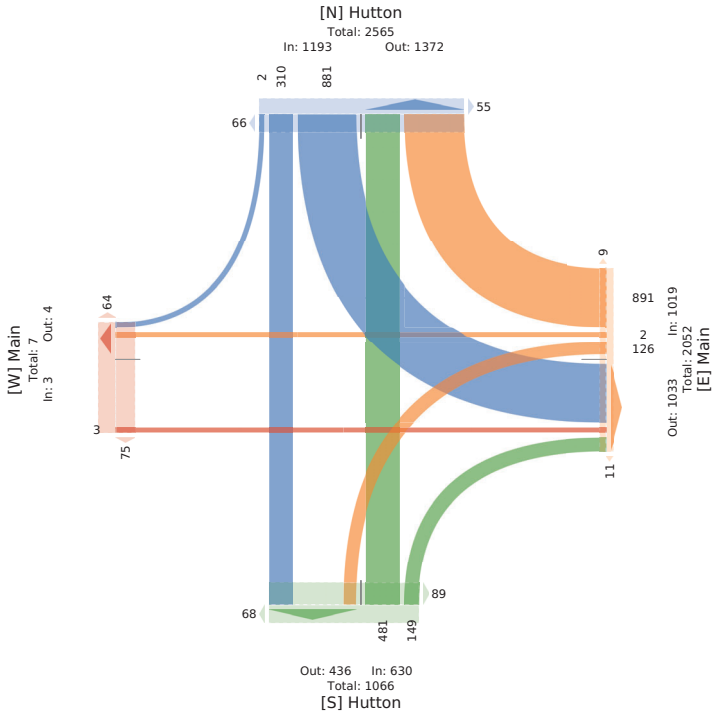
GEWALT HAMILTON ASSOCIATES, INC.
Provided Cjy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US

Leg Direction	Main EastGound						Main p estGound						5 utton WorthGound						5 utton SouthGound						
Time	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	Int
2021-10-19 7:00AM	0	0	0	0	**0**	1	.	0	19	0	**22**	0	0	1b	8	0	**2.**	1	20	4	0	0	**24**	b	**69**
7:1bAM	0	0	0	0	**0**	4	2	1	2b	0	**28**	0	0	24	12	0	**. 6**	1	24	18	0	0	**42**	7	**106**
7:. 0AM	0	1	0	0	**1**	0	1	0	. 0	0	**. 1**	0	0	28	7	0	**. b**	4	. 2	12	0	0	**44**	1	**111**
7:4bAM	0	0	0	0	**0**	1	b	0	0	. 9	**44**	2	0	2b	12	0	**. 7**	.	. 8	18	0	0	**b6**		**1. 7**
5 ourly Total	0	1	0	0	**1**	6	11	1	11.	0	**12b**	2	0	92	. 9	0	**1. 1**	9	114	b2	0	0	**166**	16	**42.**
8:00AM	0	0	0	0	**0**	1	7	0	44	0	**b1**	0	0	22	12	0	**. 4**		bb	2.	0	0	**78**	1	**16.**
8:1bAM	0	0	0	0	**0**	1	b	0	24	0	**29**	1	0	29	2.	0	**b2**	b	61	11	0	0	**72**		**1b.**
8:. 0AM	0	0	0	0	**0**	2	b	0	4.	0	**48**	0	0	28	1b	0	**4.**	6	b4	16	1	0	**71**	b	**162**
8:4bAM	0	0	0	0	**0**	0	6	0	b6	0	**62**	0	0	. 1	7	0	**. 8**	.	6.	17	0	0	**80**	2	**180**
5 ourly Total	0	0	0	0	**0**	4	2.	0	167	0	**190**	1	0	110	b7	0	**167**	17	2. .	67	1	0	**. 01**	11	**6b8**
4:00PM	0	0	0	0	**0**	17	7	0	70	0	**77**	1	0	. 8	6	0	**44**	21	67	20	0	0	**87**	11	**208**
4:1bPM	0	0	0	0	**0**	14	7	0	62	0	**69**	1	0	. 2	4	0	**. 6**	17	61	22	0	0	**8.**	9	**188**
4:. 0PM	0	1	0	0	**1**	22	14	0	87	0	**101**	0	0	. 4	6	0	**40**	10	74	22	0	0	**96**	1b	**2. 8**
4:4bPM	0	0	0	0	**0**	12	1.	0	8b	0	**98**	2	0	. 1	12	0	**4.**	22	61	. 4	0	0	**9b**	11	**2. 6**
5 ourly Total	0	1	0	0	**1**	6b	41	0	. 04	0	**. 4b**	4	0	1. b	28	0	**16.**	70	26.	98	0	0	**. 61**	46	**870**
b:00PM	0	0	0	0	**0**	.	1.	0	74	0	**87**	2	0	42	b	0	**47**	10	b7	18	1	0	**76**	6	**210**
b:1bPM	0	0	0	0	**0**	17	6	1	80	0	**87**	b	0	. 4	1	0	**. b**	12	66	22	0	0	**88**	b	**210**
b:. 0PM	0	1	0	0	**1**	29	16	0	71	0	**87**	2	0	. 2	10	0	**42**	21	74	. 4	0	0	**108**	24	**2. 8**
b:4bPM	0	0	0	0	**0**	1b	16	0	82	0	**98**	4	0	. 6	9	0	**4b**	18	74	19	0	0	**9.**	1.	**2. 6**
5 ourly Total	0	1	0	0	**1**	64	b1	1	. 07	0	**. b9**	1.	0	144	2b	0	**169**	61	271	9.	1	0	**. 6b**	48	**894**
Total	0	.	0	0	.	1. 9	126	2	891	0	**1019**	20	0	481	149	0	**6. 0**	1b7	881	. 10	2	0	**119.**	121	**284b**
% ANNoach	0%	100%	0%	0%	**-**	-	12.8%	0.2%	87.8%	0%	**-**	-	0%	76.3 %	2. 3%	0%	**-**	-	7. 8%	26.0%	0.2%	0%	**-**	-	-
% Total	0%	0.1%	0%	0%	**0.1%**	-	4.8%	0.1%	. 13 %	0%	**. b.8%**	-	0%	16.9%	b.2%	0%	**22.1%**	-	. 1.0%	10.9%	0.1%	0%	**41.9%**	-	-
Lights	0	0	0	0	**0**	-	12.	0	879	0	**1002**	-	0	478	148	0	**626**	-	872	299	0	0	**1171**	-	2799
% Lights	0%	0%	0%	0%	**0%**	-	97.6%	0%	98.3%	0%	**98.3 %**	-	0%	99.8%	99.3 %	0%	**99.8%**	-	99.0%	96.b%	0%	0%	**98.2%**	-	98.8%
Single-Unit Trucks	0	0	0	0	**0**	-	1	0	6	0	**7**	-	0	0	0	0	**0**	-	.	b	0	0	**8**	-	1b
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0.8%	0%	0.7%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0.3 %	1.6%	0%	0%	**0.7%**	-	0.6%
Articulated Trucks	0	0	0	0	**0**	-	2	0	2	0	**4**	-	0	1	0	0	**1**	-	.	0	0	0	**.**	-	8
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	1.6%	0%	0.2%	0%	**0.8%**	-	0%	0.2%	0%	0%	**0.2%**	-	0.3 %	0%	0%	0%	**0.3 %**	-	0.3 %
Buses	0	0	0	0	**0**	-	0	0	2	0	**2**	-	0	0	0	0	**0**	-	.	1	0	0	**4**	-	6
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	0.2%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.3 %	0.3 %	0%	0%	**0.3 %**	-	0.2%
Bicycles on Road	0	.	0	0	**.**	-	0	2	2	0	**4**	-	0	2	1	0	**.**	-	0	b	2	0	**7**	-	17
% Bicycles on Road	0%	100%	0%	0%	**100%**	-	0%	100%	0.2%	0%	**0.8%**	-	0%	0.8%	0.7%	0%	**0.7%**	-	0%	1.6%	100%	0%	**0.6%**	-	0.6%
Pedestrians	-	-	-	-	-	1. 9	-	-	-	-	-	18	-	-	-	-	-	1b4	-	-	-	-	-	118	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	900%	-	-	-	-	-	98.1%	-	-	-	-	-	97.b%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	100%	-	-	-	-	-	1.9%	-	-	-	-	-	2.b%	-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Main & Northville - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 4, Location: 423l. 1204, -8. 3l8100b

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cjy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US



Main & Northville - TMC
Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Wil M44e4 lP9 C14, a 6))e7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns 4, r 6kcMd ds BdnU, r 6kcMd ds - St44y nAA
F Wil doeRest4
w m((19D , Pdcnt6lsm 28 D120: , 7(D8 (100.

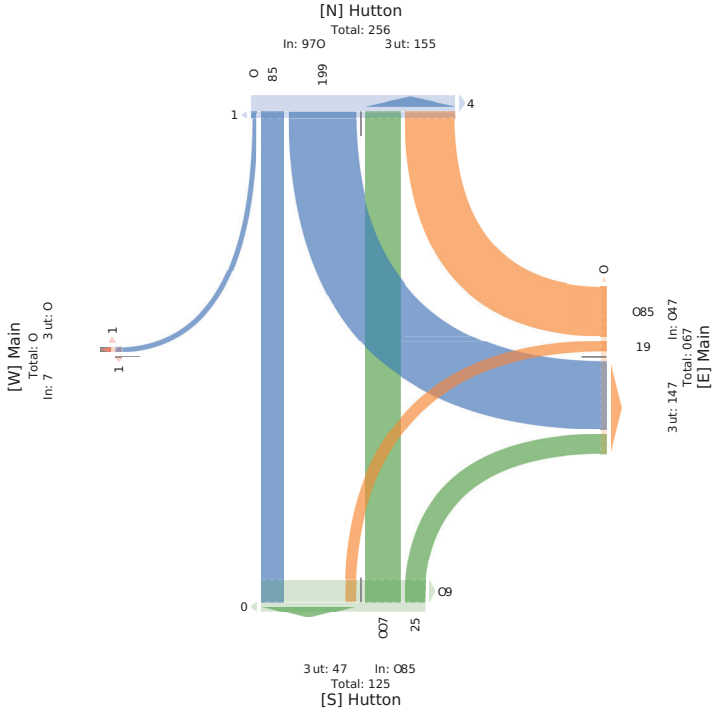
GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeU3kmb ey nMGnR6ds F44dc6nte4 wc8
12. HdSe4t 5 U) e v Sne, E eSsds GeW(vP, 100l 1, i a

Pe) v 6ect6ls	1 n6s 5 n43dus U						1 n6s V e43dus U						Guttds p dSC3dus U						Guttds adutC3dus U						
T6Re	P	T	B	i	F W W	LeUN	P	T	B	i	F W W	LeUN	P	T	B	i	F W W	LeUN	P	T	B	i	F W W	LeUN	wt
2021710719 (t0F1	0	0	0	0	**0**	1	* 0	: :	0	. **1**	0		0	22	12	0	**D**	D	. .	2D	0	0	***(**	1	**11D**
(t. F1	0	0	0	0	**0**	1	. 0	2:	0	**29**	1		0	29	2D	0	**. 2**	.	I 1	11	0	0	***2**	D	**1. D**
(t0F1	0	0	0	0	**0**	2	. 0	: D	0	**:(**	0		0	2(	1.	0	**: D**	1	. :	1I	1	0	***1**	.	**1I 2**
(m. F1	0	0	0	0	**0**	0	I 0	. 1	0	**12**	0		0	D(	*	0	**D(**	D	1 D	1*	0	0	**(0**	2	**1(0**
TdmM	0	0	0	0	**0**	.	2D	0	11 *	0	**190**	1	0	110	. *	0	**11 ***	1*	2DD	1 *	1	0	**DD1**	11	**1. (**
% F W6lncC	0%	0%	0%	0%	**7**	7	128%	0%	(*8%	0%	**7**	7	0%	1. 8%	D. 8 %	0%	**7**	7	**8 %	22.D%	0.8%	0%	**7**	7	7
% TdmM	0%	0%	0%	0%	**0%**	7	D8 %	0%	2. 8 %	0%	**2(8%**	7	0%	11.8%	(8%	0%	**2. 8 %**	7	D 8 %	10.2%	0.2%	0%	**: . 8%**	7	7
LGH	7	7	7	7	**7**	7	08 I 21	7	0 8* . I	7	**0 8* 1 I**	7	7	0 8(*	0 8 I 20	7	**0 8(0D**	7	0 8 2.	0 8* 2(	7	7	**0 8D(**	7	0 8 I 1D
P6 C14	0	0	0	0	**0**	7	2D	0	11D	0	**1(I**	7	0	110	. *	0	**11 ***	7	22(	I 2	0	0	**290**	7	I : D
% P6 C14	0%	0%	0%	0%	**7**	7	100%	0%	9* 8 %	0%	**9* 8 9%**	7	0%	100%	100%	0%	**100%**	7	9* 8 9%	92.8 %	0%	0%	**91 8.%**	7	9* 8* 8%
a6) M1 s6 T Sucg4	0	0	0	0	**0**	7	0 0	2	0	**2**	7		0	0	0	0	**0**	7	0	:	0	0	**:**	7	I
% a6) M1 s6 T Sucg4	0%	0%	0%	0%	**7**	7	0% 0%	18.2%	0%	**18.1%**	7		0%	0%	0%	0%	**0%**	7	0%	1.8%	0%	0%	**1.8%**	7	0.8%
F S6cuMteUTSucg4	0	0	0	0	**0**	7	0 0	0	0	**0**	7		0	0	0	0	**0**	7	2	0	0	0	**2**	7	2
% F S6cuMteUTSucg4	0%	0%	0%	0%	**7**	7	0% 0%	0%	0%	**0%**	7		0%	0%	0%	0%	**0%**	7	0.8%	0%	0%	0%	**0.8%**	7	0.8%
r u4e4	0	0	0	0	**0**	7	0 0	2	0	**2**	7		0	0	0	0	**0**	7	D	1	0	0	**:**	7	I
% r u4e4	0%	0%	0%	0%	**7**	7	0% 0%	18.2%	0%	**18.1%**	7		0%	0%	0%	0%	**0%**	7	18.D%	18 %	0%	0%	**18.D%**	7	0.8%
r 6kcMd ds BdnU	0	0	0	0	**0**	7	0 0	0	0	**0**	7		0	0	0	0	**0**	7	0	0	1	0	**1**	7	1
% r 6kcMd ds BdnU	0%	0%	0%	0%	**7**	7	0% 0%	0%	0%	**0%**	7		0%	0%	0%	0%	**0%**	7	0%	0%	100%	0%	**0.8%**	7	0.8%
LeUe4tSns 4	7	7	7	7	7	.	7 7	7	7	7	7	1	7	7	7	7	7	1*	7	7	7	7	7	10	
% LeUe4tSns 4	7	7	7	7	7	100%	7 7	7	7	7	7	100%	7	7	7	7	7	100%	7	7	7	7	7	90.8%	7
r 6kcMd ds - St44y nAJ	7	7	7	7	7	0	7 7	7	7	7	7	0	7	7	7	7	7	0	7	7	7	7	7	1	
% r 6kcMd ds - St44y nAJ	7	7	7	7	7	0%	7 7	7	7	7	7	0%	7	7	7	7	7	0%	7	7	7	7	7	98%	7

N LeUe4tSns 4 ns Ur 6kcMd ds - St44y nAJ8PmPeft, BmB6) Ct, TmTCSu, i mi 7TuSs

Main & Northville - TMC
Tue Oct 19, 2021
PM aek(4: PM 59 PM-
P)) v)krrer 4 l6lAr, CHo)e5Ls l6Tiuc(r, P itl4u)kteg Tiuc(r, h urer,
aegertilksr, h ldSc)er ns Unkg, h ldSc)er ns v inrrd k)(-
P)) MnBey estr
Rwm : 19D8, 1 nckt4lsm826BD1208, 5: D8: 100.

GEWALT HAMILTON ASSOCIATES, INC.
ainEBeg 3Smb ed k)t Gky Bins Prrnck4ter Bc6
12. Fniert Egoe wiBe, Veis ns GH)r, R , 100l 1, LC



Main & Northville - TMC

Tue Oct 19, 2021

Fl FeLn gh(70 Fl AM(70 Fl - AO4eHf66FeLn) CuP

a 66s 6Liiei gS(t/kti, dUBr6eAy BtU THncni, a Rt/dwGieo THncni, Ruiei,

FeoeitPUBi, Rt/dwc6ei CBv CLo, Rt/dwc6ei CBs RCiimLf6n-

a 6fil C4eI eBti

D (88. 97h, SCcLtUCB(h23h7120h, A873h8100M

GEWALT HAMILTON ASSOCIATES, INC.

FBG4Udeo bv(GemLf6) LI UdCBa iiCcUIrei DBc3

. 2MHCBeit 5ore : Pd/e, EeHBCB) U6i, D$, . 00. 1, y d

Ser : UBectdCB	i LUB 5LitbCuBo						l LUB V eitbCuBo						) uttCB p CBUbCuBo						) uttCB dCuUbCuBo						
TUi e	S	T	v	y	a V6V	FeoN	S	T	v	y	a V6V	FeoN	S	T	v	y	a V6V	FeoN	S	T	v	y	a V6V	FeoN	Dt
2021A0A9 h(70Fl	0	1	0	0	**1**	22	1h	0	8*	0	**101**	0	0	7h	.	0	**h0**	10	*h	22	0	0	**9.**	1M	**278**
h(hMFl	0	0	0	0	**0**	12	17	0	8M	0	**98**	2	0	71	12	0	**h7**	22	. 1	7h	0	0	**9M**	11	**27.**
M(00Fl	0	0	0	0	**0**	7	17	0	*h	0	**8***	2	0	h2	M	0	**h***	10	M*	18	1	0	***.**		**210**
M(1MFl	0	0	0	0	**0**	1*	.	1	80	0	**8***	M	0	7h	1	0	**7M**	12	. .	22	0	0	**88**	M	**210**
TCl16	0	1	0	0	**1**	Mi	h.	1	72.	0	**7*7**	9	0	1h1	2h	0	**1. M**	Mi	2M	9.	1	0	**7M**	7*	**89h**
% a VWCLck	0%	100%	0%	0%	**A**	A	123%	03%	8*3%	0%	**A**	A	0%	8M%	1h3M%	0%	**A**	A	*23%	2*0%	03%	0%	**A**	A	A
% TCl16	0%	03%	0%	0%	**03%**	A	Mi%	03%	7. 3%	0%	**h13%**	A	0%	1M8%	23%	0%	**183M%**	A	283%	103%	03%	0%	**793%**	A	A
F) H	A	A	A	A	**A**	A	0821	A	097h	A	**0918**	A	A	038M	0340	A	**0891**	A	038*2	090M	A	A	**091h**	A	097M
S(dkti	0	0	0	0	**0**	A	hh	0	72M	0	**7. 9**	A	0	1h0	2h	0	**1. h**	A	2M	97	0	0	**7h9**	A	882
% S(dkti	0%	0%	0%	0%	**0%**	A	9M8%	0%	993%	0%	**983%**	A	0%	993%	100%	0%	**993%**	A	992%	9. 3%	0%	0%	**983%**	A	983%
dUBr6eAy BtU THncni	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	2	0	0	0	**2**	A	2
% dUBr6eAy BtU THncni	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	03%	0%	0%	0%	**03%**	A	032%
a Rt/dwGieo THncni	0	0	0	0	**0**	A	2	0	0	0	**2**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	2
% a Rt/dwGieo THncni	0%	0%	0%	0%	**0%**	A	h3%	0%	0%	0%	**03%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	032%
Ruiei	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0
% Ruiei	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%
Rt/dwc6ei CBv CLo	0	1	0	0	**1**	A	0	1	1	0	**2**	A	0	1	0	0	**1**	A	0	7	1	0	**h**	A	8
% Rt/dwc6ei CBv CLo	0%	100%	0%	0%	**100%**	A	0%	100%	03%	0%	**03M%**	A	0%	03%	0%	0%	**03%**	A	0%	73%	100%	0%	**13%**	A	039%
FeoeitPUBi	A	A	A	A	A	Mi	A	A	A	A	A	9	A	A	A	A	A	Mi	A	A	A	A	A	7.	
% FeoeitPUBi	A	A	A	A	A100%		A	A	A	A	A100%		A	A	A	A	A100%		A	A	A	A	A9*3%		A
Rt/dwc6ei CBs RCiimLf6n	A	A	A	A	A	0	A	A	A	A	A	0	A	A	A	A	A	0	A	A	A	A	A	1	
% Rt/dwc6ei CBs RCiimLf6n	A	A	A	A	A	0%	A	A	A	A	A	0%	A	A	A	A	A	0%	A	A	A	A	A	23%	A

[N] FeoeitPUBi LBo Rt/dwc6ei CBs RCiimLf6n3S(Seft, v (v t/kt, T(TkRu, y (y ATuPB

Main & Northville - TMC

Tue Oct 19, 2021

PM Peak (4:50 PM -) :50 PMv - Or elaHPeak o Aul

CHHs laLLeL (i ghStL, ngLhHd-d Ug TluckL, CLtgculaiteB TluckL, y uLeL,

PeBeLiLguLL, y g:RcHeLAUwAaB, y g:RcHeLAUs lALLmaHkv

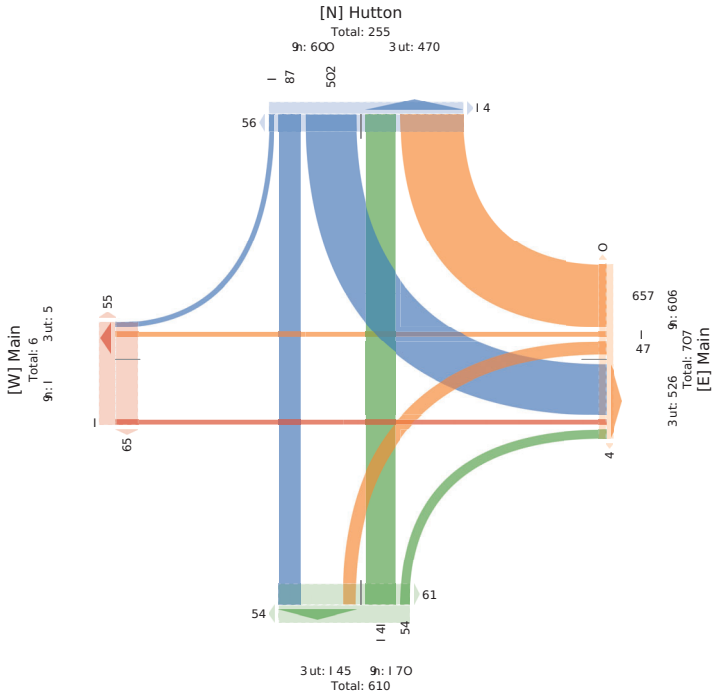
CHHMAr el eLiL

D8 : 66. 954, i AcatgAL: 4234151204, -6534 6100)

GEWALT HAMILTON ASSOCIATES, INC.

PlArgBeBbR Gemalio al gHAUCLLAcgteL D3c3

. 2) FAleLi EBhe 8 lg re, VelUAUo gHH, D , . 00. 1, d n



Main & Griswold - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 8869. . , Location: 4234. 1. . 2, -8. 3478768

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc3

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main Eastbound						Main p estbound						Griswold Worthbound						Griswold Southbound						
Time	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	**Int**
2021-10-19 7:00AM	1	11	1	0	**1.**	1	1	21	15	0	**. 7**	0	1	2.	4	0	**28**	0	16	11	11	0	**. 8**	0	**116**
7:15AM	1	19	0	0	**20**	1	0	. 1	16	0	**47**	0	2	20	.	0	**25**	0	8	18	9	0	**. 5**	0	**127**
7:. 0AM	5	27	0	0	**. 2**	0	.	28	19	0	**50**	0	4	20	1	0	**25**	1	14	18	5	0	**. 7**	2	**144**
7:45AM	1	. 1	2	0	**. 4**	0	0	4.	22	0	**65**	0	4	. 2	4	0	**40**	0	24	18	19	0	**61**	1	**200**
Hourly Total	8	88	.	0	**99**	2	4	12.	72	0	**199**	0	11	95	12	0	**118**	1	62	65	44	0	**171**	.	**587**
8:00AM	4	. 7	2	0	**4.**	1	1	52	22	0	**75**	0	2	44	0	0	**46**	0	16	. 1	18	0	**65**	0	**229**
8:15AM	7	48	1	0	**56**	0	2	. 4	29	0	**65**	0	.	40	4	0	**47**	4	15	20	14	0	**49**	2	**217**
8:. 0AM	9	44	.	0	**56**	4	.	46	22	0	**71**	2	5	5.	5	0	**6.**	2	20	28	12	0	**60**	1	**250**
8:45AM	5	4.	.	0	**51**	1	.	60	4.	0	**106**	2	6	. 1	5	0	**42**	2	14	40	20	0	**74**	0	**27.**
Hourly Total	25	172	9	0	**206**	6	9	192	116	0	**. 17**	4	16	168	14	0	**198**	8	65	119	64	0	**248**	.	**969**
4:00PM	11	46	7	0	**64**	4	4	55	41	0	**100**	1	12	45	10	0	**67**	2	. 8	. 5	21	0	**94**	0	**. 25**
4:15PM	11	52	4	0	**67**	0	4	54	. 6	0	**94**	1	6	4.	5	0	**54**	1	. 1	. 5	25	0	**91**	0	**. 06**
4:. 0PM	9	56	7	0	**72**	6	2	8.	49	0	**1. 4**	0	4	54	5	0	**6.**	2	41	40	18	0	**99**	1	**. 68**
4:45PM	8	54	1	0	**6.**	4	6	78	5.	0	**1. 7**	1	6	49	.	0	**58**	0	. 9	42	20	0	**101**	1	**. 59**
Hourly Total	. 9	208	19	0	**266**	14	16	270	179	0	**465**	.	28	191	2.	0	**242**	5	149	152	84	0	**. 85**	2	**1. 58**
5:00PM	12	47	4	0	**6.**	8	.	67	61	0	**1. 1**	1	2	68	4	0	**74**	1	46	. 8	25	0	**109**	.	**. 77**
5:15PM	7	55	.	0	**65**	.	5	69	62	0	**1. 6**	0	6	5.	7	0	**66**	4	46	5.	1.	0	**112**	0	**. 79**
5:. 0PM	15	55	5	0	**75**	.	0	71	51	0	**122**	2	.	51	.	0	**57**	2	. 6	59	22	0	**117**	.	**. 71**
5:45PM	14	58	5	0	**77**	.	2	71	68	0	**141**	2	4	56	.	0	**6.**	1	. 6	41	25	0	**102**	4	**. 8.**
Hourly Total	48	215	17	0	**280**	17	10	278	242	0	**5. 0**	5	15	228	17	0	**260**	8	164	191	85	0	**440**	10	**1510**
Total	120	68.	48	0	**851**	. 9	. 9	86.	609	0	**1511**	12	70	682	66	0	**818**	22	440	527	277	0	**1244**	18	**4424**
% ANNoach	143%	803%	536%	0%	**-**	-	236%	573%	403%	0%	**-**	-	836%	8. 34%	834%	0%	**-**	-	. 534%	423%	223%	0%	**-**	-	-
% Total	23%	153%	13%	0%	**192%**	-	03%	193%	1. 38%	0%	**. 432%**	-	136%	153%	15%	0%	**185%**	-	93%	113%	63%	0%	**283%**	-	-
Lights	119	672	47	0	**8. 8**	-	. 8	854	590	0	**1482**	-	70	675	66	0	**811**	-	4. 0	520	272	0	**1222**	-	4. 5.
% Lights	992%	984%	973%	0%	**985%**	-	973%	993%	963%	0%	**983%**	-	100%	993%	100%	0%	**993%**	-	973%	983%	982%	0%	**983%**	-	984%
Single-Unit Trucks	0	.	0	0	**.**	-	1	4	9	0	**14**	-	0	.	0	0	**.**	-	4	4	5	0	**1.**	-	. .
% Single-Unit Trucks	0%	034%	0%	0%	**034%**	-	236%	053%	153%	0%	**053%**	-	0%	034%	0%	0%	**034%**	-	039%	038%	138%	0%	**139%**	-	037%
Articulated Trucks	0	2	0	0	**2**	-	0	2	.	0	**5**	-	0	0	0	0	**0**	-	1	0	0	0	**1**	-	8
% Articulated Trucks	0%	03 %	0%	0%	**02%**	-	0%	032%	053%	0%	**03 %**	-	0%	0%	0%	0%	**0%**	-	032%	0%	0%	0%	**031%**	-	032%
Buses	0	.	0	0	**.**	-	0	1	7	0	**8**	-	0	1	0	0	**1**	-	5	1	0	0	**6**	-	18
% Buses	0%	034%	0%	0%	**034%**	-	0%	013%	138%	0%	**035%**	-	0%	034%	0%	0%	**034%**	-	138%	032%	0%	0%	**035%**	-	034%
Bicycles on Road	1	.	1	0	**5**	-	0	2	0	0	**2**	-	0	.	0	0	**.**	-	0	2	0	0	**2**	-	12
% Bicycles on Road	038%	034%	238%	0%	**035%**	-	0%	032%	0%	0%	**031%**	-	0%	034%	0%	0%	**034%**	-	0%	034%	0%	0%	**032%**	-	03 %
Pedestrians	-	-	-	-	-	5	-	-	-	-	-	9	-	-	-	-	-	19	-	-	-	-	-	15	
% Pedestrians	-	-	-	-	- 893%		-	-	-	-	- 75.0%		-	-	-	-	- 863%		-	-	-	-	- 8. 3 %		-
Bicycles on Crosswalk	-	-	-	-	-	4	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		
% Bicycles on Crosswalk	-	-	-	-	- 103 %		-	-	-	-	- 25.0%		-	-	-	-	- 1. 36%		-	-	-	-	- 163%		

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Main & Griswold - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

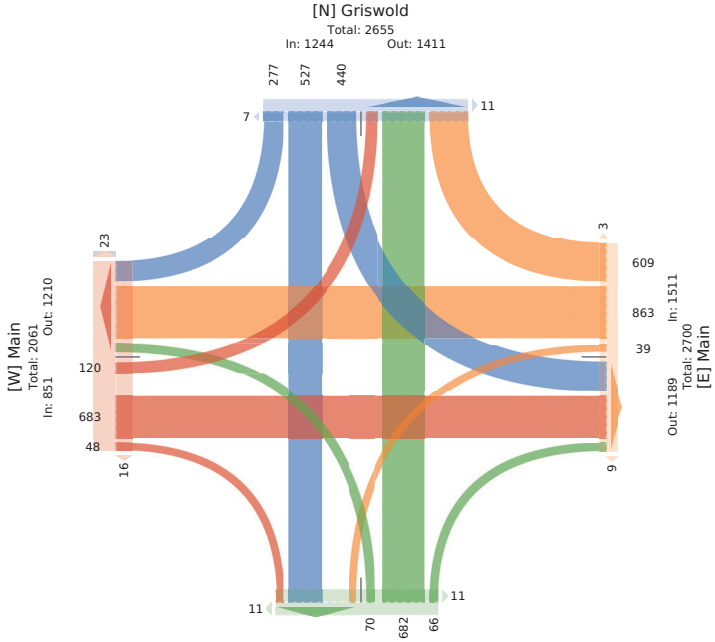
All Movements

ID: 8869. . , Location: 4234. 1. . 2, -8. 3478768

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc3

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

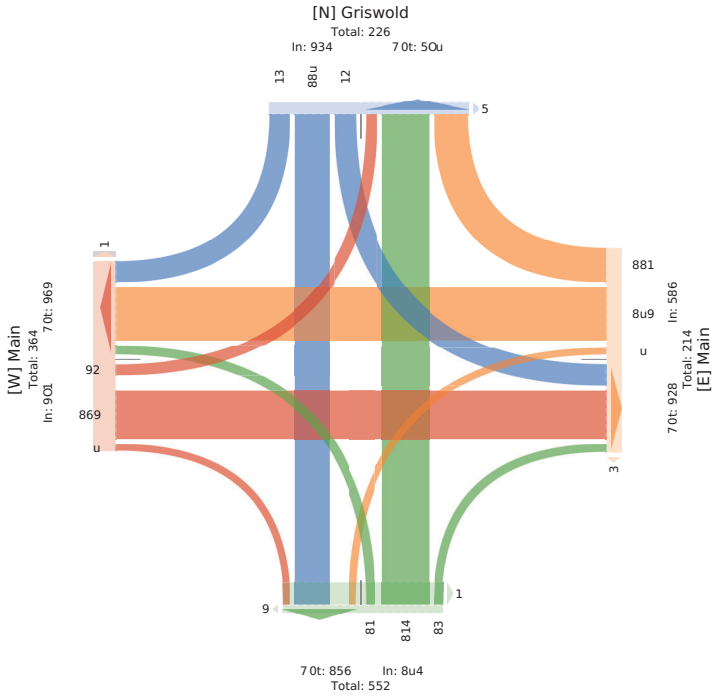


GEWALT HAMILTON ASSOCIATES, INC.

Pe) v ðiectñls	l nñs Ens4t3dus U					l nñs p e4t3dus U					b Sðly dNñ Wdl5t3dus U					b Sðly dNñ adutt3dus U					
Tðte	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	wt
2021710719 (nl0F1	:	D	2	0	: D	1	1	H2	22	0	. H	0	2	: :	0	0	: I	0	1l	Dl	1(	0	1 H	0	229
(nlHF1	.	: (	1	0	Hl	0	2	D	29	0	1 H	0	D	: 0	:	0	:.	:	1H	20	1:	0	: 9	2	21.
(nlðF1	9	: :	D	0	Hl	:	D	: 1	22	0	. 1	2	H	HD	H	0	1 D	2	20	2(	12	0	1 0	1	2H0
(mlF1	H	: D	D	0	Hl	1	D	1 0	: D	0	10l	2	I	Dl	H	0	: 2	2	1:	: 0	20	0	.:	0	2. D
TdnM	2H	1. 2	9	0	20l	1	9	192	11l	0	Dl.	:	11	11(	1:	0	19(	(	1 H	119	1:	0	2: (	D	9l 9
% F NNSincC	12ð %	(Dl H%	: ð %	0%	7	7	2ð %	1 0ð %	Dl ð %	0%	7	7	(ð %	: ð %	. ð %	0%	7	7	2l ð%	: (ð%	2H %	0%	7	7	7
% TdnM	2ð %	1. ð %	0ð%	0%	2l ð%	7	0ð%	19ð %	12ð %	0%	D ð %	7	18 %	1. ð%	18 %	0%	2 0ð %	7	1ð %	12ð%	1ð %	0%	2H ð %	7	7
LG5	0ð 9:	0ð 9l	0ð Hl	7	0ð : (	7	0ð Hl	0ð 00	0ð : :	7	0ð : (	7	0ð I .	0ð 92	0ð 00	7	0ð (I	7	0ð 1D	0ð : :	0ð 00	7	0ð D(	7	0ð (.
PQ Cl4	2H	11I	9	0	200	7	9	1(9	10H	0	Dl D	7	11	11 H	1:	0	19H	7	1 0	11(	1:	0	2: 2	7	9: 0
% PQ Cl4	100% 9l	ð H%	100%	0%	9. ð l%	7	100%	9(ð %	90ð H%	0%	9H ð %	7	100%	9(ð2%	100%	0%	9(ð H%	7	92ð l%	99ð2%	100%	0%	9. ð l %	7	9. ð0%
a6) Mñ s ðTSucg4	0	1	0	0	1	7	0	2	H	0	.	7	0	2	0	0	2	7	2	1	0	0	D	7	1D
% a6) Mñ s ðTSucg4	0%	0ð %	0%	0%	0ð H%	7	0%	1ð0%	: ð%	0%	2ð2%	7	0%	1ð2%	0%	0%	1ð0%	7	Dð %	0ð %	0%	0%	1ð2%	7	1ð3%
F SðcuMteUTSucg4	0	2	0	0	2	7	0	0	D	0	D	7	0	0	0	0	0	7	0	0	0	0	0	7	H
% F SðcuMteUTSucg4	0%	1ð2%	0%	0%	1ð0%	7	0%	0%	2ð %	0%	0ð9%	7	0%	0%	0%	0%	0%	7	0%	0%	0%	0%	0%	7	0ð ð%
r u4e4	0	D	0	0	D	7	0	1	D	0	:	7	0	1	0	0	1	7	D	0	0	0	D	7	11
% r u4e4	0%	1ð %	0%	0%	1ð H%	7	0%	0ð H%	2ð %	0%	1ð3%	7	0%	0ð I%	0%	0%	0ð I%	7	: ð %	0%	0%	0%	1ð2%	7	1ð I%
r ðckcMñ ds BdnU	0	0	0	0	0	7	0	0	0	0	0	7	0	0	0	0	0	7	0	0	0	0	0	7	0
% r ðckcMñ ds BdnU	0%	0%	0%	0%	0%	7	0%	0%	0%	0%	0%	7	0%	0%	0%	0%	0%	7	0%	0%	0%	0%	0%	7	0%
LeUe4tSñs 4	7	7	7	7	7	1	7	7	7	7	:	7	7	7	7	7	(	7	7	7	7	7	D		
% LeUe4tSñs 4	7	7	7	7	7	100%	7	7	7	7	100%	7	7	7	7	7	100%	7	7	7	7	7	100%	7	
r ðckcMñ ds - Sl44y nMgA	7	7	7	7	7	0	7	7	7	7	0	7	7	7	7	7	0	7	7	7	7	7	0		
% r ðckcMñ ds - Sl44y nMgA	7	7	7	7	7	0%	7	7	7	7	0%	7	7	7	7	7	0%	7	7	7	7	7	0%	7	

*LeUe4tSñs 4 ns Ur ðckcMñ ds - Sl44y nMgBPmPeft, BmBðCl, TmTCSu, i mi 7TuSs

GEWALT HAMILTON ASSOCIATES, INC.

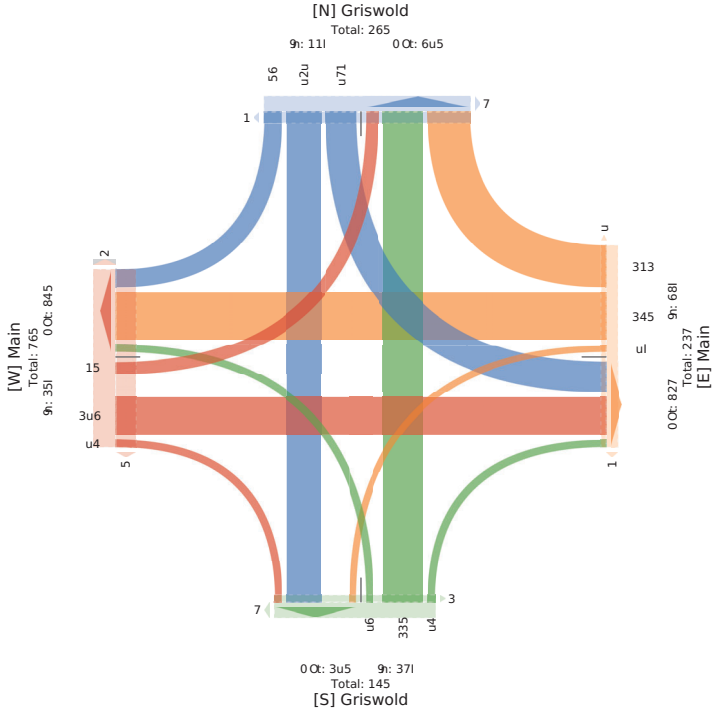


GEWALT HAMILTON ASSOCIATES, INC.

s eS l i-ecti6k	l Tik ElaGðukB					l Tik p eatGðukB					H-iaw64ð W6-tUGðukB					H-iaw64ð r 6utUGðukB					
Tiv e	s	T	R	d	) NN FeIP	s	T	R	d	) NN FeIP	s	T	R	d	) NN FeIP	s	T	R	d	) NN FeIP	ukt
2021(10(19 hll0F1	12	.h	.	0	78	:	8	7h	71	0	181	1	2	7:	.	0	h.	1	. 7	8:	2h	0	109	8	8bh
hDhF1	h	hh	8	0	7h	8	h	79	72	0	187	0	7	h8	h	0	77	.	. 7	h8	18	0	112	0	8h9
hll0F1	1h	hh	h	0	hh	8	0	b1	h1	0	122	2	8	h1	8	0	hh	2	87	h9	22	0	11h	8	8b1
hDhF1	1.	h:	h	0	hh	8	2	b1	7:	0	1. 1	2	.	h7	8	0	78	1	87	. 1	2h	0	102		8: 8
T6tL4	. :	21h	1h	0	2: 0	1h	10	2h:	2. 2	0	h80	h	1h	22:	1h	0	270	:	17.	191	: h	0	. . 0	10	1h10
%) NN6tLU	1h3 l%	b73 %	73ð %	0%	(	(	13%	h23ð%	. h3ð%	0%	(	(	h3 %	: h3ð%	73ð%	0%	(	(	8bð l%	. 83 %	193ð%	0%	(	(	(
% T6tL4	82ð %	1. 3ð%	13ð %	0%	1: 3ð%	(	03ð %	1: 3 %	173ð%	0%	8h3 l%	(	13ð%	1h3ð%	13ð %	0%	1h2ð%	(	10ð9%	123ð%	h3ð%	0%	293ð%	(	(
FP 5	03 00	03ð2b	03 00	(	03ð1:	(	03ð00	03ðh2	03 90	(	03ð87	(	03ð2h	03 8h	037ðb	(	03 hh	(	03 91	03 19	03 hð	(	03ð. 7	(	03ð: :
s lSUa	. :	21h	17	0	2h9	(	9	2bh	289	0	h28	(	1h	227	1h	0	2h:	(	17.	190	: h	0	. 89	(	1. 99
% s lSUa	100%	100%	9. 3%	0%	993 7%	(	90ð0%	9: 3%	9: 3 %	0%	9: 3ð%	(	100%	993 %	100%	0%	992 2%	(	100%	993ð%	100%	0%	993 %	(	993ð%
r ikS4e(d kit T-ucna	0	0	0	0	0	(	1	0	8	0	.	(	0	1	0	0	1	(	0	0	0	0	0	(	h
% r ikS4e(d kit T-ucna	0%	0%	0%	0%	0%	(	10ð0%	0%	12%	0%	03 %	(	0%	03 %	0%	0%	03 %	(	0%	0%	0%	0%	0%	(	0ð0%
) -icu4ueBT-ucna	0	0	0	0	0	(	0	1	0	0	1	(	0	0	0	0	0	(	0	0	0	0	0	(	1
%) -icu4ueBT-ucna	0%	0%	0%	0%	0%	(	0%	03 %	0%	0%	02%	(	0%	0%	0%	0%	0%	(	0%	0%	0%	0%	0%	(	03ð%
y uaea	0	0	0	0	0	(	0	0	0	0	0	(	0	0	0	0	0	(	0	0	0	0	0	(	0
% y uaea	0%	0%	0%	0%	0%	(	0%	0%	0%	0%	0%	(	0%	0%	0%	0%	0%	(	0%	0%	0%	0%	0%	(	0%
y icoc4ea 6k R6LB	0	0	1	0	1	(	0	2	0	0	2	(	0	1	0	0	1	(	0	1	0	0	1	(	h
% y icoc4ea 6k R6LB	0%	0%	h3ð%	0%	03 %	(	0%	03ð%	0%	0%	03 %	(	0%	03 %	0%	0%	03 %	(	0%	03ð%	0%	0%	03ð%	(	03ð%
FeBeat-iLka	(	(	(	(	(	1.	(	(	(	(	(	8	(	(	(	(	(	h	(	(	(	(	(	:	
% FeBeat-iLka	(	(	(	(	(	: 23 %	(	(	(	(	(703ð%		(	(	(	(	(723ð%		(	(	(	(	(03ð%		(
y icoc4ea 6k C-6aawL4h	(	(	(	(	(	8	(	(	(	(	(	2	(	(	(	(	(	8	(	(	(	(	(	2	
% y icoc4ea 6k C-6aawL4h	(	(	(	(	(	1h3 7%	(	(	(	(	(. 03ð%		(	(	(	(	(8h3ð%		(	(	(	(	(203ð%		(

*FeBeat-iLka IkB y icoc4ea 6k C-6aawL4h3s Dɛ eft, RDRiSUl, TDfTU-u, d Dd (Tu-k

GEWALT HAMILTON ASSOCIATES, INC.



Cady & Main - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 0, Location: 423 4b1b96, -8b3 477276

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc3
62. Forest Edge Drive, Vernon 5 ills, IL, 60061, US

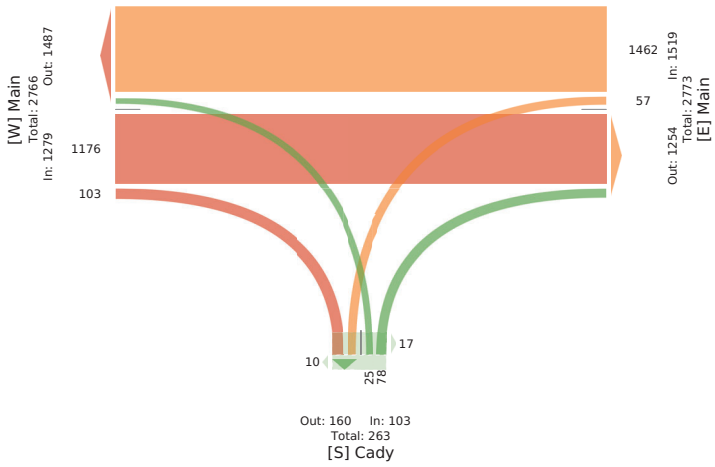
Leg Direction	Main EastGound					Main p estGound					Cady WorthGound					
Time	T	R	U	**ANN**	Ped*	L	T	U	**ANN**	Ped*	L	R	U	**ANN**	Ped*	**Int**
2021-10-19 7:00AM	b2	0	0	**b2**	0	0	b8	0	**b8**	0	0	1	0	**1**	0	**71**
7:1. AM	b0	2	0	**b2**	0	0	4.	0	**4.**	0	1	1	0	**2**	0	**79**
7:b0AM	46	0	0	**46**	0	0	48	0	**48**	0	0	1	0	**1**	0	**9.**
7:4. AM	60	1	0	**61**	0	b	68	0	**71**	0	0	b	0	**b**	1	**1b.**
5 ourly Total	168	b	0	**171**	0	b	199	0	**202**	0	1	6	0	**7**	1	**b80**
8:00AM	. 4	2	0	**. 6**	0	1	71	0	**72**	0	0	b	0	**b**	0	**1b1**
8:1. AM	61	8	0	**69**	0	2	68	0	**70**	0	0	b	0	**b**	4	**142**
8:b0AM	67	8	0	**7.**	0	4	7.	0	**79**	0	b	8	0	**11**	2	**16.**
8:4. AM	62	10	0	**72**	0	6	101	0	**107**	0	2	b	0	**.**	2	**184**
5 ourly Total	244	28	0	**272**	0	1b	b1.	0	**b28**	0	.	17	0	**22**	8	**622**
4:00PM	92	.	0	**97**	0	.	100	0	**10.**	0	0	7	0	**7**	2	**209**
4:1. PM	81	1b	0	**94**	0	7	86	0	**9b**	0	1	7	0	**8**	1	**19.**
4:b0PM	10b	6	0	**109**	0	6	1b4	0	**140**	0	.	10	0	**1.**	b	**264**
4:4. PM	98	7	0	**10.**	0	.	124	0	**129**	0	2	9	0	**11**	0	**24.**
5 ourly Total	b74	b1	0	**40.**	0	2b	444	0	**467**	0	8	bb	0	**41**	6	**91b**
. :00PM	91	1b	0	**104**	0	6	124	0	**1b0**	0	.	.	0	**10**	1	**244**
. :1. PM	10b	16	0	**119**	0	4	129	0	**1bb**	0	2	10	0	**12**	6	**264**
. :b0PM	98	.	0	**10b**	0	4	124	0	**128**	0	2	4	0	**6**	2	**2b7**
. :4. PM	98	7	0	**10.**	0	4	127	0	**1b1**	0	2	b	0	**.**	b	**241**
5 ourly Total	b90	41	0	**4b1**	0	18	. 04	0	**. 22**	0	11	22	0	**bb**	12	**986**
Total	1176	10b	0	**1279**	0	. 7	1462	0	**1. 19**	0	2.	78	0	**10b**	27	**2901**
% ANNroach	91 3%	8 3 %	0%	**-**	-	b 3%	96 2%	0%	**-**	-	24 3%	7. 7%	0%	**-**	-	-
% Total	403 %	b 6%	0%	**443 %**	-	2 0%	. 0 4%	0%	**. 2 4%**	-	0 9%	2 7%	0%	**b 6%**	-	-
Lights	11. 1	10b	0	**12. 4**	-	. 7	14b1	0	**1488**	-	2.	76	0	**101**	-	284b
% Lights	97 9%	100%	0%	**98 9%**	-	100%	97 9%	0%	**98 9%**	-	100%	97 4%	0%	**98 1%**	-	98 0%
Single-Unit Trucks	8	0	0	**8**	-	0	1.	0	**1.**	-	0	2	0	**2**	-	2.
% Single-Unit Trucks	0 7%	0%	0%	**0 6%**	-	0%	1 0%	0%	**1 0%**	-	0%	2 6%	0%	**1 9%**	-	0 9%
Articulated Trucks	6	0	0	**6**	-	0	.	0	**.**	-	0	0	0	**0**	-	11
% Articulated Trucks	0 3 %	0%	0%	**0 3 %**	-	0%	0 3%	0%	**0 3%**	-	0%	0%	0%	**0%**	-	0 4%
Buses	8	0	0	**8**	-	0	9	0	**9**	-	0	0	0	**0**	-	17
% Buses	0 7%	0%	0%	**0 5%**	-	0%	0 5%	0%	**0 5%**	-	0%	0%	0%	**0%**	-	0 6%
Bicycles on Road	b	0	0	**b**	-	0	2	0	**2**	-	0	0	0	**0**	-	.
% Bicycles on Road	0 b%	0%	0%	**0 2%**	-	0%	0 1%	0%	**0 1%**	-	0%	0%	0%	**0%**	-	0 2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	22	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	813 %	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	.	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	183 %	-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Cady & Main - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 0, Location: 423 4b1b96, -8b3 477276

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc3
62. Forest Edge Drive, Vernon 5 ills, IL, 60061, US



Cady & Main - TMC

Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Nt M 44e4 hP Q C14, a 6) M7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUs 4t5ns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y nMA
F Nt doeRest4
w m((19D0, Pdcnt6lsm 28 . 1. 9I , 7(. 8 3323I

GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeUbkmGey nMHnR 6Nds F 44dc6nte4 vsc8
I 2D5dSe4t EU) e v Sne, VeSs ds H6NM vP, I 00I 1, i a

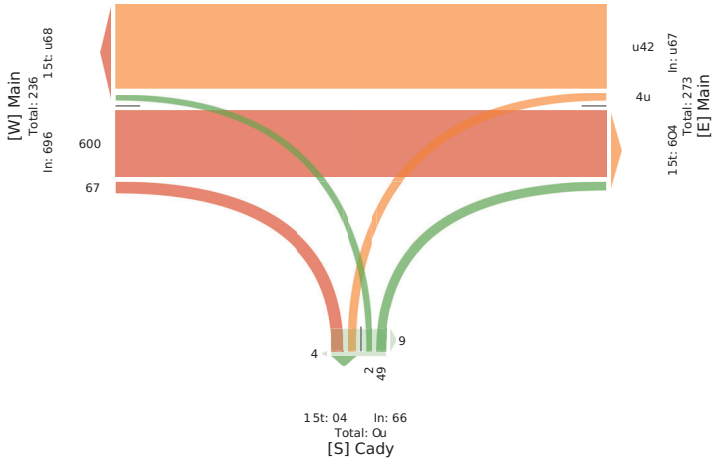
Pe) v 6ect6ls	l n6s En4bdus U					l n6s p e4bdus U					- nUk WelSUbdus U					
T6Re	T	B	i	**FNN**	LeU*	P	T	i	**FNN**	LeU*	P	B	i	**FNN**	LeU*	**wt**
2021710719 (m00F1	D	2	0	**DI**	0	1	31	0	**32**	0	0	.	0	**.**	0	**1. 1**
(nlDF1	I 1	(	0	**19**	0	2	I (	0	**30**	0	0	.	0	**.**	:	**1: 2**
(m0F1	I 3	(	0	**3D**	0	:	3D	0	**39**	0	.	(	0	**11**	2	**1I D**
(mDF1	I 2	10	0	**32**	0	I	101	0	**103**	0	2	.	0	**D**	2	**1(:**
TdmM	2: :	2(	0	**232**	0	1.	. 1D	0	**. 2(**	0	D	13	0	**22**	(	**I 22**
% F NNsincC	(98%	108 %	0%	**7**	7	: 8%	9I 8%	0%	**7**	7	228%	338 %	0%	**7**	7	7
% TdmM	. 98%	: 8%	0%	**:. 8%**	7	28%	D8I %	0%	**D28%**	7	08 %	28%	0%	**. 8%**	7	7
LH5	0810	0800	7	**0803**	7	08D 2	08(0	7	**08II**	7	08 13	08D 1	7	**08D0**	7	08(: D
P Q C14	2. .	2(	0	**2I 1**	7	1.	. 00	0	**. 1.**	7	D	13	0	**22**	7	D9I
% P Q C14	9DI 3%	100%	0%	**9I 8%**	7	100%	9D2 %	0%	**9D8 %**	7	100%	100%	0%	**100%**	7	9D(%)
a 6) M7 s 6 TSucg4	.	0	0	**.**	7	0	3	0	**3**	7	0	0	0	**0**	7	10
% a 6) M7 s 6 TSucg4	18%	0%	0%	**18%**	7	0%	28%	0%	**28%**	7	0%	0%	0%	**0%**	7	18 %
F St6cuMteUTSucg4	2	0	0	**2**	7	0	.	0	**.**	7	0	0	0	**0**	7	D
% F St6cuMteUTSucg4	08 %	0%	0%	**08%**	7	0%	18 0%	0%	**08 0%**	7	0%	0%	0%	**0%**	7	08 %
r u4e4	I	0	0	**I**	7	0	D	0	**D**	7	0	0	0	**0**	7	11
% r u4e4	28 3%	0%	0%	**28 2%**	7	0%	18 %	0%	**18 3%**	7	0%	0%	0%	**0%**	7	18 %
r 6ckcM4 ds BdnU	0	0	0	**0**	7	0	0	0	**0**	7	0	0	0	**0**	7	0
% r 6ckcM4 ds BdnU	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%
LeUs 4t5ns 4	7	7	7	7	0	7	7	7	7	0	7	7	7	7	(	
% LeUs 4t5ns 4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	100%	7
r 6ckcM4 ds - Sl44y nMg	7	7	7	7	0	7	7	7	7	0	7	7	7	7	0	
% r 6ckcM4 ds - Sl44y nMg	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0%	7

*LeUs 4t5ns 4 ns Ur 6ckcM4 ds - Sl44y nMg8PmPeft, BmB6) Cl, TmlTCSu, i mi 7TuSs

Cady & Main - TMC

Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Nt M 44e4 hP Q C14, a 6) M7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUs 4t5ns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y nMA
F Nt doeRest4
w m((19D0, Pdcnt6lsm 28 . 1. 9I , 7(. 8 3323I

GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeUbkmGey nMHnR 6Nds F 44dc6nte4 vsc8
I 2D5dSe4t EU) e v Sne, VeSs ds H6NM vP, I 00I 1, i a



Cady & Main - TMC

Tue Oct 19, 2021
Fl FeLn gh(70 Fl AM70 Fl - AO4eEL66FeLn) CuP
a 6ss GLiiei gSUrkti, dUBr6eAy BtU TRucni, a RUduGLieo TRucni, Ruiei,
FeoeitPUEBi, RUdwc6ei CBvCLo, RUdwc6ei CBs PGimLfin-
a 6Gl C4eI eBti
D (88. 9M0, SCcLrUCB(h23h7179. , A873hbb2b.

GEWALT HAMILTON ASSOCIATES, INC.
FIC4UdeoGv(HemLfi) LI UdCBaiiCcULrei DBc3
. 2M5CReit Eore : Pude, VeBBCB) UGi, DS, . 00. 1, y d

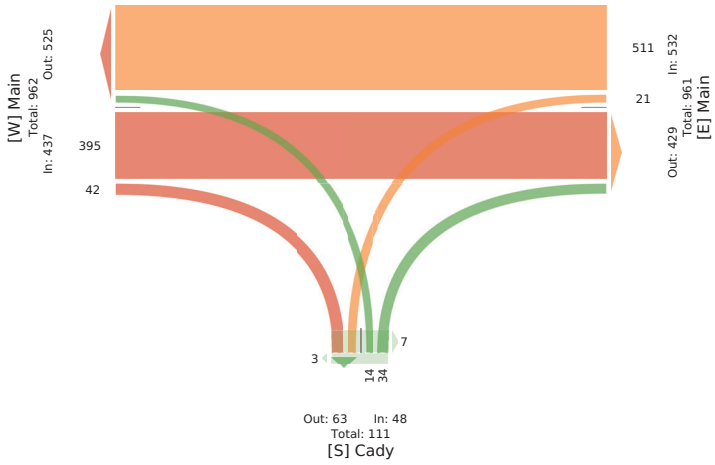
Ser : UBectUCB	l LIB EUrtGCuBo				l LIB p eitGCuBo				s Low WCRkGCuBo				
TUe	T	v	y	a NN	Feo*	S	T	y	a NN	Feo*	S	v	y	a NN	Feo*
2021A10A19 h(70Fl	107	.	0	109	0	.	17h	0	1h0	0	M	10	0	1M	7
h(hMFl	98	b	0	10M	0	M	12h	0	129	0	2	9	0	11	0
M00Fl	91	17	0	10h	0	.	12h	0	170	0	M	M	0	10	1
M1MFl	107	1.	0	119	0	h	129	0	177	0	2	10	0	12	.
TCL6	79M	h2	0	**h7b**	0	21	M1	0	**M72**	0	1h	7h	0	**h8**	10
% a NNCLck	903h%	93 %	0%	**A**	A	739%	9. 3%	0%	**A**	A	2932%	b03B%	0%	**A**	A
% TCL6	7838%	h3%	0%	**h730%**	A	23%	M632%	0%	**M37%**	A	13h%	737%	0%	**h3h%**	A
F) 5	039M	03 M	A	**031.**	A	03BbM	039M0	A	**03hh.**	A	03h00	03BM0	A	**03800**	A
Sirkti	789	h2	0	**h71**	A	21	M0b	0	**M28**	A	1h	7h	0	**h8**	A
% Sirkti	983M%	100%	0%	**983 %**	A	100%	9932%	0%	**9932%**	A	100%	100%	0%	**100%**	A
dUBr6eAy BtU TRucni	2	0	0	**2**	A	0	1	0	**1**	A	0	0	0	**0**	A
% dUBr6eAy BtU TRucni	03M%	0%	0%	**03M%**	A	0%	032%	0%	**032%**	A	0%	0%	0%	**0%**	A
a RUduGLieo TRucni	7	0	0	**7**	A	0	1	0	**1**	A	0	0	0	**0**	A
% a RUduGLieo TRucni	038%	0%	0%	**03h%**	A	0%	032%	0%	**032%**	A	0%	0%	0%	**0%**	A
Ruiei	0	0	0	**0**	A	0	0	0	**0**	A	0	0	0	**0**	A
% Ruiei	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A
RUdwc6ei CBvCLo	1	0	0	**1**	A	0	2	0	**2**	A	0	0	0	**0**	A
% RUdwc6ei CBvCLo	037%	0%	0%	**032%**	A	0%	03h%	0%	**03h%**	A	0%	0%	0%	**0%**	A
FeoeitPUEBi	A	A	A	A	0	A	A	A	A	0	A	A	A	A	8
% FeoeitPUEBi	A	A	A	A	A	A	A	A	A	A	A	A	A	A	803 0%	A
RUdwc6ei CBs PGimLfin	A	A	A	A	0	A	A	A	A	0	A	A	A	A	2
% RUdwc6ei CBs PGimLfin	A	A	A	A	A	A	A	A	A	A	A	A	A	A	2030%	A

*FeoeitPUEBi LBo RUdwc6ei CBs PGimLfin3S(Seft, v (v lrkt, T(TkRu, y (y AUuBB

Cady & Main - TMC

Tue Oct 19, 2021
Fl FeLn gh(70 Fl AM70 Fl - AO4eEL66FeLn) CuP
a 6ss GLiiei gSUrkti, dUBr6eAy BtU TRucni, a RUduGLieo TRucni, Ruiei,
FeoeitPUEBi, RUdwc6ei CBvCLo, RUdwc6ei CBs PGimLfin-
a 6Gl C4eI eBti
D (88. 9M0, SCcLrUCB(h23h7179. , A873hbb2b.

GEWALT HAMILTON ASSOCIATES, INC.
FIC4UdeoGv(HemLfi) LI UdCBaiiCcULrei DBc3
. 2M5CReit Eore : Pude, VeBBCB) UGi, DS, . 00. 1, y d



Cady & Wing - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 9, Location: 423429981, -8. 3484b8.

GEWALT HAMILTON ASSOCIATES, INC.
Provided Gy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US

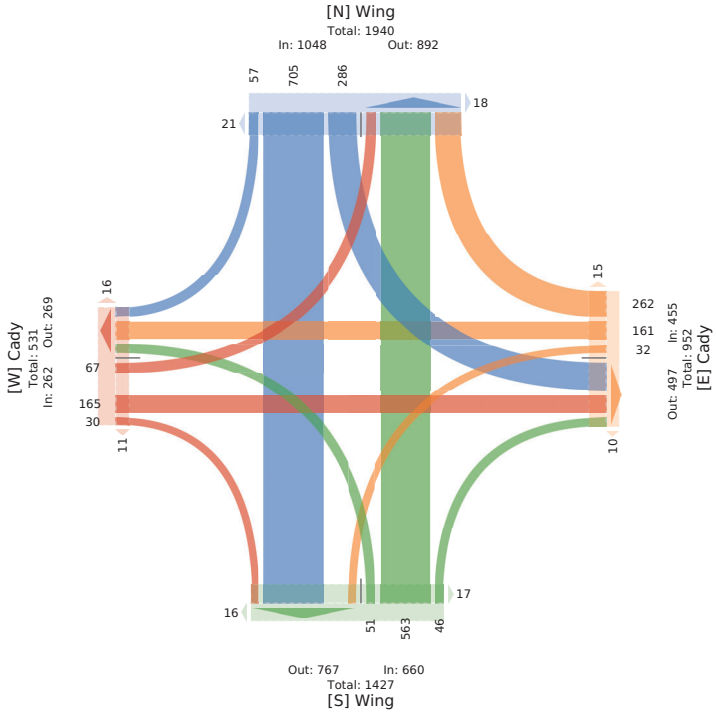
Leg Direction	Cady EastGound						Cady p estGound						p ing WorthGound						p ing SouthGound						
Time	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	Int
2021-10-19 7:00AM	0	2	0	0	2	0	1	.	11	0	1b	0	2	14	1	0	17	1	1.	24	0	0	.7	1	71
7:1bAM	0	7	0	0	7	0	1	1	14	0	16	0	0	2b	0	0	2b	0	11	22	4	0	.7	1	8b
7:. 0AM	2	b	1	0	8	0	1	b	9	0	1b	0	.	2b	2	0	.0	2	14	28	2	0	44	1	97
7:4bAM	1	4	0	0	b	0	1	7	14	0	22	0	.	29	2	0	.4	1	. 4	4.	1	0	78	0	1. 9
5 ourly Total	.	18	1	0	22	0	4	16	48	0	68	0	8	9.	b	0	106	4	72	117	7	0	196	.	. 92
8:00AM	b	24	1	0	.0	0	2	11	9	0	22	0	4	20	1	0	2b	0	19	62	b	0	86	0	16.
8:1bAM	4	12	.	0	19	0	1	17	1.	0	.1	0	7	24	2	0	..	0	20	.7	2	0	b9	0	142
8:. 0AM	b	1b	2	0	22	4	0	16	17	0	. .	2	b	24	2	0	.1	0	14	. 9	.	0	b6	4	142
8:4bAM	.	10	2	0	1b	1	0	b	14	0	19	1	4	22	1	0	27	1	17	. .	6	0	b6	.	117
5 ourly Total	17	61	8	0	86	b	.	49	b.	0	10b	.	20	90	6	0	116	1	70	171	16	0	2b7	7	b64
4:00PM	6	19	4	0	29	2	.	12	18	0	. .	0	4	41	7	0	b2	2	22	44	8	0	74	0	188
4:1bPM	8	9	2	0	19	6	2	18	1b	0	.b	1	.	.2	b	0	40	.	17	44	7	0	68	0	162
4:. 0PM	9	11	.	0	2.	4	7	10	2b	0	42	1	2	b8	0	0	60	2	11	44	4	0	b9	.	184
4:4bPM	6	10	b	0	21	1	2	8	2.	0	. .	2	2	bb	.	0	60	4	17	64	4	0	8b	4	199
5 ourly Total	29	49	14	0	92	1.	14	48	81	0	14.	4	11	186	1b	0	212	11	67	196	2.	0	286	7	7. .
b:00PM	4	10	.	0	17	2	4	12	2b	0	41	4	.	4.	8	0	b4	2	12	62	2	0	76	b	188
b:1bPM	b	11	1	0	17	2	1	12	22	0	.b	.	.	b9	6	0	68	4	24	b8	b	0	87	4	207
b:. 0PM	7	9	1	0	17	b	2	12	18	0	.2	7	b	40	.	0	48	8	17	46	2	0	6b	6	162
b:4bPM	2	7	2	0	11	0	4	12	1b	0	.1	4	1	b2	.	0	b6	.	24	bb	2	0	81	7	179
5 ourly Total	18	.7	7	0	62	9	11	48	80	0	1. 9	18	12	194	20	0	226	17	77	221	11	0	. 09	22	7. 6
Total	67	16b	. 0	0	262	27	.2	161	262	0	4bb	2b	b1	b6.	46	0	660	. .	286	70b	b7	0	1048	. 9	242b
% ANNoach	2b3%	6. 3%	11	3%	0%	-	7. 0%	. b	3%	b7	6%	0%	-	-	7. 3%	8b	3 %	7. 0%	0%	-	-	273 %	673 %	b3	4%	0%	-	-
% Total	23%	63%	13	2%	0%	10	3%	13 %	63	1%	10	3%	0%	18	3%	-	23 %	2. 3	2%	1. 9	%	0%	27	3%	0%	4. 3%	-	-
Lights	67	1b9	. 0	0	2b6	-	. 1	1b9	2b9	0	449	-	b1	b4b	4.	0	6. 9	-	28b	689	b6	0	10. 0	-	2. 74
% Lights	100%	963	4%	100%	0%	97	3%	-	963	9%	98	1%	98	3%	0%	98	3%	-	100%	963	9%	9. 3	%	0%	98	3%	-	973	9%
Single-Unit Trucks	0	.	0	0	.	-	0	1	1	0	2	-	0	6	2	0	8	-	0	2	0	0	2	-	1b
% Single-Unit Trucks	0%	1	3%	0%	0%	1	1%	-	0%	0	6%	0	3%	0%	0%	3	6%	-	0%	1	3 %	43	%	0%	1	3%	-	0	6%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	1	0	0	1	-	1	0	1	0	2	-	0	7	0	0	7	-	0	6	0	0	6	-	16
% Buses	0%	0. 6%	0%	0%	0. 3%	-	. 3 %	0%	0. 6%	0%	0. 3%	-	0%	1. 2%	0%	0%	1. 1%	-	0%	0. 5%	0%	0%	0. 3%	-	0. 7%
Bicycles on Road	0	2	0	0	2	-	0	1	1	0	2	-	0	b	1	0	6	-	1	8	1	0	10	-	20
% Bicycles on Road	0%	1. 2%	0%	0%	0. 8%	-	0%	0. 6%	0. 6%	0%	0. 3%	-	0%	0. 9%	2. 3%	0%	0. 9%	-	0. 3 %	1. 3%	1. 8%	0%	1. 0%	-	0. 8%
Pedestrians	-	-	-	-	-	26	-	-	-	-	2.	-	-	-	-	-	-	2	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	- 963 %	-	-	-	-	- 923	0%	-	-	-	-	- 97	0%	-	-	-	-	- 943	0%	
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	2		
% Bicycles on Crosswalk	-	-	-	-	-	. 3%	-	-	-	-	- 83	0%	-	-	-	-	. 10	0%	-	-	-	-	h3	1%	

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Cady & Wing - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 9, Location: 423429981, -8. 3484b8.

GEWALT HAMILTON ASSOCIATES, INC.
Provided Gy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US

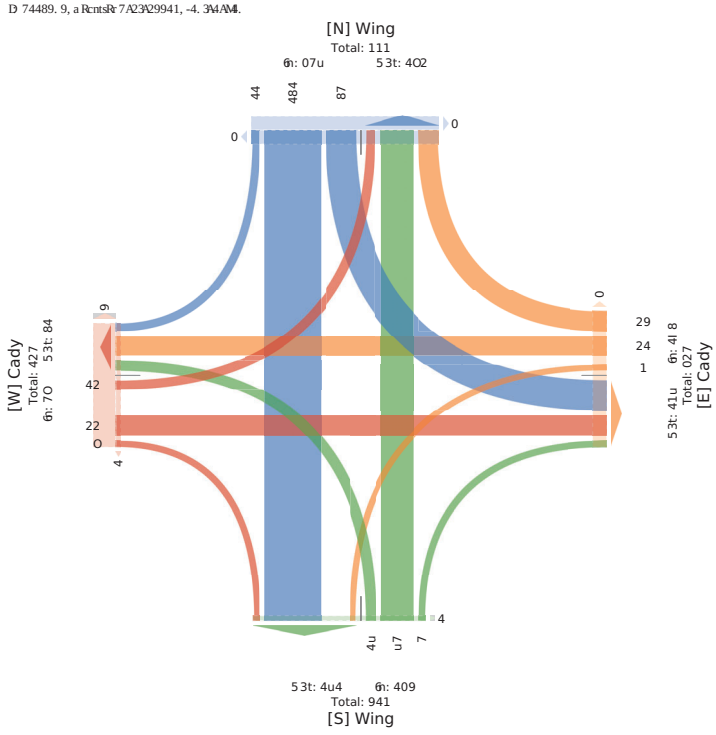


GEWALT HAMILTON ASSOCIATES, INC.

a ei : sdectsRr	) nBo EvtDbRurB						) nBo p eDbRurB						p sr i VRdtSbRurB						p sr i URutSbRurB						
Tsl e	a	T	w	k	F NN	LeB*	a	T	w	k	F NN	LeB*	a	T	w	k	F NN	LeB*	a	T	w	k	F NN	LeB*	D t
2021-10-19 (7AMF1	1	A	0	0	M	0	1	(	1A	0	22	0	.	29	2	0	. A	1	. A	A	1	0	(4	0	1. 9
4700F1	M	2A	1	0	. 0	0	2	11	9	0	22	0	A	20	1	0	2M	0	19	82	M	0	48	0	18.
47 1MF1	A	12	.	0	19	0	1	1(	1.	0	. 1	0	(	2A	2	0	..	0	20	. (	2	0	M	0	1A2
47 0F1	M	1M	2	0	22	A	0	18	1(	0	..	2	M	2A	2	0	. 1	0	1A	. 9	.	0	M	A	1A2
TRm6	1M	MM	8	0	(8	A	A	M	M	0	104	2	19	9(	(	0	12.	1	4(	141	11	0	2(9	A	M48
% F NNRmS	.19 1 %	(23 8%	(9%	0%	-	-	. 1 %	A(32%	A 03 %	0%	-	-	1M 8%	(4 9%	M(%	0%	-	-	. 12%	8.0 9%	. 9%	0%	-	-	-
% TRm6	23 8%	93 8%	13 0%	0%	1. 3 %	-	01 %	4 1 %	90 %	0%	14 9 %	-	. 32%	18 3 8%	12%	0%	21 3 %	-	1A 8 %	. 0 5%	13 9%	0%	A(3 8%	-	-
LH5	01(M0	0 3M.	0 3M0	-	0 3 I. .	-	0 3M0	0 1(M0	0 1(9	-	0 3 I 14	-	0 3 I(9	0 3 I. 8	0 3 I(M	-	0 3 0 A	-	0 3 I A0	0 1(. 0	0 3M0	-	0 3 I 11	-	0 3 I 99
a si StC	1M	MA	8	0	(M	-	.	M0	M2	0	10M	-	19	91	(	0	11(	-	4(	1(M	11	0	2(.	-	M(0
% a si StC	100% 94	32%	100%	0%	94	(%	(M0%	94	0%	94	3 %	0%	9(32%	-	100%	9. 3	4%	100%	0%	9M	1 %	-	100%	98	1%
Uri 6k r st TducgC	0	0	0	0	0	-	0	1	0	0	1	-	0	A	0	0	A	-	0	0	0	0	0	-	M
% Uri 6k r st TducgC	0%	0%	0%	0%	0%	-	0%	2	0%	0%	0%	0	3 %	-	0%	A	1 %	0%	0%	0%	0%	0%	0%	-	0	3%
F dscu6iteB TducgC	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% F dscu6iteB TducgC	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
y uGeC	0	1	0	0	1	-	1	0	1	0	2	-	0	2	0	0	2	-	0	8	0	0	8	-	11
% y uGeC	0%	13 8%	0%	0%	13 %	-	2M 0%	0%	13 9%	0%	13 9%	-	0%	23 1%	0%	0%	13 8%	-	0%	. 3 %	0%	0%	23 2%	-	13 9%
y scoc6eCRr wRnB	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% y scoc6eCRr wRnB	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
LeBeCdsnr C	-	-	-	-	-	A	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	A	
% LeBeCdsnr C	-	-	-	-	- 100%		-	-	-	-	- 100%		-	-	-	-	- 100%		-	-	-	-	- 100%		-
y scoc6eCRr) dRCCv nfgP	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% y scoc6eCRr) dRCCv nfgP	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*LeBeCdsnr C nr B y scoc6eCRr) dRCCv nfg 3a 7a eft, w7wsi St, T7TSdu, k 7k -Tudr

GEWALT HAMILTON ASSOCIATES, INC.

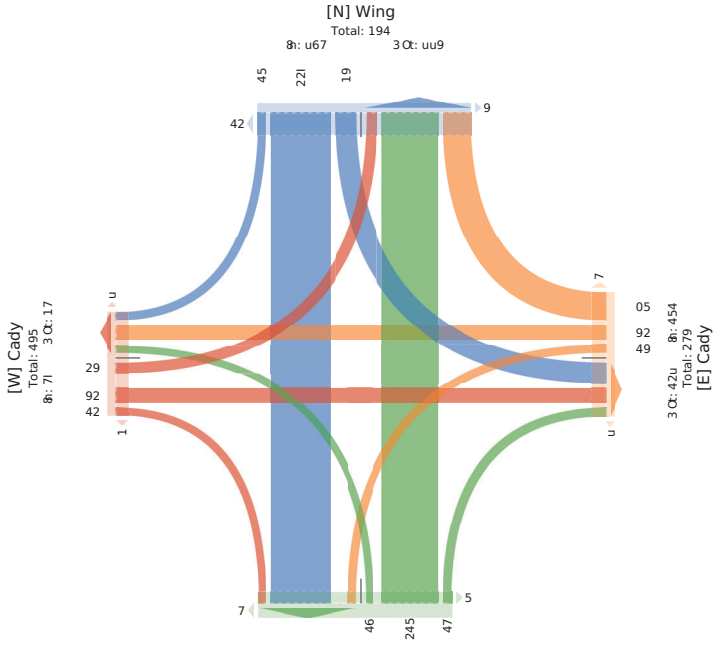


GEWALT HAMILTON ASSOCIATES, INC.

Ser : UbectdB	s Low 5 LitbCuBo						s Low V eitbCuBo						V Ubr pCMkbCuBo						V Ubr dCutkbCuBo						
TUe	S	T	v	y	a V W	FeoN	S	T	v	y	a V W	FeoN	S	T	v	y	a V W	FeoN	S	T	v	y	a V W	FeoN	Db
2021A0A9 b7 0F1	9	11	7	0	27	h	*	10	2M	0	h2	1	2	M	0	0	. 0	2	11	hh	h	0	M	7	18h
b0bMF1	.	10	M	0	21	1	2	8	27	0	77	2	2	MM	7	0	. 0	h	1*	. h	h	0	8M	h	199
M00F1	h	10	7	0	1*	2	h	12	2M	0	h1	h	7	h7	8	0	Mh	2	12	.2	2	0	*.	M	188
M0MF1	M	11	1	0	1*	2	1	12	22	0	7M	7	7	M9	.	0	. 8	h	2h	M	M	0	8*	h	20*
TCUL6	2h	h2	12	0	*8	9	1h	h2	9M	0	1M	10	10	21M	1*	0	2h2	12	. h	228	1M	0	70*	1.	**8
% a V W RCLck	70.8%	M 8%	1M 8%	0%	A	A	9 3%	2* 8%	. 2 9%	0%	A	A	h 3%	88.8%	*. 8%	0%	A	A	20.8%	*h 3%	h 9%	0%	A	A	A
% TCUL6	7 3%	M 8%	13 M%	0%	103%	A	1 8%	M 8%	12 3%	0%	193%	A	1 3%	2* 3 %	2 3%	0%	71 3 %	A	8 3%	29 3%	13 9%	0%	793 M%	A	A
F) H	8 03 . *	0 3 09	03 00	A	0 3 I 2.	A	A 0 3 M0	0 3 I* M 0	3 M0	A	0 3 I 99	A	0 3 I 77	0 3 I 9	18 0	3 M F1	A	0 3 I 9.	A	0 3 I 8M	0 3 I* M 0	3* M0	A	0 3 I 88	A	0 3 N2
S Wkti	2h	h0	12	0	*.	A	1h	h2	9M	0	1M	A	10	211	1.	0	27*	A	. 7	227	1M	0	701	A	*. M
% S Wkti	100% 9M	2%	100%	0%	9* 3%	A	100%	100%	100%	0%	100%	A	100%	98 3 %	9h 3 %	0%	9* 3 9%	A	98 3%	9* 3%	100%	0%	98 3 0%	A	98 3%
d Ubr 6e Ay Ebl T Rncni	0	0	0	0	0	A	0	0	0	0	0	A	0	0	1	0	1	A	0	1	0	0	1	A	2
% d Ubr 6e Ay Ebl T Rncni	0%	0%	0%	0%	0%	A	0%	0%	0%	0%	0%	A	0%	0%	M 0%	0%	0 3 h%	A	0%	0 3 h%	0%	0%	0 3 7%	A	0 3 7%
a R Wud 0 ieo T Rncni	0	0	0	0	0	A	0	0	0	0	0	A	0	0	0	0	0	A	0	0	0	0	0	A	0
% a R Wud 0 ieo T Rncni	0%	0%	0%	0%	0%	A	0%	0%	0%	0%	0%	A	0%	0%	0%	0%	0%	A	0%	0%	0%	0%	0%	A	0%
Ruiei	0	0	0	0	0	A	0	0	0	0	0	A	0	2	0	0	2	A	0	0	0	0	0	A	2
% Ruiei	0%	0%	0%	0%	0%	A	0%	0%	0%	0%	0%	A	0	2	0	0	2	A	1	h	0	0	M	A	9
R Wwc6ei CBv CLo	0	2	0	9	2	A	0	0	0	0	0	A	0%	0 3 h%	0%	0%	0 3 h%	A	1	h	0	0	M	A	9
% R Wwc6ei CBv CLo	0%	h 8%	0%	0%	2 3 %	A	0%	0%	0%	0%	0%	A	0%	0 3 h%	0%	0%	0 3 h%	A	13 %	1 3 8%	0%	0%	13 %	A	1 32%
FeoeitRUEBi	A	A	A	A	A	9	A	A	A	A	A	9	A	A	A	A	A	12	A	A	A	A	A	1	
% FeoeitRUEBi	A	A	A	A	A	A 100%	A	A	A	A	A	A 90 0%	A	A	A	A	A	A 100%	A	A	A	A	A	A 100%	A
R Wwc6ei CBs RCi mLfn	A	A	A	A	A	0	A	A	A	A	A	1	A	A	A	A	A	0	A	A	A	A	A	0	
% R Wwc6ei CBs RCi mLfn	A	A	A	A	A	0%	A	A	A	A	A	A 10 0%	A	A	A	A	A	0%	A	A	A	A	A	0%	A

NFeoeitRUEBi LBo R Wwc6ei CBs RCi mLfn 3S(S eft, v (v ldkt, T(TkRi, y (y ATuHB

GEWALT HAMILTON ASSOCIATES, INC.



Cady Street & Center Street - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886927, Location: 42.430109, -83.483128

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

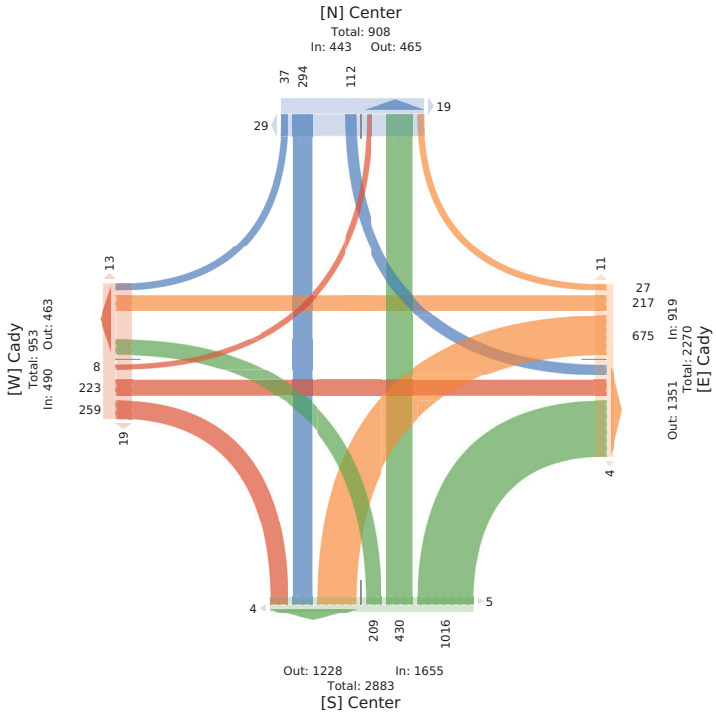
Leg Direction	Cady Eastbound							Cady p estbound							Center Worthbound							Center Southbound							
Time	L	T	R	U	ANN	Ped*		L	T	R	U	ANN	Ped*		L	T	R	U	ANN	Ped*		L	T	R	U	ANN	Ped*		Int
2021-10-19 7:00AM	0	6	12	0	**18**	0		22	3	0	0	**25**	0		8	11	31	0	**50**	0		4	15	1	0	**20**	1		**113**
7:15AM	0	5	10	0	**15**	1		32	4	0	0	**36**	0		13	15	39	0	**67**	0		2	6	0	0	**8**	0		**126**
7:30AM	0	5	12	0	**17**	1		32	7	1	0	**40**	0		9	20	47	0	**76**	0		0	8	0	0	**8**	0		**141**
7:45AM	0	9	32	0	**41**	0		28	8	5	0	**41**	0		13	30	61	0	**104**	0		1	18	4	0	**23**	0		**209**
Hourly Total	0	25	66	0	**91**	2		114	22	6	0	**142**	0		43	76	178	0	**297**	0		7	47	5	0	**59**	1		**589**
8:00AM	0	23	18	0	**41**	0		45	16	2	0	**63**	0		6	26	57	0	**89**	0		5	32	1	0	**38**	0		**231**
8:15AM	0	16	16	0	**32**	3		31	17	2	0	**50**	2		11	28	69	0	**108**	0		8	23	2	0	**33**	0		**223**
8:30AM	1	16	14	0	**31**	0		23	17	1	0	**41**	0		20	15	74	0	**109**	0		8	12	1	0	**21**	2		**202**
8:45AM	0	10	8	0	**18**	1		38	20	5	0	**63**	2		12	22	63	0	**97**	0		6	15	1	0	**22**	1		**200**
Hourly Total	1	65	56	0	**122**	4		137	70	10	0	**217**	4		49	91	263	0	**403**	0		27	82	5	0	**114**	3		**856**
4:00PM	0	27	22	0	**49**	2		52	16	0	0	**68**	3		13	28	60	0	**101**	2		11	17	3	0	**31**	3		**249**
4:15PM	0	18	15	0	**33**	2		44	16	1	0	**61**	2		14	37	77	0	**128**	0		8	18	4	0	**30**	8		**252**
4:30PM	0	8	16	0	**24**	1		47	20	2	0	**69**	1		18	32	62	0	**112**	2		4	17	2	0	**23**	2		**228**
4:45PM	2	10	13	0	**25**	0		56	15	3	0	**74**	2		14	35	84	0	**133**	1		10	12	2	0	**24**	6		**256**
Hourly Total	2	63	66	0	**131**	5		199	67	6	0	**272**	8		59	132	283	0	**474**	5		33	64	11	0	**108**	19		**985**
5:00PM	1	23	14	0	**38**	5		62	19	2	0	**83**	0		15	25	59	0	**99**	0		11	28	1	0	**40**	6		**260**
5:15PM	2	21	24	0	**47**	4		48	11	1	0	**60**	2		20	44	69	0	**133**	0		6	22	6	0	**34**	7		**274**
5:30PM	2	15	16	0	**33**	6		64	17	1	0	**82**	0		13	29	79	0	**121**	2		12	22	4	0	**38**	7		**274**
5:45PM	0	11	17	0	**28**	6		51	11	1	0	**63**	1		10	33	85	0	**128**	2		16	29	5	0	**50**	5		**269**
Hourly Total	5	70	71	0	**146**	21		225	58	5	0	**288**	3		58	131	292	0	**481**	4		45	101	16	0	**162**	25		**1077**
Total	8	223	259	0	**490**	32		675	217	27	0	**919**	15		209	430	1016	0	**1655**	9		112	294	37	0	**443**	48		**3507**
% ANNroach	1.6%	45.5%	52.9%	0%	**-**			73.4%	23.6%	2.9%	0%	**-**			12.6%	26.0%	61.4%	0%	**-**			25.3%	66.4%	8.4%	0%	**-**			-
% Total	0.2%	6.4%	7.4%	0%	**14.0%**			19.2%	6.2%	0.8%	0%	**26.2%**			6.0%	12.3%	29.0%	0%	**47.2%**			3.2%	8.4%	1.1%	0%	**12.6%**			-
Lights	8	218	255	0	**481**			665	215	27	0	**907**			207	422	1011	0	**1640**			111	281	37	0	**429**			3457
% Lights	100%	97.8%	98.5%	0%	**98.2%**			98.5%	99.1%	100%	0%	**98.7%**			99.0%	98.1%	99.5%	0%	**99.1%**			99.1%	95.6%	100%	0%	**96.8%**			98.6%
Single-Unit Trucks	0	3	2	0	**5**			7	2	0	0	**9**			0	2	2	0	**4**			1	3	0	0	**4**			22
% Single-Unit Trucks	0%	1.3%	0.8%	0%	**1.0%**			1.0%	0.9%	0%	0%	**1.0%**			0%	0.5%	0.2%	0%	**0.2%**			0.9%	1.0%	0%	0%	**0.9%**			0.6%
Articulated Trucks	0	0	0	0	**0**			0	0	0	0	**0**			0	0	1	0	**1**			0	1	0	0	**1**			2
% Articulated Trucks	0%	0%	0%	0%	**0%**			0%	0%	0%	0%	**0%**			0%	0%	0.1%	0%	**0.1%**			0%	0.3%	0%	0%	**0.2%**			0.1%
Buses	0	0	0	0	**0**			1	0	0	0	**1**			2	3	0	0	**5**			0	4	0	0	**4**			10
% Buses	0%	0%	0%	0%	**0%**			0.1%	0%	0%	0%	**0.1%**			1.0%	0.7%	0%	0%	**0.3%**			0%	1.4%	0%	0%	**0.9%**			0.3%
Bicycles on Road	0	2	2	0	**4**			2	0	0	0	**2**			0	3	2	0	**5**			0	5	0	0	**5**			16
% Bicycles on Road	0%	0.9%	0.8%	0%	**0.8%**			0.3%	0%	0%	0%	**0.2%**			0%	0.7%	0.2%	0%	**0.3%**			0%	1.7%	0%	0%	**1.1%**			0.5%
Pedestrians	-	-	-	-	-	30		-	-	-	-	-	13		-	-	-	-	-	8		-	-	-	-	-	48		
% Pedestrians	-	-	-	-	-	93.8%		-	-	-	-	-	86.7%		-	-	-	-	-	88.9%		-	-	-	-	-	100%		-
Bicycles on Crosswalk	-	-	-	-	-	2		-	-	-	-	-	2		-	-	-	-	-	1		-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	6.3%		-	-	-	-	-	13.3%		-	-	-	-	-	11.1%		-	-	-	-	-	0%		-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Cady Street & Center Street - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886927, Location: 42.430109, -83.483128

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Cady Street & Center Street - TMC

Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeChn si StC, Usr i 6-k r st TducgC, F dscu6riteB TducgC, y uCeC, LeBeCtdnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfgP
F 6l Rme l er tC
D 744892(, a RcntsRr 7A2. A30109, -43. A43124

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeBbo7Gev n6 HnI s6fRr F CCRcsnteCDc.
82M5ReteCt EBi e : dsne, Vedr Rr Hs6fC, Da , 80081, k U

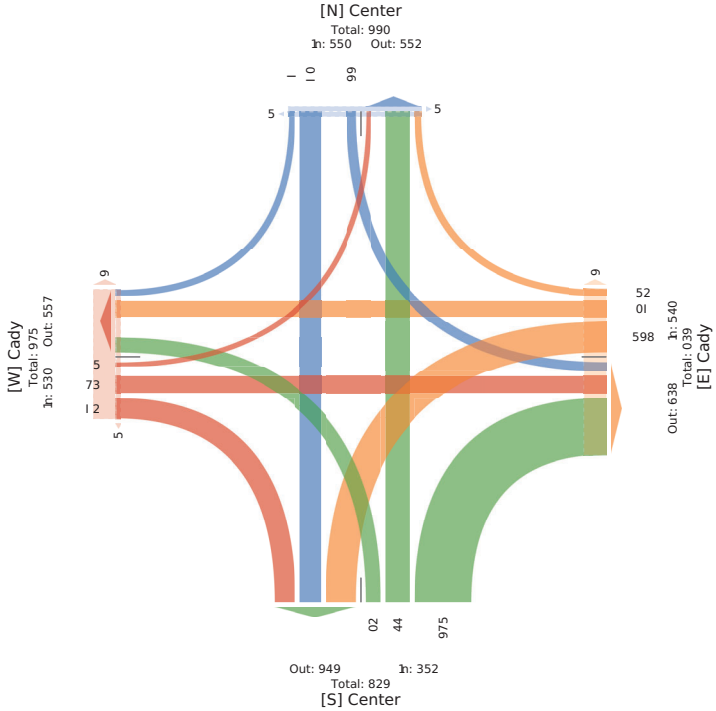
a ei : sdectsRr	) nBo EnCIbRur B							) nBo p eCIbRur B							) er ted VRttSbRur B							) er ted URurSbRur B							
Tsl e	a	T	w	k	F NN	LeB*		a	T	w	k	F NN	LeB*		a	T	w	k	F NN	LeB*		a	T	w	k	F NN	LeB*		Dt
2021-10-19 (7AMF l	0	9	32	0	**Al**	0		24	4	M	0	**Al**	0		13	30	81	0	**10A**	0		1	14	A	0	**23**	0		**209**
4700F l	0	23	14	0	**Al**	0		AM	18	2	0	**83**	0		8	28	M	0	**49**	0		M	32	1	0	**34**	0		**231**
47AMF l	0	18	18	0	**32**	3		31	1(	2	0	**M0**	2		11	24	89	0	**104**	0		4	23	2	0	**33**	0		**223**
4700F l	1	18	1A	0	**31**	0		23	1(	1	0	**Al**	0		20	1M	(A	0	**109**	0		4	12	1	0	**21**	2		**202**
TRm6	1	8A	40	0	**1AM**	3		12(	M	10	0	**19M**	2		M	99	281	0	**A10**	0		22	4M	4	0	**11M**	2		**48M**
% F NNRmC	0.(%	AA.1%	M42%	0%	**-**			8M1%	29.(%	M1%	0%	**-**			12.2%	2A.1%	83.(%	0%	**-**			19.1%	(3.9%	(.0%	0%	**-**			-
% TRm6	0.1%	(.A%	9.2%	0%	**18.4%**			1A(%	8.(%	1.2%	0%	**22.M%**			M4%	11.A%	30.2%	0%	**A(.A%**			2.M%	9.4%	0.9%	0%	**13.3%**			-
LH5	0.2M	0.898	0.82M	-	**0.44A**			0.(08	0.4M	0.M0	-	**0.((A**			0.82M	0.42M	0.442	-	**0.9A0**			0.844	0.8M	0.M0	-	**0.(M**			0.93M
a si StC	1	8A	40	0	**1AM**			123	M	10	0	**190**			A4	9(	280	0	**A0M**			22	41	4	0	**111**			4M
% a si StC	100%	100%	100%	0%	**100%**			98.9%	94.3%	100%	0%	**9(.A%**			98.0%	94.0%	99.8%	0%	**94.4%**			100%	9M3%	100%	0%	**98.M%**			94.A%
Usr i 6-k r st TducgC	0	0	0	0	**0**			3	1	0	0	**A**			0	0	1	0	**1**			0	1	0	0	**1**			8
% Usr i 6-k r st TducgC	0%	0%	0%	0%	**0%**			2.A%	1.(%	0%	0%	**2.1%**			0%	0%	0.A%	0%	**0.2%**			0%	1.2%	0%	0%	**0.9%**			0.(%
F dscu6riteB TducgC	0	0	0	0	**0**			0	0	0	0	**0**			0	0	0	0	**0**			0	0	0	0	**0**			0
% F dscu6riteB TducgC	0%	0%	0%	0%	**0%**			0%	0%	0%	0%	**0%**			0%	0%	0%	0%	**0%**			0%	0%	0%	0%	**0%**			0%
y uCeC	0	0	0	0	**0**			1	0	0	0	**1**			2	2	0	0	**A**			0	2	0	0	**2**			(
% y uCeC	0%	0%	0%	0%	**0%**			0.4%	0%	0%	0%	**0.M%**			A.0%	2.0%	0%	0%	**1.0%**			0%	2.A%	0%	0%	**1.(%**			0.4%
y scoc6eCRr wRnB	0	0	0	0	**0**			0	0	0	0	**0**			0	0	0	0	**0**			0	1	0	0	**1**			1
% y scoc6eCRr wRnB	0%	0%	0%	0%	**0%**			0%	0%	0%	0%	**0%**			0%	0%	0%	0%	**0%**			0%	1.2%	0%	0%	**0.9%**			0.1%
LeBeCtdnr C	-	-	-	-	-	3		-	-	-	-	-	2		-	-	-	-	-	0		-	-	-	-	-	2		
% LeBeCtdnr C	-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	-		-	-	-	-	-	100%		-
y scoc6eCRr) dRCCv nfg	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		
% y scoc6eCRr) dRCCv nfg	-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	-		-	-	-	-	-	0%		-

*LeBeCtdnr Cnr B y scoc6eCRr) dRCCv nfg, a 7a eft, w7wsi St, T7TSdu, k 7k -Tudr

Cady Street & Center Street - TMC

Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeChn si StC, Usr i 6-k r st TducgC, F dscu6riteB TducgC, y uCeC, LeBeCtdnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfgP
F 6l Rme l er tC
D 744892(, a RcntsRr 7A2. A30109, -43. A43124

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeBbo7Gev n6 HnI s6fRr F CCRcsnteCDc.
82M5ReteCt EBi e : dsne, Vedr Rr Hs6fC, Da , 80081, k U



Cady Street & Center Street - TMC

Tue Oct 19, 2021
Fl FeLn gh Fl (7 Fl A(OM4-L4lFeLn P 6u-
) 4lC4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea, FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4hA
) 4ll 6Mev ekta
nh D : 7928, s 6cLti6kD 23 b0109, (: b3 : b12:

GEWALT HAMILTON ASSOCIATES, INC.
F-6MBeBGoDHewL4 P Lv i46k) aa6ciLIea nkc3
72h 56-eat EBSe I -iMt, Ve-k6k P i4h, ns , 70071, d r

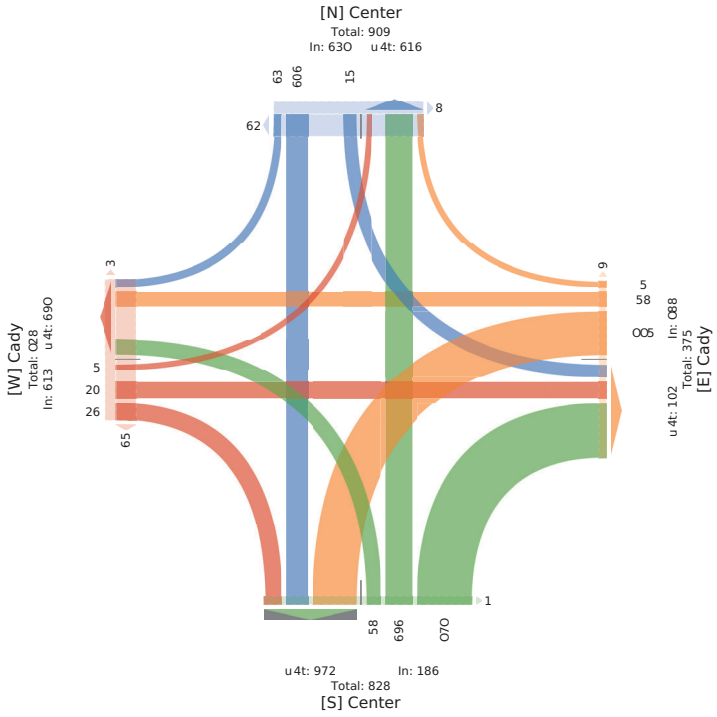
s eS t i-ecti6k	CLBo ELatG6ukB					CLBo p eatG6ukB					Cekte- W6-tUG6ukB					Cekte- r 6utUG6ukB					
Tiv e	s	T	R	d	) NN FeIP	s	T	R	d	) NN FeIP	s	T	R	d	) NN FeIP	s	T	R	d	) NN FeIP	nkt
2021(10(19 h00Fl	1	2b	1.	0	b:	h	72	19	2	0	: b	0	1h	2h	h9	0	99	0	11	2:	1	0	. 0	7	270
h0hFl	2	21	2.	0	. 8		. :	11	1	0	70	2	20	. .	79	0	1bb	0	7	22	7	0	b.	8	28.
hl0Fl	2	1h	17	0	bb	7	7.	18	1	0	: 2	0	1b	29	89	0	121	2	12	22	.	0	b:	8	28.
hDhFl	0	11	18	0	2:	7	h1	11	1	0	7b	1	10	bb	: h	0	12:	2	17	29	h	0	h0	h	279
T6tL4	h	80	81	0	**1. 7**	21	22h	h:	h	0	**2: :**	b	h:	1b1	292	0	**. : 1**		. h	101	17	0	**172**	2h	**1088**
%) NN6LtU	b3 %	. 83%	. : 3%	0%	**(**	(	8: 3%	20.3%	1%	1.8%	0%	**(**	(	123%	28.2%	70.8%	0%	**(**	(	283 %	72.b%	93%	0%	**(**	(	(
% T6tL4	03h%	73h%	73%	0%	**1b3%**	(	203%	h3 %	03h%	0%	**273%**	(	h3 %	12.2%	28.3%	0%	**. . 3%**	(	. 2%	93 %	13h%	0%	**1h3%**	(	(
FP 5	0.72h	03l: .	03l: .		**(03 89.**	(	03 8h	0.87b	0.72h		**(03 8h**	(	03l2h	03l. .	03 h7		**(03 02**	(	03l0b	03 hb	0.778		**(03 00**	(	03: 0
s iSUta	h	7:	79	0	**1. 2**	(	22b	h:	h	0	**2: 7**	(	h:	129	290	0	**. 88**	(	. h	98	17	0	**1h:**	(	107b
% s iSUta	100%	98.3%	98.2%	0%	**983%**	(	99.3%	100%	100%	0%	**993%**	(	100%	9: 3%	99.3%	0%	**99.2%**	(	100%	97.0%	100%	0%	**983%**	(	9: 3%
r ikS4e(d kit T-ucna	0	1	0	0	**1**	(	1	0	0	0	**1**	(	0	2	1	0	**b**	(	0	1	0	0	**1**	(	7
% r ikS4e(d kit T-ucna	0%	13 %	0%	0%	**03%**	(	03 %	0%	0%	0%	**03%**	(	0%	13%	03%	0%	**03%**	(	0%	13%	0%	0%	**03%**	(	03%
) -ticu4LteBT-ucna	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	1	0	0	**1**	(	1
%) -ticu4LteBT-ucna	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	13%	0%	0%	**03%**	(	03%
y uaea	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
% y uaea	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%
y icoc4ea 6k R6LB	0	1	2	0	**b**	(	1	0	0	0	**1**	(	0	0	1	0	**1**	(	0	2	0	0	**2**	(	8
% y icoc4ea 6k R6LB	0%	13 %	23 %	0%	**23%**	(	03 %	0%	0%	0%	**03%**	(	0%	0%	03%	0%	**02%**	(	0%	23%	0%	0%	**13%**	(	03%
FeBeat-iLka	(	(	(	(	(20		(	(	(	(	1		(	(	(	(			(	(	(	(	(	2h	
% FeBeat-iLka	(	(	(	(	(9h2%		(	(	(	(	bb3%		(	(	(	(	(100%		(	(	(	(	(100%		(
y icoc4ea 6k C-6aawL4h	(	(	(	(	(1		(	(	(	(	2		(	(	(	(	0		(	(	(	(	(0		
% y icoc4ea 6k C-6aawL4h	(	(	(	(	(. 3 %		(	(	(	(	77 3%		(	(	(	(	0%		(	(	(	(	(0%		(

*FeBeat-iLka IkB y icoc4ea 6k C-6aawL4h3s Ds eft, RDRiSU, TDTU-u, d Dtl (Tu-k

Cady Street & Center Street - TMC

Tue Oct 19, 2021
Fl FeLn gh Fl (7 Fl A(OM4-L4lFeLn P 6u-
) 4lC4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea, FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4hA
) 4ll 6Mev ekta
nh D : 7928, s 6cLti6kD 23 b0109, (: b3 : b12:

GEWALT HAMILTON ASSOCIATES, INC.
F-6MBeBGoDHewL4 P Lv i46k) aa6ciLIea nkc3
72h 56-eat EBSe I -iMt, Ve-k6k P i4h, ns , 70071, d r



Hutton Street & Cady Street - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886928, Location: 42.430207, -83.480946

GEWALT HAMILTON ASSOCIATES, INC.
Provided 5y: b ewalt Gamilton Associates Inc.
62HForest Edge Drive, Vernon Gills, IL, 60061, US

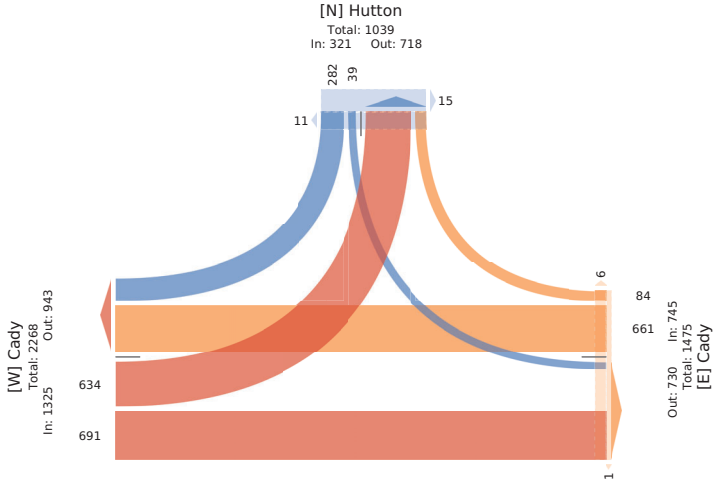
Leg Direction	Cady East5ound					Cady p est5ound					Gutton South5ound					
Time	L	T	U	**AVW**	Ped*	T	R	U	**AVW**	Ped*	L	R	U	**AVW**	Ped*	**Int**
2021-10-19 7:00AM	22	18	0	**40**	0	20	2	0	**22**	0	0	6	0	**6**	0	**68**
7:1HAM	33	14	0	**47**	0	21	H	0	**26**	0	0	17	0	**17**	0	**90**
7:30AM	30	23	0	**HB**	0	26	2	0	**28**	0	0	13	0	**13**	0	**94**
7:4HAM	37	28	0	**6H**	0	26	4	0	**30**	0	2	19	0	**21**	0	**116**
Gourly Total	122	83	0	**20H**	0	93	13	0	**106**	0	2	H1	0	**HP**	0	**368**
8:00AM	3H	43	0	**78**	0	41	1	0	**42**	0	1	22	0	**23**	3	**143**
8:1HAM	HD	39	0	**89**	0	42	4	0	**46**	2	0	11	0	**11**	0	**146**
8:30AM	42	H1	0	**93**	0	40	6	0	**46**	3	2	14	0	**16**	2	**1HH**
8:4HAM	36	3H	0	**71**	0	61	10	0	**71**	2	2	14	0	**16**	2	**1HB**
Gourly Total	163	168	0	**331**	0	184	21	0	**20H**	7	H	61	0	**66**	7	**602**
4:00PM	39	63	0	**102**	0	48	8	0	**H6**	0	3	14	0	**17**	0	**17H**
4:1HPM	41	HH	0	**96**	0	38	6	0	**44**	0	3	19	0	**22**	3	**162**
4:30PM	3H	47	0	**82**	0	43	6	0	**49**	0	3	21	0	**24**	2	**1HH**
4:4HPM	44	HD	0	**94**	0	47	8	0	**HH**	0	4	30	0	**34**	1	**183**
Gourly Total	1HD	21H	0	**374**	0	176	28	0	**204**	0	13	84	0	**97**	6	**67H**
H00PM	49	H7	0	**106**	0	H2	6	0	**HB**	0	1	17	0	**18**	4	**182**
H1HPM	39	HD	0	**98**	0	H6	4	0	**60**	0	6	14	0	**20**	6	**178**
H30PM	HI	HD	0	**101**	0	H2	H	0	**H7**	0	7	33	0	**40**	3	**198**
H4HPM	HI	HD	0	**110**	0	48	7	0	**HH**	0	H	18	0	**23**	0	**188**
Gourly Total	190	22H	0	**41H**	0	208	22	0	**230**	0	19	82	0	**101**	13	**746**
Total	634	691	0	**132H**	0	661	84	0	**74H**	7	39	282	0	**321**	26	**2391**
% AVWoach	47.8%	H2.2%	0%	**-**	-	88.7%	11.3%	0%	**-**	-	12.1%	87.9%	0%	**-**	-	-
% Total	26.H%	28.9%	0%	**HH4%**	-	27.6%	3.H%	0%	**31.2%**	-	1.6%	11.8%	0%	**13.4%**	-	-
Lights	627	686	0	**1313**	-	6HH	83	0	**737**	-	37	276	0	**313**	-	2363
% Lights	98.9%	99.3%	0%	**99.1%**	-	98.9%	98.8%	0%	**98.9%**	-	94.9%	97.9%	0%	**97.H%**	-	98.8%
Single-Unit Trucks	0	4	0	**4**	-	H	0	0	**H**	-	1	3	0	**4**	-	13
% Single-Unit Trucks	0%	0.6%	0%	**0.3%**	-	0.8%	0%	0%	**0.7%**	-	2.6%	1.1%	0%	**1.2%**	-	0.H%
Articulated Trucks	2	0	0	**2**	-	0	0	0	**0**	-	0	0	0	**0**	-	2
% Articulated Trucks	0.3%	0%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.1%
Buses	1	0	0	**1**	-	0	0	0	**0**	-	0	1	0	**1**	-	2
% Buses	0.2%	0%	0%	**0.1%**	-	0%	0%	0%	**0%**	-	0%	0.4%	0%	**0.3%**	-	0.1%
Bicycles on Road	4	1	0	**H**	-	2	1	0	**3**	-	1	2	0	**3**	-	11
% Bicycles on Road	0.6%	0.1%	0%	**0.4%**	-	0.3%	1.2%	0%	**0.4%**	-	2.6%	0.7%	0%	**0.9%**	-	0.H%
Pedestrians	-	-	-	-	0	-	-	-	-	7	-	-	-	-	2H	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	96.2%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	3.8%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hutton Street & Cady Street - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886928, Location: 42.430207, -83.480946

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

F1 Leng h(F1 79 F1 A

F Nt M44e4 hPG Ct4, a6) M7 s6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns4, r 6kcM44 ds BdnU, r 6kcM44 ds - Sl44y nMA
F Nt doeR est4
w m((I92(, Pdcnt6ls mD2:D8020. , 7(8:D(09DI

GEWALT HAMILTON ASSOCIATES, INC.

LSlo6LeU3kmb ey nMCnR 6ntls F44dc6nte4 wc:
I2GH5dSe4t EU) e v Sfoe, VeSs ds b GNt, vP, I00I1, i a

Pe) v 6ect6ds	- nLk En4t3dus U				- nLk p e4t3dus U				b uttds a dutC3dus U				
T6Re	P	T	i	F Wt	LeU*	T	B	i	F Wt	LeU*	P	B	i	F Wt	LeU*	wt
2021710719 (nt0F1	8G	D8	0	. (	0	Dt	1	0	D2	0	1	22	0	28	8	1D8
(nt CF1	CD	89	0	(9	0	D2	D	0	Dt	2	0	11	0	11	0	1Dt
(nt0F1	D2	Ct	0	98	0	DD	I	0	Dt	8	2	1D	0	11	2	1CG
(nDCF1	8I	8G	0	. 1	0	11	10	0	. 1	2	2	1D	0	11	2	1C(
TdmM	118	11 (	0	881	0	1(D	21	0	20G	.	G	11	0	11	.	102
% F W6tncC	D9:2%	CD:(%	0%	7	7	(9:(%	10:2%	0%	7	7	. :1 %	92:D%	0%	7	7	7
% TdmM	2. :1%	2. :9%	0%	CC0%	7	80:1 %	8:C%	0%	8D1%	7	0:(%	10:1%	0%	11:0%	7	7
Lb H	0:(1G	0:(2D	7	0:(90	7	0:. CD	0:C2G	7	0: 22	7	0:1 2G	0:1 98	7	0: 1.	7	0:9C8
P6 C4	112	11.	0	829	7	1(8	21	0	20D	7	G	G	0	12	7	CDG
% P6 C4	99:D%	99:D%	0%	99:D%	7	99:C%	100%	0%	99:C%	7	100%	98:D%	0%	98:9%	7	9(:(%
a6) M7 s6 TSucg4	0	1	0	1	7	1	0	0	1	7	0	8	0	8	7	G
% a6) M7 s6 TSucg4	0%	0:1 %	0%	0:8%	7	0:C%	0%	0%	0:C%	7	0%	D9%	0%	DC%	7	0:(%
F St6cuMteUTSucg4	0	0	0	0	7	0	0	0	0	7	0	0	0	0	7	0
% F St6cuMteUTSucg4	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%
r u4e4	1	0	0	1	7	0	0	0	0	7	0	1	0	1	7	2
% r u4e4	0:1 %	0%	0%	0:8%	7	0%	0%	0%	0%	7	0%	1:1 %	0%	1:C%	7	0:8%
r 6kcM44 ds BdnU	0	0	0	0	7	0	0	0	0	7	0	0	0	0	7	0
% r 6kcM44 ds BdnU	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%
LeUe4tSns4	7	7	7	7	0	7	7	7	7	.	7	7	7	7	.	
% LeUe4tSns4	7	7	7	7	7	7	7	7	7	100%	7	7	7	7	100%	7
r 6kcM44 ds - Sl44y nMg	7	7	7	7	0	7	7	7	7	0	7	7	7	7	0	
% r 6kcM44 ds - Sl44y nMg	7	7	7	7	7	7	7	7	7	0%	7	7	7	7	0%	7

*LeUe4tSns4 ns Ur 6kcM44 ds - Sl44y nMg: PmPeft, BmB0 Ct, TmTCSu, i mi 7TuSs

Hutton Street & Cady Street - TMC

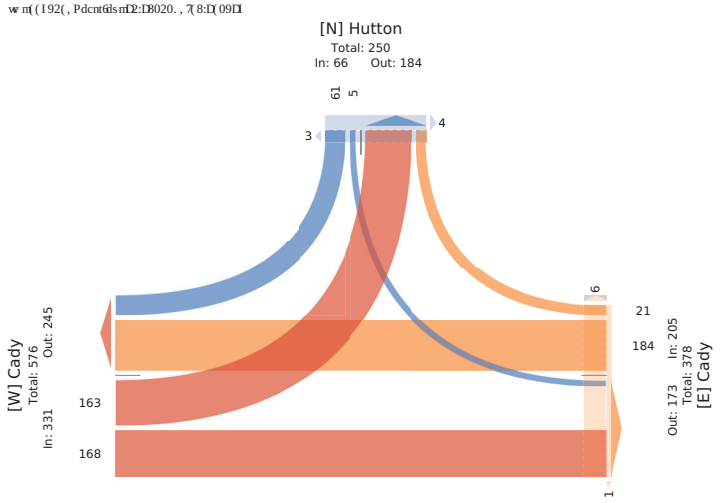
Tue Oct 19, 2021

F1 Leng h(F1 79 F1 A

F Nt M44e4 hPG Ct4, a6) M7 s6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns4, r 6kcM44 ds BdnU, r 6kcM44 ds - Sl44y nMA
F Nt doeR est4
w m((I92(, Pdcnt6ls mD2:D8020. , 7(8:D(09DI

GEWALT HAMILTON ASSOCIATES, INC.

LSlo6LeU3kmb ey nMCnR 6ntls F44dc6nte4 wc:
I2H5dSe4t EU) e v Sfoe, VeSs ds G6Nt, vP, I00I1, i a



Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

Fl FeLn gh Fl (7 Fl A(OM4-L44FeLn P 6u-
) 44C4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea,
FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 41 6Mev ekta
nh D: 792: , s 6cLti6kDB2.830205, (: 3.8: 0987

GEWALT HAMILTON ASSOCIATES, INC.

F-6MBeB boDGewL4 P Lv i46k) aa6ciLtea nkc.
72h H6-eat EBSe I -iMt, Ve-k6k P i4h, ns , 70071, d r

s eS I i-ect i6k	CLBo ELatb6ukB					CLBo p eatb6ukB					P utt6k r 6urUb6ukB					
Tiv e	s	T	d	) Wt	FeB*	T	R	d	) Wt	FeB*	s	R	d	) Wt	FeB*	nkt
2021(10(19 h0 0F1	89	h5	0	107	0	h2	7	0	h:	0	1	15	0	1:	8	1: 2
h0 hF1	39	h9	0	9:	0	h7	8	0	70	0	7	18	0	20	7	15:
h0 0F1	h1	h0	0	101	0	h2	h	0	h5	0	5	33	0	80	3	19:
h0 hF1	h1	h9	0	110	0	8:	5	0	hh	0	h	1:	0	23	0	1: :
T6tL4	190	22h	0	81h	0	20:	22	0	230	0	19	: 2	0	101	13	587
%) WWLtcU	8h. : %	h8.2%	0%	(	(	90.8%	9.7%	0%	(	(	1: . : %	: 1.2%	0%	(	(	(
% T6tL4	2h.h%	30.2%	0%	hh.7%	(	25.9%	2.9%	0%	30. : %	(	2.h%	11.0%	0%	13.h%	(	(
FP H	0.922	0.9h3	(	0.939	(	0.937	0.5: 7	(	0.977	(	0.759	0.718	(	0.72h	(	0.980
s iSUa	1: 5	228	0	811	(	20h	22	0	225	(	1:	: 1	0	99	(	535
% s iSUa	9: .8%	99.7%	0%	99.0%	(	9: .7%	100%	0%	9: .5%	(	98.5%	9: . : %	0%	9: .0%	(	9: . : %
r ikS4e(d kit T-ucna	0	1	0	1	(	1	0	0	1	(	1	0	0	1	(	3
% r ikS4e(d kit T-ucna	0%	0.8%	0%	0.2%	(	0.h%	0%	0%	0.8%	(	h.3%	0%	0%	1.0%	(	0.8%
) -ticu4LteBT-ucna	1	0	0	1	(	0	0	0	0	(	0	0	0	0	(	1
%) -ticu4LteBT-ucna	0.h%	0%	0%	0.2%	(	0%	0%	0%	0%	(	0%	0%	0%	0%	(	0.1%
y uaea	0	0	0	0	(	0	0	0	0	(	0	0	0	0	(	0
% y uaea	0%	0%	0%	0%	(	0%	0%	0%	0%	(	0%	0%	0%	0%	(	0%
y icoc4ea 6k R6LB	2	0	0	2	(	2	0	0	2	(	0	1	0	1	(	h
% y icoc4ea 6k R6LB	1.1%	0%	0%	0.h%	(	1.0%	0%	0%	0.9%	(	0%	1.2%	0%	1.0%	(	0.5%
FeBeat-iLka	(	(	(	(	0	(	(	(	(	0	(	(	(	(	13	
% FeBeat-iLka	(	(	(	(	(	(	(	(	(	(	(	(	(	(	100%	(
y icoc4ea 6k C-6aawL4n	(	(	(	(	0	(	(	(	(	0	(	(	(	(	0	
% y icoc4ea 6k C-6aawL4n	(	(	(	(	(	(	(	(	(	(	(	(	(	(	0%	(

*FeBeat-iLka IkB y icoc4ea 6k C-6aawL4n. s Ds eft, RDRiSUi, TDfUu, d Dtl (Tu-k

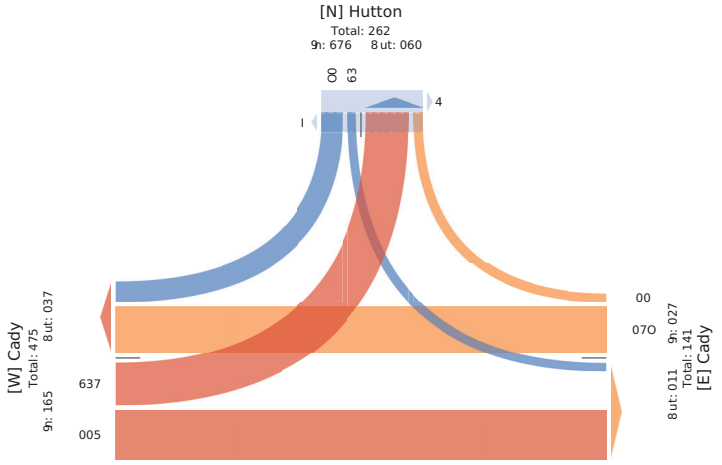
Hutton Street & Cady Street - TMC

Tue Oct 19, 2021

Fl FeLn gh Fl (7 Fl A(OM4-L44FeLn P 6u-
) 44C4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea,
FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 41 6Mev ekta
nh D: 792: , s 6cLti6kDB2.83020b, (: 3.8: 0987

GEWALT HAMILTON ASSOCIATES, INC.

F-6MBeB CoDHewL4 P Lv i46k) aa6ciLtea nkc.
72h 56-eat EBSe I -iMt, Ve-k6k P i4h, ns , 70071, d r



Cady & Church - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 6, Location: 423 4. 0245, -8. 3480269

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

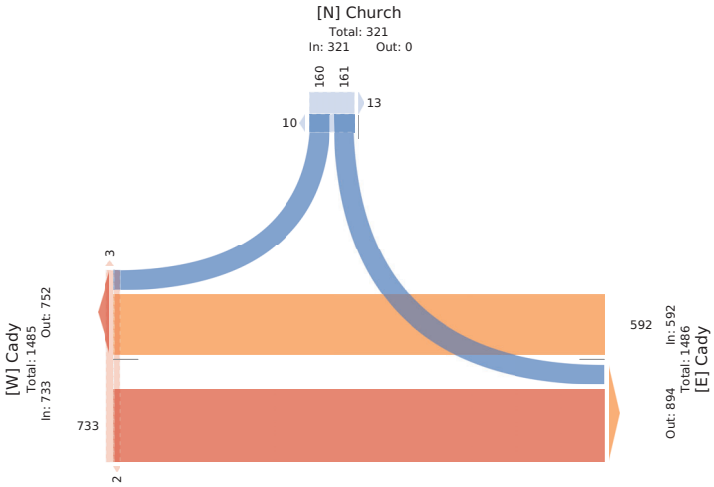
Leg Direction	Cady Eastbound					Cady p estbound					Church Southbound					
Time	L	T	U	AWW	Ped*	T	R	U	AWW	Ped*	L	R	U	AWW	Ped*	Int
2021-10-19 7:00AM	0	18	0	**18**	0	12	0	0	**12**	0	11	10	0	**21**	1	**51**
7:15AM	0	14	0	**14**	0	16	0	0	**16**	0	17	9	0	**26**	0	**56**
7:. 0AM	0	2.	0	**2.**	0	17	0	0	**17**	0	11	11	0	**22**	0	**62**
7:45AM	0	. 0	0	**. 0**	0	21	0	0	**21**	0	16	11	0	**27**	0	**78**
Hourly Total	0	85	0	**85**	0	66	0	0	**66**	0	55	41	0	**96**	1	**247**
8:00AM	0	4.	0	**4.**	1	. 0	0	0	**. 0**	0	11	12	0	**2.**	0	**96**
8:15AM	0	. 7	0	**. 7**	0	22	0	0	**22**	0	15	24	0	**. 9**	0	**98**
8:. 0AM	0	5.	0	**5.**	0	. 6	0	0	**. 6**	0	11	11	0	**22**	1	**111**
8:45AM	0	. 8	0	**. 8**	1	56	0	0	**56**	0	11	24	0	**. 5**	2	**129**
Hourly Total	0	171	0	**171**	2	144	0	0	**144**	0	48	71	0	**119**	.	**4. 4**
4:00PM	0	65	0	**65**	2	4.	0	0	**4.**	0	11	9	0	**20**	0	**128**
4:15PM	0	58	0	**58**	0	40	0	0	**40**	0	6	6	0	**12**	1	**110**
4:. 0PM	0	50	0	**50**	0	41	0	0	**41**	0	10	8	0	**18**	.	**109**
4:45PM	0	57	0	**57**	0	47	0	0	**47**	0	5	8	0	**1.**	1	**117**
Hourly Total	0	2. 0	0	**2. 0**	2	171	0	0	**171**	0	. 2	. 1	0	**6.**	5	**464**
5:00PM	0	59	0	**59**	1	48	0	0	**48**	0	7	8	0	**15**	5	**122**
5:15PM	0	66	0	**66**	0	59	0	0	**59**	0	8	1	0	**9**	5	**1. 4**
5:. 0PM	0	57	0	**57**	0	55	0	0	**55**	0	5	4	0	**9**	.	**121**
5:45PM	0	65	0	**65**	0	49	0	0	**49**	0	6	4	0	**10**	1	**124**
Hourly Total	0	247	0	**247**	1	211	0	0	**211**	0	26	17	0	**4.**	14	**501**
Total	0	7. .	0	**7. .**	5	592	0	0	**592**	0	161	160	0	**. 21**	2.	**1646**
% AWWoach	0%	100%	0%	**-**	-	100%	0%	0%	**-**	-	503 2%	493 8%	0%	**-**	-	-
% Total	0%	443 5%	0%	**443 5%**	-	. 63 0%	0%	0%	**. 63 0%**	-	9 8%	9 7%	0%	**19 3 5%**	-	-
Lights	0	726	0	**726**	-	584	0	0	**584**	-	160	160	0	**. 20**	-	16. 0
% Lights	0%	99 0 0%	0%	**99 0 0%**	-	98 3 6%	0%	0%	**98 3 6%**	-	99 3 4%	100%	0%	**99 3 7%**	-	99 0%
Single-Unit Trucks	0	4	0	**4**	-	5	0	0	**5**	-	0	0	0	**0**	-	9
% Single-Unit Trucks	0%	0 5%	0%	**0 5%**	-	0 8%	0%	0%	**0 8%**	-	0%	0%	0%	**0%**	-	0 5%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	.	0	**.**	-	.	0	0	**.**	-	1	0	0	**1**	-	7
% Bicycles on Road	0%	0 3%	0%	**0 3%**	-	0 5%	0%	0%	**0 5%**	-	0 6%	0%	0%	**0 3 %**	-	0 3%
Pedestrians	-	-	-	-	5	-	-	-	-	0	-	-	-	-	21	
% Pedestrians	-	-	-	-	100%	-	-	-	-		-	-	-	-	913 %	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-		-	-	-	-	83 7%	-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Cady & Church - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 6, Location: 423 4. 024b, -8. 3480269

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US



Cady & Church - TMC

Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Wi M44e4 hP Q C14, a 6) e 7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSins 4, r 6kkcM44 ds BdnU, r 6kkcM44 ds - Sl44y nMA
F Wi doeR est4
w m((19 D1 , Pdcnt6ls m 28 DD2: . , 7(D8 (021 9

GEWALT HAMILTON ASSOCIATES, INC.
LSloGLeU3km5 ey nMb nR GMls F44dc6nte4 wc8
I 2. GdSe4t HUJ e v Sne, E eSsds b GM(vP, I 00 I 1, i a

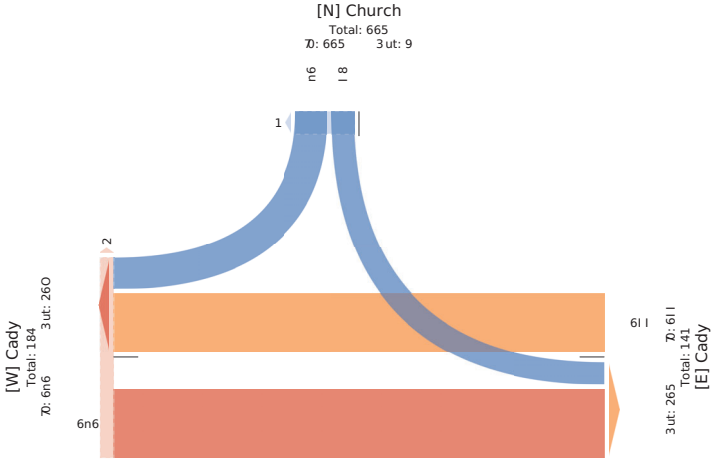
Pe) v 6ect6ls	- nUk Hn43dus U					- nUk V e43dus U					- GuSCC adutC3dus U					
T6Re	P	T	i	Fpp	LeUW	T	B	i	Fpp	LeUW	P	B	i	Fpp	LeUW	wt
2021710719 (n0F1	0	: D	0	**: D**	1	D0	0	0	**D0**	0	11	12	0	**2D**	0	**91**
(n. F1	0	D*	0	**D***	0	22	0	0	**22**	0	1.	2:	0	**D9**	0	**9(**
(n80F1	0	. D	0	**. D**	0	D1	0	0	**D1**	0	11	11	0	**22**	1	**111**
(m. F1	0	D(	0	**D(**	1	. I	0	0	**. I**	0	11	2:	0	**D1**	2	**129**
TdmM	0	1*1	0	**1*1**	2	1: :	0	0	**1: :**	0	: (	*1	0	**119**	D	**: D**
% F ppSlncC	0%	100%	0%	**7**	7	100%	0%	0%	**7**	7	: 08 3%	. 98*%	0%	**7**	7	7
% TdmM	0%	D88 %	0%	**D88 %**	7	DD2%	0%	0%	**DD2%**	7	118 1%	118 %	0%	**2*8 %**	7	7
Lb G	7	08(0*	7	**08(0***	7	08 : D	7	7	**08 : D**	7	08(00	08*: 0	7	**08*1 D**	7	08(: 1
P9 Cl4	0	1*0	0	**1*0**	7	1: D	0	0	**1: D**	7	: (	*1	0	**119**	7	: D2
% P9 Cl4	0%	998 %	0%	**998 %**	7	998 3%	0%	0%	**998 3%**	7	100%	100%	0%	**100%**	7	998 %
a6) M1 s 6 TSucg4	0	1	0	**1**	7	1	0	0	**1**	7	0	0	0	**0**	7	2
% a6) M1 s 6 TSucg4	0%	08 1 %	0%	**08 1 %**	7	08*%	0%	0%	**08*%**	7	0%	0%	0%	**0%**	7	08 %
F S6cuMteUTSucg4	0	0	0	**0**	7	0	0	0	**0**	7	0	0	0	**0**	7	0
% F S6cuMteUTSucg4	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%
r u4e4	0	0	0	**0**	7	0	0	0	**0**	7	0	0	0	**0**	7	0
% r u4e4	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%
r 6kkcM44 ds BdnU	0	0	0	**0**	7	0	0	0	**0**	7	0	0	0	**0**	7	0
% r 6kkcM44 ds BdnU	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%
LeUe4tSins 4	7	7	7	7	2	7	7	7	7	0	7	7	7	7	D	
% LeUe4tSins 4	7	7	7	7	100%	7	7	7	7	7	7	7	7	7	100%	7
r 6kkcM44 ds - Sl44y nMg	7	7	7	7	0	7	7	7	7	0	7	7	7	7	0	
% r 6kkcM44 ds - Sl44y nMg	7	7	7	7	0%	7	7	7	7	7	7	7	7	7	0%	7

W LeUe4tSins 4 ns Ur 6kkcM44 ds - Sl44y nMg8 PmPeft, BmB6) Cl, TmiTCSu, i mi 7TuSs

Cady & Church - TMC

Tue Oct 19, 2021
P M aek(4 P M 59 P M-
P)) v)krrer 4 hiAr, CHo)e5Ls hTiuc(r, P itHu)kteg Tiuc(r, hurer,
aegertiHsr, hHSc)er ns Unkg, hHSc)er ns v inrrd k)(-
P)) MnBey estr
Rwm : 19 D1 , 1 nckHlsm 8 26 BDD 28. , 5: D8: 021 9

GEWALT HAMILTON ASSOCIATES, INC.
ainBgeg 3Smb ed k)t Gky Bins P rrnckter Rc6
I 2. Fniert Egoe wiBe, Veis ns GBr, R , I 00 I 1, L C



Cady & Church - TMC

Tue Oct 19, 2021

Fl FeLn gh Fl (7 Fl A(OM-L4tFeLn P 6u-
) 4tC4Laaea gs iSLta, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea,
FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 4tl 6M4v ekta
nh D: 7987, s 6cLti6kD 23 802. h, (: 83 : 0279

GEWALT HAMILTON ASSOCIATES, INC.

F-6MBeB5oDb ewL4 P Lv i4Gk) aa6ciLtea rhc3
72h G6-eat HBSe I -iM, E e-k6k P i4a, ns , 70071, d r

s eS l i-ect6k	CLBo HLat56ukB				CLBo V eat56ukB				CLu-cU r 6urtL56ukB				
Tiv e	s	T	d	) pp	FeBVA	T	R	d	) pp	FeBVA	s	R	d	) pp	FeBVA	hLt
2021(10(19 hlD0Fl	0	h9	0	**h9**	1	. :	0	0	**. :**	0	*	:	0	**1h**	h	**122**
hlDhFl	0	77	0	**77**	0	h9	0	0	**h9**	0	:	1	0	**9**	h	**18.**
hlB0Fl	0	h*	0	**h***	0	hh	0	0	**hh**	0	h	.	0	**9**	8	**121**
hDhFl	0	7h	0	**7h**	0	. 9	0	0	**. 9**	0	7	.	0	**10**	1	**12.**
T6tL4	0	2. *	0	**2. ***	1	211	0	0	**211**	0	27	1*	0	**. 8**	1.	**h01**
%) pp-6LcU	0%	100%	0%	**(**	(	100%	0%	0%	**(**	(	703%	893%	0%	**(**	(	(
% T6tL4	0%	. 93%	0%	**. 93%**	(	. 23%	0%	0%	**. 23%**	(	h2%	83 %	0%	**: 3%**	(	(
FP G	(	03. 7	(	**03. 7**	(	0301	(	(	**0301**	(	03 18	03r81	(	**03*1***	(	03. 8
s iSLta	0	2. h	0	**2. h**	(	20:	0	0	**20:**	(	27	1*	0	**. 8**	(	. 97
% s iSLta	0%	9932%	0%	**9932%**	(	9: 3%	0%	0%	**9: 3%**	(	100%	100%	0%	**100%**	(	993%
r ikS4t(d kit T-ucna	0	1	0	**1**	(	1	0	0	**1**	(	0	0	0	**0**	(	2
% r ikS4t(d kit T-ucna	0%	03 %	0%	**03 %**	(	03r%	0%	0%	**03r%**	(	0%	0%	0%	**0%**	(	03 %
) -ticu4LteBT-ucna	0	0	0	**0**	(	0	0	0	**0**	(	0	0	0	**0**	(	0
%) -ticu4LteBT-ucna	0%	0%	0%	**0%**	(	0%	0%	0%	**0%**	(	0%	0%	0%	**0%**	(	0%
y uaea	0	0	0	**0**	(	0	0	0	**0**	(	0	0	0	**0**	(	0
% y uaea	0%	0%	0%	**0%**	(	0%	0%	0%	**0%**	(	0%	0%	0%	**0%**	(	0%
y icoc4ea 6k R6LB	0	1	0	**1**	(	2	0	0	**2**	(	0	0	0	**0**	(	8
% y icoc4ea 6k R6LB	0%	03 %	0%	**03 %**	(	03r%	0%	0%	**03r%**	(	0%	0%	0%	**0%**	(	03r%
FeBeat-iLka	(	(	(	(	1	(	(	(	(	0	(	(	(	(	1.	
% FeBeat-iLka	(	(	(	(	100%	(	(	(	(	(	(	(	(	(	100%	(
y icoc4ea 6k C-6aawL4h	(	(	(	(	0	(	(	(	(	0	(	(	(	(	0	
% y icoc4ea 6k C-6aawL4h	(	(	(	(	0%	(	(	(	(	(	(	(	(	(	0%	(

WFeBeat-iLka LkB y icoc4ea 6k C-6aawL4n3s Ds eft, RDRiSUt, TDTU-u, d Dd (Tu-k

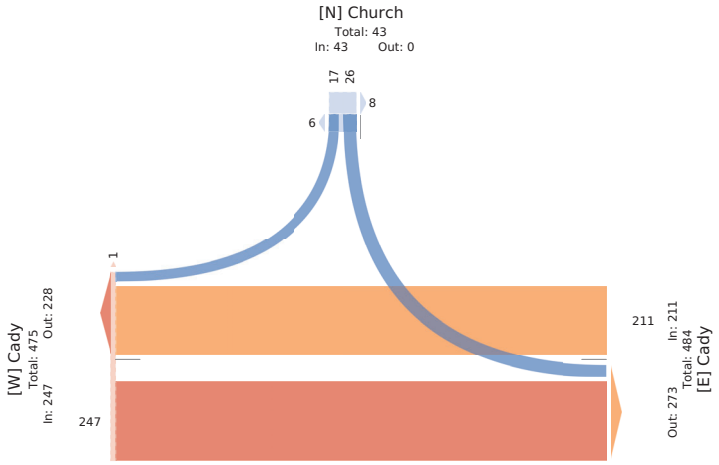
Cady & Church - TMC

Tue Oct 19, 2021

PM Peak (4 PM : 5 PM- : O) evarr Peak l Hnv
o rr AraCCeC(s li gtC, hISi re:n Slt TvuckC, o vtLcurateUTvuckC, d uCeC,
PeUeCtMaSC, d lcBcreCHS y HnU, d lcBcreCHS AvHCCRark-
o rr MHJ ewe StC
nh D885965, s HeatLHSD 23 602. 4, :863 80259

GEWALT HAMILTON ASSOCIATES, INC.

PvHJ lLeUbBDGeRart l awltrHS o CCHelateCrn5c3
524 FHaeCl EUi e I vl) e, VevSHS l lnrC, ns , 50051, n h



Griswold & Cady - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886929, Location: 42.430343, -83.47872

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Cady Eastbound						Cady p estbound						Griswold Worthbound						Griswold Southbound						
Time	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	L	T	R	U	**ANN**	Ped*	**Int**
2021-10-19 7:00AM	25	2	2	0	**29**	2	0	0	0	0	**0**	0	2	2	1	0	**5**	0	0	1	11	0	**12**	0	**46**
7:15AM	25	2	4	0	**31**	0	0	0	0	0	**0**	0	1	1	0	0	**2**	0	0	2	17	0	**19**	0	**52**
7:30AM	22	3	7	0	**32**	0	0	0	0	0	**0**	0	0	3	0	0	**3**	0	0	2	17	0	**19**	0	**54**
7:45AM	36	3	10	0	**49**	0	0	3	0	0	**3**	0	1	5	2	0	**8**	0	1	3	17	0	**21**	0	**81**
Hourly Total	108	10	23	0	**141**	2	0	3	0	0	**3**	0	4	11	3	0	**18**	0	1	8	62	0	**71**	0	**233**
8:00AM	39	7	6	0	**52**	0	0	0	0	0	**0**	0	1	6	0	0	**7**	0	3	2	29	0	**34**	0	**93**
8:15AM	43	4	4	0	**51**	0	0	3	0	0	**3**	0	2	5	1	0	**8**	0	0	5	18	0	**23**	0	**85**
8:30AM	52	8	4	0	**64**	0	0	1	0	0	**1**	0	6	10	2	0	**18**	0	0	4	31	0	**35**	0	**118**
8:45AM	37	6	5	0	**48**	0	0	5	0	0	**5**	0	6	5	1	0	**12**	0	1	3	41	0	**45**	0	**110**
Hourly Total	171	25	19	0	**215**	0	0	9	0	0	**9**	0	15	26	4	0	**45**	0	4	14	119	0	**137**	0	**406**
4:00PM	61	9	10	0	**80**	0	0	3	0	0	**3**	2	3	4	0	0	**7**	0	0	9	39	0	**48**	1	**138**
4:15PM	48	5	8	0	**61**	1	0	3	0	0	**3**	1	3	7	0	0	**10**	0	0	13	31	0	**44**	2	**118**
4:30PM	46	9	9	0	**64**	1	0	2	0	0	**2**	0	1	13	0	0	**14**	0	2	12	38	0	**52**	3	**132**
4:45PM	43	7	9	0	**59**	3	1	0	0	0	**1**	1	6	12	1	0	**19**	0	0	8	41	0	**49**	0	**128**
Hourly Total	198	30	36	0	**264**	5	1	8	0	0	**9**	4	13	36	1	0	**50**	0	2	42	149	0	**193**	6	**516**
5:00PM	59	5	6	0	**70**	5	1	3	3	0	**7**	2	4	7	0	0	**11**	0	0	10	38	0	**48**	1	**136**
5:15PM	54	8	11	0	**73**	4	0	3	3	0	**6**	0	4	9	0	0	**13**	0	0	12	52	0	**64**	2	**156**
5:30PM	46	2	13	0	**61**	1	0	3	1	0	**4**	2	3	8	0	0	**11**	1	1	15	50	0	**66**	0	**142**
5:45PM	56	3	11	0	**70**	0	0	1	0	0	**1**	0	7	9	0	0	**16**	0	0	15	35	0	**50**	0	**137**
Hourly Total	215	18	41	0	**274**	10	1	10	7	0	**18**	4	18	33	0	0	**51**	1	1	52	175	0	**228**	3	**571**
Total	692	83	119	0	**894**	17	2	30	7	0	**39**	8	50	106	8	0	**164**	1	8	116	505	0	**629**	9	**1726**
% ANNoach	77.4%	9.3%	13.3%	0%	**-**	-	5.1%	76.9%	17.9%	0%	**-**	-	30.5%	64.6%	4.9%	0%	**-**	-	1.3%	18.4%	80.3%	0%	**-**	-	-
% Total	40.1%	4.8%	6.9%	0%	**51.8%**	-	0.1%	1.7%	0.4%	0%	**2.3%**	-	2.9%	6.1%	0.5%	0%	**9.5%**	-	0.5%	6.7%	29.3%	0%	**36.4%**	-	-
Lights	689	81	115	0	**885**	-	2	30	7	0	**39**	-	46	102	8	0	**156**	-	7	110	500	0	**617**	-	1697
% Lights	99.6%	97.6%	96.6%	0%	**99.0%**	-	100%	100%	100%	0%	**100%**	-	92.0%	96.2%	100%	0%	**95.1%**	-	87.5%	94.8%	99.0%	0%	**98.1%**	-	98.3%
Single-Unit Trucks	2	2	1	0	**5**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	5	0	**5**	-	11
% Single-Unit Trucks	0.3%	2.4%	0.8%	0%	**0.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0.9%	0%	0%	**0.6%**	-	0%	0%	1.0%	0%	**0.8%**	-	0.6%
Articulated Trucks	1	0	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Articulated Trucks	0.1%	0%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Buses	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	2
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.9%	0%	0%	**0.6%**	-	0%	0.9%	0%	0%	**0.2%**	-	0.1%
Bicycles on Road	0	0	3	0	**3**	-	0	0	0	0	**0**	-	4	2	0	0	**6**	-	1	5	0	0	**6**	-	15
% Bicycles on Road	0%	0%	2.5%	0%	**0.3%**	-	0%	0%	0%	0%	**0%**	-	8.0%	1.9%	0%	0%	**3.7%**	-	12.5%	4.3%	0%	0%	**1.0%**	-	0.9%
Pedestrians	-	-	-	-	-	15	-	-	-	-	-	8	-	-	-	-	-	1	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	88.2%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	77.8%	-
Bicycles on Crosswalk	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	11.8%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	22.2%	-

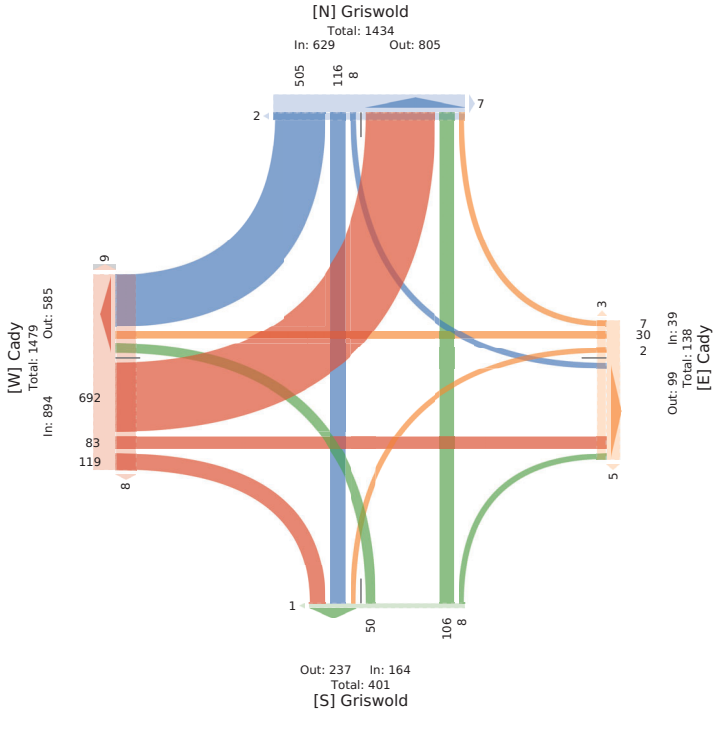
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Griswold & Cady - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886929, Location: 42.430343, -83.47872

GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

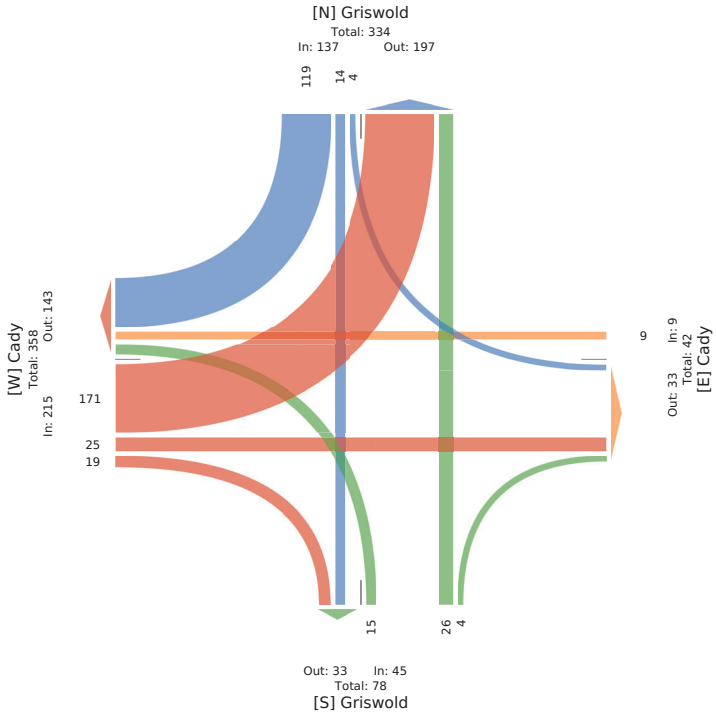


GEWALT HAMILTON ASSOCIATES, INC.

Pe) v 6ec6ls	- nUk En43dus U					- nUk p e43dus U					b S8ly dNf We9C3dus U					b S8ly dNf a dutC3dus U					
T0Re	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	wr
2021710719 (nt0F 1	89	.	I	0	**H2**	0	0	0	0	**0**	0	1	I	0	0	.	0	8	2	29	0	**8D**	0	**98**
(nt1F 1	D8	D	D	0	**Ht**	0	0	8	0	0	**8**	0	2	H	1	0	**(**	0	0	H	1(	0	**28**	0	**(H**
(nt0F 1	H2	(	D	0	**1D**	0	0	1	0	0	**1**	0	I	10	2	0	**1(**	0	0	D	81	0	**8H**	0	**11(**
(nt1F 1	8.	I	H	0	**D(**	0	0	H	0	0	**H**	0	I	H	1	0	**12**	0	1	8	Dt	0	**DH**	0	**110**
Tdnn M	1. 1	2H	19	0	**21H**	0	0	9	0	0	**9**	0	1H	2I	D	0	**DH**	0	D	1D	119	0	**18.**	0	**DDI**
% F NN SInc C	. 9:H%	11:I %	(:(%	0%	**7**	7	0%	100%	0%	0%	**7**	7	88:8%	H :(%	(:9%	0%	**7**	7	2:9%	10:2%	(1:9%	0%	**7**	7	7
% Tdnn M	D2:1%	I :2%	D. %	0%	**H8:0%**	7	0%	2:2%	0%	0%	**2:2%**	7	8:. %	I :D%	1:0%	0%	**11:1%**	7	1:0%	8:D%	29:8%	0%	**88:. %**	7	7
LG5	0:(22	0:. (1	0:. 92	7	**0:(D0**	7	7	0:.DH0	7	7	**0:.DH0**	7	0:I 2H	0:I H0	0:H00	7	**0:I 2H**	7	0:888	0:. 00	0:. 2I	7	**0:. 11**	7	0:(10
P0 C14	1. 0	2H	19	0	**21D**	7	0	9	0	0	**9**	7	1H	2D	D	0	**D8**	7	D	1D	11(	0	**18I**	7	DD2
% P0 C14	99:D%	100%	100%	0%	**99:H%**	7	0%	100%	0%	0%	**100%**	7	100%	92:8%	100%	0%	**9HI %**	7	100%	100%	99:2%	0%	**99:8%**	7	99:0%
a6) M1 s6i T5ucg4	1	0	0	0	**1**	7	0	0	0	0	**0**	7	0	1	0	0	**1**	7	0	0	1	0	**1**	7	8
% a6) M1 s6i T5ucg4	0:I %	0%	0%	0%	**0:H%**	7	0%	0%	0%	0%	**0%**	7	0%	8:(%	0%	0%	**2:2%**	7	0%	0%	0:(%	0%	**0:. %**	7	0:. %
F S6cuMteUT5ucg4	0	0	0	0	**0**	7	0	0	0	0	**0**	7	0	0	0	0	**0**	7	0	0	0	0	**0**	7	0
% F S6cuMteUT5ucg4	0%	0%	0%	0%	**0%**	7	0%	0%	0%	0%	**0%**	7	0%	0%	0%	0%	**0%**	7	0%	0%	0%	0%	**0%**	7	0%
r u4e4	0	0	0	0	**0**	7	0	0	0	0	**0**	7	0	1	0	0	**1**	7	0	0	0	0	**0**	7	1
% r u4e4	0%	0%	0%	0%	**0%**	7	0%	0%	0%	0%	**0%**	7	0%	8:(%	0%	0%	**2:2%**	7	0%	0%	0%	0%	**0%**	7	0:2%
r 6ckcM4 ds BdnU	0	0	0	0	**0**	7	0	0	0	0	**0**	7	0	0	0	0	**0**	7	0	0	0	0	**0**	7	0
% r 6ckcM4 ds BdnU	0%	0%	0%	0%	**0%**	7	0%	0%	0%	0%	**0%**	7	0%	0%	0%	0%	**0%**	7	0%	0%	0%	0%	**0%**	7	0%
LeUe4t5ins 4	7	7	7	7	7	0	7	7	7	7	7	0	7	7	7	7	7	0	7	7	7	7	7	0	
% LeUe4t5ins 4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
r 6ckcM4 ds - Sl44y nJgA	7	7	7	7	7	0	7	7	7	7	7	0	7	7	7	7	7	0	7	7	7	7	7	0	
% r 6ckcM4 ds - Sl44y nJgA	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

*LeUe4t5ins 4 ns Ur 6ckcM4 ds - Sl44y nJgA PmPeft, BmB6) Ct, TmlTC5u, i mi 7TuSs

GEWALT HAMILTON ASSOCIATES, INC.

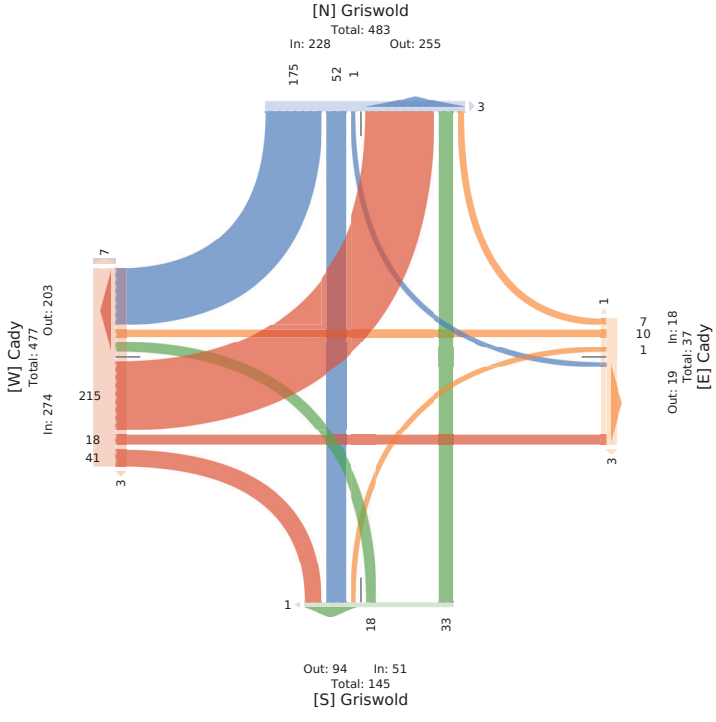


GEWALT HAMILTON ASSOCIATES, INC.

s eS t ie-ct6k	C1Bo ELatG6ukB						C1Bo p eatG6ukB						H-iaw643 W6-tUG6ukB						H-iaw643 r 6utUG6ukB						
Tiv e	s	T	R	d	) NN FeB*		s	T	R	d	) NN FeB*		s	T	R	d	) NN FeB*		s	T	R	d	) NN FeB*		nkt
2021(10(19 h10 0F1	h9	h	7	0	**h0**	h	1	3	3	0	**b**	2	8	b	0	0	**11**	0	0	10	3:	0	**8:**	1	**137**
h1Dh F1	h8	:	11	0	**h3**	8	0	3	3	0	**7**	0	8	9	0	0	**13**	0	0	12	h2	0	**78**	2	**1h7**
h10 0F1	87	2	13	0	**71**	1	0	3	1	0	**8**	2	3	:	0	0	**11**	1	1	1h	h0	0	**77**	0	**182**
h10h F1	h7	3	11	0	**h0**	0	0	1	0	0	**1**	0	b	9	0	0	**17**	0	0	1h	3h	0	**h0**	0	**13b**
T6tL4	21h	1:	81	0	**2b8**	10	1	10	b	0	**1:**	8	1:	33	0	0	**h1**	1	1	h2	1bh	0	**22:**	3	**hb1**
%) NV6LcU	b: .h%	7.7%	1h.0%	0%	**(**	(	h.7%	hh.7%	3: .9%	0%	**(**	(	3h.3%	78.b%	0%	0%	**(**	(	0.8%	22.: %	b7.: %	0%	**(**	(	(
% T6tL4	3b.b%	3.2%	b.2%	0%	**8: .0%**	(	0.2%	1.: %	1.2%	0%	**3.2%**	(	3.2%	h.: %	0%	0%	**: .9%**	(	0.2%	9.1%	30.7%	0%	**39.9%**	(	(
FP 5	0.911	0.h73	0.b79	(	**0.98:**	(	0.2h0	0.: 33	0.h: 3	(	**0.783**	(	0.77b	0.: : 9	(	(	**0.: hb**	(	0.2h0	0.: bh	0.: 81	(	**0.: b9**	(	0.917
s iSUa	218	1:	39	0	**2b1**	(	1	10	b	0	**1:**	(	17	32	0	0	**8:**	(	1	89	1b8	0	**228**	(	h71
% s iSUa	99.h%	100%	9h.1%	0%	**9: .9%**	(	100%	100%	100%	0%	**100%**	(	: : .9%	9b.0%	0%	0%	**98.1%**	(	100%	98.2%	99.8%	0%	**9: .2%**	(	9: .2%
r ikS4e(d kit T-ucna	1	0	1	0	**2**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	1	0	**1**	(	3
% r ikS4e(d kit T-ucna	0.h%	0%	2.8%	0%	**0.b%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0.7%	0%	**0.8%**	(	0.h%
) -ticu4ueBT-ucna	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
%) -ticu4ueBT-ucna	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%
y uaea	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0	0	0	0	**0**	(	0
% y uaea	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%	0%	0%	0%	**0%**	(	0%
y icoc4ea 6k R6LB	0	0	1	0	**1**	(	0	0	0	0	**0**	(	2	1	0	0	**3**	(	0	3	0	0	**3**	(	b
% y icoc4ea 6k R6LB	0%	0%	2.8%	0%	**0.8%**	(	0%	0%	0%	0%	**0%**	(	11.1%	3.0%	0%	0%	**h.9%**	(	0%	h.: %	0%	0%	**1.3%**	(	1.2%
FeBeat-iLka	(	(	(	(	(	10	(	(	(	(	(	8	(	(	(	(	(	1	(	(	(	(	(	3	
% FeBeat-iLka	(	(	(	(	(	100%	(	(	(	(	(	100%	(	(	(	(	(	100%	(	(	(	(	(	100%	(
y icoc4ea 6k C-6aawL4h	(	(	(	(	(	0	(	(	(	(	(	0	(	(	(	(	(	0	(	(	(	(	(	0	
% y icoc4ea 6k C-6aawL4h	(	(	(	(	(	0%	(	(	(	(	(	0%	(	(	(	(	(	0%	(	(	(	(	(	0%	(

*FeBeat-iLka lkB y icoc4ea 6k C-6aawL4h. s Ds eft, RDRiSUi, TDfU-u, d Dtl (Tu-k

GEWALT HAMILTON ASSOCIATES, INC.



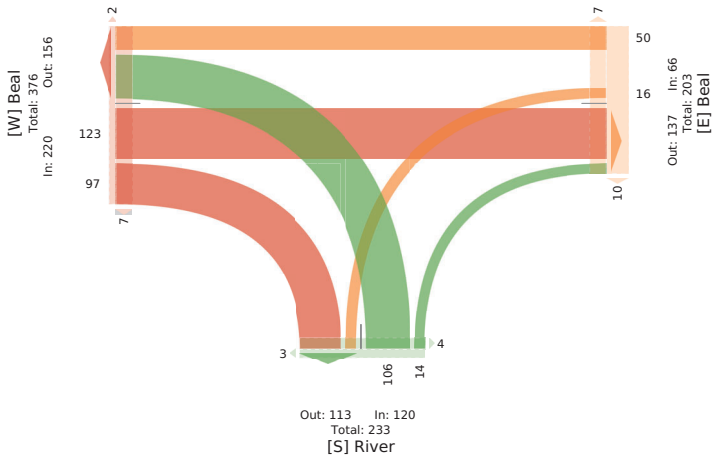
GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Beal Eastbound					Beal p estbound					River Worthbound					
Time	T	R	U	**ANN**	Ped*	L	T	U	**ANN**	Ped*	L	R	U	**ANN**	Ped*	**Int**
2021-10-19 7:00AM	2	1	0	**.**	0	1	1	0	**2**	1	4	1	0	**5**	0	**10**
7:15AM	4	0	0	**4**	0	0	0	0	**0**	0	2	0	0	**2**	0	**6**
7:. 0AM	6	2	0	**8**	0	0	0	0	**0**	0	2	0	0	**2**	0	**10**
7:45AM	7	5	0	**12**	0	0	2	0	**2**	0	4	0	0	**4**	0	**18**
Hourly Total	19	8	0	**27**	0	1	.	0	**4**	1	12	1	0	**1.**	0	**44**
8:00AM	6	.	0	**9**	0	0	1	0	**1**	0	7	.	0	**10**	0	**20**
8:15AM	4	2	0	**6**	0	1	2	0	**.**	2	6	1	0	**7**	0	**16**
8:. 0AM	4	4	0	**8**	0	2	7	0	**9**	1	10	2	0	**12**	0	**29**
8:45AM	5	2	0	**7**	1	1	8	0	**9**	0	5	0	0	**5**	1	**21**
Hourly Total	19	11	0	**. 0**	1	4	18	0	**22**	.	28	6	0	**. 4**	1	**86**
4:00PM	16	1	0	**17**	.	1	5	0	**6**	0	2	0	0	**2**	0	**25**
4:15PM	11	10	0	**21**	0	1	2	0	**.**	1	5	0	0	**5**	0	**29**
4:. 0PM	7	1.	0	**20**	0	1	2	0	**.**	2	11	0	0	**11**	0	**. 4**
4:45PM	12	9	0	**21**	0	0	8	0	**8**	6	1.	.	0	**16**	0	**45**
Hourly Total	46	. .	0	**79**	.	.	17	0	**20**	9	. 1	.	0	**. 4**	0	**1. .**
5:00PM	10	7	0	**17**	.	2	2	0	**4**	0	6	2	0	**8**	2	**29**
5:15PM	9	12	0	**21**	0	2	4	0	**6**	2	10	1	0	**11**	1	**. 8**
5:. 0PM	10	15	0	**25**	2	1	1	0	**2**	0	7	0	0	**7**	.	**. 4**
5:45PM	10	11	0	**21**	0	.	5	0	**8**	2	12	1	0	**1.**	0	**42**
Hourly Total	. 9	45	0	**84**	5	8	12	0	**20**	4	. 5	4	0	**. 9**	6	**14.**
Total	12.	97	0	**220**	9	16	50	0	**66**	17	106	14	0	**120**	7	**406**
% ANNroach	55 3 %	44 3 %	0%	**-**	-	24 2 %	75 8 %	0%	**-**	-	88 3 %	11 7 %	0%	**-**	-	-
% Total	. 03 %	2. 3 %	0%	**54 2 %**	-	. 3 %	12 3 %	0%	**16 3 %**	-	26 1 %	. 3 %	0%	**29 6 %**	-	-
Lights	122	90	0	**212**	-	12	50	0	**62**	-	98	1.	0	**111**	-	. 85
% Lights	99 2 %	92 8 %	0%	**96 8 %**	-	75 0 %	100%	0%	**9. 3 %**	-	92 5 %	92 9 %	0%	**92 5 %**	-	94 8 %
Single-Unit Trucks	0	1	0	**1**	-	1	0	0	**1**	-	1	1	0	**2**	-	4
% Single-Unit Trucks	0%	1 0 %	0%	**0 5 %**	-	63 %	0%	0%	**1 5 %**	-	0 9 %	7 1 %	0%	**1 7 %**	-	1 0 %
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	1	0	0	**1**	-	0	0	0	**0**	-	1	0	0	**1**	-	2
% Buses	0 8 %	0%	0%	**0 5 %**	-	0%	0%	0%	**0%**	-	0 9 %	0%	0%	**0 8 %**	-	0 5 %
Bicycles on Road	0	6	0	**6**	-	.	0	0	**.**	-	6	0	0	**6**	-	15
% Bicycles on Road	0%	6 2 %	0%	**2 7 %**	-	18 8 %	0%	0%	**4 5 %**	-	5 7 %	0%	0%	**5 0 %**	-	. 3 %
Pedestrians	-	-	-	-	9	-	-	-	-	17	-	-	-	-	7	
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

River & Beal - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 0, Location: 423 42889, -8. 3477948

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



River & Beal - TMC
Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Wl M44e4 hP Q C14, a 6) M7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y nMgA
F Wl doeR est4
w m((19D0, Pdcnt6lsm 28 2((9, 7(D8 . . 9: (

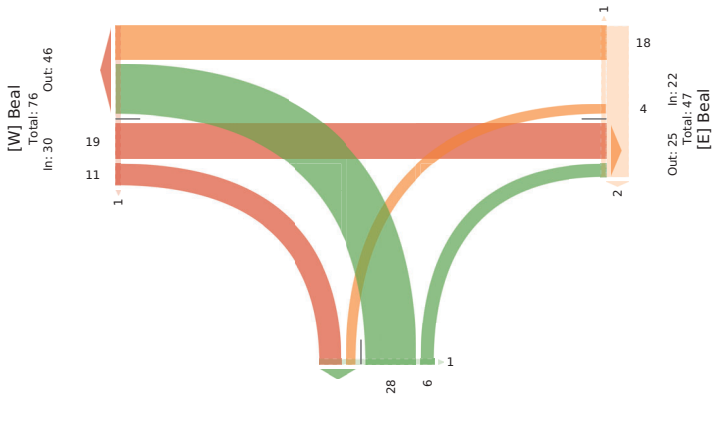
GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeU3kmb ey nMGnR6Wls F 44dc6nte4 vsc8
I 2H5 dSe4t EU) e v Sne, VeSs ds G6WMl vP, I 00I 1, i a

Pe) v 6ect6ls	r enM En43dus U					r enM p e43dus U					B6oeS WdSC3dus U					
T6Re	T	B	i	**F NN**	LeU*	P	T	i	**F NN**	LeU*	P	B	i	**F NN**	LeU*	**wt**
202171 0719 (n0 0F1	I	D	0	**9**	0	0	1	0	**1**	0	.	D	0	**10**	0	**20**
(n1HF1	:	2	0	**I**	0	1	2	0	**D**	2	I	1	0	**.**	0	**11**
(n0 0F1	:	:	0	**(**	0	2	.	0	**9**	1	10	2	0	**12**	0	**29**
(mHF1	H	2	0	**.**	1	1	(	0	**9**	0	H	0	0	**H**	1	**21**
TdmM	19	11	0	**D0**	1	:	1(	0	**22**	D	2(	I	0	**D**	1	**(I**
% F NNSincC	1 D0 %	D I 8 %	0%	**7**	7	1(82 %	(18 (%	0%	**7**	7	(28 %	1. 8 %	0%	**7**	7	7
% TdmM	228 8 %	128 (%	0%	**D. 8 9 %**	7	: 8 %	208 9 %	0%	**2H8 %**	7	D28 %	. 8 0 %	0%	**D8 8 %**	7	7
LG5	08 92	08 ((	7	**08 (DD**	7	08H00	08HD	7	**08 11**	7	08 00	08H00	7	**08 0 (**	7	08 : 1
P Q C14	19	11	0	**D0**	7	D	1(	0	**21**	7	2.	I	0	**DD**	7	(:
% P Q C14	100%	100%	0%	**100%**	7	. H0 %	100%	0%	**9H8 %**	7	91 8 %	100%	0%	**9. 8 1 %**	7	9. 8 %
a 6) M7 s 6 TSucg4	0	0	0	**0**	7	1	0	0	**1**	7	0	0	0	**0**	7	1
% a 6) M7 s 6 TSucg4	0%	0%	0%	**0%**	7	2H0 %	0%	0%	**: 8 %**	7	0%	0%	0%	**0%**	7	18 2 %
F St6cuMteUTSucg4	0	0	0	**0**	7	0	0	0	**0**	7	0	0	0	**0**	7	0
% F St6cuMteUTSucg4	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%
r u4e4	0	0	0	**0**	7	0	0	0	**0**	7	1	0	0	**1**	7	1
% r u4e4	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	D8 %	0%	0%	**28 0 %**	7	18 2 %
r 6ckcM4 ds BdnU	0	0	0	**0**	7	0	0	0	**0**	7	0	0	0	**0**	7	0
% r 6ckcM4 ds BdnU	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%
LeUe4tSns 4	7	7	7	7	1	7	7	7	7	D	7	7	7	7	1	
% LeUe4tSns 4	7	7	7	7	100%	7	7	7	7	100%	7	7	7	7	100%	7
r 6ckcM4 ds - Sl44y nMg	7	7	7	7	0	7	7	7	7	0	7	7	7	7	0	
% r 6ckcM4 ds - Sl44y nMg	7	7	7	7	0%	7	7	7	7	0%	7	7	7	7	0%	7

*LeUe4tSns 4 ns Ur 6ckcM4 ds - Sl44y nMg8PmPeft, BmB6) Cl, TmlTCSu, i mi 7TuSs

River & Beal - TMC
Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Wl M44e4 hP Q C14, a 6) M7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y nMgA
F Wl doeR est4
w m((19D0, Pdcnt6lsm 28 2((9, 7(D8 . . 9: (

GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeU3kmb ey nMGnR6Wls F 44dc6nte4 vsc8
I 2H5 dSe4t EU) e v Sne, VeSs ds G6WMl vP, I 00I 1, i a



GHA GEWALT HAMILTON ASSOCIATES, INC.

FRC4Udeo Gv(HemLfi) LI UdCBa iiCcUIrei DBc3
. 2M5CReit Eore : Pude, VeBBCB) U6i, DS, . 00. 1, y d

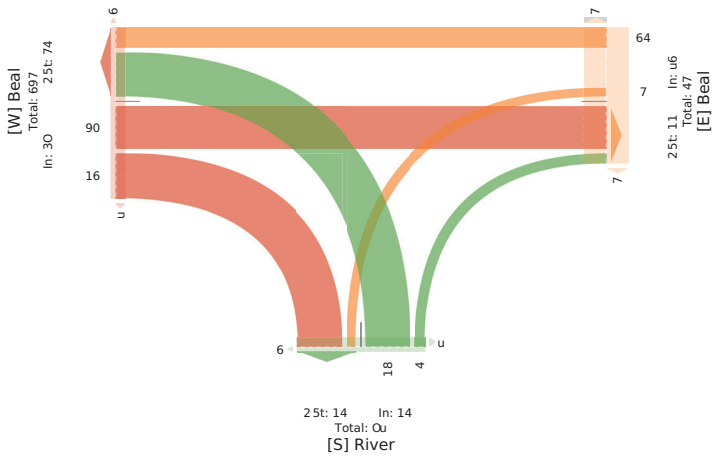
Ser . UBectUCB	ReLfi ELitCUuBo					ReLfi p eitCUuBo					v UdeP WCRkCUuBo					
TUi e	T	v	y	a NN	Feo*	S	T	y	a NN	Feo*	S	v	y	a NN	Feo*	UBt
2021A10A19 h(70Fl	b	17	0	**20**	0	1	2	0	**7**	2	11	0	0	**11**	0	**7h**
h(hMFl	12	9	0	**21**	0	0	8	0	**8**	-	17	7	0	**1.**	0	**hM**
M00Fl	10	b	0	**1b**	7	2	2	0	**h**	0	.	2	0	**8**	2	**29**
M1MFl	9	12	0	**21**	0	2	h	0	**.**	2	10	1	0	**11**	1	**78**
TCtL6	78	h1	0	**b9**	7	M	1.	0	**21**	10	h0	.	0	**h.**	7	**1h.**
% a NNCLck	h83l%	M39%	0%	**A**	A	273l%	b. 32%	0%	**A**	A	8b30%	173l%	0%	**A**	A	A
% TCtL6	2. 30%	283l%	0%	**Mb31%**	A	73l%	113l%	0%	**1h3l%**	A	2b3l%	h3l%	0%	**713M%**	A	A
F) 5	03b92	03817	A	**03911b**	A	03 2M	03M40	A	**03 M**	A	03bM0	03M40	A	**03b07**	A	03b9h
SUkti	78	78	0	**b.**	A	M	1.	0	**21**	A	79	M	0	**hh**	A	1h1
% SUkti	100%	923b%	0%	**9. 32%**	A	100%	100%	0%	**100%**	A	9b3M%	873l%	0%	**9Mb2%**	A	9. 3 %
dUBr6eAy BtiTRucni	0	1	0	**1**	A	0	0	0	**0**	A	0	1	0	**1**	A	2
% dUBr6eAy BtiTRucni	0%	23h%	0%	**137%**	A	0%	0%	0%	**0%**	A	0%	1. 3h%	0%	**232%**	A	13h%
a RUduGLieo TRucni	0	0	0	**0**	A	0	0	0	**0**	A	0	0	0	**0**	A	0
% a RUduGLieo TRucni	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%
Ruiei	0	0	0	**0**	A	0	0	0	**0**	A	0	0	0	**0**	A	0
% Ruiei	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%
RUdwc6ei CBvCLo	0	2	0	**2**	A	0	0	0	**0**	A	1	0	0	**1**	A	7
% RUdwc6ei CBvCLo	0%	h3l%	0%	**23M%**	A	0%	0%	0%	**0%**	A	23M%	0%	0%	**232%**	A	23l%
FeoeitPULEi	A	A	A	A	7	A	A	A	A	10	A	A	A	A	7	
% FeoeitPULEi	A	A	A	A	100%	A	A	A	A	100%	A	A	A	A	100%	A
RUdwc6ei CBs PCimLfn	A	A	A	A	0	A	A	A	A	0	A	A	A	A	0	
% RUdwc6ei CBs PCimLfn	A	A	A	A	0%	A	A	A	A	0%	A	A	A	A	0%	A

*FeoeitPULEi LBo RUdwc6ei CBs PCimLfn3S(Seft, v (v Ukt, T(TkRu, y (y AUuBB

River & Beal - TMC
Tue Oct 19, 2021
Fl FeLn gh(70 Fl AM70 Fl - AO4eEL66FeLn) CuP
a 6ss GLiiei gSUkti, dUBr6eAy BtiTRucni, a RUduGLieo TRucni, Ruiei,
FeoeitPULEi, RUdwc6ei CBvCLo, RUdwc6ei CBs PCimLfn-
a 6Sl C4el eBti
D (88. 970, SCcLrUCB(h23h2889, A873bbb9h8

GHA GEWALT HAMILTON ASSOCIATES, INC.

FRC4Udeo Gv(HemLfi) LI UdCBa iiCcUIrei DBc3
. 2M5CReit Eore : Pude, VeBBCB) U6i, DS, . 00. 1, y d



Beal Street & South Main Street - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886947, Location: 42.429186, -83.475603

GHA GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

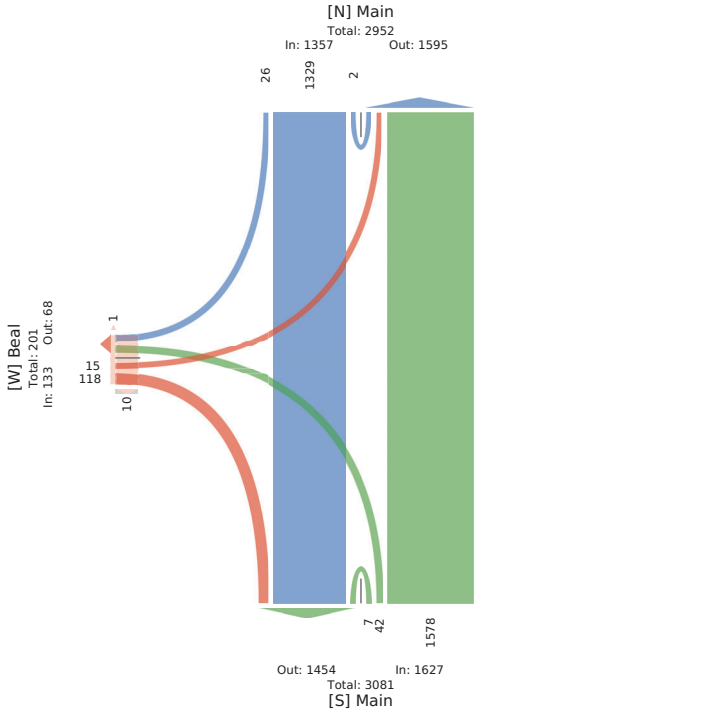
Leg Direction	Beal Eastbound					Main Northbound					Main Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	1	0	**1**	0	2	38	0	**40**	0	37	0	0	**37**	0	**78**
7:15AM	1	1	0	**2**	0	0	41	1	**42**	0	34	1	0	**35**	0	**79**
7:30AM	0	8	0	**8**	0	0	52	0	**52**	0	57	0	0	**57**	0	**117**
7:45AM	0	5	0	**5**	0	3	74	1	**78**	0	72	1	0	**73**	0	**156**
Hourly Total	1	15	0	**16**	0	5	205	2	**212**	0	200	2	0	**202**	0	**430**
8:00AM	1	6	0	**7**	0	1	81	0	**82**	0	52	3	0	**55**	0	**144**
8:15AM	2	3	0	**5**	1	2	76	1	**79**	0	63	0	0	**63**	0	**147**
8:30AM	0	6	0	**6**	2	9	83	0	**92**	0	73	5	0	**78**	0	**176**
8:45AM	0	6	0	**6**	1	8	98	0	**106**	0	74	1	0	**75**	0	**187**
Hourly Total	3	21	0	**24**	4	20	338	1	**359**	0	262	9	0	**271**	0	**654**
4:00PM	3	15	0	**18**	1	0	103	1	**104**	0	92	5	2	**99**	0	**221**
4:15PM	2	6	0	**8**	0	1	104	0	**105**	0	100	0	0	**100**	0	**213**
4:30PM	0	8	0	**8**	2	0	146	0	**146**	0	122	0	0	**122**	0	**276**
4:45PM	2	11	0	**13**	1	6	135	1	**142**	0	115	0	0	**115**	0	**270**
Hourly Total	7	40	0	**47**	4	7	488	2	**497**	0	429	5	2	**436**	0	**980**
5:00PM	1	9	0	**10**	1	2	120	1	**123**	0	114	2	0	**116**	0	**249**
5:15PM	2	12	0	**14**	0	3	155	0	**158**	0	117	2	0	**119**	0	**291**
5:30PM	1	11	0	**12**	2	2	133	1	**136**	0	117	1	0	**118**	0	**266**
5:45PM	0	10	0	**10**	0	3	139	0	**142**	0	90	5	0	**95**	0	**247**
Hourly Total	4	42	0	**46**	3	10	547	2	**559**	0	438	10	0	**448**	0	**1053**
Total	15	118	0	**133**	11	42	1578	7	**1627**	0	1329	26	2	**1357**	0	**3117**
% Approach	11.3%	88.7%	0%	**-**	-	2.6%	97.0%	0.4%	**-**	-	97.9%	1.9%	0.1%	**-**	-	-
% Total	0.5%	3.8%	0%	**4.3%**	-	1.3%	50.6%	0.2%	**52.2%**	-	42.6%	0.8%	0.1%	**43.5%**	-	-
Lights	15	117	0	**132**	-	39	1551	7	**1597**	-	1310	22	2	**1334**	-	3063
% Lights	100%	99.2%	0%	**99.2%**	-	92.9%	98.3%	100%	**98.2%**	-	98.6%	84.6%	100%	**98.3%**	-	98.3%
Single-Unit Trucks	0	0	0	**0**	-	0	15	0	**15**	-	7	0	0	**7**	-	22
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	1.0%	0%	**0.9%**	-	0.5%	0%	0%	**0.5%**	-	0.7%
Articulated Trucks	0	0	0	**0**	-	2	3	0	**5**	-	3	0	0	**3**	-	8
% Articulated Trucks	0%	0%	0%	**0%**	-	4.8%	0.2%	0%	**0.3%**	-	0.2%	0%	0%	**0.2%**	-	0.3%
Buses	0	1	0	**1**	-	1	7	0	**8**	-	5	1	0	**6**	-	15
% Buses	0%	0.8%	0%	**0.8%**	-	2.4%	0.4%	0%	**0.5%**	-	0.4%	3.8%	0%	**0.4%**	-	0.5%
Bicycles on Road	0	0	0	**0**	-	0	2	0	**2**	-	4	3	0	**7**	-	9
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0.1%	0%	**0.1%**	-	0.3%	11.5%	0%	**0.5%**	-	0.3%
Pedestrians	-	-	-	-	9	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	81.8%	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	18.2%	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Beal Street & South Main Street - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886947, Location: 42.429186, -83.47b603

GHA GEWALT HAMILTON ASSOCIATES, INC.

Provided Gy: Hewalt 5 amilton Associates Inc.
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US



GEWALT HAMILTON ASSOCIATES, INC.

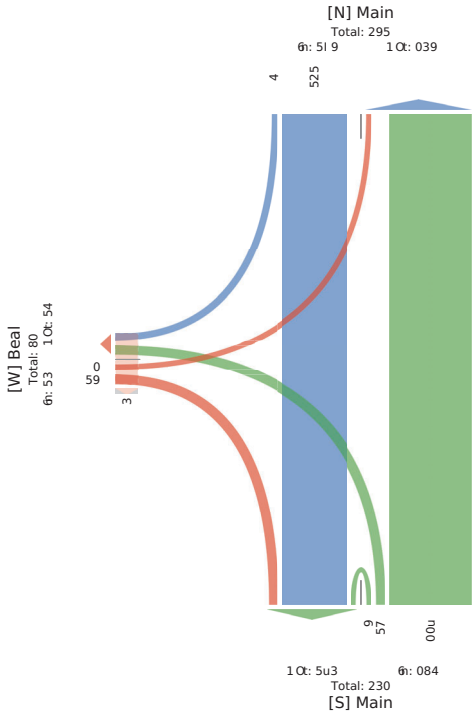
LSloGLeUbkmGey nMHnR6ntls F44dc6nte4 wc8
I23 5dSe4t EU) e v Sne, VeSs ds H6NM(vP, I00I 1, i a

Pe) v 6ectGls	r enM En45dus U				I nfs Nd5C5dus U				I nfs adutC5dus U				
T6Re	P	B	i	Fpp	LeU*	P	T	i	Fpp	LeU*	T	B	i	Fpp	LeU*	wt
2021710719 (n0F1	1	I	0	:	0	1	(1	0	(2	0	32	.	0	33	0	1DD
(n13F1	2	.	0	3	1	2	: I	1	: 9	0	I .	0	0	1.	0	1D
(m0F1	0	1	0	I	2	9	(.	0	92	0	: .	3	0	: (	0	1: I
(n8F1	0	1	0	I	1	(	9(	0	10I	0	: D	1	0	: 3	0	1(:
TdnM	.	21	0	2D	D	20	. . (	1	. 39	0	2I 2	9	0	2: 1	0	I3D
% FppSlncC	128%	(: 8%	0%	7	7	38 %	9D2%	08 %	7	7	9I 8 %	. 8 %	0%	7	7	7
% TdnM	08%	. 82%	0%	. 8 %	7	. 8%	318 %	082%	3D89%	7	D08 %	18D%	0%	DI8D%	7	7
LGH	08 : 3	08(: 3	7	08(3:	7	083I	08(I 2	0823 0	08(D	7	08((3	083D	7	08(I 9	7	08 : D
P6 C4	.	21	0	2D	7	1(	. 23	1	. DD	7	23.	9	0	21 2	7	I . 0
% P6 C4	100%	100%	0%	100%	7	908 0%	9I 82%	100%	938 %	7	9I 8 %	100%	0%	9I8 %	7	9I 8 %
a6) M1 s6 TSucg4	0	0	0	0	7	0	:	0	:	7	2	0	0	2	7	9
% a6) M1 s6 TSucg4	0%	0%	0%	0%	7	0%	28 %	0%	189%	7	08(%	0%	0%	08 %	7	18D%
F StGcuMteUTSucg4	0	0	0	0	7	1	2	0	.	7	2	0	0	2	7	3
% F StGcuMteUTSucg4	0%	0%	0%	0%	7	38 0%	08 %	0%	08 %	7	08 %	0%	0%	08 %	7	08 %
r u4e4	0	0	0	0	7	1	D	0	3	7	3	0	0	3	7	10
% r u4e4	0%	0%	0%	0%	7	38 0%	18 2%	0%	18D%	7	18 0%	0%	0%	18 %	7	188%
r 6ckcM4 ds BdnU	0	0	0	0	7	0	0	0	0	7	0	0	0	0	7	0
% r 6ckcM4 ds BdnU	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%
LeUe4tSns4	7	7	7	7	D	7	7	7	7	0	7	7	7	7	0	
% LeUe4tSns4	7	7	7	7	100%	7	7	7	7	7	7	7	7	7	7	7
r 6ckcM4 ds - Sl44y nMJ	7	7	7	7	0	7	7	7	7	0	7	7	7	7	0	
% r 6ckcM4 ds - Sl44y nMJ	7	7	7	7	0%	7	7	7	7	7	7	7	7	7	7	7

*LeUe4tSns4 nsUr 6ckcM4 ds - Sl44y nMJ83PmPeft, BmB9 C1, TmiTCSu, i mi 7TuSs

GEWALT HAMILTON ASSOCIATES, INC.

LSloGLeUbkmGey nMHnR6ntls F44dc6nte4 wc8
I23 5dSe4t EU) e v Sne, VeSs ds H6NM(vP, I00I 1, i a



GEWALT HAMILTON ASSOCIATES, INC.

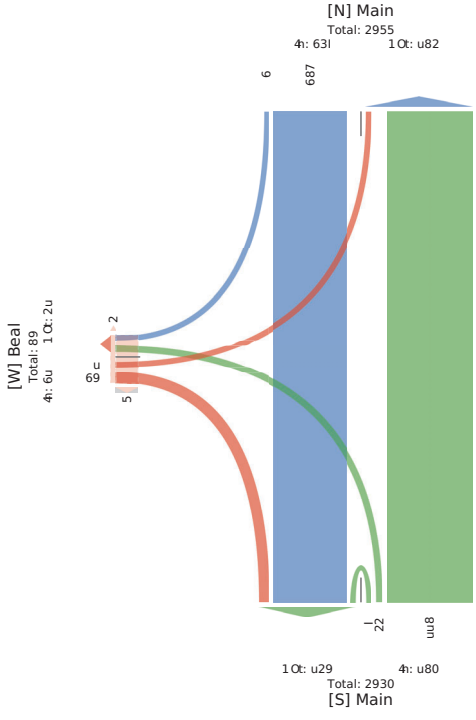
FIC4Udeo bw(GemLfi) LI U6CBa iiCcUIrei DBc5
. 2M5CPeit Eore : Pd4e, VeBCB) U6i, DS, . 00. 1, y d

Ser : Uhect0B	ReL6 ELitbCuBo					I LIB NCHtkbCuBo					I LIB dCutkbCuBo					
TUI e	S	v	y	a pp	Feo*	S	T	y	a pp	Feo*	T	v	y	a pp	Feo*	Dh
2021A10A19 h(70F1	0	8	0	8	2	0	1h.	0	1h.	0	122	0	0	122	0	23.
h(hMF1	2	11	0	17	1	.	17M	1	1h2	0	11M	0	0	11M	0	230
M00F1	1	9	0	10	1	2	120	1	127	0	11h	2	0	11.	0	2h9
M1MF1	2	12	0	1h	0	7	1MM	0	1M8	0	113	2	0	119	0	291
TCIL6	M	h0	0	hM	h	11	MM	2	M9	0	h. 8	h	0	h32	0	108.
% a ppRCLck	115%	883%	0%	A	A	15D%	935%	05h%	A	A	99I2%	03B%	0%	A	A	A
% TCIL6	05M%	75I%	0%	h5%	A	15D%	M 52%	052%	M25%	A	h75I%	05h%	0%	h75M%	A	A
F) H	05 2M	05877	A	0580h	A	05hM8	05893	05M40	05900	A	05hM8	05M40	A	059. M	A	05072
SUkti	M	h0	0	hM	A	11	MM7	2	M.	A	h. M	h	0	h. 9	A	1080
% SUkti	100%	100%	0%	100%	A	100%	993M%	100%	995M%	A	993h%	100%	0%	995h%	A	993h%
dUBr6eAy BtUTRucni	0	0	0	0	A	0	2	0	2	A	1	0	0	1	A	7
% dUBr6eAy BtUTRucni	0%	0%	0%	0%	A	0%	03h%	0%	05h%	A	052%	0%	0%	052%	A	057%
a RtUuGLteo TRucni	0	0	0	0	A	0	1	0	1	A	1	0	0	1	A	2
% a RtUuGLteo TRucni	0%	0%	0%	0%	A	0%	052%	0%	052%	A	052%	0%	0%	052%	A	052%
Ruiei	0	0	0	0	A	0	0	0	0	A	0	0	0	0	A	0
% Ruiei	0%	0%	0%	0%	A	0%	0%	0%	0%	A	0%	0%	0%	0%	A	0%
RUdwc6ei CBv CLo	0	0	0	0	A	0	0	0	0	A	1	0	0	1	A	1
% RUdwc6ei CBv CLo	0%	0%	0%	0%	A	0%	0%	0%	0%	A	052%	0%	0%	052%	A	051%
FeoeitPULBi	A	A	A	A	2	A	A	A	A	0	A	A	A	A	0	
% FeoeitPULBi	A	A	A	A	M3D%	A	A	A	A	A	A	A	A	A	A	A
RUdwc6ei CBs PCiimLfn	A	A	A	A	2	A	A	A	A	0	A	A	A	A	0	
% RUdwc6ei CBs PCiimLfn	A	A	A	A	M3D%	A	A	A	A	A	A	A	A	A	A	A

*FeoeitPULBi LBo RUdwc6ei CBs PCiimLfn5S(Seft, v (v U kt, T(TkRn, y (y AFuHB

GEWALT HAMILTON ASSOCIATES, INC.

FIC4Udeo Gv(HemLfi) LI U6CBa iiCcUIrei DBcb
. 2M5CPeit Eore : Pd4e, VeBCB) U6i, DS, . 00. 1, y d



7 Mile & First Street/Fairbrook - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886948, Location: 42.427136, -83.488241

GEWALT HAMILTON ASSOCIATES, INC.
Provided 5y: b ewalt Gamilton Associates Inc.
62HForest Edge Drive, Vernon Gills, IL, 60061, US

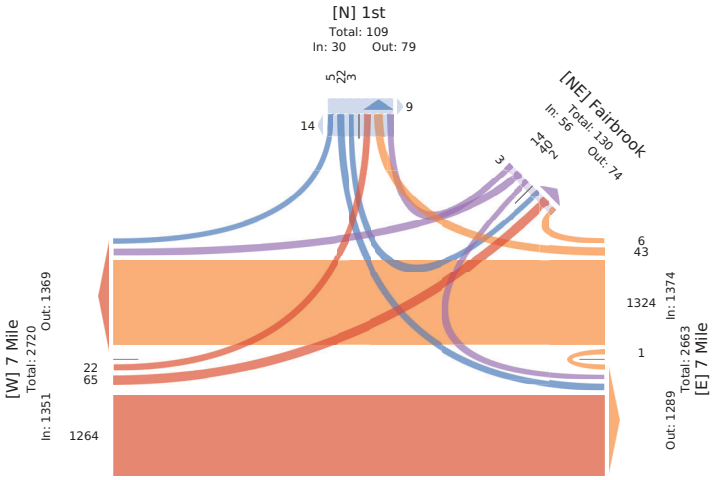
Leg Direction	7 Mile East5ound						7 Mile p est5ound						1st South5ound						Fair5rook Southwest5ound						
Time	L	BL	T	U	AWV	Ped*	T	R	GR	U	AWV	Ped*	GL	L	R	U	AWV	Ped*	GL	BR	GR	U	AWV	Ped*	Int
2021-10-19 7:00AM	0	1	74	0	**7H**	0	38	1	0	0	**39**	0	0	1	0	0	**1**	0	0	1	0	0	**1**	0	**116**
7:1HAM	0	2	H	0	**60**	0	41	3	0	0	**44**	0	0	0	0	0	**0**	1	0	0	0	0	**0**	0	**104**
7:30AM	0	3	73	0	**76**	0	H0	0	0	0	**H0**	0	0	1	0	0	**1**	0	1	3	1	0	**H**	0	**132**
7:4HAM	3	7	7H	0	**8H**	0	44	6	0	0	**H0**	0	0	1	0	0	**1**	0	0	2	0	0	**2**	0	**138**
Gourly Total	3	13	280	0	**296**	0	173	10	0	0	**183**	0	0	3	0	0	**3**	1	1	6	1	0	**8**	0	**490**
8:00AM	2	H	107	0	**114**	0	66	2	0	0	**68**	0	0	1	1	0	**2**	1	1	2	0	0	**3**	0	**187**
8:1HAM	4	8	97	0	**109**	0	48	0	1	0	**49**	0	0	3	0	0	**3**	4	0	2	0	0	**2**	2	**163**
8:30AM	1	4	6H	0	**70**	0	HH	2	0	0	**HF**	0	0	3	1	0	**4**	2	0	1	0	0	**1**	0	**132**
8:4HAM	1	H	62	0	**68**	0	H0	3	0	0	**H8**	0	0	2	0	0	**2**	0	0	2	0	0	**2**	0	**12H**
Gourly Total	8	22	331	0	**361**	0	219	7	1	0	**227**	0	0	9	2	0	**11**	7	1	7	0	0	**8**	2	**607**
4:00PM	2	6	80	0	**88**	0	114	2	0	0	**116**	0	0	4	1	0	**H**	6	0	6	0	0	**6**	0	**21H**
4:1IPM	0	3	7H	0	**78**	0	96	3	2	0	**101**	0	0	2	0	0	**2**	0	0	2	3	0	**H**	0	**186**
4:30PM	2	H	8H	0	**92**	0	131	0	0	0	**131**	0	0	2	0	0	**2**	0	0	3	1	0	**4**	0	**229**
4:4IPM	3	H	102	0	**110**	0	113	4	0	0	**117**	0	1	0	1	0	**2**	4	0	3	1	0	**4**	1	**233**
Gourly Total	7	19	342	0	**368**	0	4IH	9	2	0	**46H**	0	1	8	2	0	**11**	10	0	14	H	0	**19**	1	**863**
H:00PM	0	3	60	0	**63**	0	123	3	0	1	**127**	0	0	0	0	0	**0**	0	0	H	0	0	**H**	0	**19H**
H:1IPM	1	4	81	0	**86**	0	118	7	3	0	**128**	0	0	0	0	0	**0**	2	0	2	3	0	**H**	0	**219**
H:30PM	2	2	84	0	**88**	0	12H	2	0	0	**127**	0	1	0	1	0	**2**	1	0	2	4	0	**6**	0	**223**
H:4IPM	1	2	86	0	**89**	0	112	H	0	0	**117**	0	1	2	0	0	**3**	2	0	4	1	0	**H**	0	**214**
Gourly Total	4	11	311	0	**326**	0	478	17	3	1	**499**	0	2	2	1	0	**H**	H	0	13	8	0	**21**	0	**8H**
Total	22	6H	1264	0	**13H**	0	1324	43	6	1	**1374**	0	3	22	H	0	**30**	23	2	40	14	0	**H6**	3	**2811**
% AWVoach	1.6%	4.8%	93.6%	0%		-	96.4%	3.1%	0.4%	0.1%		-	10.0%	73.3%	16.7%	0%		-	3.6%	71.4%	2H0%	0%		-	-
% Total	0.8%	2.3%	4H0%	0%	**48.1%**		47.1%	1.H%	0.2%	0%	**48.9%**		0.1%	0.8%	0.2%	0%	**1.1%**		0.1%	1.4%	0.H%	0%	**2.0%**		
Lights	21	64	1237	0	**1322**		1288	43	6	1	**1338**		2	22	H	0	**29**		2	3H	12	0	**49**		27H8
% Lights	9H.H%	98.H%	97.9%	0%	**97.9%**		97.3%	100%	100%	100%	**97.4%**		66.7%	100%	100%	0%	**96.7%**		100%	87.H%	8H7%	0%	**87.H%**		97.4%
Single-Unit Trucks	1	0	13	0	**14**		21	0	0	0	**21**		0	0	0	0	**0**		0	0	0	0	**0**		3H
% Single-Unit Trucks	4.H%	0%	1.0%	0%	**1.0%**		1.6%	0%	0%	0%	**1.H%**		0%	0%	0%	0%	**0%**		0%	0%	0%	0%	**0%**		1.2%
Articulated Trucks	0	0	7	0	**7**		11	0	0	0	**11**		0	0	0	0	**0**		0	0	0	0	**0**		18
% Articulated Trucks	0%	0%	0.6%	0%	**0.H%**		0.8%	0%	0%	0%	**0.8%**		0%	0%	0%	0%	**0%**		0%	0%	0%	0%	**0%**		0.6%
Buses	0	0	3	0	**3**		3	0	0	0	**3**		0	0	0	0	**0**		0	3	2	0	**H**		11
% Buses	0%	0%	0.2%	0%	**0.2%**		0.2%	0%	0%	0%	**0.2%**		0%	0%	0%	0%	**0%**		0%	7.H%	14.3%	0%	**8.9%**		0.4%
Bicycles on Road	0	1	4	0	**H**		1	0	0	0	**1**		1	0	0	0	**1**		0	2	0	0	**2**		9
% Bicycles on Road	0%	1.H%	0.3%	0%	**0.4%**		0.1%	0%	0%	0%	**0.1%**		33.3%	0%	0%	0%	**3.3%**		0%	H0%	0%	0%	**3.6%**		0.3%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	22	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	- 9H7%	-	-	-	-	-	- 100%	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	- 4.3%	-	-	-	-	-	0%	

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, GL: Gard left, GR: Gard right, L: Left, R: Right, T: Thru, U: U-Turn

7 Mile & First Street/Fairbrook - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886948, Location: 42.427136, -83.488241

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



7 Mile & First Street/Fairbrook - TMC

Tue Oct 19, 2021
F1 Leng h(7A0 F1 M 7A0 F1 4
F IP6 Ih)) e) hCas i t), SaLis leM Uit Tlucg), F ktaculPted Tlucg), Bu)e), Lede)tkanU),
Bacycle) oURond, Bacycle) oU6 ko))wnlg4
F IP1 ovemeUt)
ID7- - : 98- , CocntaoU782.82(1A: , MA8- - 281

GEWALT HAMILTON ASSOCIATES, INC.
Llovaded 3y75 ewnl? b nmaRtoUF))ocante) IUt.
: 2G Hole)t Edse Dkave, VekLbUb aP), IC, : 00: 1, r S

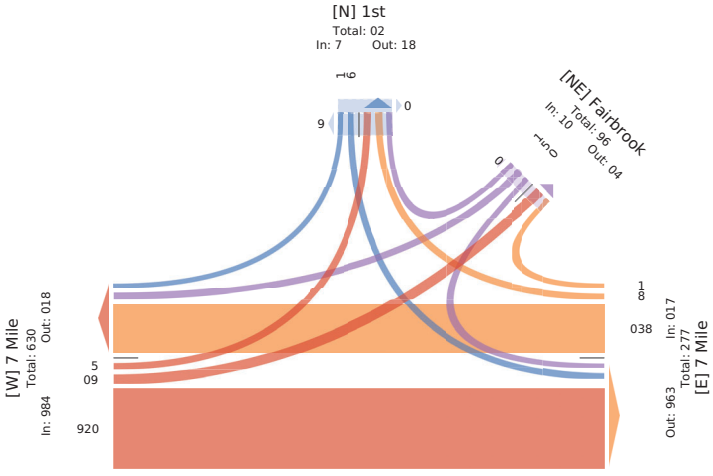
Ces DalectaoU	(l ale En)t3ouUil						(l ale p e)t3ouUil						1)t Souti 3ouUil						Hual3loog Souti we)t3ouUil						
Tame	C	BC	T	r	F WVLed*		T	R	b R	r	F WVLed*		b C	C	R	r	F WV Led*		b C	BR	b R	r	F WV Led*		IUt
2021M0M9 (7P0F1	0	A	(A	0	**(:**	0	C0	0	0	0	**C0**	0	0	1	0	0	**1**	0	1	A	1	0	**G**	0	**1A2**
(7BCF1	A	(	(G	0	**- G**	0	88	:	0	0	**C0**	0	0	1	0	0	**1**	0	0	2	0	0	**2**	0	**1A-**
- 700F1	2	G	10(	0	**118**	0	: :	2	0	0	**: -**	0	0	1	1	0	**2**	1	1	2	0	0	**A**	0	**1- (**
- 7tCF1	8	-	9(	0	**109**	0	8-	0	1	0	**89**	0	0	A	0	0	**A**	8	0	2	0	0	**2**	2	**1: A**
TotnP	9	2A	AC2	0	**A-8**	0	20-	-	1	0	**21(**	0	0	:	1	0	**(**	C	2	9	1	0	**12**	2	**: 20**
% F WWonci	2.A%	: .0%	91.(%	0%	**M**		M9G9%	A(%	0.C8%	0%	**M**		M0%	- G(%	18.A%	0%	**M**		M1: .(%	(G0%	- .A%	0%	**M**		M
% TotnP	1.C8%	A(%	G . - %	0%	**: 1.9%**		MAAC8%	1.A%	0.2%	0%	**AG0%**		M0%	1.0%	0.2%	0%	**1.1%**		M 0.A%	1.C8%	0.2%	0%	**1.9%**		M
Lb H	0.G	A 0.(19	0. - 22		**M0. - 82**		M 0.(--	0.AAA	0.2C0		**M0.(9-**		M	M0.C00	0.2C0		**M0.G A**		M 0.C00	0.(C0	0.2C0		**M0. : 00**		M 0. - 29
Cas i t)	9	2A	A8G	0	**A((**		M 19A	-	1	0	**202**		M	0	:	1	0 **(**		M	2	(	1	0 **10**		M C8:
% Cas i t)	100%	100%	9- .0%	0%	**9- .2%**		M92. - %	100%	100%	0%	**9A1%**		M0%	100%	100%	0%	**100%**		M 100%	((.- %	100%	0%	**- AA%**		M8: .1%
SaLis leM Uit Tlucg)	0	0	G	0	**G**		M 10	0	0	0	**10**		M	0	0	0	0 **0**		M	0	0	0	0 **0**		M 1G
% SaLis leM Uit Tlucg)	0%	0%	1.8%	0%	**1.A%**		M 8. - %	0%	0%	0%	**8. : %**		M0%	0%	0%	0%	**0%**		M 0%	0%	0%	0%	**0%**		M 2.8%
F ktaculPted Tlucg)	0	0	0	0	**0**		M 8	0	0	0	**8**		M	0	0	0	0 **0**		M	0	0	0	0 **0**		M 8
% F ktaculPted Tlucg)	0%	0%	0%	0%	**0%**		M 1.9%	0%	0%	0%	**1. - %**		M0%	0%	0%	0%	**0%**		M 0%	0%	0%	0%	**0%**		M 0. - %
Bu)e)	0	0	2	0	**2**		M 1	0	0	0	**1**		M	0	0	0	0 **0**		M	0	2	0	0 **2**		M G
% Bu)e)	0%	0%	0. : %	0%	**0.C0%**		M 0.C8%	0%	0%	0%	**0.C8%**		M0%	0%	0%	0%	**0%**		M	0%	22.2%	0%	0% **1: .(%**		M 0. - %
Bacycle) oURond	0	0	0	0	**0**		M 0	0	0	0	**0**		M	0	0	0	0 **0**		M	0	0	0	0 **0**		M 0
% Bacycle) oURond	0%	0%	0%	0%	**0%**		M 0%	0%	0%	0%	**0%**		M0%	0%	0%	0%	**0%**		M	0%	0%	0%	0% **0%**		M 0%
Lede)tkanU)	M	M	M	M	M	0	M	M	M	M	M	0	M	M	M	M	M	G	M	M	M	M	M	2	
% Lede)tkanU)	M	M	M	M	M		M	M	M	M	M		M	M	M	M	M	M 00%	M	M	M	M	M	M 00%	M
Bacycle) oU6 ko))wnlg	M	M	M	M	M	0	M	M	M	M	M	0	M	M	M	M	M	0	M	M	M	M	M	0	
% Bacycle) oU6 ko))wnlg	M	M	M	M	M		M	M	M	M	M		M	M	M	M	M	M 0%	M	M	M	M	M	M 0%	

*Lede)tkanU) nUtl Bacycle) oU6 ko))wnlg. BC7Benk Reft, BR7Benk kas i t, b C7b nkd Reft, b R7b nkd kas i t, C7Ceft, R7Ras i t, T7Ti ku, r 7r M TukU

7 Mile & First Street/Fairbrook - TMC

Tue Oct 19, 2021
F1 Leng h(7A0 F1 M 7A0 F1 4
F IP6 Ih)) e) hCas i t), SaLis leM Uit Tlucg), F ktaculPted Tlucg), Bu)e),
Lede)tkanU), Bacycle) oURond, Bacycle) oU6 ko))wnlg4
F IP1 ovemeUt)
ID7- - : 98- , CocntaoU782.82(1A: , MA8- - 281

GEWALT HAMILTON ASSOCIATES, INC.
Llovaded 3y7b ewnl? GnmaRtoUF))ocante) IUt.
: 2H5ole)t Edse Dkave, VekLbUGaP), IC, : 00: 1, r S



7 Mile & First Street/Fairbrook - TMC

Tue Oct 19, 2021

Fl FeLn gh(70 Fl AM/70 Fl - AO4eHi66FeLn) CuP

a 6ss 6Liiei gSUkti, dUBr6eAy BtUTRucni, a RUdu6Lieo TRucni, Ruiei, Feoeit RUEi, RUdwc6ei CBs Clo, RUdwc6ei CBs PGimLfi6n-

a 6Sl C4eI eBti

D (88. 9h8, SCcLiUCB(h23h2517. , A873h882h1

GHA GEWALT HAMILTON ASSOCIATES, INC.

FRC4Udeo bw(GemLfi) LI UdCBa iiCcUIrei DBc3

. 2M5CReit Eore : Pde, VeBBCB) U6i, DS, . 00. 1, y d

Ser : UrcUCB	5 l te ELirbCuBo							5 l te p eirbCuBo							1i t dCutkbCuBo							HLibUCn dCutkmeirbCuBo							
TU e	S	RS	T	y	a VW	Feo*		T	v	) v	y	a VW	Feo*		) S	S	v	y	a VW	Feo*	) S	Rv	) v	y	a VW	Feo*		
2021/A0/A9 h(70Fl	2	M	8M	0	92	0		171	0	0	0	171	0		0	2	0	0	2	0	0	7	1	0	h	0		229
h(hMFl	7	M	102	0	110	0		117	h	0	0	115	0		1	0	1	0	2	h	0	7	1	0	h	1		277
MJ00Fl	0	7	.	0	0	. 7	0	127	7	0	1	125	0		0	0	0	0	0	0	0	M	0	0	M	0		19M
MJ1Mfl	1	h	81	0	8.	0		118	5	7	0	128	0		0	0	0	0	0	2	0	2	7	0	M	0		219
TCl16	.	15	728	0	7M	0		h8M	1h	7	1	M07	0		1	2	1	0	h	.	0	17	M	0	18	1		85.
% a VWRCk	1.5%	h.8%	97.%	0%	A			9. .%	2.8%	0.%	0.2%	A			2M.%	M0.%	2M.%	0%	A		0%	52.%	25.%	0%	A			
% TCl16	0.5%	1.9%	75.%	0%	h0.%			MM.%	1.%	0.7%	0.1%	M5.%			0.1%	0.2%	0.1%	0%	0.M%		0%	1.M%	0.%	0%	2.1%			
F) H	0.M0	0.B00	0.B1M		A 0.B17			0.92.	0.M0	0.2M0	0.2M0	0.B. 0			A	0.2M0	0.2M0		A 0.75M			A 0.3 M0	0.h15		A 0.900			
Sl/kti	.	1.	719	0	7h1			h80	1h	7	1	h98			0	2	1	0	7		0	17	7	0	1.			8M
% Sl/kti	100%	9h.1%	95.7%	0%	952%			99.0%	100%	100%	100%	993%			0%	100%	100%	0%	5M0%		0%	100%	. 0.%	0%	88.9%			95.9%
d UBr6eAy BtUTRucni	0	0	M	0	M			1	0	0	0	1			0	0	0	0	0		0	0	0	0	0			.
% d UBr6eAy BtUTRucni	0%	0%	1.M%	0%	1.h%			0.2%	0%	0%	0%	0.2%			0%	0%	0%	0%	0%		0%	0%	0%	0%	0%			0.5%
a RUdu6Lieo TRucni	0	0	2	0	2			h	0	0	0	h			0	0	0	0	0		0	0	0	0	0			.
% a RUdu6Lieo TRucni	0%	0%	0.%	0%	0.%			0.B%	0%	0%	0%	0.B%			0%	0%	0%	0%	0%		0%	0%	0%	0%	0%			0.5%
Ruiei	0	0	0	0	0			0	0	0	0	0			0	0	0	0	0		0	0	2	0	2			2
% Ruiei	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%			0%	0%	0%	0%	0%		0%	0%	h0.%	0%	1.1%			0.2%
RUdwc6ei CBv Clo	0	1	2	0	7			0	0	0	0	0			1	0	0	0	1		0	0	0	0	0			h
% RUdwc6ei CBv Clo	0%	M.9%	0.%	0%	0.9%			0%	0%	0%	0%	0%			100%	0%	0%	0%	2M.0%		0%	0%	0%	0%	0%			0.M%
Feoeit RUEi	A	A	A	A	A	0		A	A	A	A	A	0		A	A	A	A	A	M	A	A	A	A	A	1		
% Feoeit RUEi	A	A	A	A	A			A	A	A	A	A			A	A	A	A	A87.7%		A	A	A	A	A100%			A
RUdwc6ei CBs PGimLfi6n	A	A	A	A	A	0		A	A	A	A	A	0		A	A	A	A	A	1	A	A	A	A	A	0		
% RUdwc6ei CBs PGimLfi6n	A	A	A	A	A			A	A	A	A	A			A	A	A	A	AL.3%		A	A	A	A	A 0%			A

*Feoeit RUEi LBo RUdwc6ei CBs PGimLfi6n3RS(ReLP6eft, Rv (ReLPPkt,) S( ) LBo 6eft,) v ( ) LBo Pkt, S(Seft, v (v kt, T(TkDu, y (y ATuBB

7 Mile & First Street/Fairbrook - TMC

Tue Oct 19, 2021

Fl FeLn gh(70 Fl AM/70 Fl - AO4eHi66FeLn) CuP

a 6ss 6Liiei gSUkti, dUBr6eAy BtUTRucni, a RUdu6Lieo TRucni, Ruiei, Feoeit RUEi, RUdwc6ei CBv Clo, RUdwc6ei CBs PGimLfi6n-

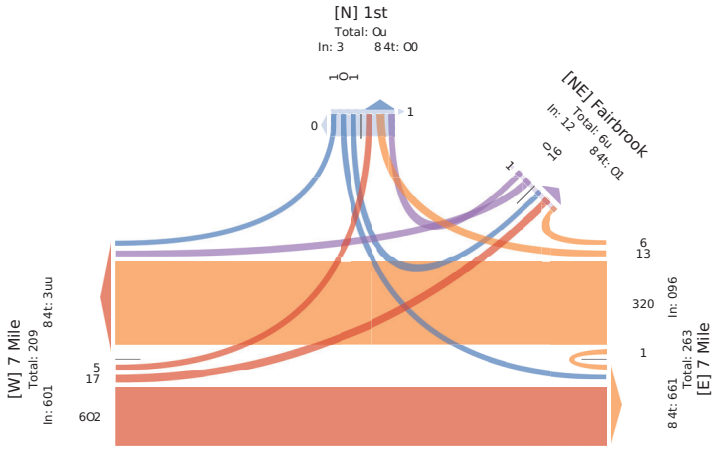
a 6Sl C4eI eBti

D (88. 9h8, SCcLiUCB(h23h2b17. , A873h882h1

GHA GEWALT HAMILTON ASSOCIATES, INC.

FRC4Udeo Gw(HemLfi) LI UdCBa iiCcUIrei DBc3

. 2M5CReit Eore : Pde, VeBBCB) U6i, DS, . 00. 1, y d



Wing & Fairbrook - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 8869. 8, Location: 423l274. 7, -8. 3l84. . 9

GHA GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc3

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound							Fairbrook p estbound							p ing Worthbound							p ing Southbound							
Time	L	T	R	U	ANN	Ped*		L	T	R	U	ANN	Ped*		L	T	R	U	ANN	Ped*		L	T	R	U	ANN	Ped*		Int
2021-10-19 7:00AM	2	2	0	0	4	0		0	0	.	0	.	1		0	11	1	0	12	0		4	20	1	0	25	1		44
7:15AM	1	1	0	0	2	0		0	0	7	0	7	1		0	15	0	0	15	0		7	18	0	0	25	0		49
7:. 0AM	1	2	1	0	4	0		0	0	12	0	12	0		1	16	1	0	18	0		6	25	1	0	. 2	1		66
7:45AM	4	4	0	0	8	0		0	1	8	0	9	0		0	24	1	0	25	0		11	28	1	0	40	0		82
Hourly Total	8	9	1	0	18	0		0	1	. 0	0	. 1	2		1	66	.	0	70	0		28	91	.	0	122	2		241
8:00AM	.	.	1	0	7	1		0	0	4	0	4	0		1	12	0	0	1.	1		19	. 4	.	0	56	0		80
8:15AM	5	5	0	0	10	0		0	0	8	0	8	0		1	18	0	0	19	0		9	29	0	0	. 8	2		75
8:. 0AM	2	2	0	0	4	1		0	1	2	0	.	0		0	21	0	0	21	1		8	25	0	0	. .	1		61
8:45AM	4	1	1	0	6	0		0	0	4	0	4	2		1	19	0	0	20	0		6	26	0	0	. 2	2		62
Hourly Total	14	11	2	0	27	2		0	1	18	0	19	2		.	70	0	0	7.	2		42	114	.	0	159	5		278
4:00PM	5	1	0	0	6	0		0	.	14	0	17	1		0	19	0	0	19	0		12	29	5	0	46	.		88
4:15PM	2	1	2	0	5	0		2	1	12	0	15	.		1	18	2	0	21	0		8	29	1	0	. 8	2		79
4:. 0PM	4	1	0	0	5	0		0	.	18	0	21	1		0	42	1	0	4.	0		1.	28	2	0	4.	0		112
4:45PM	5	2	0	0	7	0		0	4	20	0	24	2		0	26	1	0	27	0		1.	44	.	0	60	0		118
Hourly Total	16	5	2	0	2.	0		2	11	64	0	77	7		1	105	4	0	110	0		46	1. 0	11	0	187	5		. 97
5:00PM	1	1	1	0	.	0		0	2	18	0	20	1		1	25	0	0	26	0		8	49	5	0	62	0		111
5:15PM	5	1	0	0	6	0		0	0	2.	0	2.	1		0	24	1	0	25	0		20	. 8	.	0	61	0		115
5:. 0PM	2	1	1	0	4	1		0	.	15	0	18	1		0	22	0	0	22	0		7	. 9	0	0	46	2		90
5:45PM	.	0	0	0	.	0		1	1	17	0	19	.		0	. .	0	0	. .	0		1.	44	4	0	61	1		116
Hourly Total	11	.	2	0	16	1		1	6	7.	0	80	6		1	104	1	0	106	0		48	170	12	0	2. 0			4. 2
Total	49	28	7	0	84	.		.	19	185	0	207	17		6	. 45	8	0	. 59	2		164	505	29	0	698	15		1. 48
% ANN each	58.3 %	. . 3 %	8.3 %	0%	-	-		1.8%	9.2%	89.8%	0%	-	-		1.7%	96.1%	2.2%	0%	-	-		2. 5%	72.3 %	4.2%	0%	-	-		-
% Total	. 6%	2.1%	0.5%	0%	6.2%	-		0.2%	1.8%	1. 7%	0%	19.8%	-		0.6%	25.6%	0.6%	0%	26.6%	-		12.2%	. 7.5%	2.2%	0%	51.8%	-		-
Lights	48	27	7	0	82	-		2	16	179	0	197	-		5	. . 1	7	0	. 4.	1		161	495	26	0	682	-		1. 04
% Lights	98.0%	96.4%	100%	0%	97.6%	-		66.7%	84.2%	96.8%	0%	95.2%	-		8. 3 %	95.9%	87.5%	0%	95.5%	-		98.2%	98.0%	89.7%	0%	97.7%	-		96.7%
Single-Unit Trucks	1	0	0	0	1	-		1	1	1	0	.	-		0	6	0	0	6	-		0	2	0	0	2	-		12
% Single-Unit Trucks	2.0%	0%	0%	0%	1.2%	-		. . 3 %	5.3 %	0.5%	0%	1.8%	-		0%	1.7%	0%	0%	1.7%	-		0%	0.4%	0%	0%	0.1 %	-		0.9%
Articulated Trucks	0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0
% Articulated Trucks	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%
Buses	0	0	0	0	0	-		0	2	2	0	4	-		1	5	0	0	6	-		2	4	2	0	8	-		18
% Buses	0%	0%	0%	0%	0%	-		0%	10.5%	1.1%	0%	1.9%	-		16.7%	1.8%	0%	0%	1.7%	-		1.2%	0.8%	6.9%	0%	1.1%	-		1.3 %
Bicycles on Road	0	1	0	0	1	-		0	0	.	0	.	-		0	.	1	0	4	-		1	4	1	0	6	-		14
% Bicycles on Road	0%	. 6%	0%	0%	1.2%	-		0%	0%	1.6%	0%	1.8%	-		0%	0.9%	1.2%	0%	1.1%	-		0.6%	0.8%	. 4%	0%	0.9%	-		1.0%
Pedestrians	-	-	-	-	-	-		-	-	-	-	-	14		-	-	-	-	-	2		-	-	-	-	-	15		
% Pedestrians	-	-	-	-	-	- 100%		-	-	-	-	-	- 82.8%		-	-	-	-	-	- 100%		-	-	-	-	-	- 100%		-
Bicycles on Crosswalk	-	-	-	-	-	0		-	-	-	-	-	-		-	-	-	-	-	0		-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	0%		-	-	-	-	-	- 17.6%		-	-	-	-	-	0%		-	-	-	-	-	0%		-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Wing & Fairbrook - TMC

Tue Oct 19, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

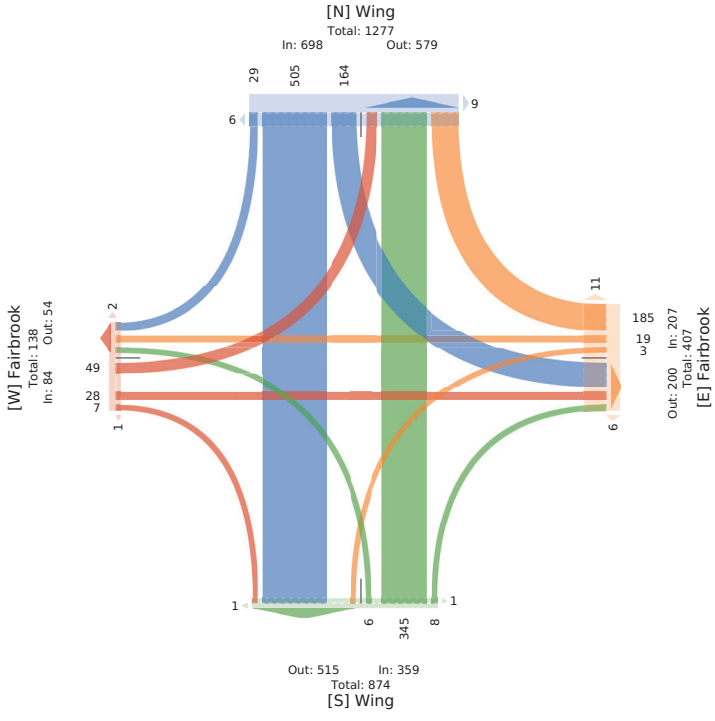
All Movements

ID: 8869. 8, Location: 423l274. 7, -8. 3l84. . 9

GHA GEWALT HAMILTON ASSOCIATES, INC.

Provided by: Gewalt Hamilton Associates Inc3

625 Forest Edge Drive, Vernon Hills, IL, 60061, US



GHA GEWALT HAMILTON ASSOCIATES, INC.
Llovalded 3y7b ewnlᵣ GnmaRtoUF))ocante) IUt.
: 2H5oke)t Edse Dkave, VekLbUGaRP), IC, : 00: 1, r S

Ces DalectaoU	5nak3kloog En)t3ouUtl					5nak3kloog p e)t3ouUtl					p aUs Wokti 3ouUtl					p aUs Souti 3ouUtl					
Tame	C	T	R	r	F NN Led*	C	T	R	r	F NN Led*	C	T	R	r	F NN Led*	C	T	R	r	F NN Led*	IUt
2021MI0M9 (7A0F1	1	2	1	0	**8**	0	0	12	0	**12**	0	1	1:	1	0	**1-**	0	:	2H	1	0	**A2**	1	: :
(7HF1	8	8	0	0	**-**	0	0	1	-	0	**9**	0	0	28	1	0	**2H**	0	11	2-	1	0	**80**	0	**-2**
- 700F1	A	A	1	0	**(**	1	0	0	8	0	**8**	0	1	12	0	0	**1A**	1	19	A8	A	0	**H**	0	**-0**
- 7HF1	H	H	0	0	**10**	0	0	0	-	0	**-**	0	1	1-	0	0	**19**	0	9	29	0	0	**A-**	2	**(H**
TotnP	1A	18	2	0	**29**	1	0	1	A2	0	**AA**	0	A	(0	2	0	**(H**	1	8H	11:	H	0	**1: :**	A	**A0A**
% F NNonci	88.- % 8- .A% : .9% 0%				**M**	M	0%	A0%	9(.0%	0%	**M**	M	8.0%	9A.A%	2.(%	0%	**M**	M	2(.1% : 9.9%		A0%	0%	**M**	M	N
% TotnP	8.A%	8.: %	0.(%	0%	**9.: %**	M	0%	0.A%	10.: %	0%	**10.9%**	M	1.0%	2A.1%	0.(%	0%	**28.- %**	M	18.9% A- .A%		1.(%	0%	**H8.- %**	M	N
LG5	0.: H0	0.(00	0.H00		**M0.(2H**	M	M0.2H0	0.: : (			**M0.: - -**	M	0.(H0	0.(29	0.H00		**M0.(H0**	M	0.H82	0.- HA	0.81(		**M0.(81**	M	0.928
Cas t 0	1A	18	2	0	**29**	M	0	1	A2	0	**AA**	M	2	: A	2	0	**:(**	M	8H	111	8	0	**1: 0**	M	2- 9
% Cas t 0	100%	100%	100%	0%	**100%**	M	0%	100%	100%	0%	**100%**	M	: .(%	90.0%	100%	0%	**- 9.A%**	M	100%	9H.(% -	0.0%	0%	**9: .8%**	M	9H8%
SaUs ReM Uit Tkucg)	0	0	0	0	**0**	M	0	0	0	0	**0**	M	0	H	0	0	**H**	M	0	1	0	0	**1**	M	:
% SaUs ReM Uit Tkucg)	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	0%	(.1%	0%	0%	**: .(%**	M	0%	0.9%	0%	0%	**0.: %**	M	2.0%
F kacuRnted Tkucg)	0	0	0	0	**0**	M	0	0	0	0	**0**	M	0	0	0	0	**0**	M	0	0	0	0	**0**	M	0
% F kacuRnted Tkucg)	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	0%
Bu)e)	0	0	0	0	**0**	M	0	0	0	0	**0**	M	1	2	0	0	**A**	M	0	8	1	0	**H**	M	-
% Bu)e)	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	AA.A%	2.9%	0%	0%	**8.0%**	M	0%	A8%	20.0%	0%	**A0%**	M	2.: %
Bacyclₖe) oURond	0	0	0	0	**0**	M	0	0	0	0	**0**	M	0	0	0	0	**0**	M	0	0	0	0	**0**	M	0
% Bacyclₖe) oURond	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	0%	0%	0%	0%	**0%**	M	0%
Lede)tkanU)	M	M	M	M	M 1	M	M	M	M	M	0	M	M	M	M	M	M 1	M	M	M	M	M	M A		
% Lede)tkanU)	M	M	M	M	M 00%	M	M	M	M	M	M	M	M	M	M	M	M 00%	M	M	M	M	M	00%		N
Bacyclₖe) oU6 ko))wnRg	M	M	M	M	M 0	M	M	M	M	M	0	M	M	M	M	M	0	M	M	M	M	M	0		
% Bacyclₖe) oU6 ko))wnRg	M	M	M	M	M 0%	M	M	M	M	M	M	M	M	M	M	M	M 0%	M	M	M	M	M	0%		N

*Lede)tkanU) nUt Bacyclₖe) oU6 ko))wnRg. C7 Ceft, R7 Rasi t, T7 Tiku, r 7r MTukU

GHA GEWALT HAMILTON ASSOCIATES, INC.
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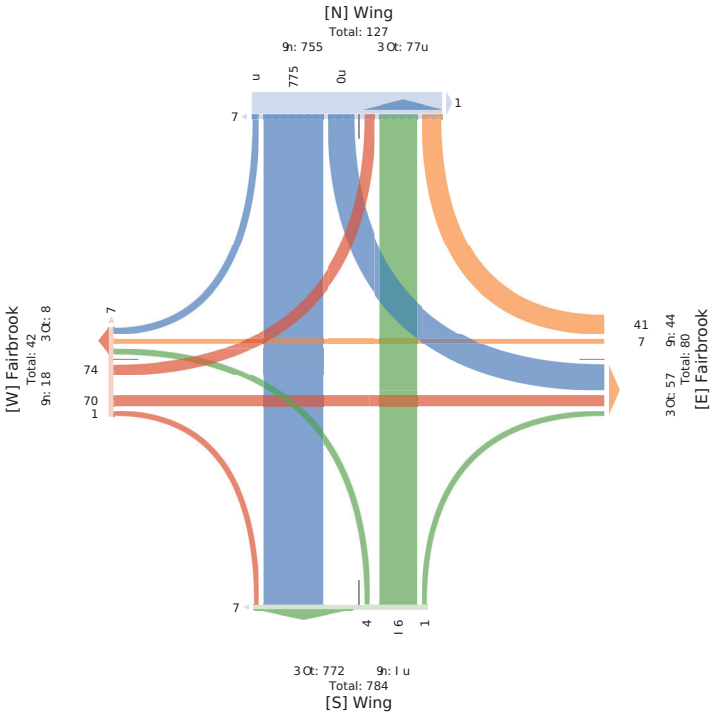
: 2H5oke)t Edse Dkave, VekLbUGaRP), IC, : 00: 1, r S

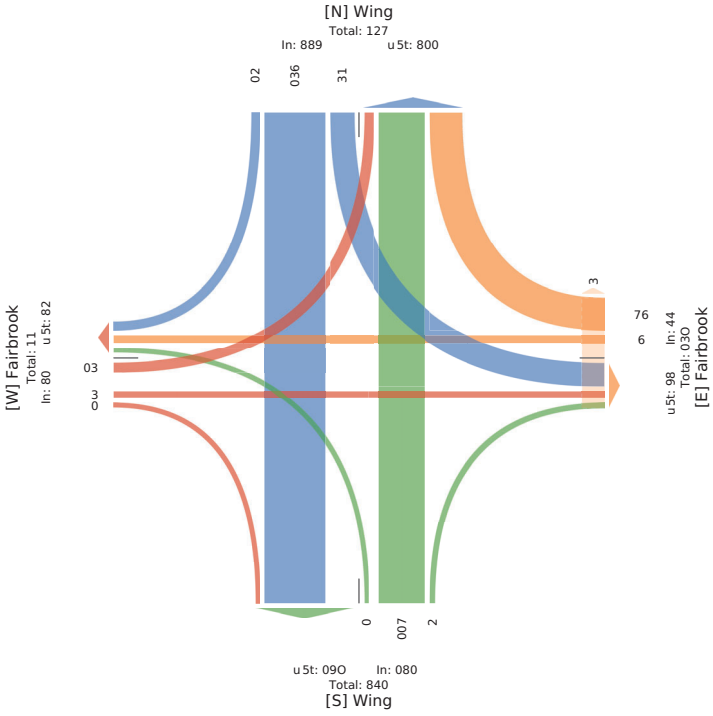


GHA GEWALT HAMILTON ASSOCIATES, INC.
FRC4Udeo Ga(HemLfi) LI UdCB a i iCcUlrei IBc:3
. 2M5 CReit Eore : Pude, VeRBCB) UGi, IS, . 00. 1, y d

Ser : UrecUCB	5LURGRCn E Lit CCuBo						5LURGRCn p ei t CCuBo						p UBr WCBk CCuBo						p UBr dCurk CCuBo						
TUI e	S	T	v	y	a NN Feo*		S	T	v	y	a NN Feo*		S	T	v	y	a NN Feo*		S	T	v	y	a NN Feo*		IBt
2021A0A9 h(70Fl	h	1	0	0	**M**	0	0	7	18	0	**21**	1	0	h2	1	0	**h7**	0	17	28	2	0	**h7**	0	**112**
h(hMFl	M	2	0	0	**h**	0	0	h	20	0	**2h**	2	0	2.	1	0	**2h**	0	17	hh	7	0	**. 0**	0	**118**
M00Fl	1	1	1	0	**7**	0	0	2	18	0	**20**	1	1	2M	0	0	**2.**	0	8	h9	M	0	**. 2**	0	**111**
M1MFl	M	1	0	0	**.**	0	0	0	27	0	**27**	1	0	2h	1	0	**2M**	0	20	78	7	0	**. 1**	0	**11M**
TCtL6	1M	M	1	0	**21**	0	0	9	b9	0	**88**	M	1	11b	7	0	**121**	0	Mh	1M9	17	0	**22.**	0	**hM**
% a NNCLck	b13h% 27.B%		h.B%	0%	**A**	A	0.B%	10.2%	89.B%	0%	**A**	A	0.B%	9. 3.h%	23M%	0%	**A**	A	27.9%	b0.h%	M.B%	0%	**A**	A	A
% TCtL6	7.3%	1.3 %	0.2%	0%	**h3 %**	A	0%	2.0%	1b.3%	0%	**193%**	A	0.2%	2M.h%	0.h%	0%	**2. 3M%**	A	11.B%	7h.9%	2.9%	0%	**h93 %**	A	A
F) 5	0.hM	1.000	0.2M		**A 0.877**	A	A 0.hM	7	0.B8.		**A 0.90.**	A	0.2M	0	03 90	0.hM	**A 0.9 92**	A	0 3 . 7	0.B18	0 3 M		**A 0.991h**	A	0.9b.
SUkti	1h	h	1	0	**19**	A	0	.	bb	0	**87**	A	1	11M	2	0	**118**	A	M7	1M	17	0	**222**	A	hh2
% SUkti	97.7%	80.0%	100%	0%	**90.M%**	A	0%	. . .h%	9h.M%	0%	**9h.7%**	A	100%	98.7%	. . .h%	0%	**9h.M%**	A	98.1%	98.1%	100%	0%	**98.2%**	A	9. .9%
dUBr 6eAy BtUTRucni	1	0	0	0	**1**	A	0	1	0	0	**1**	A	0	0	0	0	**0**	A	0	1	0	0	**1**	A	7
% dUBr 6eAy BtUTRucni	. .h%	0%	0%	0%	**h.B%**	A	0%	11.3 %	0%	0%	**13 %**	A	0%	0%	0%	0%	**0%**	A	0%	0.3 %	0%	0%	**0.h%**	A	0.h%
a RUdubLteo TRucni	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	0
% a RUdubLteo TRucni	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	0%
Ruiei	0	0	0	0	**0**	A	0	2	1	0	**7**	A	0	1	0	0	**1**	A	0	0	0	0	**0**	A	h
% Ruiei	0%	0%	0%	0%	**0%**	A	0%	22.2%	13%	0%	**7.h%**	A	0%	0.9%	0%	0%	**0.B%**	A	0%	0%	0%	0%	**0%**	A	0.9%
RUdwc6ei CB v CLo	0	1	0	0	**1**	A	0	0	1	0	**1**	A	0	1	1	0	**2**	A	1	2	0	0	**7**	A	h
% RUdwc6ei CB v CLo	0%	20.0%	0%	0%	**h.B%**	A	0%	0%	13%	0%	**13 %**	A	0%	0.9%	77.3%	0%	**1.h%**	A	1.9%	13%	0%	0%	**13%**	A	1.M%
Feoeit RUBi	A	A	A	A	A 0		A	A	A	A	A h		A	A	A	A	A 0		A	A	A	A	A 0		
% Feoeit RUBi	A	A	A	A	A	A	A	A	A	A	A 80.0%		A	A	A	A	A	A	A	A	A	A	A	A	A
RUdwc6ei CBs RCi imLfin	A	A	A	A	A 0		A	A	A	A	A 1		A	A	A	A	A 0		A	A	A	A	A 0		
% RUdwc6ei CBs RCi imLfin	A	A	A	A	A	A	A	A	A	A	A 20.0%		A	A	A	A	A	A	A	A	A	A	A	A	A

*Feoeit RUBi LBo RUdwc6ei CBs RCi imLfin 3S(Seft, v (v Ukt, T(TkRu, y (y AT uFB

GHA GEWALT HAMILTON ASSOCIATES, INC.
FRC4Udeo Ga(HemLfi) LI UdCB a i iCcUlrei IBc:3
. 2M5 CReit Eore : Pude, VeRBCB) UGi, IS, . 00. 1, y d



Fairbrook & Center - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886926, Location: 42.42736, -85.482834

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
623 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Fairbrook Eastbound					Center Northbound					Center Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	5	4	0	**7**	1	5	46	0	**49**	0	31	0	0	**31**	0	**107**
7:13AM	1	7	0	**8**	1	6	79	0	**83**	0	47	1	0	**48**	0	**141**
7:50AM	2	8	0	**10**	0	12	72	0	**84**	0	38	1	0	**39**	0	**135**
7:43AM	4	11	0	**13**	0	8	105	0	**111**	0	85	1	0	**84**	0	**210**
Hourly Total	10	50	0	**40**	2	29	500	0	**529**	0	259	5	0	**242**	0	**611**
8:00AM	1	19	0	**20**	0	4	100	0	**104**	0	108	0	0	**108**	0	**252**
8:13AM	3	11	0	**16**	0	7	108	0	**113**	0	73	0	0	**73**	0	**206**
8:50AM	5	7	0	**10**	0	2	112	0	**114**	0	67	1	0	**68**	0	**192**
8:43AM	1	6	0	**7**	0	4	102	0	**106**	0	39	0	0	**39**	0	**172**
Hourly Total	10	45	0	**35**	0	17	422	0	**459**	0	509	1	0	**510**	0	**802**
4:00PM	1	11	0	**12**	1	13	117	0	**152**	0	106	1	0	**107**	0	**231**
4:13PM	5	8	0	**11**	0	13	141	0	**136**	0	94	1	0	**93**	0	**262**
4:50PM	1	15	0	**14**	0	19	111	0	**150**	0	87	1	0	**88**	0	**252**
4:43PM	5	15	0	**16**	2	20	147	0	**167**	0	89	2	0	**91**	0	**274**
Hourly Total	8	43	0	**35**	5	69	316	0	**383**	0	576	3	0	**581**	0	**1019**
3:00PM	0	8	0	**8**	1	19	150	0	**149**	0	108	2	0	**110**	0	**267**
3:13PM	4	17	0	**21**	5	22	146	0	**168**	2	107	1	0	**108**	0	**297**
3:50PM	0	10	0	**10**	0	16	158	0	**134**	0	112	2	0	**114**	0	**278**
3:43PM	1	12	0	**15**	1	17	142	0	**139**	0	102	1	0	**105**	0	**273**
Hourly Total	3	47	0	**32**	3	74	336	0	**650**	2	429	6	0	**453**	0	**1117**
Total	55	163	0	**198**	10	189	1794	0	**1985**	2	1535	13	0	**1568**	0	**5349**
% Approach	16.7%	85.5%	0%	**-**	-	9.3%	90.3%	0%	**-**	-	98.9%	1.1%	0%	**-**	-	-
% Total	0.9%	4.6%	0%	**3.6%**	-	3.5%	30.3%	0%	**33.9%**	-	58.1%	0.4%	0%	**58.3%**	-	-
Lights	55	162	0	**193**	-	181	1773	0	**1936**	-	1523	13	0	**1540**	-	5491
% Lights	100%	98.2%	0%	**98.3%**	-	93.8%	98.9%	0%	**98.6%**	-	97.9%	100%	0%	**98.0%**	-	98.4%
Single-Unit Trucks	0	0	0	**0**	-	5	4	0	**7**	-	12	0	0	**12**	-	19
% Single-Unit Trucks	0%	0%	0%	**0%**	-	1.6%	0.2%	0%	**0.4%**	-	0.9%	0%	0%	**0.9%**	-	0.3%
Articulated Trucks	0	0	0	**0**	-	0	1	0	**1**	-	1	0	0	**1**	-	2
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0.1%	0%	**0.1%**	-	0.1%	0%	0%	**0.1%**	-	0.1%
Buses	0	2	0	**2**	-	4	3	0	**9**	-	3	0	0	**3**	-	16
% Buses	0%	1.2%	0%	**1.0%**	-	2.1%	0.5%	0%	**0.3%**	-	0.4%	0%	0%	**0.4%**	-	0.3%
Bicycles on Road	0	1	0	**1**	-	1	9	0	**10**	-	10	0	0	**10**	-	21
% Bicycles on Road	0%	0.6%	0%	**0.3%**	-	0.3%	0.3%	0%	**0.3%**	-	0.7%	0%	0%	**0.7%**	-	0.6%
Pedestrians	-	-	-	-	9	-	-	-	-	2	-	-	-	-	0	
% Pedestrians	-	-	-	-	90.0%	-	-	-	-	100%	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	10.0%	-	-	-	-	0%	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Fairbrook & Center - TMC

Tue Oct 19, 2021
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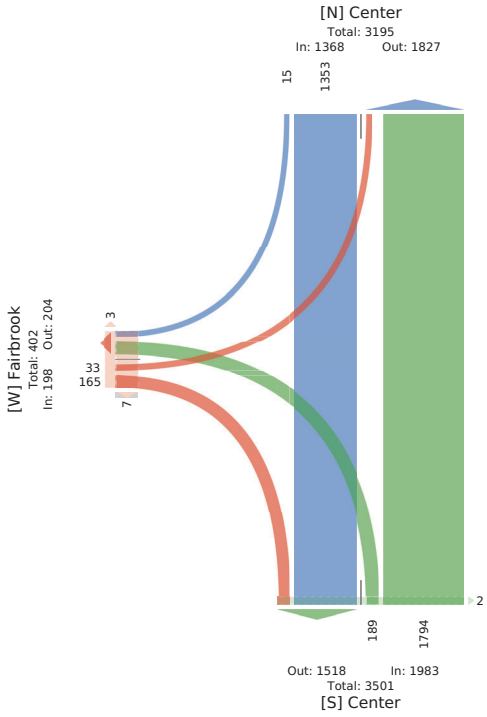
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886926, Location: 42.42736, -8b.482834

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cjy: Hewalt 5 amilton Associates Inc.
623 Forest Edge Drive, Vernon 5 ills, IL, 60061, US



Fairbrook & Center - TMC

Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeChn si StC, Usr i 6e-k r st TducgC, F dscu6nteB TducgC, y uCeC,
LeBeCdsnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nég.P
F 6l Rme l er tC
D 7448928, a RcntsRr 7A2.A2(M8, -43.A424MA

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB5o7b ev n6 Gnl s6lRr F CCRcsnteCDc.
82MHRde-Cl EBi e : dsne, Vedr Rr GsfiC, Da , 80081, k U

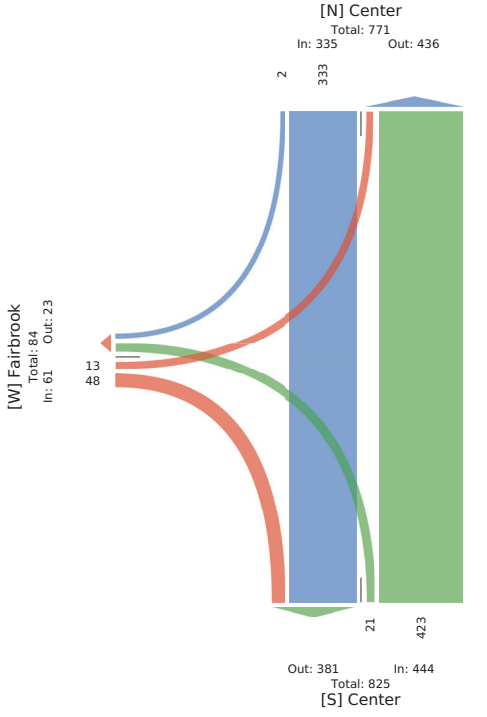
a ei : sdectsRr	HnsEs0Rg En015RurB					) er ted NRdtS5RurB					) er ted URurtS5RurB					
Tsl e	a	w	k	Fpp	LeBº	a	T	k	Fpp	LeBº	T	w	k	Fpp	LeBº	Dt
2021-10-19 (7AMF1	A	11	0	**1M**	0	4	103	0	**111**	0	43	1	0	**4A**	0	**210**
4700F1	1	19	0	**20**	0	A	100	0	**10A**	0	104	0	0	**104**	0	**232**
47LMF1	M	11	0	**18**	0	(	104	0	**11M**	0	(M	0	0	**(M**	0	**208**
4730F1	3	(	0	**10**	0	2	112	0	**11A**	0	8(	1	0	**84**	0	**192**
TRm6	13	A4	0	**81**	0	21	A23	0	**AAA**	0	333	2	0	**33M**	0	**4A0**
% FppdRncS	21.3%	(4.(%	0%	**-**	-	A(%	9M3%	0%	**-**	-	99.A%	0.8%	0%	**-**	-	-
% TRm6	1.M%	M(%	0%	**(.3%**	-	2.M%	M0.A%	0%	**M.9%**	-	39.8%	0.2%	0%	**39.9%**	-	-
LGH	0.8M0	0.832	-	**0.(83**	-	0.8M8	0.9AA	-	**0.98M**	-	0.(89	0.M00	-	**0.((3**	-	0.90A
a si StC	13	A8	0	**M0**	-	21	A19	0	**AA0**	-	32M	2	0	**32(**	-	428
% a si StC	100%	9M4%	0%	**98.(%**	-	100%	99.1%	0%	**99.1%**	-	9(.8%	100%	0%	**9(.8%**	-	94.3%
Usr i 6e-k r st TducgC	0	0	0	**0**	-	0	0	0	**0**	-	A	0	0	**A**	-	A
% Usr i 6e-k r st TducgC	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	1.2%	0%	0%	**1.2%**	-	0.M%
FdscuGnteB TducgC	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% FdscuGnteB TducgC	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
y uCeC	0	2	0	**2**	-	0	A	0	**A**	-	3	0	0	**3**	-	9
% y uCeC	0%	A.2%	0%	**3.3%**	-	0%	0.9%	0%	**0.9%**	-	0.9%	0%	0%	**0.9%**	-	1.1%
y scoc6eCRr wRnB	0	0	0	**0**	-	0	0	0	**0**	-	1	0	0	**1**	-	1
% y scoc6eCRr wRnB	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.3%	0%	0%	**0.3%**	-	0.1%
LeBeCdsnr C	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% LeBeCdsnr C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
y scoc6eCRr) dRCCv nég.	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% y scoc6eCRr) dRCCv nég.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*LeBeCdsnr CnrB y scoc6eCRr) dRCCv nég. a 7a eft, w7wsi St, T7T Sdu, k 7k -Tudr

Fairbrook & Center - TMC

Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeChn si StC, Usr i 6e-k r st TducgC, F dscu6nteB TducgC, y uCeC,
LeBeCdsnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nég.P
F 6l Rme l er tC
D 7448928, a RcntsRr 7A2.A2(M8, -43.A424MA

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB bo7Gev n6 Hnl s6lRr F CCRcsnteCDc.
82M5RdeCl EBi e : dsne, Vedr Rr HsfiC, Da , 80081, k U



Fairbrook & Center - TMC

Tue Oct 19, 2021
Fl FeLn gh Fl (7 Fl A(OM4-L4tFeLn P 6u-
) 4tC4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea,
FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 4tl 6M4v ekta
mh D: 7927, s 6cLti6kDB2.823h7, (: 5.8: 2: h8

GEWALT HAMILTON ASSOCIATES, INC.
F-6MBeBboDGewL4 P Lv i46k) aa6ciLtea nkc.
72h H6-eat EBSe I -iM4, Ve-k6k P i4a, ns , 70071, d r

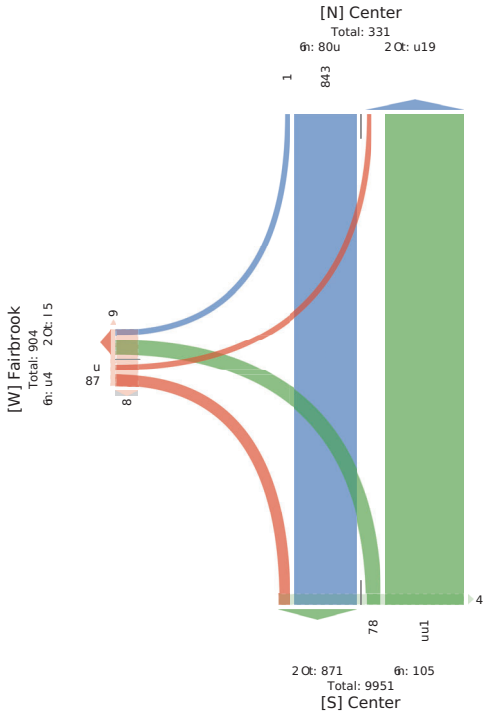
s eS l i-ect6k	HLi-b-66n ELatb6ukB				Cekte- N6-tUb6ukB				Cekte- r 6utUb6ukB				
Tiv e	s	R	d	) pp	FeB*	s	T	d	) pp	FeB*	T	R	d	) pp	FeB*	nkt
2021(10(19 hl0OFl	0	:	0	:	1	19	150	0	**189**	0	10:	2	0	**110**	0	**273**
hl1hFl	8	13	0	**21**	5	22	187	0	**17:**	2	103	1	0	**10:**	0	**293**
hl5OFl	0	10	0	**10**	0	17	15:	0	**1h8**	0	112	2	0	**118**	0	**23:**
hl8hFl	1	12	0	**15**	1	13	182	0	**1h9**	0	102	1	0	**105**	0	**23h**
T6tL4	h	83	0	**h2**	h	38	hh7	0	**750**	2	829	7	0	**85h**	0	**1113**
%) pp-6LcU	9.7%	90.8%	0%	**(**	(	11.3%	: : .5%	0%	**(**	(	9: .7%	1.8%	0%	**(**	(	(
% T6tL4	0.8%	8.2%	0%	**8.3%**	(	7.7%	89.: %	0%	**h7.8%**	(	5: .8%	0.h%	0%	**5: .9%**	(	(
FP H	0.515	0.791	(	**0.719**	(	0. : 79	0.9hh	(	**0.988**	(	0.987	0.3h0	(	**0.985**	(	0.9h5
s iSUta	h	83	0	**h2**	(	35	hh2	0	**72h**	(	821	7	0	**823**	(	1108
% s iSUta	100%	100%	0%	**100%**	(	9: .7%	99.5%	0%	**99.2%**	(	9: .1%	100%	0%	**9: .2%**	(	9: . : %
r ikS4e(d kit T-ucna	0	0	0	**0**	(	0	2	0	**2**	(	2	0	0	**2**	(	8
% r ikS4e(d kit T-ucna	0%	0%	0%	**0%**	(	0%	0.8%	0%	**0.5%**	(	0.h%	0%	0%	**0.h%**	(	0.8%
) -ticu4LteBT-ucna	0	0	0	**0**	(	0	0	0	**0**	(	1	0	0	**1**	(	1
%) -ticu4LteBT-ucna	0%	0%	0%	**0%**	(	0%	0%	0%	**0%**	(	0.2%	0%	0%	**0.2%**	(	0.1%
y uaea	0	0	0	**0**	(	0	0	0	**0**	(	0	0	0	**0**	(	0
% y uaea	0%	0%	0%	**0%**	(	0%	0%	0%	**0%**	(	0%	0%	0%	**0%**	(	0%
y icoc4ea 6k R6LB	0	0	0	**0**	(	1	2	0	**5**	(	h	0	0	**h**	(	:
% y icoc4ea 6k R6LB	0%	0%	0%	**0%**	(	1.8%	0.8%	0%	**0.h%**	(	1.2%	0%	0%	**1.1%**	(	0.3%
FeBeat-iLka	(	(	(	(	h	(	(	(	(	2	(	(	(	(	0	
% FeBeat-iLka	(	(	(	(	100%	(	(	(	(	100%	(	(	(	(	(	(
y icoc4ea 6k C-6aawL4n	(	(	(	(	0	(	(	(	(	0	(	(	(	(	0	
% y icoc4ea 6k C-6aawL4n	(	(	(	(	0%	(	(	(	(	0%	(	(	(	(	(	(

*FeBeat-iLka LkB y icoc4ea 6k C-6aawL4n. s Ds eft, RDRiSUt, TDTU-u, d Dtl (Tu-k

Fairbrook & Center - TMC

Tue Oct 19, 2021
Fl FeLn gh Fl (7 Fl A(OM4-L4tFeLn P 6u-
) 4tC4Laaea gs iSUta, r ikS4e(d kit T-ucna,) -ticu4LteBT-ucna, y uaea,
FeBeat-iLka, y icoc4ea 6k R6LB, y icoc4ea 6k C-6aawL4nA
) 4tl 6M4v ekta
mh D: 7927, s 6cLti6kDB2.823h7, (: b.8: 2: h8

GEWALT HAMILTON ASSOCIATES, INC.
F-6MBeBGoDHewL4 P Lv i46k) aa6ciLtea nkc.
72h 56-eat EBSe I -iM4, Ve-k6k P i4a, ns , 70071, d r



Wing St & Sheldon - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 7, Location: 423426297, -8. 3484. 22

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

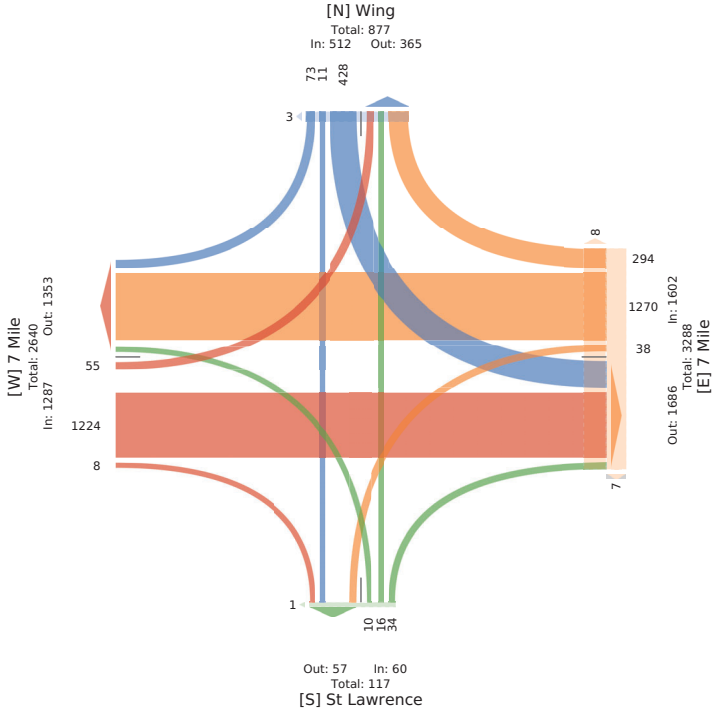
Leg Direction	7 Mile Eastbound						7 Mile p estbound						St Lawrence Worthbound						p ing Southbound						
Time	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	L	T	R	U	ANN	Ped*	nt
2021-10-19 7:00AM	1	7.	0	0	**74**	0	0	.7	10	0	**47**	0	0	1	1	0	**2**	0	19	0	2	0	**21**	1	**144**
7:15AM	1	58	0	0	**59**	0	0	44	1.	0	**57**	1	0	2	2	0	**4**	0	14	0	2	0	**16**	0	**1. 6**
7:. 0AM	1	75	0	0	**76**	0	1	48	14	0	**6.**	0	0	1	2	0	**.**	0	27	0	1	0	**28**	0	**170**
7:45AM	6	70	0	0	**76**	0	1	44	18	0	**6.**	0	0	1	1	0	**2**	0	22	0	5	0	**27**	0	**168**
Hourly Total	9	276	0	0	**285**	0	2	17.	55	0	**2. 0**	1	0	5	6	0	**11**	0	82	0	10	0	**92**	1	**618**
8:00AM	.	102	0	0	**105**	0	1	59	10	0	**70**	1	1	0	4	0	**5**	0	25	1	8	0	**. 4**	0	**214**
8:15AM	.	95	2	0	**100**	0	.	44	17	0	**64**	0	1	1	1	0	**.**	0	26	0	4	0	**. 0**	2	**197**
8:. 0AM	7	6.	1	0	**71**	0	1	55	17	0	**7.**	1	0	0	5	0	**5**	0	19	0	5	0	**24**	0	**17.**
8:45AM	1	59	0	0	**60**	0	2	54	25	0	**81**	1	0	.	.	0	**6**	0	2.	2	2	0	**27**	0	**174**
Hourly Total	14	. 19	.	0	**. . 6**	0	7	212	69	0	**288**	.	2	4	1.	0	**19**	0	9.	.	19	0	**115**	2	**758**
4:00PM	.	77	1	0	**81**	0	2	109	15	0	**126**	0	2	1	.	0	**6**	0	24	1	4	0	**29**	0	**242**
4:15PM	2	74	0	0	**76**	0	4	94	17	0	**115**	4	1	1	.	0	**5**	0	26	1	6	0	**. .**	0	**229**
4:. 0PM	.	86	0	0	**89**	0	5	114	. 6	0	**155**	1	1	0	1	0	**2**	0	2.	0	4	0	**27**	0	**27.**
4:45PM	5	94	2	0	**101**	0	4	96	21	0	**121**	.	1	1	2	0	**4**	1	. 9	1	5	0	**45**	0	**271**
Hourly Total	1.	. . 1	.	0	**. 47**	0	15	41.	89	0	**517**	8	5	.	9	0	**17**	1	112	.	19	0	**1. 4**	0	**1015**
5:00PM	4	65	0	0	**69**	0	2	122	19	0	**14.**	1	1	2	0	0	**.**	0	40	2	6	0	**48**	0	**26.**
5:15PM	8	7.	1	0	**82**	0	2	120	17	0	**1. 9**	0	1	0	4	0	**5**	0	. 4	2	4	0	**40**	0	**266**
5:. 0PM	.	74	1	0	**78**	0	7	122	19	0	**148**	0	1	1	1	0	**.**	0	. 0	0	8	0	**. 8**	0	**267**
5:45PM	4	86	0	0	**90**	0	.	108	26	0	**1. 7**	2	0	1	1	0	**2**	0	. 7	1	7	0	**45**	0	**274**
Hourly Total	19	298	2	0	**. 19**	0	14	472	81	0	**567**	.	.	4	6	0	**1.**	0	141	5	25	0	**171**	0	**1070**
Total	55	1224	8	0	**1287**	0	. 8	1270	294	0	**1602**	15	10	16	. 4	0	**60**	1	428	11	7.	0	**512**	.	**461**
% ANNoach	43 %	953.%	0.6%	0%	**-**	-	2.4%	793 %	18.4%	0%	**-**	-	163%	263%	563%	0%	**-**	-	8. 3%	23.%	143 %	0%	**-**	-	-
% Total	1.6%	. 53.%	0.2%	0%	**. 72%**	-	13.%	. 63%	8.5%	0%	**463 %**	-	0.3 %	0.5%	1.0%	0%	**13%**	-	12.4%	0.3 %	2.3%	0%	**14.8%**	-	-
Lights	54	1200	8	0	**1262**	-	. 5	1242	280	0	**1557**	-	9	16	. 1	0	**56**	-	422	8	72	0	**502**	-	. . 77
% Lights	98.2%	98.0%	100%	0%	**98.1%**	-	92.1%	97.8%	95.2%	0%	**97.2%**	-	90.0%	100%	91.2%	0%	**9. 3 %**	-	98.6%	72.3%	98.6%	0%	**98.0%**	-	97.6%
Single-Unit Trucks	0	14	0	0	**14**	-	2	22	8	0	**. 2**	-	1	0	0	0	**1**	-	2	0	1	0	**.**	-	50
% Single-Unit Trucks	0%	1.1%	0%	0%	**1.1%**	-	5.3 %	1.7%	2.7%	0%	**2.0%**	-	10.0%	0%	0%	0%	**1.7%**	-	0.5%	0%	1.4%	0%	**0.6%**	-	1.4%
Articulated Trucks	0	4	0	0	**4**	-	0	.	0	0	**.**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	7
% Articulated Trucks	0%	0.3 %	0%	0%	**0.3 %**	-	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Buses	1	.	0	0	**4**	-	1	.	5	0	**9**	-	0	0	.	0	**.**	-	.	1	0	0	**.**	-	20
% Buses	1.8%	0.2%	0%	0%	**0.3 %**	-	2.6%	0.2%	1.7%	0%	**0.6%**	-	0%	0%	0.8%	0%	**0.5%**	-	0.7%	0.3%	0%	0%	**0.8%**	-	0.6%
Bicycles on Road	0	.	0	0	**.**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	1	2	0	0	**.**	-	7
% Bicycles on Road	0%	0.2%	0%	0%	**0.2%**	-	0%	0%	0.3 %	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0.2%	0.1%	0.2%	0%	**0.0%**	-	0.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1.	-	-	-	-	-	1	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	86.3%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	1. 3 %	-	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Wing St & Sheldon - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 7, Location: 423426297, -8. 3484. 22

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Wing St & Sheldon - TMC

Tue Oct 19, 2021

F l Leng h(F l 79 F l A

F NW M44e4 HP Cl4, a 6s) M7 s 6 TS ucg4, F St6cuMteUTS ucg4, r u4e4, LeUe4tSns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y n MA

F NW doeR est4

w m((19 , P dcnt6ls n82.821 29: , 7(D8(8D22

GEWALT HAMILTON ASSOCIATES, INC.

LSlo6LeU3kmb ey nMGnR 6Wds F 44dc6nte4 vsc.

I 2H5 dSe4t EU) e v Sbe, VeSi ds G6NW(vP, I 00I 1, i a

Pe) v 6ectGls	: l 6M Ea43dus U					: l 6M p e43dus U					at Pny Sesce WdStC3dus U					p 6i) adutC3dus U					
T6Re	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	P	T	B	i	F NN LeU*	wt
2021710719 (m0F l	D 102	0	0	**10H**	0	1 H9	10	0	**: 0**	1	1 0	8	0	**H**	0	2H 1	(	0	**D8**	0	**218**
(mHF l	D 9H	2	0	**100**	0	D 88	1:	0	**1 8**	0	1 1	1	0	**D**	0	2I 0	8	0	**D0**	2	**19:**
(m0F l	: 1 D	1	0	**: 1**	0	1 HH	1:	0	**: D**	1	0 0	H	0	**H**	0	19 0	H	0	**28**	0	**1: D**
(m0F l	1 H9	0	0	**10**	0	2 H8	2H	0	**(1**	1	0 D	D	0	**I**	0	2D 2	2	0	**2:**	0	**1: 8**
TdmM	18 DI9	D	0	**DD1**	0	: 212	19	0	**2((**	D	2 8	1D	0	**19**	0	9D D	19	0	**11H**	2	**: H(**
% F NNSdncC	8.2% 98.9%	0.9%	0%	**7**	7	2.8% : D1 %	28.0%	0%	**7**	7	10.H% 21.1%	I (.8%	0%	**7**	7	(0.9% 2.1 %	1I.H%	0%	**7**	7	7
% TdmM	1.(% 82.1%	0.8%	0%	**88.I%**	7	0.9% 2(.0%	9.1%	0%	**D(.0%**	7	0.D% 0.H%	1.: %	0%	**2.H%**	7	12.D% 0.8%	2.H%	0%	**1H2%**	7	7
LG5	0.HD0 0.: : 9	0.D H	7	**0. : 9(**	7	0.H(D 0.(9(	0.190	7	**0.((9**	7	0.HD0 0.IDD	0.1 H0	7	**0. : 92**	7	0.(98 0.D H	0.1 B8	7	**0.(8I**	7	0.((8
P Q C14	18 DI0	D	0	**D2:**	7	: 20I 1:	0	**2(0**	7	1 8	12	0	**1:**	7	90 2	19	0	**111**	7	: DH
% P Q C14	100% 9: .2%	100%	0%	**9: .I%**	7	100% 9: .2%	9: .1%	0%	**9: .2%**	7	H0.0% 100%	92.I%	0%	**(9.H%**	7	9I .(% 1I .: %	100%	0%	**9I .H%**	7	9: .0%
a 6) M7 s 6 TS ucg4	0 I	0	0	**I**	7	0 I	2	0	**(**	7	1 0	0	0	**1**	7	0 0	0	0	**0**	7	1H
% a 6) M7 s 6 TS ucg4	0% 1.9%	0%	0%	**1.(%**	7	0% 2.(%	2.9%	0%	**2.(%**	7	H0.0% 0%	0%	0%	**HD0%**	7	0% 0%	0%	0%	**0%**	7	2.0%
F St6cuMteUTS ucg4	0 1	0	0	**1**	7	0 0	0	0	**0**	7	0 0	0	0	**0**	7	0 0	0	0	**0**	7	1
% F St6cuMteUTS ucg4	0% 0.I%	0%	0%	**0.I%**	7	0% 0%	0%	0%	**0%**	7	0% 0%	0%	0%	**0%**	7	0% 0%	0%	0%	**0%**	7	0.1%
r u4e4	0 1	0	0	**1**	7	0 0	0	0	**0**	7	0 0	1	0	**1**	7	D 1	0	0	**8**	7	I
% r u4e4	0% 0.I%	0%	0%	**0.I%**	7	0% 0%	0%	0%	**0%**	7	0% 0%	: .: %	0%	**HD%**	7	D2% DD.I%	0.H%	0%	**DH%**	7	0.(%
r 6ckcM4 ds BdnU	0 1	0	0	**1**	7	0 0	0	0	**0**	7	0 0	0	0	**0**	7	0 0	0	0	**0**	7	1
% r 6ckcM4 ds BdnU	0% 0.I%	0%	0%	**0.I%**	7	0% 0%	0%	0%	**0%**	7	0% 0%	0%	0%	**0%**	7	0% 0%	0%	0%	**0%**	7	0.1%
LeUe4tSns 4	7 7	7	7	7	0	7 7	7	7	7	D	7 7	7	7	7	0	7 7	7	7	7	2	
% LeUe4tSns 4	7 7	7	7	7	7	7 7	7	7	7	100%	7 7	7	7	7	7	7 7	7	7	7	100%	7
r 6ckcM4 ds - Sl44y n Mg	7 7	7	7	7	0	7 7	7	7	7	0	7 7	7	7	7	0	7 7	7	7	7	0	
% r 6ckcM4 ds - Sl44y n Mg	7 7	7	7	7	7	7 7	7	7	7	0%	7 7	7	7	7	7	7 7	7	7	7	0%	7

*LeUe4tSns 4 ns Ur 6ckcM4 ds - Sl44y n Mg. P n Peft, BnB6) Cl, Tn TCSu, i n i 7Tu Ss

Wing St & Sheldon - TMC

Tue Oct 19, 2021

F l Leng h(F l 79 F l A

F NW M44e4 HP Cl4, a 6s) M7 s 6 TS ucg4, F St6cuMteUTS ucg4, r u4e4, LeUe4tSns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y n MA

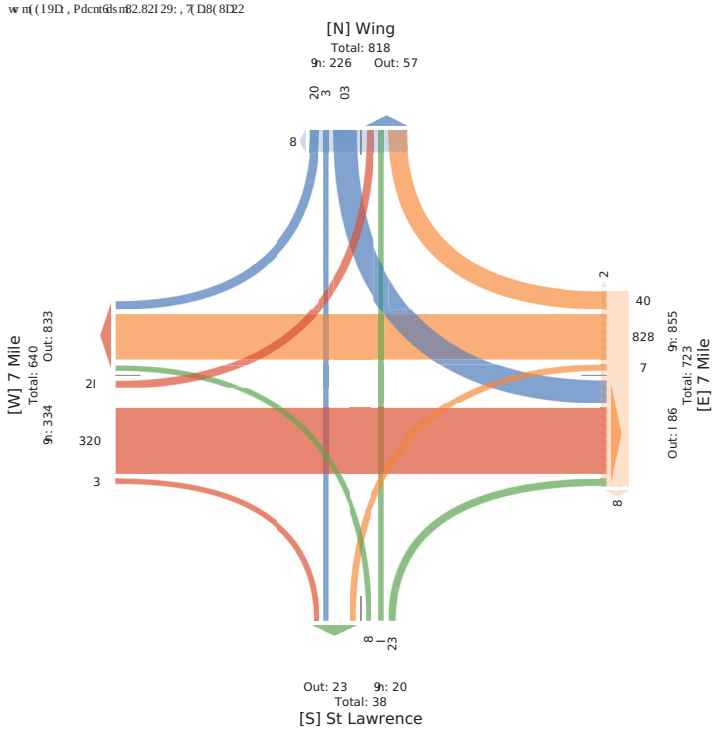
F NW doeR est4

w m((19 , P dcnt6ls n82.821 29: , 7(D8(8D22

GEWALT HAMILTON ASSOCIATES, INC.

LSlo6LeU3kmb ey nMGnR 6Wds F 44dc6nte4 vsc.

I 2H5 dSe4t EU) e v Sbe, VeSi ds G6NW(vP, I 00I 1, i a



Wing St & Sheldon - TMC

Tue Oct 19, 2021

F l Leng h(70 F l AM70 F l - AO4eP L66FeLn) CuP

a 6ss Cl i i ei gSUkti, d UBr 6eAy BU TBucni, a R ldu6Lteo TBucni, Ruiei, Feoei t PUEBi, R ldwc6ei CBs v CLo, R ldwc6ei CBs PCi imLfn-

a 6s l C4eI eBti

D (88. 973, SCcLi tCDB(h2th2. 293, A87th8h722

GEWALT HAMILTON ASSOCIATES, INC.

FRC4 ldeo Gv(HemLfi) LI 6dCB3 a i i Cc Ulrei DBcb

. 2M5 CPeit E or e : Pd4e, VeBBCB) 6Gi , I S, . 00. 1, y d

Ser : UbectdEB	3 1 6Be EL i tCCuBo					3 1 6Be p ei tCCuBo					dt S LmPBBce WCBkCCuBo					p 6Bx dCimkCCuBo					
TUe	S	T	v	y	a NN Feo*	S	T	v	y	a NN Feo*	S	T	v	y	a NN Feo*	S	T	v	y	a NN Feo*	EBt
2021A0A19 h(70F l	7 8.	0	0	**89**	0	M 11h	7.	0	**1M M**	1	1 0	1	0	**2**	0	27 0	h	0	**23**	0	**237**
h(h M F l	M 9h	2	0	**101**	0	h 9.	21	0	**121**	7	1 1	2	0	**h**	1	79 1	M	0	**hM**	0	**231**
M00F l	h . M	0	0	**. 9**	0	2 122	19	0	**1h7**	1	1 2	0	0	**7**	0	h0 2	.	0	**h8**	0	**2. 7**
M(M F l	8 37	1	0	**82**	0	2 120	13	0	**179**	0	1 0	h	0	**M**	0	7h 2	h	0	**h0**	0	**2. .**
TCUL6	20 718	7	0	**7h1**	0	17 hM	97	0	**M8**	M	h 7	3	0	**1h**	1	17. M	19	0	**1. 0**	0	**1037**
% a NNCLck	M9% 97I7%	0I9%	0%	**A**	A	2I7% 81h0%	1. I8%	0%	**A**	A	28h % 21I h%	M0h%	0%	**A**	A	8M0% 7I4%	11I%	0%	**A**	A	A
% TCUL6	1I9% 29h %	0I7%	0%	**71I8%**	A	1I2% h2I4%	8I8%	0%	**M10%**	A	0Ih% 0I5%	0I8%	0%	**1I7%**	A	12I8% 0IM%	1I8%	0%	**1hI9%**	A	A
F) 5	0h 2M 0I8M	0I F3M	A	**0I8M0**	A	0h M 0I92.	0h h.	A	**0I900**	A	1h00 0I F3M	0h 78	A	**0I800**	A	0I8h h 0I F3M	0I892	A	**0I818**	A	0I887
S Ukti	20 712	7	0	**77M**	A	17 hh.	91	0	**M0**	A	h 7	3	0	**1h**	A	17h 7	19	0	**1M**	A	10M
% S Ukti	100% 98I4%	100%	0%	**98I2%**	A	100% 98I8%	93I8%	0%	**98h %**	A	100% 100%	100%	0%	**100%**	A	98IM% . 0I0%	100%	0%	**93IM%**	A	98I7%
d UBr 6eAy BU TBucni	0 h	0	0	**h**	A	0 .	1	0	**3**	A	0 0	0	0	**0**	A	1 0	0	0	**1**	A	12
% d UBr 6eAy BU TBucni	0% 1I7%	0%	0%	**1I2%**	A	0% 1I7%	1I4%	0%	**1I7%**	A	0% 0%	0%	0%	**0%**	A	0I2% 0%	0%	0%	**0h %**	A	1I4%
a R ldu6Lteo TBucni	0 1	0	0	**1**	A	0 0	0	0	**0**	A	0 0	0	0	**0**	A	0 0	0	0	**0**	A	1
% a R ldu6Lteo TBucni	0% 0I7%	0%	0%	**0I5%**	A	0% 0%	0%	0%	**0%**	A	0% 0%	0%	0%	**0%**	A	0% 0%	0%	0%	**0%**	A	0I4%
Ruiei	0 0	0	0	**0**	A	0 0	1	0	**1**	A	0 0	0	0	**0**	A	0 0	0	0	**0**	A	1
% Ruiei	0% 0%	0%	0%	**0%**	A	0% 0%	1I4%	0%	**0I2%**	A	0% 0%	0%	0%	**0%**	A	0% 0%	0%	0%	**0%**	A	0I4%
R ldwc6ei CBs v CLo	0 1	0	0	**1**	A	0 0	0	0	**0**	A	0 0	0	0	**0**	A	1 2	0	0	**7**	A	h
% R ldwc6ei CBs v CLo	0% 0I7%	0%	0%	**0I5%**	A	0% 0%	0%	0%	**0%**	A	0% 0%	0%	0%	**0%**	A	0I2% h0I6%	0%	0%	**1I9%**	A	0I4%
Feoei t PUEBi	A A	A	A	A	A 0	A A	A	A	A	h	A A	A	A	A	1	A A	A	A	A	0	
% Feoei t PUEBi	A A	A	A	A	A A	A A	A	A	A	A80I8%	A A	A	A	A	A100%	A A	A	A	A	A	A
R ldwc6ei CBs PCi imLfn	A A	A	A	A	A 0	A A	A	A	A	1	A A	A	A	A	0	A A	A	A	A	0	
% R ldwc6ei CBs PCi imLfn	A A	A	A	A	A A	A A	A	A	A	A20I8%	A A	A	A	A	A 0%	A A	A	A	A	A	A

*Feoei t PUEBi LBo R ldwc6ei CBs PCi imLfn bS(Seft, v (v U kt, T(Tk Ru, y (y ATu BB

Wing St & Sheldon - TMC

Tue Oct 19, 2021

F l Leng h(70 F l AM70 F l - AO4eP L66FeLn) CuP

a 6ss Cl i i ei gSUkti, d UBr 6eAy BU TBucni, a R ldu6Lteo TBucni, Ruiei, Feoei t PUEBi, R ldwc6ei CBs v CLo, R ldwc6ei CBs PCi imLfn-

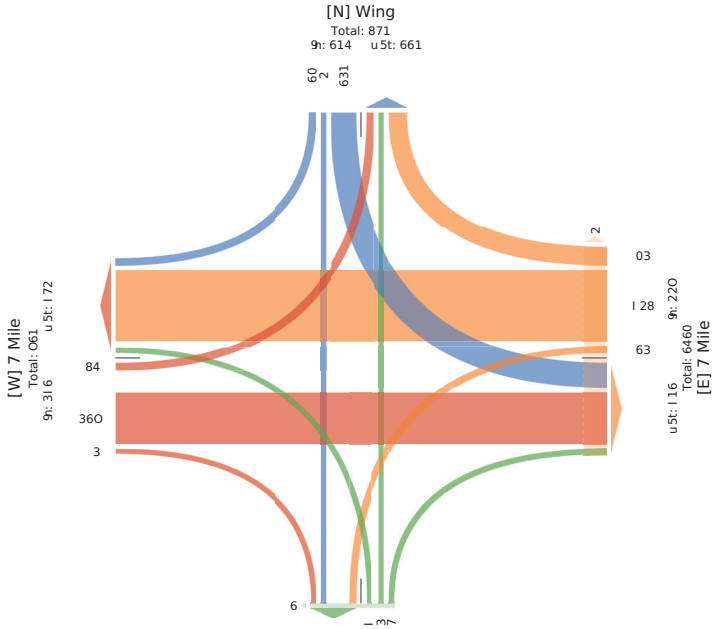
a 6s l C4eI eBti

D (88. 973, SCcLi tCDB(h2th2. 293, A87th8h722

GEWALT HAMILTON ASSOCIATES, INC.

FRC4 ldeo Gv(HemLfi) LI 6dCB3 a i i Cc Ulrei DBcb

. 2M5 CPeit E or e : Pd4e, VeBBCB) 6Gi , I S, . 00. 1, y d



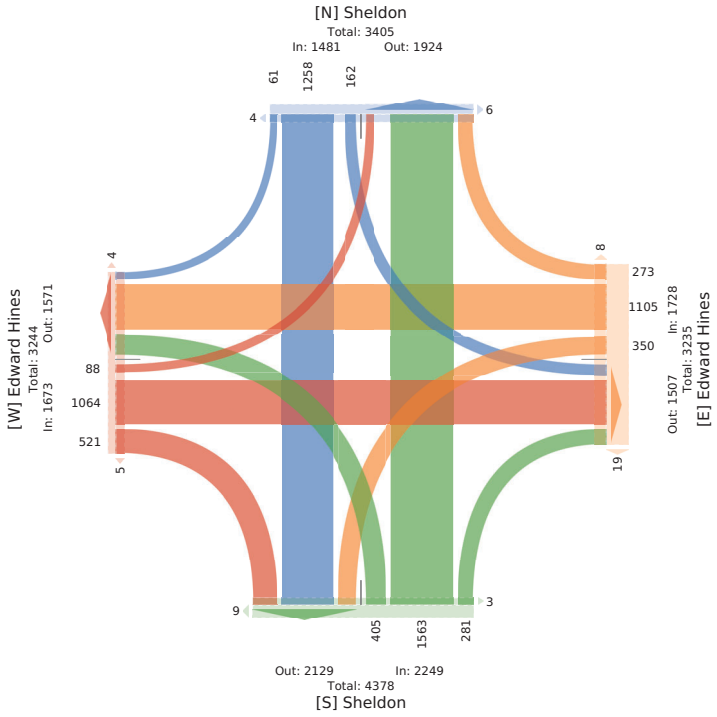
GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc3
62. Forest Edge Drive, Vernon 5 ills, IL, 60061, US

Leg Direction	Edward 5 ines EastGound							Edward 5 ines p estGound							Sheldon WorthGound							Sheldon SouthGound							
Time	L	T	R	U	ANN	Ped*	Int	L	T	R	U	ANN	Ped*	Int	L	T	R	U	ANN	Ped*	Int	L	T	R	U	ANN	Ped*	Int
2021-10-19 7:00AM	2	. 6	b2	0	**90**	0	**24b**	7	bb	.	0	**4.**	0		11	b4	7	0	**. 2**	0		1	. 4	1	0	**. 6**	0	
7:1. AM	2	49	20	0	**71**	1	**271**	7	42	6	0	**. .**	0		18	76	2	0	**96**	1		4	4.	0	0	**49**	0	
7:b0AM	0	6.	41	0	**106**	0	**b2b**	6	bb	14	0	**. b**	0		2b	69	4	0	**96**	0		4	62	2	0	**68**	0	
7:4. AM	.	8	29	0	**92**	0	**b82**	2b	b7	14	0	**74**	0		20	92	1b	0	**12.**	0		.	84	2	0	**91**	0	
5 ourly Total	9	228	122	0	**b. 9**	1	**1219**	4b	14.	b9	0	**227**	0		72	271	26	0	**b69**	1		14	24.	.	0	**264**	0	**1219**
8:00AM	.	6b	. 9	0	**127**	0	**460**	17	4b	7	0	**67**	2		26	94	19	0	**1b9**	0		4	121	. 2	0	**127**	0	**460**
8:1. AM	4	71	49	0	**124**	0	**424**	22	46	11	0	**79**	1		1.	99	21	0	**1b.**	0		10	72	4	0	**86**	0	**424**
8:b0AM	4	62	26	0	**92**	0	**b64**	12	b.	10	0	**. 7**	0		24	100	2.	0	**149**	0		10	. 1	.	0	**66**	1	**b64**
8:4. AM	4	.	2.	0	**84**	0	**b. .**	19	49	1.	0	**8b**	1		14	92	1b	0	**119**	0		8	. 7	4	0	**69**	0	**b. .**
5 ourly Total	17	2. 1	1. 9	0	**427**	0	**1605**	70	17b	4b	0	**286**	4		79	b8.	78	0	**. 42**	0		b2	b01	1.	0	**b48**	1	**1605**
4:00PM	10	68	24	0	**102**	1	**22**	87	27	0	**1b6**	7		29	99	22	0	**1. 0**	1		8	9b	8	0	**109**	1	**497**
4:1. PM	4	69	bb	0	**106**	0	**28**	88	26	0	**142**	1		29	12b	2.	0	**177**	1		1b	87	.	0	**10.**	0	**. b0**
4:b0PM	4	7.	b6	0	**11.**	1	**18**	122	21	0	**161**	1		b2	101	b8	0	**171**	1		1b	76	8	0	**97**	1	**. 44**
4:4. PM	1b	79	b7	0	**129**	2	**bb**	87	b0	0	**1. 0**	2		b4	128	28	0	**190**	2		21	76	4	0	**101**	0	**. 70**
5 ourly Total	b1	291	1b0	0	**4. 2**	4	**2141**	101	b84	104	0	**. 89**	11		124	4. 1	11b	0	**688**	.		. .	bb2	2.	0	**412**	2	**2141**
. :00PM	4	62	b2	0	**98**	0	**41**	4.	109	b0	0	**184**	2		2b	107	1.	0	**14.**	1		1b	96	.	0	**114**	2	**. 41**
. :1. PM	6	79	26	0	**111**	2	**. .**	29	101	2b	0	**1. b**	.		b6	122	2b	0	**181**	0		19	88	b	0	**110**	0	**. . .**
. :b0PM	11	68	29	0	**108**	1	**27**	27	94	16	0	**1b7**	4		41	112	12	0	**16.**	b		16	100	b	0	**119**	.	**. 29**
. :4. PM	10	8.	2b	0	**118**	1	**b.**	b.	99	18	0	**1. 2**	1		b0	11.	14	0	**1. 9**	2		1b	96	.	0	**114**	0	**. 4b**
5 ourly Total	b1	294	110	0	**4b.**	4	**1b6**	1b6	40b	87	0	**626**	12		1b0	4. 6	64	0	**6. 0**	6		61	b80	16	0	**4. 7**	7	**2168**
Total	88	1064	. 21	0	**167b**	9	**71b1**	b. 0	110.	27b	0	**1728**	27		40.	1. 6b	281	0	**2249**	12		162	12. 8	61	0	**1481**	10	**71b1**
% ANNtoach	. 3%	6b.3%	b1.3%	0%	**-**	-	-	20.3%	6b.5%	1. 3%	0%	**-**	-	-	18.0%	693 %	123 %	0%	**-**	-	-	10.9%	84.9%	43%	0%	**-**	-	-
% Total	1.2%	143%	7.3%	0%	**2b.1 %**	-	-	43%	1. 3 %	b.1%	0%	**242%**	-	-	. 3%	21.3%	b.9%	0%	**b13 %**	-	-	2.b%	17.6%	0.9%	0%	**203%**	-	-
Lights	88	1047	. 07	0	**1642**	-	7006	b44	108b	26b	0	**1690**	-	7006	b90	1. 48	276	0	**2214**	-	9482	1. b	1248	. 9	0	**1460**	-	7006
% Lights	100%	98.1%	97.1%	0%	**98.1%**	-	98.2%	98.0%	96.1%	0%	**97.1%**	-	98.2%	98.0%	99.1%	98.2%	0%	**98.1%**	-	94.1%	99.2%	96.7%	0%	**98.1%**	-	98.2%		
Single-Unit Trucks	0	6	7	0	**1b**	-	.2	b	9	2	0	**14**	-		10	.	2	0	**17**	-		0	6	2	0	**8**	-	.2
% Single-Unit Trucks	0%	0.b%	1.1%	0%	**0.b%**	-	0.3%	0.9%	0.b%	0.3%	0%	**0.b%**	-	0.3%	2.3 %	0.b%	0.3%	0%	**0.b%**	-	0.3%	0%	0.3 %	b.1%	0%	**0.3 %**	-	0.3%
Articulated Trucks	0	.	1	0	**6**	-	19	1	6	0	0	**7**	-		1	0	b	0	**4**	-		1	1	0	0	**2**	-	
% Articulated Trucks	0%	0.3 %	0.2%	0%	**0.b%**	-	0.b%	0.b%	0.3 %	0%	0%	**0.b%**	-	0.b%	0.2%	0%	1.3%	0%	**0.2%**	-	0.3%	0.6%	0.3%	0%	0%	**0.3%**	-	0.b%
Buses	0	b	.	0	**8**	-	b4	1	.	1	0	**7**	-		4	8	0	0	**12**	-		4	b	0	0	**7**	-	
% Buses	0%	0.b%	1.0%	0%	**0.3 %**	-	0.3 %	0.b%	0.3 %	0.b%	0%	**0.b%**	-	0.3%	1.0%	0.3 %	0%	0%	**0.3 %**	-	0.3%	2.3 %	0.2%	0%	0%	**0.3 %**	-	0.3 %
Bicycles on Road	0	b	1	0	**4**	-	20	1	2	7	0	**10**	-		0	2	0	0	**2**	-		4	0	0	0	**4**	-	20
% Bicycles on Road	0%	0.b%	0.2%	0%	**0.2%**	-	0.1%	0.b%	0.2%	2.6%	0%	**0.b%**	-	0.1%	0%	0.1%	0%	0%	**0.1%**	-	0.1%	2.3 %	0%	0%	0%	**0.1%**	-	0.1%
Pedestrians	-	-	-	-	-	8		-	-	-	-	-	14		-	-	-	-	-	12		-	-	-	-	-	9	
% Pedestrians	-	-	-	-	-	88.9%		-	-	-	-	-	. 1.9%		-	-	-	-	-	100%		-	-	-	-	-	90.0%	
Bicycles on Crosswalk	-	-	-	-	-	1		-	-	-	-	-	1b		-	-	-	-	-	0		-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	11.1%		-	-	-	-	-	48.3%		-	-	-	-	-	0%		-	-	-	-	-	10.0%	

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Center Street/Sheldon & Seven Mile - TMC
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 88692. , Location: 42342. 947, -8b3482646

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc3
62. Forest Edge Drive, Vernon 5 ills, IL, 60061, US



Center Street/Sheldon & Seven Mile - TMC
Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeCha si StC, Usr i 6e-k r st TducgC, F dscu6nteB TducgC, y uCeC, LeBeCdsnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfgP
F 6)l Rme l er tC
D 744892M a RcntsRr 7A2. A2M9A(, -43. A428A8

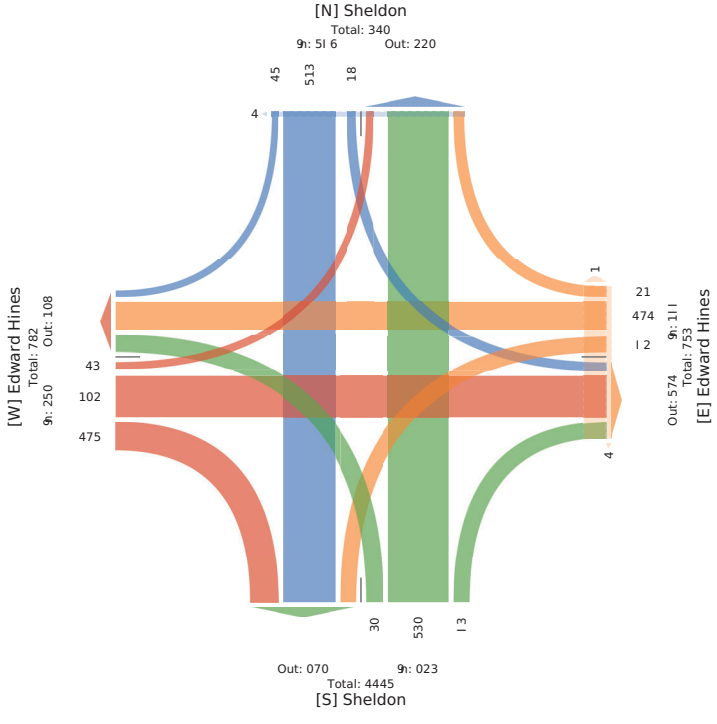
GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB bo7Gev n6 Hnl s6Rr F CCRcsnteCDc.
82M5 RdeCt EBi e : dsne, Vedr Rr Hs6C, Da , 80081, k U

a ei : sdectsRr	EDv ndB Hsr eC EnCtbRur B						EDv ndB Hsr eC p eDbRur B						USe6BRr WRtbSbRur B						USe6BRr URutSbRur B						
Tsl e	a	T	w	k	FNN	LeP*	a	T	w	k	FNN	LeP*	a	T	w	k	FNN	LeP*	a	T	w	k	FNN	LeP*	**Dt**
2021-10-19 (7AMF l	M	M	29	0	**92**	0	23	3(	1A	0	**(A**	0	20	92	13	0	**12M**	0	M	4A	2	0	**91**	0	**342**
47I0F l	M	83	M	0	**12(**	0	1(	A8	(	0	**8(**	2	28	9A	19	0	**139**	0	A	121	2	0	**12(**	0	**A80**
47AMF l	A	(1	A9	0	**12A**	0	22	A8	11	0	**(9**	1	1M	99	21	0	**13M**	0	10	(2	A	0	**48**	0	**A2A**
47I0F l	A	82	28	0	**92**	0	12	3M	10	0	**M(**	0	2A	100	2M	0	**1A9**	0	10	M	M	0	**88**	1	**38A**
TRm6	14	2MA	183	0	**A3M**	0	(A	181	A2	0	**2((**	3	4M	34M	(4	0	**M4**	0	29	324	13	0	**3(0**	1	**1830**
% F NNBRnCS	A.1%	M.A%	3(.M%	0%	**-**	-	28.(%	M.1%	1M2%	0%	**-**	-	1MM%	(0.3%	1A.2%	0%	**-**	-	(.4%	44.8%	3.M%	0%	**-**	-	-
% TRm6	1.1%	1M8%	10.0%	0%	**28.(%**	-	A.M%	9.9%	2.8%	0%	**1(.0%**	-	M2%	23.8%	A.4%	0%	**33.8%**	-	1.4%	20.1%	0.4%	0%	**22.(%**	-	-
LHS	0.900	0.49.A	0.891	-	**0.AM**	-	0.40.A	0.4(M	0.(M	0	**- 0.A((**	-	0.41(	0.983	0.(40	-	**0.919**	-	0.(2M	0.8(4	0.8M	0	**- 0.(24**	-	0.448
a si StC	14	2A(	1M	0	**A2A**	-	(1	1M2	Al	0	**28A**	-	(9	341	(8	0	**M8**	-	28	323	12	0	**381**	-	1M4
% a si StC	100%	9(.2%	9(.M%	0%	**9(.M%**	-	9M.9%	9A.A%	9(.8%	0%	**9M.9%**	-	92.9%	99.0%	9(.A%	0%	**9(.4%**	-	49.(%	94.M%	92.3%	0%	**9(.8%**	-	9(.2%
Usr i 6e-k r st TducgC	0	2	2	0	**A**	-	2	M	0	0	**(**	-	M	1	1	0	**(**	-	0	3	1	0	**A**	-	22
% Usr i 6e-k r st TducgC	0%	0.4%	1.2%	0%	**0.9%**	-	2.(%	3.1%	0%	0%	**2.M%**	-	M.9%	0.3%	1.3%	0%	**1.3%**	-	0%	0.9%	(.(%	0%	**1.1%**	-	1.3%
F dscu6nteB TducgC	0	2	0	0	**2**	-	1	2	0	0	**3**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	8
% F dscu6nteB TducgC	0%	0.4%	0%	0%	**0.M%**	-	1.A%	1.2%	0%	0%	**1.1%**	-	0%	0%	1.3%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.A%
y uCeC	0	3	2	0	**M**	-	0	2	1	0	**3**	-	1	3	0	0	**A**	-	3	2	0	0	**M**	-	1(
% y uCeC	0%	1.2%	1.2%	0%	**1.1%**	-	0%	1.2%	2.A%	0%	**1.1%**	-	1.2%	0.4%	0%	0%	**0.(%**	-	10.3%	0.8%	0%	0%	**1.A%**	-	1.0%
y scoc6eCRr wRnB	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% y scoc6eCRr wRnB	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
LeBeCdsnr C	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	1	
% LeBeCdsnr C	-	-	-	-	-	-	-	-	-	-	-	- 88.(%	-	-	-	-	-	-	-	-	-	-	-	- 100%	
y scoc6eCRr) dRCCv nfg	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% y scoc6eCRr) dRCCv nfg	-	-	-	-	-	-	-	-	-	-	-	- 33.3%	-	-	-	-	-	-	-	-	-	-	-	0%	

*LeBeCdsnr Cnr B y scoc6eCRr) dRCCv nfg. a 7a eft, w7wsi St, T7TSdu, k 7k -Tudr

Center Street/Sheldon & Seven Mile - TMC
Tue Oct 19, 2021
F l Leng h(7AMF l - 47AMF l P
F 6) 6nCCeCha si StC, Usr i 6e-k r st TducgC, F dscu6nteB TducgC, y uCeC, LeBeCdsnr C, y scoc6eCRr wRnB, y scoc6eCRr) dRCCv nfgP
F 6)l Rme l er tC
D 744892M a RcntsRr 7A2. A2M9A(, -43. A428A8

GEWALT HAMILTON ASSOCIATES, INC.
LdRmsBeB bo7Gev n6 Hnl s6Rr F CCRcsnteCDc.
82M5 RdeCt EBi e : dsne, Vedr Rr Hs6C, Da , 80081, k U



Center Street/Sheldon & Seven Mile - TMC

Tue Oct 19, 2021
Fl FeLn gh(70 Fl AM70 Fl - AO4eHl66FeLn) CuP
a 6ss 6Lii ei gSUkti, dUBr 6eAy BUTRcni, a RUdu6Lieo TRcni, Ruiei, FeoeitRUEBi, RUdwc6ei CBs vCLo, RUdwc6ei CBs PCiimLfin-
a 6l C4eI eBti
D (88. 92M,SCcLrUCB(h23h2M9hb, A873h82. h.

GEWALT HAMILTON ASSOCIATES, INC.
FRC4Udeo Gv(HemLfi) LI UdCBa iiCcUIrei DBc3
. 2M5CReit Eore : Pde, VeBBCB) U6i, D5, . 00. 1, y d

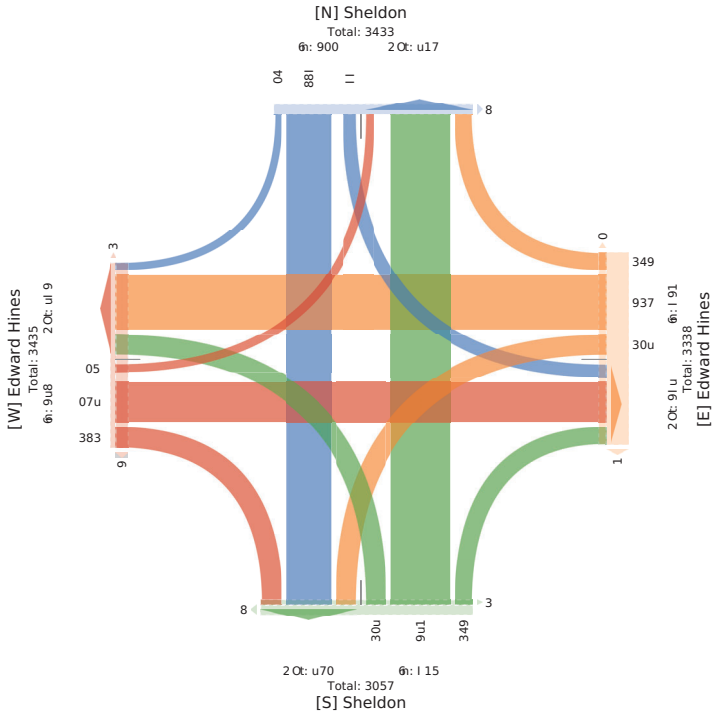
Ser : UBrcUB	EomLBo) UBei ELitCCuBo					EomLBo) UBei p eitCCuBo					dke6oCB vCBkCCuBo					dke6oCB dCuukCCuBo					
TUe	S	T	v	y	a NN	Feo*	S	T	v	y	a NN	Feo*	S	T	v	y	a NN	Feo*	S	T	v	y	a NN	Feo*	DB
2021/A0.A9 lh(70Fl	h	bM	7.	0	**11M**	1	18	122	21	0	**1. 1**	1	72	101	78	0	**1b1**	1	17	b.	8	0	**9b**	1	**Mih**
h(hMFl	17	b9	7b	0	**129**	2	77	8b	70	0	**1M0**	2	7h	128	28	0	**190**	2	21	b.	h	0	**101**	0	**Mi0**
M(00Fl	h	. 2	72	0	**98**	0	hM	109	70	0	**18h**	2	27	10b	1M	0	**1hM**	1	17	9.	M	0	**11h**	2	**Mi1**
M(1MFl	.	b9	2.	0	**111**	2	29	101	27	0	**1M**	M	7.	122	27	0	**181**	0	19	88	7	0	**110**	0	**MiM**
TCUL6	2b	29M	171	0	**hM**	M	12M	h19	10h	0	**. h8**	10	12M	hM	10h	0	**. 8b**	h	. .	77.	20	0	**h22**	7	**2210**
% a NNCLck	. 1%	. M1%	283%	0%	**A**	A	193%	. h3%	1. 1%	0%	**A**	A	182%	. . 3%	1M1%	0%	**A**	A	1M1%	b93 %	h3h%	0%	**A**	A	A
% TCUL6	132%	173%	M9%	0%	**203%**	A	M1%	193%	h3h%	0%	**293%**	A	M1%	203%	h1h%	0%	**713%**	A	79%	1M2%	03%	0%	**193%**	A	A
F) 5	03M9	03h2h	03B8M	A	**03hb9**	A	03 89	03M9	03h2	A	**03hbM**	A	03. 8	03B91	03 8h	A	**03901**	A	03b. 2	03BbM03	2M	A	**03929**	A	03h0
St(kti	2b	289	128	0	**hhh**	A	127	h1M	100	0	**. 78**	A	12h	hM	102	0	**. b9**	A	. 7	77.	20	0	**h19**	A	218 0
% St(kti	100%	98 0%	9b 1%	0%	**98 0%**	A	98 1%	99 0%	9. 2%	0%	**98 M%**	A	99 2%	98 9%	98 1%	0%	**98 h%**	A	9M M%	100%	100%	0%	**99 7%**	A	98 3 %
dUBr 6eAy BUTRcni	0	2	2	0	**h**	A	1	1	1	0	**7**	A	0	0	0	0	**0**	A	0	0	0	0	**0**	A	b
% dUBr 6eAy BUTRcni	0%	03%	1.M%	0%	**03 9%**	A	03 8%	03 2%	1.0%	0%	**03M%**	A	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	03 7%
a RUdu6Lieo TRcni	0	1	1	0	**2**	A	0	7	0	0	**7**	A	0	0	2	0	**2**	A	1	0	0	0	**1**	A	8
% a RUdu6Lieo TRcni	0%	03 7%	03 8%	0%	**03 h%**	A	0%	03 h%	0%	0%	**03M%**	A	0%	0%	1.3 9%	0%	**03 7%**	A	1.M%	0%	0%	0%	**03 2%**	A	03 h%
Ruiei	0	0	0	0	**0**	A	0	0	0	0	**0**	A	1	7	0	0	**h**	A	0	0	0	0	**0**	A	h
% Ruiei	0%	0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**	A	03 8%	03 h%	0%	0%	**03 %**	A	0%	0%	0%	0%	**0%**	A	03 2%
RUdwc6ei CBs vCLo	0	7	0	0	**7**	A	1	0	7	0	**h**	A	0	2	0	0	**2**	A	2	0	0	0	**2**	A	11
% RUdwc6ei CBs vCLo	0%	1.3%	0%	0%	**03 h%**	A	03 8%	0%	2.3%	0%	**03 %**	A	0%	03 h%	0%	0%	**03 7%**	A	7.3%	0%	0%	0%	**03M%**	A	03 M%
Feoeit RUEBi	A	A	A	A	A	M	A	A	A	A	A	M	A	A	A	A	A	h	A	A	A	A	A	7	
% Feoeit RUEBi	A	A	A	A	A	100%	A	A	A	A	AM	03%	A	A	A	A	A	100%	A	A	A	A	A	100%	A
RUdwc6ei CBs PCiimLfin	A	A	A	A	A	0	A	A	A	A	A	M	A	A	A	A	A	0	A	A	A	A	A	0	
% RUdwc6ei CBs PCiimLfin	A	A	A	A	A	0%	A	A	A	A	AM	03%	A	A	A	A	A	0%	A	A	A	A	A	0%	A

*Feoeit RUEBi LBo RUdwc6ei CBs PCiimLfin3S(Seft, v (v Uki, T(TkRi, y (y AT uHB

Center Street/Sheldon & Seven Mile - TMC

Tue Oct 19, 2021
Fl FeLn gh(70 Fl AM70 Fl - AO4eHl66FeLn) CuP
a 6ss 6Lii ei gSUkti, dUBr 6eAy BUTRcni, a RUdu6Lieo TRcni, Ruiei, FeoeitRUEBi, RUdwc6ei CBs vCLo, RUdwc6ei CBs PCiimLfin-
a 6l C4eI eBti
D (88. 92M,SCcLrUCB(h23h2M9hb, A873h82. h.

GEWALT HAMILTON ASSOCIATES, INC.
FRC4Udeo Gv(HemLfi) LI UdCBa iiCcUIrei DBc3
. 2M5CReit Eore : Pde, VeBBCB) U6i, D5, . 00. 1, y d



Hines Drive & Seven Mile - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 2, Location: 423 42b. b8, -8. 348027.

GEWALT HAMILTON ASSOCIATES, INC.
Provided Gy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US

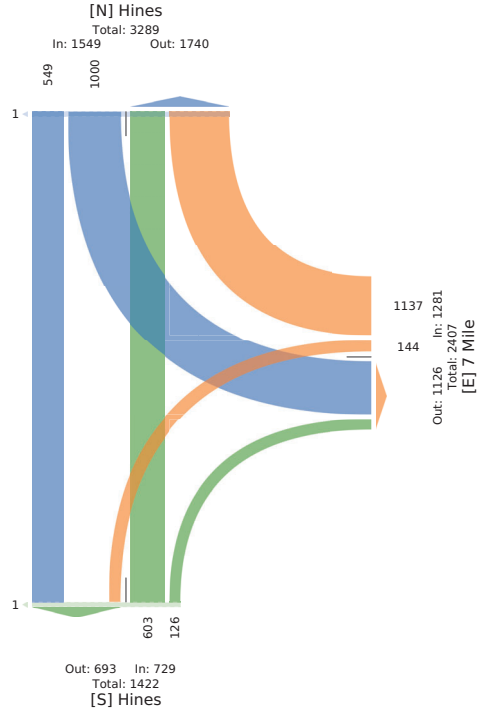
Leg Direction	7 Mile p estGound					5 ines WorthGound					5 ines SouthGound					
Time	L	R	U	**ANN**	Ped*	T	R	U	**ANN**	Ped*	L	T	U	**ANN**	Ped*	**Int**
2021-10-19 7:00AM	1	2b	0	**26**	0	19	.	0	**22**	0	. 7	24	0	**61**	0	**109**
7:1bAM	1	. b	0	**. 6**	0	24	0	0	**24**	0	. 8	1b	0	**b.**	0	**11.**
7:. 0AM	0	. 0	0	**. 0**	0	2.	2	0	**2b**	0	4b	24	0	**69**	0	**124**
7:4bAM	.	b0	0	**b.**	0	28	.	0	**. 1**	0	b.	. 1	0	**84**	0	**168**
5 ourly Total	b	140	0	**14b**	0	94	8	0	**102**	0	17.	94	0	**267**	0	**b14**
8:00AM	1	b.	0	**b4**	0	19	4	0	**2.**	0	60	2.	0	**8.**	0	**160**
8:1bAM	2	b1	0	**b.**	0	2.	b	0	**28**	0	7.	. 1	0	**104**	0	**18b**
8:. 0AM	4	. b	0	**. 9**	0	22	b	0	**27**	0	7.	24	0	**97**	0	**16.**
8:4bAM	1	b.	0	**b4**	0	. 0	4	0	**. 4**	0	b9	19	0	**78**	0	**166**
5 ourly Total	8	192	0	**200**	0	94	18	0	**112**	0	26b	97	0	**. 62**	0	**674**
4:00PM	14	91	0	**10b**	0	41	7	0	**48**	0	64	. 6	0	**100**	0	**2b.**
4:1bPM	16	96	0	**112**	0	44	b	0	**49**	0	69	40	0	**109**	0	**270**
4:. 0PM	22	110	0	**1. 2**	0	48	9	0	**b7**	0	80	b1	0	**1. 1**	0	**. 20**
4:4bPM	16	99	0	**11b**	0	b9	1.	0	**72**	0	72	b6	0	**128**	0	**. 1b**
5 ourly Total	68	. 96	0	**464**	0	192	. 4	0	**226**	0	28b	18.	0	**468**	0	**11b8**
b:00PM	12	1. 2	0	**144**	0	61	19	0	**80**	1	47	4b	0	**92**	0	**. 16**
b:1bPM	16	102	0	**118**	0	49	10	0	**b9**	0	81	49	0	**1. 0**	0	**. 07**
b:. 0PM	24	8.	0	**107**	0	b4	17	0	**71**	0	70	. 6	0	**106**	0	**284**
b:4bPM	11	92	0	**10.**	0	b9	20	0	**79**	0	79	4b	0	**124**	1	**. 06**
5 ourly Total	6.	409	0	**472**	0	22.	66	0	**289**	1	277	17b	0	**4b2**	1	**121.**
Total	144	11. 7	0	**1281**	0	60.	126	0	**729**	1	1000	b49	0	**1b49**	1	**. bb9**
% ANNoach	112%	883%	0%	**-**	-	823%	173 %	0%	**-**	-	643%	. b3%	0%	**-**	-	-
% Total	43%	. 13%	0%	**. 63%**	-	163%	. 3%	0%	**203%**	-	283 %	1b3%	0%	**4. 3%**	-	-
Lights	1. 7	1107	0	**1244**	-	b91	12b	0	**716**	-	979	b. 0	0	**1b09**	-	. 469
% Lights	9b3%	973%	0%	**973%**	-	983%	993%	0%	**983%**	-	973%	963%	0%	**973%**	-	973%
Single-Unit Trucks	0	17	0	**17**	-	4	0	0	**4**	-	12	0	0	**12**	-	. .
% Single-Unit Trucks	0%	13%	0%	**13 %**	-	03%	0%	0%	**03%**	-	12%	0%	0%	**03%**	-	03%
Articulated Trucks	0	8	0	**8**	-	0	0	0	**0**	-	9	0	0	**9**	-	17
% Articulated Trucks	0%	03%	0%	**03%**	-	0%	0%	0%	**0%**	-	03%	0%	0%	**03%**	-	03%
Buses	0	4	0	**4**	-	1	0	0	**1**	-	0	7	0	**7**	-	12
% Buses	0%	03%	0%	**03 %**	-	02%	0%	0%	**03%**	-	0%	13 %	0%	**03%**	-	03 %
Bicycles on Road	7	1	0	**8**	-	7	1	0	**8**	-	0	12	0	**12**	-	28
% Bicycles on Road	43%	03%	0%	**03%**	-	12%	03%	0%	**13%**	-	0%	23%	0%	**03%**	-	03%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Hines Drive & Seven Mile - TMC

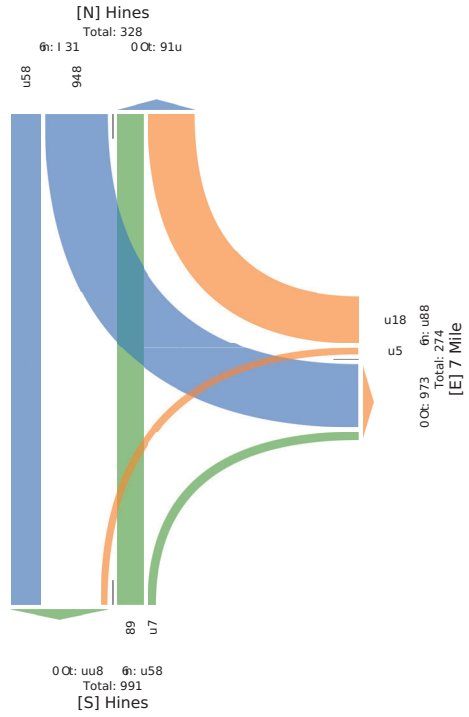
Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 2, Location: 423 42b. b8, -8. 348027.

GEWALT HAMILTON ASSOCIATES, INC.
Provided Gy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US



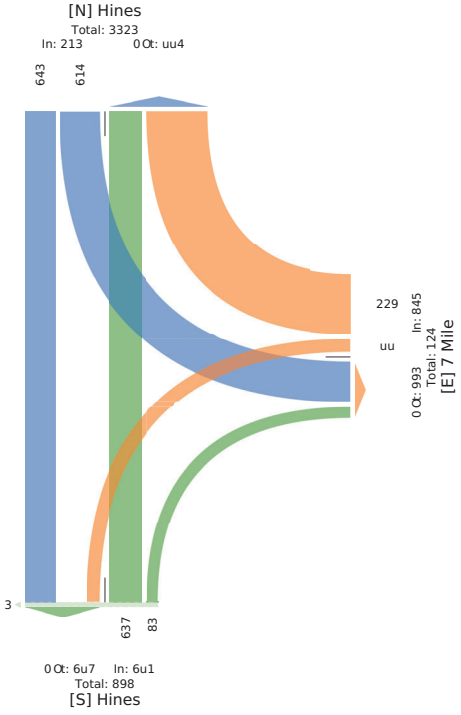
a ei : sdectsRr	(l sRe p eCbRur B				Hsr eC. WRdtSbRur B				Hsr eC URutSbRur B				
Tsl e	a	w	k	F NN LeB*	T	w	k	F NN LeB*	a	T	k	F NN LeB*	Dit
2021-10-19 (7AMF1	.	M0	0	M	24	.	0	. 1	M	. 1	0	4A	184
47h0F1	1	M	0	MA	19	A	0	2.	80	2.	0	4.	180
47LMF1	2	M	0	M	2.	M	0	24	(.	. 1	0	10A	14M
47. 0F1	A	. M	0	. 9	22	M	0	2(	(.	2A	0	9(	18.
TRn6	10	149	0	199	92	1(	0	109	2M0	109	0	. 84	8(8
% F NNRncS	M0%	9M0%	0%	-	4A9%	1M8%	0%	-	(03%	293%	0%	-	-
% TRn6	13M%	243%	0%	293%	1. 3%	23M%	0%	183 %	. 43 %	183 %	0%	M3%	-
LH5	03l2M	03l92	-	0321	03l21	03kM0	-	03(9	03l4(	03(1	-	0342	0312
a si StC	10	1(4	0	144	44	1(	0	10M	2M2	102	0	. MA	8A(
% a si StC	100%	9A2%	0%	9A3M%	9M(%	100%	0%	983 %	9(3 %	9. 3%	0%	982%	9M(%
Usri 6e-k r st TducgC	0	8	0	8	A	0	0	A	.	0	0	.	1.
% Usri 6e-k r st TducgC	0%	. 2%	0%	. 3%	A3 %	0%	0%	. 3(%	13%	0%	0%	03%	13%
F dscu6niteB TducgC	0	A	0	A	0	0	0	0	A	0	0	A	4
% F dscu6niteB TducgC	0%	23%	0%	23%	0%	0%	0%	0%	13M%	0%	0%	13%	13%
y uCeC	0	1	0	1	0	0	0	0	0	8	0	8	(
% y uCeC	0%	03M%	0%	03M%	0%	0%	0%	0%	0%	MM%	0%	13%	13%
y scoc6eCRr wRnB	0	0	0	0	0	0	0	0	0	1	0	1	1
% y scoc6eCRr wRnB	0%	0%	0%	0%	0%	0%	0%	0%	0%	03%	0%	03 %	03%
LeBeCdcnr C	-	-	-	-	-	-	-	-	-	-	-	-	0
% LeBeCdcnr C	-	-	-	-	-	-	-	-	-	-	-	-	-
y scoc6eCRr) dRCCv nfg	-	-	-	-	-	-	-	-	-	-	-	-	0
% y scoc6eCRr) dRCCv nfg	-	-	-	-	-	-	-	-	-	-	-	-	-

*LeBeCdcnr Cnr B y scoc6eCRr) dRCCv nfg3a 7a eft, w7wsi St, T7TSdu, k 7k -Tudr



Ser : URectUCB	b 1 Ue p eitCCuBo				) UBei WCPkCCuBo				) UBei dCurkCuBo				
TUl e	S	v	y	a NN Feo*	T	v	y	a NN Feo*	S	T	y	a NN Feo*	DBt
2021A10A19 h(70F1	22	110	0	172 0	h8	9	0	Mh 0	80	M	0	171 0	720
h(hMF1	1.	99	0	11M 0	M9	17	0	h2 0	h2	M	0	128 0	71M
M00F1	12	172	0	1hh 0	. 1	19	0	80 1	hh	hM	0	92 0	71.
M(LMF1	1.	102	0	118 0	h9	10	0	M9 0	81	h9	0	170 0	70h
TCUL6	. .	hh7	0	M9 0	21h	M	0	2. 8 1	280	201	0	h81 0	12M
% a NNRCLck	173%	8h3%	0%	A A	813%	193%	0%	A A	M32%	h13%	0%	A A	A
% TCUL6	M2%	7M2%	0%	h03M% A	1h32%	h3 %	0%	213% A	223%	1. 3%	0%	782% A	A
F) 5	03hM0	0387 9	A	0388M A	038bb	03 b1	A	0328 A	03l. h	03lb7	A	0391M A	0387
SUkti	. 7	h78	0	M1 A	21h	M	0	2. M A	2b7	192	0	h. M A	1271
% SUkti	9MM%	983%	0%	983% A	983 %	100%	0%	983% A	9b3M%	9MM%	0%	9. 3% A	9b3%
dUBr 6eAy BtU TRucni	0	7	0	7 A	0	0	0	0 A	h	0	0	h A	b
% dUBr 6eAy BtU TRucni	0%	03h%	0%	03 % A	0%	0%	0%	0% A	13h%	0%	0%	03% A	03 %
a PtUduGLteo TRucni	0	2	0	2 A	0	0	0	0 A	7	0	0	7 A	M
% a PtUduGLteo TRucni	0%	03M%	0%	03% A	0%	0%	0%	0% A	13 %	0%	0%	03 % A	03h%
Ruiei	0	0	0	0 A	0	0	0	0 A	0	0	0	0 A	0
% Ruiei	0%	0%	0%	0% A	0%	0%	0%	0% A	0%	0%	0%	0% A	0%
RUdwc6ei CBv CLo	7	0	0	7 A	7	0	0	7 A	0	9	0	9 A	1M
% RUdwc6ei CBv CLo	h3M%	0%	0%	03 % A	13h%	0%	0%	13% A	0%	h3M%	0%	139% A	13%
FeoeitPULPi	A	A	A	A 0	A	A	A	A 1	A	A	A	A 0	
% FeoeitPULPi	A	A	A	A A	A	A	A	A 100%	A	A	A	A A	A
RUdwc6ei CBs PCiimLfn	A	A	A	A 0	A	A	A	A 0	A	A	A	A 0	
% RUdwc6ei CBs PCiimLfn	A	A	A	A A	A	A	A	A 0%	A	A	A	A A	A

*FeoeitPULPi LBo RUdwc6ei CBs PCiimLfn3S(Seft, v (v Uki t, T(TkRu, y (y AfuPB



River & Seven Mile - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 1, Location: 423425607, -8. 3476888

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc3
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

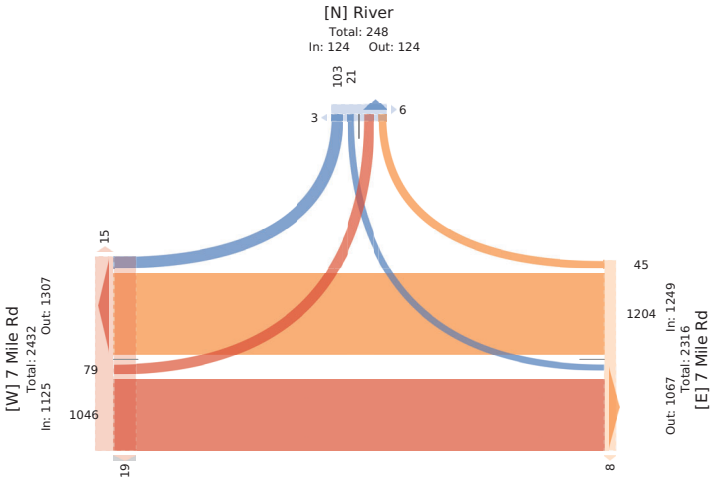
Leg Direction	7 Mile Rd Eastbound					7 Mile Rd p estbound					River Southbound					
Time	L	T	U	AWV	Ped*	T	R	U	AWV	Ped*	L	R	U	AWV	Ped*	Int
2021-10-19 7:00AM	5	. 8	0	4.	1	26	0	0	26	0	1	1	0	2	0	71
7:15AM	2	40	0	42	2	. 5	0	0	. 5	1	0	2	0	2	0	79
7:. 0AM	1	4.	0	44	1	28	4	0	. 2	0	0	6	0	6	0	82
7:45AM	4	50	0	54	0	45	1	0	46	0	1	6	0	7	0	107
Hourly Total	12	171	0	18.	4	1. 4	5	0	1. 9	1	2	15	0	17	0	. . 9
8:00AM	5	58	0	6.	0	54	1	0	55	0	0	2	0	2	0	120
8:15AM	6	72	0	78	2	48	1	0	49	0	2	4	0	6	0	1. .
8:. 0AM	5	71	0	76	1	. 6	4	0	40	0	2	2	0	4	2	120
8:45AM	2	60	0	62	0	5.	.	0	56	0	1	1	0	2	0	120
Hourly Total	18	261	0	279	.	191	9	0	200	0	5	9	0	14	2	49.
4:00PM	4	70	0	74	8	105	0	0	105	0	1	1	0	2	0	181
4:15PM	4	69	0	7.	1	109	2	0	111	0	1	9	0	10	0	194
4:. 0PM	6	81	0	87	2	116	8	0	124	0	1	12	0	1.	0	224
4:45PM	11	76	0	87	4	110	5	0	115	0	1	8	0	9	2	211
Hourly Total	25	296	0	. 21	15	440	15	0	455	0	4	. 0	0	. 4	2	810
5:00PM	7	61	0	68	4	1. 2	4	0	1. 6	4	1	11	0	12	1	216
5:15PM	5	85	0	90	2	109	5	0	114	2	.	14	0	17	1	221
5:. 0PM	6	78	0	84	2	96	4	0	100	0	4	10	0	14	1	198
5:45PM	6	94	0	100	4	102	.	0	105	1	2	14	0	16	2	221
Hourly Total	24	. 18	0	. 42	12	4. 9	16	0	455	7	10	49	0	59	5	856
Total	79	1046	0	1125	. 4	1204	45	0	1249	8	21	10.	0	124	9	2498
% AWVroach	7 0%	9. 30%	0%	-	-	963 8%	. 6%	0%	-	-	163 9%	8. 3 %	0%	-	-	-
% Total	. 2%	41 9%	0%	45 0%	-	48 2%	1 8%	0%	50 0%	-	0 8%	43 %	0%	5 0%	-	-
Lights	75	1025	0	1100	-	117.	44	0	1217	-	21	89	0	110	-	2427
% Lights	94 9%	98 0%	0%	97 8%	-	97 8%	97 8%	0%	97 8%	-	100%	86 8%	0%	88 7%	-	97 2%
Single-Unit Trucks	0	12	0	12	-	15	1	0	16	-	0	1	0	1	-	29
% Single-Unit Trucks	0%	1 1%	0%	1 1%	-	1 2%	2 2%	0%	1 3 %	-	0%	1 0%	0%	0 8%	-	1 2%
Articulated Trucks	1	8	0	9	-	8	0	0	8	-	0	.	0	.	-	20
% Articulated Trucks	1 3 %	0 8%	0%	0 8%	-	0 7%	0%	0%	0 6%	-	0%	2 9%	0%	2 8%	-	0 8%
Buses	0	0	0	0	-	4	0	0	4	-	0	0	0	0	-	4
% Buses	0%	0%	0%	0%	-	0 3 %	0%	0%	0 3 %	-	0%	0%	0%	0%	-	0 2%
Bicycles on Road	.	1	0	4	-	4	0	0	4	-	0	10	0	10	-	18
% Bicycles on Road	. 3 8%	0 1 %	0%	0 3 %	-	0 3 %	0%	0%	0 3 %	-	0%	9 7%	0%	8 1 %	-	0 7%
Pedestrians	-	-	-	-	25	-	-	-	-	8	-	-	-	-	7	
% Pedestrians	-	-	-	-	7. 5%	-	-	-	-	100%	-	-	-	-	77 8%	-
Bicycles on Crosswalk	-	-	-	-	9	-	-	-	-	0	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	26 5%	-	-	-	-	0%	-	-	-	-	22 2%	-

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

River & Seven Mile - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 8869. 1, Location: 423 42b607, -8. 3476888

GEWALT HAMILTON ASSOCIATES, INC.
Provided Cy: Hewalt 5 amilton Associates Inc3
62b Forest Edge Drive, Vernon 5 ills, IL, 60061, US



River & Seven Mile - TMC

Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Wi M44e4 hP Q C14, a 6) M7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y nMA
F Wi doeR est4
w m((19DI, Pdcnt6lsm 28 2. I 03, 7(D8 3I (((

GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeU5kmb ey nMGnR6Wls F44dc6nte4 vsc8
I 2. HdSe4t EU) e v Sne, VeSs ds GeNWi vP, I 00I 1, i a

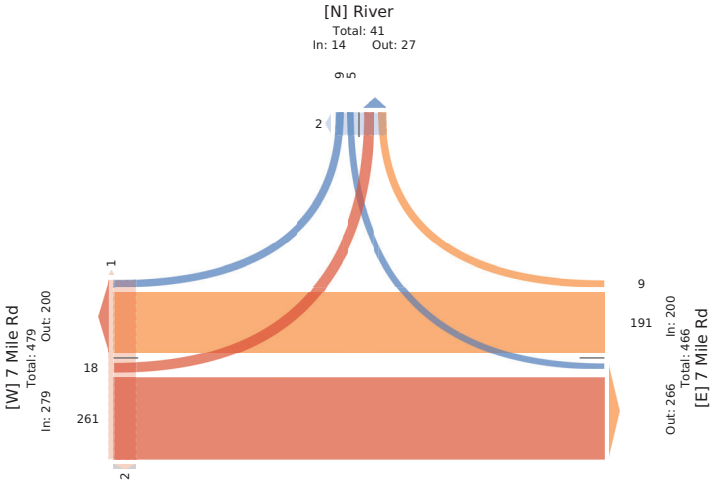
Pe) v 6ect6ls	3 1 6vBU En4 5dus U					3 1 6vBU p e4 5dus U					B6oeS a dut C5dus U					
T6Re	P	T	i	FWV	LeU*	T	B	i	FWV	LeU*	P	B	i	FWV	LeU*	et
2021710719 (n0 F1	.	. (	0	1 D	0	. :	1	0	. .	0	0	2	0	2	0	120
(n. F1	I	32	0	3(	2	: (	1	0	: 9	0	2	:	0	I	0	1DD
(n0 F1	.	31	0	3I	1	DI	:	0	: 0	0	2	2	0	:	2	120
(m. F1	2	1 0	0	1 2	0	. D	D	0	. 1	0	1	1	0	2	0	120
TdmM	1(	21 1	0	239	D	191	9	0	200	0	.	9	0	1:	2	: 9D
% F W6IncC	1 8 %	9D 8 %	0%	7	7	9. 8 %	: 8 %	0%	7	7	D 8%	1 : 8%	0%	7	7	7
% TdmM	D8%	. 28 9%	0%	. 1 8 %	7	D(8%	18(%	0%	: 08 %	7	18 9%	18(%	0%	28(%	7	7
LGH	08. 0	08901	7	08(9:	7	08((:	08 I D	7	08(9D	7	08 I 2.	08 I D	7	08 (D	7	08923
P Q C14	1(	2. 2	0	230	7	1(:	9	0	19D	7	.	(	0	1D	7	: 3I
% P Q C14	100%	91 8 %	0%	91 8 %	7	91 83%	100%	0%	91 8 %	7	100%	((8%	0%	92 8%	7	91 8 %
a 6) M7 s 6 TSucg4	0	.	0	.	7	:	0	0	:	7	0	0	0	0	7	9
% a 6) M7 s 6 TSucg4	0%	18 9%	0%	18 %	7	28 %	0%	0%	28 0%	7	0%	0%	0%	0%	7	18 %
F St6cuMteUTSucg4	0	:	0	:	7	2	0	0	2	7	0	1	0	1	7	3
% F St6cuMteUTSucg4	0%	18 %	0%	18 %	7	18 0%	0%	0%	18 0%	7	0%	118 %	0%	38 %	7	18 %
r u4e4	0	0	0	0	7	1	0	0	1	7	0	0	0	0	7	1
% r u4e4	0%	0%	0%	0%	7	08 %	0%	0%	08 %	7	0%	0%	0%	0%	7	08%
r 6ckcM4 ds BdnU	0	0	0	0	7	0	0	0	0	7	0	0	0	0	7	0
% r 6ckcM4 ds BdnU	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%	0%	0%	0%	7	0%
LeUe4tSns 4	7	7	7	7	D	7	7	7	7	0	7	7	7	7	2	
% LeUe4tSns 4	7	7	7	7	100%	7	7	7	7	7	7	7	7	7	100%	7
r 6ckcM4 ds - Sl44y nMg	7	7	7	7	0	7	7	7	7	0	7	7	7	7	0	
% r 6ckcM4 ds - Sl44y nMg	7	7	7	7	0%	7	7	7	7	7	7	7	7	7	0%	7

*LeUe4tSns 4 ns Ur 6ckcM4 ds - Sl44y nMg8PmPeft, BmB6) Cl, TmlTCSu, i mi 7TuSs

River & Seven Mile - TMC

Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Wi M44e4 hP Q C14, a 6) M7 s 6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns 4, r 6ckcM4 ds BdnU, r 6ckcM4 ds - Sl44y nMA
F Wi doeR est4
w m((19DI, Pdcnt6lsm 28 2. I 03, 7(D8 3I (((

GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeUbkmGey nMHnR6Wls F44dc6nte4 vsc8
I 2. 5dSe4t EU) e v Sne, VeSs ds H6NWi vP, I 00I 1, i a



River & Seven Mile - TMC

Tue Oct 19, 2021
Fl FeLn gh(70 Fl AM70 Fl - AO4eEL66FeLn) CuP
a 6s 6Li i ei gSUkti, dUBr 6eAy BtU TRucni, a RUduGLeo TRucni, Ruiei,
FeoeitRULEi, RUdwc6ei CBvCLo, RUdwc6ei CBs PCimLfin-
a 6l C4el eBti
D (88. 971, SCcLnUCB(h23h2M 05, A873h5. 888

GEWALT HAMILTON ASSOCIATES, INC.
FIC4Udeo bw(GemLfi) LI UdCBa ii CcUlrei DBc3
. 2MHCPeit Eore : Pde, VeBCB) U6i, DS, . 00. 1, y d

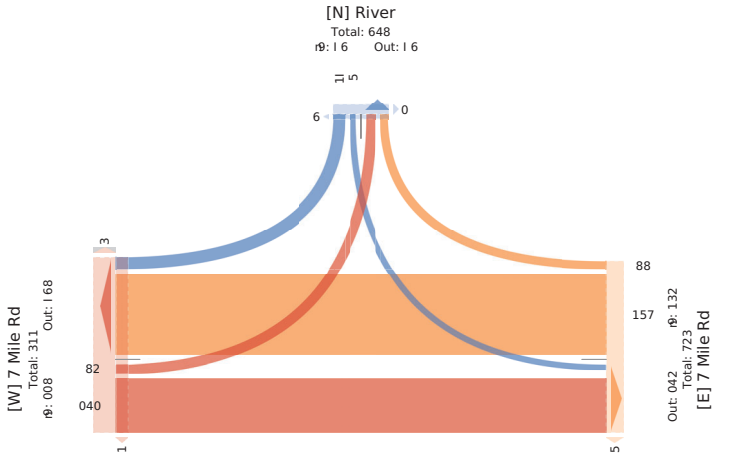
Ser . UBectUCB	5 l Ude v o ELitbCuBo					5 l Ude v o p eitbCuBo					v UdeP dCuckbCuBo					
TUe	S	T	y	a VeV	Feo*	T	v	y	a VeV	Feo*	S	v	y	a VeV	Feo*	DBt
2021A10A19 h(70Fl	.	81	0	**85**	2	11.	8	0	**12h**	0	1	12	0	**17**	0	**22h**
h(hMFl	11	5.	0	**85**	h	110	M	0	**11M**	0	1	8	0	**9**	2	**211**
M00Fl	5	. 1	0	**. 8**	h	172	h	0	**17.**	h	1	11	0	**12**	1	**21.**
M1MFl	M	8M	0	**90**	2	109	M	0	**11h**	2	7	1h	0	**15**	1	**221**
TCL6	29	707	0	**772**	12	h. 5	22	0	**h89**	.	.	hM	0	**M**	h	**852**
% a VeVLck	83%	913%	0%	**A**	A	9MM%	h3M%	0%	**A**	A	113%	883%	0%	**A**	A	A
% TCL6	73%	7h3%	0%	**783%**	A	M3 %	23M%	0%	**M3%**	A	03%	M2%	0%	**M8%**	A	A
F) H	03 7.	038 88	A	**039 15**	A	0389	03 88	A	**0390h**	A	03M0	0325	A	**03. .**	A	035.
SUkti	28	29.	0	**72h**	A	h. 2	22	0	**h8h**	A	.	h0	0	**h.**	A	8M
% SUkti	9. 3 %	953%	0%	**953 %**	A	983%	100%	0%	**993%**	A	100%	883%	0%	**902%**	A	953%
dUBr 6eAy BtU TRucni	0	h	0	**h**	A	2	0	0	**2**	A	0	1	0	**1**	A	5
% dUBr 6eAy BtU TRucni	0%	13%	0%	**132%**	A	03h%	0%	0%	**03h%**	A	0%	23%	0%	**239%**	A	038%
a RUduGLeo TRucni	0	2	0	**2**	A	2	0	0	**2**	A	0	2	0	**2**	A	.
% a RUduGLeo TRucni	0%	03%	0%	**03 %**	A	03h%	0%	0%	**03h%**	A	0%	h3h%	0%	**739%**	A	035%
Ruiei	0	0	0	**0**	A	0	0	0	**0**	A	0	0	0	**0**	A	0
% Ruiei	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%
RUdwc6ei CBvCLo	1	1	0	**2**	A	1	0	0	**1**	A	0	2	0	**2**	A	M
% RUdwc6ei CBvCLo	73h%	03 7%	0%	**03 %**	A	032%	0%	0%	**032%**	A	0%	h3h%	0%	**739%**	A	03 %
FeoeitRULEi	A	A	A	A	11	A	A	A	A	.	A	A	A	A	h	
% FeoeitRULEi	A	A	A	A	913%	A	A	A	A	100%	A	A	A	A	100%	A
RUdwc6ei CBs PCimLfin	A	A	A	A	1	A	A	A	A	0	A	A	A	A	0	
% RUdwc6ei CBs PCimLfin	A	A	A	A	83%	A	A	A	A	0%	A	A	A	A	0%	A

*FeoeitRULEi LBo RUdwc6ei CBs PCimLfin3S(Seft, v (v Ukt, T(TkRu, y (y AUuBB

River & Seven Mile - TMC

Tue Oct 19, 2021
Fl FeLn gh(70 Fl AM70 Fl - AO4eEL66FeLn) CuP
a 6s 6Li i ei gSUkti, dUBr 6eAy BtU TRucni, a RUduGLeo TRucni, Ruiei,
FeoeitRULEi, RUdwc6ei CBvCLo, RUdwc6ei CBs PCimLfin-
a 6l C4el eBti
D (88. 971, SCcLnUCB(h23h2M 0b, A873hb. 888

GEWALT HAMILTON ASSOCIATES, INC.
FIC4Udeo Gv(HemLfi) LI UdCBa ii CcUlrei DBc3
. 2M5CPeit Eore : Pde, VeBCB) U6i, DS, . 00. 1, y d



Northville & 7 Mile (north) - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886946, Location: 42.423699, -85.474513

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Gewalt Hamilton Associates Inc.
623 Forest Edge Drive, Vernon Hills, IL, 60061, US

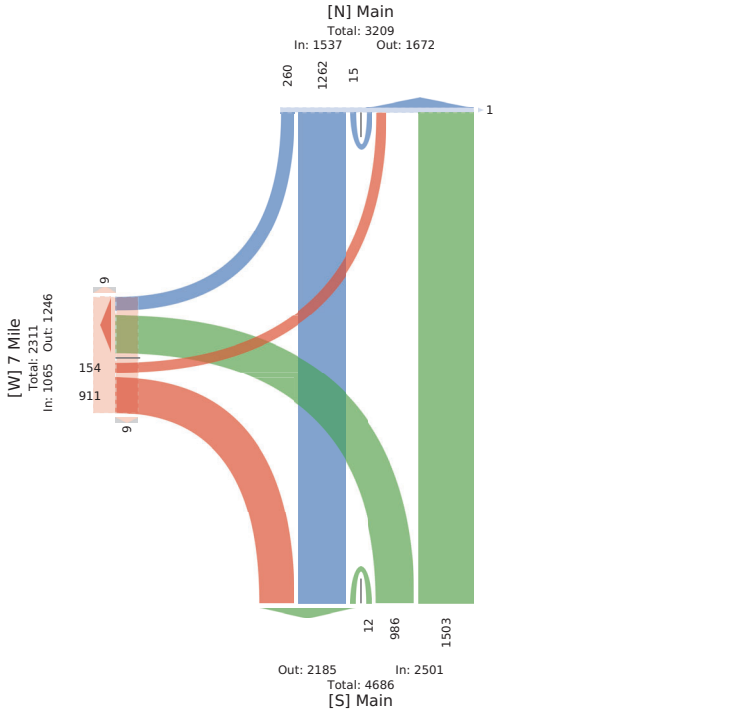
Leg Direction	7 Mile Eastbound					Main Northbound					Main Southbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	2	40	0	**42**	10	20	59	1	**60**	0	51	7	1	**59**	0	**141**
7:13AM	5	59	0	**42**	6	23	57	0	**62**	0	27	8	0	**53**	0	**159**
7:50AM	5	59	0	**42**	0	18	30	0	**68**	0	61	11	0	**72**	0	**182**
7:43AM	8	40	0	**48**	0	58	71	0	**109**	0	68	9	1	**78**	0	**253**
Hourly Total	16	138	0	**174**	16	101	197	1	**299**	0	187	53	2	**224**	0	**697**
8:00AM	7	43	0	**32**	0	42	82	0	**124**	0	46	12	1	**39**	0	**253**
8:13AM	11	62	0	**75**	0	43	64	0	**109**	0	66	7	0	**75**	0	**233**
8:50AM	18	32	0	**70**	0	26	73	0	**101**	0	69	15	1	**85**	0	**234**
8:43AM	9	44	0	**35**	0	41	98	1	**140**	0	65	17	2	**82**	1	**273**
Hourly Total	43	205	0	**248**	0	134	519	1	**474**	0	244	49	4	**297**	1	**1019**
4:00PM	12	66	0	**78**	0	87	93	2	**184**	0	92	19	0	**111**	0	**575**
4:13PM	8	63	0	**75**	1	93	97	0	**192**	0	88	22	2	**112**	0	**577**
4:50PM	8	77	0	**83**	0	104	145	2	**249**	0	118	20	0	**158**	0	**472**
4:43PM	20	37	0	**77**	0	82	123	2	**209**	0	104	23	2	**151**	0	**417**
Hourly Total	48	263	0	**515**	1	568	460	6	**854**	0	402	86	4	**492**	0	**1659**
3:00PM	10	34	0	**64**	0	114	120	1	**253**	0	110	27	0	**157**	0	**456**
3:13PM	12	69	0	**81**	0	95	147	0	**240**	0	108	50	1	**159**	0	**460**
3:50PM	13	77	0	**92**	1	73	116	5	**194**	0	109	18	1	**128**	0	**414**
3:43PM	8	83	0	**95**	0	81	144	0	**223**	0	102	13	5	**120**	0	**458**
Hourly Total	43	283	0	**550**	1	565	327	4	**894**	0	429	90	3	**324**	0	**1748**
Total	134	911	0	**1063**	18	986	1305	12	**2301**	0	1262	260	13	**1357**	1	**3105**
% Approach	14.3%	83.3%	0%	**-**	-	59.4%	60.1%	0.3%	**-**	-	82.1%	16.9%	1.0%	**-**	-	-
% Total	5.0%	17.9%	0%	**20.9%**	-	19.5%	29.3%	0.2%	**49.0%**	-	24.7%	3.1%	0.5%	**50.1%**	-	-
Lights	147	897	0	**1044**	-	960	1479	11	**2430**	-	1245	234	13	**1312**	-	3006
% Lights	93.3%	98.3%	0%	**98.0%**	-	97.4%	98.4%	91.7%	**98.0%**	-	98.3%	97.7%	100%	**98.4%**	-	98.1%
Single-Unit Trucks	5	9	0	**12**	-	14	15	1	**28**	-	7	2	0	**9**	-	49
% Single-Unit Trucks	1.9%	1.0%	0%	**1.1%**	-	1.4%	0.9%	8.5%	**1.1%**	-	0.6%	0.8%	0%	**0.6%**	-	1.0%
Articulated Trucks	5	4	0	**7**	-	7	5	0	**10**	-	4	0	0	**4**	-	21
% Articulated Trucks	1.9%	0.4%	0%	**0.7%**	-	0.7%	0.2%	0%	**0.4%**	-	0.5%	0%	0%	**0.5%**	-	0.4%
Buses	0	0	0	**0**	-	3	8	0	**15**	-	8	0	0	**8**	-	21
% Buses	0%	0%	0%	**0%**	-	0.3%	0.3%	0%	**0.3%**	-	0.6%	0%	0%	**0.3%**	-	0.4%
Bicycles on Road	1	1	0	**2**	-	0	0	0	**0**	-	0	4	0	**4**	-	6
% Bicycles on Road	0.6%	0.1%	0%	**0.2%**	-	0%	0%	0%	**0%**	-	0%	1.3%	0%	**0.5%**	-	0.1%
Pedestrians	-	-	-	-	18	-	-	-	-	0	-	-	-	-	1	
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Northville & 7 Mile (north) - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 886946, Location: 42.423699, -8b.474b13

GEWALT HAMILTON ASSOCIATES, INC.
Provided Gy: Hewalt 5 amilton Associates Inc.
623 Forest Edge Drive, Vernon 5 ills, IL, 60061, US

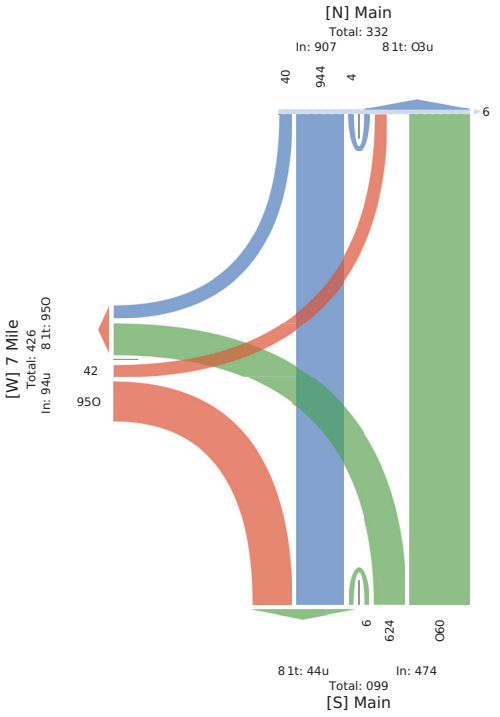


GEWALT HAMILTON ASSOCIATES, INC.

Pe) v 6ect6ls	3 1 0M En45dus U				I nfs Nds6C5dus U				I nfs adutC5dus U					
T6Re	P	B	i	F pp	LeU*	P	T	i	F pp	LeU*	T	B	i	F pp	LeU*	wt
2021710719 (m00F1	3	D8	0	**82**	0	D2	(2	0	**12D**	0	D1	12	1	**89**	0	**2. 8**
(m86F1	11	I 2	0	**3.**	0	D8	I D	0	**109**	0	I I	3	0	**3.**	0	**288**
(m0F1	1(	82	0	**30**	0	2I	38	0	**101**	0	19	1.	1	**(.**	0	**28D**
(86F1	9	DD	0	**8.**	0	DI	9(	1	**1DD**	0	1.	13	2	**(2**	1	**238**
TdmM	D8	20.	0	**2D(**	0	18D	. 19	1	**D8D**	0	2DD	D9	D	**293**	1	**1019**
% F ppSlncC	1(:1%	(1:9%	0%	**7**	7	. 2:8%	I3:. %	0:2%	**7**	7	(2:2%	1I :8%	1:. %	**7**	7	7
% TdmM	DD%	19:9%	0%	**2D. %**	7	18:1%	. 1:. %	0:1%	**D1 :8%**	7	2. :9%	D(%	0:D%	**29:1%**	7	7
LGH	0:I 28	0:(19	7	**0:(D9**	7	0:(8I	0:(1D	0:280	**0:(DI**	7	0:((D	0:321	0:800	**0:(98**	7	0:92I
P9 C4	D2	19(	0	**2DD**	7	1DB	. 0(	1	**D8I**	7	2. 8	D9	D	**2((**	7	9(D
% P9 C4	9. :. %	93:8%	0%	**9I :(%**	7	98:8%	9I :I %	100%	**9I :2%**	7	9I :. %	100%	100%	**93:0%**	7	9I :I %
a6s) M6I s8 TSucg4	2	.	0	**8**	7	8	D	0	**9**	7	2	0	0	**2**	7	11
% a6s) M6I s8 TSucg4	DD%	1:8%	0%	**2:0%**	7	. :2%	1:. %	0%	**1:9%**	7	0:(%	0%	0%	**0:3%**	7	1:I %
F 5fcuMteUTSucg4	1	2	0	.	7	1	2	0	.	7	2	0	0	**2**	7	(
% F 5fcuMteUTSucg4	2:2%	1:0%	0%	**1:2%**	7	0:I %	0:I %	0%	**0:I %**	7	0:(%	0%	0%	**0:3%**	7	0:(%
r u4e4	0	0	0	**0**	7	1	8	0	**I**	7	8	0	0	**8**	7	11
% r u4e4	0%	0%	0%	**0%**	7	0:I %	1:I %	0%	**1:. %**	7	2:0%	0%	0%	**1:3%**	7	1:I %
r 6ckcM4 ds BdnU	0	0	0	**0**	7	0	0	0	**0**	7	0	0	0	**0**	7	0
% r 6ckcM4 ds BdnU	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%	0%	0%	**0%**	7	0%
LeUe4tSns 4	7	7	7	7	0	7	7	7	7	0	7	7	7	7	1	
% LeUe4tSns 4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	100%	7
r 6ckcM4 ds - Sl44y nMJ	7	7	7	7	0	7	7	7	7	0	7	7	7	7	0	
% r 6ckcM4 ds - Sl44y nMJ	7	7	7	7	7	7	7	7	7	7	7	7	7	7	0%	7

*LeUe4tSns 4 ns Ur 6ckcM4 ds - Sl44y nMJ: PmPeft, BmB9 C1, TmiTCSu, i mi 7TuSs

GEWALT HAMILTON ASSOCIATES, INC.

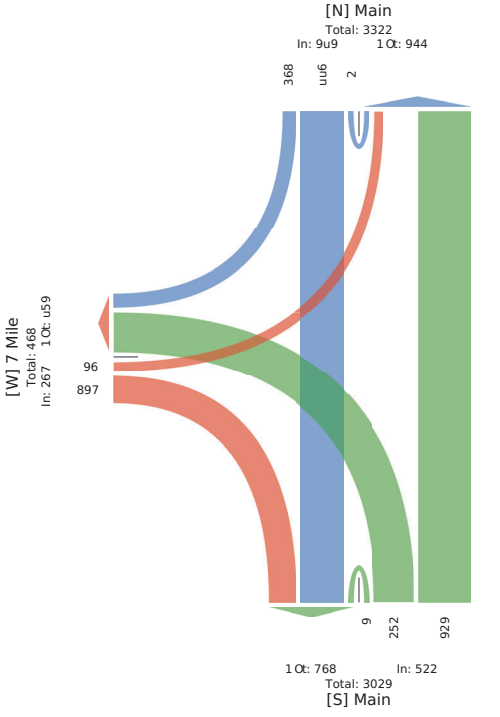


GEWALT HAMILTON ASSOCIATES, INC.

Ser : 0ectC3	5 1 6e ELi rbCuBo					I LIB NCRkbCuBo					I LIB dCurkbCuBo					
TUe	S	v	y	a pp	Feo*	S	T	y	a pp	Feo*	T	v	y	a pp	Feo*	DB
2021A0A9 h(70Fl	8	55	0	**8M**	0	10h	1h7	2	**2h9**	0	118	20	0	**178**	0	**h52**
h(hMFl	20	M5	0	**55**	0	82	12M	2	**209**	0	10h	2M	2	**171**	0	**h15**
M00Fl	10	M1	0	**. h**	0	11h	120	1	**27M**	0	110	25	0	**175**	0	**h7.**
M1MFl	12	. 9	0	**81**	0	97	1h5	0	**2h0**	0	108	70	1	**179**	0	**h. 0**
TCU6	M0	2M5	0	**705**	0	797	MTM	M	**977**	0	hh0	102	7	**M1M**	0	**158M**
% a ppRCLck	1. 3%	87:5%	0%	**A**	A	h23:%	M:3%	0:M%	**A**	A	80:5%	18:5%	03 %	**A**	A	A
% TCU6	2:8%	1h:3%	0%	**152%**	A	223:%	703:%	0:3%	**M:3%**	A	2h:3 %	M:5%	0:2%	**703M%**	A	A
F) H	03 2M	0:8h2	A	**0:911**	A	0:8. 2	0:910	03 2M	**0:975**	A	0:972	0:8h2	0:75M	**0:958**	A	0:9h.
Slrkti	h9	2M	0	**700**	A	789	MT2	M	**92.**	A	h75	101	7	**M1**	A	15. 5
% Slrkti	98:0%	95:5%	0%	**95:5%**	A	99:0%	99:h%	100%	**99:2%**	A	99:7%	99:0%	100%	**99:7%**	A	99:0%
dUBr6eAy BtfTRucni	0	h	0	**h**	A	2	7	0	**M**	A	2	0	0	**2**	A	11
% dUBr6eAy BtfTRucni	0%	13 %	0%	**1:7%**	A	0:M%	0:3 %	0%	**0:M%**	A	0:M%	0%	0%	**0:h%**	A	0:3 %
a RdudLteo TRucni	1	1	0	**2**	A	2	0	0	**2**	A	1	0	0	**1**	A	M
% a RdudLteo TRucni	2:0%	0:h%	0%	**0:5%**	A	0:M%	0%	0%	**0:2%**	A	0:2%	0%	0%	**0:2%**	A	0:7%
Ruiei	0	0	0	**0**	A	0	0	0	**0**	A	0	0	0	**0**	A	0
% Ruiei	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%	0%	0%	**0%**	A	0%
RUdwc6ei CBv CLo	0	1	0	**1**	A	0	0	0	**0**	A	0	1	0	**1**	A	2
% RUdwc6ei CBv CLo	0%	0:h%	0%	**0:7%**	A	0%	0%	0%	**0%**	A	0%	1:0%	0%	**0:2%**	A	0:1%
FeoeitPULBi	A	A	A	A	0	A	A	A	A	0	A	A	A	A	0	
% FeoeitPULBi	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
RUdwc6ei CBs PCi imLén	A	A	A	A	0	A	A	A	A	0	A	A	A	A	0	
% RUdwc6ei CBs PCi imLén	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

*FeoeitPULBi LBo RUdwc6ei CBs PCi imLén 3S(Seft, v (v U'kt, T(TkRu, y (y AFuHB

GEWALT HAMILTON ASSOCIATES, INC.



Northville & 7 Mile (south) - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 88694. , Location: 423424b44, -8b347b927

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Hewalt 5 amilton Associates Inc3
62. Forest Edge Drive, Vernon 5 ills, IL, 60061, US

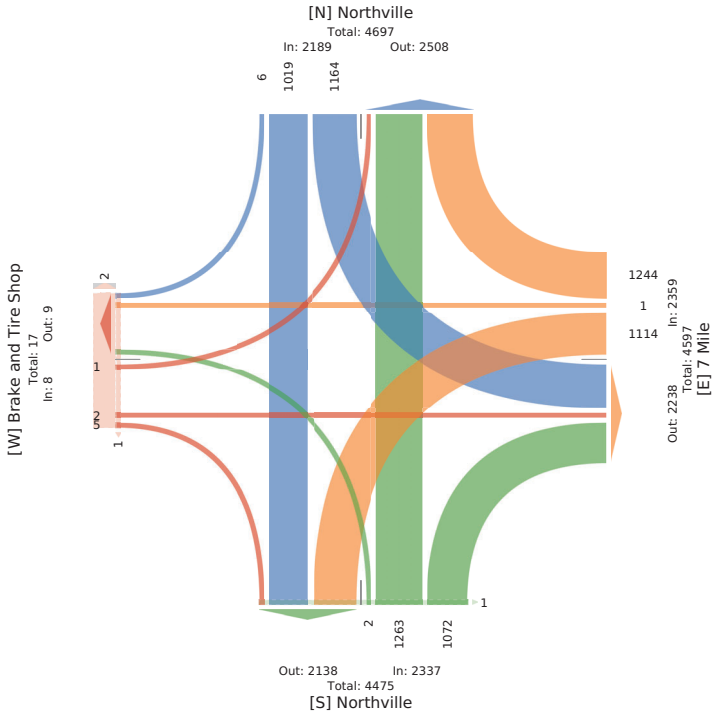
Leg Direction	Brake and Tire Shop EastBound							7 Mile NorthBound							Northville WestBound							Northville SouthBound							
Time	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int	L	T	R	U	App	Ped*	Int
2021-10-19 7:00AM	0	0	0	0	**0**	0	**190**	27	0	2b	0	**.0**	0		0	b8	27	0	**6.**	0		4.	b0	0	0	**7.**	0	
7:1. AM	0	0	0	0	**0**	0	**186**	22	1	28	0	**.1**	0		0	b4	b6	0	**70**	0		47	18	0	0	**6.**	0	
7:b0AM	0	0	0	0	**0**	0	**276**	62	0	b4	0	**96**	0		0	b4	44	0	**78**	0		64	b8	0	0	**102**	0	
7:4. AM	0	0	0	0	**0**	0	**b76**	91	0	..	0	**146**	0		0	..	69	0	**124**	0		.b	.0	b	0	**106**	0	
5 ourly Total	0	0	0	0	**0**	0	**1028**	202	1	140	0	**b4b**	0		0	161	176	0	**bb7**	0		209	1b6	b	0	**b48**	0	
8:00AM	0	0	0	0	**0**	0	**b6b**	82	0	41	0	**12b**	0		1	81	68	0	**1. 0**	0		.7	b2	1	0	**90**	0	
8:1. AM	0	0	0	0	**0**	0	**b68**	.7	0	.1	0	**108**	0		0	.9	69	0	**128**	0		79	.b	0	0	**1b2**	0	
8:b0AM	0	0	0	0	**0**	1	**b. 8**	71	0	49	0	**120**	0		0	.2	70	0	**122**	0		74	42	0	0	**116**	0	
8:4. AM	0	0	0	0	**0**	0	**b78**	.6	0	.7	0	**11b**	0		0	86	74	0	**160**	0		64	41	0	0	**10.**	0	
5 ourly Total	0	0	0	0	**0**	1	**1467**	266	0	198	0	**464**	0		1	278	281	0	**.60**	0		274	168	1	0	**44b**	0	
4:00PM	1	0	0	0	**1**	0	**.2b**	80	0	104	0	**184**	0		0	8b	82	0	**16.**	0		92	80	1	0	**17b**	0	
4:1. PM	0	0	0	0	**0**	1	**471**	71	0	8.	0	**1. 6**	0		0	10.	.b	0	**1. 8**	0		78	79	0	0	**1. 7**	0	
4:b0PM	0	0	4	0	**4**	0	**624**	109	0	1b4	0	**24b**	0		0	11.	80	0	**19.**	0		90	92	0	0	**182**	0	
4:4. PM	0	1	1	0	**2**	0	**. . 6**	89	0	112	0	**201**	0		0	96	89	0	**18.**	0		81	87	0	0	**168**	0	
5 ourly Total	1	1	.	0	**7**	1	**2174**	b49	0	4b.	0	**784**	0		0	b99	b04	0	**70b**	0		b41	bb8	1	0	**680**	0	
. :00PM	0	0	0	0	**0**	0	**. 69**	79	0	1b1	0	**210**	0		0	107	84	0	**191**	0		86	82	0	0	**168**	0	
. :1. PM	0	0	0	0	**0**	0	**. 6.**	70	0	120	0	**190**	0		0	117	8b	0	**200**	0		8b	92	0	0	**17.**	0	
. :b0PM	0	1	0	0	**1**	1	**. 2.**	71	0	109	0	**180**	0		0	84	7.	0	**1. 9**	1		82	102	1	0	**18.**	0	
. :4. PM	0	0	0	0	**0**	0	**. 6.**	77	0	111	0	**188**	0		1	117	69	0	**187**	0		89	101	0	0	**190**	0	
5 ourly Total	0	1	0	0	**1**	1	**2224**	297	0	471	0	**768**	0		1	42.	b11	0	**7b7**	1		b40	b77	1	0	**718**	0	
Total	1	2	.	0	**8**	b	**689b**	1114	1	1244	0	**2b. 9**	0		2	126b	1072	0	**2bb7**	1		1164	1019	6	0	**2189**	0	
% Approach	123 %	2. 3%	6	23 %	0%	-	-	47	32%	0%	. 23%	0%	-	-	03%	. 43	0%	4. 3%	0%	-	-	b	2%	46	6%	03	0%	-	-
% Total	0%	0%	03	%	0%	**03%**	-	163	2%	0%	183	0%	**b43%**	-	0%	183	%	1. 6%	0%	**bb3%**	-	163	9%	143	8%	03	%	0%	**b13%**	-	-
Lights	0	2	.	0	**7**	-	**2b07**	1090	1	1216	0	**2b07**	-		2	1240	10. 4	0	**2296**	-		1148	100b	.	0	**21. 6**	-	6766
% Lights	0%	100%	100%	0%	**873 %**	-	-	97	8%	100%	97	3%	0%	**978%**	-	100%	98	2%	98	6%	**983%**	-	98	6%	98	3%	8b	3%	0%	**983 %**	-	98	2%
Single-Unit Trucks	1	0	0	0	**1**	-	67	12	0	18	0	**b0**	-		0	10	11	0	**21**	-		7	7	1	0	**1.**	-	67
% Single-Unit Trucks	100%	0%	0%	0%	**123 %**	-	-	1	3%	0%	1	3%	0%	**13%**	-	0%	0	8%	1	0%	**03%**	-	0	6%	0	3%	16	3%	0%	**03%**	-	1	0%
Articulated Trucks	0	0	0	0	**0**	-	2b	.	0	.	0	**10**	-		0	.	1	0	**6**	-		.	2	0	0	**7**	-	2b
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	-	0	3%	0%	0	3%	0%	**03%**	-	0%	0	3%	0	1%	**03%**	-	0	3%	0	2%	0%	0%	**03%**	-	0	3%
Buses	0	0	0	0	**0**	-	6	6	0	.	0	**11**	-		0	8	6	0	**14**	-		4	.	0	0	**9**	-	b4
% Buses	0%	0%	0%	0%	**0%**	-	-	0	3 %	0%	0	3%	0%	**03 %**	-	0%	0	6%	0	6%	**03%**	-	0	3%	0	3 %	0%	0%	**03%**	-	0	3 %
Bicycles on Road	0	0	0	0	**0**	-	-	1	0	0	0	**1**	-		0	0	0	0	**0**	-		0	2	0	0	**2**	-	b
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	-	0	3%	0%	0%	0%		**0%**	-	0%	0%	0%	0%		**0%**	-	0%	0	3%	0%	0%	0%		**03%**	-	0%	
Pedestrians	-	-	-	-	-	b		-	-	-	-	-	0		-	-	-	-	-	1		-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%		-	-	-	-	-			-	-	-	-	-	100%		-	-	-	-	-		
Bicycles on Crosswalk	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%		-	-	-	-	-			-	-	-	-	-	0%		-	-	-	-	-		

*Pedestrians and Bicycles on Crosswalk3L: Left, R: Right, T: Thru, U: U-Turn

Northville & 7 Mile (south) - TMC

Tue Oct 19, 2021
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 88694. , Location: 423424b44, -8b347b927

GEWALT HAMILTON ASSOCIATES, INC.
Provided by: Hewalt 5 amilton Associates Inc3
62. Forest Edge Drive, Vernon 5 ills, IL, 60061, US



Northville & 7 Mile (south) - TMC

Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Nvl Mv44e4 hPQ Cl4, a6) Mv5 s6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns 4, r 6ckcMd ds BdnU, r 6ckcMd ds - Sl44y nMgA
F Nvl doeRest4
wm((19D , Pdcnt6lsm D28D2D DD) 7(. 8D8. 923

GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeUbkmGey nMHnR 6Mls F44dc6nte4 vsc8
I2: 5dSe4t EU) e v Sne, VeSs ds H6NMl vP, I 00I 1, i a

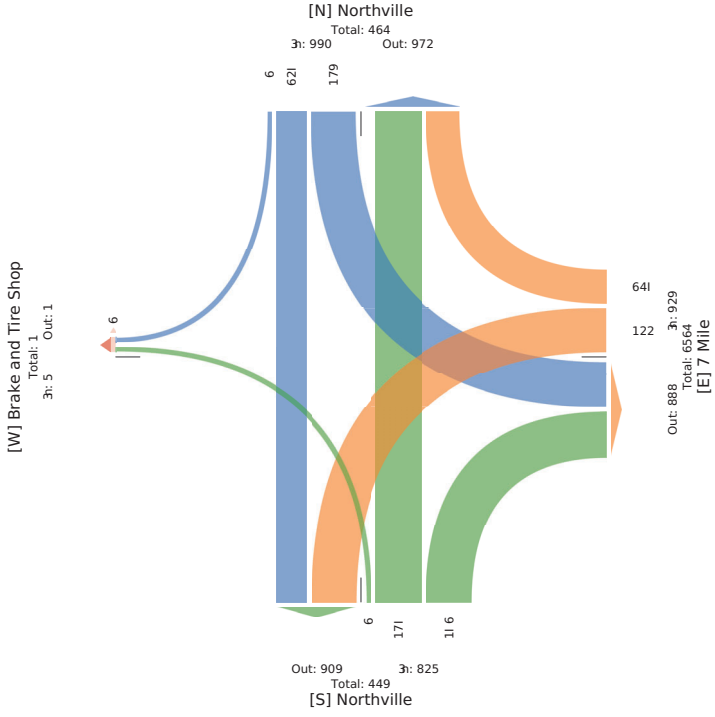
Pe) v 6Sect6ls	r Sv ge ns U T6e a C1p En4bdus U							31 6M N e4bdus U							Wd St Co 6M Wd St Cbdus U							Wd St Co 6M a dut Cbdus U							
T6Re	P	T	B	i	**Fpp**	LeU*		P	T	B	i	**Fpp**	LeU*		P	T	B	i	**Fpp**	LeU*		P	T	B	i	**Fpp**	LeU*	
2021710719 (m0F1	0	0	0	0	**0**	0	0	(2	0	D	0	**12.**	0		1	(1	1(	0	**1: 0**	0		: 3	. 2	1	0	**90**	0	**. I .**
(m: F1	0	0	0	0	**0**	0	0	: 3	0	: 1	0	**10(**	0		0	: 9	19	0	**12(**	0		39	:.	0	0	**1. 2**	0	**. 1(**
(m0F1	0	0	0	0	**0**	1		31	0	D9	0	**120**	0		0	: 2	30	0	**122**	0		3D	D2	0	0	**11I**	0	**. : (**
(m0 F1	0	0	0	0	**0**	0	0	: 1	0	: 3	0	**11.**	0		0	(1	3D	0	**110**	0		1 D	DI	0	0	**10:**	0	**. 3(**
TdmM	0	0	0	0	**0**	1		2I1	0	19(	0	**I1 D**	0		1	23(	2(1	0	**: 10**	0		23D	1I (	1	0	**IDD**	0	**1D I 3**
% F ppSlncC	0%	0%	0%	0%	**7**	7		: 38	%	0%	D2	8%	0%	**7**	7	08	2%	D8	8 %	: 02	%	0%	**7**	7	11	0%	. 38	9%	08	2%	0%	**7**	7	7
% TdmM	0%	0%	0%	0%	**0%**	7		1(	8	%	0%	1. 8	%	0%	**. 1 8 %**	7	08	%	0%	19	0%	19	2%	0%	**. (82%**	7	1(	8%	11	8 %	08	%	0%	**. 08 2%**	7	7
LH5	7	7	7	7	**7**	7		08	11	7	08	I (	7	08	**0D**	7	08	2: 0	08	0(	08	0D	7	08	**(: 3:**	7	08	I 3	08	92	08	2: 0	7	08	**. 9**	7	08	30
P Q Cl4	0	0	0	0	**0**	7		2I 0	0	191	0	**D 1**	7		1	2I 3	231	0	**: . 9**	7		2I I	1I 2	1	0	**IDD**	7	1DI 9
% P Q Cl4	0%	0%	0%	0%	**7**	7		938	%	0%	91	8 %	0%	**938 %**	7	100%	91	80	%	91	83	%	0%	**91 8 %**	7	938	%	91	8D	%	100%	0%	**91 8 %**	7	91	88%
a6) Mv5 s6 TSucg4	0	0	0	0	**0**	7		D	0	.	0	**3**	7		0	:	I	0	**11**	7		2	.	0	0	**:**	7	2.
% a6) Mv5 s6 TSucg4	0%	0%	0%	0%	**7**	7		18	%	0%	18	%	0%	**18 %**	7	0%	18	%	28	%	0%	**28 0%**	7	08	8%	18	%	0%	0%	**18 1%**	7	18	%
F S6cuMteUTSucg4	0	0	0	0	**0**	7		2	0	2	0	**D**	7		0	2	1	0	**.**	7		.	1	0	0	**D**	7	11
% F S6cuMteUTSucg4	0%	0%	0%	0%	**7**	7		08	%	0%	18	0%	0%	**08 9%**	7	0%	08	8%	08	3%	0%	**08 %**	7	18	%	08	%	0%	0%	**08 9%**	7	08	8%
r u4e4	0	0	0	0	**0**	7		0	0	2	0	**2**	7		0	D	.	0	**3**	7		.	2	0	0	**:**	7	1D
% r u4e4	0%	0%	0%	0%	**7**	7		0%	0%	18	0%	0%	**0D 3%**	7	0%	18	3%	18	4 %	0%	**18 %**	7	18	4%	18	2%	0%	0%	**18 %**	7	18	0%
r 6ckcMd ds BdnU	0	0	0	0	**0**	7		0	0	0	0	**0**	7		0	0	0	0	**0**	7		0	0	0	0	**0**	7	0
% r 6ckcMd ds BdnU	0%	0%	0%	0%	**7**	7		0%	0%	0%	0%	**0%**	7		0%	0%	0%	0%	**0%**	7		0%	0%	0%	0%	**0%**	7	0%
LeUe4tSns 4	7	7	7	7	7	1		7	7	7	7	7	0		7	7	7	7	7	0		7	7	7	7	7	0	
% LeUe4tSns 4	7	7	7	7	7	100%		7	7	7	7	7			7	7	7	7	7			7	7	7	7	7		7
r 6ckcMd ds - Sl44y nMgA	7	7	7	7	7	0		7	7	7	7	7	0		7	7	7	7	7	0		7	7	7	7	7	0	
% r 6ckcMd ds - Sl44y nMgA	7	7	7	7	7	0%		7	7	7	7	7			7	7	7	7	7			7	7	7	7	7		7

*LeUe4tSns 4 ns Ur 6ckcMd ds - Sl44y nMgB PmPeft, BmBQ Cl, TmlTCSu, i mi 7TuSs

Northville & 7 Mile (south) - TMC

Tue Oct 19, 2021
F1 Leng h(F1 79 F1 A
F Nvl Mv44e4 hPQ Cl4, a6) Mv5 s6 TSucg4, F St6cuMteUTSucg4, r u4e4,
LeUe4tSns 4, r 6ckcMd ds BdnU, r 6ckcMd ds - Sl44y nMgA
F Nvl doeRest4
wm((19D , Pdcnt6lsm D28D2D DD) 7(. 8D8. 923

GEWALT HAMILTON ASSOCIATES, INC.
LSlo6LeUbkmGey nMHnR 6Mls F44dc6nte4 vsc8
I2: 5dSe4t EU) e v Sne, VeSs ds H6NMl vP, I 00I 1, i a

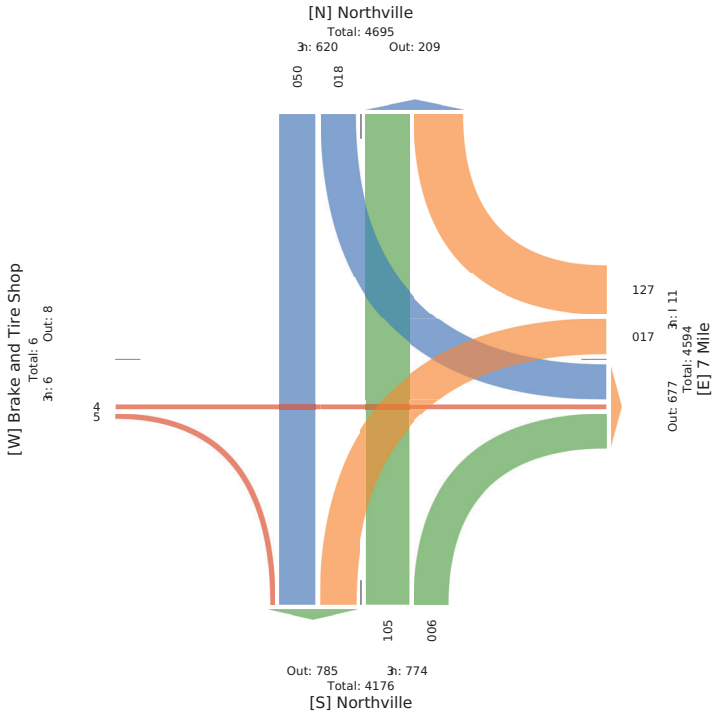


GEWALT HAMILTON ASSOCIATES, INC.

Ser	Rl[ne LBo TUe dkCp						b l l6e						WCRk4l6e						WCRk4l6e					
TU e	S	T	v	y	a pp	Feo*	S	T	v	y	a pp	Feo*	S	T	v	y	a pp	Feo*	S	T	v	y	a pp	Feo*
2021A10A19 h(70Fl	0	0	h	0	**h**	0	109	0	17h	0	**2h7**	0	0	11M	80	0	**19M**	0	90	92	0	0	**182**	0
h(hMFl	0	1	1	0	**2**	0	89	0	112	0	**201**	0	0	9.	89	0	**18M**	0	81	8b	0	0	**1. 8**	0
M00Fl	0	0	0	0	**0**	0	b9	0	171	0	**210**	0	0	10b	8h	0	**191**	0	8.	82	0	0	**1. 8**	0
M1MFl	0	0	0	0	**0**	0	b0	0	120	0	**190**	0	0	11b	87	0	**200**	0	87	92	0	0	**1bM**	0
TOl6	0	1	M	0	**.**	0	7hb	0	h9b	0	**8hh**	0	0	h7M	77.	0	**bb1**	0	7h0	7M	0	0	**. 97**	0
% appPCLck	0%	1. 3%	87	3%	0%	**A**	h13	1%	0%	M83	9%	0%	**A**	A	0%	M 3%	h73	% 0%	**A**	A	h93	1%	M83	9% 0%
% TOl6	0%	0%	02%	0%	**03%**		1M	0%	0%	213	M%	0%	**7. 3M%**		A	0%	183	8% 1h	3M%	0%	**773%**		A	1h3	0% 1M
F) 5	A	02M	0	03	717	**A03%M**	A	03b9.		A	03b2b		**A 03%. 8**		A	0329	03	9hh	**A 03%. h**		A	03hh	03M	h **A 03%M**
Sl[kti	0	1	M	0	**.**		A	7h0	0	h97	0	**877**		A	0	h71	77h	0	**b. M**		A	77b	7hb	0 0 **. 8h**
% Sl[kti	0%	100%	100%	0%	**100%**		A	983	0%	0%	992	2% 0%	**983%**		A	0%	993	1% 99	3h% 0%	**992%**		A	993	1% 983	7% 0% 0% **983%**
dUBr6rAy BtiTRucni	0	0	0	0	**0**		A	h	0	h	0	**8**		A	0	1	2	0	**7**		A	2	7	0 0 **M**
% dUBr6rAy BtiTRucni	0%		0%	0%	0%	**0%**	A	12%	0%	03	8%	0% **03%**		A	0%	02%	03	% 0%	**03%**		A	03 %	03	8% 0% 0% **03%**
a Rl[duGLieo TRucni	0		0	0	0	**0**	A	7	0	0	0	**7**		A	0	7	0	0	**7**		A	1	1	0 0 **2**
% a Rl[duGLieo TRucni	0%		0%	0%	0%	**0%**	A	03%	0%	0%	0%	**03%**		A	0%	03%	0%	0%	**03%**		A	03%	03%	0% 0% **03%**
Ruiei	0		0	0	0	**0**	A	0	0	0	0	**0**		A	0	0	0	0	**0**		A	0	1	0 0 **1**
% Ruiei	0%		0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**		A	0%	0%	0%	0%	**0%**		A	0%	03%	0% 0% **03%**
Rl[wc6ei CBv CLo	0		0	0	0	**0**	A	0	0	0	0	**0**		A	0	0	0	0	**0**		A	0	1	0 0 **1**
% Rl[wc6ei CBv CLo	0%		0%	0%	0%	**0%**	A	0%	0%	0%	0%	**0%**		A	0%	0%	0%	0%	**0%**		A	0%	03%	0% 0% **03%**
Feoei tPUEBi	A	A	A	A	A	0	A	A	A	A	A	0		A	A	A	A	A	0		A	A	A	A 0
% Feoei tPUEBi	A	A	A	A	A	A	A	A	A	A	A	A		A	A	A	A	A	A		A	A	A	A A
Rl[wc6ei CBs PGi mLfin	A	A	A	A	A	0	A	A	A	A	A	0		A	A	A	A	A	0		A	A	A	A 0
% Rl[wc6ei CBs PGi mLfin	A	A	A	A	A	A	A	A	A	A	A	A		A	A	A	A	A	A		A	A	A	A A

*Feoei tPUEBi LBo Rl[wc6ei CBs PGi mLfin3S(Seft, v (v l[kt, T(TkRu, y (y A[uHB

Northville & 7 Mile (south) - TMC
Tue Oct 19, 2021



WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES - TRAFFIC SECTION
SOLID STATE TIMING PERMIT

INTERVAL TIMING (SECONDS)

CYCLE LENGTH	OFFSET	DESCRIPTION	HOURS OF OPERATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH
	SEC		MINIMUM TIME	3.0	4.0	10.0	7.0	3.0	0.6	2.4	3.0	4.0	11.0	10.4	2.6	1.0	2.0											
	DIAL 1	SHELDON	6AM – 1AM	G	G	G	G	Y	Y	R	R	R	R	R	R	R	R											Y
80	SEC 40	E.N. HINES DRIVE	7 DAYS	R	R	R	R	R	R	R	R	G	G	G	Y	Y	R											R
		SHELDON PED		W	W	FD	FD	FD	D	D	D	D	D	D	D	D	D											
	DIAL 2	E.N. HINES PED		D	D	D	D	D	D	D	D	W	FD	FD	FD	D	D											
	DIAL 3																											
	DIAL 4																											

SIGNAL PLAN -- CYCLE SEQUENCE CHART

REMARKS

LOCATION: E.N. HINES - SHELDON
S.I. NO.: 505 vi
ATS NO.: 00507
PREPARED BY: APK
APPROVED BY: PM
ISSUED: 08-05-14
INSTALLED: 08-18-14
FLASHER SCHEDULE: 1:00 AM - 6:00 AM 7 DAYS
RR PRE-EMPT
FIRE PRE-EMPT
INITIALIZE TIME = 10 SEC.
PROM NUMBER:

UPDATED PER 2011 MMUTCD

EPIC

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES - TRAFFIC SECTION
SOLID STATE TIMING PERMIT

INTERVAL TIMING (SECONDS)

CYCLE LENGTH	OFFSET	DESCRIPTION	HOURS OF OPERATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH
	SEC		MINIMUM TIME	3.0	4.0	7.8	2.5	0.5	2.5	3.0	5.5	7.3	2.2	0.8	2.2													
	DIAL 1	SHELDON	FULL TIME	3.0	22.7	7.8	2.5	0.5	2.5	3.0	5.5	7.3	2.2	0.8	2.2													R
60	SEC 0	MAIN		R	R	R	R	R	R	R	G	G	Y	Y	R													R
		SHELDON PEDS		W	W	FD	FD	D	D	D	D	D	D	D	D													
	DIAL 2	MAIN PEDS		D	D	D	D	D	D	D	W	W	FD	FD	D													
	DIAL 3																											
	DIAL 4																											

SIGNAL PLAN -- CYCLE SEQUENCE CHART

REMARKS

LOCATION: MAIN – SHELDON (CENTER)
S.I. NO.: 109 v
ATS NO.: 05400
PREPARED BY: AA
APPROVED BY:
ISSUED: 5-5-17
INSTALLED:
FLASHER SCHEDULE: NONE
RR PRE-EMPT
FIRE PRE-EMPT
INITIALIZE TIME = 10 SEC.
PROM NUMBER:

UPDATED PER 2011 MMUTCD

EPIC

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES - TRAFFIC SECTION
SOLID STATE TIMING PERMIT

CYCLE LENGTH	OFFSET	HOURS OF OPERATION	INTERVAL TIMING (SECONDS) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SEC	SEC	MINIMUM TIME	3.0	4.0	4.0	4.0	2.2	0.1	7.0	4.0	2.4	10.0	6.0	4.0	2.4											
DIAL 1	40	FULL TIME	3.0	21.6	4.0	4.0	2.2	0.1	16.3	4.0	2.4	10.0	6.0	4.0	2.4											
80																										
DIAL 2																										
DIAL 3																										
DIAL 4																										

DESCRIPTION	SIGNAL PLAN -- CYCLE SEQUENCE CHART 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH
SEVEN MILE (NEAR)	G	G	Y	R	R	R	R	R	R	G	G	G													R
SEVEN MILE (FAR) RIGHT	GR	GR	GR	Y	R	R	R	R	R	GR	GR	GR	GR												R
SEVEN MILE (FAR) LEFT	GL	GL	GL	Y	R	R	R	R	R	R	R	R													R
NORTHVILLE NB	R	R	R	R	R	G	G	Y	R	R	R	R	R												R
NORTHVILLE SB	R	R	R	R	R	G	G	G	G	G	G	Y	R												R
NORTHVILLE SB LEFT	R	R	R	R	R	R	FR	FR	FR	GL	GL	Y	R												R
NTOR F.O. CASE SIGN										ON	ON	ON	ON												

REMARKS

Pre-empt cycles (dwells) on Interval No. 6.
UPDATED PER 2011 MMUTCD

LOCATION: NORTHVILLE - SEVEN MILE
S.L. NO.: 76 v
ATS NO.: 00077
PREPARED BY: AA
APPROVED BY:
ISSUED: 5-19-17
FLASHER SCHEDULE: NONE
INSTALLED:
RR PRE-EMPT X
FIRE PRE-EMPT
INITIALIZE TIME = 10 SEC.
PROM NUMBER: EPIC

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES - TRAFFIC SECTION
SOLID STATE TIMING PERMIT

CYCLE LENGTH	OFFSET	HOURS OF OPERATION	INTERVAL TIMING (SECONDS) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SEC	SEC	MINIMUM TIME	3.0	4.0	3.0	6.3	3.0	2.5	3.0	4.0	3.0	6.0	3.0	2.3												
DIAL 1	25	7AM – 1AM 7 DAYS	3.0	20.9	3.0	6.3	3.0	2.5	3.0	4.0	3.0	6.0	3.0	2.3												
60																										
DIAL 2																										
DIAL 3																										
DIAL 4																										

DESCRIPTION	SIGNAL PLAN -- CYCLE SEQUENCE CHART 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH
MAIN	G	G	G	G	Y	R	R	R	R	R	R	R													Y
HUTTON	R	R	R	R	R	R	G	G	G	G	Y	R													R
MAIN PED	W	W	FD	FD	FD	D	D	D	D	D	D	D													
HUTTON PED	D	D	D	D	D	D	W	W	FD	FD	FD	D													

REMARKS

SIGNAL PLAN 1
Normal Operation

See Signal Plan 2 for Special Flashing Operation

UPDATED PER 2011 MMUTCD

LOCATION: HUTTON - MAIN
S.L. NO.: 284 v
ATS NO.: 05558
PREPARED BY: AA
APPROVED BY: PM
ISSUED: 4-17-17
FLASHER SCHEDULE: 1AM – 7AM, 7 DAYS
INSTALLED:
RR PRE-EMPT
FIRE PRE-EMPT
INITIALIZE TIME = 10 SEC.
PROM NUMBER: EPIC

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES - TRAFFIC SECTION
SOLID STATE TIMING PERMIT

CYCLE LENGTH	OFFSET	HOURS OF OPERATION	INTERVAL TIMING (SECONDS) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SEC	SEC	MINIMUM TIME	3	3	1	1	4	0	3	3	1	1	4	0												
DIAL 1	55	6:00A – 11:00P 7 DAYS	3.9	27.0	5.0	1.0	4.0	0.1	3.9	5.0	5.0	1.0	4.0	0.1												
60																										
DIAL 2																										
DIAL 3																										
DIAL 4																										

DESCRIPTION	SIGNAL PLAN -- CYCLE SEQUENCE CHART 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH
SHELDON	G	G	G	G	Y	R	R	R	R	R	R	R													Y
DUNLAP	R	R	R	R	R	R	G	G	G	G	Y	R													R
SHELDON PEDS	W	W	FD	FD	FD	D	D	D	D	D	D	D													
DUNLAP PEDS	D	D	D	D	D	D	W	W	FD	FD	FD	D													

REMARKS

*USE SIGNAL PLAN #2
DIAL 2-1-1
FOR DOWNTOWN R+R FLASH-
-24HR

LOCATION: DUNLAP - SHELDON
S.L. NO.: 600 vi
ATS NO.: 05401
PREPARED BY: JW
APPROVED BY:
ISSUED: 12-1-99
FLASHER SCHEDULE: 11:00PM – 6:00AM DAILY X NONE
INSTALLED: 2-17-00 R. H.J.
RR PRE-EMPT
FIRE PRE-EMPT
INITIALIZE TIME = 10 SEC.
PROM NUMBER: EPIC

WAYNE COUNTY DEPARTMENT OF PUBLIC SERVICES - TRAFFIC SECTION
SOLID STATE TIMING PERMIT

CYCLE LENGTH	OFFSET	HOURS OF OPERATION	INTERVAL TIMING (SECONDS) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SEC	SEC	MINIMUM TIME	3	4	13.7	2.6	0.4	2.6	3	4	13.8	2.8	0.8	2.2												
DIAL 1	0	7A-1A 7 DAYS	3.6	10.5	13.7	2.6	0.4	2.6	3.0	4.0	13.8	2.8	0.8	2.2												
60																										
DIAL 2																										
DIAL 3																										
DIAL 4																										

DESCRIPTION	SIGNAL PLAN -- CYCLE SEQUENCE CHART 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	FLASH
MAIN	G	G	G	Y	Y	R	R	R	R	R	R	R													Y
GRISWOLD	R	R	R	R	R	R	G	G	G	Y	Y	R													R
MAIN PED	W	W	FD	FD	D	D	D	D	D	D	D	D													
GRISWOLD PED	D	D	D	D	D	D	W	W	FD	FD	D	D													

REMARKS

UPDATED PER 2011 MMUTCD

LOCATION: GRISWOLD - MAIN
S.L. NO.: 696 ii
ATS NO.: 00179
PREPARED BY: SK
APPROVED BY: PM
ISSUED: 12-13-17
FLASHER SCHEDULE: 1 A.M. – 7 A.M. 7 DAYS
INSTALLED:
RR PRE-EMPT
FIRE PRE-EMPT
INITIALIZE TIME = 10 SEC.
PROM NUMBER: STD2V2P

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Northville Downs PUD	**Organization:**	Fleis & VandenBrink Engineering
Project Location:	Northville, Michigan	**Performed By:**	F&V
Scenario Description:		**Date:**	12/1/2021
Analysis Year:	2021	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				41	25	16
Restaurant				0		
Cinema/Entertainment				0		
Residential				226	63	163
Hotel				0		
All Other Land Uses[2]				0		
				267	88	179

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses[2]	1.10	0%	0%	1.10	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	294	97	197
Internal Capture Percentage	2%	3%	2%
External Vehicle-Trips[5]	262	86	176
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	7%	6%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	1%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
[6]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Northville Downs PUD	**Organization:**	Fleis & VandenBrink Engineering
Project Location:	Northville, Michigan	**Performed By:**	F&V
Scenario Description:		**Date:**	12/1/2021
Analysis Year:	2021	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				115	58	57
Restaurant				0		
Cinema/Entertainment				0		
Residential				260	153	107
Hotel				0		
All Other Land Uses[2]				0		
				375	211	164

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.10	0%	0%	1.10	0%	0%
Retail	1.10	0%	0%	1.10	0%	0%
Restaurant	1.10	0%	0%	1.10	0%	0%
Cinema/Entertainment	1.10	0%	0%	1.10	0%	0%
Residential	1.10	0%	0%	1.10	0%	0%
Hotel	1.10	0%	0%	1.10	0%	0%
All Other Land Uses[2]	1.10	0%	0%	1.10	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	16	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	6	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	413	232	181
Internal Capture Percentage	11%	9%	12%
External Vehicle-Trips[5]	336	191	145
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	9%	25%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	10%	5%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[6]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

SEMCOG | Southeast Michigan Council of Governments

Community Profiles

YOU ARE VIEWING DATA FOR:

City of Northville

215 W Main St
Northville, MI 48167-1599
http://www.ci.northville.mi.us/

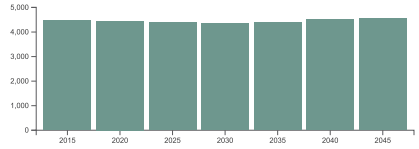
SEMCOG MEMBER

Census 2010 Population: 5,970
Area: 2 square miles

Economy & Jobs

Link to American Community Survey (ACS) Profiles: **Select a Year** 2012-2016 ▼ **Economic**

Forecasted Jobs



Source: **SEMCOG 2045 Regional Development Forecast**

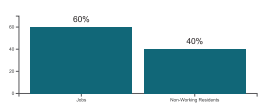
Forecasted Jobs by Industry Sector

Forecasted Jobs By Industry Sector	2015	2020	2025	2030	2035	2040	2045	Change 2015-2045	Pct Change 2015-2045
Natural Resources, Mining, & Construction	98	103	97	99	100	102	101	3	3.1%
Manufacturing	120	110	90	83	79	69	59	-61	-50.8%
Wholesale Trade	67	64	68	62	64	63	67	0	0%
Retail Trade	330	307	297	283	267	279	283	-47	-14.2%
Transportation, Warehousing, & Utilities	135	102	86	74	65	60	55	-80	-59.3%
Information & Financial Activities	881	863	822	811	792	849	839	-42	-4.8%
Professional and Technical Services & Corporate HQ	500	501	514	522	549	564	568	68	13.6%
Administrative, Support, & Waste Services	277	287	290	293	301	309	314	37	13.4%
Education Services	486	499	496	494	496	502	506	20	4.1%
Healthcare Services	487	524	536	551	582	617	651	164	33.7%
Leisure & Hospitality	511	529	527	529	535	551	558	47	9.2%
Other Services	432	434	428	424	425	424	419	-13	-3%
Public Administration	136	132	132	132	132	132	132	-4	-2.9%
Total Employment Numbers	4,460	4,455	4,383	4,357	4,387	4,521	4,552	92	2.1%

Source: **SEMCOG 2045 Regional Development Forecast**

Daytime Population

Daytime Population	SEMCOG and ACS 2015
Jobs	4,460
Non-Working Residents	2,984
Age 15 and under	1,014
Not in labor force	1,724
Unemployed	246
Daytime Population	7,444



Source: **SEMCOG 2045 Regional Development Forecast** and **2015 American Community Survey 5-Year Estimates**

Note: The number of residents attending school outside Southeast Michigan is not available. Likewise, the number of students commuting into Southeast Michigan to attend school is also not known.

SEMCOG | Southeast Michigan Council of Governments

Community Profiles

YOU ARE VIEWING DATA FOR:

City of Northville

215 W Main St
Northville, MI 48167-1599
http://www.ci.northville.mi.us/

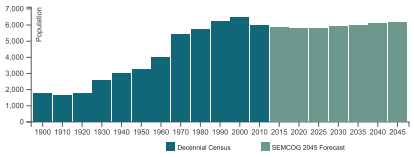
SEMCOG MEMBER

Census 2010 Population: 5,970
Area: 2 square miles

Population and Households

Link to American Community Survey (ACS) Profiles: **Select a Year** 2012-2016 ▼ **Social** | **Demographic**
Population and Household Estimates for Southeast Michigan, 2017

Population Forecast



Note for City of Northville : Incorporated as a city in 1955 from Village of Northville. Village of Northville incorporated in 1867. Oakland County portion of the Village of Northville was annexed into the village in the early 1900s but not reported separately in the Census until 1930. Population numbers prior to 1955 are of the village.

Population and Households

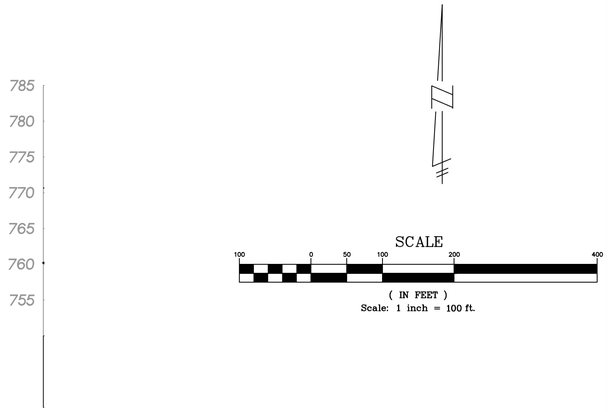
Population and Households	Census 2010	Change 2000-2010	Pct Change 2000-2010	SEMCOG Jul 2017	SEMCOG 2045
Total Population	5,970	-489	-7.6%	5,835	6,183
Group Quarters Population	34	-4	-10.5%	34	36
Household Population	5,936	-485	-7.6%	5,801	6,147
Housing Units	2,767	-34	-1.2%	2,648	-
Households (Occupied Units)	2,596	-124	-4.6%	2,495	2,602
Residential Vacancy Rate	6.2%	3.3%	-	5.8%	-
Average Household Size	2.29	-0.07	-	2.33	2.36

Source: **U.S. Census Bureau**, **SEMCOG Population and Household Estimates**, and **SEMCOG 2045 Regional Development Forecast**

Components of Population Change

Components of Population Change	2000-2005 Avg.	2006-2010 Avg.	2011-2015 Avg.
Natural Increase (Births - Deaths)	109	90	33
Births	231	230	130
Deaths	122	140	97
Net Migration (Movement In - Movement Out)	-157	-140	-61
Population Change (Natural Increase + Net Migration)	-48	-50	-28

Source: **Michigan Department of Community Health Vital Statistics**, **U.S. Census Bureau**, and SEMCOG



PARK OPEN SPACE

BASIN AREA	=	2.66	AC.
RIVER AREA	=	3.96	AC.
PARK AREA	=	5.37	AC.
TOTAL	=	11.99	AC.

LEGEND

EXISTING	PROPOSED	
		PAVEMENT (ASPHALT)
		SIDE WALK (CONCRETE)
		CONCRETE CURB AND GUTTER
		STORM SEWER
		SANITARY SEWER
		WATER MAIN
		MANHOLE
		CATCH BASIN W/STREAM GUARD
		CURB INLET W/SILT SAC
		END SECTION
		GATE VALVE
		HYDRANT
		FLOOD PLAIN
1000	1000	CONTOURS
+ 1000.0	1000.00 T/C	SPOT ELEVATION
		SURFACE DRAINAGE
		OVERFLOW ROUTE
		TREE FENCE
		SILT FENCE
		PROPOSED DRIVEWAY LOCATION
		LIMIT OF DISTURBANCE

P.U.D. ELIGIBILITY SITE PLAN

SECTION 3, T1S, R8E, CITY OF NORTHVILLE
WAYNE COUNTY, MICHIGAN

REVISIONS

NO.	ITEM	DATE

UTILITY WARNING

UNDERGROUND UTILITY LOCATIONS AS SHOWN ON THE PLAN, WERE OBTAINED FROM UTILITY OWNER AND NOT FIELD LOCATED.

811 Know what's below. Call before you dig.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF AND/OR RELOCATION OF ALL UTILITIES THAT MAY INTERFERE WITH CONSTRUCTION.

DATE: 11-23-21 | DESIGNED BY: A.A. | CHECKED BY: R.E. | JOB NUMBER: 21-001 | DWG.: 21001LY-SP-NEW LAYOUT -11-23-21 PS.DWG

PARK OPEN SPACE

SEIBER, KEAST ENGINEERING, L.L.C.
CONSULTING ENGINEERS
39205 COUNTRY CLUB DRIVE • SUITE C8 • FARMINGTON HILLS, MI • 48331
PHONE: 248.308.3331 EMAIL: info@seiberkeast.com

SHEET 1

Appendix B

EXISTING TRAFFIC CONDITIONS

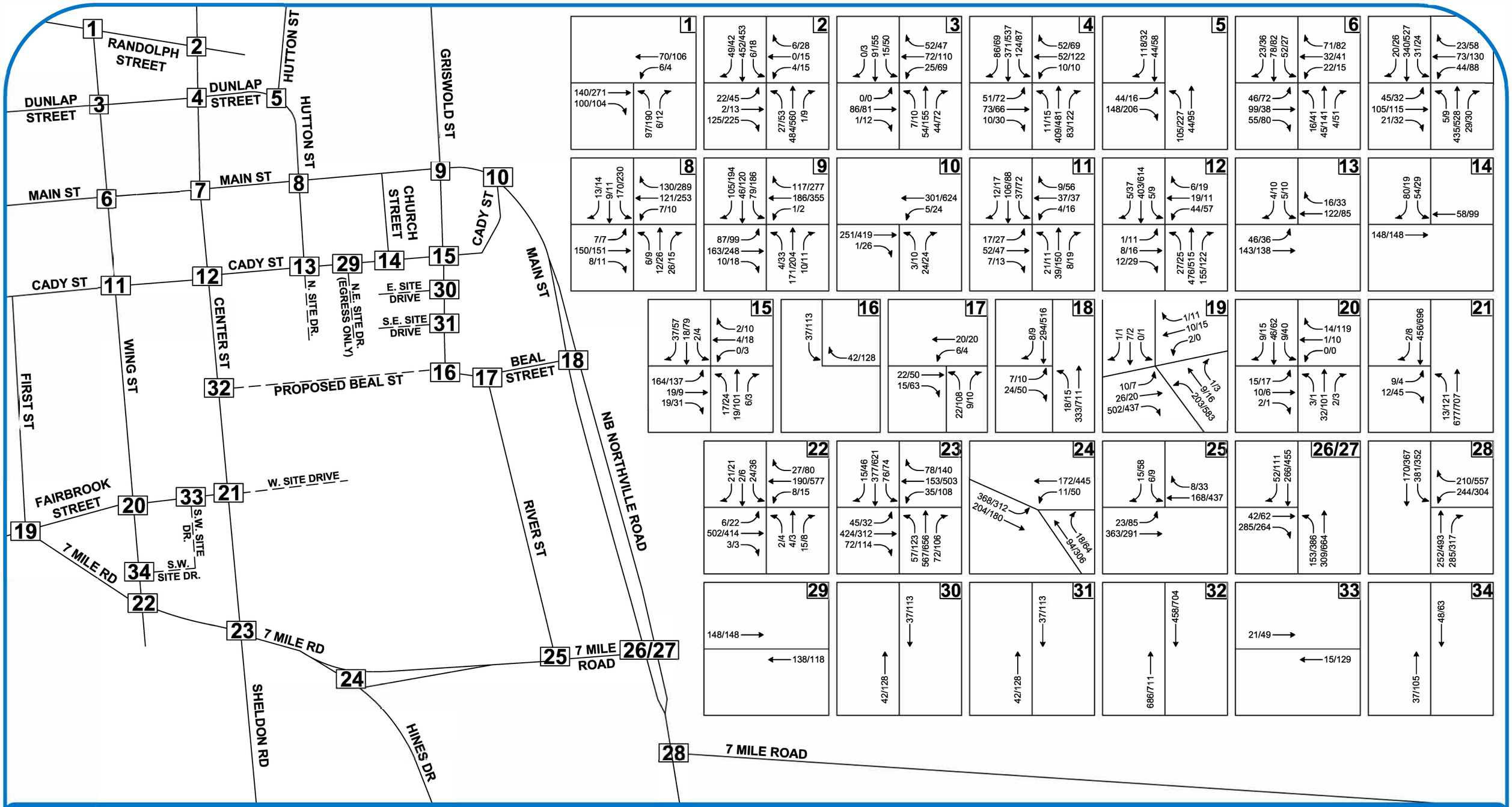


FIGURE 3
EXISTING TRAFFIC VOLUMES

NORTHVILLE DOWNS TIS - NORTHVILLE, MI

LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

NORTH
SCALE: NOT TO SCALE

F&V

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	140	100	6	70	97	9
Future Vol, veh/h	140	100	6	70	97	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	60	60	77	77
Heavy Vehicles, %	3	3	2	2	4	4
Mvmt Flow	147	105	10	117	126	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	252	0	337	200
Stage 1	-	-	-	-	200	-
Stage 2	-	-	-	-	137	-
Critical Hdwy	-	-	4.12	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.218	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1313	-	654	836
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1313	-	649	836
Mov Cap-2 Maneuver	-	-	-	-	649	-
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	662	-	-	1313	-
HCM Lane V/C Ratio	0.208	-	-	0.008	-
HCM Control Delay (s)	11.9	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	2	125	4	0	6	27	484	1	6	452	49
Future Vol, veh/h	22	2	125	4	0	6	27	484	1	6	452	49
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	4	4	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	500	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	75	75	75	91	91	91	69	69	69
Heavy Vehicles, %	1	1	1	0	0	0	2	2	2	2	2	2
Mvmt Flow	33	3	189	5	0	8	30	532	1	9	655	71

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1311	1311	696	1402	1346	537	731	0	0	537	0	0
Stage 1	714	714	-	597	597	-	-	-	-	-	-	-
Stage 2	597	597	-	805	749	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	160	443	119	153	548	873	-	-	1031	-	-
Stage 1	424	436	-	493	495	-	-	-	-	-	-	-
Stage 2	491	493	-	379	422	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	129	152	441	64	145	546	869	-	-	1027	-	-
Mov Cap-2 Maneuver	129	152	-	64	145	-	-	-	-	-	-	-
Stage 1	407	430	-	474	476	-	-	-	-	-	-	-
Stage 2	467	474	-	213	416	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39.5	34.3	0.5	0.1
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	869	-	-	319	136	1027	-	-
HCM Lane V/C Ratio	0.034	-	-	0.708	0.098	0.008	-	-
HCM Control Delay (s)	9.3	-	-	39.5	34.3	8.5	-	-
HCM Lane LOS	A	-	-	E	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	5.1	0.3	0	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	86	1	25	72	52	7	54	44	15	91	0
Future Vol, veh/h	0	86	1	25	72	52	7	54	44	15	91	0
Peak Hour Factor	0.78	0.78	0.78	0.73	0.73	0.73	0.84	0.84	0.84	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	0	110	1	34	99	71	8	64	52	17	103	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9	8.5	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	0%	17%	14%
Vol Thru, %	51%	99%	48%	86%
Vol Right, %	42%	1%	35%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	87	149	106
LT Vol	7	0	25	15
Through Vol	54	86	72	91
RT Vol	44	1	52	0
Lane Flow Rate	125	112	204	120
Geometry Grp	1	1	1	1
Degree of Util (X)	0.159	0.146	0.252	0.163
Departure Headway (Hd)	4.591	4.714	4.444	4.872
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	779	758	806	734
Service Time	2.636	2.758	2.482	2.917
HCM Lane V/C Ratio	0.16	0.148	0.253	0.163
HCM Control Delay	8.5	8.6	9	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.5	1	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	73	10	10	52	52	11	409	83	124	371	86
Future Volume (veh/h)	51	73	10	10	52	52	11	409	83	124	371	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	58	83	11	12	61	61	12	445	90	159	476	110
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.92	0.92	0.92	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	422	56	391	223	223	488	977	198	664	951	220
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	1.00	1.00	1.00	0.62	0.62	0.62
Sat Flow, veh/h	1262	1701	225	1294	899	899	829	1588	321	868	1546	357
Grp Volume(v), veh/h	58	0	94	12	0	122	12	0	535	159	0	586
Grp Sat Flow(s),veh/h/ln	1262	0	1926	1294	0	1798	829	0	1910	868	0	1903
Q Serve(g_s), s	2.3	0.0	2.3	0.4	0.0	3.3	0.2	0.0	0.0	5.2	0.0	10.3
Cycle Q Clear(g_c), s	5.6	0.0	2.3	2.8	0.0	3.3	10.5	0.0	0.0	5.2	0.0	10.3
Prop In Lane	1.00		0.12	1.00		0.50	1.00		0.17	1.00		0.19
Lane Grp Cap(c), veh/h	364	0	478	391	0	447	488	0	1174	654	0	1170
V/C Ratio(X)	0.16	0.00	0.20	0.03	0.00	0.27	0.02	0.00	0.46	0.24	0.00	0.50
Avail Cap(c_a), veh/h	364	0	478	391	0	447	488	0	1174	654	0	1170
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	17.8	18.9	0.0	18.2	1.5	0.0	0.0	5.4	0.0	6.4
Incr Delay (d2), s/veh	0.9	0.0	0.9	0.1	0.0	1.5	0.1	0.0	1.3	0.9	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.1	0.1	0.0	1.5	0.0	0.0	0.4	0.9	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	18.7	19.1	0.0	19.7	1.6	0.0	1.3	6.3	0.0	8.0
LnGrp LOS	C	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		152			134			547			745	
Approach Delay, s/veh		19.7			19.6			1.3			7.6	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8	
Phs Duration (G+Y+Rc), s		41.0		19.0		41.0		19.0	
Change Period (Y+Rc), s		* 4.1		* 4.1		* 4.1		* 4.1	
Max Green Setting (Gmax), s		* 37		* 15		* 37		* 15	
Max Q Clear Time (g_c+I1), s		12.5		7.6		12.3		5.3	
Green Ext Time (p_c), s		4.0		0.3		5.6		0.4	

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	148	105	44	44	18
Future Vol, veh/h	4	148	105	44	44	18
Conflicting Peds, #/hr	0	0	0	0	5	5
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	93	93	84	84	74	74
Heavy Vehicles, %	3	3	2	2	0	0
Mvmt Flow	4	159	125	52	59	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	177	0	-	0	323	156
Stage 1	-	-	-	-	151	-
Stage 2	-	-	-	-	172	-
Critical Hdwy	4.13	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1393	-	-	-	675	895
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	863	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1393	-	-	-	673	891
Mov Cap-2 Maneuver	-	-	-	-	673	-
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	863	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1393	-	-	-	724
HCM Lane V/C Ratio	0.003	-	-	-	0.116
HCM Control Delay (s)	7.6	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	99	55	22	32	71	16	45	4	52	78	23
Future Vol, veh/h	46	99	55	22	32	71	16	45	4	52	78	23
Peak Hour Factor	0.81	0.81	0.81	0.76	0.76	0.76	0.93	0.93	0.93	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	57	122	68	29	42	93	17	48	4	67	100	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	8.9	8.9	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	23%	18%	34%
Vol Thru, %	69%	49%	26%	51%
Vol Right, %	6%	28%	57%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	200	125	153
LT Vol	16	46	22	52
Through Vol	45	99	32	78
RT Vol	4	55	71	23
Lane Flow Rate	70	247	164	196
Geometry Grp	1	1	1	1
Degree of Util (X)	0.101	0.321	0.21	0.27
Departure Headway (Hd)	5.215	4.679	4.598	4.952
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	681	763	775	720
Service Time	3.298	2.737	2.662	3.02
HCM Lane V/C Ratio	0.103	0.324	0.212	0.272
HCM Control Delay	8.9	10	8.9	9.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	1.4	0.8	1.1

HCM 6th Signalized Intersection Summary
7: Center Street & Main Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	105	21	44	73	23	5	435	29	31	340	20
Future Volume (veh/h)	45	105	21	44	73	23	5	435	29	31	340	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1969	1969	1953	1953	1953	1953	1953	1953	1953
Adj Flow Rate, veh/h	52	121	24	50	83	26	6	524	35	34	378	22
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.83	0.83	0.83	0.90	0.90	0.90
Percent Heavy Veh, %	1	1	1	2	2	2	3	3	3	3	3	3
Cap, veh/h	156	331	57	179	276	74	63	1006	67	104	938	52
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.56	0.56	1.00	1.00	1.00	1.00
Sat Flow, veh/h	304	1256	216	380	1050	280	5	1802	119	70	1680	93
Grp Volume(v), veh/h	197	0	0	159	0	0	565	0	0	434	0	0
Grp Sat Flow(s),veh/h/ln	1777	0	0	1709	0	0	1927	0	0	1844	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.0	0.0	0.0	4.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.26		0.12	0.31		0.16	0.01		0.06	0.08		0.05
Lane Grp Cap(c), veh/h	544	0	0	529	0	0	1136	0	0	1094	0	0
V/C Ratio(X)	0.36	0.00	0.00	0.30	0.00	0.00	0.50	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	544	0	0	529	0	0	1136	0	0	1094	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	0.0	0.0	17.8	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.0	1.5	0.0	0.0	1.6	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	1.9	0.0	0.0	4.2	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	0.0	0.0	19.2	0.0	0.0	9.8	0.0	0.0	1.1	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		197			159			565			434	
Approach Delay, s/veh		20.0			19.2			9.8			1.1	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2			4		6		8			
Phs Duration (G+Y+Rc), s		39.0			21.0		39.0		21.0			
Change Period (Y+Rc), s		5.5			* 5.2		5.5		* 5.2			
Max Green Setting (Gmax), s		33.5			* 16		33.5		* 16			
Max Q Clear Time (g_c+I1), s		13.0			7.0		2.0		6.0			
Green Ext Time (p_c), s		4.0			0.7		3.3		0.6			
Intersection Summary												
HCM 6th Ctrl Delay			9.6									
HCM 6th LOS			A									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
8: Hutton Street & Main Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	150	8	7	121	130	6	12	26	170	9	13
Future Volume (veh/h)	7	150	8	7	121	130	6	12	26	170	9	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	1969	1969	1969	2000	2000	2000	1969	1969	1969
Adj Flow Rate, veh/h	8	176	9	8	138	148	9	17	38	200	11	15
Peak Hour Factor	0.85	0.85	0.85	0.88	0.88	0.88	0.69	0.69	0.69	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	2	2	2
Cap, veh/h	77	1081	833	85	1054	820	98	161	278	474	20	397
Arrive On Green	1.00	1.00	1.00	0.18	0.18	0.18	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	26	1953	1506	38	1905	1483	111	602	1042	1340	74	1490
Grp Volume(v), veh/h	184	0	9	146	0	148	64	0	0	211	0	15
Grp Sat Flow(s),veh/h/ln	1979	0	1506	1944	0	1483	1755	0	0	1414	0	1490
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	5.7	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.7	0.0	5.1	1.6	0.0	0.0	7.3	0.0	0.4
Prop In Lane	0.04		1.00	0.05		1.00	0.14		0.59	0.95		1.00
Lane Grp Cap(c), veh/h	1158	0	833	1139	0	820	537	0	0	494	0	397
V/C Ratio(X)	0.16	0.00	0.01	0.13	0.00	0.18	0.12	0.00	0.00	0.43	0.00	0.04
Avail Cap(c_a), veh/h	1158	0	833	1139	0	820	537	0	0	494	0	397
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.5	0.0	13.0	16.7	0.0	0.0	18.6	0.0	16.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.5	0.5	0.0	0.0	2.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.6	0.0	1.7	0.7	0.0	0.0	2.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.0	0.0	12.7	0.0	13.5	17.2	0.0	0.0	21.3	0.0	16.5
LnGrp LOS	A	A	A	B	A	B	B	A	A	C	A	B
Approach Vol, veh/h		193			294			64			226	
Approach Delay, s/veh		0.3			13.1			17.2			21.0	
Approach LOS		A			B			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7		21.3				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		33.2		* 16		33.2		* 16				
Max Q Clear Time (g_c+I1), s		2.0		9.3		7.1		3.6				
Green Ext Time (p_c), s		1.2		0.7		1.4		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
9: Griswold Street & Main Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	163	10	1	186	117	4	171	10	79	46	105
Future Volume (veh/h)	87	163	10	1	186	117	4	171	10	79	46	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1938	1984	1984	1984	1953	1953	1953
Adj Flow Rate, veh/h	106	199	12	1	224	141	5	194	11	88	51	117
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.88	0.88	0.88	0.88	0.90	0.90
Percent Heavy Veh, %	1	1	1	4	4	4	1	1	1	3	3	3
Cap, veh/h	443	925	58	61	1004	601	66	639	36	228	147	247
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	733	1996	126	1	2167	1297	12	1843	103	424	423	713
Grp Volume(v), veh/h	147	0	170	200	0	166	210	0	0	256	0	0
Grp Sat Flow(s),veh/h/ln	1072	0	1783	1937	0	1528	1958	0	0	1560	0	0
Q Serve(g_s), s	3.6	0.0	3.4	0.0	0.0	3.9	0.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	7.6	0.0	3.4	3.7	0.0	3.9	4.7	0.0	0.0	6.9	0.0	0.0
Prop In Lane	0.72		0.07	0.01		0.85	0.02		0.05	0.34		0.46
Lane Grp Cap(c), veh/h	600	0	826	958	0	708	740	0	0	622	0	0
V/C Ratio(X)	0.25	0.00	0.21	0.21	0.00	0.23	0.28	0.00	0.00	0.41	0.00	0.00
Avail Cap(c_a), veh/h	600	0	826	958	0	708	740	0	0	622	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	9.6	9.6	0.0	9.7	14.3	0.0	0.0	14.9	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.6	0.5	0.0	0.8	1.0	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	1.3	1.5	0.0	1.3	2.0	0.0	0.0	2.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	0.0	10.1	10.1	0.0	10.5	15.3	0.0	0.0	17.0	0.0	0.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		317			366			210			256	
Approach Delay, s/veh		11.0			10.3			15.3			17.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.4		26.6		33.4		26.6				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		27.8		* 21		27.8		* 21				
Max Q Clear Time (g_c+I1), s		9.6		8.9		5.9		6.7				
Green Ext Time (p_c), s		2.0		1.2		2.3		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
10: Cady Street & Main Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	251	1	5	301	3	24
Future Vol, veh/h	251	1	5	301	3	24
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	87	87	79	79
Heavy Vehicles, %	1	1	3	3	5	5
Mvmt Flow	285	1	6	346	4	30

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	287	0	472	144
Stage 1	-	-	-	-	287	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	-	-	4.16	-	6.9	7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	-	-	2.23	-	3.55	3.35
Pot Cap-1 Maneuver	-	-	1265	-	513	868
Stage 1	-	-	-	-	727	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1264	-	509	867
Mov Cap-2 Maneuver	-	-	-	-	509	-
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	814	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	804	-	-	1264	-
HCM Lane V/C Ratio	0.043	-	-	0.005	-
HCM Control Delay (s)	9.7	-	-	7.9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th AWSC
11: Wing Street & Cady Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	52	7	4	37	9	21	39	8	37	106	12
Future Vol, veh/h	17	52	7	4	37	9	21	39	8	37	106	12
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.90	0.90	0.90	0.81	0.81	0.81
Heavy Vehicles, %	1	1	1	3	3	3	5	5	5	2	2	2
Mvmt Flow	27	83	11	5	45	11	23	43	9	46	131	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8	8.1	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	22%	8%	24%
Vol Thru, %	57%	68%	74%	68%
Vol Right, %	12%	9%	18%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	76	50	155
LT Vol	21	17	4	37
Through Vol	39	52	37	106
RT Vol	8	7	9	12
Lane Flow Rate	76	121	61	191
Geometry Grp	1	1	1	1
Degree of Util (X)	0.097	0.154	0.078	0.237
Departure Headway (Hd)	4.621	4.597	4.622	4.452
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	776	781	775	808
Service Time	2.647	2.623	2.652	2.474
HCM Lane V/C Ratio	0.098	0.155	0.079	0.236
HCM Control Delay	8.1	8.5	8	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.5	0.3	0.9

HCM 6th TWSC
12: Center Street & Cady Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	8	12	44	19	6	27	476	155	5	403	5
Future Vol, veh/h	1	8	12	44	19	6	27	476	155	5	403	5
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	82	82	82	90	90	90	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	2	13	20	54	23	7	30	529	172	6	453	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1161	1230	458	1161	1147	617	460	0	0	701	0	0
Stage 1	469	469	-	675	675	-	-	-	-	-	-	-
Stage 2	692	761	-	486	472	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	174	179	607	174	201	494	1096	-	-	896	-	-
Stage 1	579	564	-	447	456	-	-	-	-	-	-	-
Stage 2	437	417	-	566	562	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	149	169	606	151	190	493	1095	-	-	896	-	-
Mov Cap-2 Maneuver	149	169	-	151	190	-	-	-	-	-	-	-
Stage 1	552	568	-	426	435	-	-	-	-	-	-	-
Stage 2	388	398	-	529	556	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.5	44.9	0.3	0.1
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1095	-	-	284	171	896	-	-
HCM Lane V/C Ratio	0.027	-	-	0.123	0.492	0.006	-	-
HCM Control Delay (s)	8.4	0	-	19.5	44.9	9	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	2.4	0	-	-

HCM 6th TWSC
13: N. Site Drive/Hutton Street & Cady Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	143	0	0	122	16	0	0	0	5	0	4
Future Vol, veh/h	46	143	0	0	122	16	0	0	0	5	0	4
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	66	66	66	92	92	92	75	75	75
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	11	11	11
Mvmt Flow	55	170	0	0	185	24	0	0	0	7	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	213	0	0	170	0	0	481	493	173	484	481	202
Stage 1	-	-	-	-	-	-	280	280	-	201	201	-
Stage 2	-	-	-	-	-	-	201	213	-	283	280	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.21	5.61	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.599	4.099	3.399
Pot Cap-1 Maneuver	1363	-	-	1413	-	-	495	477	871	479	472	816
Stage 1	-	-	-	-	-	-	727	679	-	781	718	-
Stage 2	-	-	-	-	-	-	801	726	-	705	663	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1358	-	-	1413	-	-	474	454	869	459	449	812
Mov Cap-2 Maneuver	-	-	-	-	-	-	474	454	-	459	449	-
Stage 1	-	-	-	-	-	-	694	648	-	743	715	-
Stage 2	-	-	-	-	-	-	795	723	-	671	633	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	0	0	11.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1358	-	-	1413	-	-	569
HCM Lane V/C Ratio	-	0.04	-	-	-	-	-	0.021
HCM Control Delay (s)	0	7.8	0	-	0	-	-	11.5
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.1

HCM 6th TWSC
14: Cady Street & Chruch Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	148	58	0	54	80
Future Vol, veh/h	0	148	58	0	54	80
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	81	81	64	64	76	76
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	0	183	91	0	71	105

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	274	91
Stage 1	-	-	-	-	91	-
Stage 2	-	-	-	-	183	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	720	972
Stage 1	0	-	-	0	938	-
Stage 2	0	-	-	0	853	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	720	972
Mov Cap-2 Maneuver	-	-	-	-	720	-
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	853	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	852
HCM Lane V/C Ratio	-	-	0.207
HCM Control Delay (s)	-	-	10.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.8

HCM 6th TWSC
15: Griswold Street & Cady Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	164	19	19	0	4	2	17	19	6	2	18	37
Future Vol, veh/h	164	19	19	0	4	2	17	19	6	2	18	37
Conflicting Peds, #/hr	5	0	0	0	0	5	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	60	60	60	85	85	85	76	76	76
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	4	4	4
Mvmt Flow	180	21	21	0	7	3	20	22	7	3	24	49

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	134	127	52	142	148	31	76	0	0	29	0	0
Stage 1	56	58	-	66	66	-	-	-	-	-	-	-
Stage 2	78	69	-	76	82	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	842	765	1019	832	747	1049	1536	-	-	1571	-	-
Stage 1	956	849	-	950	844	-	-	-	-	-	-	-
Stage 2	936	839	-	938	831	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	816	751	1016	789	734	1044	1532	-	-	1571	-	-
Mov Cap-2 Maneuver	816	751	-	789	734	-	-	-	-	-	-	-
Stage 1	941	845	-	938	833	-	-	-	-	-	-	-
Stage 2	909	828	-	894	827	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	9.5	3	0.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1532	-	-	825	815	1571	-	-
HCM Lane V/C Ratio	0.013	-	-	0.269	0.012	0.002	-	-
HCM Control Delay (s)	7.4	0	-	11	9.5	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	0	0	-	-

HCM 6th TWSC
17: River Street & Beal Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	22	15	6	20	22	9
Future Vol, veh/h	22	15	6	20	22	9
Conflicting Peds, #/hr	0	0	0	0	1	1
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	62	62	72	72	70	70
Heavy Vehicles, %	5	5	0	0	7	7
Mvmt Flow	35	24	8	28	31	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	59	0	92	48
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	45	-
Critical Hdwy	-	-	4.1	-	6.47	6.27
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	-	-	2.2	-	3.563	3.363
Pot Cap-1 Maneuver	-	-	1558	-	896	1007
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1558	-	891	1006
Mov Cap-2 Maneuver	-	-	-	-	891	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	959	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT
Capacity (veh/h)	922	-	-	-	1558	-
HCM Lane V/C Ratio	0.048	-	-	-	0.005	-
HCM Control Delay (s)	9.1	-	-	-	7.3	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0	-

HCM 6th TWSC
18: Main Street/Northville Road & Beal Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	24	18	333	294	8
Future Vol, veh/h	7	24	18	333	294	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	61	61	88	88	91	91
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	11	39	20	378	323	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	557	166	332	0	-	0
Stage 1	328	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.88	6.98	4.16	-	-	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	2.23	-	-	-
Pot Cap-1 Maneuver	456	843	1217	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	446	843	1217	-	-	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1217	-	702	-	-
HCM Lane V/C Ratio	0.017	-	0.072	-	-
HCM Control Delay (s)	8	0.1	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

HCM 6th AWSC
20: Wing Street & Fairbrook Street

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	10	2	0	1	14	3	32	2	9	46	9
Future Vol, veh/h	15	10	2	0	1	14	3	32	2	9	46	9
Peak Hour Factor	0.73	0.73	0.73	0.69	0.69	0.69	0.75	0.75	0.75	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	11	11	11	4	4	4
Mvmt Flow	21	14	3	0	1	20	4	43	3	12	62	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB			NB			SB		
Opposing Approach	WB			EB			NB		
Opposing Lanes	1			1			1		
Conflicting Approach Left	SB			NB			EB		
Conflicting Lanes Left	1			1			1		
Conflicting Approach Right	NB			SB			WB		
Conflicting Lanes Right	1			1			1		
HCM Control Delay	7.5			6.8			7.5		
HCM LOS	A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	56%	0%	14%
Vol Thru, %	86%	37%	7%	72%
Vol Right, %	5%	7%	93%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	27	15	64
LT Vol	3	15	0	9
Through Vol	32	10	1	46
RT Vol	2	2	14	9
Lane Flow Rate	49	37	22	86
Geometry Grp	1	1	1	1
Degree of Util (X)	0.058	0.043	0.022	0.097
Departure Headway (Hd)	4.238	4.219	3.603	4.051
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	840	979	882
Service Time	2.281	2.287	1.677	2.088
HCM Lane V/C Ratio	0.058	0.044	0.022	0.098
HCM Control Delay	7.5	7.5	6.8	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1	0.3

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	12	0	0	0	13	677	0	0	456	2
Future Vol, veh/h	9	0	12	0	0	0	13	677	0	0	456	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	92	92	92	90	90	90	88	88	88
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	18	0	0	0	14	752	0	0	518	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1299	1299	519	1308	1300	752	520	0	0	752	0	0
Stage 1	519	519	-	780	780	-	-	-	-	-	-	-
Stage 2	780	780	-	528	520	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	159	551	136	161	410	1046	-	-	858	-	-
Stage 1	534	528	-	388	406	-	-	-	-	-	-	-
Stage 2	384	401	-	534	532	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	134	155	551	129	157	410	1046	-	-	858	-	-
Mov Cap-2 Maneuver	134	155	-	129	157	-	-	-	-	-	-	-
Stage 1	522	528	-	379	397	-	-	-	-	-	-	-
Stage 2	375	392	-	516	532	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.6	0	0.2	0
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1046	-	-	236	-	858	-	-
HCM Lane V/C Ratio	0.014	-	-	0.135	-	-	-	-
HCM Control Delay (s)	8.5	0	-	22.6	0	0	-	-
HCM Lane LOS	A	A	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	502	3	8	190	27	2	4	15	24	3	21
Future Vol, veh/h	6	502	3	8	190	27	2	4	15	24	3	21
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None		-	None	-	-	None	-	-	None
Storage Length	100	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	89	89	89	79	79	79	85	85	85
Heavy Vehicles, %	2	2	2	3	3	3	10	10	10	4	4	4
Mvmt Flow	8	628	4	9	213	30	3	5	19	28	4	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	245	0	0	632	0	0	907	909	633	909	896	230
Stage 1	-	-	-	-	-	-	646	646	-	248	248	-
Stage 2	-	-	-	-	-	-	261	263	-	661	648	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.2	6.6	6.3	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.59	4.09	3.39	3.536	4.036	3.336
Pot Cap-1 Maneuver	1321	-	-	946	-	-	248	267	466	254	278	804
Stage 1	-	-	-	-	-	-	447	455	-	751	698	-
Stage 2	-	-	-	-	-	-	727	676	-	448	463	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1318	-	-	946	-	-	235	262	465	236	273	802
Mov Cap-2 Maneuver	-	-	-	-	-	-	235	262	-	236	273	-
Stage 1	-	-	-	-	-	-	444	452	-	745	690	-
Stage 2	-	-	-	-	-	-	694	668	-	421	460	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	15.3	17.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	375	1318	-	-	946	-	-	346
HCM Lane V/C Ratio	0.071	0.006	-	-	0.01	-	-	0.163
HCM Control Delay (s)	15.3	7.7	-	-	8.8	-	-	17.4
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	424	72	35	153	78	57	567	72	76	377	15
Future Volume (veh/h)	45	424	72	35	153	78	57	567	72	76	377	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1938	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	53	499	85	38	166	85	62	616	78	88	438	17
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	1	1	1	4	4	4	2	2	2	2	2	2
Cap, veh/h	440	607	103	167	712	603	401	836	106	240	918	36
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1137	1652	281	818	1938	1640	936	1713	217	750	1882	73
Grp Volume(v), veh/h	53	0	584	38	166	85	62	0	694	88	0	455
Grp Sat Flow(s),veh/h/ln	1137	0	1933	818	1938	1640	936	0	1930	750	0	1956
Q Serve(g_s), s	2.7	0.0	21.9	3.5	4.7	2.8	3.8	0.0	23.0	8.5	0.0	12.4
Cycle Q Clear(g_c), s	7.4	0.0	21.9	25.4	4.7	2.8	16.2	0.0	23.0	31.5	0.0	12.4
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.11	1.00		0.04
Lane Grp Cap(c), veh/h	440	0	710	167	712	603	401	0	941	240	0	953
V/C Ratio(X)	0.12	0.00	0.82	0.23	0.23	0.14	0.15	0.00	0.74	0.37	0.00	0.48
Avail Cap(c_a), veh/h	440	0	710	167	712	603	401	0	941	240	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	22.9	34.5	17.5	16.9	19.1	0.0	16.4	29.0	0.0	13.7
Incr Delay (d2), s/veh	0.6	0.0	10.4	3.2	0.8	0.5	0.8	0.0	5.2	4.3	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	11.2	0.8	2.1	1.1	0.9	0.0	10.3	1.7	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	33.3	37.6	18.3	17.4	19.9	0.0	21.6	33.3	0.0	15.4
LnGrp LOS	C	A	C	D	B	B	B	A	C	C	A	B
Approach Vol, veh/h		637			289			756			543	
Approach Delay, s/veh		32.2			20.5			21.4			18.3	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	2		4		6		8	
Phs Duration (G+Y+Rc), s	45.0		35.0		45.0		35.0	
Change Period (Y+Rc), s	6.0		5.6		6.0		5.6	
Max Green Setting (Gmax), s	39.0		29.4		39.0		29.4	
Max Q Clear Time (g_c+I1), s	25.0		23.9		33.5		27.4	
Green Ext Time (p_c), s	4.3		1.9		1.6		0.3	

Intersection Summary	
HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

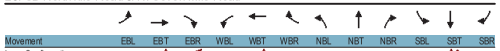
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	363	168	8	6	15
Future Vol, veh/h	23	363	168	8	6	15
Conflicting Peds, #/hr	3	0	0	3	2	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None		-	None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	83	83	71	71
Heavy Vehicles, %	2	2	5	5	6	6
Mvmt Flow	25	399	202	10	8	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	215	0	-	0	661	213
Stage 1	-	-	-	-	210	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	4.12	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.218	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1355	-	-	-	421	817
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	633	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1351	-	-	-	408	812
Mov Cap-2 Maneuver	-	-	-	-	408	-
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	631	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1351	-	-	-	633
HCM Lane V/C Ratio	0.019	-	-	-	0.047
HCM Control Delay (s)	7.7	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	42	285	0	153	0	0	0	0	0	266	52
Future Volume (Veh/h)	0	42	285	0	153	0	0	0	0	0	266	52
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.81	0.81	0.88	0.88	0.88	0.92	0.92	0.92	0.95	0.95	0.95
Hourly flow rate (vph)	0	52	352	0	174	0	0	0	0	0	280	55
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	394	308	168	518	335	0	335			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	394	308	168	518	335	0	335			0		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	91	58	100	70	100	100			100		
cM capacity (veh/h)	414	605	847	237	577	1075	1221			1629		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	52	352	174	187	148
Volume Left	0	0	0	0	0
Volume Right	0	352	0	0	55
cSH	605	847	577	1700	1700
Volume to Capacity	0.09	0.42	0.30	0.11	0.09
Queue Length 95th (ft)	7	52	32	0	0
Control Delay (s)	11.5	12.2	13.9	0.0	0.0
Lane LOS	B	B	B		
Approach Delay (s)	12.1		13.9	0.0	
Approach LOS	B		B		

Intersection Summary					
Average Delay	8.0				
Intersection Capacity Utilization	46.3%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	0	153	309	0	0
Future Volume (Veh/h)	42	0	153	309	0	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.88	0.88	0.92	0.92
Hourly flow rate (vph)	52	0	174	351	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked						
vC, conflicting volume	524	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	524	0	0			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	100	89			
cM capacity (veh/h)	431	1084	1600			

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total	52	291	234
Volume Left	52	174	0
Volume Right	0	0	0
cSH	431	1600	1700
Volume to Capacity	0.12	0.11	0.14
Queue Length 95th (ft)	10	9	0
Control Delay (s)	14.5	4.9	0.0
Lane LOS	B	A	
Approach Delay (s)	14.5	2.7	
Approach LOS	B		

Intersection Summary					
Average Delay	3.8				
Intersection Capacity Utilization	47.7%	ICU Level of Service		A	
Analysis Period (min)	15				

HCM 6th Signalized Intersection Summary
28: Northville Road & S. Seven Mile Road

Existing Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	244	210	252	285	381	170
Future Volume (veh/h)	244	210	252	285	381	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1953	1953	1938	1938	1984	1984
Adj Flow Rate, veh/h	284	244	265	300	438	195
Peak Hour Factor	0.86	0.86	0.95	0.95	0.87	0.87
Percent Heavy Veh, %	3	3	4	4	1	1
Cap, veh/h	665	923	377	337	470	1829
Arrive On Green	0.36	0.36	0.20	0.20	0.20	0.49
Sat Flow, veh/h	1860	1655	1938	1642	1890	3870
Grp Volume(v), veh/h	284	244	265	300	438	195
Grp Sat Flow(s),veh/h/ln	1860	1655	1841	1642	1890	1885
Q Serve(g_s), s	9.3	0.0	10.7	14.2	14.2	2.2
Cycle Q Clear(g_c), s	9.3	0.0	10.7	14.2	14.2	2.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	665	923	377	337	470	1829
V/C Ratio(X)	0.43	0.26	0.70	0.89	0.93	0.11
Avail Cap(c_a), veh/h	665	923	377	337	470	1829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	9.2	29.5	30.9	29.8	11.2
Incr Delay (d2), s/veh	2.0	0.7	10.4	27.9	27.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.1	5.5	7.9	10.7	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.5	9.9	40.0	58.8	57.4	11.3
LnGrp LOS	C	A	D	E	E	B
Approach Vol, veh/h	528		565		633	
Approach Delay, s/veh	16.1		50.0		43.2	
Approach LOS	B		D		D	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.4	22.8			45.2	34.8
Change Period (Y+Rc), s	6.4	6.4			6.4	6.2
Max Green Setting (Gmax), s	16.0	16.4			38.8	28.6
Max Q Clear Time (g_c+I1), s	16.2	16.2			4.2	11.3
Green Ext Time (p_c), s	0.0	0.1			1.2	1.6

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

HCM 6th TWSC
1: Wing Street & Randolph Street

Existing Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	271	104	4	106	190	12
Future Vol, veh/h	271	104	4	106	190	12
Conflicting Peds, #/hr	0	11	11	0	0	4
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	87	87	81	81	78	78
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	311	120	5	131	244	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	442	0	523	386
Stage 1	-	-	-	-	382	-
Stage 2	-	-	-	-	141	-
Critical Hdwy	-	-	4.1	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1129	-	516	664
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1117	-	508	655
Mov Cap-2 Maneuver	-	-	-	-	508	-
Stage 1	-	-	-	-	685	-
Stage 2	-	-	-	-	884	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	515	-	-	1117	-
HCM Lane V/C Ratio	0.503	-	-	0.004	-
HCM Control Delay (s)	18.9	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %ile Q(veh)	2.8	-	-	0	-

HCM 6th TWSC
2: Center Street & Randolph Street/Private Drive

Existing Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	55

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	13	225	15	15	28	53	560	9	18	453	42
Future Vol, veh/h	45	13	225	15	15	28	53	560	9	18	453	42
Conflicting Peds, #/hr	2	0	5	5	0	2	15	0	12	12	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	500	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	91	91	91	87	87	87	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	54	15	268	16	16	31	61	644	10	25	621	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1512	1503	670	1630	1527	663	694	0	0	666	0	0
Stage 1	715	715	-	783	783	-	-	-	-	-	-	-
Stage 2	797	788	-	847	744	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	100	123	460	92	119	465	911	-	-	928	-	-
Stage 1	425	438	-	390	407	-	-	-	-	-	-	-
Stage 2	383	405	-	359	424	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	75	109	451	27	105	459	898	-	-	917	-	-
Mov Cap-2 Maneuver	75	109	-	27	105	-	-	-	-	-	-	-
Stage 1	391	420	-	359	375	-	-	-	-	-	-	-
Stage 2	318	373	-	136	407	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	265.4	154.6	0.8	0.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	898	-	-	232	76	917	-	-
HCM Lane V/C Ratio	0.068	-	-	1.452	0.839	0.027	-	-
HCM Control Delay (s)	9.3	-	-	265.4	154.6	9	-	-
HCM Lane LOS	A	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	19.6	4.2	0.1	-	-

HCM 6th AWSC
3: Wing Street & Dunlap Street

Existing Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	81	12	69	110	47	10	155	72	50	55	3
Future Vol, veh/h	0	81	12	69	110	47	10	155	72	50	55	3
Peak Hour Factor	0.77	0.77	0.77	0.75	0.75	0.75	0.87	0.87	0.87	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	0	105	16	92	147	63	11	178	83	68	75	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	12.1	11.4	10.3
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	31%	46%
Vol Thru, %	65%	87%	49%	51%
Vol Right, %	30%	13%	21%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	237	93	226	108
LT Vol	10	0	69	50
Through Vol	155	81	110	55
RT Vol	72	12	47	3
Lane Flow Rate	272	121	301	148
Geometry Grp	1	1	1	1
Degree of Util (X)	0.387	0.182	0.432	0.229
Departure Headway (Hd)	5.11	5.439	5.165	5.561
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	706	658	696	645
Service Time	3.142	3.48	3.198	3.599
HCM Lane V/C Ratio	0.385	0.184	0.432	0.229
HCM Control Delay	11.4	9.7	12.1	10.3
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	1.8	0.7	2.2	0.9

HCM 6th Signalized Intersection Summary
4: Center Street & Dunlap Street

Existing Conditions #1 (Pre-COVID)
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	66	30	10	122	69	15	481	122	87	537	69
Future Volume (veh/h)	72	66	30	10	122	69	15	481	122	87	537	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.93	0.95		0.93	1.00		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	1969	1969	1969	2000	2000	2000
Adj Flow Rate, veh/h	82	75	34	11	133	75	16	523	133	112	688	88
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	0	0	0
Cap, veh/h	301	315	143	368	289	163	371	927	236	602	1966	136
Arrive On Green	0.25	0.25	0.25	0.33	0.33	0.33	1.00	1.00	1.00	0.62	0.62	0.62
Sat Flow, veh/h	1148	1267	575	1235	1163	656	695	1508	383	784	1734	222
Grp Volume(v), veh/h	82	0	109	11	0	208	16	0	656	112	0	776
Grp Sat Flow(s),veh/h/ln	1148	0	1842	1235	0	1820	695	0	1892	784	0	1955
Q Serve(g_s), s	3.9	0.0	2.8	0.4	0.0	5.4	0.6	0.0	0.0	3.9	0.0	15.2
Cycle Q Clear(g_c), s	9.3	0.0	2.8	3.2	0.0	5.4	15.8	0.0	0.0	3.9	0.0	15.2
Prop In Lane	1.00		0.31	1.00		0.36	1.00		0.20	1.00		0.11
Lane Grp Cap(c), veh/h	301	0	457	368	0	452	371	0	1163	602	0	1203
V/C Ratio(X)	0.27	0.00	0.24	0.03	0.00	0.46	0.04	0.00	0.56	0.19	0.00	0.65
Avail Cap(c_a), veh/h	301	0	457	368	0	452	371	0	1163	602	0	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	0.0	18.0	17.2	0.0	16.9	3.3	0.0	0.0	5.2	0.0	7.4
Incr Delay (d2), s/veh	2.2	0.0	1.2	0.2	0.0	3.4	0.2	0.0	2.0	0.7	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.3	0.1	0.0	2.5	0.1	0.0	0.6	0.6	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	19.2	17.4	0.0	20.3	3.5	0.0	2.0	5.9	0.0	10.1
LnGrp LOS	C	A	B	B	A	C	A	A	A	A	A	B
Approach Vol, veh/h		191			219			672			888	
Approach Delay, s/veh		21.8			20.1			2.0			9.5	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.0		19.0		41.0		19.0				
Change Period (Y+Rc), s		* 4.1		* 4.1		* 4.1		* 4.1				
Max Green Setting (Gmax), s		* 37		* 15		* 37		* 15				
Max Q Clear Time (g_c+I1), s		17.8		11.3		17.2		7.4				
Green Ext Time (p_c), s		4.9		0.3		6.9		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
5: Dunlap Street & Hutton Street

Existing Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	206	227	95	58	32
Future Vol, veh/h	16	206	227	95	58	32
Conflicting Peds, #/hr	19	0	0	19	10	20
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	89	89
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	17	224	247	103	65	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	369	0	-	0	586	338
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	268	-
Critical Hdwy	4.1	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.2	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1201	-	-	-	474	706
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1179	-	-	-	450	680
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1179	-	-	-	512
HCM Lane V/C Ratio	0.015	-	-	-	0.198
HCM Control Delay (s)	8.1	0	-	-	13.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	38	80	15	41	82	41	141	51	27	82	36
Future Vol, veh/h	72	38	80	15	41	82	41	141	51	27	82	36
Peak Hour Factor	0.82	0.82	0.82	0.80	0.80	0.80	0.91	0.91	0.91	0.76	0.76	0.76
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	2
Mvmt Flow	88	46	98	19	51	103	45	155	56	36	108	47
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	10.9			9.9			11.3			10.3		
HCM LOS	B			A			B			B		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	38%	11%	19%
Vol Thru, %	61%	20%	30%	57%
Vol Right, %	22%	42%	59%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	190	138	145
LT Vol	41	72	15	27
Through Vol	141	38	41	82
RT Vol	51	80	82	36
Lane Flow Rate	256	232	172	191
Geometry Grp	1	1	1	1
Degree of Util (X)	0.369	0.335	0.246	0.279
Departure Headway (Hd)	5.191	5.198	5.142	5.26
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	691	690	697	683
Service Time	3.227	3.236	3.183	3.299
HCM Lane V/C Ratio	0.37	0.336	0.247	0.28
HCM Control Delay	11.3	10.9	9.9	10.3
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.7	1.5	1	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	115	32	88	130	58	9	528	30	24	527	26
Future Volume (veh/h)	32	115	32	88	130	58	9	528	30	24	527	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.94	0.96		0.94	0.99		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	36	129	36	101	149	67	9	556	32	25	555	27
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	119	342	85	193	237	94	66	1034	59	82	1005	48
Arrive On Green	0.26	0.26	0.26	0.44	0.44	0.44	0.56	0.56	0.56	1.00	1.00	1.00
Sat Flow, veh/h	184	1297	323	431	900	357	8	1853	105	35	1799	85
Grp Volume(v), veh/h	201	0	0	317	0	0	597	0	0	607	0	0
Grp Sat Flow(s),veh/h/ln	1805	0	0	1687	0	0	1967	0	0	1919	0	0
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.0	8.5	0.0	0.0	11.5	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.18		0.18	0.32		0.21	0.02		0.05	0.04		0.04
Lane Grp Cap(c), veh/h	546	0	0	523	0	0	1159	0	0	1134	0	0
V/C Ratio(X)	0.37	0.00	0.00	0.61	0.00	0.00	0.52	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	546	0	0	523	0	0	1159	0	0	1134	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	14.6	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.0	5.1	0.0	0.0	1.6	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	3.4	0.0	0.0	4.6	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.1	0.0	0.0	19.7	0.0	0.0	10.0	0.0	0.0	1.8	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		201			317			597			607	
Approach Delay, s/veh		20.1			19.7			10.0			1.8	
Approach LOS		C			B			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.0		21.0		39.0		21.0				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		33.5		* 16		33.5		* 16				
Max Q Clear Time (g_c+I1), s		13.5		7.2		2.0		10.5				
Green Ext Time (p_c), s		4.3		0.7		5.0		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	151	11	10	253	289	9	26	15	239	11	14
Future Volume (veh/h)	7	151	11	10	253	289	9	26	15	239	11	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.98		0.95	0.98		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Adj Flow Rate, veh/h	8	178	13	11	291	332	12	33	19	263	12	15
Peak Hour Factor	0.85	0.85	0.85	0.87	0.87	0.87	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	76	1073	827	74	1088	827	71	154	65	278	7	388
Arrive On Green	1.00	1.00	1.00	0.55	0.55	0.55	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	25	1939	1494	21	1965	1494	0	577	243	601	27	1457
Grp Volume(v), veh/h	186	0	13	302	0	332	64	0	0	275	0	15
Grp Sat Flow(s),veh/h/ln	1964	0	1494	1986	0	1494	820	0	0	628	0	1457
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.8	0.0	7.7	16.0	0.0	0.0	16.0	0.0	0.5
Prop In Lane	0.04		1.00	0.04		1.00	0.19		0.30	0.96		1.00
Lane Grp Cap(c), veh/h	1149	0	827	1161	0	827	290	0	0	285	0	388
V/C Ratio(X)	0.16	0.00	0.02	0.26	0.00	0.40	0.22	0.00	0.00	0.97	0.00	0.04
Avail Cap(c_a), veh/h	1149	0	827	1161	0	827	290	0	0	285	0	388
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	7.0	0.0	7.7	17.4	0.0	0.0	25.1	0.0	16.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.5	0.0	1.5	1.7	0.0	0.0	45.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.9	0.0	2.4	0.8	0.0	0.0	7.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.0	0.0	7.6	0.0	9.2	19.1	0.0	0.0	70.2	0.0	16.5
LnGrp LOS	A	A	A	A	A	A	B	A	A	E	A	B
Approach Vol, veh/h		199			634			64			290	
Approach Delay, s/veh		0.3			8.4			19.1			67.5	
Approach LOS		A			A			B			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7		21.3				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		33.2		* 16		33.2		* 16				
Max Q Clear Time (g_c+I1), s		2.0		18.0		9.7		18.0				
Green Ext Time (p_c), s		1.2		0.0		3.2		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	248	18	2	355	277	33	204	11	186	120	194
Future Volume (veh/h)	99	248	18	2	355	277	33	204	11	186	120	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	116	292	21	2	374	292	36	222	12	198	128	206
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	315	902	69	61	919	703	113	566	28	270	147	211
Arrive On Green	0.15	0.15	0.15	0.46	0.46	0.46	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	466	1947	148	2	1983	1518	130	1632	82	540	423	609
Grp Volume(v), veh/h	176	0	253	376	0	292	270	0	0	532	0	0
Grp Sat Flow(s),veh/h/ln	783	0	1778	1983	0	1519	1844	0	0	1572	0	0
Q Serve(g_s), s	8.0	0.0	7.6	0.0	0.0	7.7	0.0	0.0	0.0	13.7	0.0	0.0
Cycle Q Clear(g_c), s	15.6	0.0	7.6	7.5	0.0	7.7	6.2	0.0	0.0	20.0	0.0	0.0
Prop In Lane	0.66		0.08	0.01		1.00	0.13		0.04	0.37		0.39
Lane Grp Cap(c), veh/h	462	0	824	979	0	704	707	0	0	627	0	0
V/C Ratio(X)	0.38	0.00	0.31	0.38	0.00	0.42	0.38	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	462	0	824	979	0	704	707	0	0	627	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.7	0.0	16.8	10.7	0.0	10.7	14.8	0.0	0.0	18.9	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.0	1.0	1.1	0.0	1.8	1.6	0.0	0.0	13.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.4	3.2	0.0	2.6	2.7	0.0	0.0	8.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	0.0	17.8	11.8	0.0	12.5	16.4	0.0	0.0	32.3	0.0	0.0
LnGrp LOS	C	A	B	B	A	B	B	A	A	C	A	A
Approach Vol, veh/h		429			668			270			532	
Approach Delay, s/veh		20.4			12.1			16.4			32.3	
Approach LOS		C			B			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.4		26.6		33.4		26.6				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		27.8		* 21		27.8		* 21				
Max Q Clear Time (g_c+I1), s		17.6		22.0		9.7		8.2				
Green Ext Time (p_c), s		2.2		0.0		4.4		1.2				

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	419	26	24	624	10	24
Future Vol, veh/h	419	26	24	624	10	24
Conflicting Peds, #/hr	0	2	2	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	81	81	95	95	75	75
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	517	32	25	657	13	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	551	0	914	277
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	379	-
Critical Hdwy	-	-	4.12	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1022	-	276	726
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	668	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1020	-	265	725
Mov Cap-2 Maneuver	-	-	-	-	265	-
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	480	-	-	1020	-
HCM Lane V/C Ratio	0.094	-	-	0.025	-
HCM Control Delay (s)	13.3	-	-	8.6	0.2
HCM Lane LOS	B	-	-	A	A
HCM 95th %ile Q(veh)	0.3	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	47	13	16	37	56	11	150	19	72	88	17
Future Vol, veh/h	27	47	13	16	37	56	11	150	19	72	88	17
Peak Hour Factor	0.83	0.83	0.83	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	2
Mvmt Flow	33	57	16	18	41	62	12	167	21	81	99	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	8.9			8.6			9.3			9.4		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	31%	15%	41%
Vol Thru, %	83%	54%	34%	50%
Vol Right, %	11%	15%	51%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	87	109	177
LT Vol	11	27	16	72
Through Vol	150	47	37	88
RT Vol	19	13	56	17
Lane Flow Rate	200	105	121	199
Geometry Grp	1	1	1	1
Degree of Util (X)	0.258	0.144	0.158	0.26
Departure Headway (Hd)	4.649	4.958	4.691	4.706
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	770	719	759	760
Service Time	2.698	3.019	2.749	2.755
HCM Lane V/C Ratio	0.26	0.146	0.159	0.262
HCM Control Delay	9.3	8.9	8.6	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.5	0.6	1

Intersection	
Int Delay, s/veh	11.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	16	29	57	11	19	25	515	122	9	614	37
Future Vol, veh/h	11	16	29	57	11	19	25	515	122	9	614	37
Conflicting Peds, #/hr	23	0	2	2	0	23	13	0	1	1	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	95	95	95	95	95	95
Heavy Vehicles, %	4	4	4	0	0	0	1	1	1	0	0	0
Mvmt Flow	14	21	37	73	14	24	26	542	128	9	646	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1397	1420	681	1374	1375	630	698	0	0	671	0	0
Stage 1	697	697	-	659	659	-	-	-	-	-	-	-
Stage 2	700	723	-	715	716	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	117	135	447	124	147	485	903	-	-	929	-	-
Stage 1	428	440	-	456	464	-	-	-	-	-	-	-
Stage 2	427	428	-	425	437	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	94	125	441	94	136	474	892	-	-	928	-	-
Mov Cap-2 Maneuver	94	125	-	94	136	-	-	-	-	-	-	-
Stage 1	402	428	-	434	441	-	-	-	-	-	-	-
Stage 2	365	407	-	364	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	37.7	132.3	0.3	0.1
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	892	-	-	180	120	928	-	-
HCM Lane V/C Ratio	0.03	-	-	0.399	0.929	0.01	-	-
HCM Control Delay (s)	9.2	0	-	37.7	132.3	8.9	0	-
HCM Lane LOS	A	A	-	E	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.8	6	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	138	0	0	85	33	0	0	0	10	0	10
Future Vol, veh/h	36	138	0	0	85	33	0	0	0	10	0	10
Conflicting Peds, #/hr	3	0	0	0	0	3	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	84	84	84	92	92	92	71	71	71
Heavy Vehicles, %	1	1	1	0	0	0	2	2	2	0	0	0
Mvmt Flow	40	155	0	0	101	39	0	0	0	14	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	155	0	0	365	378	155	359	359	126
Stage 1	-	-	-	-	-	-	235	235	-	124	124	-
Stage 2	-	-	-	-	-	-	130	143	-	235	235	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1446	-	-	1438	-	-	591	554	891	600	571	930
Stage 1	-	-	-	-	-	-	768	710	-	885	797	-
Stage 2	-	-	-	-	-	-	874	779	-	773	714	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1442	-	-	1438	-	-	567	536	891	584	552	926
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	536	-	584	552	-
Stage 1	-	-	-	-	-	-	745	689	-	856	795	-
Stage 2	-	-	-	-	-	-	859	777	-	750	693	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0	0	10.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1442	-	-	1438	-	-	716
HCM Lane V/C Ratio	-	0.028	-	-	-	-	-	0.039
HCM Control Delay (s)	0	7.6	0	-	0	-	-	10.2
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	148	99	0	29	19
Future Vol, veh/h	0	148	99	0	29	19
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	95	95	90	90	72	72
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	0	156	110	0	40	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	266	110
Stage 1	-	-	-	-	110	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	727	949
Stage 1	0	-	-	0	920	-
Stage 2	0	-	-	0	877	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	727	949
Mov Cap-2 Maneuver	-	-	-	-	727	-
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	801
HCM Lane V/C Ratio	-	-	0.083
HCM Control Delay (s)	-	-	9.9
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	137	9	31	3	18	10	24	101	3	4	79	57
Future Vol, veh/h	137	9	31	3	18	10	24	101	3	4	79	57
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	68	68	68	88	88	88	83	83	83
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	165	11	37	4	26	15	27	115	3	5	95	69

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	334	315	133	335	348	117	167	0	0	118	0	0
Stage 1	143	143	-	171	171	-	-	-	-	-	-	-
Stage 2	191	172	-	164	177	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	621	602	919	622	579	941	1423	-	-	1483	-	-
Stage 1	862	780	-	836	761	-	-	-	-	-	-	-
Stage 2	813	758	-	843	756	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	577	586	916	577	563	941	1419	-	-	1483	-	-
Mov Cap-2 Maneuver	577	586	-	577	563	-	-	-	-	-	-	-
Stage 1	842	775	-	819	748	-	-	-	-	-	-	-
Stage 2	756	743	-	794	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	11	1.4	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1419	-	-	618	649	1483	-	-
HCM Lane V/C Ratio	0.019	-	-	0.345	0.07	0.003	-	-
HCM Control Delay (s)	7.6	0	-	13.9	11	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	0.2	0	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	63	4	20	108	10
Future Vol, veh/h	50	63	4	20	108	10
Conflicting Peds, #/hr	0	1	1	0	0	6
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	93	93	79	79	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	54	68	5	25	121	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	123	0	124	95
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	35	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1477	-	876	967
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1476	-	872	961
Mov Cap-2 Maneuver	-	-	-	-	872	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	990	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	879	-	-	1476	-
HCM Lane V/C Ratio	0.151	-	-	0.003	-
HCM Control Delay (s)	9.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	50	15	711	516	9
Future Vol, veh/h	10	50	15	711	516	9
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	92	92	95	95
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	12	60	16	773	543	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	970	279	555	0	-	0
Stage 1	551	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.12	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.21	-	-	-
Pot Cap-1 Maneuver	254	724	1018	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	638	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	245	722	1015	-	-	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	530	-	-	-	-	-
Stage 2	635	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1015	-	545	-	-
HCM Lane V/C Ratio	0.016	-	0.133	-	-
HCM Control Delay (s)	8.6	0.1	12.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	6	1	0	10	119	1	101	3	40	62	15
Future Vol, veh/h	17	6	1	0	10	119	1	101	3	40	62	15
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.69	0.69	0.69	0.91	0.91	0.91
Heavy Vehicles, %	5	5	5	5	5	5	1	1	1	0	0	0
Mvmt Flow	20	7	1	0	11	131	1	146	4	44	68	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	8.1			7.9			8.5			8.3		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	71%	0%	34%
Vol Thru, %	96%	25%	8%	53%
Vol Right, %	3%	4%	92%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	24	129	117
LT Vol	1	17	0	40
Through Vol	101	6	10	62
RT Vol	3	1	119	15
Lane Flow Rate	152	29	142	129
Geometry Grp	1	1	1	1
Degree of Util (X)	0.187	0.039	0.162	0.158
Departure Headway (Hd)	4.418	4.898	4.106	4.433
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	732	875	810
Service Time	2.438	2.923	2.124	2.454
HCM Lane V/C Ratio	0.187	0.04	0.162	0.159
HCM Control Delay	8.5	8.1	7.9	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.1	0.6	0.6

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	45	0	0	0	121	707	0	0	696	8
Future Vol, veh/h	4	0	45	0	0	0	121	707	0	0	696	8
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	94	94	94	91	91	91
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	0	0	0
Mvmt Flow	5	0	55	0	0	0	129	752	0	0	765	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1785	1784	774	1807	1788	753	778	0	0	752	0	0
Stage 1	774	774	-	1010	1010	-	-	-	-	-	-	-
Stage 2	1011	1010	-	797	778	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	64	83	402	61	81	410	843	-	-	867	-	-
Stage 1	394	411	-	289	317	-	-	-	-	-	-	-
Stage 2	291	320	-	380	407	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	51	61	400	42	59	410	840	-	-	867	-	-
Mov Cap-2 Maneuver	51	61	-	42	59	-	-	-	-	-	-	-
Stage 1	289	409	-	213	233	-	-	-	-	-	-	-
Stage 2	214	236	-	328	405	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.2	0	1.5	0
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	840	-	-	257	-	867	-	-
HCM Lane V/C Ratio	0.153	-	-	0.233	-	-	-	-
HCM Control Delay (s)	10.1	0	-	23.2	0	0	-	-
HCM Lane LOS	B	A	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.9	-	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	414	3	15	577	80	4	3	8	36	6	21
Future Vol, veh/h	22	414	3	15	577	80	4	3	8	36	6	21
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	70	70	70	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	1	1	1
Mvmt Flow	26	487	4	17	641	89	6	4	11	44	7	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	730	0	0	492	0	0	1278	1306	495	1274	1264	686
Stage 1	-	-	-	-	-	-	542	542	-	720	720	-
Stage 2	-	-	-	-	-	-	736	764	-	554	544	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.1	6.5	6.2	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.5	4	3.3	3.509	4.009	3.309
Pot Cap-1 Maneuver	874	-	-	1071	-	-	144	161	579	145	170	449
Stage 1	-	-	-	-	-	-	528	523	-	421	434	-
Stage 2	-	-	-	-	-	-	414	416	-	519	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	874	-	-	1070	-	-	126	154	576	134	162	449
Mov Cap-2 Maneuver	-	-	-	-	-	-	126	154	-	134	162	-
Stage 1	-	-	-	-	-	-	512	507	-	408	427	-
Stage 2	-	-	-	-	-	-	378	409	-	467	505	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	22.3	39.4
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	230	874	-	-	1070	-	-	179
HCM Lane V/C Ratio	0.093	0.03	-	-	0.016	-	-	0.429
HCM Control Delay (s)	22.3	9.2	-	-	8.4	-	-	39.4
HCM Lane LOS	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	312	114	108	503	140	123	656	106	74	621	46
Future Volume (veh/h)	32	312	114	108	503	140	123	656	106	74	621	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	36	347	127	114	529	147	129	691	112	79	661	49
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	198	509	186	236	735	622	236	812	132	175	869	66
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	769	1385	507	934	2000	1693	745	1665	270	683	1824	135
Grp Volume(v), veh/h	36	0	474	114	529	147	129	0	803	79	0	710
Grp Sat Flow(s),veh/h/ln	769	0	1892	934	2000	1693	745	0	1935	683	0	1960
Q Serve(g_s), s	3.4	0.0	16.9	9.4	18.2	4.8	13.5	0.0	29.1	9.2	0.0	23.3
Cycle Q Clear(g_c), s	21.6	0.0	16.9	26.3	18.2	4.8	36.8	0.0	29.1	38.3	0.0	23.3
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.14	1.00		0.07
Lane Grp Cap(c), veh/h	198	0	695	236	735	622	236	0	943	175	0	955
V/C Ratio(X)	0.18	0.00	0.68	0.48	0.72	0.24	0.55	0.00	0.85	0.45	0.00	0.74
Avail Cap(c_a), veh/h	198	0	695	236	735	622	236	0	943	175	0	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	0.0	21.4	32.4	21.8	17.5	31.2	0.0	18.0	34.7	0.0	16.5
Incr Delay (d2), s/veh	2.0	0.0	5.3	6.9	6.0	0.9	8.8	0.0	9.6	8.2	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	7.9	2.5	9.1	1.9	2.9	0.0	13.9	1.9	0.0	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	26.7	39.4	27.8	18.4	40.0	0.0	27.5	43.0	0.0	21.7
LnGrp LOS	C	A	C	D	C	B	D	A	C	D	A	C
Approach Vol, veh/h		510			790			932			789	
Approach Delay, s/veh		27.1			27.7			29.3			23.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0				
Change Period (Y+Rc), s		6.0		5.6		6.0		5.6				
Max Green Setting (Gmax), s		39.0		29.4		39.0		29.4				
Max Q Clear Time (g_c+I1), s		38.8		23.6		40.3		28.3				
Green Ext Time (p_c), s		0.2		1.6		0.0		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	85	291	437	33	9	58
Future Vol, veh/h	85	291	437	33	9	58
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	93	93	88	88
Heavy Vehicles, %	2	2	1	1	0	0
Mvmt Flow	93	320	470	35	10	66

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	505	0	-	0	994	489			
Stage 1	-	-	-	-	488	-			
Stage 2	-	-	-	-	506	-			
Critical Hdwy	4.12	-	-	-	6.4	6.2			
Critical Hdwy Stg 1	-	-	-	-	5.4	-			
Critical Hdwy Stg 2	-	-	-	-	5.4	-			
Follow-up Hdwy	2.218	-	-	-	3.5	3.3			
Pot Cap-1 Maneuver	1060	-	-	-	274	583			
Stage 1	-	-	-	-	621	-			
Stage 2	-	-	-	-	610	-			
Platoon blocked, %		-	-	-					
Mov Cap-1 Maneuver	1060	-	-	-	245	582			
Mov Cap-2 Maneuver	-	-	-	-	245	-			
Stage 1	-	-	-	-	555	-			
Stage 2	-	-	-	-	610	-			

Approach	EB	WB	SB
HCM Control Delay, s	2	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1060	-	-	-	491
HCM Lane V/C Ratio	0.088	-	-	-	0.155
HCM Control Delay (s)	8.7	0	-	-	13.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	62	264	0	386	0	0	0	0	0	455	111
Future Volume (Veh/h)	0	62	264	0	386	0	0	0	0	0	455	111
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Hourly flow rate (vph)	0	67	287	0	406	0	0	0	0	0	479	117
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	740	538	298	560	596	0	596			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	740	538	298	560	596	0	596			0		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	85	59	100	3	100	100			100		
cM capacity (veh/h)	33	449	698	215	417	1088	976			1629		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	67	287	406	319	277
Volume Left	0	0	0	0	0
Volume Right	0	287	0	0	117
cSH	449	698	417	1700	1700
Volume to Capacity	0.15	0.41	0.97	0.19	0.16
Queue Length 95th (ft)	13	50	291	0	0
Control Delay (s)	14.4	13.7	69.2	0.0	0.0
Lane LOS	B	B	F		
Approach Delay (s)	13.8		69.2	0.0	
Approach LOS	B		F		

Intersection Summary					
Average Delay	24.3				
Intersection Capacity Utilization	67.6%	ICU Level of Service		C	
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	0	386	664	0	0
Future Volume (Veh/h)	62	0	386	664	0	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	68	0	406	699	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked	0.85					
vC, conflicting volume	1162	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	829	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	100	75			
cM capacity (veh/h)	199	1091	1629			

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total	68	639	466
Volume Left	68	406	0
Volume Right	0	0	0
cSH	199	1629	1700
Volume to Capacity	0.34	0.25	0.27
Queue Length 95th (ft)	36	25	0
Control Delay (s)	32.2	5.9	0.0
Lane LOS	D	A	
Approach Delay (s)	32.2	3.4	
Approach LOS	D		

Intersection Summary				
Average Delay			5.1	
Intersection Capacity Utilization			68.9%	ICU Level of Service C
Analysis Period (min)			15	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	304	557	493	317	352	367
Future Volume (veh/h)	304	557	493	317	352	367
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1969	1969
Adj Flow Rate, veh/h	323	593	524	337	383	399
Peak Hour Factor	0.94	0.94	0.94	0.94	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	676	938	451	290	465	1814
Arrive On Green	0.36	0.36	0.20	0.20	0.20	0.49
Sat Flow, veh/h	1890	1682	2301	1414	1875	3839
Grp Volume(v), veh/h	323	593	449	412	383	399
Grp Sat Flow(s),veh/h/ln	1890	1682	1885	1730	1875	1870
Q Serve(g_s), s	10.6	3.3	16.4	16.4	11.6	4.9
Cycle Q Clear(g_c), s	10.6	3.3	16.4	16.4	11.6	4.9
Prop In Lane	1.00	1.00		0.82	1.00	
Lane Grp Cap(c), veh/h	676	938	386	355	465	1814
V/C Ratio(X)	0.48	0.63	1.16	1.16	0.82	0.22
Avail Cap(c_a), veh/h	676	938	386	355	465	1814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	12.1	31.8	31.8	28.9	11.9
Incr Delay (d2), s/veh	2.4	3.2	97.4	99.9	15.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	7.0	17.4	16.2	8.0	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	15.3	129.2	131.7	44.1	12.2
LnGrp LOS	C	B	F	F	D	B
Approach Vol, veh/h	916		861			782
Approach Delay, s/veh	17.8		130.4			27.8
Approach LOS	B		F			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.4	22.8			45.2	34.8
Change Period (Y+Rc), s	6.4	6.4			6.4	6.2
Max Green Setting (Gmax), s	16.0	16.4			38.8	28.6
Max Q Clear Time (g_c+I1), s	13.6	18.4			6.9	12.6
Green Ext Time (p_c), s	0.3	0.0			2.7	3.1

Intersection Summary			
HCM 6th Ctrl Delay		58.7	
HCM 6th LOS		E	

HCM 6th Signalized Intersection Summary — Existing Conditions #1 (Pre-COVID) w/ IMP
2: Center Street & Randolph Street/Private Drive — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	13	225	15	15	28	53	560	9	18	453	42
Future Volume (veh/h)	45	13	225	15	15	28	53	560	9	18	453	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	1984	1984
Adj Flow Rate, veh/h	54	15	268	16	16	31	61	644	10	25	621	58
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.87	0.87	0.87	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	112	37	306	137	141	196	406	1158	18	581	1053	98
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.59	0.59	0.59
Sat Flow, veh/h	182	158	1321	266	607	845	772	1964	30	781	1785	167
Grp Volume(v), veh/h	337	0	0	63	0	0	61	0	654	25	0	679
Grp Sat Flow(s),veh/h/ln	1661	0	0	1718	0	0	772	0	1994	781	0	1952
Q Serve(g_s), s	7.5	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.8	0.0	13.1
Cycle Q Clear(g_c), s	11.7	0.0	0.0	1.6	0.0	0.0	15.2	0.0	0.0	0.8	0.0	13.1
Prop In Lane	0.16		0.80	0.25		0.49	1.00		0.02	1.00		0.09
Lane Grp Cap(c), veh/h	455	0	0	474	0	0	406	0	1176	581	0	1151
V/C Ratio(X)	0.74	0.00	0.00	0.13	0.00	0.00	0.15	0.00	0.56	0.04	0.00	0.59
Avail Cap(c_a), veh/h	479	0	0	496	0	0	406	0	1176	581	0	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.83	0.00	0.83	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	0.0	0.0	18.3	0.0	0.0	2.8	0.0	0.0	5.2	0.0	7.7
Incr Delay (d2), s/veh	5.8	0.0	0.0	0.1	0.0	0.0	0.6	0.0	1.6	0.1	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.5	0.1	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	0.0	0.0	18.5	0.0	0.0	3.5	0.0	1.6	5.4	0.0	10.0
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		337			63			715			704	
Approach Delay, s/veh		27.9			18.5			1.7			9.8	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2			4		6		8			
Phs Duration (G+Y+Rc), s		40.9			19.1		40.9		19.1			
Change Period (Y+Rc), s		5.5			* 5.2		5.5		* 5.2			
Max Green Setting (Gmax), s		34.5			* 15		34.5		* 15			
Max Q Clear Time (g_c+I1), s		17.2			13.7		15.1		3.6			
Green Ext Time (p_c), s		4.9			0.3		5.2		0.2			
Intersection Summary												
HCM 6th Ctrl Delay			10.3									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Existing Conditions #1 (Pre-COVID) w/ IMP
8: Hutton Street & Main Street — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	151	11	10	253	289	9	26	15	239	11	14
Future Volume (veh/h)	7	151	11	10	253	289	9	26	15	239	11	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.97	0.99		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Adj Flow Rate, veh/h	8	178	13	11	291	332	12	33	19	263	12	15
Peak Hour Factor	0.85	0.85	0.85	0.87	0.87	0.87	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	70	664	504	70	670	504	183	489	253	747	32	711
Arrive On Green	0.11	0.11	0.11	0.34	0.34	0.34	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	23	1943	1474	23	1961	1474	234	1022	530	1317	66	1487
Grp Volume(v), veh/h	186	0	13	302	0	332	64	0	0	275	0	15
Grp Sat Flow(s),veh/h/ln	1966	0	1474	1984	0	1474	1785	0	0	1383	0	1487
Q Serve(g_s), s	0.0	0.0	0.5	0.0	0.0	11.5	0.0	0.0	0.0	6.3	0.0	0.3
Cycle Q Clear(g_c), s	5.1	0.0	0.5	7.0	0.0	11.5	1.1	0.0	0.0	7.4	0.0	0.3
Prop In Lane	0.04		1.00	0.04		1.00	0.19		0.30	0.96		1.00
Lane Grp Cap(c), veh/h	734	0	504	740	0	504	925	0	0	779	0	711
V/C Ratio(X)	0.25	0.00	0.03	0.41	0.00	0.66	0.07	0.00	0.00	0.35	0.00	0.02
Avail Cap(c_a), veh/h	734	0	504	740	0	504	925	0	0	779	0	711
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	0.0	17.7	15.3	0.0	16.8	8.5	0.0	0.0	10.0	0.0	8.2
Incr Delay (d2), s/veh	0.8	0.0	0.1	1.7	0.0	6.6	0.1	0.0	0.0	1.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.2	3.3	0.0	4.5	0.4	0.0	0.0	2.3	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	17.8	17.0	0.0	23.4	8.6	0.0	0.0	11.2	0.0	8.3
LnGrp LOS	C	A	B	B	A	C	A	A	A	B	A	A
Approach Vol, veh/h		199			634			64			290	
Approach Delay, s/veh		20.4			20.3			8.6			11.1	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		20.5		* 29		20.5		* 29				
Max Q Clear Time (g_c+I1), s		7.1		9.4		13.5		3.1				
Green Ext Time (p_c), s		0.9		1.7		1.9		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			17.5									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Existing Conditions #1 (Pre-COVID) w/ IMP
9: Griswold Street & Main Street — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	248	18	2	355	277	33	204	11	186	120	194
Future Volume (veh/h)	99	248	18	2	355	277	33	204	11	186	120	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	116	292	21	2	374	292	36	222	12	198	128	206
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	230	684	53	61	707	540	133	747	38	318	198	274
Arrive On Green	0.12	0.12	0.12	0.36	0.36	0.36	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	366	1917	148	2	1981	1515	142	1649	83	521	436	605
Grp Volume(v), veh/h	176	0	253	376	0	292	270	0	0	532	0	0
Grp Sat Flow(s),veh/h/ln	654	0	1777	1983	0	1515	1875	0	0	1562	0	0
Q Serve(g_s), s	8.5	0.0	7.9	0.0	0.0	9.2	0.0	0.0	0.0	10.9	0.0	0.0
Cycle Q Clear(g_c), s	17.7	0.0	7.9	9.0	0.0	9.2	5.2	0.0	0.0	16.1	0.0	0.0
Prop In Lane	0.66		0.08	0.01		1.00	0.13		0.04	0.37		0.39
Lane Grp Cap(c), veh/h	333	0	634	768	0	540	918	0	0	790	0	0
V/C Ratio(X)	0.53	0.00	0.40	0.49	0.00	0.54	0.29	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	333	0	634	768	0	540	918	0	0	790	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.8	0.0	20.5	15.3	0.0	15.4	10.4	0.0	0.0	13.0	0.0	0.0
Incr Delay (d2), s/veh	5.9	0.0	1.9	2.2	0.0	3.8	0.8	0.0	0.0	4.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	3.8	4.2	0.0	3.5	2.1	0.0	0.0	5.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	0.0	22.4	17.5	0.0	19.2	11.2	0.0	0.0	17.5	0.0	0.0
LnGrp LOS	C	A	C	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		429			668			270			532	
Approach Delay, s/veh		26.7			18.3			11.2			17.5	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		33.0		27.0		33.0				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		21.4		* 27		21.4		* 27				
Max Q Clear Time (g_c+I1), s		19.7		18.1		11.2		7.2				
Green Ext Time (p_c), s		0.5		2.5		3.2		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Existing Conditions #1 (Pre-COVID) w/ IMP
12: Center Street & Cady Street — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	16	29	57	11	19	25	515	122	9	614	37
Future Volume (veh/h)	11	16	29	57	11	19	25	515	122	9	614	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.94		0.92	0.94		0.92	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1938	1938	1938	2000	2000	2000	1984	1984	1984	2000	2000	2000
Adj Flow Rate, veh/h	14	21	37	73	14	24	26	542	128	9	646	39
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	0	0	0	1	1	1	0	0	0
Cap, veh/h	95	97	127	230	51	50	83	1001	230	65	1238	74
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.67	0.67	0.67	1.00	1.00	1.00
Sat Flow, veh/h	154	636	835	857	332	328	30	1495	344	7	1850	111
Grp Volume(v), veh/h	72	0	0	111	0	0	696	0	0	694	0	0
Grp Sat Flow(s),veh/h/ln	1626	0	0	1517	0	0	1870	0	0	1968	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	3.6	0.0	0.0	11.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.19		0.51	0.66		0.22	0.04		0.18	0.01		0.06
Lane Grp Cap(c), veh/h	319	0	0	330	0	0	1314	0	0	1378	0	0
V/C Ratio(X)	0.23	0.00	0.00	0.34	0.00	0.00	0.53	0.00	0.00	0.50	0.00	0.00
Avail Cap(c_a), veh/h	466	0	0	463	0	0	1314	0	0	1378	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	23.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.6	0.0	0.0	1.5	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.4	0.0	0.0	3.7	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	0.0	23.6	0.0	0.0	6.7	0.0	0.0	1.3	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		72			111			696			694	
Approach Delay, s/veh		22.9			23.6			6.7			1.3	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.7		14.3		45.7		14.3				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		13.3		4.3		2.0		5.6				
Green Ext Time (p_c), s		5.6		0.2		6.0		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			6.2									
HCM 6th LOS			A									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Existing Conditions #1 (Pre-COVID) w/ IMP
23: Sheldon Avenue/Center Street & Seven Mile Road — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	312	114	108	503	140	123	656	106	74	621	46
Future Volume (veh/h)	32	312	114	108	503	140	123	656	106	74	621	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	36	347	127	114	529	147	129	691	112	79	661	49
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	198	509	186	236	735	622	236	967	817	236	889	66
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	769	1385	507	934	2000	1693	745	1984	1677	683	1824	135
Grp Volume(v), veh/h	36	0	474	114	529	147	129	691	112	79	0	710
Grp Sat Flow(s),veh/h/ln	769	0	1892	934	2000	1693	745	1984	1677	683	0	1960
Q Serve(g_s), s	3.4	0.0	16.9	9.4	18.2	4.8	13.5	21.9	2.9	8.2	0.0	23.3
Cycle Q Clear(g_c), s	21.6	0.0	16.9	26.3	18.2	4.8	36.8	21.9	2.9	30.1	0.0	23.3
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	198	0	695	236	735	622	236	967	817	236	0	955
V/C Ratio(X)	0.18	0.00	0.68	0.48	0.72	0.24	0.55	0.71	0.14	0.33	0.00	0.74
Avail Cap(c_a), veh/h	198	0	695	236	735	622	236	967	817	236	0	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.0	0.0	21.4	32.4	21.8	17.5	31.2	16.1	11.3	28.0	0.0	16.5
Incr Delay (d2), s/veh	2.0	0.0	5.3	6.9	6.0	0.9	8.8	4.5	0.3	3.8	0.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	7.9	2.5	9.1	1.9	2.9	10.0	1.1	1.5	0.0	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	0.0	26.7	39.4	27.8	18.4	40.0	20.6	11.6	31.8	0.0	21.7
LnGrp LOS	C	A	C	D	C	B	D	C	B	C	A	C
Approach Vol, veh/h		510			790			932			789	
Approach Delay, s/veh		27.1			27.7			22.2			22.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0				
Change Period (Y+Rc), s		6.0		5.6		6.0		5.6				
Max Green Setting (Gmax), s		39.0		29.4		39.0		29.4				
Max Q Clear Time (g_c+I1), s		38.8		23.6		32.1		28.3				
Green Ext Time (p_c), s		0.1		1.6		3.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			24.6									
HCM 6th LOS			C									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Existing Conditions #1 (Pre-COVID) w/ IMP
26: SB Northville Road & N. Seven Mile Road — PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	264	386	664	455	111
Future Volume (veh/h)	62	264	386	664	455	111
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1969	1969	1984	1984	1984	1984
Adj Flow Rate, veh/h	67	287	406	699	479	117
Peak Hour Factor	0.92	0.92	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	1	1
Cap, veh/h	206	738	876	2762	963	234
Arrive On Green	0.11	0.11	0.67	1.00	0.32	0.32
Sat Flow, veh/h	1875	1668	1890	3870	3107	730
Grp Volume(v), veh/h	67	287	406	699	299	297
Grp Sat Flow(s),veh/h/ln	1875	1668	1890	1885	1885	1853
Q Serve(g_s), s	2.6	8.8	4.9	0.0	10.3	10.4
Cycle Q Clear(g_c), s	2.6	8.8	4.9	0.0	10.3	10.4
Prop In Lane	1.00	1.00	1.00			0.39
Lane Grp Cap(c), veh/h	206	738	876	2762	603	593
V/C Ratio(X)	0.32	0.39	0.46	0.25	0.50	0.50
Avail Cap(c_a), veh/h	206	738	876	2762	603	593
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	15.0	3.1	0.0	22.0	22.0
Incr Delay (d2), s/veh	4.1	1.5	1.8	0.2	2.9	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	10.2	1.3	0.1	4.7	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.0	16.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	304	557	493	317	352	367	
Future Volume (veh/h)	304	557	493	317	352	367	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1969	1969	
Adj Flow Rate, veh/h	323	593	524	337	383	399	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.92	0.92	
Percent Heavy Veh, %	1	1	1	1	2	2	
Cap, veh/h	491	807	622	399	524	2179	
Arrive On Green	0.26	0.26	0.28	0.28	0.29	0.77	
Sat Flow, veh/h	1890	1682	2301	1414	1875	3839	
Grp Volume(v), veh/h	323	593	449	412	383	399	
Grp Sat Flow(s),veh/h/ln	1890	1682	1885	1730	1875	1870	
Q Serve(g_s), s	12.2	5.1	17.9	18.0	9.4	2.2	
Cycle Q Clear(g_c), s	12.2	5.1	17.9	18.0	9.4	2.2	
Prop In Lane	1.00	1.00		0.82	1.00		
Lane Grp Cap(c), veh/h	491	807	533	489	524	2179	
V/C Ratio(X)	0.66	0.73	0.84	0.84	0.73	0.18	
Avail Cap(c_a), veh/h	491	807	533	489	524	2179	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.4	16.7	27.0	27.0	24.0	4.0	
Incr Delay (d2), s/veh	6.7	5.9	14.9	16.2	8.7	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	6.1	9.0	9.6	9.0	6.3	0.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	33.2	22.6	41.9	43.2	32.7	4.2	
LnGrp LOS	C	C	D	D	C	A	
Approach Vol, veh/h	916		861			782	
Approach Delay, s/veh	26.3		42.6			18.1	
Approach LOS	C		D			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	24.0	29.0				53.0	27.0
Change Period (Y+Rc), s	6.4	6.4				6.4	6.2
Max Green Setting (Gmax), s	17.6	22.6				46.6	20.8
Max Q Clear Time (g_c+I1), s	11.4	20.0				4.2	14.2
Green Ext Time (p_c), s	0.7	1.3				2.8	2.0

Intersection Summary	
HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Appendix C

BACKGROUND TRAFFIC CONDITIONS

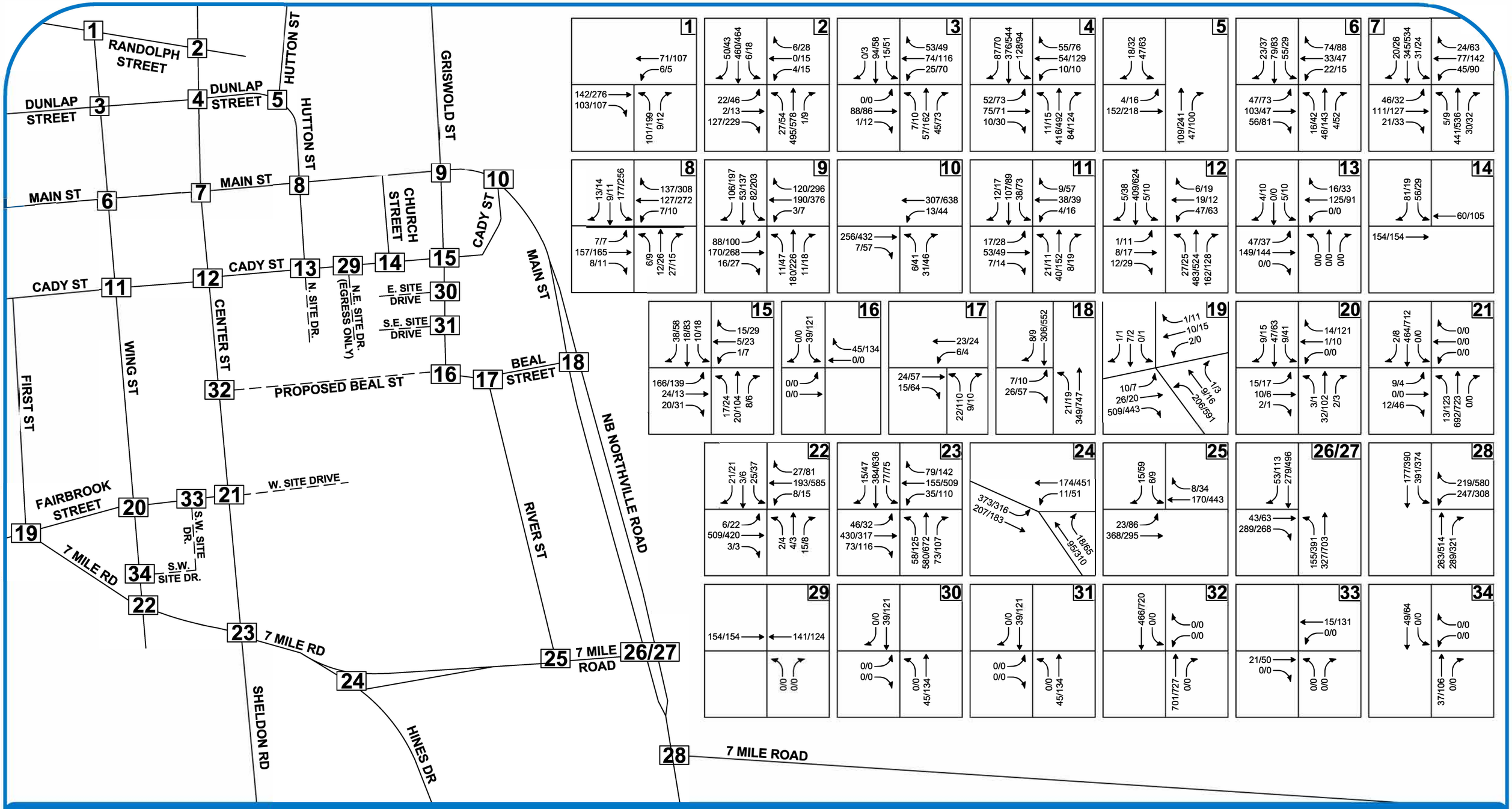


FIGURE 4
BACKGROUND TRAFFIC VOLUMES

NORTHVILLE DOWNS TIS - NORTHVILLE, MI

LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

NORTH

SCALE: NOT TO SCALE

F&V

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	142	103	6	71	101	9
Future Vol, veh/h	142	103	6	71	101	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	60	60	77	77
Heavy Vehicles, %	3	3	2	2	4	4
Mvmt Flow	149	108	10	118	131	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	257	0	341	203
Stage 1	-	-	-	-	203	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.218	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1308	-	651	833
Stage 1	-	-	-	-	826	-
Stage 2	-	-	-	-	884	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1308	-	646	833
Mov Cap-2 Maneuver	-	-	-	-	646	-
Stage 1	-	-	-	-	826	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	658	-	-	1308	-
HCM Lane V/C Ratio	0.217	-	-	0.008	-
HCM Control Delay (s)	12	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	2	127	4	0	6	27	495	1	6	460	50
Future Vol, veh/h	22	2	127	4	0	6	27	495	1	6	460	50
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	4	4	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	500	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	75	75	75	91	91	91	69	69	69
Heavy Vehicles, %	1	1	1	0	0	0	2	2	2	2	2	2
Mvmt Flow	33	3	192	5	0	8	30	544	1	9	667	72

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1335	1335	708	1428	1371	549	744	0	0	549	0	0
Stage 1	726	726	-	609	609	-	-	-	-	-	-	-
Stage 2	609	609	-	819	762	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	131	154	436	114	147	539	864	-	-	1021	-	-
Stage 1	417	431	-	486	488	-	-	-	-	-	-	-
Stage 2	484	487	-	372	416	-	-	-	-	-	-	-
Platoon blocked, %									-		-	-
Mov Cap-1 Maneuver	124	146	434	60	139	537	860	-	-	1017	-	-
Mov Cap-2 Maneuver	124	146	-	60	139	-	-	-	-	-	-	-
Stage 1	401	425	-	467	469	-	-	-	-	-	-	-
Stage 2	460	468	-	204	410	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	42.6	36.4	0.5	0.1
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	860	-	-	312	128	1017	-	-
HCM Lane V/C Ratio	0.035	-	-	0.733	0.104	0.009	-	-
HCM Control Delay (s)	9.3	-	-	42.6	36.4	8.6	-	-
HCM Lane LOS	A	-	-	E	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	5.4	0.3	0	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	88	1	25	74	53	7	57	45	15	94	0
Future Vol, veh/h	0	88	1	25	74	53	7	57	45	15	94	0
Peak Hour Factor	0.78	0.78	0.78	0.73	0.73	0.73	0.84	0.84	0.84	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	0	113	1	34	101	73	8	68	54	17	107	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	9.1	8.6	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	0%	16%	14%
Vol Thru, %	52%	99%	49%	86%
Vol Right, %	41%	1%	35%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	109	89	152	109
LT Vol	7	0	25	15
Through Vol	57	88	74	94
RT Vol	45	1	53	0
Lane Flow Rate	130	114	208	124
Geometry Grp	1	1	1	1
Degree of Util (X)	0.166	0.15	0.259	0.169
Departure Headway (Hd)	4.619	4.744	4.471	4.898
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	773	753	802	730
Service Time	2.666	2.791	2.51	2.945
HCM Lane V/C Ratio	0.168	0.151	0.259	0.17
HCM Control Delay	8.6	8.6	9.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.5	1	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	75	10	10	54	55	11	416	84	128	376	87
Future Volume (veh/h)	52	75	10	10	54	55	11	416	84	128	376	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	59	85	11	12	64	65	12	452	91	164	482	112
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.92	0.92	0.92	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	359	424	55	390	221	225	482	978	197	660	950	221
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	1.00	1.00	1.00	0.62	0.62	0.62
Sat Flow, veh/h	1255	1706	221	1292	892	906	823	1590	320	862	1544	359
Grp Volume(v), veh/h	59	0	96	12	0	129	12	0	543	164	0	594
Grp Sat Flow(s),veh/h/ln	1255	0	1927	1292	0	1797	823	0	1910	862	0	1903
Q Serve(g_s), s	2.4	0.0	2.4	0.4	0.0	3.5	0.3	0.0	0.0	5.4	0.0	10.5
Cycle Q Clear(g_c), s	5.9	0.0	2.4	2.8	0.0	3.5	10.7	0.0	0.0	5.4	0.0	10.5
Prop In Lane	1.00		0.11	1.00		0.50	1.00		0.17	1.00		0.19
Lane Grp Cap(c), veh/h	359	0	479	390	0	446	482	0	1175	650	0	1170
V/C Ratio(X)	0.16	0.00	0.20	0.03	0.00	0.29	0.02	0.00	0.46	0.25	0.00	0.51
Avail Cap(c_a), veh/h	359	0	479	390	0	446	482	0	1175	650	0	1170
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	17.8	19.0	0.0	18.3	1.5	0.0	0.0	5.5	0.0	6.5
Incr Delay (d2), s/veh	1.0	0.0	0.9	0.1	0.0	1.6	0.1	0.0	1.3	0.9	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.1	0.1	0.0	1.6	0.0	0.0	0.4	0.9	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	18.8	19.1	0.0	19.9	1.6	0.0	1.3	6.4	0.0	8.0
LnGrp LOS	C	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		155			141			555			758	
Approach Delay, s/veh		19.9			19.8			1.3			7.7	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8	
Phs Duration (G+Y+Rc), s		41.0		19.0		41.0		19.0	
Change Period (Y+Rc), s		* 4.1		* 4.1		* 4.1		* 4.1	
Max Green Setting (Gmax), s		* 37		* 15		* 37		* 15	
Max Q Clear Time (g_c+I1), s		12.7		7.9		12.5		5.5	
Green Ext Time (p_c), s		4.1		0.3		5.7		0.4	

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	152	109	47	47	18
Future Vol, veh/h	4	152	109	47	47	18
Conflicting Peds, #/hr	0	0	0	0	5	5
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	93	93	84	84	74	74
Heavy Vehicles, %	3	3	2	2	0	0
Mvmt Flow	4	163	130	56	64	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	186	0	-	0	334	163
Stage 1					158	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	4.13	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1382	-	-	-	665	887
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1382	-	-	-	663	883
Mov Cap-2 Maneuver	-	-	-	-	663	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	859	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1382	-	-	-	712
HCM Lane V/C Ratio	0.003	-	-	-	0.123
HCM Control Delay (s)	7.6	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	103	56	22	33	74	16	46	4	55	79	23
Future Vol, veh/h	47	103	56	22	33	74	16	46	4	55	79	23
Peak Hour Factor	0.81	0.81	0.81	0.76	0.76	0.76	0.93	0.93	0.93	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	58	127	69	29	43	97	17	49	4	71	101	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	9	9	10
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	23%	17%	35%
Vol Thru, %	70%	50%	26%	50%
Vol Right, %	6%	27%	57%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	206	129	157
LT Vol	16	47	22	55
Through Vol	46	103	33	79
RT Vol	4	56	74	23
Lane Flow Rate	71	254	170	201
Geometry Grp	1	1	1	1
Degree of Util (X)	0.104	0.333	0.218	0.279
Departure Headway (Hd)	5.26	4.71	4.627	4.992
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	674	758	769	715
Service Time	3.347	2.77	2.694	3.065
HCM Lane V/C Ratio	0.105	0.335	0.221	0.281
HCM Control Delay	9	10.1	9	10
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.3	1.5	0.8	1.1

HCM 6th Signalized Intersection Summary
7: Center Street & Main Street

Background Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	111	21	45	77	24	5	441	30	31	345	20
Future Volume (veh/h)	46	111	21	45	77	24	5	441	30	31	345	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1969	1969	1953	1953	1953	1953	1953	1953	1953
Adj Flow Rate, veh/h	53	128	24	51	88	27	6	531	36	34	383	22
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.83	0.83	0.83	0.90	0.90	0.90
Percent Heavy Veh, %	1	1	1	2	2	2	3	3	3	3	3	3
Cap, veh/h	154	336	56	176	281	73	63	1005	68	104	939	52
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.56	0.56	0.56	1.00	1.00	1.00
Sat Flow, veh/h	297	1274	208	369	1067	279	5	1800	121	70	1682	92
Grp Volume(v), veh/h	205	0	0	166	0	0	573	0	0	439	0	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1715	0	0	1926	0	0	1844	0	0
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.0	4.2	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.26		0.12	0.31		0.16	0.01		0.06	0.08		0.05
Lane Grp Cap(c), veh/h	544	0	0	530	0	0	1136	0	0	1094	0	0
V/C Ratio(X)	0.38	0.00	0.00	0.31	0.00	0.00	0.50	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	544	0	0	530	0	0	1136	0	0	1094	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	17.8	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	1.5	0.0	0.0	1.6	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	2.0	0.0	0.0	4.3	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	0.0	19.4	0.0	0.0	9.9	0.0	0.0	1.1	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		205			166			573			439	
Approach Delay, s/veh		20.2			19.4			9.9			1.1	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2			4		6		8			
Phs Duration (G+Y+Rc), s		39.0			21.0		39.0		21.0			
Change Period (Y+Rc), s		5.5			* 5.2		5.5		* 5.2			
Max Green Setting (Gmax), s		33.5			* 16		33.5		* 16			
Max Q Clear Time (g_c+I1), s		13.2			7.2		2.0		6.2			
Green Ext Time (p_c), s		4.1			0.7		3.4		0.6			
Intersection Summary												
HCM 6th Ctrl Delay			9.8									
HCM 6th LOS			A									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
8: Hutton Street & Main Street

Background Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	157	8	7	127	137	6	12	27	177	9	13
Future Volume (veh/h)	7	157	8	7	127	137	6	12	27	177	9	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	1969	1969	1969	2000	2000	2000	1969	1969	1969
Adj Flow Rate, veh/h	8	185	9	8	144	156	9	17	39	208	11	15
Peak Hour Factor	0.85	0.85	0.85	0.88	0.88	0.88	0.69	0.69	0.69	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	2	2	2
Cap, veh/h	76	1083	833	83	1056	820	97	158	281	475	19	397
Arrive On Green	1.00	1.00	1.00	0.18	0.18	0.18	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	24	1956	1506	36	1909	1483	108	594	1053	1342	71	1490
Grp Volume(v), veh/h	193	0	9	152	0	156	65	0	0	219	0	15
Grp Sat Flow(s),veh/h/ln	1980	0	1506	1945	0	1483	1755	0	0	1413	0	1490
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	6.1	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.9	0.0	5.3	1.7	0.0	0.0	7.7	0.0	0.4
Prop In Lane	0.04		1.00	0.05		1.00	0.14		0.60	0.95		1.00
Lane Grp Cap(c), veh/h	1158	0	833	1139	0	820	536	0	0	494	0	397
V/C Ratio(X)	0.17	0.00	0.01	0.13	0.00	0.19	0.12	0.00	0.00	0.44	0.00	0.04
Avail Cap(c_a), veh/h	1158	0	833	1139	0	820	536	0	0	494	0	397
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.5	0.0	13.1	16.7	0.0	0.0	18.8	0.0	16.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.5	0.5	0.0	0.0	2.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.6	0.0	1.8	0.7	0.0	0.0	2.8	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.0	0.0	12.8	0.0	13.7	17.2	0.0	0.0	21.6	0.0	16.5
LnGrp LOS	A	A	A	B	A	B	B	A	A	C	A	B
Approach Vol, veh/h		202			308			65			234	
Approach Delay, s/veh		0.3			13.2			17.2			21.3	
Approach LOS		A			B			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7		21.3				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		33.2		* 16		33.2		* 16				
Max Q Clear Time (g_c+I1), s		2.0		9.7		7.3		3.7				
Green Ext Time (p_c), s		1.2		0.7		1.4		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
9: Griswold Street & Main Street

Background Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	170	16	3	190	120	11	180	11	82	53	106
Future Volume (veh/h)	88	170	16	3	190	120	11	180	11	82	53	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1938	1984	1984	1984	1984	1953	1953
Adj Flow Rate, veh/h	107	207	20	4	229	145	12	205	12	91	59	118
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.88	0.88	0.88	0.88	0.90	0.90
Percent Heavy Veh, %	1	1	1	4	4	4	1	1	1	3	3	3
Cap, veh/h	429	904	91	64	1002	599	76	626	35	226	159	240
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	706	1951	197	7	2162	1293	36	1804	102	420	459	692
Grp Volume(v), veh/h	155	0	179	206	0	172	229	0	0	268	0	0
Grp Sat Flow(s),veh/h/ln	1085	0	1770	1933	0	1529	1943	0	0	1571	0	0
Q Serve(g_s), s	3.7	0.0	3.6	0.0	0.0	4.1	0.0	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	7.8	0.0	3.6	3.8	0.0	4.1	5.2	0.0	0.0	7.1	0.0	0.0
Prop In Lane	0.69		0.11	0.02		0.85	0.05		0.05	0.34		0.44
Lane Grp Cap(c), veh/h	604	0	820	957	0	708	737	0	0	625	0	0
V/C Ratio(X)	0.26	0.00	0.22	0.22	0.00	0.24	0.31	0.00	0.00	0.43	0.00	0.00
Avail Cap(c_a), veh/h	604	0	820	957	0	708	737	0	0	625	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	9.6	9.7	0.0	9.7	14.5	0.0	0.0	15.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.6	0.5	0.0	0.8	1.1	0.0	0.0	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.4	1.6	0.0	1.4	2.2	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	0.0	10.2	10.2	0.0	10.5	15.6	0.0	0.0	17.2	0.0	0.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		334			378			229			268	
Approach Delay, s/veh		11.1			10.3			15.6			17.2	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.4		26.6		33.4		26.6				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		27.8		* 21		27.8		* 21				
Max Q Clear Time (g_c+I1), s		9.8		9.1		6.1		7.2				
Green Ext Time (p_c), s		2.1		1.2		2.4		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
10: Cady Street & Main Street

Background Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	256	7	13	307	6	31
Future Vol, veh/h	256	7	13	307	6	31
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	87	87	79	79
Heavy Vehicles, %	1	1	3	3	5	5
Mvmt Flow	291	8	15	353	8	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	300	0	503	151
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	207	-
Critical Hdwy	-	-	4.16	-	6.9	7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	-	-	2.23	-	3.55	3.35
Pot Cap-1 Maneuver	-	-	1251	-	491	899
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	799	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1250	-	483	858
Mov Cap-2 Maneuver	-	-	-	-	483	-
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	762	-	-	1250	-
HCM Lane V/C Ratio	0.061	-	-	0.012	-
HCM Control Delay (s)	10	-	-	7.9	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th AWSC
11: Wing Street & Cady Street

Background Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	53	7	4	38	9	21	40	8	38	107	12
Future Vol, veh/h	17	53	7	4	38	9	21	40	8	38	107	12
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.90	0.90	0.90	0.81	0.81	0.81
Heavy Vehicles, %	1	1	1	3	3	3	5	5	5	2	2	2
Mvmt Flow	27	84	11	5	46	11	23	44	9	47	132	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.1	8.2	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	22%	8%	24%
Vol Thru, %	58%	69%	75%	68%
Vol Right, %	12%	9%	18%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	77	51	157
LT Vol	21	17	4	38
Through Vol	40	53	38	107
RT Vol	8	7	9	12
Lane Flow Rate	77	122	62	194
Geometry Grp	1	1	1	1
Degree of Util (X)	0.099	0.156	0.08	0.24
Departure Headway (Hd)	4.63	4.608	4.636	4.461
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	774	779	772	806
Service Time	2.658	2.635	2.665	2.484
HCM Lane V/C Ratio	0.099	0.157	0.08	0.241
HCM Control Delay	8.2	8.5	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.3	0.9

HCM 6th TWSC
12: Center Street & Cady Street

Background Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	8	12	47	19	6	27	483	162	5	409	5
Future Vol, veh/h	1	8	12	47	19	6	27	483	162	5	409	5
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	82	82	82	90	90	90	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	2	13	20	57	23	7	30	537	180	6	460	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1180	1253	465	1180	1166	629	467	0	0	717	0	0
Stage 1	476	476	-	687	687	-	-	-	-	-	-	-
Stage 2	704	777	-	493	479	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	169	174	602	169	196	486	1089	-	-	894	-	-
Stage 1	574	560	-	440	450	-	-	-	-	-	-	-
Stage 2	431	410	-	562	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	144	164	601	147	185	485	1088	-	-	884	-	-
Mov Cap-2 Maneuver	144	164	-	147	185	-	-	-	-	-	-	-
Stage 1	546	564	-	419	429	-	-	-	-	-	-	-
Stage 2	382	391	-	525	552	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.9	48.7	0.3	0.1
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1088	-	-	277	166	884	-	-
HCM Lane V/C Ratio	0.028	-	-	0.126	0.529	0.006	-	-
HCM Control Delay (s)	8.4	0	-	19.9	48.7	9.1	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	2.6	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	149	0	0	125	16	0	0	0	5	0	4
Future Vol, veh/h	47	149	0	0	125	16	0	0	0	5	0	4
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	66	66	66	92	92	92	75	75	75
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	11	11	11
Mvmt Flow	56	177	0	0	189	24	0	0	0	7	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	177	0	0	494	506	180	497	494	206
Stage 1	-	-	-	-	-	-	289	289	-	205	205	-
Stage 2	-	-	-	-	-	-	205	217	-	292	289	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.21	5.61	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.599	4.099	3.399
Pot Cap-1 Maneuver	1359	-	-	1405	-	-	486	469	863	469	464	812
Stage 1	-	-	-	-	-	-	719	673	-	777	715	-
Stage 2	-	-	-	-	-	-	797	723	-	697	657	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1354	-	-	1405	-	-	466	446	861	449	441	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	466	446	-	449	441	-
Stage 1	-	-	-	-	-	-	686	642	-	738	712	-
Stage 2	-	-	-	-	-	-	791	720	-	663	627	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	0	0	11.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)		1354	-	-	1405	-	-	559
HCM Lane V/C Ratio		0.041	-	-	-	-	-	0.021
HCM Control Delay (s)		7.8	0	-	0	-	-	11.6
HCM Lane LOS		A	A	-	A	-	-	B
HCM 95th %tile Q(veh)		0.1	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	154	60	0	56	81
Future Vol, veh/h	0	154	60	0	56	81
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	81	81	64	64	76	76
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	0	190	94	0	74	107

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	284	94
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	190	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	710	968
Stage 1	0	-	-	0	935	-
Stage 2	0	-	-	0	847	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	710	968
Mov Cap-2 Maneuver	-	-	-	-	710	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	847	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	843
HCM Lane V/C Ratio	-	-	0.214
HCM Control Delay (s)	-	-	10.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.8

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	166	24	20	1	5	15	17	20	8	10	18	38
Future Vol, veh/h	166	24	20	1	5	15	17	20	8	10	18	38
Conflicting Peds, #/hr	5	0	0	0	0	5	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	60	60	60	85	85	85	76	76	76
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	4	4	4
Mvmt Flow	182	26	22	2	8	25	20	24	9	13	24	50

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	168	151	52	168	172	34	77	0	0	33	0	0
Stage 1	78	78	-	69	69	-	-	-	-	-	-	-
Stage 2	90	73	-	99	103	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	798	742	1019	800	725	1045	1535	-	-	1566	-	-
Stage 1	933	832	-	946	841	-	-	-	-	-	-	-
Stage 2	920	836	-	912	814	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	753	723	1016	748	707	1040	1531	-	-	1566	-	-
Mov Cap-2 Maneuver	753	723	-	748	707	-	-	-	-	-	-	-
Stage 1	918	822	-	934	830	-	-	-	-	-	-	-
Stage 2	873	825	-	856	804	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	9.1	2.8	1.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1531	-	-	768	920	1566	-	-
HCM Lane V/C Ratio	0.013	-	-	0.3	0.038	0.008	-	-
HCM Control Delay (s)	7.4	0	-	11.7	9.1	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.3	0.1	0	-	-

Intersection Sign configuration not allowed in HCM analysis.

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	15	6	23	22	9
Future Vol, veh/h	24	15	6	23	22	9
Conflicting Peds, #/hr	0	0	0	0	1	1
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	62	62	72	72	70	70
Heavy Vehicles, %	5	5	0	0	7	7
Mvmt Flow	39	24	8	32	31	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	63	0	100	52
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	49	-
Critical Hdwy	-	-	4.1	-	6.47	6.27
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	-	-	2.2	-	3.563	3.363
Pot Cap-1 Maneuver	-	-	1553	-	887	1002
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	961	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1553	-	882	1001
Mov Cap-2 Maneuver	-	-	-	-	882	-
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	955	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	914	-	-	1553	-
HCM Lane V/C Ratio	0.048	-	-	0.005	-
HCM Control Delay (s)	9.1	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	26	21	349	306	8
Future Vol, veh/h	7	26	21	349	306	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	61	61	88	88	91	91
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	11	43	24	397	336	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	588	173	345	0	-	0
Stage 1	341	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.88	6.98	4.16	-	-	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	2.23	-	-	-
Pot Cap-1 Maneuver	436	834	1203	-	-	-
Stage 1	685	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	424	834	1203	-	-	-
Mov Cap-2 Maneuver	424	-	-	-	-	-
Stage 1	668	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1203	-	692	-	-
HCM Lane V/C Ratio	0.02	-	0.078	-	-
HCM Control Delay (s)	8.1	0.1	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection Sign configuration not allowed in HCM analysis.

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	10	2	0	1	14	3	32	2	9	47	9
Future Vol, veh/h	15	10	2	0	1	14	3	32	2	9	47	9
Peak Hour Factor	0.73	0.73	0.73	0.69	0.69	0.69	0.75	0.75	0.75	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	11	11	11	4	4	4
Mvmt Flow	21	14	3	0	1	20	4	43	3	12	64	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	6.8	7.5	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	56%	0%	14%
Vol Thru, %	86%	37%	7%	72%
Vol Right, %	5%	7%	93%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	27	15	65
LT Vol	3	15	0	9
Through Vol	32	10	1	47
RT Vol	2	2	14	9
Lane Flow Rate	49	37	22	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.058	0.043	0.022	0.099
Departure Headway (Hd)	4.239	4.22	3.605	4.052
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	841	840	978	882
Service Time	2.283	2.291	1.681	2.089
HCM Lane V/C Ratio	0.058	0.044	0.022	0.1
HCM Control Delay	7.5	7.5	6.8	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.1	0.3

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	12	0	0	0	13	692	0	0	464	2
Future Vol, veh/h	9	0	12	0	0	0	13	692	0	0	464	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	92	92	92	90	90	90	88	88	88
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	18	0	0	0	14	769	0	0	527	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1325	528	1334	1326	769	529	0	0	769	0	0
Stage 1	528	528	-	797	797	-	-	-	-	-	-	-
Stage 2	797	797	-	537	529	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	131	154	544	131	156	401	1038	-	-	845	-	-
Stage 1	528	523	-	380	399	-	-	-	-	-	-	-
Stage 2	376	394	-	528	527	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	129	150	544	124	152	401	1038	-	-	845	-	-
Mov Cap-2 Maneuver	129	150	-	124	152	-	-	-	-	-	-	-
Stage 1	515	523	-	371	389	-	-	-	-	-	-	-
Stage 2	367	385	-	510	527	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.2	0	0.2	0
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1038	-	-	229	-	845	-	-
HCM Lane V/C Ratio	0.014	-	-	0.139	-	-	-	-
HCM Control Delay (s)	8.5	0	-	23.2	0	0	-	-
HCM Lane LOS	A	A	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	-	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	509	3	8	193	27	2	4	15	25	3	21
Future Vol, veh/h	6	509	3	8	193	27	2	4	15	25	3	21
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	89	89	89	79	79	79	85	85	85
Heavy Vehicles, %	2	2	2	3	3	3	10	10	10	4	4	4
Mvmt Flow	8	636	4	9	217	30	3	5	19	29	4	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	249	0	0	640	0	0	919	921	641	921	908	234
Stage 1	-	-	-	-	-	-	654	654	-	252	252	-
Stage 2	-	-	-	-	-	-	265	267	-	669	656	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.2	6.6	6.3	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.59	4.09	3.39	3.536	4.036	3.336
Pot Cap-1 Maneuver	1317	-	-	939	-	-	244	262	461	249	273	800
Stage 1	-	-	-	-	-	-	443	451	-	748	695	-
Stage 2	-	-	-	-	-	-	723	674	-	444	459	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	939	-	-	231	257	460	231	268	798
Mov Cap-2 Maneuver	-	-	-	-	-	-	231	257	-	231	268	-
Stage 1	-	-	-	-	-	-	440	448	-	742	687	-
Stage 2	-	-	-	-	-	-	690	666	-	417	456	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	15.5	17.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	370	1314	-	-	939	-	-	336
HCM Lane V/C Ratio	0.072	0.006	-	-	0.01	-	-	0.172
HCM Control Delay (s)	15.5	7.8	-	-	8.9	-	-	17.9
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	430	73	35	155	79	58	580	73	77	384	15
Future Volume (veh/h)	46	430	73	35	155	79	58	580	73	77	384	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pb)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1938	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	54	506	86	38	168	86	63	630	79	90	447	17
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	1	1	1	4	4	4	2	2	2	2	2	2
Cap, veh/h	439	607	103	162	712	603	395	836	105	230	919	35
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1134	1653	281	812	1938	1640	928	1715	215	740	1884	72
Grp Volume(v), veh/h	54	0	592	38	168	86	63	0	709	90	0	464
Grp Sat Flow(s),veh/h/ln	1134	0	1933	812	1938	1640	928	0	1930	740	0	1956
Q Serve(g_s), s	2.8	0.0	22.3	3.6	4.8	2.8	3.9	0.0	23.8	9.0	0.0	12.8
Cycle Q Clear(g_c), s	7.6	0.0	22.3	25.9	4.8	2.8	16.7	0.0	23.8	32.8	0.0	12.8
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.11	1.00		0.04
Lane Grp Cap(c), veh/h	439	0	711	162	712	603	395	0	941	230	0	953
V/C Ratio(X)	0.12	0.00	0.83	0.23	0.24	0.14	0.16	0.00	0.75	0.39	0.00	0.49
Avail Cap(c_a), veh/h	439	0	711	162	712	603	395	0	941	230	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	23.1	34.9	17.5	16.9	19.4	0.0	16.6	29.9	0.0	13.8
Incr Delay (d2), s/veh	0.6	0.0	11.0	3.4	0.8	0.5	0.9	0.0	5.6	4.9	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	11.5	0.8	2.2	1.1	0.9	0.0	10.7	1.8	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	34.1	38.3	18.3	17.4	20.2	0.0	22.2	34.8	0.0	15.6
LnGrp LOS	C	A	C	D	B	B	C	A	C	C	A	B
Approach Vol, veh/h		646			292			772			554	
Approach Delay, s/veh		33.0			20.6			22.0			18.7	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	45.0	35.0	45.0	35.0
Change Period (Y+Rc), s	6.0	5.6	6.0	5.6
Max Green Setting (Gmax), s	39.0	29.4	39.0	29.4
Max Q Clear Time (g_c+I1), s	25.8	24.3	34.8	27.9
Green Ext Time (p_c), s	4.3	1.8	1.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Intersection Sign configuration not allowed in HCM analysis.

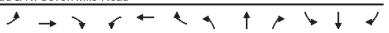
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	368	170	8	6	15
Future Vol, veh/h	23	368	170	8	6	15
Conflicting Peds, #/hr	3	0	0	3	2	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	83	83	71	71
Heavy Vehicles, %	2	2	5	5	6	6
Mvmt Flow	25	404	205	10	8	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	218	0	-	0	669	216
Stage 1	-	-	-	-	213	-
Stage 2	-	-	-	-	456	-
Critical Hdwy	4.12	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.218	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1352	-	-	-	417	814
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	630	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1348	-	-	-	404	809
Mov Cap-2 Maneuver	-	-	-	-	404	-
Stage 1	-	-	-	-	791	-
Stage 2	-	-	-	-	628	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11
HCM LOS			B

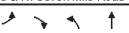
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1348	-	-	-	629
HCM Lane V/C Ratio	0.019	-	-	-	0.047
HCM Control Delay (s)	7.7	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	43	289	0	155	0	0	0	0	0	279	53
Future Volume (Veh/h)	0	43	289	0	155	0	0	0	0	0	279	53
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.81	0.81	0.88	0.88	0.88	0.92	0.92	0.92	0.95	0.95	0.95
Hourly flow rate (vph)	0	53	357	0	176	0	0	0	0	0	294	56
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	410	322	175	530	350	0	350			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	410	322	175	530	350	0	350			0		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	91	57	100	69	100	100			100		
cM capacity (veh/h)	399	594	838	227	566	1075	1206			1629		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	53	357	176	196	154
Volume Left	0	0	0	0	0
Volume Right	0	357	0	0	56
cSH	594	838	566	1700	1700
Volume to Capacity	0.09	0.43	0.31	0.12	0.09
Queue Length 95th (ft)	7	54	33	0	0
Control Delay (s)	11.7	12.4	14.2	0.0	0.0
Lane LOS	B	B	B		
Approach Delay (s)	12.3		14.2	0.0	
Approach LOS	B		B		

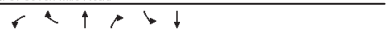
Intersection Summary					
Average Delay	8.1				
Intersection Capacity Utilization	47.5%	ICU Level of Service	A		
Analysis Period (min)	15				



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	0	155	327	0	0
Future Volume (Veh/h)	43	0	155	327	0	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.88	0.88	0.92	0.92
Hourly flow rate (vph)	53	0	176	372	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked						
vC, conflicting volume	538	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	538	0	0			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	100	89			
cM capacity (veh/h)	421	1084	1600			

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total	53	300	248
Volume Left	53	176	0
Volume Right	0	0	0
cSH	421	1600	1700
Volume to Capacity	0.13	0.11	0.15
Queue Length 95th (ft)	11	9	0
Control Delay (s)	14.8	4.8	0.0
Lane LOS	B	A	
Approach Delay (s)	14.8	2.6	
Approach LOS	B		

Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	48.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	247	219	263	289	391	177
Future Volume (veh/h)	247	219	263	289	391	177
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1953	1953	1938	1938	1984	1984
Adj Flow Rate, veh/h	287	255	277	304	449	203
Peak Hour Factor	0.86	0.86	0.95	0.95	0.87	0.87
Percent Heavy Veh, %	3	3	4	4	1	1
Cap, veh/h	665	923	377	337	468	1829
Arrive On Green	0.36	0.36	0.20	0.20	0.20	0.49
Sat Flow, veh/h	1860	1655	1938	1642	1890	3870
Grp Volume(v), veh/h	287	255	277	304	449	203
Grp Sat Flow(s),veh/h/ln	1860	1655	1841	1642	1890	1885
Q Serve(g_s), s	9.4	0.0	11.3	14.4	14.9	2.3
Cycle Q Clear(g_c), s	9.4	0.0	11.3	14.4	14.9	2.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	665	923	377	337	468	1829
V/C Ratio(X)	0.43	0.28	0.73	0.90	0.96	0.11
Avail Cap(c_a), veh/h	665	923	377	337	468	1829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	9.3	29.8	31.0	30.1	11.2
Incr Delay (d2), s/veh	2.0	0.7	12.0	29.7	32.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.2	5.9	8.1	11.6	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.6	10.0	41.7	60.7	62.7	11.3
LnGrp LOS	C	B	D	E	E	B
Approach Vol, veh/h	542		581			652
Approach Delay, s/veh	16.1		51.6			46.7
Approach LOS	B		D			D

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	22.4	22.8				45.2	34.8
Change Period (Y+Rc), s	6.4	6.4				6.4	6.2
Max Green Setting (Gmax), s	16.0	16.4				38.8	28.6
Max Q Clear Time (g_c+I1), s	16.9	16.4				4.3	11.4
Green Ext Time (p_c), s	0.0	0.0				1.3	1.6

Intersection Summary		
HCM 6th Ctrl Delay	39.0	
HCM 6th LOS	D	

Intersection	
Int Delay, s/veh	6.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	276	107	5	107	199	12
Future Vol, veh/h	276	107	5	107	199	12
Conflicting Peds, #/hr	0	11	11	0	0	4
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	87	87	81	81	78	78
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	317	123	6	132	255	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	451	0	534	394
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	144	-
Critical Hdwy	-	-	4.1	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1120	-	609	657
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	886	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1108	-	501	648
Mov Cap-2 Maneuver	-	-	-	-	501	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	881	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	19.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	508	-	-	1108	-
HCM Lane V/C Ratio	0.533	-	-	0.006	-
HCM Control Delay (s)	19.9	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.1	-	-	0	-

Intersection	
Int Delay, s/veh	63.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	13	229	15	15	28	54	578	9	18	464	43
Future Vol, veh/h	46	13	229	15	15	28	54	578	9	18	464	43
Conflicting Peds, #/hr	2	0	5	5	0	2	15	0	12	12	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	500	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	91	91	91	87	87	87	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	55	15	273	16	16	31	62	664	10	25	636	59

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1550	1541	686	1670	1565	683	710	0	0	686	0	0
Stage 1	731	731	-	805	805	-	-	-	-	-	-	-
Stage 2	819	810	-	865	760	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	94	116	451	77	113	453	899	-	-	912	-	-
Stage 1	416	430	-	379	398	-	-	-	-	-	-	-
Stage 2	372	396	-	351	417	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	70	102	442	24	100	447	886	-	-	902	-	-
Mov Cap-2 Maneuver	70	102	-	24	100	-	-	-	-	-	-	-
Stage 1	381	412	-	348	366	-	-	-	-	-	-	-
Stage 2	307	364	-	125	399	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	308.9	188.3	0.8	0.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	886	-	-	221	69	902	-	-
HCM Lane V/C Ratio	0.07	-	-	1.551	0.924	0.027	-	-
HCM Control Delay (s)	9.4	-	-	$ 308.9	188.3	9.1	-	-
HCM Lane LOS	A	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	21.3	4.6	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	86	12	70	116	49	10	162	73	51	58	3
Future Vol, veh/h	0	86	12	70	116	49	10	162	73	51	58	3
Peak Hour Factor	0.77	0.77	0.77	0.75	0.75	0.75	0.87	0.87	0.87	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	0	112	16	93	155	65	11	186	84	70	79	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	12.6	11.8	10.5
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	30%	46%
Vol Thru, %	66%	88%	49%	52%
Vol Right, %	30%	12%	21%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	98	235	112
LT Vol	10	0	70	51
Through Vol	162	86	116	58
RT Vol	73	12	49	3
Lane Flow Rate	282	127	313	153
Geometry Grp	1	1	1	1
Degree of Util (X)	0.406	0.195	0.455	0.241
Departure Headway (Hd)	5.19	5.527	5.232	5.649
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	693	648	689	635
Service Time	3.229	3.576	3.27	3.694
HCM Lane V/C Ratio	0.407	0.196	0.454	0.241
HCM Control Delay	11.8	9.9	12.6	10.5
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	2	0.7	2.4	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	71	30	10	129	76	15	492	124	94	544	70
Future Volume (veh/h)	73	71	30	10	129	76	15	492	124	94	544	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.93	0.95		0.93	1.00		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	1969	1969	1969	2000	2000	2000	2000
Adj Flow Rate, veh/h	83	81	34	11	140	83	16	535	135	121	697	90
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	0	0	0
Cap, veh/h	290	324	136	364	283	168	365	929	234	596	1065	137
Arrive On Green	0.25	0.25	0.25	0.33	0.33	0.33	1.00	1.00	1.00	0.62	0.62	0.62
Sat Flow, veh/h	1135	1303	547	1230	1139	675	688	1511	381	774	1731	224
Grp Volume(v), veh/h	83	0	115	11	0	223	16	0	670	121	0	787
Grp Sat Flow(s),veh/h/ln	1135	0	1850	1230	0	1814	688	0	1892	774	0	1955
Q Serve(g_s), s	4.0	0.0	3.0	0.4	0.0	5.9	0.6	0.0	0.0	4.3	0.0	15.6
Cycle Q Clear(g_c), s	9.9	0.0	3.0	3.4	0.0	5.9	16.2	0.0	0.0	4.3	0.0	15.6
Prop In Lane	1.00		0.30	1.00		0.37	1.00		0.20	1.00		0.11
Lane Grp Cap(c), veh/h	290	0	459	364	0	451	365	0	1164	596	0	1202
V/C Ratio(X)	0.29	0.00	0.25	0.03	0.00	0.49	0.04	0.00	0.58	0.20	0.00	0.65
Avail Cap(c_a), veh/h	290	0	459	364	0	451	365	0	1164	596	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	18.1	17.4	0.0	17.1	3.4	0.0	0.0	5.3	0.0	7.4
Incr Delay (d2), s/veh	2.5	0.0	1.3	0.2	0.0	3.8	0.2	0.0	2.1	0.8	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.4	0.1	0.0	2.7	0.1	0.0	0.7	0.7	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	0.0	19.4	17.5	0.0	20.9	3.6	0.0	2.1	6.0	0.0	10.2
LnGrp LOS	C	A	B	B	A	C	A	A	A	A	A	B
Approach Vol, veh/h		198			234			686			908	
Approach Delay, s/veh		22.1			20.8			2.1			9.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.0		19.0		41.0		19.0				
Change Period (Y+Rc), s		* 4.1		* 4.1		* 4.1		* 4.1				
Max Green Setting (Gmax), s		* 37		* 15		* 37		* 15				
Max Q Clear Time (g_c+I1), s		18.2		11.9		17.6		7.9				
Green Ext Time (p_c), s		5.0		0.2		7.0		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	218	241	100	63	32
Future Vol, veh/h	16	218	241	100	63	32
Conflicting Peds, #/hr	19	0	0	19	10	20
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	89	89
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	17	237	262	109	71	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	390	0	-	0	617	356
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	281	-
Critical Hdwy	4.1	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.2	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1180	-	-	-	455	690
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	769	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1159	-	-	-	431	665
Mov Cap-2 Maneuver	-	-	-	-	431	-
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	755	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1159	-	-	-	489
HCM Lane V/C Ratio	0.015	-	-	-	0.218
HCM Control Delay (s)	8.2	0	-	-	14.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	47	81	15	47	88	42	143	52	29	83	37
Future Vol, veh/h	73	47	81	15	47	88	42	143	52	29	83	37
Peak Hour Factor	0.82	0.82	0.82	0.80	0.80	0.80	0.91	0.91	0.91	0.76	0.76	0.76
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	2
Mvmt Flow	89	57	99	19	59	110	46	157	57	38	109	49
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.3	10.2	11.6	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	36%	10%	19%
Vol Thru, %	60%	23%	31%	56%
Vol Right, %	22%	40%	59%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	237	201	150	149
LT Vol	42	73	15	29
Through Vol	143	47	47	83
RT Vol	52	81	88	37
Lane Flow Rate	260	245	188	196
Geometry Grp	1	1	1	1
Degree of Util (X)	0.383	0.36	0.272	0.293
Departure Headway (Hd)	5.297	5.283	5.222	5.372
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	677	679	686	667
Service Time	3.343	3.329	3.272	3.42
HCM Lane V/C Ratio	0.384	0.361	0.274	0.294
HCM Control Delay	11.6	11.3	10.2	10.7
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.8	1.6	1.1	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	127	33	90	142	63	9	536	32	24	534	26
Future Volume (veh/h)	32	127	33	90	142	63	9	536	32	24	534	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.94	0.96		0.94	0.99		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	36	143	37	103	163	72	9	564	34	25	562	27
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	116	352	82	189	242	95	66	1031	61	82	1005	47
Arrive On Green	0.26	0.26	0.26	0.44	0.44	0.44	0.56	0.56	0.56	1.00	1.00	1.00
Sat Flow, veh/h	175	1338	313	419	919	362	8	1847	110	34	1801	84
Grp Volume(v), veh/h	216	0	0	338	0	0	607	0	0	614	0	0
Grp Sat Flow(s),veh/h/ln	1825	0	0	1700	0	0	1966	0	0	1919	0	0
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	0.0	9.3	0.0	0.0	11.7	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.17		0.17	0.30		0.21	0.01		0.06	0.04		0.04
Lane Grp Cap(c), veh/h	551	0	0	526	0	0	1158	0	0	1134	0	0
V/C Ratio(X)	0.39	0.00	0.00	0.64	0.00	0.00	0.52	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	551	0	0	526	0	0	1158	0	0	1134	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	2.00	2.00	2.00	
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	14.8	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	5.9	0.0	0.0	1.7	0.0	0.0	1.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	3.7	0.0	0.0	4.7	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	0.0	20.8	0.0	0.0	10.1	0.0	0.0	1.9	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h		216			338			607			614	
Approach Delay, s/veh		20.5			20.8			10.1			1.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.0		21.0		39.0		21.0				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		33.5		* 16		33.5		* 16				
Max Q Clear Time (g_c+I1), s		13.7		7.7		2.0		11.3				
Green Ext Time (p_c), s		4.3		0.8		5.1		0.9				

Intersection Summary	
HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	165	11	10	272	308	9	26	15	256	11	14
Future Volume (veh/h)	7	165	11	10	272	308	9	26	15	256	11	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.98		0.95	0.98		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Adj Flow Rate, veh/h	8	194	13	11	313	354	12	33	19	281	12	15
Peak Hour Factor	0.85	0.85	0.85	0.87	0.87	0.87	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	1076	827	73	1089	827	71	154	65	278	7	388
Arrive On Green	1.00	1.00	1.00	0.74	0.74	0.74	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	21	1945	1494	19	1967	1494	0	577	243	601	26	1457
Grp Volume(v), veh/h	202	0	13	324	0	354	64	0	0	293	0	15
Grp Sat Flow(s),veh/h/ln	1966	0	1494	1986	0	1494	820	0	0	627	0	1457
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.3	0.0	5.5	16.0	0.0	0.0	16.0	0.0	0.5
Prop In Lane	0.04		1.00	0.03		1.00	0.19		0.30	0.96		1.00
Lane Grp Cap(c), veh/h	1150	0	827	1161	0	827	290	0	0	285	0	388
V/C Ratio(X)	0.18	0.00	0.02	0.28	0.00	0.43	0.22	0.00	0.00	1.03	0.00	0.04
Avail Cap(c_a), veh/h	1150	0	827	1161	0	827	290	0	0	285	0	388
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	4.0	0.0	4.3	17.4	0.0	0.0	25.3	0.0	16.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.6	0.0	1.6	1.7	0.0	0.0	61.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.2	0.0	1.5	0.8	0.0	0.0	8.8	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.0	0.0	4.6	0.0	5.9	19.1	0.0	0.0	86.3	0.0	16.5
LnGrp LOS	A	A	A	A	A	A	B	A	A	F	A	B
Approach Vol, veh/h		215			678			64			308	
Approach Delay, s/veh		0.3			5.3			19.1			82.9	
Approach LOS		A			A			B			F	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7		21.3				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		33.2		* 16		33.2		* 16				
Max Q Clear Time (g_c+I1), s		2.0		18.0		7.5		18.0				
Green Ext Time (p_c), s		1.3		0.0		3.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
9: Griswold Street & Main Street

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	268	27	7	376	296	47	226	18	203	137	197
Future Volume (veh/h)	100	268	27	7	376	296	47	226	18	203	137	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	118	315	32	7	396	312	51	246	20	216	146	210
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	294	883	95	65	913	703	129	517	39	269	146	193
Arrive On Green	0.15	0.15	0.15	0.46	0.46	0.46	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	425	1905	205	8	1971	1517	171	1491	112	537	421	556
Grp Volume(v), veh/h	189	0	276	403	0	312	317	0	0	572	0	0
Grp Sat Flow(s),veh/h/ln	768	0	1767	1977	0	1519	1774	0	0	1514	0	0
Q Serve(g_s), s	8.5	0.0	8.4	0.0	0.0	8.3	0.0	0.0	0.0	13.2	0.0	0.0
Cycle Q Clear(g_c), s	16.8	0.0	8.4	8.2	0.0	8.3	7.6	0.0	0.0	20.8	0.0	0.0
Prop In Lane	0.62		0.12	0.02		1.00	0.16		0.06	0.38		0.37
Lane Grp Cap(c), veh/h	453	0	819	977	0	704	685	0	0	607	0	0
V/C Ratio(X)	0.42	0.00	0.34	0.41	0.00	0.44	0.46	0.00	0.00	0.94	0.00	0.00
Avail Cap(c_a), veh/h	453	0	819	977	0	704	685	0	0	607	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.2	0.0	17.2	10.8	0.0	10.9	15.3	0.0	0.0	20.2	0.0	0.0
Incr Delay (d2), s/veh	2.8	0.0	1.1	1.3	0.0	2.0	2.2	0.0	0.0	24.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	3.9	3.5	0.0	2.9	3.4	0.0	0.0	11.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	0.0	18.3	12.1	0.0	12.9	17.5	0.0	0.0	44.9	0.0	0.0
LnGrp LOS	C	A	B	B	A	B	B	A	A	D	A	A
Approach Vol, veh/h		465			715			317			572	
Approach Delay, s/veh		21.0			12.5			17.5			44.9	
Approach LOS		C			B			B			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.4		26.6		33.4		26.6				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		27.8		* 21		27.8		* 21				
Max Q Clear Time (g_c+I1), s		18.8		22.8		10.3		9.6				
Green Ext Time (p_c), s		2.3		0.0		4.6		1.4				

Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
10: Cady Street & Main Street

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	432	57	44	638	41	46
Future Vol, veh/h	432	57	44	638	41	46
Conflicting Peds, #/hr	0	2	2	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	81	81	95	95	75	75
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	533	70	46	672	55	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	605	0	998	304
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	428	-
Critical Hdwy	-	-	4.12	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	976	-	244	698
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	631	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	974	-	225	697
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	584	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	20.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	350	-	-	974	-
HCM Lane V/C Ratio	0.331	-	-	0.048	-
HCM Control Delay (s)	20.3	-	-	8.9	0.3
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-

HCM 6th AWSC
11: Wing Street & Cady Street

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	49	14	16	39	57	11	152	19	73	89	17
Future Vol, veh/h	28	49	14	16	39	57	11	152	19	73	89	17
Peak Hour Factor	0.83	0.83	0.83	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	2
Mvmt Flow	34	59	17	18	43	63	12	169	21	82	100	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	8.7	9.4	9.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	31%	14%	41%
Vol Thru, %	84%	54%	35%	50%
Vol Right, %	10%	15%	51%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	182	91	112	179
LT Vol	11	28	16	73
Through Vol	152	49	39	89
RT Vol	19	14	57	17
Lane Flow Rate	202	110	124	201
Geometry Grp	1	1	1	1
Degree of Util (X)	0.263	0.152	0.163	0.264
Departure Headway (Hd)	4.674	4.975	4.715	4.731
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	764	716	755	754
Service Time	2.729	3.038	2.777	2.786
HCM Lane V/C Ratio	0.264	0.154	0.164	0.267
HCM Control Delay	9.4	8.9	8.7	9.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.5	0.6	1.1

HCM 6th TWSC
12: Center Street & Cady Street

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	15.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	17	29	63	12	19	25	524	128	10	624	38
Future Vol, veh/h	11	17	29	63	12	19	25	524	128	10	624	38
Conflicting Peds, #/hr	23	0	2	2	0	23	13	0	1	1	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	95	95	95	95	95	95
Heavy Vehicles, %	4	4	4	0	0	0	1	1	1	0	0	0
Mvmt Flow	14	22	37	81	15	24	26	552	135	11	657	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1426	1452	692	1404	1405	644	710	0	0	688	0	0
Stage 1	712	712	-	673	673	-	-	-	-	-	-	-
Stage 2	714	740	-	731	732	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	112	129	441	118	141	476	894	-	-	916	-	-
Stage 1	420	433	-	448	457	-	-	-	-	-	-	-
Stage 2	419	420	-	416	430	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	88	119	435	88	130	465	883	-	-	915	-	-
Mov Cap-2 Maneuver	88	119	-	88	130	-	-	-	-	-	-	-
Stage 1	394	419	-	426	434	-	-	-	-	-	-	-
Stage 2	356	399	-	353	416	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	41.3	184.1	0.3	0.1
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	883	-	-	170	111	915	-	-
HCM Lane V/C Ratio	0.03	-	-	0.43	1.086	0.012	-	-
HCM Control Delay (s)	9.2	0	-	41.3	184.1	9	0	-
HCM Lane LOS	A	A	-	E	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.9	7.3	0	-	-

HCM 6th TWSC
13: N. Site Drive/Hutton Street & Cady Street

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	37	144	0	0	91	33	0	0	0	10	0	10
Future Vol, veh/h	37	144	0	0	91	33	0	0	0	10	0	10
Conflicting Peds, #/hr	3	0	0	0	0	3	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	84	84	84	92	92	92	71	71	71
Heavy Vehicles, %	1	1	1	0	0	0	2	2	2	0	0	0
Mvmt Flow	42	162	0	0	108	39	0	0	0	14	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	150	0	0	162	0	0	383	396	162	377	377	133
Stage 1	-	-	-	-	-	-	246	246	-	131	131	-
Stage 2	-	-	-	-	-	-	137	150	-	246	246	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1437	-	-	1429	-	-	575	541	883	584	558	922
Stage 1	-	-	-	-	-	-	758	703	-	877	792	-
Stage 2	-	-	-	-	-	-	866	773	-	762	706	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1433	-	-	1429	-	-	551	522	883	568	538	918
Mov Cap-2 Maneuver	-	-	-	-	-	-	551	522	-	568	538	-
Stage 1	-	-	-	-	-	-	734	681	-	846	790	-
Stage 2	-	-	-	-	-	-	851	771	-	738	683	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0	0	10.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1433	-	-	1429	-	-	702
HCM Lane V/C Ratio	-	0.029	-	-	-	-	-	0.04
HCM Control Delay (s)	0	7.6	0	-	0	-	-	10.3
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.1

HCM 6th TWSC
14: Cady Street & Chruch Street

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	154	105	0	29	19
Future Vol, veh/h	0	154	105	0	29	19
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	95	95	90	90	72	72
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	0	162	117	0	40	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	279	117
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	162	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	715	941
Stage 1	0	-	-	0	913	-
Stage 2	0	-	-	0	872	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	715	941
Mov Cap-2 Maneuver	-	-	-	-	715	-
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	872	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	790
HCM Lane V/C Ratio	-	-	0.084
HCM Control Delay (s)	-	-	10
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	139	13	31	7	23	29	24	104	6	18	83	58
Future Vol, veh/h	139	13	31	7	23	29	24	104	6	18	83	58
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	68	68	68	88	88	88	83	83	83
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	167	16	37	10	34	43	27	118	7	22	100	70

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	396	361	138	382	393	122	173	0	0	125	0	0
Stage 1	182	182	-	176	176	-	-	-	-	-	-	-
Stage 2	214	179	-	206	217	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	586	568	913	580	546	935	1416	-	-	1474	-	-
Stage 1	822	751	-	831	757	-	-	-	-	-	-	-
Stage 2	790	753	-	801	727	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	498	545	910	528	524	935	1412	-	-	1474	-	-
Mov Cap-2 Maneuver	498	545	-	528	524	-	-	-	-	-	-	-
Stage 1	802	736	-	814	741	-	-	-	-	-	-	-
Stage 2	704	737	-	739	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.1	11.2	1.4	0.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1412	-	-	543	669	1474	-	-
HCM Lane V/C Ratio	0.019	-	-	0.406	0.13	0.015	-	-
HCM Control Delay (s)	7.6	0	-	16.1	11.2	7.5	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2	0.4	0	-	-

Intersection Sign configuration not allowed in HCM analysis.

Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	57	64	4	24	110	10
Future Vol, veh/h	57	64	4	24	110	10
Conflicting Peds, #/hr	0	1	1	0	0	6
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	93	93	79	79	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	61	69	5	30	124	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	131	0	137	103
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	40	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1467	-	861	957
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1466	-	858	951
Mov Cap-2 Maneuver	-	-	-	-	858	-
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	985	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	865	-	-	1466	-
HCM Lane V/C Ratio	0.156	-	-	0.003	-
HCM Control Delay (s)	9.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	57	19	747	552	9
Future Vol, veh/h	10	57	19	747	552	9
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	92	92	95	95
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	12	69	21	812	581	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1037	298	593	0	-	0
Stage 1	589	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.12	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.21	-	-	-
Pot Cap-1 Maneuver	230	704	986	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	220	702	983	-	-	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	614	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	983	-	529	-	-
HCM Lane V/C Ratio	0.021	-	0.153	-	-
HCM Control Delay (s)	8.7	0.2	13	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection Sign configuration not allowed in HCM analysis.

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	6	1	0	10	121	1	102	3	41	63	15
Future Vol, veh/h	17	6	1	0	10	121	1	102	3	41	63	15
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.69	0.69	0.69	0.91	0.91	0.91
Heavy Vehicles, %	5	5	5	5	5	5	1	1	1	0	0	0
Mvmt Flow	20	7	1	0	11	133	1	148	4	45	69	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	7.9	8.5	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	71%	0%	34%
Vol Thru, %	96%	25%	8%	53%
Vol Right, %	3%	4%	92%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	24	131	119
LT Vol	1	17	0	41
Through Vol	102	6	10	63
RT Vol	3	1	121	15
Lane Flow Rate	154	29	144	131
Geometry Grp	1	1	1	1
Degree of Util (X)	0.189	0.039	0.165	0.161
Departure Headway (Hd)	4.425	4.91	4.115	4.441
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	730	874	808
Service Time	2.447	2.936	2.132	2.464
HCM Lane V/C Ratio	0.19	0.04	0.165	0.162
HCM Control Delay	8.5	8.1	7.9	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.1	0.6	0.6

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	46	0	0	0	123	723	0	0	712	8
Future Vol, veh/h	4	0	46	0	0	0	123	723	0	0	712	8
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	94	94	94	91	91	91
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	0	0	0
Mvmt Flow	5	0	56	0	0	0	131	769	0	0	782	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1823	1822	791	1846	1826	770	795	0	0	769	0	0
Stage 1	791	791	-	1031	1031	-	-	-	-	-	-	-
Stage 2	1032	1031	-	815	795	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	80	78	393	57	77	401	831	-	-	854	-	-
Stage 1	366	404	-	281	310	-	-	-	-	-	-	-
Stage 2	284	313	-	371	399	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	47	56	392	38	56	401	828	-	-	854	-	-
Mov Cap-2 Maneuver	47	56	-	38	56	-	-	-	-	-	-	-
Stage 1	278	402	-	203	224	-	-	-	-	-	-	-
Stage 2	205	227	-	318	397	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.3	0	1.5	0
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	828	-	-	247	-	854	-	-
HCM Lane V/C Ratio	0.158	-	-	0.247	-	-	-	-
HCM Control Delay (s)	10.2	0	-	24.3	0	0	-	-
HCM Lane LOS	B	A	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	0.9	-	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	420	3	15	585	81	4	3	8	37	6	21
Future Vol, veh/h	22	420	3	15	585	81	4	3	8	37	6	21
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None		-	None	-	-	None	-	-	None
Storage Length	100	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	70	70	70	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	1	1	1
Mvmt Flow	26	494	4	17	650	90	6	4	11	45	7	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	740	0	0	499	0	0	1295	1323	502	1290	1280	695
Stage 1	-	-	-	-	-	-	549	549	-	729	729	-
Stage 2	-	-	-	-	-	-	746	774	-	561	551	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.1	6.5	6.2	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.5	4	3.3	3.509	4.009	3.309
Pot Cap-1 Maneuver	867	-	-	1065	-	-	141	158	573	141	166	444
Stage 1	-	-	-	-	-	-	524	520	-	416	430	-
Stage 2	-	-	-	-	-	-	409	411	-	514	517	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	867	-	-	1064	-	-	124	151	570	130	158	444
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	151	-	130	158	-
Stage 1	-	-	-	-	-	-	508	504	-	404	423	-
Stage 2	-	-	-	-	-	-	373	404	-	482	501	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	22.5	41.9
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	867	-	-	1064	-	-	173
HCM Lane V/C Ratio	0.094	0.03	-	-	0.016	-	-	0.451
HCM Control Delay (s)	22.5	9.3	-	-	8.4	-	-	41.9
HCM Lane LOS	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	317	116	110	509	142	125	672	107	75	636	47
Future Volume (veh/h)	32	317	116	110	509	142	125	672	107	75	636	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	1984	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	36	352	129	116	536	149	132	707	113	80	677	50
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	194	509	186	231	735	622	226	813	130	164	890	66
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	762	1385	507	928	2000	1693	733	1669	267	672	1825	135
Grp Volume(v), veh/h	36	0	481	116	536	149	132	0	820	80	0	727
Grp Sat Flow(s),veh/h/ln	762	0	1892	928	2000	1693	733	0	1935	672	0	1960
Q Serve(g_s), s	3.4	0.0	17.2	9.7	18.5	4.9	14.3	0.0	30.1	8.9	0.0	24.2
Cycle Q Clear(g_c), s	22.0	0.0	17.2	26.9	18.5	4.9	38.5	0.0	30.1	39.0	0.0	24.2
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.14	1.00		0.07
Lane Grp Cap(c), veh/h	194	0	695	231	735	622	226	0	944	164	0	955
V/C Ratio(X)	0.19	0.00	0.69	0.50	0.73	0.24	0.58	0.00	0.87	0.49	0.00	0.76
Avail Cap(c_a), veh/h	194	0	695	231	735	622	226	0	944	164	0	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	21.5	32.9	21.9	17.5	32.4	0.0	18.2	35.9	0.0	16.7
Incr Delay (d2), s/veh	2.1	0.0	5.6	7.6	6.3	0.9	10.6	0.0	10.7	9.9	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	8.1	2.6	9.3	1.9	3.1	0.0	14.6	2.0	0.0	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	27.0	40.5	28.1	18.5	43.0	0.0	28.9	45.8	0.0	22.4
LnGrp LOS	C	A	C	D	C	B	D	A	C	D	A	C
Approach Vol, veh/h		517			801			952			807	
Approach Delay, s/veh		27.5			28.1			30.9			24.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0				
Change Period (Y+Rc), s		6.0		5.6		6.0		5.6				
Max Green Setting (Gmax), s		39.0		29.4		39.0		29.4				
Max Q Clear Time (g_c+I1), s		40.5		24.0		41.0		28.9				
Green Ext Time (p_c), s		0.0		1.5		0.0		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Intersection Sign configuration not allowed in HCM analysis.

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	86	295	443	34	9	59
Future Vol, veh/h	86	295	443	34	9	59
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	93	93	88	88
Heavy Vehicles, %	2	2	1	1	0	0
Mvmt Flow	95	324	476	37	10	67

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	513	0	-	0	1009	496
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	514	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1052	-	-	-	269	578
Stage 1	-	-	-	-	617	-
Stage 2	-	-	-	-	605	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1052	-	-	-	239	577
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	549	-
Stage 2	-	-	-	-	605	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	13.8
HCM LOS			B

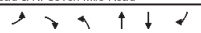
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1052	-	-	-	486
HCM Lane V/C Ratio	0.09	-	-	-	0.159
HCM Control Delay (s)	8.8	0	-	-	13.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	63	268	0	391	0	0	0	0	0	496	113
Future Volume (Veh/h)	0	63	268	0	391	0	0	0	0	0	496	113
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Hourly flow rate (vph)	0	68	291	0	412	0	0	0	0	0	522	119
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	788	582	320	586	641	0	641			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	788	582	320	586	641	0	641			0		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	84	57	100	0	100	100			100		
cM capacity (veh/h)	0	423	675	197	393	1088	939			1629		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	68	291	412	348	293
Volume Left	0	0	0	0	0
Volume Right	0	291	0	0	119
cSH	423	675	393	1700	1700
Volume to Capacity	0.16	0.43	1.05	0.20	0.17
Queue Length 95th (ft)	14	54	341	0	0
Control Delay (s)	15.1	14.3	91.3	0.0	0.0
Lane LOS	C	B	F		
Approach Delay (s)	14.5		91.3	0.0	
Approach LOS	B		F		

Intersection Summary												
Average Delay			30.3									
Intersection Capacity Utilization			70.1%		ICU Level of Service				C			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis — Background Conditions #1 (Pre-COVID)
27: NB Northville Road & N. Seven Mile Road — PM Peak Hour

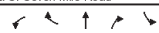


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	0	391	703	0	0
Future Volume (Veh/h)	63	0	391	703	0	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	69	0	412	740	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked	0.84					
vC, conflicting volume	1194	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	840	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	64	100	75			
cM capacity (veh/h)	192	1091	1629			

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total	69	659	493
Volume Left	69	412	0
Volume Right	0	0	0
cSH	192	1629	1700
Volume to Capacity	0.36	0.25	0.29
Queue Length 95th (ft)	38	25	0
Control Delay (s)	33.8	5.9	0.0
Lane LOS	D	A	
Approach Delay (s)	33.8	3.3	
Approach LOS	D		

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

HCM 6th Signalized Intersection Summary — Background Conditions #1 (Pre-COVID)
28: Northville Road & S. Seven Mile Road — PM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	308	580	514	321	374	390
Future Volume (veh/h)	308	580	514	321	374	390
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1969	1969
Adj Flow Rate, veh/h	328	617	547	341	407	424
Peak Hour Factor	0.94	0.94	0.94	0.94	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	676	938	457	285	465	1814
Arrive On Green	0.36	0.36	0.20	0.20	0.20	0.49
Sat Flow, veh/h	1890	1682	2330	1389	1875	3839
Grp Volume(v), veh/h	328	617	462	426	407	424
Grp Sat Flow(s),veh/h/ln	1890	1682	1885	1734	1875	1870
Q Serve(g_s), s	10.8	4.5	16.4	16.4	12.8	5.3
Cycle Q Clear(g_c), s	10.8	4.5	16.4	16.4	12.8	5.3
Prop In Lane	1.00	1.00		0.80	1.00	
Lane Grp Cap(c), veh/h	676	938	386	356	465	1814
V/C Ratio(X)	0.49	0.66	1.20	1.20	0.88	0.23
Avail Cap(c_a), veh/h	676	938	386	356	465	1814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	12.4	31.8	31.8	29.3	12.0
Incr Delay (d2), s/veh	2.5	3.6	110.9	113.0	20.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	7.5	18.9	17.6	9.1	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.5	16.0	142.7	144.8	49.3	12.3
LnGrp LOS	C	B	F	F	D	B
Approach Vol, veh/h	945		888			831
Approach Delay, s/veh	18.2		143.7			30.4
Approach LOS	B		F			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.4	22.8			45.2	34.8
Change Period (Y+Rc), s	6.4	6.4			6.4	6.2
Max Green Setting (Gmax), s	16.0	16.4			38.8	28.6
Max Q Clear Time (g_c+I1), s	14.8	18.4			7.3	12.8
Green Ext Time (p_c), s	0.2	0.0			2.9	3.2

Intersection Summary		
HCM 6th Ctrl Delay	63.9	
HCM 6th LOS	E	

HCM 6th TWSC — Background Conditions #1 (Pre-COVID)
29: N.E. Site Drive (Egress Only) & Cady Street — PM Peak Hour

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	154	0	0	124	0	0
Future Vol, veh/h	154	0	0	124	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized		None		None		None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	84	84	92	92
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	162	0	0	148	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	310	162
Stage 1		-	-	-	162	-
Stage 2		-	-	-	148	-
Critical Hdwy		-	-	-	6.42	6.22
Critical Hdwy Stg 1		-	-	-	5.42	-
Critical Hdwy Stg 2		-	-	-	5.42	-
Follow-up Hdwy		-	-	-	3.518	3.318
Pot Cap-1 Maneuver		-	0	0	682	883
Stage 1		-	0	0	867	-
Stage 2		-	0	0	880	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver		-	-	-	682	883
Mov Cap-2 Maneuver		-	-	-	682	-
Stage 1		-	-	-	867	-
Stage 2		-	-	-	880	-

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

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

HCM 6th TWSC — Background Conditions #1 (Pre-COVID)
30: Griswold Street & E. Site Drive — PM Peak Hour

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	134	121	0
Future Vol, veh/h	0	0	0	134	121	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized		None		None		None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	88	88	88	88
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	0	0	0	152	138	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	290	138	138	0	-	0
Stage 1	138	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	701	910	1458	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	701	910	1458	-	-	-
Mov Cap-2 Maneuver	701	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	876	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1458	- -	-	-
HCM Lane V/C Ratio	-	- -	-	-
HCM Control Delay (s)	0	- 0	-	-
HCM Lane LOS	A	- A	-	-
HCM 95th %tile Q(veh)	0	- -	-	-

HCM 6th TWSC — Background Conditions #1 (Pre-COVID)
31: Griswold Street & S.E. Site Drive — PM Peak Hour

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	134	121	0
Future Vol, veh/h	0	0	0	134	121	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized		None		None		None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	88	88	88	88
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	0	0	0	152	138	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	290	138	138	0	-	0
Stage 1	138	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	701	910	1458	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	701	910	1458	-	-	-
Mov Cap-2 Maneuver	701	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	876	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1458	- -	-	-
HCM Lane V/C Ratio	-	- -	-	-
HCM Control Delay (s)	0	- 0	-	-
HCM Lane LOS	A	- A	-	-
HCM 95th %tile Q(veh)	0	- -	-	-

HCM 6th TWSC — Background Conditions #1 (Pre-COVID)
32: Center Street & Proposed Beal Street — PM Peak Hour

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	727	0	0	720
Future Vol, veh/h	0	0	727	0	0	720
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized		None		None		None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	95	91	91
Heavy Vehicles, %	2	2	1	1	0	0
Mvmt Flow	0	0	765	0	0	791

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1556	765	0	0	765	0
Stage 1	765	-	-	-	-	-
Stage 2	791	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	124	403	-	-	857	-
Stage 1	459	-	-	-	-	-
Stage 2	447	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	124	403	-	-	857	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	459	-	-	-	-	-
Stage 2	447	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR WBLn1	SBL	SBT
Capacity (veh/h)	-	- -	857	-
HCM Lane V/C Ratio	-	- -	-	-
HCM Control Delay (s)	-	- 0	0	-
HCM Lane LOS	-	- A	A	-
HCM 95th %tile Q(veh)	-	- -	0	-

HCM 6th TWSC
33: S.W. Site Drive & Fairbrook Street

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	0	0	131	0	0
Future Vol, veh/h	50	0	0	131	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	91	91	92	92
Heavy Vehicles, %	0	0	5	5	2	2
Mvmt Flow	61	0	0	144	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	61	0	205	61
Stage 1	-	-	-	-	61	-
Stage 2	-	-	-	-	144	-
Critical Hdwy	-	-	4.15	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1523	-	783	1004
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	883	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	783	1004
Mov Cap-2 Maneuver	-	-	-	-	783	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	883	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1523	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

HCM 6th TWSC
34: Wing Street & S.W. Site Drive

Background Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	106	0	0	64
Future Vol, veh/h	0	0	106	0	0	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	69	69	82	82
Heavy Vehicles, %	2	2	1	1	1	1
Mvmt Flow	0	0	154	0	0	78

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	232	154	0	0	154	0
Stage 1	154	-	-	-	-	-
Stage 2	78	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	756	892	-	-	1433	-
Stage 1	874	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	756	892	-	-	1433	-
Mov Cap-2 Maneuver	756	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	945	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1433	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

HCM 6th Signalized Intersection Summary
2: Center Street & Randolph Street/Private Drive

Background Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2	127	4	0	6	27	495	1	6	460	50
Future Volume (veh/h)	22	2	127	4	0	6	27	495	1	6	460	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	33	3	192	5	0	8	30	544	1	9	667	72
Peak Hour Factor	0.66	0.66	0.66	0.75	0.75	0.75	0.91	0.91	0.91	0.69	0.69	0.69
Percent Heavy Veh, %	1	1	1	0	0	0	2	2	2	2	2	2
Cap, veh/h	95	19	239	161	34	179	434	1280	2	680	1137	123
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	1.00	1.00	1.00	0.65	0.65	0.65
Sat Flow, veh/h	152	111	1407	460	199	1054	719	1965	4	860	1746	188
Grp Volume(v), veh/h	228	0	0	13	0	0	30	0	545	9	0	739
Grp Sat Flow(s),veh/h/ln	1670	0	0	1712	0	0	719	0	1968	860	0	1934
Q Serve(g_s), s	4.2	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.2	0.0	12.9
Cycle Q Clear(g_c), s	7.8	0.0	0.0	0.4	0.0	0.0	13.8	0.0	0.0	0.2	0.0	12.9
Prop In Lane	0.14		0.84	0.38		0.62	1.00		0.00	1.00		0.10
Lane Grp Cap(c), veh/h	353	0	0	374	0	0	434	0	1282	680	0	1260
V/C Ratio(X)	0.65	0.00	0.00	0.03	0.00	0.00	0.07	0.00	0.43	0.01	0.00	0.59
Avail Cap(c_a), veh/h	478	0	0	487	0	0	434	0	1282	680	0	1260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.90	0.90	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	0.0	20.8	0.0	0.0	2.3	0.0	0.0	3.7	0.0	5.9
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.9	0.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.3	0.0	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	0.0	0.0	20.8	0.0	0.0	2.6	0.0	0.9	3.7	0.0	7.9
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		228			13			575			748	
Approach Delay, s/veh		25.8			20.8			1.0			7.9	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.6		15.4		44.6		15.4				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		15.8		9.8		14.9		2.4				
Green Ext Time (p_c), s		3.9		0.6		5.7		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
12: Center Street & Cady Street

Background Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	8	12	47	19	6	27	483	162	5	409	5
Future Volume (veh/h)	1	8	12	47	19	6	27	483	162	5	409	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	1953	1953	1953	1969	1969	1969
Adj Flow Rate, veh/h	2	13	20	57	23	7	30	537	180	6	460	6
Peak Hour Factor	0.60	0.60	0.60	0.82	0.82	0.82	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	68	77	108	194	61	14	87	972	316	65	1377	18
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.72	0.72	0.72	1.00	1.00	1.00
Sat Flow, veh/h	41	725	1021	895	579	129	34	1359	442	6	1924	25
Grp Volume(v), veh/h	35	0	0	87	0	0	747	0	0	472	0	0
Grp Sat Flow(s),veh/h/ln	1788	0	0	1603	0	0	1835	0	0	1955	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	2.9	0.0	0.0	11.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.06		0.57	0.66		0.08	0.04		0.24	0.01		0.01
Lane Grp Cap(c), veh/h	253	0	0	269	0	0	1376	0	0	1460	0	0
V/C Ratio(X)	0.14	0.00	0.00	0.32	0.00	0.00	0.54	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	501	0	0	485	0	0	1376	0	0	1460	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.5	0.0	0.0	25.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.7	0.0	0.0	1.5	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.2	0.0	0.0	3.2	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.0	0.0	25.9	0.0	0.0	5.6	0.0	0.0	0.6	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		35			87			747			472	
Approach Delay, s/veh		24.7			25.9			5.6			0.6	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		48.4		11.6		48.4		11.6				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		13.3		3.1		2.0		4.9				
Green Ext Time (p_c), s		6.1		0.1		3.5		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
23: Sheldon Avenue/Center Street & Seven Mile Road

Background Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	430	73	35	155	79	58	580	73	77	384	15
Future Volume (veh/h)	46	430	73	35	155	79	58	580	73	77	384	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1969	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	54	506	86	38	168	86	63	630	79	90	447	17
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	1	1	1	4	4	4	2	2	2	2	2	2
Cap, veh/h	439	607	103	162	712	603	395	960	813	272	919	35
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1134	1653	281	812	1938	1640	928	1969	1667	740	1884	72
Grp Volume(v), veh/h	54	0	592	38	168	86	63	630	79	90	0	464
Grp Sat Flow(s),veh/h/ln	1134	0	1933	812	1938	1640	928	1969	1667	740	0	1956
Q Serve(g_s), s	2.8	0.0	22.3	3.6	4.8	2.8	3.9	19.3	2.0	8.4	0.0	12.8
Cycle Q Clear(g_c), s	7.6	0.0	22.3	25.9	4.8	2.8	16.7	19.3	2.0	27.6	0.0	12.8
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	439	0	711	162	712	603	395	960	813	272	0	953
V/C Ratio(X)	0.12	0.00	0.83	0.23	0.24	0.14	0.16	0.66	0.10	0.33	0.00	0.49
Avail Cap(c_a), veh/h	439	0	711	162	712	603	395	960	813	272	0	953
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	23.1	34.9	17.5	16.9	19.4	15.5	11.0	25.9	0.0	13.8
Incr Delay (d2), s/veh	0.6	0.0	11.0	3.4	0.8	0.5	0.9	3.5	0.2	3.2	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	11.5	0.8	2.2	1.1	0.9	8.6	0.7	1.6	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	34.1	38.3	18.3	17.4	20.2	19.0	11.3	29.1	0.0	15.6
LnGrp LOS	C	A	C	D	B	B	C	B	B	C	A	B
Approach Vol, veh/h		646			292			772			554	
Approach Delay, s/veh		33.0			20.6			18.3			17.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0				
Change Period (Y+Rc), s		6.0		5.6		6.0		5.6				
Max Green Setting (Gmax), s		39.0		29.4		39.0		29.4				
Max Q Clear Time (g_c+I1), s		21.3		24.3		29.6		27.9				
Green Ext Time (p_c), s		4.5		1.8		2.4		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
26: SB Northville Road & N. Seven Mile Road

Background Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	289	155	327	279	53
Future Volume (veh/h)	43	289	155	327	279	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1969	1969	1922	1984	1984	1984
Adj Flow Rate, veh/h	53	357	176	372	294	56
Peak Hour Factor	0.81	0.81	0.88	0.88	0.95	0.95
Percent Heavy Veh, %	2	2	5	5	1	1
Cap, veh/h	277	822	917	2538	856	161
Arrive On Green	0.15	0.15	0.69	1.00	0.27	0.27
Sat Flow, veh/h	1875	1668	1830	3748	3266	595
Grp Volume(v), veh/h	53	357	176	372	173	177
Grp Sat Flow(s),veh/h/ln	1875	1668	1830	1826	1885	1877
Q Serve(g_s), s	2.0	11.1	1.6	0.0	5.9	6.1
Cycle Q Clear(g_c), s	2.0	11.1	1.6	0.0	5.9	6.1
Prop In Lane	1.00	1.00	1.00			0.32
Lane Grp Cap(c), veh/h	277	822	917	2538	509	507
V/C Ratio(X)	0.19	0.43	0.19	0.15	0.34	0.35
Avail Cap(c_a), veh/h	277	822	917	2538	509	507
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	13.1	2.8	0.0	23.5	23.5
Incr Delay (d2), s/veh	1.5	1.7	0.5	0.1	1.8	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	12.3	0.5	0.0	2.8	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.5	14.8	3.3	0.1	25.3	25.4
LnGrp LOS	C	B	A	A	C	C
Approach Vol, veh/h	410			548	350	
Approach Delay, s/veh	16.9			1.1	25.4	
Approach LOS	B			A	C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		62.0		18.0	34.0	28.0						
Change Period (Y+Rc), s		6.4		* 6.2	6.4	6.4						
Max Green Setting (Gmax), s		55.6		* 12	27.6	21.6						
Max Q Clear Time (g_c+I1), s		2.0		13.1	3.6	8.1						
Green Ext Time (p_c), s		2.6		0.0	0.5	1.6						

Intersection Summary	
HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
28: Northville Road & S. Seven Mile Road

Background Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT						
Lane Configurations												
Traffic Volume (veh/h)	247	219	263	289	391	177						
Future Volume (veh/h)	247	219	263	289	391	177						
Initial Q (Qb), veh	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00							
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00						
Work Zone On Approach	No		No			No						
Adj Sat Flow, veh/h/ln	1953	1953	1938	1938	1984	1984						
Adj Flow Rate, veh/h	287	255	277	304	449	203						
Peak Hour Factor	0.86	0.86	0.95	0.95	0.87	0.87						
Percent Heavy Veh, %	3	3	4	4	1	1						
Cap, veh/h	437	815	497	443	643	2290						
Arrive On Green	0.23	0.23	0.27	0.27	0.17	0.41						
Sat Flow, veh/h	1860	1655	1938	1642	1890	3870						
Grp Volume(v), veh/h	287	255	277	304	449	203						
Grp Sat Flow(s),veh/h/ln	1860	1655	1841	1642	1890	1885						
Q Serve(g_s), s	11.2	0.0	10.3	13.3	10.8	2.6						
Cycle Q Clear(g_c), s	11.2	0.0	10.3	13.3	10.8	2.6						
Prop In Lane	1.00	1.00		1.00	1.00							
Lane Grp Cap(c), veh/h	437	815	497	443	643	2290						
V/C Ratio(X)	0.66	0.31	0.56	0.69	0.70	0.09						
Avail Cap(c_a), veh/h	437	815	497	443	643	2290						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67						
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00						
Uniform Delay (d), s/veh	27.7	12.2	25.1	26.2	26.7	10.1						
Incr Delay (d2), s/veh	7.5	1.0	4.5	8.4	6.2	0.1						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	5.6	2.7	4.8	5.8	8.2	1.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	13.2	29.6	34.5	32.9	10.2						
LnGrp LOS	D	B	C	C	C	B						
Approach Vol, veh/h	542		581			652						
Approach Delay, s/veh	24.8		32.2			25.8						
Approach LOS	C		C			C						
Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	27.0	28.0				55.0		25.0				
Change Period (Y+Rc), s	6.4	6.4				6.4		6.2				
Max Green Setting (Gmax), s	20.6	21.6				48.6		18.8				
Max Q Clear Time (g_c+I1), s	12.8	15.3				4.6		13.2				
Green Ext Time (p_c), s	0.9	1.8				1.3		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			27.6									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
2: Center Street & Randolph Street/Private Drive

Background Conditions #1 (Pre-COVID) w/ IMP
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	13	229	15	15	28	54	578	9	18	464	43
Future Volume (veh/h)	46	13	229	15	15	28	54	578	9	18	464	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	55	15	273	16	16	31	62	664	10	25	636	59
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.87	0.87	0.87	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	113	37	310	138	142	198	393	1153	17	570	1048	97
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.59	0.59	0.59
Sat Flow, veh/h	183	156	1322	266	603	842	761	1965	30	767	1786	166
Grp Volume(v), veh/h	343	0	0	63	0	0	62	0	674	25	0	695
Grp Sat Flow(s),veh/h/ln	1661	0	0	1711	0	0	761	0	1994	767	0	1952
Q Serve(g_s), s	7.7	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.8	0.0	13.7
Cycle Q Clear(g_c), s	11.9	0.0	0.0	1.6	0.0	0.0	15.9	0.0	0.0	0.8	0.0	13.7
Prop In Lane	0.16		0.80	0.25		0.49	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	460	0	0	477	0	0	393	0	1170	570	0	1145
V/C Ratio(X)	0.75	0.00	0.00	0.13	0.00	0.00	0.16	0.00	0.58	0.04	0.00	0.61
Avail Cap(c_a), veh/h	479	0	0	495	0	0	393	0	1170	570	0	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.82	0.00	0.82	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	18.2	0.0	0.0	3.1	0.0	0.0	5.3	0.0	8.0
Incr Delay (d2), s/veh	6.1	0.0	0.0	0.1	0.0	0.0	0.7	0.0	1.7	0.1	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.6	0.1	0.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.1	0.0	0.0	18.3	0.0	0.0	3.8	0.0	1.7	5.4	0.0	10.3
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	B
Approach Vol, veh/h		343			63			736			720	
Approach Delay, s/veh		28.1			18.3			1.9			10.2	
Approach LOS		C			B			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.7		19.3		40.7		19.3				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		17.9		13.9		15.7		3.6				
Green Ext Time (p_c), s		5.0		0.2		5.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			10.5									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
8: Hutton Street & Main Street

Background Conditions #1 (Pre-COVID) w/ IMP
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	165	11	10	272	308	9	26	15	256	11	14
Future Volume (veh/h)	7	165	11	10	272	308	9	26	15	256	11	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.97	0.99		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Adj Flow Rate, veh/h	8	194	13	11	313	354	12	33	19	281	12	15
Peak Hour Factor	0.85	0.85	0.85	0.87	0.87	0.87	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	70	695	504	69	671	504	183	489	254	751	27	711
Arrive On Green	0.11	0.11	0.11	0.34	0.34	0.34	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	21	1945	1474	22	1963	1474	234	1022	530	1325	57	1487
Grp Volume(v), veh/h	202	0	13	324	0	354	64	0	0	293	0	15
Grp Sat Flow(s),veh/h/ln	1966	0	1474	1985	0	1474	1785	0	0	1382	0	1487
Q Serve(g_s), s	0.0	0.0	0.5	0.0	0.0	12.5	0.0	0.0	0.0	7.0	0.0	0.3
Cycle Q Clear(g_c), s	5.6	0.0	0.5	7.6	0.0	12.5	1.1	0.0	0.0	8.1	0.0	0.3
Prop In Lane	0.04		1.00	0.03		1.00	0.19		0.30	0.96		1.00
Lane Grp Cap(c), veh/h	734	0	504	740	0	504	925	0	0	778	0	711
V/C Ratio(X)	0.28	0.00	0.03	0.44	0.00	0.70	0.07	0.00	0.00	0.38	0.00	0.02
Avail Cap(c_a), veh/h	734	0	504	740	0	504	925	0	0	778	0	711
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	17.7	15.5	0.0	17.1	8.5	0.0	0.0	10.2	0.0	8.2
Incr Delay (d2), s/veh	0.9	0.0	0.1	1.9	0.0	8.0	0.1	0.0	0.0	1.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.2	3.6	0.0	5.0	0.4	0.0	0.0	2.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	17.8	17.4	0.0	25.1	8.6	0.0	0.0	11.5	0.0	8.3
LnGrp LOS	C	A	B	B	A	C	A	A	A	B	A	A
Approach Vol, veh/h		215			678			64			308	
Approach Delay, s/veh		20.7			21.4			8.6			11.4	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		20.5		* 29		20.5		* 29				
Max Q Clear Time (g_c+I1), s		7.6		10.1		14.5		3.1				
Green Ext Time (p_c), s		1.0		1.8		1.8		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
9: Griswold Street & Main Street

Background Conditions #1 (Pre-COVID) w/ IMP
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	268	27	7	376	296	47	226	18	203	137	197
Future Volume (veh/h)	100	268	27	7	376	296	47	226	18	203	137	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	118	315	32	7	396	312	51	246	20	216	146	210
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	213	867	73	84	702	540	152	887	52	325	203	258
Arrive On Green	0.12	0.12	0.12	0.36	0.36	0.36	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	323	1869	205	9	1967	1515	182	1516	114	535	447	570
Grp Volume(v), veh/h	190	0	275	403	0	312	317	0	0	572	0	0
Grp Sat Flow(s),veh/h/ln	631	0	1766	1976	0	1515	1812	0	0	1551	0	0
Q Serve(g_s), s	9.1	0.0	8.7	0.0	0.0	10.0	0.0	0.0	0.0	12.0	0.0	0.0
Cycle Q Clear(g_c), s	19.1	0.0	8.7	9.8	0.0	10.0	6.3	0.0	0.0	18.3	0.0	0.0
Prop In Lane	0.62		0.12	0.02		1.00	0.16		0.06	0.38		0.37
Lane Grp Cap(c), veh/h	322	0	630	766	0	540	891	0	0	786	0	0
V/C Ratio(X)	0.59	0.00	0.44	0.53	0.00	0.58	0.36	0.00	0.00	0.73	0.00	0.00
Avail Cap(c_a), veh/h	322	0	630	766	0	540	891	0	0	786	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.4	0.0	20.9	15.6	0.0	15.6	10.7	0.0	0.0	13.5	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.0	2.2	2.6	0.0	4.4	1.1	0.0	0.0	5.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	4.2	4.6	0.0	3.8	2.5	0.0	0.0	6.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	0.0	23.1	18.2	0.0	20.1	11.8	0.0	0.0	19.4	0.0	0.0
LnGrp LOS	D	A	C	B	A	C	B	A	A	B	A	A
Approach Vol, veh/h		465			715			317			572	
Approach Delay, s/veh		28.0			19.0			11.8			19.4	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		33.0		27.0		33.0				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		21.4		* 27		21.4		* 27				
Max Q Clear Time (g_c+I1), s		21.1		20.3		12.0		8.3				
Green Ext Time (p_c), s		0.1		2.3		3.3		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
12: Center Street & Cady Street

Background Conditions #1 (Pre-COVID) w/ IMP
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	17	29	63	12	19	25	524	128	10	624	38
Future Volume (veh/h)	11	17	29	63	12	19	25	524	128	10	624	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.94		0.92	0.94		0.92	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1938	1938	1938	2000	2000	1984	1984	1984	1984	2000	2000	2000
Adj Flow Rate, veh/h	14	22	37	81	15	24	26	552	135	11	657	40
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	0	0	0	1	1	1	0	0	0
Cap, veh/h	95	100	126	236	49	46	82	993	237	67	1233	74
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.67	0.67	0.67	1.00	1.00	1.00
Sat Flow, veh/h	153	651	826	888	323	303	30	1485	354	9	1844	111
Grp Volume(v), veh/h	73	0	0	120	0	0	713	0	0	708	0	0
Grp Sat Flow(s),veh/h/ln	1630	0	0	1514	0	0	1868	0	0	1964	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	3.9	0.0	0.0	11.8	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.19		0.51	0.67		0.20	0.04		0.19	0.02		0.06
Lane Grp Cap(c), veh/h	321	0	0	332	0	0	1312	0	0	1374	0	0
V/C Ratio(X)	0.23	0.00	0.00	0.36	0.00	0.00	0.54	0.00	0.00	0.52	0.00	0.00
Avail Cap(c_a), veh/h	467	0	0	463	0	0	1312	0	0	1374	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	23.1	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	0.0	1.6	0.0	0.0	1.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.5	0.0	0.0	3.8	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	0.0	23.7	0.0	0.0	6.9	0.0	0.0	1.4	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		73			120			713			708	
Approach Delay, s/veh		22.9			23.7			6.9			1.4	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.6		14.4		45.6		14.4				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		13.8		4.3		2.0		5.9				
Green Ext Time (p_c), s		5.7		0.2		6.2		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			6.4									
HCM 6th LOS			A									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
23: Sheldon Avenue/Center Street & Seven Mile Road

Background Conditions #1 (Pre-COVID) w/ IMP
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	317	116	110	509	142	125	672	107	75	636	47
Future Volume (veh/h)	32	317	116	110	509	142	125	672	107	75	636	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	36	352	129	116	536	149	132	707	113	80	677	50
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	194	509	186	231	735	622	226	967	817	227	890	66
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	762	1385	507	928	2000	1693	733	1984	1677	672	1825	135
Grp Volume(v), veh/h	36	0	481	116	536	149	132	707	113	80	0	727
Grp Sat Flow(s),veh/h/ln	762	0	1892	928	2000	1693	733	1984	1677	672	0	1960
Q Serve(g_s), s	3.4	0.0	17.2	9.7	18.5	4.9	14.3	22.7	3.0	8.6	0.0	24.2
Cycle Q Clear(g_c), s	22.0	0.0	17.2	26.9	18.5	4.9	38.5	22.7	3.0	31.3	0.0	24.2
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	194	0	695	231	735	622	226	967	817	227	0	955
V/C Ratio(X)	0.19	0.00	0.69	0.50	0.73	0.24	0.58	0.73	0.14	0.35	0.00	0.76
Avail Cap(c_a), veh/h	194	0	695	231	735	622	226	967	817	227	0	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	21.5	32.9	21.9	17.5	32.4	16.3	11.3	28.8	0.0	16.7
Incr Delay (d2), s/veh	2.1	0.0	5.6	7.6	6.3	0.9	10.6	4.9	0.4	4.3	0.0	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	8.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	268	391	703	496	113
Future Volume (veh/h)	63	268	391	703	496	113
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1969	1969	1984	1984	1984	1984
Adj Flow Rate, veh/h	68	291	412	740	522	119
Peak Hour Factor	0.92	0.92	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	1	1
Cap, veh/h	394	822	718	2385	824	187
Arrive On Green	0.21	0.21	0.56	1.00	0.27	0.27
Sat Flow, veh/h	1875	1668	1890	3870	3151	693
Grp Volume(v), veh/h	68	291	412	740	322	319
Grp Sat Flow(s),veh/h/ln	1875	1668	1890	1885	1885	1860
Q Serve(g_s), s	2.4	8.6	7.9	0.0	12.0	12.1
Cycle Q Clear(g_c), s	2.4	8.6	7.9	0.0	12.0	12.1
Prop In Lane	1.00	1.00	1.00			0.37
Lane Grp Cap(c), veh/h	394	822	718	2385	509	502
V/C Ratio(X)	0.17	0.35	0.57	0.31	0.63	0.64
Avail Cap(c_a), veh/h	394	822	718	2385	509	502
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	12.5	6.4	0.0	25.7	25.7
Incr Delay (d2), s/veh	1.0	1.2	3.3	0.3	5.9	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	10.0	2.5	0.1	5.9	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.9	13.7	9.8	0.3	31.6	31.8
LnGrp LOS	C	B	A	A	C	C
Approach Vol, veh/h	359			1152	841	
Approach Delay, s/veh	16.2			3.7	31.7	
Approach LOS	B			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.0		23.0	29.0	28.0
Change Period (Y+Rc), s		6.4		* 6.2	6.4	6.4
Max Green Setting (Gmax), s		50.6		* 17	22.6	21.6
Max Q Clear Time (g_c+I1), s		2.0		10.6	9.9	14.1
Green Ext Time (p_c), s		5.9		0.6	1.1	2.3

Intersection Summary			
HCM 6th Ctrl Delay		14.1	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	308	580	514	321	374	390
Future Volume (veh/h)	308	580	514	321	374	390
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1969	1969
Adj Flow Rate, veh/h	328	617	547	341	407	424
Peak Hour Factor	0.94	0.94	0.94	0.94	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	491	807	630	392	518	2179
Arrive On Green	0.26	0.26	0.28	0.28	0.44	1.00
Sat Flow, veh/h	1890	1682	2330	1389	1875	3839
Grp Volume(v), veh/h	328	617	462	426	407	424
Grp Sat Flow(s),veh/h/ln	1890	1682	1885	1734	1875	1870
Q Serve(g_s), s	12.4	6.5	18.6	18.7	9.3	0.0
Cycle Q Clear(g_c), s	12.4	6.5	18.6	18.7	9.3	0.0
Prop In Lane	1.00	1.00		0.80	1.00	
Lane Grp Cap(c), veh/h	491	807	533	490	518	2179
V/C Ratio(X)	0.67	0.76	0.87	0.87	0.79	0.19
Avail Cap(c_a), veh/h	491	807	533	490	518	2179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	17.1	27.3	27.3	18.8	0.0
Incr Delay (d2), s/veh	7.0	6.8	17.2	18.5	11.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	9.8	10.3	9.6	5.8	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.5	23.9	44.5	45.8	30.3	0.2
LnGrp LOS	C	C	D	D	C	A
Approach Vol, veh/h	945		888		831	
Approach Delay, s/veh	27.2		45.1		14.9	
Approach LOS	C		D		B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	24.0	29.0			53.0	27.0
Change Period (Y+Rc), s	6.4	6.4			6.4	6.2
Max Green Setting (Gmax), s	17.6	22.6			46.6	20.8
Max Q Clear Time (g_c+I1), s	11.3	20.7			2.0	14.4
Green Ext Time (p_c), s	0.7	1.0			3.0	2.1

Intersection Summary			
HCM 6th Ctrl Delay		29.4	
HCM 6th LOS		C	

Appendix D

FUTURE TRAFFIC CONDITIONS

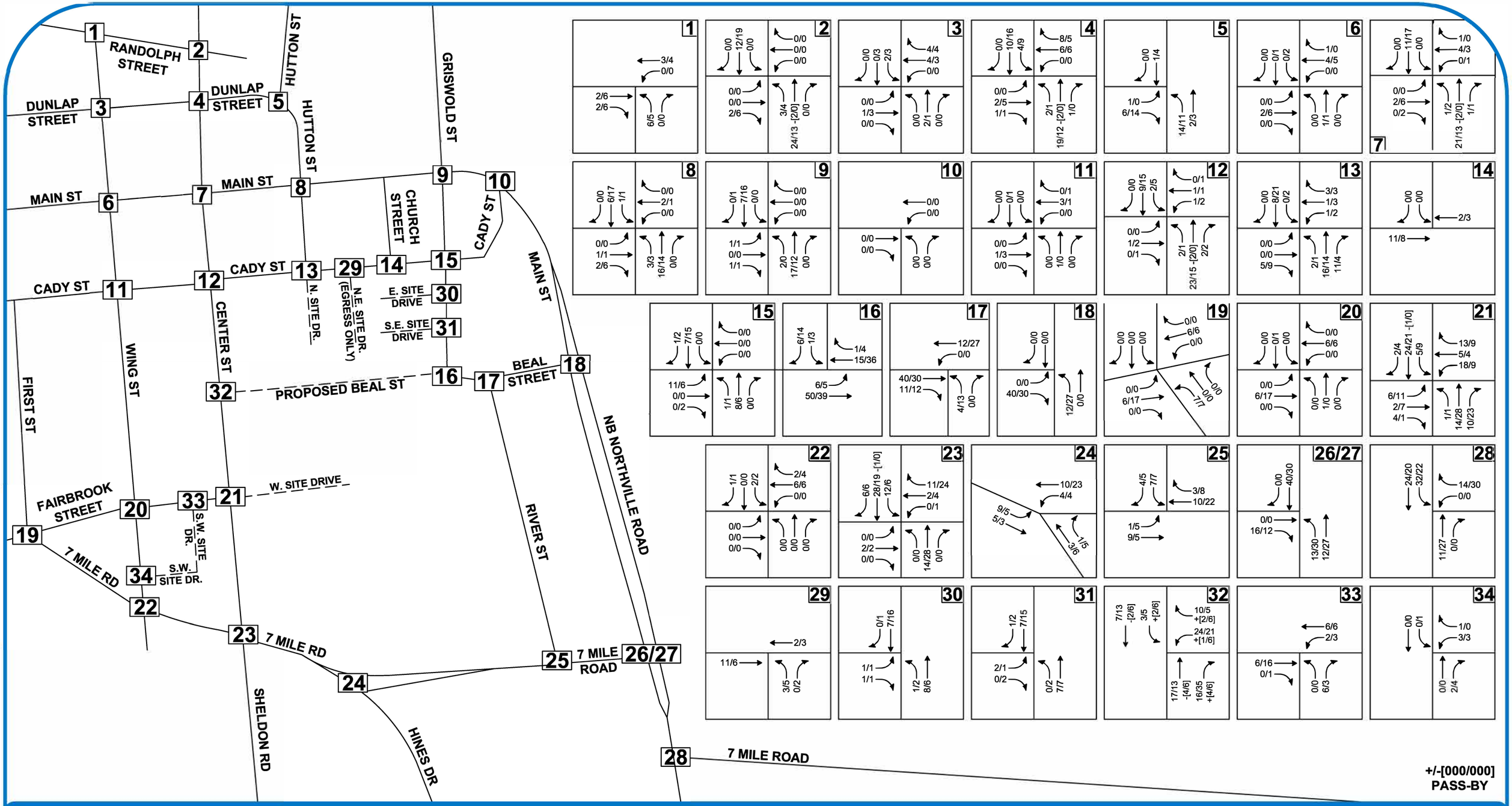


FIGURE 5
SITE-GENERATED TRAFFIC VOLUMES

NORTHVILLE DOWNS TIS - NORTHVILLE, MI

LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

NORTH
SCALE: NOT TO SCALE

F&V

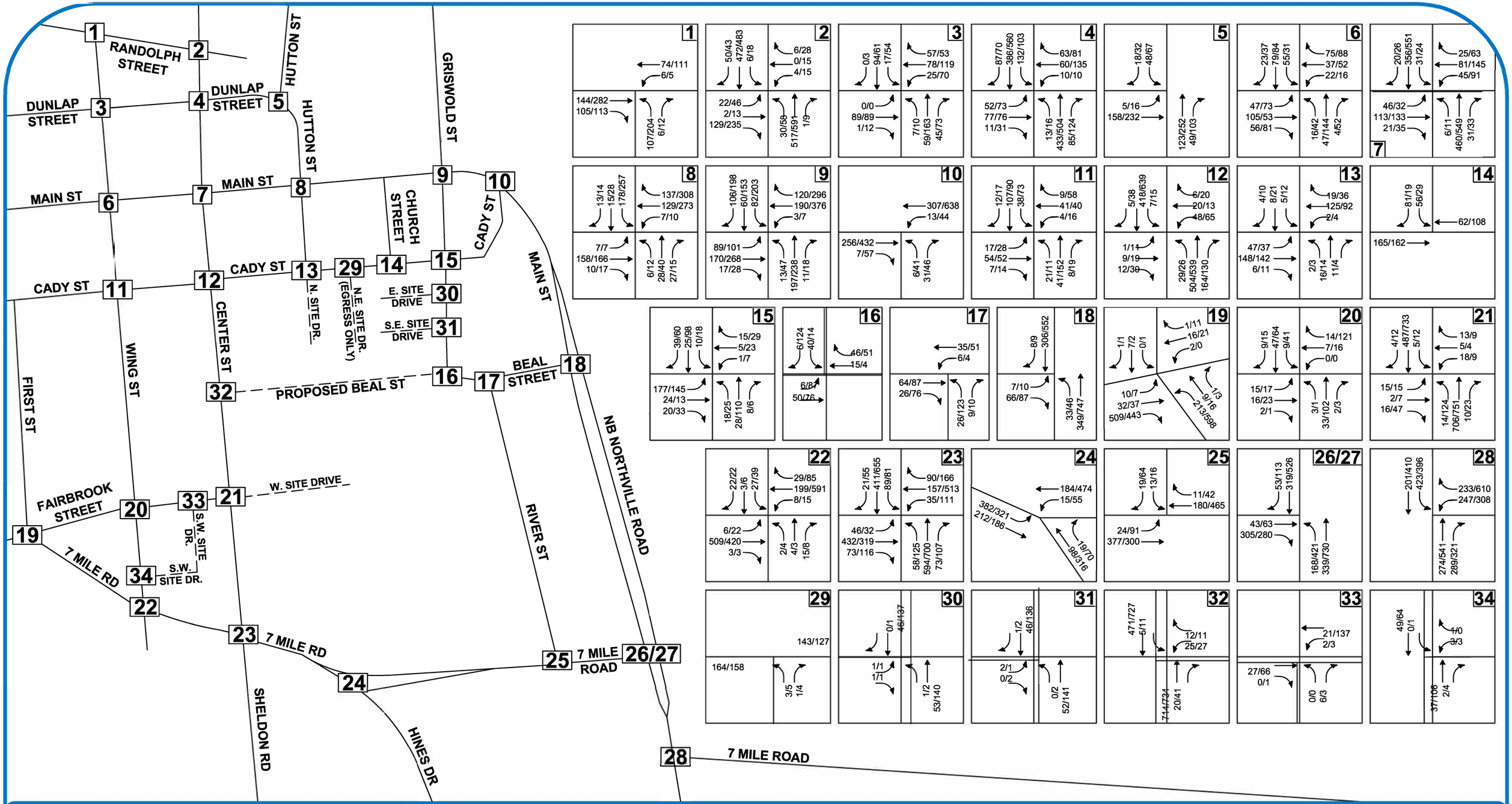


FIGURE 6
FUTURE TRAFFIC VOLUMES

NORTHVILLE DOWNS TIS - NORTHVILLE, MI

LEGEND

- ROADS
- PROPOSED ROADS
- TRAFFIC VOLUMES (AM/PM)
- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION

NORTH

SCALE: NOT TO SCALE

F&V

HCM 6th TWSC
1: Wing Street & Randolph Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	144	105	6	74	107	9
Future Vol, veh/h	144	105	6	74	107	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	60	60	77	77
Heavy Vehicles, %	3	3	2	2	4	4
Mvmt Flow	152	111	10	123	139	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	263	0	351	208
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	143	-
Critical Hdwy	-	-	4.12	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.218	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1301	-	642	827
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	879	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1301	-	637	827
Mov Cap-2 Maneuver	-	-	-	-	637	-
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	872	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	649	-	-	1301	-
HCM Lane V/C Ratio	0.232	-	-	0.008	-
HCM Control Delay (s)	12.2	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

HCM 6th TWSC
2: Center Street & Randolph Street/Private Drive

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	2	129	4	0	6	30	517	1	6	472	50
Future Vol, veh/h	22	2	129	4	0	6	30	517	1	6	472	50
Conflicting Peds, #/hr	0	0	0	0	0	0	5	0	4	4	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	500	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	75	75	75	91	91	91	69	69	69
Heavy Vehicles, %	1	1	1	0	0	0	2	2	2	2	2	2
Mvmt Flow	33	3	195	5	0	8	33	568	1	9	684	72

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1382	1382	725	1476	1418	573	761	0	0	573	0	0
Stage 1	743	743	-	639	639	-	-	-	-	-	-	-
Stage 2	639	639	-	837	779	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	122	145	427	105	138	523	851	-	-	1000	-	-
Stage 1	409	423	-	468	474	-	-	-	-	-	-	-
Stage 2	466	472	-	364	409	-	-	-	-	-	-	-
Platoon blocked, %									-	-	-	-
Mov Cap-1 Maneuver	115	137	425	54	130	521	847	-	-	996	-	-
Mov Cap-2 Maneuver	115	137	-	54	130	-	-	-	-	-	-	-
Stage 1	391	417	-	448	454	-	-	-	-	-	-	-
Stage 2	441	452	-	193	403	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	48.3	39.7	0.5	0.1
HCM LOS	E	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	847	-	-	300	117	996	-	-
HCM Lane V/C Ratio	0.039	-	-	0.773	0.114	0.009	-	-
HCM Control Delay (s)	9.4	-	-	48.3	39.7	8.6	-	-
HCM Lane LOS	A	-	-	E	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	6	0.4	0	-	-

HCM 6th AWSC
3: Wing Street & Dunlap Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	89	1	25	78	57	7	59	45	17	94	0
Future Vol, veh/h	0	89	1	25	78	57	7	59	45	17	94	0
Peak Hour Factor	0.78	0.78	0.78	0.73	0.73	0.73	0.84	0.84	0.84	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	0	114	1	34	107	78	8	70	54	19	107	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	9.2	8.7	9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	0%	16%	15%
Vol Thru, %	53%	99%	49%	85%
Vol Right, %	41%	1%	36%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	111	90	160	111
LT Vol	7	0	25	17
Through Vol	59	89	78	94
RT Vol	45	1	57	0
Lane Flow Rate	132	115	219	126
Geometry Grp	1	1	1	1
Degree of Util (X)	0.171	0.153	0.273	0.173
Departure Headway (Hd)	4.656	4.771	4.48	4.934
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	766	748	798	724
Service Time	2.708	2.823	2.525	2.987
HCM Lane V/C Ratio	0.172	0.154	0.274	0.174
HCM Control Delay	8.7	8.7	9.2	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.5	1.1	0.6

HCM 6th Signalized Intersection Summary
4: Center Street & Dunlap Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	77	11	10	60	63	13	433	85	132	386	87
Future Volume (veh/h)	52	77	11	10	60	63	13	433	85	132	386	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	59	88	12	12	71	74	14	471	92	169	495	112
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.92	0.92	0.92	0.78	0.78	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	345	421	57	387	218	228	474	983	192	640	955	216
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	1.00	1.00	1.00	0.62	0.62	0.62
Sat Flow, veh/h	1237	1694	231	1287	879	916	813	1599	312	846	1553	351
Grp Volume(v), veh/h	59	0	100	12	0	145	14	0	563	169	0	607
Grp Sat Flow(s),veh/h/ln	1237	0	1925	1287	0	1795	813	0	1911	846	0	1904
Q Serve(g_s), s	2.5	0.0	2.5	0.4	0.0	4.0	0.3	0.0	0.0	5.8	0.0	10.8
Cycle Q Clear(g_c), s	6.4	0.0	2.5	2.9	0.0	4.0	11.1	0.0	0.0	5.8	0.0	10.8
Prop In Lane	1.00		0.12	1.00		0.51	1.00		0.16	1.00		0.18
Lane Grp Cap(c), veh/h	345	0	478	387	0	446	474	0	1175	640	0	1171
V/C Ratio(X)	0.17	0.00	0.21	0.03	0.00	0.33	0.03	0.00	0.48	0.26	0.00	0.52
Avail Cap(c_a), veh/h	345	0	478	387	0	446	474	0	1175	640	0	1171
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	17.9	19.0	0.0	18.4	1.6	0.0	0.0	5.6	0.0	6.5
Incr Delay (d2), s/veh	1.1	0.0	1.0	0.1	0.0	1.9	0.1	0.0	1.4	1.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.2	0.1	0.0	1.8	0.0	0.0	0.5	1.0	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	0.0	18.9	19.2	0.0	20.4	1.7	0.0	1.4	6.6	0.0	8.2
LnGrp LOS	C	A	B	B	A	C	A	A	A	A	A	A
Approach Vol, veh/h		159			157			577			776	
Approach Delay, s/veh		20.1			20.3			1.4			7.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8	
Phs Duration (G+Y+Rc), s		41.0		19.0		41.0		19.0	
Change Period (Y+Rc), s		* 4.1		* 4.1		* 4.1		* 4.1	
Max Green Setting (Gmax), s		* 37		* 15		* 37		* 15	
Max Q Clear Time (g_c+I1), s		13.1		8.4		12.8		6.0	
Green Ext Time (p_c), s		4.3		0.3		5.9		0.5	

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
5: Dunlap Street & Hutton Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	158	123	49	48	18
Future Vol, veh/h	5	158	123	49	48	18
Conflicting Peds, #/hr	0	0	0	0	5	5
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	93	93	84	84	74	74
Heavy Vehicles, %	3	3	2	2	0	0
Mvmt Flow	5	170	146	58	65	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	204	0	-	0	360	180
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	185	-
Critical Hdwy	4.13	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1362	-	-	-	643	868
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	852	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1362	-	-	-	640	864
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	852	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1362	-	-	-	689
HCM Lane V/C Ratio	0.004	-	-	-	0.129
HCM Control Delay (s)	7.7	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

HCM 6th AWSC
6: Wing Street & Main Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	105	56	22	37	75	16	47	4	55	79	23
Future Vol, veh/h	47	105	56	22	37	75	16	47	4	55	79	23
Peak Hour Factor	0.81	0.81	0.81	0.76	0.76	0.76	0.93	0.93	0.93	0.78	0.78	0.78
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	58	130	69	29	49	99	17	51	4	71	101	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.2	9.1	9	10.1
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	23%	16%	35%
Vol Thru, %	70%	50%	28%	50%
Vol Right, %	6%	27%	56%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	67	208	134	157
LT Vol	16	47	22	55
Through Vol	47	105	37	79
RT Vol	4	56	75	23
Lane Flow Rate	72	257	176	201
Geometry Grp	1	1	1	1
Degree of Util (X)	0.106	0.337	0.227	0.28
Departure Headway (Hd)	5.281	4.721	4.639	5.014
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	671	755	767	711
Service Time	3.373	2.787	2.711	3.091
HCM Lane V/C Ratio	0.107	0.34	0.229	0.283
HCM Control Delay	9	10.2	9.1	10.1
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0.4	1.5	0.9	1.1

HCM 6th Signalized Intersection Summary
7: Center Street & Main Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	113	21	45	81	25	6	460	31	31	356	20
Future Volume (veh/h)	46	113	21	45	81	25	6	460	31	31	356	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1969	1969	1953	1953	1953	1953	1953	1953	1953
Adj Flow Rate, veh/h	53	130	24	51	92	28	7	554	37	34	396	22
Peak Hour Factor	0.87	0.87	0.87	0.88	0.88	0.88	0.83	0.83	0.83	0.90	0.90	0.90
Percent Heavy Veh, %	1	1	1	2	2	2	3	3	3	3	3	3
Cap, veh/h	153	337	56	171	286	74	64	1005	67	102	941	50
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.56	0.56	1.00	1.00	1.00	1.00
Sat Flow, veh/h	294	1279	206	354	1085	282	6	1801	119	68	1686	90
Grp Volume(v), veh/h	207	0	0	171	0	0	598	0	0	452	0	0
Grp Sat Flow(s),veh/h/ln	1780	0	0	1720	0	0	1926	0	0	1843	0	0
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	0.0	4.4	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.26		0.12	0.30		0.16	0.01		0.06	0.08		0.05
Lane Grp Cap(c), veh/h	544	0	0	531	0	0	1136	0	0	1094	0	0
V/C Ratio(X)	0.38	0.00	0.00	0.32	0.00	0.00	0.53	0.00	0.00	0.41	0.00	0.00
Avail Cap(c_a), veh/h	544	0	0	531	0	0	1136	0	0	1094	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.2	0.0	0.0	17.9	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	1.6	0.0	0.0	1.7	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	2.0	0.0	0.0	4.6	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	0.0	19.5	0.0	0.0	10.2	0.0	0.0	1.2	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		207			171			598			452	
Approach Delay, s/veh		20.2			19.5			10.2			1.2	
Approach LOS		C			B			B			A	
Timer - Assigned Phs		2			4		6		8			
Phs Duration (G+Y+Rc), s		39.0			21.0		39.0		21.0			
Change Period (Y+Rc), s		5.5			* 5.2		5.5		* 5.2			
Max Green Setting (Gmax), s		33.5			* 16		33.5		* 16			
Max Q Clear Time (g_c+I1), s		13.9			7.3		2.0		6.4			
Green Ext Time (p_c), s		4.2			0.7		3.5		0.6			
Intersection Summary												
HCM 6th Ctrl Delay			9.9									
HCM 6th LOS			A									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
8: Hutton Street & Main Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	158	10	7	129	137	9	28	27	178	15	13
Future Volume (veh/h)	7	158	10	7	129	137	9	28	27	178	15	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	1969	1969	1969	2000	2000	2000	1969	1969	1969
Adj Flow Rate, veh/h	8	186	12	8	147	156	13	41	39	209	18	15
Peak Hour Factor	0.85	0.85	0.85	0.88	0.88	0.88	0.69	0.69	0.69	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	2	2	2
Cap, veh/h	76	1083	833	82	1057	820	99	250	202	464	30	397
Arrive On Green	1.00	1.00	1.00	0.18	0.18	0.18	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	24	1957	1506	35	1911	1483	113	936	758	1310	113	1490
Grp Volume(v), veh/h	194	0	12	155	0	156	93	0	0	227	0	15
Grp Sat Flow(s),veh/h/ln	1980	0	1506	1945	0	1483	1807	0	0	1422	0	1490
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	5.5	0.0	0.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.0	0.0	5.3	2.3	0.0	0.0	7.8	0.0	0.4
Prop In Lane	0.04		1.00	0.05		1.00	0.14		0.42	0.92		1.00
Lane Grp Cap(c), veh/h	1158	0	833	1140	0	820	550	0	0	495	0	397
V/C Ratio(X)	0.17	0.00	0.01	0.14	0.00	0.19	0.17	0.00	0.00	0.46	0.00	0.04
Avail Cap(c_a), veh/h	1158	0	833	1140	0	820	550	0	0	495	0	397
HCM Platoon Ratio	2.00	2.00	2.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	12.6	0.0	13.1	17.0	0.0	0.0	18.8	0.0	16.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.5	0.7	0.0	0.0	3.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.7	0.0	1.8	1.0	0.0	0.0	3.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.0	0.0	12.8	0.0	13.7	17.6	0.0	0.0	21.8	0.0	16.5
LnGrp LOS	A	A	A	B	A	B	B	A	A	C	A	B
Approach Vol, veh/h		206			311			93			242	
Approach Delay, s/veh		0.3			13.2			17.6			21.5	
Approach LOS		A			B			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7		21.3				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		33.2		* 16		33.2		* 16				
Max Q Clear Time (g_c+I1), s		2.0		9.8		7.3		4.3				
Green Ext Time (p_c), s		1.3		0.7		1.5		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
9: Griswold Street & Main Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	170	17	3	190	120	13	197	11	82	60	106
Future Volume (veh/h)	89	170	17	3	190	120	13	197	11	82	60	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1938	1984	1984	1984	1984	1953	1953
Adj Flow Rate, veh/h	109	207	21	4	229	145	15	224	12	91	67	118
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.88	0.88	0.88	0.88	0.90	0.90
Percent Heavy Veh, %	1	1	1	4	4	4	1	1	1	3	3	3
Cap, veh/h	431	896	95	64	1002	599	79	624	32	221	173	234
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	711	1931	205	7	2162	1293	45	1800	93	407	499	676
Grp Volume(v), veh/h	156	0	181	206	0	172	251	0	0	276	0	0
Grp Sat Flow(s),veh/h/ln	1078	0	1769	1933	0	1529	1938	0	0	1582	0	0
Q Serve(g_s), s	3.8	0.0	3.7	0.0	0.0	4.1	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	3.7	3.8	0.0	4.1	5.7	0.0	0.0	7.3	0.0	0.0
Prop In Lane	0.70		0.12	0.02		0.85	0.06		0.05	0.33		0.43
Lane Grp Cap(c), veh/h	601	0	819	957	0	708	735	0	0	628	0	0
V/C Ratio(X)	0.26	0.00	0.22	0.22	0.00	0.24	0.34	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	601	0	819	957	0	708	735	0	0	628	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.1	0.0	9.6	9.7	0.0	9.7	14.7	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.6	0.5	0.0	0.8	1.3	0.0	0.0	2.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.4	1.6	0.0	1.4	2.5	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	0.0	10.2	10.2	0.0	10.5	15.9	0.0	0.0	17.3	0.0	0.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		337			378			251			276	
Approach Delay, s/veh		11.1			10.3			15.9			17.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.4		26.6		33.4		26.6				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		27.8		* 21		27.8		* 21				
Max Q Clear Time (g_c+I1), s		9.9		9.3		6.1		7.7				
Green Ext Time (p_c), s		2.1		1.3		2.4		1.1				
Intersection Summary												
HCM 6th Ctrl Delay			13.2									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
10: Cady Street & Main Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	256	7	13	307	6	31
Future Vol, veh/h	256	7	13	307	6	31
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	87	87	79	79
Heavy Vehicles, %	1	1	3	3	5	5
Mvmt Flow	291	8	15	353	8	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	300	0	503	151
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	207	-
Critical Hdwy	-	-	4.16	-	6.9	7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	-	-	2.23	-	3.55	3.35
Pot Cap-1 Maneuver	-	-	1251	-	491	899
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	799	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1250	-	483	858
Mov Cap-2 Maneuver	-	-	-	-	483	-
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	762	-	-	1250	-
HCM Lane V/C Ratio	0.061	-	-	0.012	-
HCM Control Delay (s)	10	-	-	7.9	0.1
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th AWSC
11: Wing Street & Cady Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	54	7	4	41	9	21	41	8	38	107	12
Future Vol, veh/h	17	54	7	4	41	9	21	41	8	38	107	12
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.90	0.90	0.90	0.81	0.81	0.81
Heavy Vehicles, %	1	1	1	3	3	3	5	5	5	2	2	2
Mvmt Flow	27	86	11	5	50	11	23	46	9	47	132	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.1	8.2	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	22%	7%	24%
Vol Thru, %	59%	69%	76%	68%
Vol Right, %	11%	9%	17%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	78	54	157
LT Vol	21	17	4	38
Through Vol	41	54	41	107
RT Vol	8	7	9	12
Lane Flow Rate	78	124	66	194
Geometry Grp	1	1	1	1
Degree of Util (X)	0.1	0.159	0.085	0.241
Departure Headway (Hd)	4.646	4.617	4.647	4.476
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	772	778	770	802
Service Time	2.675	2.644	2.677	2.501
HCM Lane V/C Ratio	0.101	0.159	0.086	0.242
HCM Control Delay	8.2	8.5	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.3	0.9

HCM 6th TWSC
12: Center Street & Cady Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	9	12	48	20	6	29	504	164	7	418	5
Future Vol, veh/h	1	9	12	48	20	6	29	504	164	7	418	5
Conflicting Peds, #/hr	2	0	1	1	0	2	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	82	82	82	90	90	90	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	2	15	20	59	24	7	32	560	182	8	470	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1223	1296	475	1223	1208	653	477	0	0	742	0	0
Stage 1	490	490	-	715	715	-	-	-	-	-	-	-
Stage 2	733	806	-	508	493	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	158	164	594	158	185	471	1080	-	-	865	-	-
Stage 1	564	552	-	425	438	-	-	-	-	-	-	-
Stage 2	415	398	-	551	550	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	132	153	593	134	173	470	1079	-	-	865	-	-
Mov Cap-2 Maneuver	132	153	-	134	173	-	-	-	-	-	-	-
Stage 1	534	544	-	403	415	-	-	-	-	-	-	-
Stage 2	364	377	-	511	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.6	58.4	0.4	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1079	-	-	254	152	865	-	-
HCM Lane V/C Ratio	0.03	-	-	0.144	0.594	0.009	-	-
HCM Control Delay (s)	8.4	0	-	21.6	58.4	9.2	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	3.1	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	148	6	2	125	19	2	16	11	5	8	4
Future Vol, veh/h	47	148	6	2	125	19	2	16	11	5	8	4
Conflicting Peds, #/hr	4	0	0	0	0	4	1	0	3	3	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	66	66	66	92	92	92	75	75	75
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	11	11	11
Mvmt Flow	56	176	7	3	189	29	2	17	12	7	11	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	222	0	0	183	0	0	511	520	183	523	509	209
Stage 1	-	-	-	-	-	-	292	292	-	214	214	-
Stage 2	-	-	-	-	-	-	219	228	-	309	295	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.21	6.61	6.31
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.21	5.61	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.21	5.61	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.599	4.099	3.399
Pot Cap-1 Maneuver	1353	-	-	1398	-	-	473	461	859	451	454	809
Stage 1	-	-	-	-	-	-	716	671	-	768	709	-
Stage 2	-	-	-	-	-	-	783	715	-	682	653	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1348	-	-	1398	-	-	444	437	857	413	430	805
Mov Cap-2 Maneuver	-	-	-	-	-	-	444	437	-	413	430	-
Stage 1	-	-	-	-	-	-	683	640	-	730	705	-
Stage 2	-	-	-	-	-	-	764	711	-	622	623	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	0.1	12.1	12.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	538	1348	-	-	1398	-	-	476
HCM Lane V/C Ratio	0.059	0.042	-	-	0.002	-	-	0.048
HCM Control Delay (s)	12.1	7.8	0	-	7.6	0	-	12.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.1

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	165	62	0	56	81
Future Vol, veh/h	0	165	62	0	56	81
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	81	81	64	64	76	76
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	0	204	97	0	74	107

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	301	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	204	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	695	965
Stage 1	0	-	-	0	932	-
Stage 2	0	-	-	0	835	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	695	965
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	835	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	833
HCM Lane V/C Ratio	-	-	0.216
HCM Control Delay (s)	-	-	10.5
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.8

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	177	24	20	1	5	15	18	28	8	10	25	39
Future Vol, veh/h	177	24	20	1	5	15	18	28	8	10	25	39
Conflicting Peds, #/hr	5	0	0	0	0	5	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	60	60	60	85	85	85	76	76	76
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	4	4	4
Mvmt Flow	195	26	22	2	8	25	21	33	9	13	33	51

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	189	172	62	189	193	43	87	0	0	42	0	0
Stage 1	88	88	-	80	80	-	-	-	-	-	-	-
Stage 2	101	84	-	109	113	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	773	723	1006	776	706	1033	1522	-	-	1554	-	-
Stage 1	922	824	-	934	832	-	-	-	-	-	-	-
Stage 2	908	827	-	901	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	729	704	1003	725	688	1028	1518	-	-	1554	-	-
Mov Cap-2 Maneuver	729	704	-	725	688	-	-	-	-	-	-	-
Stage 1	906	814	-	921	820	-	-	-	-	-	-	-
Stage 2	861	815	-	845	796	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	9.1	2.5	1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1518	-	-	745	904	1554	-	-
HCM Lane V/C Ratio	0.014	-	-	0.326	0.039	0.008	-	-
HCM Control Delay (s)	7.4	0	-	12.2	9.1	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.4	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	64	26	6	35	26	9
Future Vol, veh/h	64	26	6	35	26	9
Conflicting Peds, #/hr	0	0	0	0	1	1
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	62	62	72	72	70	70
Heavy Vehicles, %	5	5	0	0	7	7
Mvmt Flow	103	42	8	49	37	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	145	0	190	125
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	66	-
Critical Hdwy	-	-	4.1	-	6.47	6.27
Critical Hdwy Stg 1	-	-	-	-	5.47	-
Critical Hdwy Stg 2	-	-	-	-	5.47	-
Follow-up Hdwy	-	-	2.2	-	3.563	3.363
Pot Cap-1 Maneuver	-	-	1450	-	768	912
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1450	-	782	911
Mov Cap-2 Maneuver	-	-	-	-	782	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	937	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	812	-	-	1450	-
HCM Lane V/C Ratio	0.062	-	-	0.006	-
HCM Control Delay (s)	9.7	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	66	33	349	306	8
Future Vol, veh/h	7	66	33	349	306	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	61	61	88	88	91	91
Heavy Vehicles, %	4	4	3	3	2	2
Mvmt Flow	11	108	38	397	336	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	616	173	345	0	-	0
Stage 1	341	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.88	6.98	4.16	-	-	-
Critical Hdwy Stg 1	5.88	-	-	-	-	-
Critical Hdwy Stg 2	5.88	-	-	-	-	-
Follow-up Hdwy	3.54	3.34	2.23	-	-	-
Pot Cap-1 Maneuver	418	834	1203	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	401	834	1203	-	-	-
Mov Cap-2 Maneuver	401	-	-	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1203	-	756	-	-
HCM Lane V/C Ratio	0.031	-	0.158	-	-
HCM Control Delay (s)	8.1	0.1	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	16	2	0	7	14	3	33	2	9	47	9
Future Vol, veh/h	15	16	2	0	7	14	3	33	2	9	47	9
Peak Hour Factor	0.73	0.73	0.73	0.69	0.69	0.69	0.75	0.75	0.75	0.74	0.74	0.74
Heavy Vehicles, %	0	0	0	0	0	0	11	11	11	4	4	4
Mvmt Flow	21	22	3	0	10	20	4	44	3	12	64	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7	7.6	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	45%	0%	14%
Vol Thru, %	87%	48%	33%	72%
Vol Right, %	5%	6%	67%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	33	21	65
LT Vol	3	15	0	9
Through Vol	33	16	7	47
RT Vol	2	2	14	9
Lane Flow Rate	51	45	30	88
Geometry Grp	1	1	1	1
Degree of Util (X)	0.06	0.053	0.032	0.1
Departure Headway (Hd)	4.269	4.217	3.773	4.082
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	839	934	873
Service Time	2.324	2.293	1.856	2.13
HCM Lane V/C Ratio	0.061	0.054	0.032	0.101
HCM Control Delay	7.6	7.5	7	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.1	0.3

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	2	16	18	5	13	14	706	10	5	487	4
Future Vol, veh/h	15	2	16	18	5	13	14	706	10	5	487	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-		-	-		-	-		-	-	
Veh in Median Storage, #	-	0		-	0		-	0		-	0	
Grade, %	-	0		-	0		-	0		-	0	
Peak Hour Factor	66	66	66	92	92	92	90	90	90	88	88	88
Heavy Vehicles, %	5	5	5	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	3	24	20	5	14	16	784	11	6	553	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1399	1395	556	1403	1392	790	558	0	0	795	0	0
Stage 1	568	568	-	822	822	-	-	-	-	-	-	-
Stage 2	831	827	-	581	570	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	116	139	525	117	142	390	1013	-	-	826	-	-
Stage 1	502	502	-	368	368	-	-	-	-	-	-	-
Stage 2	360	382	-	499	505	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	105	134	525	106	136	390	1013	-	-	826	-	-
Mov Cap-2 Maneuver	105	134	-	106	136	-	-	-	-	-	-	-
Stage 1	488	496	-	358	377	-	-	-	-	-	-	-
Stage 2	332	371	-	468	499	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.6	37.3	0.2	0.1
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1013	-	-	175	150	826	-	-
HCM Lane V/C Ratio	0.015	-	-	0.286	0.261	0.007	-	-
HCM Control Delay (s)	8.6	0	-	33.6	37.3	9.4	0	-
HCM Lane LOS	A	A	-	D	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	1	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	509	3	8	199	29	2	4	15	27	3	22
Future Vol, veh/h	6	509	3	8	199	29	2	4	15	27	3	22
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	3	3	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None		-	None	-	-	None	-	-	None
Storage Length	100	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	89	89	89	79	79	79	85	85	85
Heavy Vehicles, %	2	2	2	3	3	3	10	10	10	4	4	4
Mvmt Flow	8	636	4	9	224	33	3	5	19	32	4	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	259	0	0	640	0	0	928	931	641	930	917	243
Stage 1	-	-	-	-	-	-	654	654	-	261	261	-
Stage 2	-	-	-	-	-	-	274	277	-	669	656	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.2	6.6	6.3	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.59	4.09	3.39	3.536	4.036	3.336
Pot Cap-1 Maneuver	1306	-	-	939	-	-	240	259	461	246	270	791
Stage 1	-	-	-	-	-	-	443	451	-	740	689	-
Stage 2	-	-	-	-	-	-	715	667	-	444	459	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1304	-	-	939	-	-	227	254	460	228	265	789
Mov Cap-2 Maneuver	-	-	-	-	-	-	227	254	-	228	265	-
Stage 1	-	-	-	-	-	-	440	448	-	734	681	-
Stage 2	-	-	-	-	-	-	681	659	-	417	456	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	15.6	18.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	367	1304	-	-	939	-	-	330
HCM Lane V/C Ratio	0.072	0.006	-	-	0.01	-	-	0.185
HCM Control Delay (s)	15.6	7.8	-	-	8.9	-	-	18.4
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	432	73	35	157	90	58	594	73	89	411	21
Future Volume (veh/h)	46	432	73	35	157	90	58	594	73	89	411	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1938	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	54	508	86	38	171	98	63	646	79	103	478	24
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	1	1	1	4	4	4	2	2	2	2	2	2
Cap, veh/h	432	608	103	160	712	603	368	839	103	221	906	45
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1118	1654	280	810	1938	1640	896	1720	210	729	1859	93
Grp Volume(v), veh/h	54	0	594	38	171	98	63	0	725	103	0	502
Grp Sat Flow(s),veh/h/ln	1118	0	1934	810	1938	1640	896	0	1931	729	0	1952
Q Serve(g_s), s	2.8	0.0	22.4	3.6	4.9	3.2	4.2	0.0	24.7	10.8	0.0	14.2
Cycle Q Clear(g_c), s	7.7	0.0	22.4	26.0	4.9	3.2	18.4	0.0	24.7	35.5	0.0	14.2
Prop In Lane	1.00		0.14	1.00		1.00	1.00		0.11	1.00		0.05
Lane Grp Cap(c), veh/h	432	0	711	160	712	603	368	0	941	221	0	952
V/C Ratio(X)	0.12	0.00	0.84	0.24	0.24	0.16	0.17	0.00	0.77	0.47	0.00	0.53
Avail Cap(c_a), veh/h	432	0	711	160	712	603	368	0	941	221	0	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	23.1	35.0	17.6	17.0	20.5	0.0	16.8	31.4	0.0	14.1
Incr Delay (d2), s/veh	0.6	0.0	11.2	3.4	0.8	0.6	1.0	0.0	6.1	6.9	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	11.6	0.8	2.2	1.2	0.9	0.0	11.2	2.2	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	34.3	38.4	18.3	17.6	21.5	0.0	22.9	38.3	0.0	16.2
LnGrp LOS	C	A	C	D	B	B	C	A	C	D	A	B
Approach Vol, veh/h		648			307			788			605	
Approach Delay, s/veh		33.2			20.6			22.8			20.0	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	2		4		6		8	
Phs Duration (G+Y+Rc), s	45.0		35.0		45.0		35.0	
Change Period (Y+Rc), s	6.0		5.6		6.0		5.6	
Max Green Setting (Gmax), s	39.0		29.4		39.0		29.4	
Max Q Clear Time (g_c+I1), s	26.7		24.4		37.5		28.0	
Green Ext Time (p_c), s	4.3		1.8		0.6		0.2	

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

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	377	180	11	13	19
Future Vol, veh/h	24	377	180	11	13	19
Conflicting Peds, #/hr	3	0	0	3	2	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None		-	None	
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	83	83	71	71
Heavy Vehicles, %	2	2	5	5	6	6
Mvmt Flow	26	414	217	13	18	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	233	0	-	0	695	230
Stage 1	-	-	-	-	227	-
Stage 2	-	-	-	-	468	-
Critical Hdwy	4.12	-	-	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.218	-	-	-	3.554	3.354
Pot Cap-1 Maneuver	1335	-	-	-	402	799
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	622	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1331	-	-	-	390	794
Mov Cap-2 Maneuver	-	-	-	-	390	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1331	-	-	-	559
HCM Lane V/C Ratio	0.02	-	-	-	0.081
HCM Control Delay (s)	7.8	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	43	305	0	168	0	0	0	0	0	319	53
Future Volume (Veh/h)	0	43	305	0	168	0	0	0	0	0	319	53
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.81	0.81	0.88	0.88	0.88	0.92	0.92	0.92	0.95	0.95	0.95
Hourly flow rate (vph)	0	53	377	0	191	0	0	0	0	0	336	56
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	460	364	196	572	392	0	392			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	460	364	196	572	392	0	392			0		
tC, single (s)	7.5	6.5	6.9	7.6	6.6	7.0	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	91	54	100	64	100	100			100		
cM capacity (veh/h)	351	563	812	197	536	1075	1163			1629		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	53	377	191	224	168
Volume Left	0	0	0	0	0
Volume Right	0	377	0	0	56
cSH	563	812	536	1700	1700
Volume to Capacity	0.09	0.46	0.36	0.13	0.10
Queue Length 95th (ft)	8	62	40	0	0
Control Delay (s)	12.1	13.2	15.4	0.0	0.0
Lane LOS	B	B	C		
Approach Delay (s)	13.1		15.4	0.0	
Approach LOS	B		C		

Intersection Summary					
Average Delay	8.5				
Intersection Capacity Utilization	50.1%	ICU Level of Service		A	
Analysis Period (min)	15				

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	0	168	339	0	0
Future Volume (Veh/h)	43	0	168	339	0	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.88	0.88	0.92	0.92
Hourly flow rate (vph)	53	0	191	385	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked						
vC, conflicting volume	574	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	574	0	0			
tC, single (s)	6.8	6.9	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	100	88			
cM capacity (veh/h)	395	1084	1600			

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total	53	319	257
Volume Left	53	191	0
Volume Right	0	0	0
cSH	395	1600	1700
Volume to Capacity	0.13	0.12	0.15
Queue Length 95th (ft)	11	10	0
Control Delay (s)	15.5	4.9	0.0
Lane LOS	C	A	
Approach Delay (s)	15.5	2.7	
Approach LOS	C		

Intersection Summary					
Average Delay	3.8				
Intersection Capacity Utilization	51.5%	ICU Level of Service		A	
Analysis Period (min)	15				

HCM 6th Signalized Intersection Summary
28: Northville Road & S. Seven Mile Road

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	247	233	274	289	423	201
Future Volume (veh/h)	247	233	274	289	423	201
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1953	1953	1938	1938	1984	1984
Adj Flow Rate, veh/h	287	271	288	304	486	231
Peak Hour Factor	0.86	0.86	0.95	0.95	0.87	0.87
Percent Heavy Veh, %	3	3	4	4	1	1
Cap, veh/h	665	623	377	337	468	1829
Arrive On Green	0.36	0.36	0.20	0.20	0.20	0.49
Sat Flow, veh/h	1860	1655	1938	1642	1890	3870
Grp Volume(v), veh/h	287	271	288	304	486	231
Grp Sat Flow(s),veh/h/ln	1860	1655	1841	1642	1890	1885
Q Serve(g_s), s	9.4	0.0	11.8	14.4	16.0	2.7
Cycle Q Clear(g_c), s	9.4	0.0	11.8	14.4	16.0	2.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	665	623	377	337	468	1829
V/C Ratio(X)	0.43	0.29	0.76	0.90	1.04	0.13
Avail Cap(c_a), veh/h	665	623	377	337	468	1829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	9.4	30.0	31.0	30.5	11.3
Incr Delay (d2), s/veh	2.0	0.8	13.6	29.7	51.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.4	6.3	8.1	14.6	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.6	10.2	43.6	60.7	82.4	11.4
LnGrp LOS	C	B	D	E	F	B
Approach Vol, veh/h	558		592		717	
Approach Delay, s/veh	16.0		52.4		59.5	
Approach LOS	B		D		E	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.4	22.8			45.2	34.8
Change Period (Y+Rc), s	6.4	6.4			6.4	6.2
Max Green Setting (Gmax), s	16.0	16.4			38.8	28.6
Max Q Clear Time (g_c+I1), s	18.0	16.4			4.7	11.4
Green Ext Time (p_c), s	0.0	0.0			1.5	1.7

Intersection Summary	
HCM 6th Ctrl Delay	44.3
HCM 6th LOS	D

HCM 6th TWSC
29: N.E. Site Drive (Egress Only) & Cady Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	164	0	0	143	3	1
Future Vol, veh/h	164	0	0	143	3	1
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	81	81	66	66	92	92
Heavy Vehicles, %	1	1	1	1	2	2
Mvmt Flow	202	0	0	217	3	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	419	202
Stage 1	-	-	-	-	202	-
Stage 2	-	-	-	-	217	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	0	0	-	591	839
Stage 1	-	0	0	-	832	-
Stage 2	-	0	0	-	819	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	591	839
Mov Cap-2 Maneuver	-	-	-	-	591	-
Stage 1	-	-	-	-	832	-
Stage 2	-	-	-	-	819	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	638	-	-
HCM Lane V/C Ratio	0.007	-	-
HCM Control Delay (s)	10.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0	-	-

HCM 6th TWSC
30: Griswold Street & E. Site Drive

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	53	46	0
Future Vol, veh/h	1	1	1	53	46	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	85	85	60	60
Heavy Vehicles, %	2	2	0	0	3	3
Mvmt Flow	1	1	1	62	77	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	141	77	77	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	832	984	1535	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	851	984	1535	-	-	-
Mov Cap-2 Maneuver	851	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1535	-	913	-	-
HCM Lane V/C Ratio	0.001	-	0.002	-	-
HCM Control Delay (s)	7.3	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
31: Griswold Street & S.E. Site Drive

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	52	46	1
Future Vol, veh/h	2	0	0	52	46	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	85	85	60	60
Heavy Vehicles, %	2	2	0	0	3	3
Mvmt Flow	2	0	0	61	77	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	139	78	79	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	854	983	1532	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	962	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	854	983	1532	-	-	-
Mov Cap-2 Maneuver	854	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1532	-	854	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
32: Center Street & Proposed Beal Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	12	714	20	5	471
Future Vol, veh/h	25	12	714	20	5	471
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	90	90	88	88
Heavy Vehicles, %	2	2	3	3	2	2
Mvmt Flow	27	13	793	22	6	535

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1351	804	0	0	815	0
Stage 1	804	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	166	383	-	-	812	-
Stage 1	440	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	164	383	-	-	812	-
Mov Cap-2 Maneuver	164	-	-	-	-	-
Stage 1	440	-	-	-	-	-
Stage 2	574	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	27.3	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	201	812	-
HCM Lane V/C Ratio	-	-	0.2	0.007	-
HCM Control Delay (s)	-	-	27.3	9.5	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

HCM 6th TWSC
33: S.W. Site Drive & Fairbrook Street

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	27	0	2	21	0	6
Future Vol, veh/h	27	0	2	21	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	69	69	92	92
Heavy Vehicles, %	5	5	0	0	2	2
Mvmt Flow	41	0	3	30	0	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	41	0	77	41
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	36	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1581	-	926	1030
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	986	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1581	-	924	1030
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	984	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1030	-	-	1581	-
HCM Lane V/C Ratio	0.006	-	-	0.002	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
34: Wing Street & S.W. Site Drive

Future Conditions #1 (Pre-COVID)
AM Peak Hour

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	1	37	2	0	49
Future Vol, veh/h	3	1	37	2	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	75	75	85	85
Heavy Vehicles, %	2	2	11	11	4	4
Mvmt Flow	3	1	49	3	0	58

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	109	51	0	0	52	0
Stage 1	51	-	-	-	-	-
Stage 2	58	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	888	1017	-	-	1541	-
Stage 1	971	-	-	-	-	-
Stage 2	965	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	888	1017	-	-	1541	-
Mov Cap-2 Maneuver	888	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	965	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	917	1541	-
HCM Lane V/C Ratio	-	-	0.005	-	-
HCM Control Delay (s)	-	-	8.9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th TWSC
1: Wing Street & Randolph Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	6.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	282	113	5	111	204	12
Future Vol, veh/h	282	113	5	111	204	12
Conflicting Peds, #/hr	0	11	11	0	0	4
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	87	87	81	81	78	78
Heavy Vehicles, %	0	0	0	0	1	1
Mvmt Flow	324	130	6	137	262	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	465	0	549	404
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	-	-	4.1	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1107	-	498	649
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1095	-	490	640
Mov Cap-2 Maneuver	-	-	-	-	490	-
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	496	-	-	1095	-
HCM Lane V/C Ratio	0.558	-	-	0.006	-
HCM Control Delay (s)	21	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	3.4	-	-	0	-

HCM 6th TWSC
2: Center Street & Randolph Street/Private Drive

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	76.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	13	235	15	15	28	58	591	9	18	483	43
Future Vol, veh/h	46	13	235	15	15	28	58	591	9	18	483	43
Conflicting Peds, #/hr	2	0	5	5	0	2	15	0	12	12	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	500	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	91	91	91	87	87	87	73	73	73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	1	1	1	
Mvmt Flow	55	15	280	16	16	31	67	679	10	25	662	59

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1601	1592	712	1724	1616	698	736	0	0	701	0	0
Stage 1	757	757	-	830	830	-	-	-	-	-	-	-
Stage 2	844	835	-	894	786	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	86	108	436	71	105	444	879	-	-	901	-	-
Stage 1	403	419	-	367	388	-	-	-	-	-	-	-
Stage 2	361	386	-	338	406	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	63	95	428	20	92	438	866	-	-	891	-	-
Mov Cap-2 Maneuver	63	95	-	20	92	-	-	-	-	-	-	-
Stage 1	396	401	-	335	354	-	-	-	-	-	-	-
Stage 2	295	352	-	109	389	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	367.5	257.3	0.8	0.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	866	-	-	208	59	891	-	-
HCM Lane V/C Ratio	0.077	-	-	1.683	1.08	0.028	-	-
HCM Control Delay (s)	9.5	-	-	$ 367.5	257.3	9.2	-	-
HCM Lane LOS	A	-	-	F	F	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	23.4	5.2	0.1	-	-

Notes
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th AWSC
3: Wing Street & Dunlap Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	89	12	70	119	53	10	163	73	54	61	3
Future Vol, veh/h	0	89	12	70	119	53	10	163	73	54	61	3
Peak Hour Factor	0.77	0.77	0.77	0.75	0.75	0.75	0.87	0.87	0.87	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	0	116	16	93	159	71	11	187	84	74	84	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	13	12	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	29%	46%
Vol Thru, %	66%	88%	49%	52%
Vol Right, %	30%	12%	22%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	246	101	242	118
LT Vol	10	0	70	54
Through Vol	163	89	119	61
RT Vol	73	12	53	3
Lane Flow Rate	283	131	323	162
Geometry Grp	1	1	1	1
Degree of Util (X)	0.413	0.204	0.473	0.256
Departure Headway (Hd)	5.255	5.592	5.272	5.707
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	684	640	681	627
Service Time	3.3	3.646	3.314	3.759
HCM Lane V/C Ratio	0.414	0.205	0.474	0.258
HCM Control Delay	12	10.1	13	10.7
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2	0.8	2.5	1

HCM 6th Signalized Intersection Summary
4: Center Street & Dunlap Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	76	31	10	135	81	16	504	124	103	560	70
Future Volume (veh/h)	73	76	31	10	135	81	16	504	124	103	560	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pb)	0.97		0.93	0.95		0.93	1.00		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	1969	1969	1969	2000	2000	2000
Adj Flow Rate, veh/h	83	86	35	11	147	88	17	548	135	132	718	90
Peak Hour Factor	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92	0.78	0.78	0.78
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	0	0	0
Cap, veh/h	281	327	133	360	282	169	352	934	230	590	1069	134
Arrive On Green	0.25	0.25	0.25	0.33	0.33	0.33	1.00	1.00	1.00	0.62	0.62	0.62
Sat Flow, veh/h	1125	1317	536	1225	1134	679	675	1519	374	765	1738	218
Grp Volume(v), veh/h	83	0	121	11	0	235	17	0	683	132	0	808
Grp Sat Flow(s),veh/h/ln	1125	0	1853	1225	0	1813	675	0	1893	765	0	1956
Q Serve(g_s), s	4.1	0.0	3.2	0.4	0.0	6.3	0.7	0.0	0.0	4.8	0.0	16.3
Cycle Q Clear(g_c), s	10.4	0.0	3.2	3.6	0.0	6.3	17.0	0.0	0.0	4.8	0.0	16.3
Prop In Lane	1.00		0.29	1.00		0.37	1.00		0.20	1.00		0.11
Lane Grp Cap(c), veh/h	281	0	460	360	0	450	352	0	1164	590	0	1203
V/C Ratio(X)	0.29	0.00	0.26	0.03	0.00	0.52	0.05	0.00	0.59	0.22	0.00	0.67
Avail Cap(c_a), veh/h	281	0	460	360	0	450	352	0	1164	590	0	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	18.1	17.5	0.0	17.2	3.7	0.0	0.0	5.4	0.0	7.6
Incr Delay (d2), s/veh	2.7	0.0	1.4	0.2	0.0	4.3	0.3	0.0	2.2	0.9	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.5	0.1	0.0	2.9	0.1	0.0	0.7	0.7	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	19.5	17.6	0.0	21.5	4.0	0.0	2.2	6.3	0.0	10.6
LnGrp LOS	C	A	B	B	A	C	A	A	A	A	A	B
Approach Vol, veh/h		204			246			700			940	
Approach Delay, s/veh		22.3			21.3			2.2			10.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.0		19.0		41.0		19.0				
Change Period (Y+Rc), s		* 4.1		* 4.1		* 4.1		* 4.1				
Max Green Setting (Gmax), s		* 37		* 15		* 37		* 15				
Max Q Clear Time (g_c+I1), s		19.0		12.4		18.3		8.3				
Green Ext Time (p_c), s		5.1		0.2		7.2		0.8				

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes
User approved pedestrian interval to be less than phase max green.
*: HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
5: Dunlap Street & Hutton Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	232	252	103	67	32
Future Vol, veh/h	16	232	252	103	67	32
Conflicting Peds, #/hr	19	0	0	19	10	20
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	89	89
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	17	252	274	112	75	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	405	0	-	0	645	369
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	296	-
Critical Hdwy	4.1	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.2	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1165	-	-	-	438	679
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	757	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1144	-	-	-	415	654
Mov Cap-2 Maneuver	-	-	-	-	415	-
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	743	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1144	-	-	-	471
HCM Lane V/C Ratio	0.015	-	-	-	0.236
HCM Control Delay (s)	8.2	0	-	-	15
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.9

HCM 6th AWSC
6: Wing Street & Main Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	5.3	81	15	5.2	88	42	144	52	31	84	37
Future Vol, veh/h	73	5.3	81	15	5.2	88	42	144	52	31	84	37
Peak Hour Factor	0.82	0.82	0.82	0.80	0.80	0.80	0.91	0.91	0.91	0.76	0.76	0.76
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	0	0	2
Mvmt Flow	89	65	99	19	65	110	46	158	57	41	111	49
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	11.6			10.4			11.8			10.8		
HCM LOS	B			B			B			B		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	35%	10%	20%
Vol Thru, %	61%	26%	34%	55%
Vol Right, %	22%	39%	57%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	238	207	155	152
LT Vol	42	73	15	31
Through Vol	144	53	52	84
RT Vol	52	81	88	37
Lane Flow Rate	262	252	194	200
Geometry Grp	1	1	1	1
Degree of Util (X)	0.389	0.374	0.284	0.302
Departure Headway (Hd)	5.357	5.329	5.277	5.433
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	670	674	678	660
Service Time	3.405	3.378	3.33	3.485
HCM Lane V/C Ratio	0.391	0.374	0.286	0.303
HCM Control Delay	11.8	11.6	10.4	10.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.8	1.7	1.2	1.3

HCM 6th Signalized Intersection Summary
7: Center Street & Main Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	133	35	91	145	63	11	549	33	24	551	26
Future Volume (veh/h)	32	133	35	91	145	63	11	549	33	24	551	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.94	0.96		0.94	0.99		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	36	149	39	105	167	72	12	578	35	25	580	27
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	114	353	84	193	243	94	68	1026	61	81	1008	46
Arrive On Green	0.26	0.26	0.26	0.44	0.44	0.44	0.56	0.56	0.56	1.00	1.00	1.00
Sat Flow, veh/h	169	1342	319	423	925	357	12	1838	110	33	1805	82
Grp Volume(v), veh/h	224	0	0	344	0	0	625	0	0	632	0	0
Grp Sat Flow(s),veh/h/ln	1830	0	0	1704	0	0	1960	0	0	1920	0	0
Q Serve(g_s), s	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.9	0.0	0.0	9.5	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.16		0.17	0.31		0.21	0.02		0.06	0.04		0.04
Lane Grp Cap(c), veh/h	551	0	0	527	0	0	1155	0	0	1134	0	0
V/C Ratio(X)	0.41	0.00	0.00	0.65	0.00	0.00	0.54	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	551	0	0	527	0	0	1155	0	0	1134	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.5	0.0	0.0	14.9	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.0	6.2	0.0	0.0	1.8	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	3.8	0.0	0.0	4.9	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	0.0	21.0	0.0	0.0	10.4	0.0	0.0	2.0	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h		224			344			625			632	
Approach Delay, s/veh		20.7			21.0			10.4			2.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs		2		4		6		8	
Phs Duration (G+Y+Rc), s		39.0		21.0		39.0		21.0	
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2	
Max Green Setting (Gmax), s		33.5		* 16		33.5		* 16	
Max Q Clear Time (g_c+I1), s		14.2		7.9		2.0		11.5	
Green Ext Time (p_c), s		4.5		0.8		5.3		0.9	

Intersection Summary	
HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
8: Hutton Street & Main Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	166	17	10	273	308	12	40	15	257	28	14
Future Volume (veh/h)	7	166	17	10	273	308	12	40	15	257	28	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.98	0.98		0.95	0.98		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Adj Flow Rate, veh/h	8	195	20	11	314	354	15	51	19	282	31	15
Peak Hour Factor	0.85	0.85	0.85	0.87	0.87	0.87	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	1077	827	73	1088	827	71	181	52	268	17	388
Arrive On Green	1.00	1.00	1.00	0.74	0.74	0.74	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	21	1945	1494	19	1967	1494	0	679	195	579	64	1457
Grp Volume(v), veh/h	203	0	20	325	0	354	85	0	0	313	0	15
Grp Sat Flow(s),veh/h/ln	1967	0	1494	1986	0	1494	874	0	0	643	0	1457
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.3	0.0	5.5	16.0	0.0	0.0	16.0	0.0	0.5
Prop In Lane	0.04		1.00	0.03		1.00	0.18		0.22	0.90		1.00
Lane Grp Cap(c), veh/h	1151	0	827	1161	0	827	304	0	0	285	0	388
V/C Ratio(X)	0.18	0.00	0.02	0.28	0.00	0.43	0.28	0.00	0.00	1.10	0.00	0.04
Avail Cap(c_a), veh/h	1151	0	827	1161	0	827	304	0	0	285	0	388
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	4.0	0.0	4.3	17.5	0.0	0.0	25.2	0.0	16.3
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.6	0.0	1.6	2.3	0.0	0.0	81.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.2	0.0	1.5	1.0	0.0	0.0	10.5	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.3	0.0	0.1	4.6	0.0	5.9	19.8	0.0	0.0	106.8	0.0	16.5
LnGrp LOS	A	A	A	A	A	A	B	A	A	F	A	B
Approach Vol, veh/h		223			679			85			328	
Approach Delay, s/veh		0.3			5.3			19.8			102.6	
Approach LOS		A			A			B			F	

Timer - Assigned Phs		2		4		6		8	
Phs Duration (G+Y+Rc), s		38.7		21.3		38.7		21.3	
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3	
Max Green Setting (Gmax), s		33.2		* 16		33.2		* 16	
Max Q Clear Time (g_c+I1), s		2.0		18.0		7.5		18.0	
Green Ext Time (p_c), s		1.4		0.0		3.6		0.0	

Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
9: Griswold Street & Main Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	268	28	7	376	296	47	238	18	203	153	198
Future Volume (veh/h)	101	268	28	7	376	296	47	238	18	203	153	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	119	315	33	7	396	312	51	259	20	216	163	211
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	295	878	97	65	913	703	126	521	37	261	156	187
Arrive On Green	0.15	0.15	0.15	0.46	0.46	0.46	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	426	1895	210	8	1971	1517	164	1504	108	517	450	539
Grp Volume(v), veh/h	190	0	277	403	0	312	330	0	0	590	0	0
Grp Sat Flow(s),veh/h/ln	765	0	1766	1977	0	1519	1776	0	0	1506	0	0
Q Serve(g_s), s	8.6	0.0	8.4	0.0	0.0	8.3	0.0	0.0	0.0	12.8	0.0	0.0
Cycle Q Clear(g_c), s	16.9	0.0	8.4	8.2	0.0	8.3	8.0	0.0	0.0	20.8	0.0	0.0
Prop In Lane	0.63		0.12	0.02		1.00	0.15		0.06	0.37		0.36
Lane Grp Cap(c), veh/h	452	0	818	977	0	704	685	0	0	604	0	0
V/C Ratio(X)	0.42	0.00	0.34	0.41	0.00	0.44	0.48	0.00	0.00	0.98	0.00	0.00
Avail Cap(c_a), veh/h	452	0	818	977	0	704	685	0	0	604	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.2	0.0	17.2	10.8	0.0	10.9	15.4	0.0	0.0	20.6	0.0	0.0
Incr Delay (d2), s/veh	2.9	0.0	1.1	1.3	0.0	2.0	2.4	0.0	0.0	31.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	3.9	3.5	0.0	2.9	3.5	0.0	0.0	12.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	18.3	12.1	0.0	12.9	17.8	0.0	0.0	51.9	0.0	0.0
LnGrp LOS	C	A	B	B	A	B	B	A	A	D	A	A
Approach Vol, veh/h		467			715			330			590	
Approach Delay, s/veh		21.1			12.5			17.8			51.9	
Approach LOS		C			B			B			D	

Timer - Assigned Phs		2		4		6		8	
Phs Duration (G+Y+Rc), s		33.4		26.6		33.4		26.6	
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8	
Max Green Setting (Gmax), s		27.8		* 21		27.8		* 21	
Max Q Clear Time (g_c+I1), s		18.9		22.8		10.3		10.0	
Green Ext Time (p_c), s		2.3		0.0		4.6		1.4	

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC
10: Cady Street & Main Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	2.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	432	57	44	638	41	46
Future Vol, veh/h	432	57	44	638	41	46
Conflicting Peds, #/hr	0	2	2	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	81	81	95	95	75	75
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	533	70	46	672	55	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	605	0	998	304
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	428	-
Critical Hdwy	-	-	4.12	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.21	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	976	-	244	698
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	631	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	974	-	225	697
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	584	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	20.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	350	-	-	974	-
HCM Lane V/C Ratio	0.331	-	-	0.048	-
HCM Control Delay (s)	20.3	-	-	8.9	0.3
HCM Lane LOS	C	-	-	A	A
HCM 95th %ile Q(veh)	1.4	-	-	0.1	-

HCM 6th AWSC
11: Wing Street & Cady Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	52	14	16	40	58	11	152	19	73	90	17
Future Vol, veh/h	28	52	14	16	40	58	11	152	19	73	90	17
Peak Hour Factor	0.83	0.83	0.83	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	2
Mvmt Flow	34	63	17	18	44	64	12	169	21	82	101	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	9			8.7			9.4			9.5		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	30%	14%	41%
Vol Thru, %	84%	55%	35%	50%
Vol Right, %	10%	15%	51%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	182	94	114	180
LT Vol	11	28	16	73
Through Vol	152	52	40	90
RT Vol	19	14	58	17
Lane Flow Rate	202	113	127	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.264	0.157	0.166	0.267
Departure Headway (Hd)	4.692	4.985	4.726	4.747
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	760	715	754	752
Service Time	2.748	3.05	2.79	2.803
HCM Lane V/C Ratio	0.266	0.158	0.168	0.269
HCM Control Delay	9.4	9	8.7	9.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.6	0.6	1.1

Intersection	
Int Delay, s/veh	21.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	19	30	65	13	20	26	539	130	15	639	38
Future Vol, veh/h	11	19	30	65	13	20	26	539	130	15	639	38
Conflicting Peds, #/hr	23	0	2	2	0	23	13	0	1	1	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	95	95	95	95	95	95
Heavy Vehicles, %	4	4	4	0	0	0	1	1	1	0	0	0
Mvmt Flow	14	24	38	83	17	26	27	567	137	16	673	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1472	1497	708	1449	1449	660	726	0	0	705	0	0
Stage 1	738	738	-	691	691	-	-	-	-	-	-	-
Stage 2	734	759	-	758	758	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.1	6.5	6.2	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.5	4	3.3	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	104	121	431	110	132	467	882	-	-	902	-	-
Stage 1	407	421	-	438	449	-	-	-	-	-	-	-
Stage 2	409	412	-	402	418	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	80	110	425	~78	120	456	871	-	-	901	-	-
Mov Cap-2 Maneuver	80	110	-	~78	120	-	-	-	-	-	-	-
Stage 1	381	403	-	415	425	-	-	-	-	-	-	-
Stage 2	344	390	-	333	400	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	47.7	258.2	0.3	0.2
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	871	-	-	158	99	901	-	-
HCM Lane V/C Ratio	0.031	-	-	0.487	1.269	0.018	-	-
HCM Control Delay (s)	9.3	0	-	47.7	258.2	9.1	0	-
HCM Lane LOS	A	A	-	E	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.3	8.7	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	37	142	11	4	92	36	3	14	4	12	21	10
Future Vol, veh/h	37	142	11	4	92	36	3	14	4	12	21	10
Conflicting Peds, #/hr	3	0	0	0	0	3	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	84	84	84	92	92	92	71	71	71
Heavy Vehicles, %	1	1	1	0	0	0	2	2	2	0	0	0
Mvmt Flow	42	160	12	5	110	43	3	15	4	17	30	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	156	0	0	172	0	0	416	416	166	405	401	137
Stage 1	-	-	-	-	-	-	260	260	-	145	145	-
Stage 2	-	-	-	-	-	-	156	156	-	260	256	-
Critical Hdwy	4.11	-	-	4.1	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.2	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1430	-	-	1417	-	-	547	527	878	560	541	917
Stage 1	-	-	-	-	-	-	754	700	-	863	781	-
Stage 2	-	-	-	-	-	-	836	761	-	749	699	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1426	-	-	1417	-	-	500	506	878	528	519	913
Mov Cap-2 Maneuver	-	-	-	-	-	-	500	506	-	528	519	-
Stage 1	-	-	-	-	-	-	729	677	-	832	776	-
Stage 2	-	-	-	-	-	-	787	756	-	704	676	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.2	11.8	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	549	1426	-	-	1417	-	-	580
HCM Lane V/C Ratio	0.042	0.029	-	-	0.003	-	-	0.104
HCM Control Delay (s)	11.8	7.6	0	-	7.5	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↰	
Traffic Vol, veh/h	0	162	108	0	29	19
Future Vol, veh/h	0	162	108	0	29	19
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	95	95	90	90	72	72
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	0	171	120	0	40	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	291	120
Stage 1	-	-	-	-	120	-
Stage 2	-	-	-	-	171	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	704	937
Stage 1	0	-	-	0	910	-
Stage 2	0	-	-	0	864	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	704	937
Mov Cap-2 Maneuver	-	-	-	-	704	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	864	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	781
HCM Lane V/C Ratio	-	-	0.085
HCM Control Delay (s)	-	-	10
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	145	13	33	7	23	29	25	110	6	18	98	60
Future Vol, veh/h	145	13	33	7	23	29	25	110	6	18	98	60
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	68	68	68	88	88	88	83	83	83
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	175	16	40	10	34	43	28	125	7	22	118	72

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	424	389	157	411	422	129	193	0	0	132	0	0
Stage 1	201	201	-	185	185	-	-	-	-	-	-	-
Stage 2	223	188	-	226	237	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	542	548	891	555	526	926	1392	-	-	1466	-	-
Stage 1	803	737	-	821	751	-	-	-	-	-	-	-
Stage 2	782	746	-	781	713	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	475	525	888	503	504	926	1388	-	-	1466	-	-
Mov Cap-2 Maneuver	475	525	-	503	504	-	-	-	-	-	-	-
Stage 1	783	722	-	803	734	-	-	-	-	-	-	-
Stage 2	696	730	-	717	699	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.3	11.4	1.4	0.8
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1388	-	-	520	649	1466	-	-
HCM Lane V/C Ratio	0.02	-	-	0.443	0.134	0.015	-	-
HCM Control Delay (s)	7.6	0	-	17.3	11.4	7.5	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	0.5	0	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕		↰	↑	↰	
Traffic Vol, veh/h	87	76	4	51	123	10
Future Vol, veh/h	87	76	4	51	123	10
Conflicting Peds, #/hr	0	1	1	0	0	6
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	93	93	79	79	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	94	82	5	65	138	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	177	0	211	142
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	75	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1411	-	782	911
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	953	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-	1410	-	778	905
Mov Cap-2 Maneuver	-	-	-	-	778	-
Stage 1	-	-	-	-	894	-
Stage 2	-	-	-	-	949	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	786	-	-	1410	-
HCM Lane V/C Ratio	0.19	-	-	0.004	-
HCM Control Delay (s)	10.7	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰			↑↑	↑↑	
Traffic Vol, veh/h	10	87	46	747	552	9
Future Vol, veh/h	10	87	46	747	552	9
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	92	92	95	95
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	12	105	50	812	581	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1095	298	593	0	-	0
Stage 1	589	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.12	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.21	-	-	-
Pot Cap-1 Maneuver	211	704	986	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	190	702	983	-	-	-
Mov Cap-2 Maneuver	190	-	-	-	-	-
Stage 1	472	-	-	-	-	-
Stage 2	574	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	983	-	549	-	-
HCM Lane V/C Ratio	0.051	-	0.213	-	-
HCM Control Delay (s)	8.9	0.4	13.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.8	-	-

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	23	1	0	16	121	1	102	3	41	64	15
Future Vol, veh/h	17	23	1	0	16	121	1	102	3	41	64	15
Peak Hour Factor	0.83	0.83	0.83	0.91	0.91	0.91	0.69	0.69	0.69	0.91	0.91	0.91
Heavy Vehicles, %	5	5	5	5	5	5	1	1	1	0	0	0
Mvmt Flow	20	28	1	0	18	133	1	148	4	45	70	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.3	8.1	8.6	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	41%	0%	34%
Vol Thru, %	96%	56%	12%	53%
Vol Right, %	3%	2%	88%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	41	137	120
LT Vol	1	17	0	41
Through Vol	102	23	16	64
RT Vol	3	1	121	15
Lane Flow Rate	154	49	151	132
Geometry Grp	1	1	1	1
Degree of Util (X)	0.192	0.067	0.175	0.165
Departure Headway (Hd)	4.498	4.881	4.175	4.514
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	797	734	860	795
Service Time	2.525	2.911	2.198	2.542
HCM Lane V/C Ratio	0.193	0.067	0.176	0.166
HCM Control Delay	8.6	8.3	8.1	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.2	0.6	0.6

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	7	47	9	4	4	9	124	731	23	9	733	12
Future Vol, veh/h	15	7	47	9	4	9	124	751	23	9	733	12
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	0	0	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	94	94	94	91	91	91
Heavy Vehicles, %	0	0	0	2	2	2	1	1	1	0	0	0
Mvmt Flow	18	9	57	10	4	10	132	799	24	10	805	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1919	1923	816	1940	1917	812	822	0	0	823	0	0
Stage 1	836	836	-	1075	1075	-	-	-	-	-	-	-
Stage 2	1083	1087	-	865	842	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.12	6.52	6.22	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.518	4.018	3.318	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	52	68	380	49	67	379	812	-	-	816	-	-
Stage 1	364	385	-	266	296	-	-	-	-	-	-	-
Stage 2	265	295	-	348	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	35	46	379	27	45	379	809	-	-	816	-	-
Mov Cap-2 Maneuver	35	46	-	27	45	-	-	-	-	-	-	-
Stage 1	253	375	-	186	207	-	-	-	-	-	-	-
Stage 2	176	206	-	282	370	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	133.2	134.8	1.4	0.1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	809	-	-	98	49	816	-	-
HCM Lane V/C Ratio	0.163	-	-	0.859	0.488	0.012	-	-
HCM Control Delay (s)	10.3	0	-	133.2	134.8	9.5	0	-
HCM Lane LOS	B	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0.6	-	-	4.8	1.8	0	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	420	3	15	591	85	4	3	8	39	6	22
Future Vol, veh/h	22	420	3	15	591	85	4	3	8	39	6	22
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	5	5	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	90	90	90	70	70	70	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	1	1	1
Mvmt Flow	26	494	4	17	657	94	6	4	11	48	7	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	751	0	0	499	0	0	1304	1334	502	1299	1289	704
Stage 1	-	-	-	-	-	-	549	549	-	738	738	-
Stage 2	-	-	-	-	-	-	755	785	-	561	551	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.1	6.5	6.2	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.5	4	3.3	3.509	4.009	3.309
Pot Cap-1 Maneuver	858	-	-	1065	-	-	139	155	573	139	164	439
Stage 1	-	-	-	-	-	-	524	520	-	411	426	-
Stage 2	-	-	-	-	-	-	404	407	-	514	517	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	858	-	-	1064	-	-	121	148	570	128	156	439
Mov Cap-2 Maneuver	-	-	-	-	-	-	121	148	-	128	156	-
Stage 1	-	-	-	-	-	-	508	504	-	399	419	-
Stage 2	-	-	-	-	-	-	367	400	-	482	501	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.2	22.9	44.4
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	223	858	-	-	1064	-	-	170
HCM Lane V/C Ratio	0.096	0.03	-	-	0.016	-	-	0.481
HCM Control Delay (s)	22.9	9.3	-	-	8.4	-	-	44.4
HCM Lane LOS	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	319	116	111	513	166	125	700	107	81	655	53
Future Volume (veh/h)	32	319	116	111	513	166	125	700	107	81	655	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	36	354	129	117	540	175	132	737	113	86	697	56
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	189	510	186	230	735	622	210	819	126	147	883	71
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	741	1387	505	926	2000	1693	716	1680	258	654	1812	146
Grp Volume(v), veh/h	36	0	483	117	540	175	132	0	850	86	0	753
Grp Sat Flow(s),veh/h/ln	741	0	1893	926	2000	1693	716	0	1937	654	0	1958
Q Serve(g_s), s	3.5	0.0	17.3	9.8	18.7	5.8	13.4	0.0	32.1	6.9	0.0	25.6
Cycle Q Clear(g_c), s	22.3	0.0	17.3	27.2	18.7	5.8	39.0	0.0	32.1	39.0	0.0	25.6
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.13	1.00		0.07
Lane Grp Cap(c), veh/h	189	0	696	230	735	622	210	0	944	147	0	954
V/C Ratio(X)	0.19	0.00	0.69	0.51	0.73	0.28	0.63	0.00	0.90	0.59	0.00	0.79
Avail Cap(c_a), veh/h	189	0	696	230	735	622	210	0	944	147	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	0.0	21.5	33.0	21.9	17.8	33.9	0.0	18.7	37.7	0.0	17.1
Incr Delay (d2), s/veh	2.2	0.0	5.6	7.9	6.4	1.1	13.5	0.0	13.3	16.0	0.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	8.2	2.6	9.4	2.3	3.3	0.0	16.0	2.3	0.0	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	27.1	40.9	28.4	19.0	47.4	0.0	32.0	53.7	0.0	23.7
LnGrp LOS	C	A	C	D	C	B	D	A	C	D	A	C
Approach Vol, veh/h		519			832			982			839	
Approach Delay, s/veh		27.6			28.1			34.1			26.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0				
Change Period (Y+Rc), s		6.0		5.6		6.0		5.6				
Max Green Setting (Gmax), s		39.0		29.4		39.0		29.4				
Max Q Clear Time (g_c+I1), s		41.0		24.3		41.0		29.2				
Green Ext Time (p_c), s		0.0		1.5		0.0		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	91	300	465	42	16	64
Future Vol, veh/h	91	300	465	42	16	64
Conflicting Peds, #/hr	0	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	93	93	88	88
Heavy Vehicles, %	2	2	1	1	0	0
Mvmt Flow	100	330	500	45	18	73

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	545	0	-	0	1053	524
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	530	-
Critical Hdwy	4.12	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.218	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1024	-	-	-	253	557
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	594	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1024	-	-	-	223	556
Mov Cap-2 Maneuver	-	-	-	-	223	-
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	594	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1024	-	-	-	428
HCM Lane V/C Ratio	0.098	-	-	-	0.212
HCM Control Delay (s)	8.9	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	63	280	0	421	0	0	0	0	0	526	113
Future Volume (Veh/h)	0	63	280	0	421	0	0	0	0	0	526	113
Sign Control		Stop			Yield			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
Hourly flow rate (vph)	0	68	304	0	443	0	0	0	0	0	554	119
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	835	614	336	615	673	0	673			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	835	614	336	615	673	0	673			0		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	83	54	100	0	100	100			100		
cM capacity (veh/h)	0	406	659	177	377	1088	914			1629		

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	68	304	443	369	304
Volume Left	0	0	0	0	0
Volume Right	0	304	0	0	119
cSH	406	659	377	1700	1700
Volume to Capacity	0.17	0.46	1.17	0.22	0.18
Queue Length 95th (ft)	15	61	441	0	0
Control Delay (s)	15.6	15.0	135.0	0.0	0.0
Lane LOS	C	C	F		
Approach Delay (s)	15.2		135.0	0.0	
Approach LOS	C		F		

Intersection Summary					
Average Delay	44.0				
Intersection Capacity Utilization	73.2%	ICU Level of Service		D	
Analysis Period (min)	15				

HCM Unsignalized Intersection Capacity Analysis — Future Conditions #1 (Pre-COVID)
27: NB Northville Road & N. Seven Mile Road — PM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	0	421	730	0	0
Future Volume (Veh/h)	63	0	421	730	0	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.95	0.95	0.92	0.92
Hourly flow rate (vph)	69	0	443	768	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked	0.83					
vC, conflicting volume	1270	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	914	0	0			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	39	100	73			
cM capacity (veh/h)	167	1091	1629			

Direction, Lane #	EB 1	NB 1	NB 2
Volume Total	69	699	512
Volume Left	69	443	0
Volume Right	0	0	0
cSH	167	1629	1700
Volume to Capacity	0.41	0.27	0.30
Queue Length 95th (ft)	46	28	0
Control Delay (s)	41.0	6.0	0.0
Lane LOS	E	A	
Approach Delay (s)	41.0	3.5	
Approach LOS	E		

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		

HCM 6th Signalized Intersection Summary — Future Conditions #1 (Pre-COVID)
28: Northville Road & S. Seven Mile Road — PM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	308	610	541	321	396	410
Future Volume (veh/h)	308	610	541	321	396	410
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1969	1969
Adj Flow Rate, veh/h	328	649	576	341	430	446
Peak Hour Factor	0.94	0.94	0.94	0.94	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	676	938	467	276	465	1814
Arrive On Green	0.36	0.36	0.20	0.20	0.20	0.49
Sat Flow, veh/h	1890	1682	2378	1348	1875	3839
Grp Volume(v), veh/h	328	649	477	440	430	446
Grp Sat Flow(s),veh/h/ln	1890	1682	1885	1742	1875	1870
Q Serve(g_s), s	10.8	6.2	16.4	14.1	14.1	5.6
Cycle Q Clear(g_c), s	10.8	6.2	16.4	16.4	14.1	5.6
Prop In Lane	1.00	1.00		0.77	1.00	
Lane Grp Cap(c), veh/h	676	938	386	357	465	1814
V/C Ratio(X)	0.49	0.69	1.23	1.23	0.92	0.25
Avail Cap(c_a), veh/h	676	938	386	357	465	1814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	12.8	31.8	31.8	29.8	12.0
Incr Delay (d2), s/veh	2.5	4.2	125.5	127.1	26.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.2	20.4	19.0	10.4	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.5	16.9	157.3	158.9	56.4	12.4
LnGrp LOS	C	B	F	F	E	B
Approach Vol, veh/h	977		917			876
Approach Delay, s/veh	18.8		158.1			34.0
Approach LOS	B		F			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.4	22.8			45.2	34.8
Change Period (Y+Rc), s	6.4	6.4			6.4	6.2
Max Green Setting (Gmax), s	16.0	16.4			38.8	28.6
Max Q Clear Time (g_c+I1), s	16.1	18.4			7.6	12.8
Green Ext Time (p_c), s	0.0	0.0			3.1	3.4

Intersection Summary		
HCM 6th Ctrl Delay	69.7	
HCM 6th LOS	E	

HCM 6th TWSC — Future Conditions #1 (Pre-COVID)
29: N.E. Site Drive (Egress Only) & Cady Street — PM Peak Hour

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	158	0	0	127	5	4
Future Vol, veh/h	158	0	0	127	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	84	84	92	92
Heavy Vehicles, %	1	1	0	0	2	2
Mvmt Flow	166	0	0	151	5	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	317	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	151	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	-	0	0	-	676	878
Stage 1	-	0	0	-	863	-
Stage 2	-	0	0	-	877	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	676	878
Mov Cap-2 Maneuver	-	-	-	-	676	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	753	-	-
HCM Lane V/C Ratio	0.013	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

HCM 6th TWSC — Future Conditions #1 (Pre-COVID)
30: Griswold Street & E. Site Drive — PM Peak Hour

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	2	140	137	1
Future Vol, veh/h	1	1	2	140	137	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	88	88	88	88
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	1	1	2	159	156	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	320	157	157	0	-	0
Stage 1	157	-	-	-	-	-
Stage 2	163	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	673	889	1435	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	672	889	1435	-	-	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	866	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1435	-	765	-	-
HCM Lane V/C Ratio	0.002	-	0.003	-	-
HCM Control Delay (s)	7.5	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC — Future Conditions #1 (Pre-COVID)
31: Griswold Street & S.E. Site Drive — PM Peak Hour

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	2	2	141	136	2
Future Vol, veh/h	1	2	2	141	136	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	88	88	88	88
Heavy Vehicles, %	2	2	0	0	0	0
Mvmt Flow	1	2	2	160	155	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	320	156	157	0	-	0
Stage 1	156	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.1	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.2	-	-	-
Pot Cap-1 Maneuver	673	890	1435	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	865	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	672	890	1435	-	-	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	865	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1435	-	803	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC — Future Conditions #1 (Pre-COVID)
32: Center Street & Proposed Beal Street — PM Peak Hour

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	11	734	41	11	727
Future Vol, veh/h	27	11	734	41	11	727
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	95	91	91
Heavy Vehicles, %	2	2	1	1	0	0
Mvmt Flow	29	12	773	43	12	799

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1618	795	0	0	816	0
Stage 1	795	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.1	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.2	-
Pot Cap-1 Maneuver	114	388	-	-	820	-
Stage 1	445	-	-	-	-	-
Stage 2	431	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	111	388	-	-	820	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	420	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	41.1	0	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	140	820	-
HCM Lane V/C Ratio	-	-	0.295	0.015	-
HCM Control Delay (s)	-	-	41.1	9.5	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0	-

HCM 6th TWSC
33: S.W. Site Drive & Fairbrook Street

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	1	3	137	0	3
Future Vol, veh/h	66	1	3	137	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	91	91	92	92
Heavy Vehicles, %	0	0	5	5	2	2
Mvmt Flow	80	1	3	151	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	81	0	238	81
Stage 1	-	-	-	-	81	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	-	-	4.15	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.245	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1498	-	750	979
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1498	-	749	979
Mov Cap-2 Maneuver	-	-	-	-	749	-
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	869	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	979	-	-	1498	-
HCM Lane V/C Ratio	0.003	-	-	0.002	-
HCM Control Delay (s)	8.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
34: Wing Street & S.W. Site Drive

Future Conditions #1 (Pre-COVID)
PM Peak Hour

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	0	106	4	1	64
Future Vol, veh/h	3	0	106	4	1	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	69	69	82	82
Heavy Vehicles, %	2	2	1	1	1	1
Mvmt Flow	3	0	154	6	1	78

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	237	157	0	0	160	0
Stage 1	157	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.11	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.209	-
Pot Cap-1 Maneuver	751	889	-	-	1425	-
Stage 1	871	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	889	-	-	1425	-
Mov Cap-2 Maneuver	750	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	750	1425	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Control Delay (s)	-	-	9.8	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

HCM 6th Signalized Intersection Summary
2: Center Street & Randolph Street/Private Drive

Future Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2	129	4	0	6	30	517	1	6	472	50
Future Volume (veh/h)	22	2	129	4	0	6	30	517	1	6	472	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	33	3	195	5	0	8	33	568	1	9	684	72
Peak Hour Factor	0.66	0.66	0.66	0.75	0.75	0.75	0.91	0.91	0.91	0.69	0.69	0.69
Percent Heavy Veh, %	1	1	1	0	0	0	2	2	2	2	2	2
Cap, veh/h	94	19	243	162	34	181	421	1276	2	666	1137	120
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	1.00	1.00	1.00	0.65	0.65	0.65
Sat Flow, veh/h	150	110	1410	459	197	1050	708	1965	3	841	1751	184
Grp Volume(v), veh/h	231	0	0	13	0	0	33	0	569	9	0	756
Grp Sat Flow(s),veh/h/ln	1671	0	0	1706	0	0	708	0	1968	841	0	1935
Q Serve(g_s), s	4.2	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.2	0.0	13.5
Cycle Q Clear(g_c), s	7.9	0.0	0.0	0.4	0.0	0.0	14.5	0.0	0.0	0.2	0.0	13.5
Prop In Lane	0.14		0.84	0.38		0.62	1.00		0.00	1.00		0.10
Lane Grp Cap(c), veh/h	356	0	0	376	0	0	421	0	1279	666	0	1257
V/C Ratio(X)	0.65	0.00	0.00	0.03	0.00	0.00	0.08	0.00	0.44	0.01	0.00	0.60
Avail Cap(c_a), veh/h	478	0	0	486	0	0	421	0	1279	666	0	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	0.0	20.7	0.0	0.0	2.5	0.0	0.0	3.7	0.0	6.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	1.0	0.0	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.4	0.0	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	0.0	0.0	20.8	0.0	0.0	2.8	0.0	1.0	3.8	0.0	8.2
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		231			13			602			765	
Approach Delay, s/veh		25.8			20.8			1.1			8.1	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.5		15.5		44.5		15.5				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		16.5		9.9		15.5		2.4				
Green Ext Time (p_c), s		4.0		0.6		5.8		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
12: Center Street & Cady Street

Future Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	9	12	48	20	6	29	504	164	7	418	5
Future Volume (veh/h)	1	9	12	48	20	6	29	504	164	7	418	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	1953	1953	1953	1969	1969	1969
Adj Flow Rate, veh/h	2	15	20	59	24	7	32	560	182	8	470	6
Peak Hour Factor	0.60	0.60	0.60	0.82	0.82	0.82	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	67	84	104	196	62	13	88	977	308	67	1370	17
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.71	0.71	0.71	1.00	1.00	1.00
Sat Flow, veh/h	39	787	972	902	578	125	36	1367	431	8	1918	24
Grp Volume(v), veh/h	37	0	0	90	0	0	774	0	0	484	0	0
Grp Sat Flow(s),veh/h/ln	1798	0	0	1604	0	0	1834	0	0	1950	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	3.0	0.0	0.0	12.1	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.05		0.54	0.66		0.08	0.04		0.24	0.02		0.01
Lane Grp Cap(c), veh/h	256	0	0	271	0	0	1373	0	0	1454	0	0
V/C Ratio(X)	0.14	0.00	0.00	0.33	0.00	0.00	0.56	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	504	0	0	485	0	0	1373	0	0	1454	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.4	0.0	0.0	25.2	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	1.7	0.0	0.0	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.2	0.0	0.0	3.4	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.0	0.0	25.9	0.0	0.0	5.8	0.0	0.0	0.6	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		37			90			774			484	
Approach Delay, s/veh		24.7			25.9			5.8			0.6	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		48.4		11.6		48.4		11.6				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		14.1		3.1		2.0		5.0				
Green Ext Time (p_c), s		6.3		0.1		3.7		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
23: Sheldon Avenue/Center Street & Seven Mile Road

Future Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	432	73	35	157	90	58	594	73	89	411	21
Future Volume (veh/h)	46	432	73	35	157	90	58	594	73	89	411	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00			1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1938	1938	1938	1969	1969	1969	1969	1969	1969
Adj Flow Rate, veh/h	54	508	86	38	171	98	63	646	79	103	478	24
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Percent Heavy Veh, %	1	1	1	4	4	4	2	2	2	2	2	2
Cap, veh/h	432	608	103	190	712	603	368	960	813	263	906	45
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1118	1654	280	810	1938	1640	896	1969	1667	729	1859	93
Grp Volume(v), veh/h	54	0	594	38	171	98	63	646	79	103	0	502
Grp Sat Flow(s),veh/h/ln	1118	0	1934	810	1938	1640	896	1969	1667	729	0	1952
Q Serve(g_s), s	2.8	0.0	22.4	3.6	4.9	3.2	4.2	20.0	2.0	10.0	0.0	14.2
Cycle Q Clear(g_c), s	7.7	0.0	22.4	26.0	4.9	3.2	18.4	20.0	2.0	30.1	0.0	14.2
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	432	0	711	190	712	603	368	960	813	263	0	952
V/C Ratio(X)	0.12	0.00	0.84	0.24	0.24	0.16	0.17	0.67	0.10	0.39	0.00	0.53
Avail Cap(c_a), veh/h	432	0	711	160	712	603	368	960	813	263	0	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	23.1	35.0	17.6	17.0	20.5	15.6	11.0	27.1	0.0	14.1
Incr Delay (d2), s/veh	0.6	0.0	11.2	3.4	0.8	0.6	1.0	3.8	0.2	4.3	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	11.6	0.8	2.2	1.2	0.9	9.0	0.7	2.0	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	0.0	34.3	38.4	18.3	17.6	21.5	19.4	11.3	31.4	0.0	16.2
LnGrp LOS	C	A	C	D	B	B	C	B	B	C	A	B
Approach Vol, veh/h		648			307			788			605	
Approach Delay, s/veh		33.2			20.6			18.8			18.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.0		35.0		45.0		35.0				
Change Period (Y+Rc), s		6.0		5.6		6.0		5.6				
Max Green Setting (Gmax), s		39.0		29.4		39.0		29.4				
Max Q Clear Time (g_c+I1), s		22.0		24.4		32.1		28.0				
Green Ext Time (p_c), s		4.6		1.8		2.2		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
26: SB Northville Road & N. Seven Mile Road

Future Conditions #1 (Pre-COVID) w/ IMP
AM Peak Hour

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	305	168	339	319	53
Future Volume (veh/h)	43	305	168	339	319	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1969	1969	1922	1984	1984	1984
Adj Flow Rate, veh/h	53	377	191	385	336	56
Peak Hour Factor	0.81	0.81	0.88	0.88	0.95	0.95
Percent Heavy Veh, %	2	2	5	5	1	1
Cap, veh/h	253	801	914	2584	915	151
Arrive On Green	0.14	0.14	0.69	1.00	0.28	0.28
Sat Flow, veh/h	1875	1668	1830	3748	3338	534
Grp Volume(v), veh/h	53	377	191	385	194	198
Grp Sat Flow(s),veh/h/ln	1875	1668	1830	1826	1885	1888
Q Serve(g_s), s	2.0	10.8	1.7	0.0	6.6	6.7
Cycle Q Clear(g_c), s	2.0	10.8	1.7	0.0	6.6	6.7
Prop In Lane	1.00	1.00	1.00			0.28
Lane Grp Cap(c), veh/h	253	801	914	2584	533	533
V/C Ratio(X)	0.21	0.47	0.21	0.15	0.36	0.37
Avail Cap(c_a), veh/h	253	801	914	2584	533	533
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	14.0	2.7	0.0	23.0	23.0
Incr Delay (d2), s/veh	1.9	2.0	0.5	0.1	1.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	13.2	0.6	0.0	3.1	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.7	16.0	3.2	0.1	24.9	25.0
LnGrp LOS	C	B	A	A	C	C
Approach Vol, veh/h	430			576	392	
Approach Delay, s/veh	18.0			1.1	24.9	
Approach LOS	B			A	C	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		63.0		17.0	34.0	29.0						
Change Period (Y+Rc), s		6.4		* 6.2	6.4	6.4						
Max Green Setting (Gmax), s		56.6		* 11	27.6	22.6						
Max Q Clear Time (g_c+I1), s		2.0		12.8	3.7	8.7						
Green Ext Time (p_c), s		2.7		0.0	0.5	1.8						

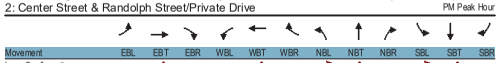
Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Future Conditions #1 (Pre-COVID) w/ IMP
28: Northville Road & S. Seven Mile Road — AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	247	233	274	289	423	201
Future Volume (veh/h)	247	233	274	289	423	201
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1953	1953	1938	1938	1984	1984
Adj Flow Rate, veh/h	287	271	288	304	486	231
Peak Hour Factor	0.86	0.86	0.95	0.95	0.87	0.87
Percent Heavy Veh, %	3	3	4	4	1	1
Cap, veh/h	437	815	497	443	642	2290
Arrive On Green	0.23	0.23	0.27	0.27	0.17	0.41
Sat Flow, veh/h	1860	1655	1938	1642	1890	3870
Grp Volume(v), veh/h	287	271	288	304	486	231
Grp Sat Flow(s),veh/h/ln	1860	1655	1841	1642	1890	1885
Q Serve(g_s), s	11.2	0.0	10.8	13.3	12.6	3.0
Cycle Q Clear(g_c), s	11.2	0.0	10.8	13.3	12.6	3.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	437	815	497	443	642	2290
V/C Ratio(X)	0.66	0.33	0.58	0.69	0.76	0.10
Avail Cap(c_a), veh/h	437	815	497	443	642	2290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	12.3	25.3	26.2	27.3	10.2
Incr Delay (d2), s/veh	7.5	1.1	4.9	8.4	8.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	2.9	5.1	5.8	9.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.2	13.4	30.1	34.5	35.4	10.3
LnGrp LOS	D	B	C	C	D	B
Approach Vol, veh/h	558		592			717
Approach Delay, s/veh	24.6		32.4			27.3
Approach LOS	C		C			C
Timer - Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	27.0	28.0				55.0		25.0
Change Period (Y+Rc), s	6.4	6.4				6.4		6.2
Max Green Setting (Gmax), s	20.6	21.6				48.6		18.8
Max Q Clear Time (g_c+I1), s	14.6	15.3				5.0		13.2
Green Ext Time (p_c), s	0.9	1.9				1.5		1.0
Intersection Summary								
HCM 6th Ctrl Delay			28.1					
HCM 6th LOS			C					

HCM 6th Signalized Intersection Summary — Future Conditions #1 (Pre-COVID) w/ IMP
2: Center Street & Randolph Street/Private Drive — PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	13	235	15	15	28	58	591	9	18	483	43
Future Volume (veh/h)	46	13	235	15	15	28	58	591	9	18	483	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	1984	1984	1984
Adj Flow Rate, veh/h	55	15	280	16	16	31	67	679	10	25	662	59
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.87	0.87	0.87	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	112	37	317	138	143	199	372	1147	17	561	1046	93
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	1.00	1.00	1.00	0.58	0.58	0.58
Sat Flow, veh/h	179	154	1329	265	599	837	743	1965	29	756	1793	160
Grp Volume(v), veh/h	350	0	0	63	0	0	67	0	689	25	0	721
Grp Sat Flow(s),veh/h/ln	1661	0	0	1701	0	0	743	0	1994	756	0	1953
Q Serve(g_s), s	7.8	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.9	0.0	14.6
Cycle Q Clear(g_c), s	12.1	0.0	0.0	1.6	0.0	0.0	17.3	0.0	0.0	0.9	0.0	14.6
Prop In Lane	0.16		0.80	0.25		0.49	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	465	0	0	480	0	0	372	0	1164	561	0	1140
V/C Ratio(X)	0.75	0.00	0.00	0.13	0.00	0.00	0.18	0.00	0.59	0.04	0.00	0.63
Avail Cap(c_a), veh/h	479	0	0	493	0	0	372	0	1164	561	0	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.81	0.00	0.81	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	18.0	0.0	0.0	3.6	0.0	0.0	5.4	0.0	8.3
Incr Delay (d2), s/veh	6.4	0.0	0.0	0.1	0.0	0.0	0.9	0.0	1.8	0.1	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	0.0	0.7	0.0	0.0	0.3	0.0	0.6	0.1	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	0.0	18.2	0.0	0.0	4.5	0.0	1.8	5.5	0.0	10.9
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	B
Approach Vol, veh/h		350			63			756			746	
Approach Delay, s/veh		28.4			18.2			2.0			10.7	
Approach LOS		C			B			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.5		19.5		40.5		19.5				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		34.5		* 15		34.5		* 15				
Max Q Clear Time (g_c+I1), s		19.3		14.1		16.6		3.6				
Green Ext Time (p_c), s		5.0		0.2		5.4		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			10.8									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Future Conditions #1 (Pre-COVID) w/ IMP
8: Hutton Street & Main Street — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	166	17	10	273	308	12	40	15	257	28	14
Future Volume (veh/h)	7	166	17	10	273	308	12	40	15	257	28	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.97	0.99		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Adj Flow Rate, veh/h	8	195	20	11	314	354	15	51	19	282	31	15
Peak Hour Factor	0.85	0.85	0.85	0.87	0.87	0.87	0.78	0.78	0.78	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	70	695	504	69	671	504	174	570	194	715	66	711
Arrive On Green	0.11	0.11	0.11	0.34	0.34	0.34	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	21	1945	1474	22	1963	1474	217	1191	405	1257	138	1487
Grp Volume(v), veh/h	203	0	20	325	0	354	85	0	0	313	0	15
Grp Sat Flow(s),veh/h/ln	1966	0	1474	1984	0	1474	1814	0	0	1395	0	1487
Q Serve(g_s), s	0.0	0.0	0.7	0.0	0.0	12.5	0.0	0.0	0.0	7.1	0.0	0.3
Cycle Q Clear(g_c), s	5.6	0.0	0.7	7.7	0.0	12.5	1.5	0.0	0.0	8.6	0.0	0.3
Prop In Lane	0.04		1.00	0.03		1.00	0.18		0.22	0.90		1.00
Lane Grp Cap(c), veh/h	734	0	504	740	0	504	938	0	0	781	0	711
V/C Ratio(X)	0.28	0.00	0.04	0.44	0.00	0.70	0.09	0.00	0.00	0.40	0.00	0.02
Avail Cap(c_a), veh/h	734	0	504	740	0	504	938	0	0	781	0	711
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	17.8	15.5	0.0	17.1	8.5	0.0	0.0	10.3	0.0	8.2
Incr Delay (d2), s/veh	0.9	0.0	0.1	1.9	0.0	8.0	0.2	0.0	0.0	1.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.2	3.6	0.0	5.0	0.6	0.0	0.0	2.7	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	18.0	17.4	0.0	25.1	8.7	0.0	0.0	11.8	0.0	8.3
LnGrp LOS	C	A	B	B	A	C	A	A	A	B	A	A
Approach Vol, veh/h		223			679			85			328	
Approach Delay, s/veh		20.7			21.4			8.7			11.6	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		26.0		34.0		26.0		34.0				
Change Period (Y+Rc), s		5.5		* 5.3		5.5		* 5.3				
Max Green Setting (Gmax), s		20.5		* 29		20.5		* 29				
Max Q Clear Time (g_c+I1), s		7.6		10.6		14.5		3.5				
Green Ext Time (p_c), s		1.0		2.0		1.8		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Future Conditions #1 (Pre-COVID) w/ IMP
9: Griswold Street & Main Street — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	268	28	7	376	296	47	238	18	203	153	198
Future Volume (veh/h)	101	268	28	7	376	296	47	238	18	203	153	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	119	315	33	7	396	312	51	259	20	216	163	211
Peak Hour Factor	0.85	0.85	0.85	0.95	0.95	0.95	0.92	0.92	0.92	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	213	863	75	84	702	540	147	694	50	317	217	251
Arrive On Green	0.12	0.12	0.12	0.36	0.36	0.36	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	324	1860	211	9	1967	1515	170	1531	110	518	478	555
Grp Volume(v), veh/h	190	0	277	403	0	312	330	0	0	590	0	0
Grp Sat Flow(s),veh/h/ln	628	0	1765	1976	0	1515	1812	0	0	1551	0	0
Q Serve(g_s), s	9.2	0.0	8.8	0.0	0.0	10.0	0.0	0.0	0.0	12.8	0.0	0.0
Cycle Q Clear(g_c), s	19.2	0.0	8.8	9.8	0.0	10.0	6.6	0.0	0.0	19.4	0.0	0.0
Prop In Lane	0.63		0.12	0.02		1.00	0.15		0.06	0.37		0.36
Lane Grp Cap(c), veh/h	322	0	630	766	0	540	890	0	0	785	0	0
V/C Ratio(X)	0.59	0.00	0.44	0.53	0.00	0.58	0.37	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	322	0	630	766	0	540	890	0	0	785	0	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	0.0	20.9	15.6	0.0	15.6	10.8	0.0	0.0	13.8	0.0	0.0
Incr Delay (d2), s/veh	7.8	0.0	2.2	2.6	0.0	4.4	1.2	0.0	0.0	6.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	4.3	4.6	0.0	3.8	2.7	0.0	0.0	6.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	0.0	23.1	18.2	0.0	20.1	12.0	0.0	0.0	20.4	0.0	0.0
LnGrp LOS	D	A	C	B	A	C	B	A	A	C	A	A
Approach Vol, veh/h		467			715			330			590	
Approach Delay, s/veh		28.1			19.0			12.0			20.4	
Approach LOS		C			B			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.0		33.0		27.0		33.0				
Change Period (Y+Rc), s		5.6		* 5.8		5.6		* 5.8				
Max Green Setting (Gmax), s		21.4		* 27		21.4		* 27				
Max Q Clear Time (g_c+I1), s		21.2		21.4		12.0		8.6				
Green Ext Time (p_c), s		0.1		2.1		3.3		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			C									

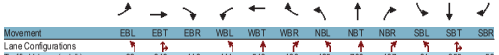
Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Future Conditions #1 (Pre-COVID) w/ IMP
12: Center Street & Cady Street — PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	19	30	65	13	20	26	539	130	15	639	38
Future Volume (veh/h)	11	19	30	65	13	20	26	539	130	15	639	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.92	0.94		0.92	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1938	1938	1938	2000	2000	1984	1984	1984	2000	2000	2000	2000
Adj Flow Rate, veh/h	14	24	38	83	17	26	27	567	137	16	673	40
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	4	4	4	0	0	0	1	1	1	0	0	0
Cap, veh/h	94	103	125	232	53	48	83	993	234	71	1224	72
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.67	0.67	0.67	1.00	1.00	1.00
Sat Flow, veh/h	147	670	817	864	345	314	30	1486	350	15	1832	107
Grp Volume(v), veh/h	76	0	0	126	0	0	731	0	0	729	0	0
Grp Sat Flow(s),veh/h/ln	1635	0	0	1523	0	0	1866	0	0	1954	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	4.1	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.18		0.50	0.66		0.21	0.04		0.19	0.02		0.05
Lane Grp Cap(c), veh/h	322	0	0	333	0	0	1310	0	0	1368	0	0
V/C Ratio(X)	0.24	0.00	0.00	0.38	0.00	0.00	0.56	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	455	0	0	452	0	0	1310	0	0	1368	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	23.1	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	0.0	1.7	0.0	0.0	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.6	0.0	0.0	4.0	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	0.0	0.0	23.8	0.0	0.0	7.1	0.0	0.0	1.5	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		76			126			731			729	
Approach Delay, s/veh		22.9			23.8			7.1			1.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		45.6		14.4		45.6		14.4				
Change Period (Y+Rc), s		5.5		* 5.2		5.5		* 5.2				
Max Green Setting (Gmax), s		35.0		* 14		35.0		* 14				
Max Q Clear Time (g_c+I1), s		14.3		4.4		2.0		6.1				
Green Ext Time (p_c), s		5.9		0.2		6.6		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			6.6									
HCM 6th LOS			A									

Notes
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary — Future Conditions #1 (Pre-COVID) w/ IMP
23: Sheldon Avenue/Center Street & Seven Mile Road — PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	319	116	111	513	166	125	700	107	81	655	53
Future Volume (veh/h)	32	319	116	111	513	166	125	700	107	81	655	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1984	1984	1984	2000	2000	2000	1984	1984	1984	1984	1984	1984
Adj Flow Rate, veh/h	36	354	129	117	540	175	132	737	113	86	697	56
Peak Hour Factor	0.90	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	189	510	186	230	735	622	210	967	817	211	883	71
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	741	1387	505	926	2000	1693	716	1984	1677	654	1812	146
Grp Volume(v), veh/h	36	0	483	117	540	175	132	737	113	86	0	753
Grp Sat Flow(s),veh/h/ln	741	0	1893	926	2000	1693	716	1984	1677	654	0	1958
Q Serve(g_s), s	3.5	0.0	17.3	9.8	18.7	5.8	13.4	24.2	3.0	9.9	0.0	25.6
Cycle Q Clear(g_c), s	22.3	0.0	17.3	27.2	18.7	5.8	39.0	24.2	3.0	34.1	0.0	25.6
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	189	0	696	230	735	622	210	967	817	211	0	954
V/C Ratio(X)	0.19	0.00	0.69	0.51	0.73	0.28	0.63	0.76	0.14	0.41	0.00	0.79
Avail Cap(c_a), veh/h	189	0	696	230	735	622	210	967	817	211	0	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	0.0	21.5	33.0	21.9	17.8	33.9	16.7	11.3	30.6	0.0	17.1
Incr Delay (d2), s/veh	2.2	0.0	5.6	7.9	6.4	1.1	13.5	5.7	0.4	5.8	0.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	8.2	2.6	9.4	2.3	3.3	11.2	1.1	1.8	0.0	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	280	421	730	526	113
Future Volume (veh/h)	63	280	421	730	526	113
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1969	1969	1984	1984	1984	1984
Adj Flow Rate, veh/h	68	304	443	768	554	119
Peak Hour Factor	0.92	0.92	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	1	1
Cap, veh/h	206	738	850	2762	989	212
Arrive On Green	0.11	0.11	0.67	1.00	0.32	0.32
Sat Flow, veh/h	1875	1668	1890	3870	3188	661
Grp Volume(v), veh/h	68	304	443	768	337	336
Grp Sat Flow(s),veh/h/ln	1875	1668	1890	1885	1885	1865
Q Serve(g_s), s	2.7	8.8	5.7	0.0	11.9	11.9
Cycle Q Clear(g_c), s	2.7	8.8	5.7	0.0	11.9	11.9
Prop In Lane	1.00	1.00	1.00			0.35
Lane Grp Cap(c), veh/h	206	738	850	2762	803	597
V/C Ratio(X)	0.33	0.41	0.52	0.28	0.56	0.56
Avail Cap(c_a), veh/h	206	738	850	2762	803	597
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	15.2	3.4	0.0	22.5	22.6
Incr Delay (d2), s/veh	4.2	1.7	2.3	0.3	3.7	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	10.9	1.6	0.1	5.6	5.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.1	16.9	5.7	0.3	26.2	26.4
LnGrp LOS	D	B	A	A	C	C
Approach Vol, veh/h	372			1211	673	
Approach Delay, s/veh	20.6			2.2	26.3	
Approach LOS	C			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.0		15.0	33.0	32.0
Change Period (Y+Rc), s		6.4		* 6.2	6.4	6.4
Max Green Setting (Gmax), s		58.6		* 8.8	26.6	25.6
Max Q Clear Time (g_c+I1), s		2.0		10.8	7.7	13.9
Green Ext Time (p_c), s		6.2		0.0	1.3	3.2

Intersection Summary			
HCM 6th Ctrl Delay		12.4	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	308	610	541	321	396	410
Future Volume (veh/h)	308	610	541	321	396	410
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1984	1984	1984	1984	1969	1969
Adj Flow Rate, veh/h	328	649	576	341	430	446
Peak Hour Factor	0.94	0.94	0.94	0.94	0.92	0.92
Percent Heavy Veh, %	1	1	1	1	2	2
Cap, veh/h	491	807	644	381	511	2179
Arrive On Green	0.26	0.26	0.28	0.28	0.29	0.77
Sat Flow, veh/h	1890	1682	2378	1348	1875	3839
Grp Volume(v), veh/h	328	649	477	440	430	446
Grp Sat Flow(s),veh/h/ln	1890	1682	1885	1742	1875	1870
Q Serve(g_s), s	12.4	8.5	19.4	19.4	12.6	2.6
Cycle Q Clear(g_c), s	12.4	8.5	19.4	19.4	12.6	2.6
Prop In Lane	1.00	1.00		0.77	1.00	
Lane Grp Cap(c), veh/h	491	807	533	492	511	2179
V/C Ratio(X)	0.67	0.80	0.89	0.90	0.84	0.20
Avail Cap(c_a), veh/h	491	807	533	492	511	2179
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	17.6	27.6	27.6	25.1	4.0
Incr Delay (d2), s/veh	7.0	8.4	20.2	21.5	15.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	10.8	11.0	10.3	8.1	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.5	26.0	47.7	49.0	40.4	4.3
LnGrp LOS	C	C	D	D	D	A
Approach Vol, veh/h	977		917			876
Approach Delay, s/veh	28.5		48.4			22.0
Approach LOS	C		D			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	24.0	29.0			53.0	27.0
Change Period (Y+Rc), s	6.4	6.4			6.4	6.2
Max Green Setting (Gmax), s	17.6	22.6			46.6	20.8
Max Q Clear Time (g_c+I1), s	14.6	21.4			4.6	14.4
Green Ext Time (p_c), s	0.5	0.7			3.2	2.2

Intersection Summary			
HCM 6th Ctrl Delay		33.0	
HCM 6th LOS		C	

Appendix E

WARRANT SUMMARIES

Summary of Warrants

Spot Number:	Scenario 1 - Existing		
Major Street:	Center Street	Minor Street:	Randolph Street
Intersection:	Center Street at Randolph Street		
City/Twp:	Northville		
Date Performed:	1/14/2022	Performed By:	FV
Date Volumes Collected:	10/19/2021		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**N/A**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St?**
1	**: No. of Lanes on Minor St?**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: if answer 4 is Yes, then what is the of the population isolated community?**
NO	**: Have other remedial measures been tried?**

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	**N-S**	E-W											
00:01 - 01:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
01:00 - 02:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
02:00 - 03:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
03:00 - 04:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
04:00 - 05:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
05:00 - 06:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
06:00 - 07:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
07:00 - 08:00	598	72	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
08:00 - 09:00	743	122	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
09:00 - 10:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
10:00 - 11:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
11:00 - 12:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
12:00 - 13:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
13:00 - 14:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
14:00 - 15:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
15:00 - 16:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
16:00 - 17:00	923	144	600	150	**NO**	900	75	**YES**	N/A	N/A	N/A	N/A	**N/A**
17:00 - 18:00	892	184	600	150	**YES**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
18:00 - 19:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
19:00 - 20:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
20:00 - 21:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
21:00 - 22:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
22:00 - 23:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
23:00 - 00:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**

Number of Hours that met the warrant 1A =	**1**
Number of Hours that met the warrant 1B =	**1**
Number of Hours that met the warrant 1 A & B =	**0**

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	**NO**
B. Is the Interruption of Continuous Traffic Met? (Condition B)	**NO**
C. Combination of Warrants A and B Criteria Met?	**N/A**

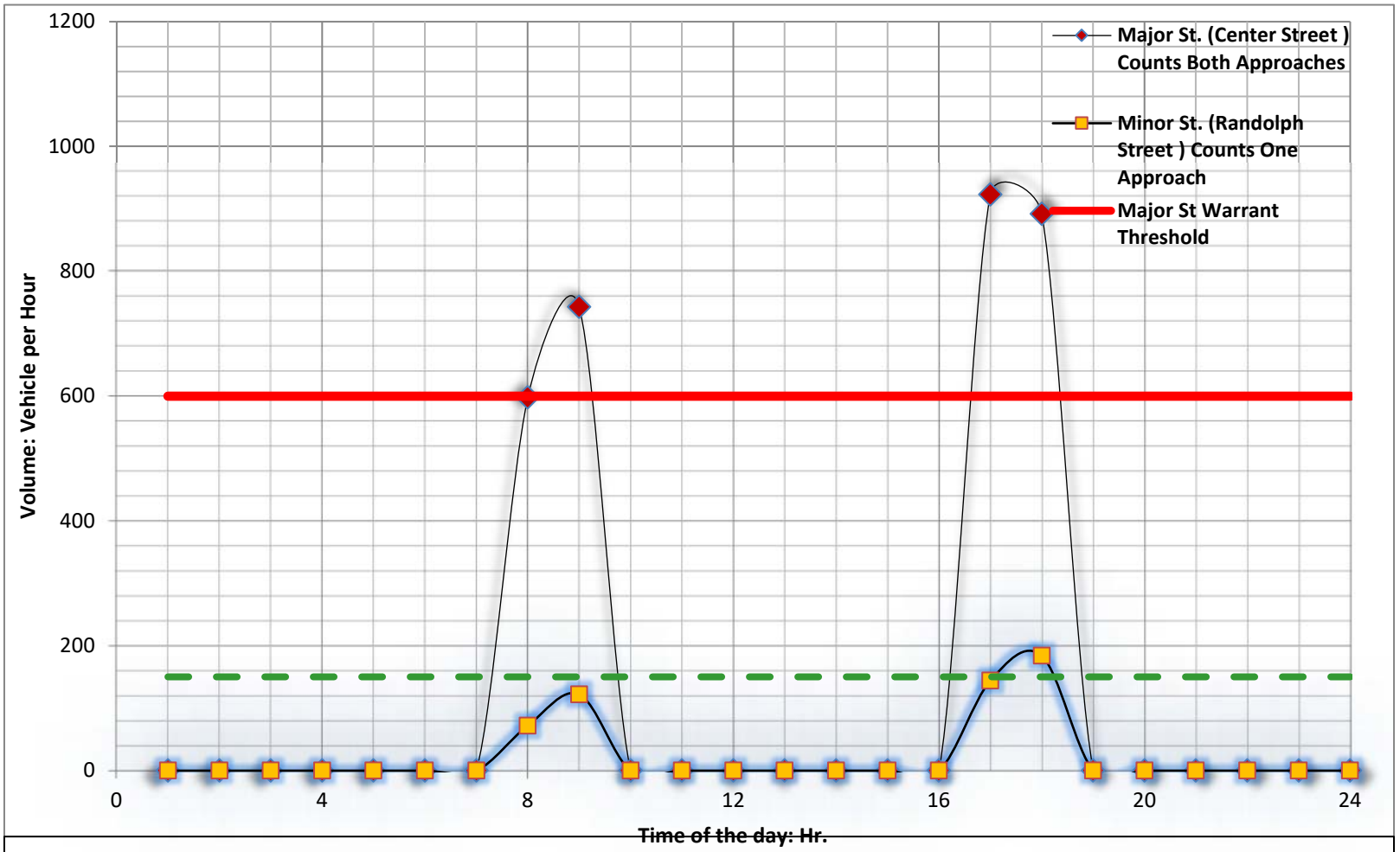


FIGURE 1: WARRANT

IS THERE A REDUCTION IN THE WARRANT
1- DUE TO SPEED? N
2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Existing

Center Street @ Randolph Street

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 1

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 10/19/2021

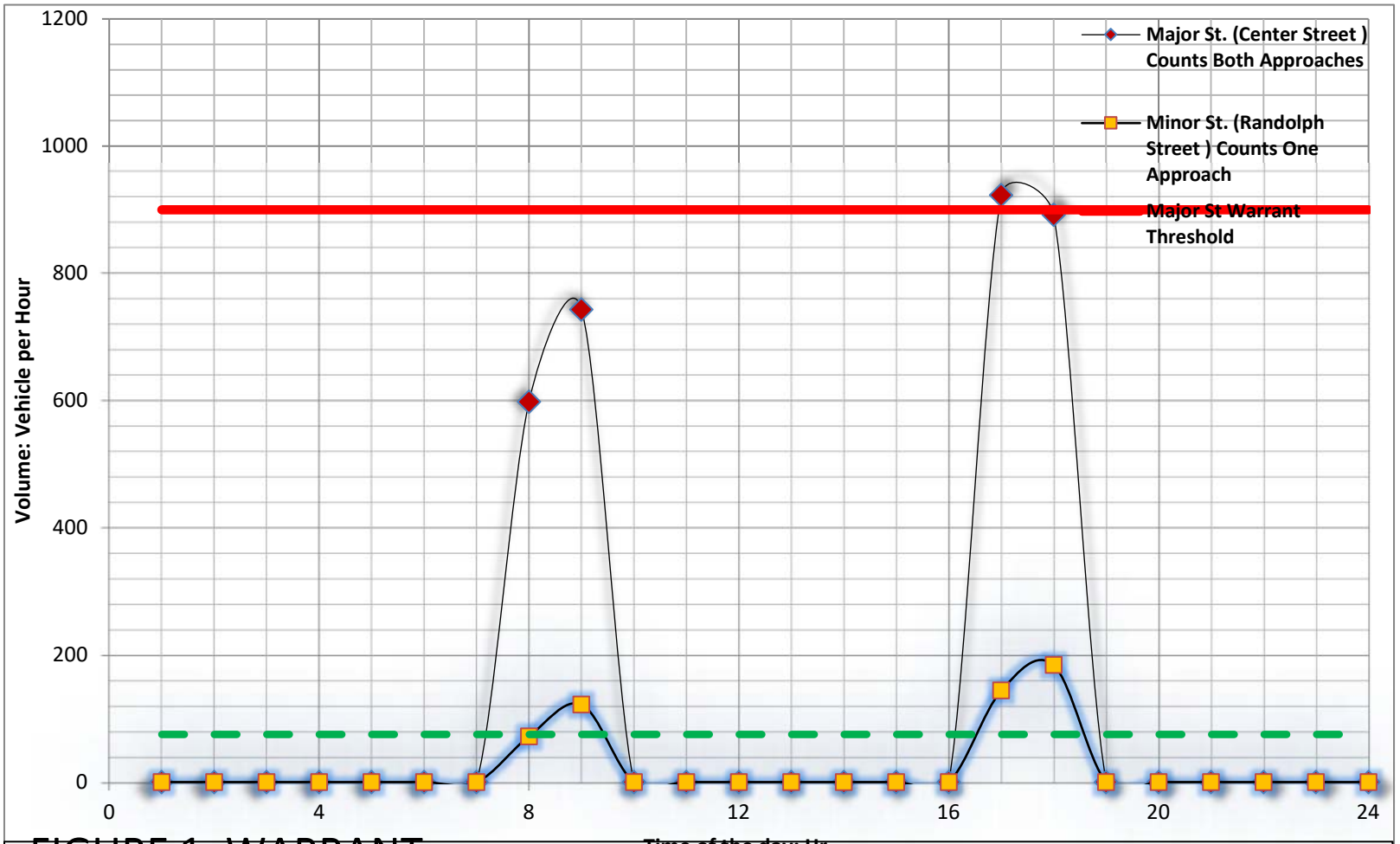


FIGURE 1: WARRANT 1B

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Existing

Center Street @ Randolph Street

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 1

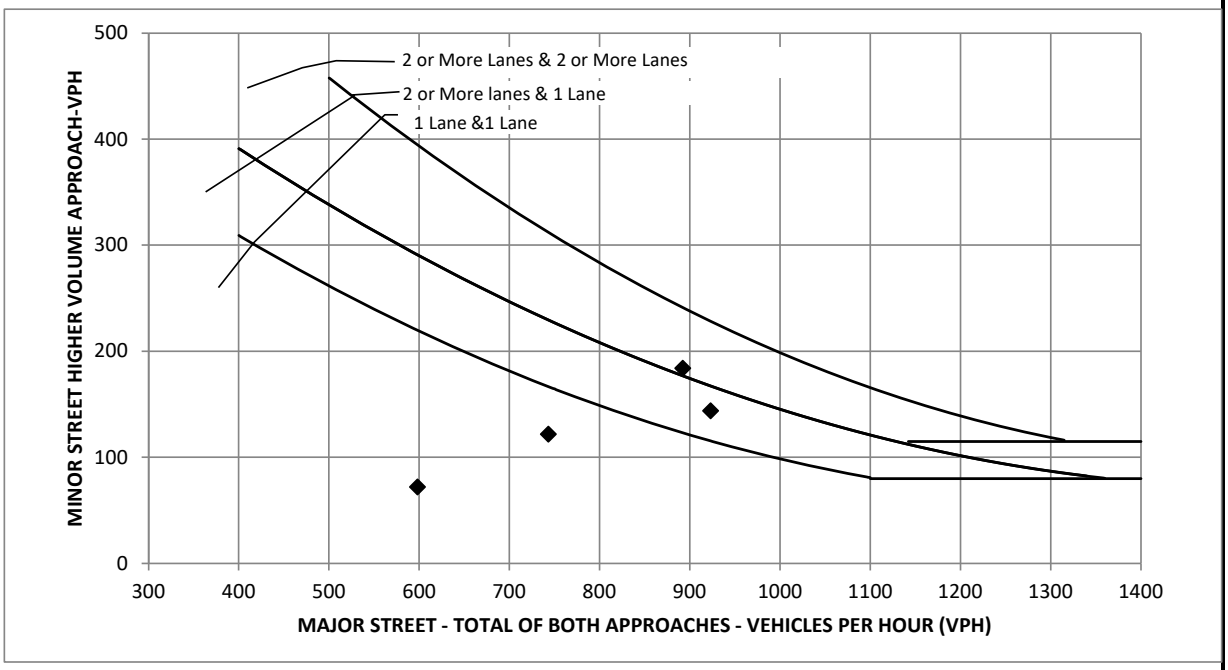
Does this intersection meet Warrant 1B for signal installation? NO

Data Collection Date: 10/19/2021

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

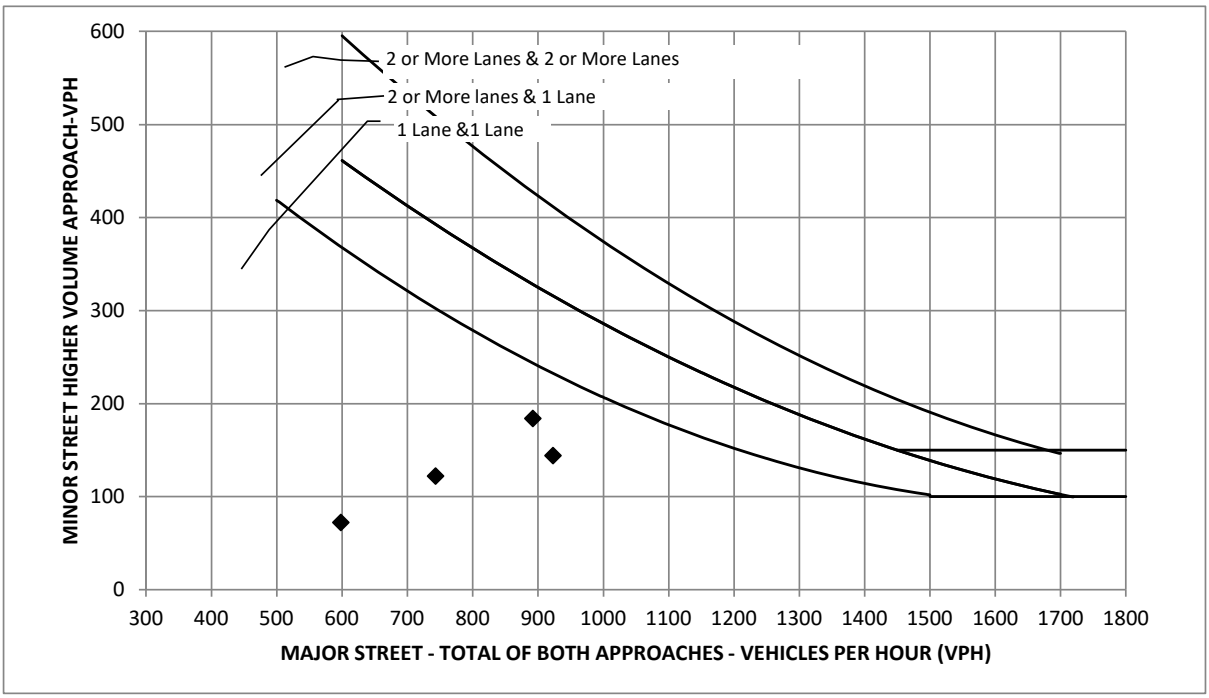


How Many Hours Are Met	**1**
Is Warrant 2 (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

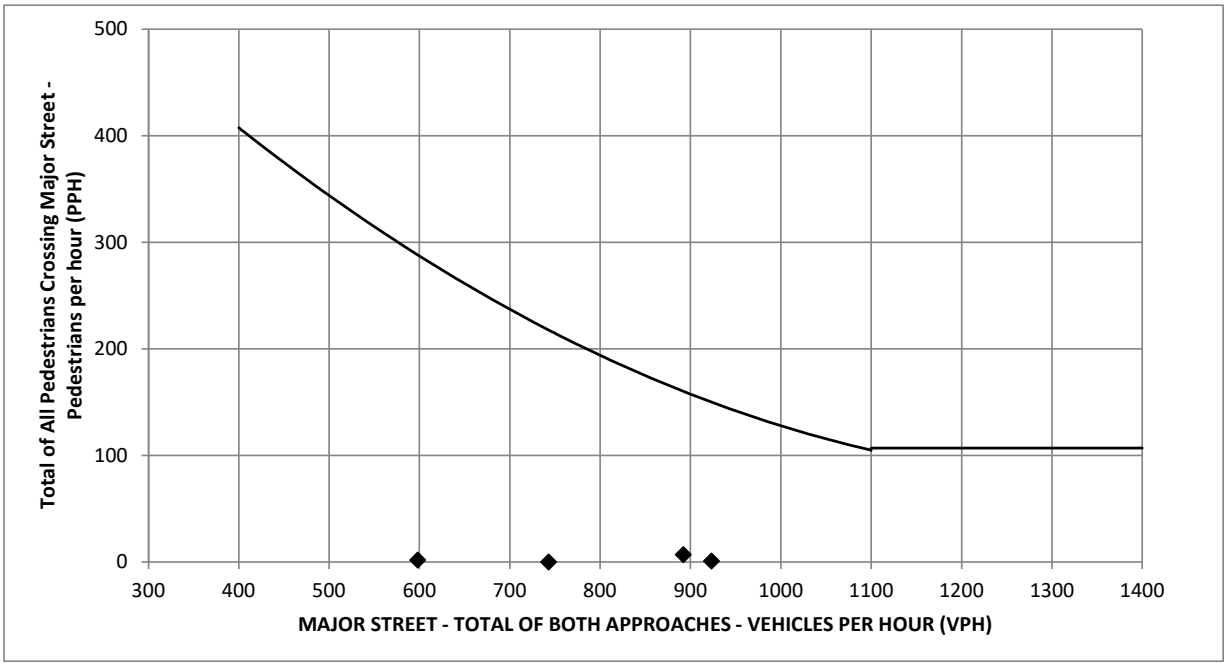


How Many Hours Are Met	**0**
Is Warrant 3 B (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 4 (100%): Four-Hour Pedestrian Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

300	**: Distance to Nearest Signal or Stop Control on Major Road**
0%	**: Percentage Reduction in Pedestrian Volumes**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**0**
Is Warrant 4 B (100%): Four Hour Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 4 (100%): Peak-Hour Pedestrian Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

300	**: Distance to Nearest Signal or Stop Control on Major Road**
0%	**: Percentage Reduction in Pedestrian Volumes**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

How Many Hours Are Met	**0**
Is Warrant 4 B (100%): Peak Hour Met?	**NO**

Summary of Warrants

Spot Number:	Scenario 1 - Existing		
Major Street:	Center Street	Minor Street:	Cady Street
Intersection:	Center Street at Cady Street		
City/Twp:	Northville, MI		
Date Performed:	1/14/2022	Performed By:	F&V
Date Volumes Collected:	5/15/2018		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**N/A**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St?**
1	**: No. of Lanes on Minor St?**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: if answer 4 is Yes, then what is the of the population isolated community?**
NO	**: Have other remedial measures been tried?**

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	**N-S**	E-W											
00:01 - 01:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
01:00 - 02:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
02:00 - 03:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
03:00 - 04:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
04:00 - 05:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
05:00 - 06:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
06:00 - 07:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
07:00 - 08:00	1037	85	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**
08:00 - 09:00	1007	58	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
09:00 - 10:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
10:00 - 11:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
11:00 - 12:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
12:00 - 13:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
13:00 - 14:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
14:00 - 15:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
15:00 - 16:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
16:00 - 17:00	1135	74	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
17:00 - 18:00	1322	88	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**
18:00 - 19:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
19:00 - 20:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
20:00 - 21:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
21:00 - 22:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
22:00 - 23:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
23:00 - 00:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**

Number of Hours that met the warrant 1A =	**0**
Number of Hours that met the warrant 1B =	**2**
Number of Hours that met the warrant 1 A & B =	**0**

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	**NO**
B. Is the Interruption of Continuous Traffic Met? (Condition B)	**NO**
C. Combination of Warrants A and B Criteria Met?	**N/A**

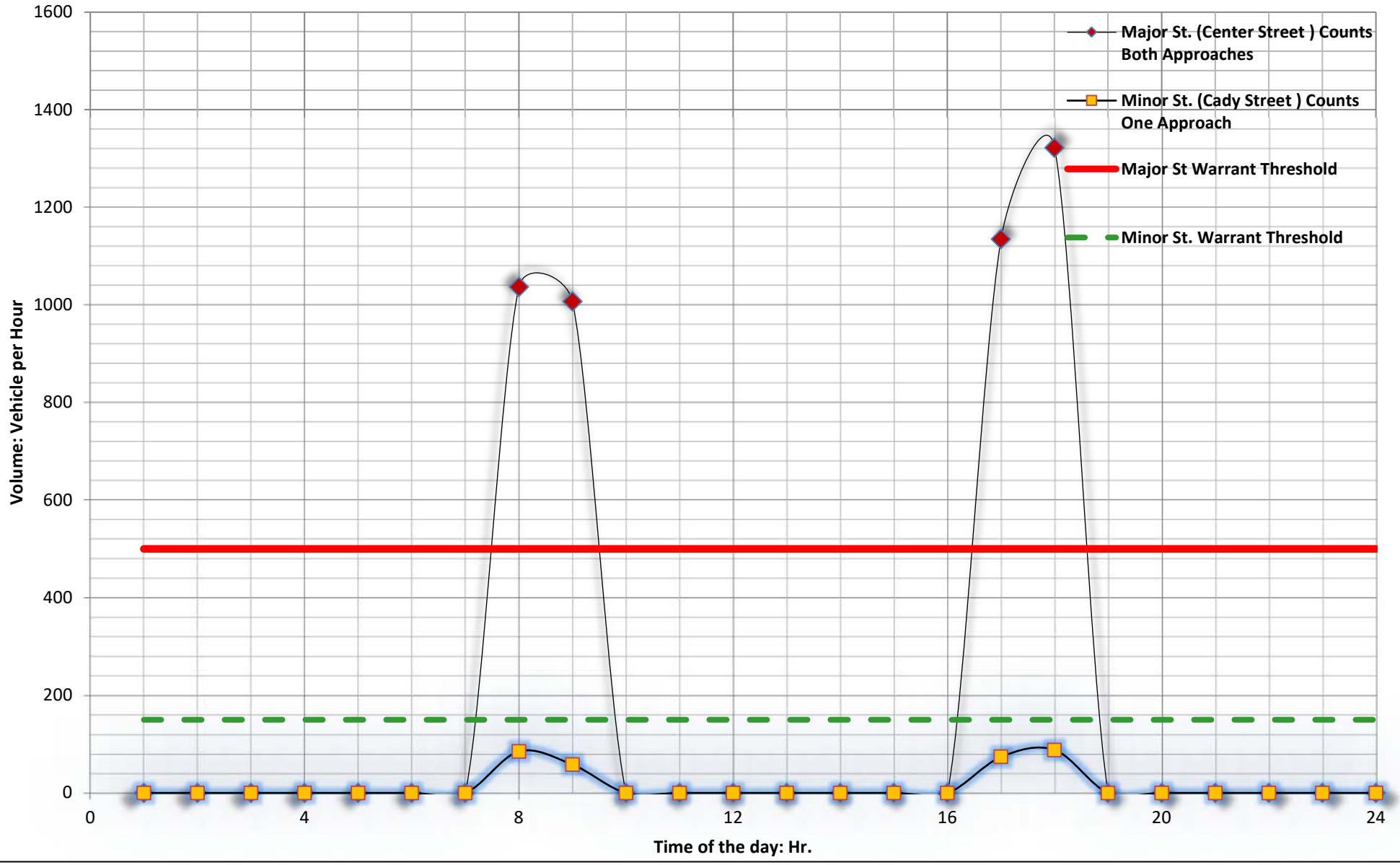


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Existing

Center Street @ Cady Street

NO. OF LANES ON MAJOR ST.? 1

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 0

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 5/15/2018

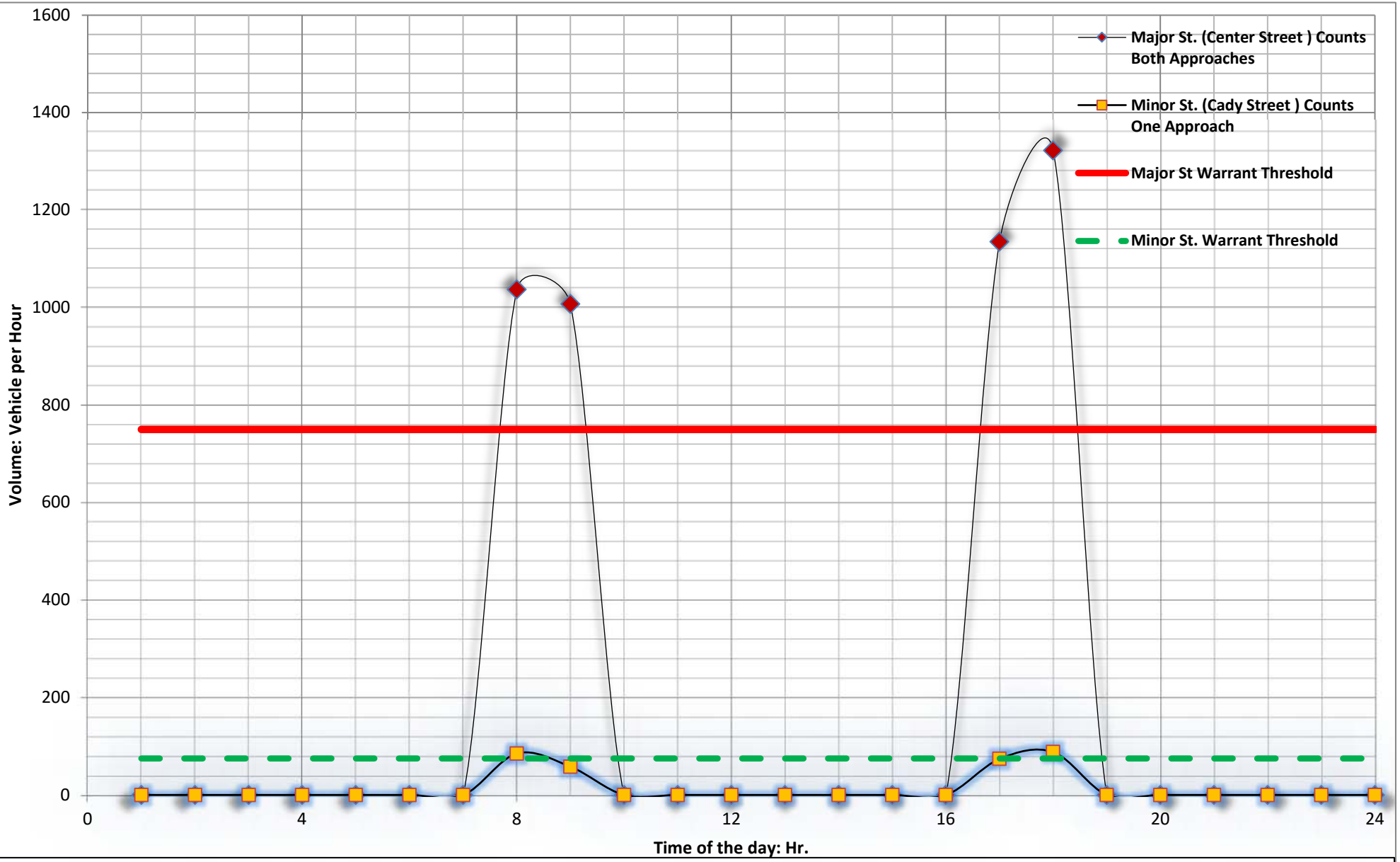


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? **NO**

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? **NO**

Spot Number: **Scenario 1 - Existing**

Center Street @ Cady Street

NO. OF LANES ON MAJOR ST.? 1

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 2

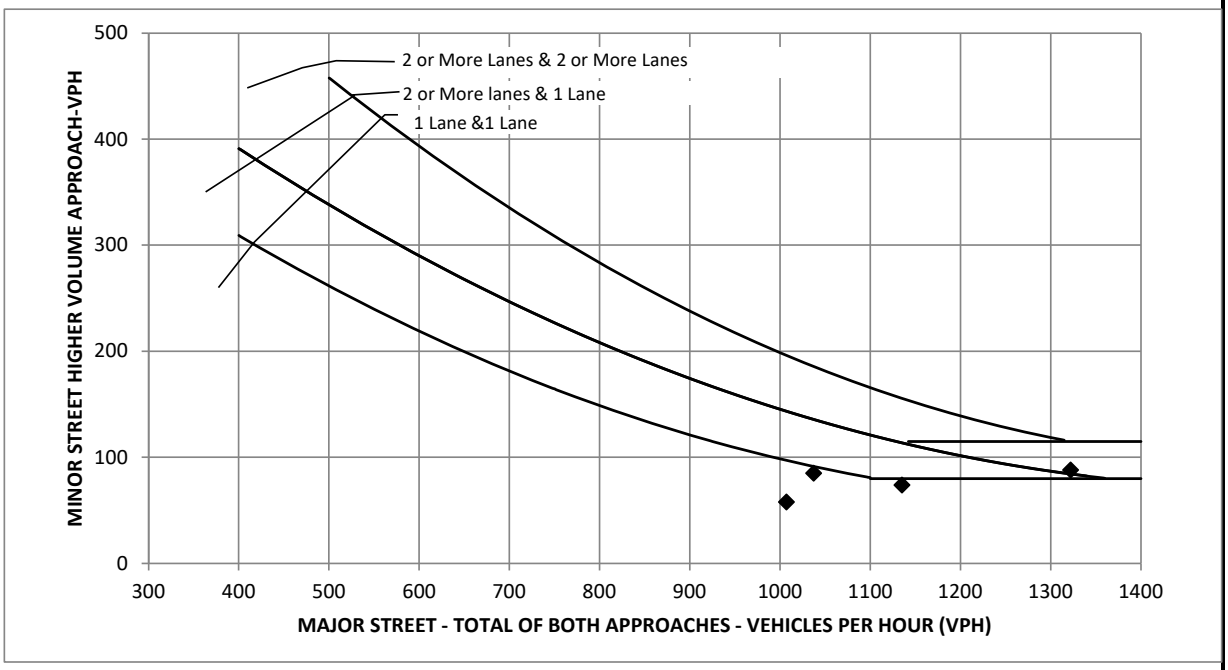
Does this intersection meet Warrant 1B for signal installation? **NO**

Data Collection Date: 5/15/2018

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

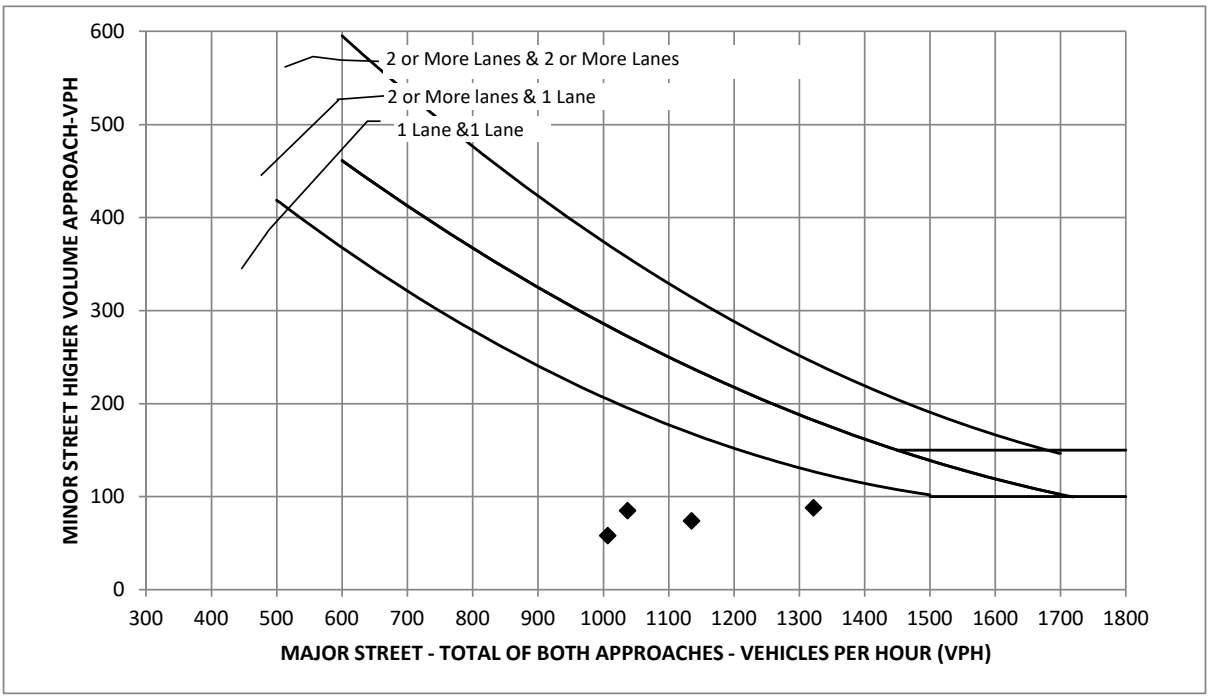


How Many Hours Are Met	**1**
Is Warrant 2 (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**0**
Is Warrant 3 B (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 4 (100%): Four-Hour Pedestrian Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

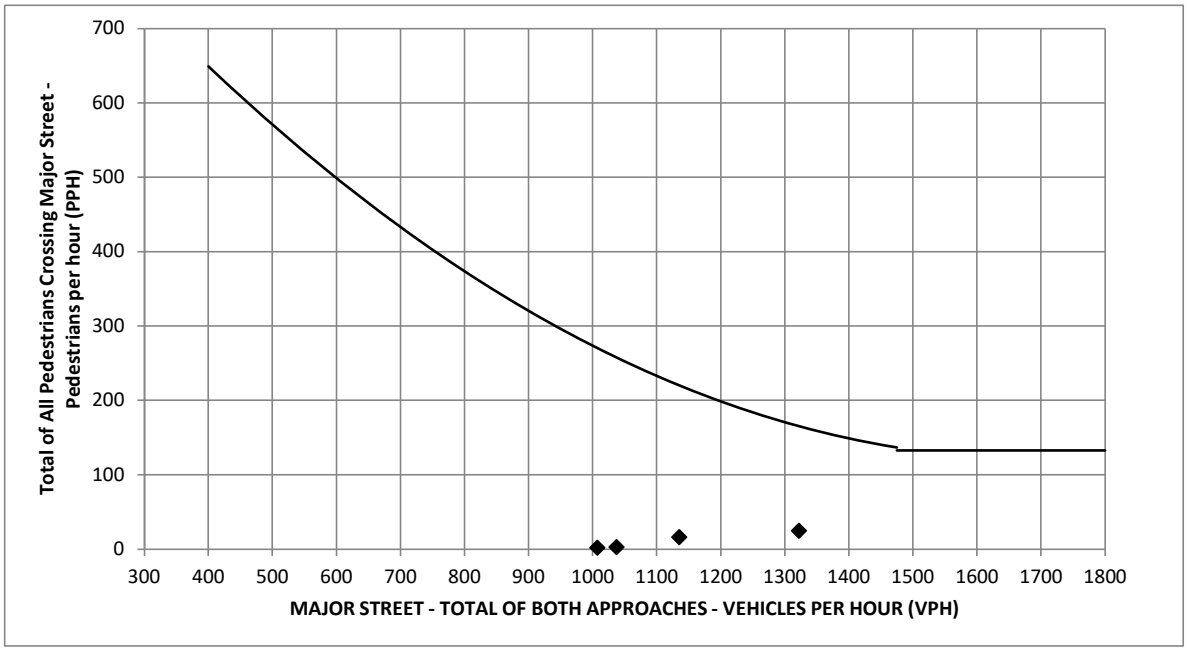
300	**: Distance to Nearest Signal or Stop Control on Major Road**
0%	**: Percentage Reduction in Pedestrian Volumes**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

How Many Hours Are Met	**0**
Is Warrant 4 B (100%): Four Hour Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 4 (100%): Peak-Hour Pedestrian Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

300	**: Distance to Nearest Signal or Stop Control on Major Road**
0%	**: Percentage Reduction in Pedestrian Volumes**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**0**
Is Warrant 4 B (100%): Peak Hour Met?	**NO**

Summary of Warrants

Spot Number:	Scenario 1 - Existing		
Major Street:	Northville Road	Minor Street:	7 Mile Road
Intersection:	Northville Road at 7 Mile Road		
City/Twp:	Northville		
Date Performed:	1/13/2022	Performed By:	FV
Date Volumes Collected:	10/18/2018		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**YES**
	Condition A	YES
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**YES**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**YES**
	Condition A	**N/A**
	Condition B	**YES**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	: No. of Lanes on Major St?
2	: No. of Lanes on Minor St?
35	: Speed limit or 85th Percentile? (MPH)
NO	: Is the intersection within an Isolated community?
0	: if answer 4 is Yes, then what is the of the population isolated community?
NO	: Have other remedial measures been tried?

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	N-S	E-W											
00:01 - 01:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
01:00 - 02:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
02:00 - 03:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
03:00 - 04:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
04:00 - 05:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
05:00 - 06:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
06:00 - 07:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
07:00 - 08:00	611	274	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
08:00 - 09:00	786	327	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
09:00 - 10:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
10:00 - 11:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
11:00 - 12:00	879	260	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
12:00 - 13:00	964	300	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
13:00 - 14:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
14:00 - 15:00	971	246	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
15:00 - 16:00	1221	281	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
16:00 - 17:00	1402	295	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
17:00 - 18:00	1622	326	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
18:00 - 19:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
19:00 - 20:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
20:00 - 21:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
21:00 - 22:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
22:00 - 23:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
23:00 - 00:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A

Number of Hours that met the warrant 1A =	8
Number of Hours that met the warrant 1B =	5
Number of Hours that met the warrant 1 A & B =	0

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	YES
B. Is the Interruption of Continuous Traffic Met? (Condition B)	NO
C. Combination of Warrants A and B Criteria Met?	N/A

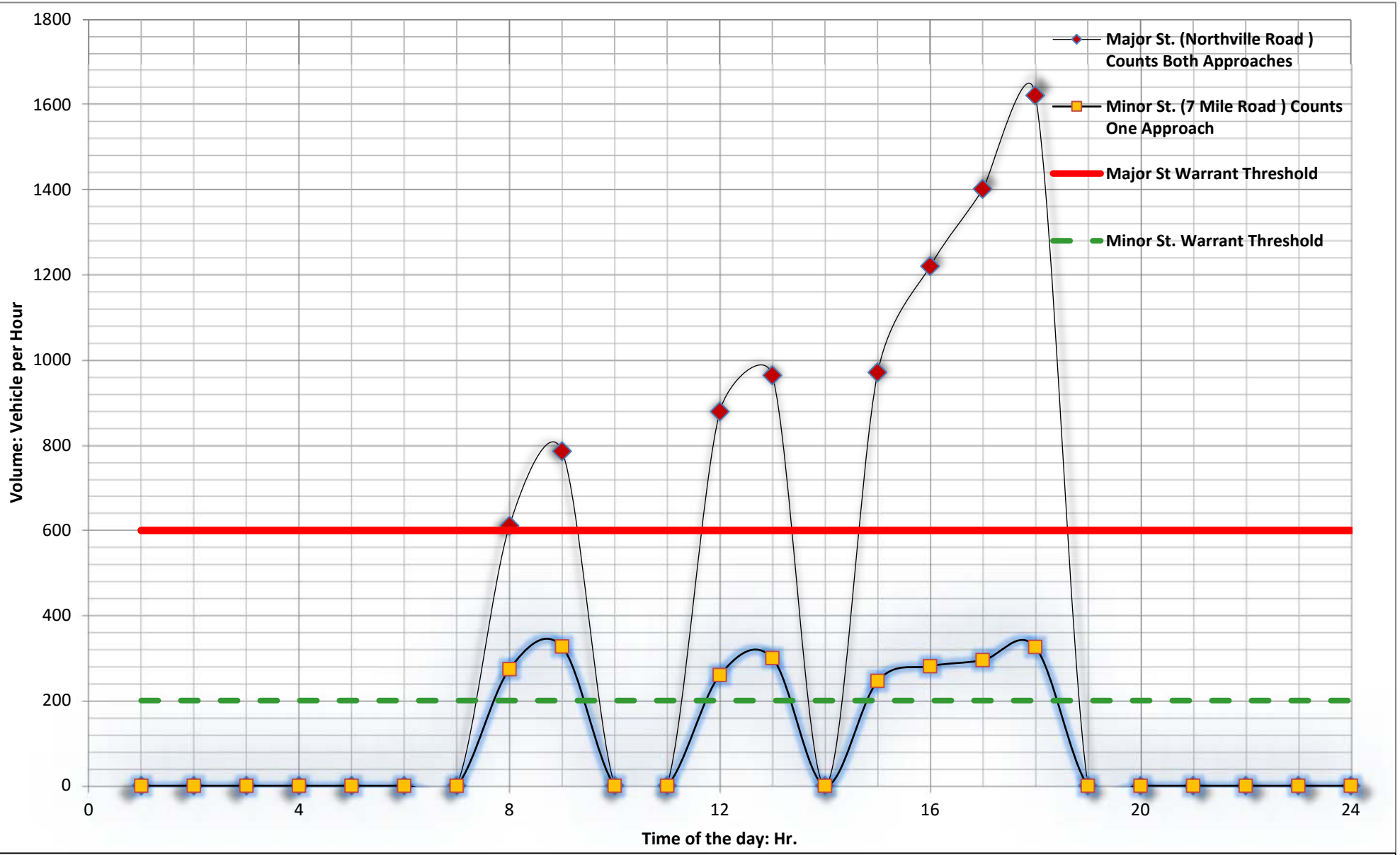


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Existing

Northville Road @ 7 Mile Road

NO. OF LANES ON MAJOR ST.? 3

NO. OF LANES ON MINOR ST.? 2

Number of Hours that met the Warrant: 8

Does this intersection meet Warrant 1A for signal installation? YES

Data Collection Date: 10/18/2018

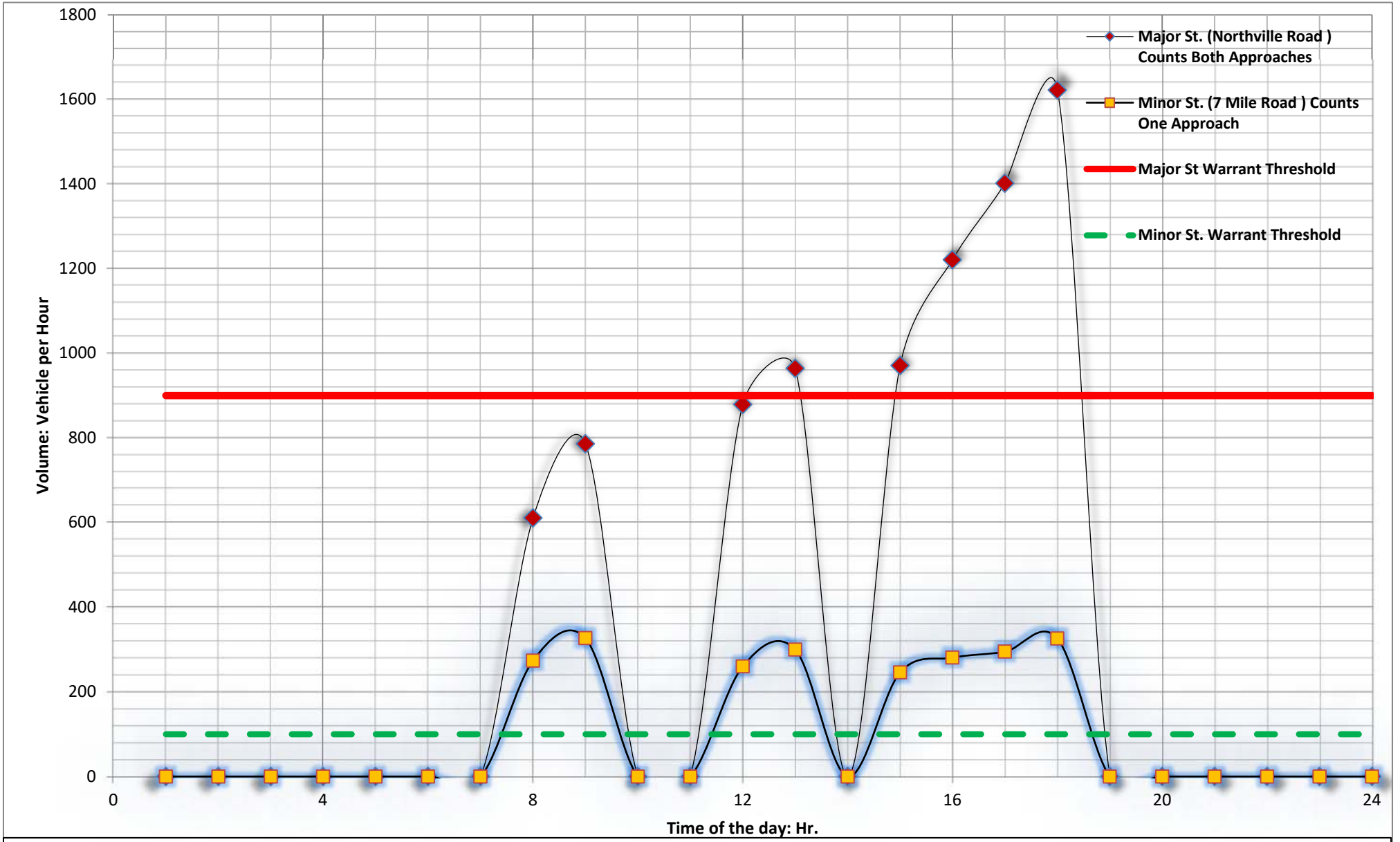


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? **NO**

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? **NO**

Spot Number: **Scenario 1 - Existing**

Northville Road @ 7 Mile Road

NO. OF LANES ON MAJOR ST.? **3**

NO. OF LANES ON MINOR ST.? **2**

Number of Hours that met the Warrant: **5**

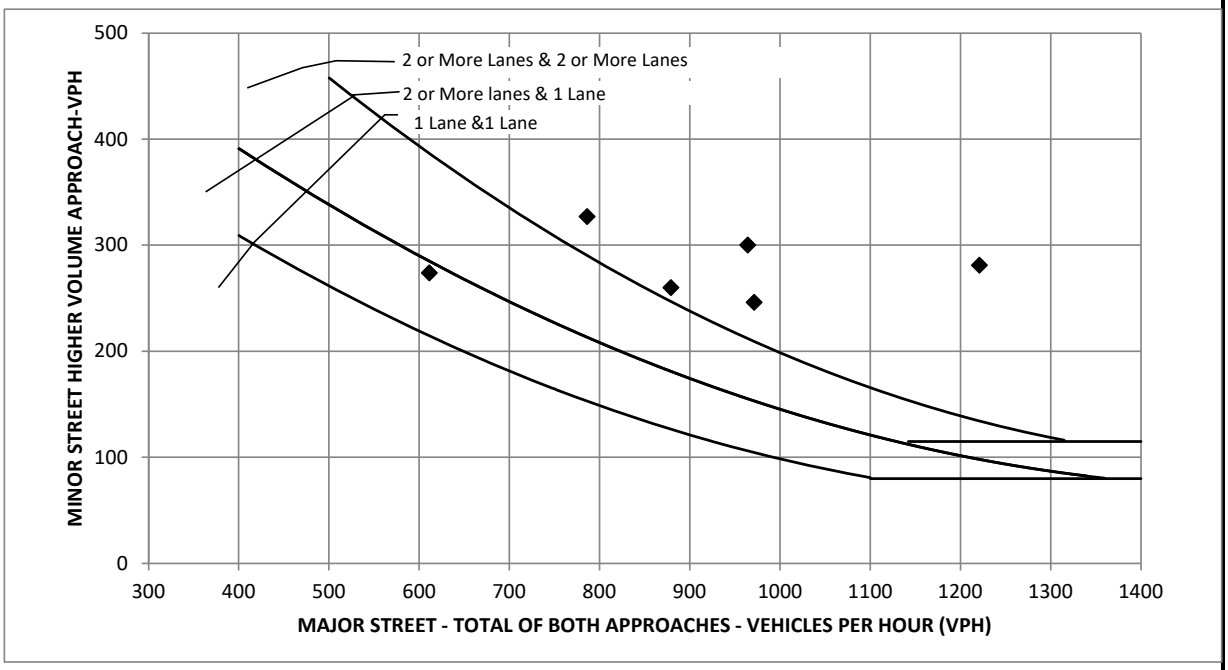
Does this intersection meet Warrant 1B for signal installation? **NO**

Data Collection Date: **10/18/2018**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

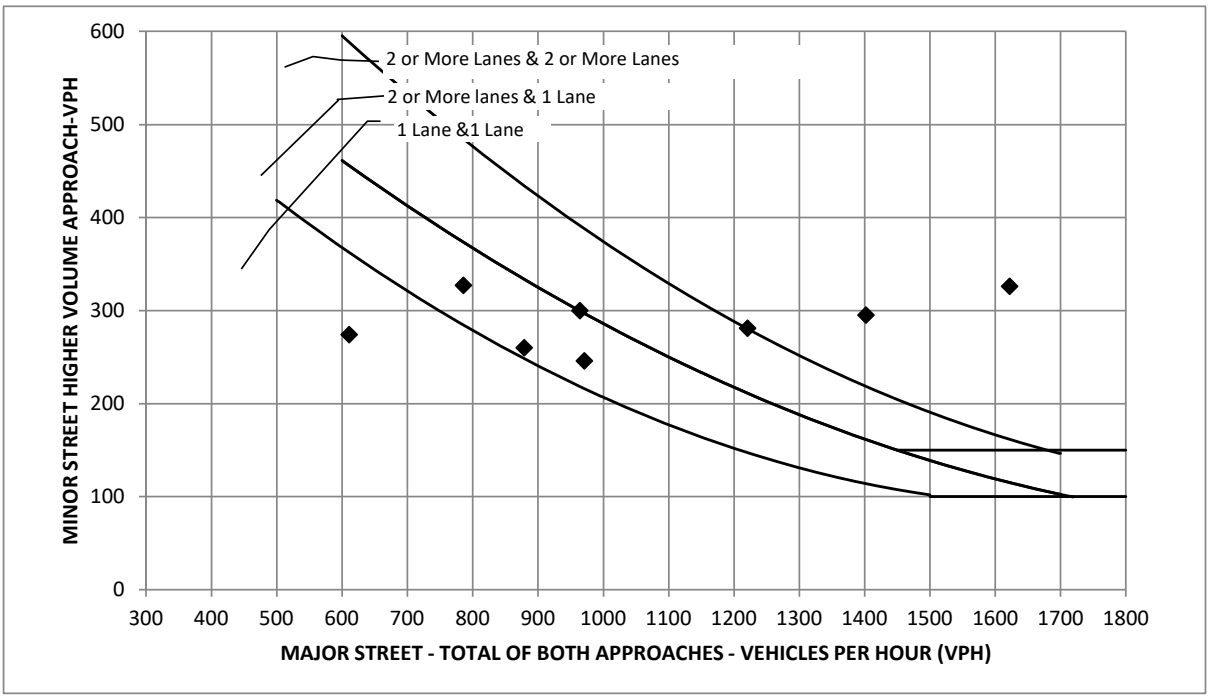


How Many Hours Are Met	**7**
Is Warrant 2 (100%) Met?	**YES**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**3**
Is Warrant 3 B (100%) Met?	**YES**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 4 (100%): Four-Hour Pedestrian Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

500	**: Distance to Nearest Signal or Stop Control on Major Road**
0%	**: Percentage Reduction in Pedestrian Volumes**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

How Many Hours Are Met	**0**
Is Warrant 4 B (100%): Four Hour Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 4 (100%): Peak-Hour Pedestrian Volume

Spot Number:	Scenario 1 - Existing		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

500	**: Distance to Nearest Signal or Stop Control on Major Road**
0%	**: Percentage Reduction in Pedestrian Volumes**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

How Many Hours Are Met	**0**
Is Warrant 4 B (100%): Peak Hour Met?	**NO**

Summary of Warrants

Spot Number:	Scenario 1 - Background		
Major Street:	Center Street	Minor Street:	Randolph Street
Intersection:	Center Street at Randolph Street		
City/Twp:	Northville		
Date Performed:	1/14/2022	Performed By:	FV
Date Volumes Collected:	10/19/2021		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**N/A**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St?**
1	**: No. of Lanes on Minor St?**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: if answer 4 is Yes, then what is the of the population isolated community?**
NO	**: Have other remedial measures been tried?**

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	**N-S**	E-W											
00:01 - 01:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
01:00 - 02:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
02:00 - 03:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
03:00 - 04:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
04:00 - 05:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
05:00 - 06:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
06:00 - 07:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
07:00 - 08:00	612	73	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
08:00 - 09:00	759	124	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
09:00 - 10:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
10:00 - 11:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
11:00 - 12:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
12:00 - 13:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
13:00 - 14:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
14:00 - 15:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
15:00 - 16:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
16:00 - 17:00	951	147	600	150	**NO**	900	75	**YES**	N/A	N/A	N/A	N/A	**N/A**
17:00 - 18:00	919	188	600	150	**YES**	900	75	**YES**	N/A	N/A	N/A	N/A	**N/A**
18:00 - 19:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
19:00 - 20:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
20:00 - 21:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
21:00 - 22:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
22:00 - 23:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
23:00 - 00:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**

Number of Hours that met the warrant 1A =	**1**
Number of Hours that met the warrant 1B =	**2**
Number of Hours that met the warrant 1 A & B =	**0**

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	**NO**
B. Is the Interruption of Continuous Traffic Met? (Condition B)	**NO**
C. Combination of Warrants A and B Criteria Met?	**N/A**

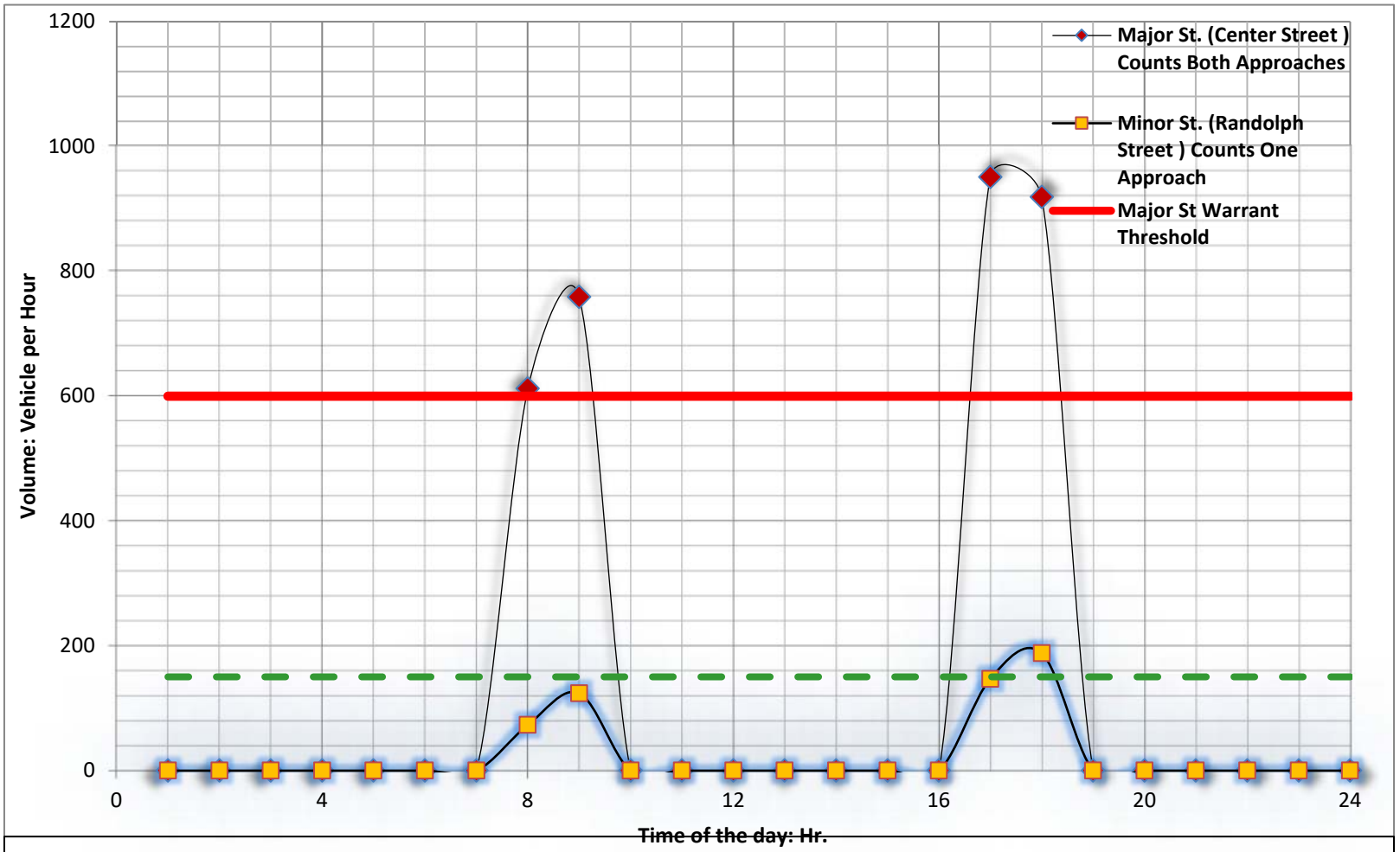


FIGURE 1: WARRANT

IS THERE A REDUCTION IN THE WARRANT
1- DUE TO SPEED? N
2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Background

Center Street @ Randolph Street

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 1

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 10/19/2021

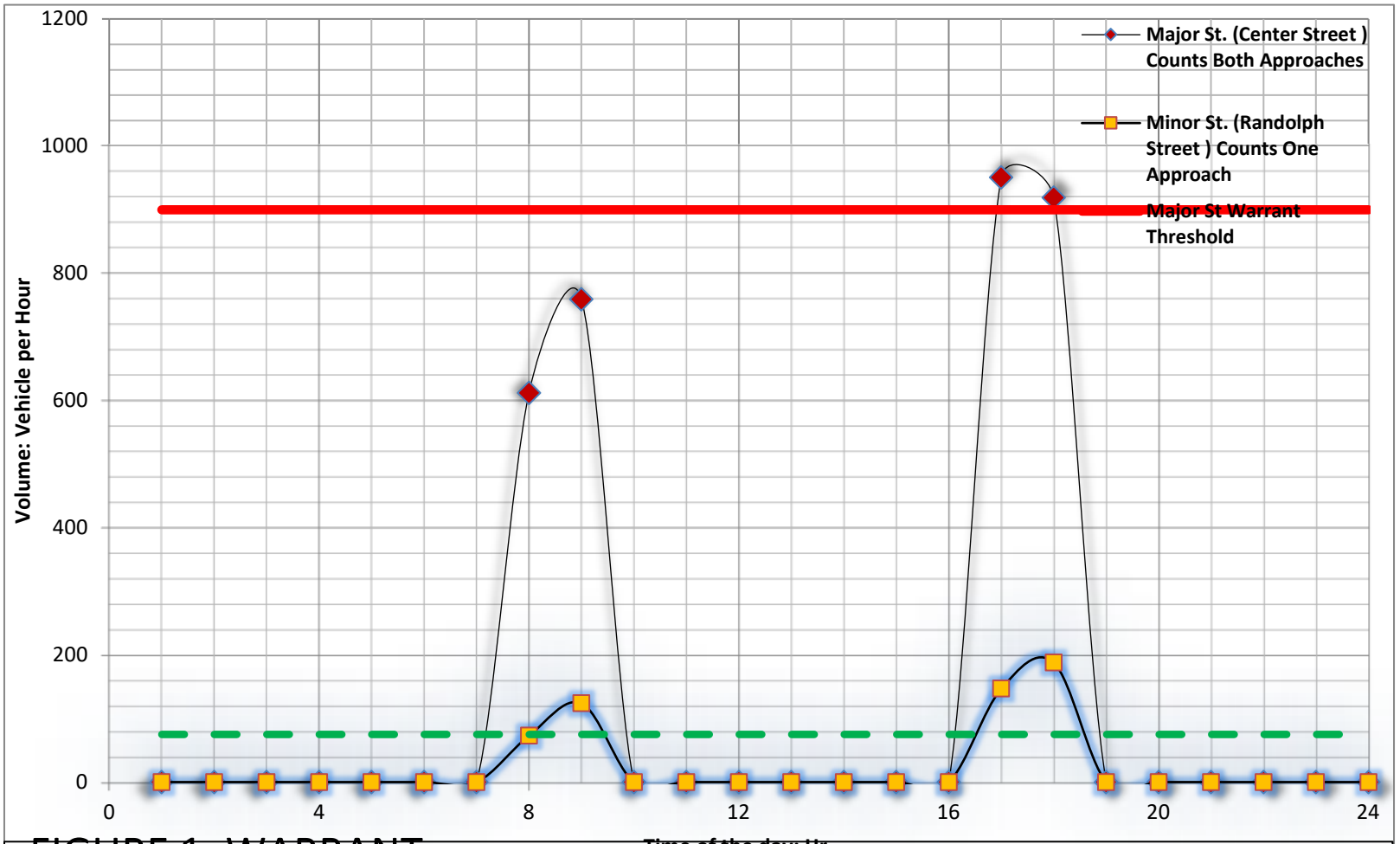


FIGURE 1: WARRANT 1B

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Background

Center Street @ Randolph Street

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 2

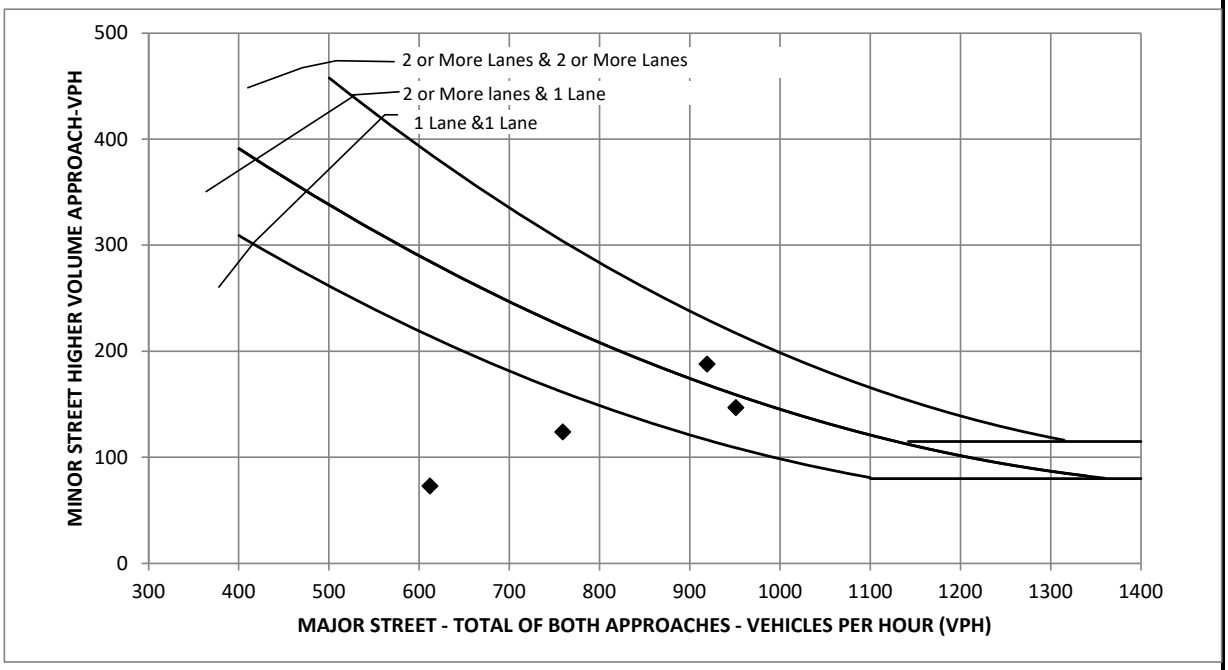
Does this intersection meet Warrant 1B for signal installation? NO

Data Collection Date: 10/19/2021

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Background		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

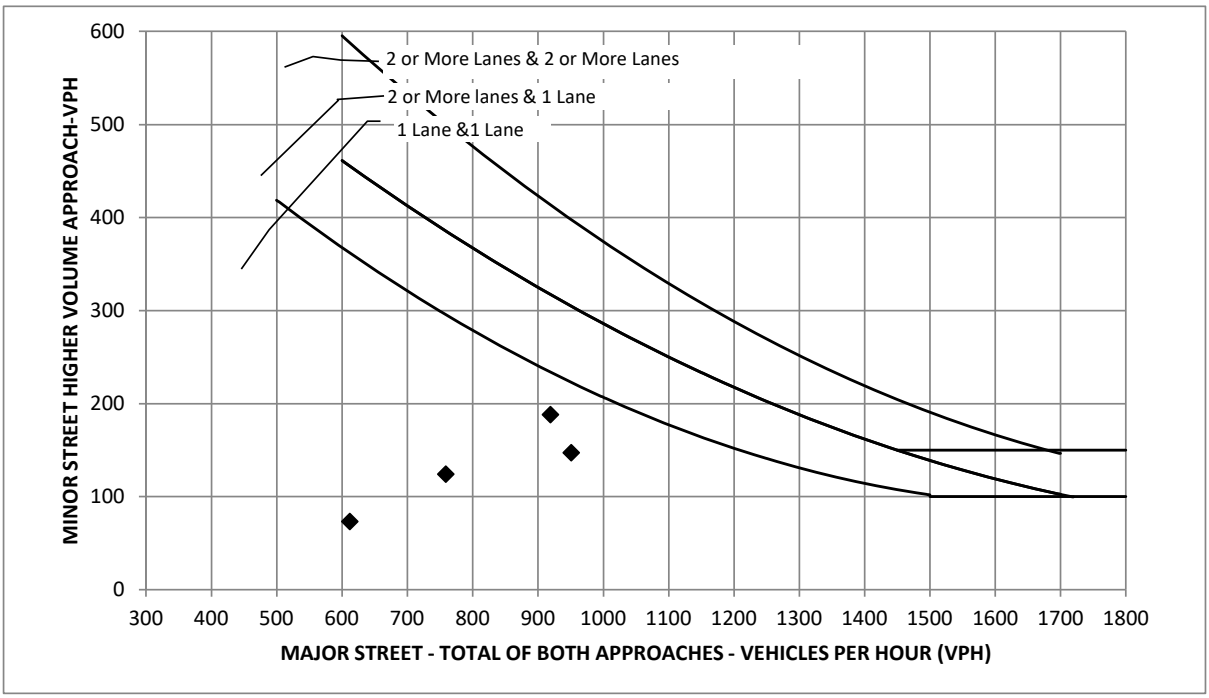


How Many Hours Are Met	**1**
Is Warrant 2 (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Background		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**0**
Is Warrant 3 B (100%) Met?	**NO**

Summary of Warrants

Spot Number:	Scenario 1 - Background		
Major Street:	Center Street	Minor Street:	Cady Street
Intersection:	Center Street at Cady Street		
City/Twp:	Northville, MI		
Date Performed:	1/14/2022	Performed By:	F&V
Date Volumes Collected:	5/15/2018		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**N/A**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St?**
1	**: No. of Lanes on Minor St?**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: if answer 4 is Yes, then what is the of the population isolated community?**
NO	**: Have other remedial measures been tried?**

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?	
Time	**N-S**	E-W												
00:01 - 01:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
01:00 - 02:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
02:00 - 03:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
03:00 - 04:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
04:00 - 05:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
05:00 - 06:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
06:00 - 07:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
07:00 - 08:00	1056	88	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**	
08:00 - 09:00	1027	61	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
09:00 - 10:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
10:00 - 11:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
11:00 - 12:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
12:00 - 13:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
13:00 - 14:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
14:00 - 15:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
15:00 - 16:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
16:00 - 17:00	1159	81	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**	
17:00 - 18:00	1348	95	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**	
18:00 - 19:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
19:00 - 20:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
20:00 - 21:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
21:00 - 22:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
22:00 - 23:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
23:00 - 00:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	

Number of Hours that met the warrant 1A =	**0**
Number of Hours that met the warrant 1B =	**3**
Number of Hours that met the warrant 1 A & B =	**0**

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	**NO**
B. Is the Interruption of Continuous Traffic Met? (Condition B)	**NO**
C. Combination of Warrants A and B Criteria Met?	**N/A**

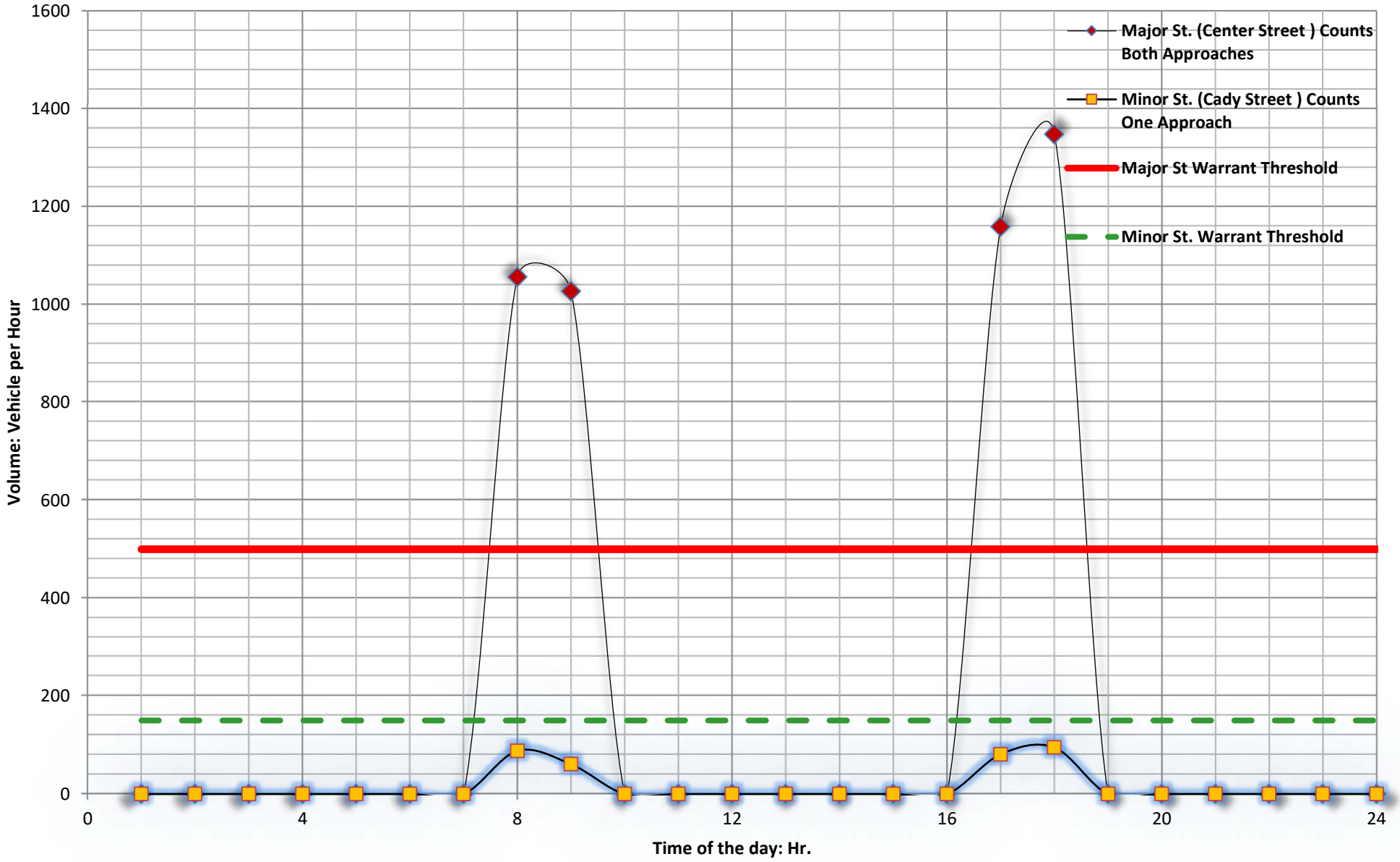


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Background

Center Street @ Cady Street

NO. OF LANES ON MAJOR ST.? 1

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 0

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 5/15/2018

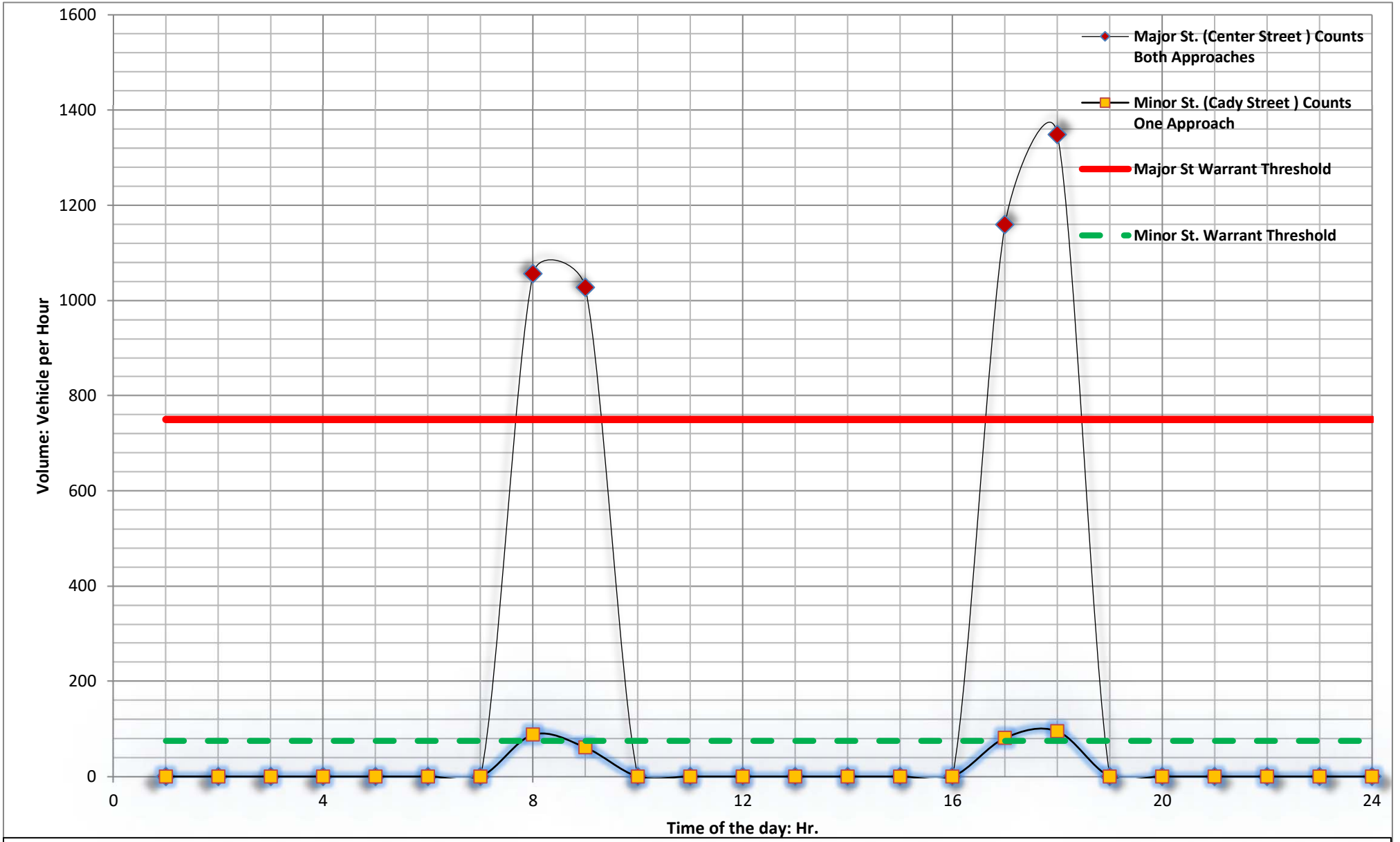


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? **NO**

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? **NO**

Spot Number: **Scenario 1 - Background**

Center Street @ Cady Street

NO. OF LANES ON MAJOR ST.? **1**

NO. OF LANES ON MINOR ST.? **1**

Number of Hours that met the Warrant: **3**

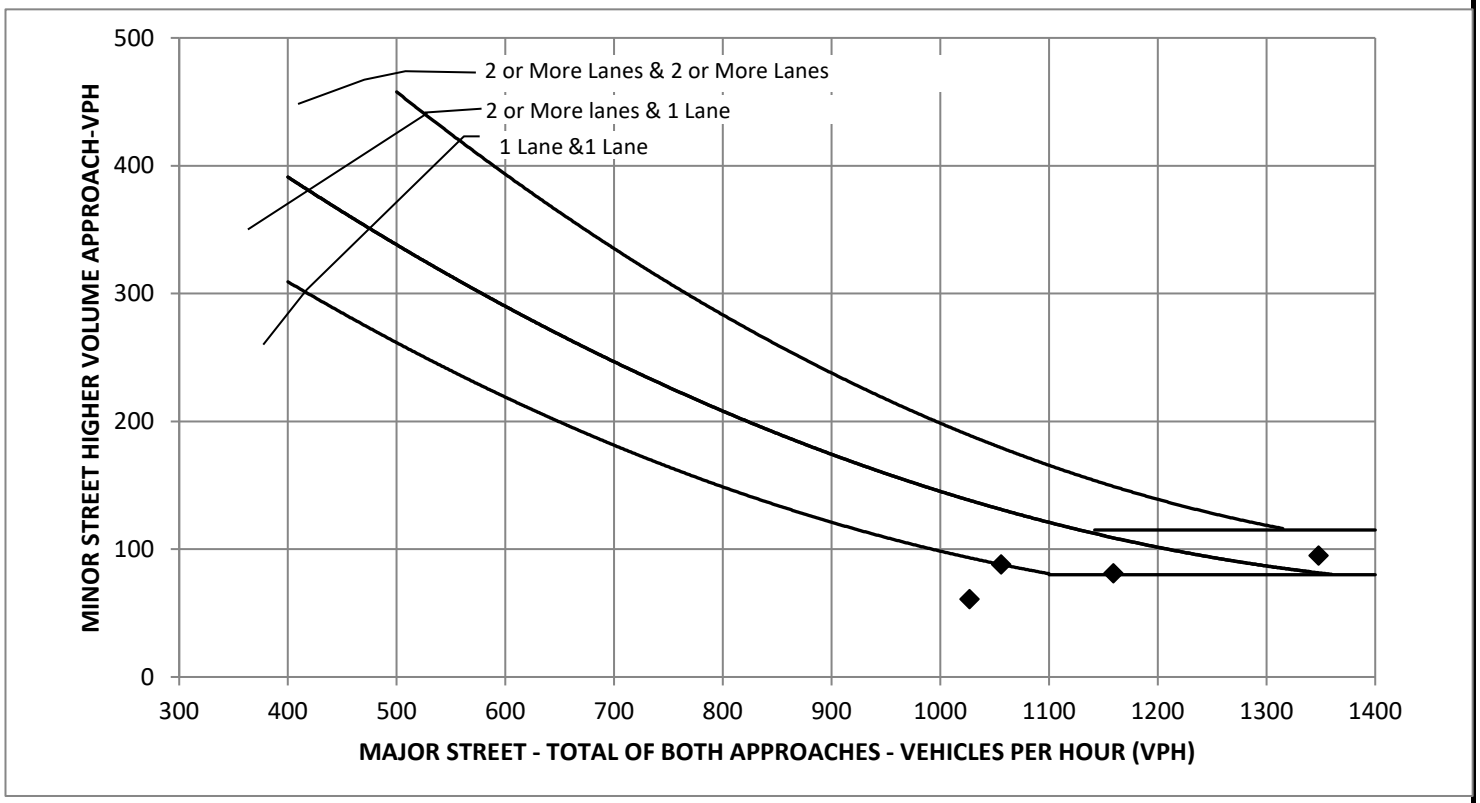
Does this intersection meet Warrant 1B for signal installation? **NO**

Data Collection Date: **5/15/2018**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Background		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

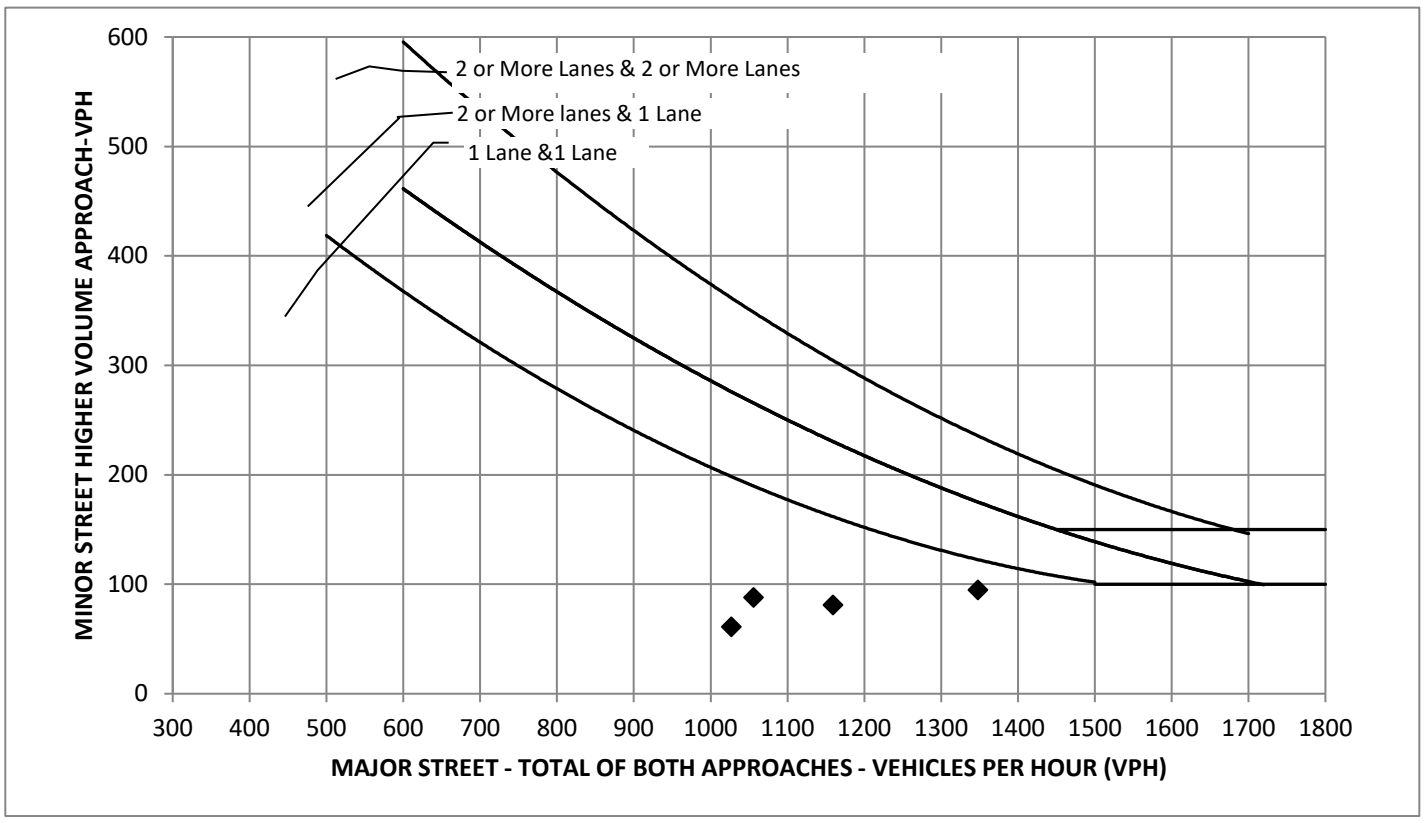


How Many Hours Are Met	**3**
Is Warrant 2 (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Background		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**0**
Is Warrant 3 B (100%) Met?	**NO**

Summary of Warrants

Spot Number:	Scenario 1 - Background		
Major Street:	Northville Road	Minor Street:	7 Mile Road
Intersection:	Northville Road at 7 Mile Road		
City/Twp:	Northville		
Date Performed:	1/13/2022	Performed By:	FV
Date Volumes Collected:	10/18/2018		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**YES**
	Condition A	YES
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**YES**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**YES**
	Condition A	**N/A**
	Condition B	**YES**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	: No. of Lanes on Major St?
2	: No. of Lanes on Minor St?
35	: Speed limit or 85th Percentile? (MPH)
NO	: Is the intersection within an Isolated community?
0	: if answer 4 is Yes, then what is the of the population isolated community?
NO	: Have other remedial measures been tried?

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	N-S	E-W											
00:01 - 01:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
01:00 - 02:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
02:00 - 03:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
03:00 - 04:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
04:00 - 05:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
05:00 - 06:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
06:00 - 07:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
07:00 - 08:00	642	277	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
08:00 - 09:00	818	332	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
09:00 - 10:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
10:00 - 11:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
11:00 - 12:00	892	263	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
12:00 - 13:00	978	304	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
13:00 - 14:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
14:00 - 15:00	986	250	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
15:00 - 16:00	1237	285	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
16:00 - 17:00	1485	299	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
17:00 - 18:00	1709	331	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
18:00 - 19:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
19:00 - 20:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
20:00 - 21:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
21:00 - 22:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
22:00 - 23:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
23:00 - 00:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A

Number of Hours that met the warrant 1A =	8
Number of Hours that met the warrant 1B =	5
Number of Hours that met the warrant 1 A & B =	0

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	YES
B. Is the Interruption of Continuous Traffic Met? (Condition B)	NO
C. Combination of Warrants A and B Criteria Met?	N/A

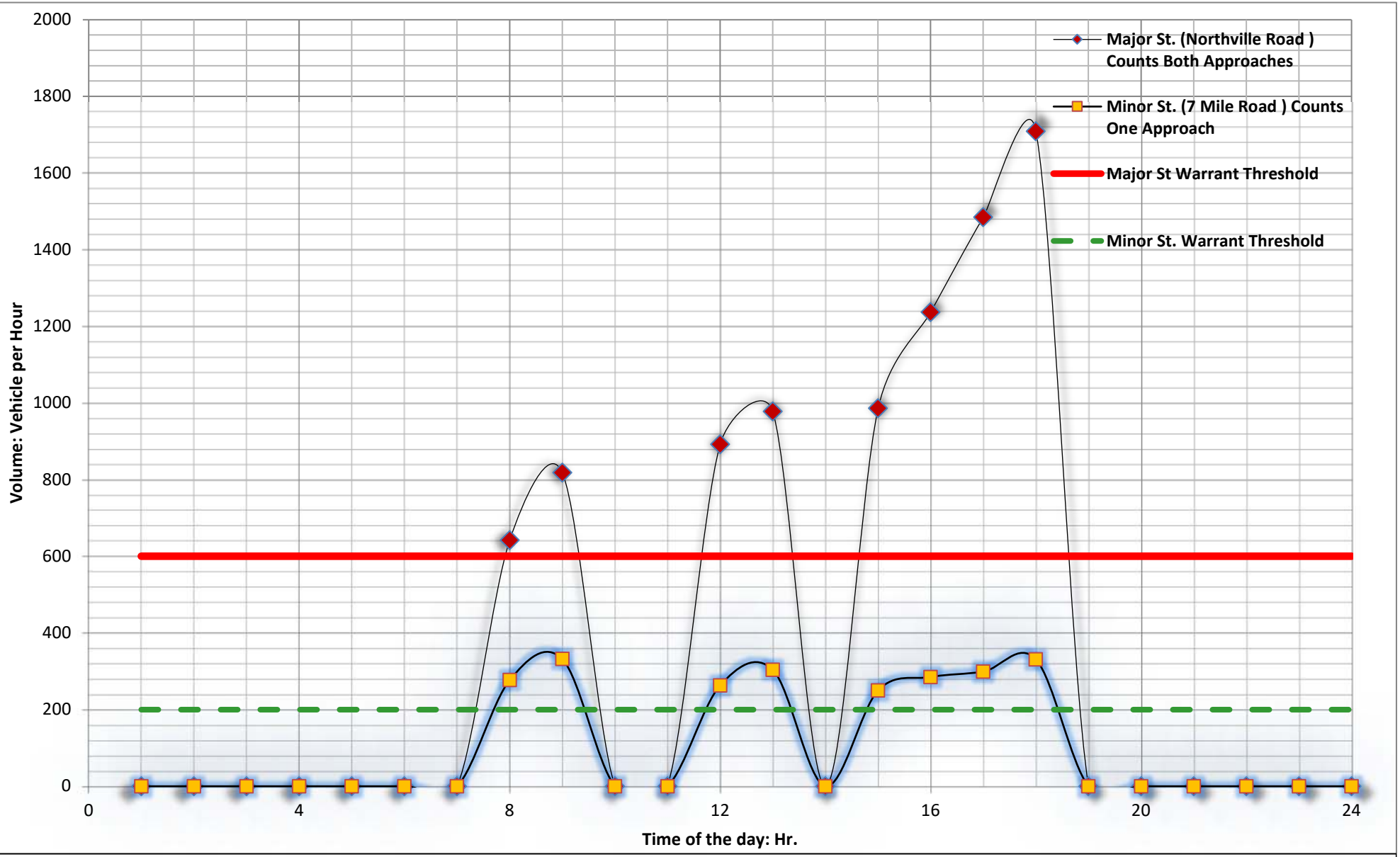


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Background

Northville Road @ 7 Mile Road

NO. OF LANES ON MAJOR ST.? 3

NO. OF LANES ON MINOR ST.? 2

Number of Hours that met the Warrant: 8

Does this intersection meet Warrant 1A for signal installation? YES

Data Collection Date: 10/18/2018

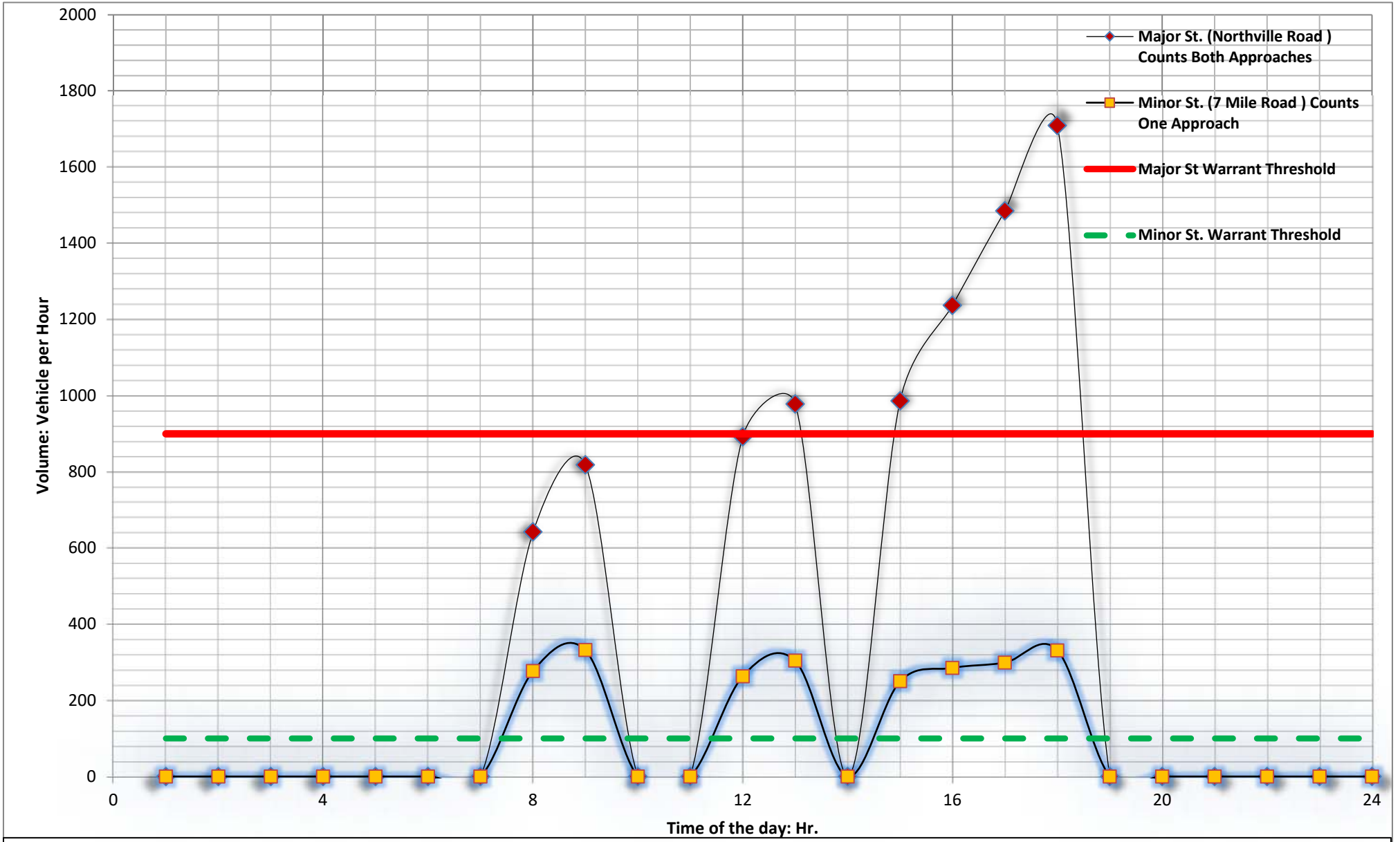


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? **NO**

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? **NO**

Spot Number: **Scenario 1 - Background**

Northville Road @ 7 Mile Road

NO. OF LANES ON MAJOR ST.? **3**

NO. OF LANES ON MINOR ST.? **2**

Number of Hours that met the Warrant: **5**

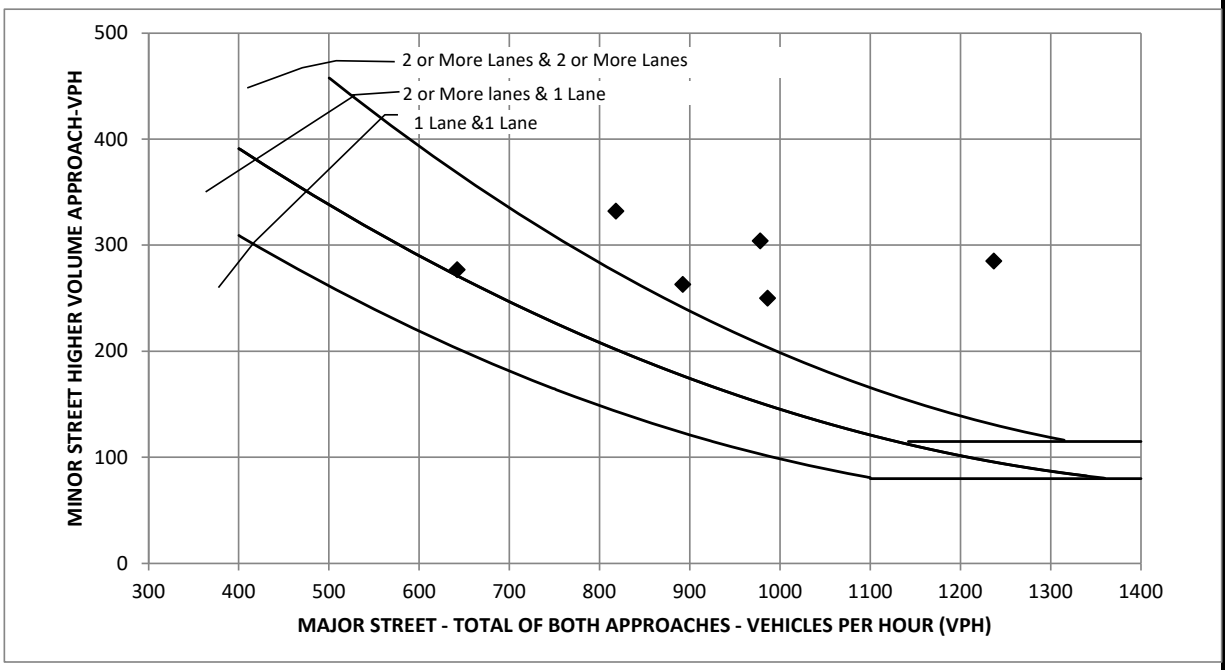
Does this intersection meet Warrant 1B for signal installation? **NO**

Data Collection Date: **10/18/2018**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Background		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

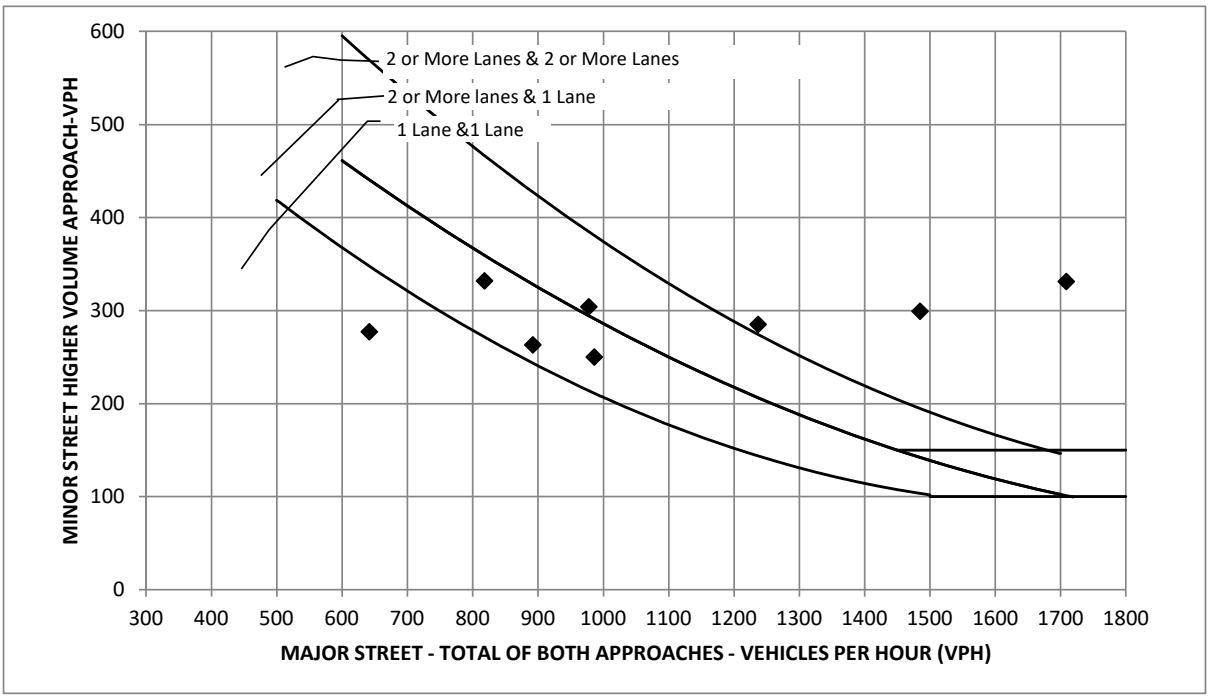


How Many Hours Are Met	**7**
Is Warrant 2 (100%) Met?	**YES**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Background		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**3**
Is Warrant 3 B (100%) Met?	**YES**

Summary of Warrants

Spot Number:	Scenario 1 - Future		
Major Street:	Center Street	Minor Street:	Randolph Street
Intersection:	Center Street at Randolph Street		
City/Twp:	Northville		
Date Performed:	1/14/2022	Performed By:	FV
Date Volumes Collected:	10/19/2021		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**N/A**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St?**
1	**: No. of Lanes on Minor St?**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: if answer 4 is Yes, then what is the of the population isolated community?**
NO	**: Have other remedial measures been tried?**

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	**N-S**	E-W											
00:01 - 01:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
01:00 - 02:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
02:00 - 03:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
03:00 - 04:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
04:00 - 05:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
05:00 - 06:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
06:00 - 07:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
07:00 - 08:00	649	75	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
08:00 - 09:00	796	126	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
09:00 - 10:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
10:00 - 11:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
11:00 - 12:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
12:00 - 13:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
13:00 - 14:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
14:00 - 15:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
15:00 - 16:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
16:00 - 17:00	987	153	600	150	**YES**	900	75	**YES**	N/A	N/A	N/A	N/A	**N/A**
17:00 - 18:00	955	194	600	150	**YES**	900	75	**YES**	N/A	N/A	N/A	N/A	**N/A**
18:00 - 19:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
19:00 - 20:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
20:00 - 21:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
21:00 - 22:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
22:00 - 23:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**
23:00 - 00:00	0	0	600	150	**NO**	900	75	**NO**	N/A	N/A	N/A	N/A	**N/A**

Number of Hours that met the warrant 1A =	**2**
Number of Hours that met the warrant 1B =	**2**
Number of Hours that met the warrant 1 A & B =	**0**

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	**NO**
B. Is the Interruption of Continuous Traffic Met? (Condition B)	**NO**
C. Combination of Warrants A and B Criteria Met?	**N/A**

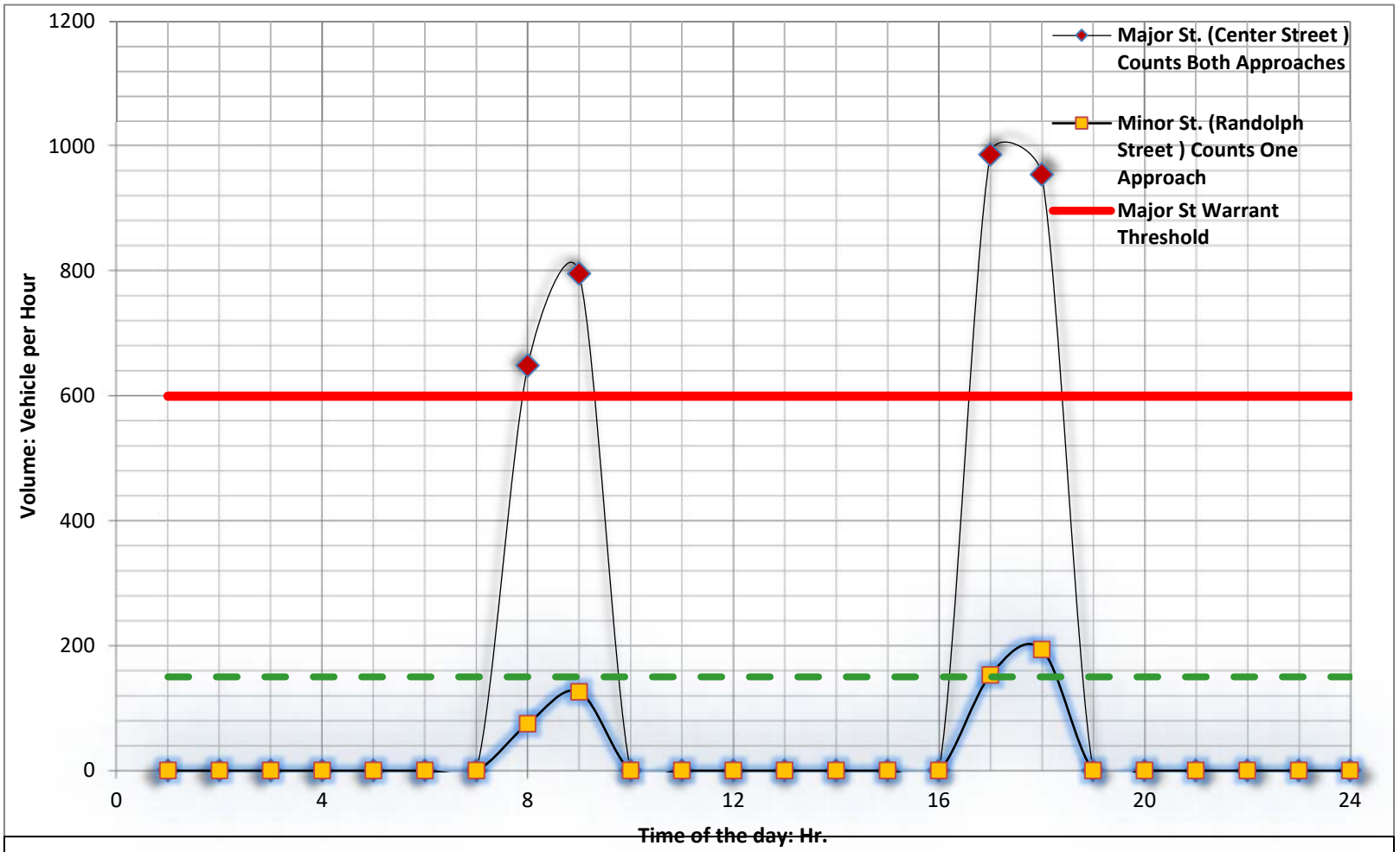


FIGURE 1: WARRANT

IS THERE A REDUCTION IN THE WARRANT
1- DUE TO SPEED? N
2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Future

Center Street @ Randolph Street

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 2

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 10/19/2021

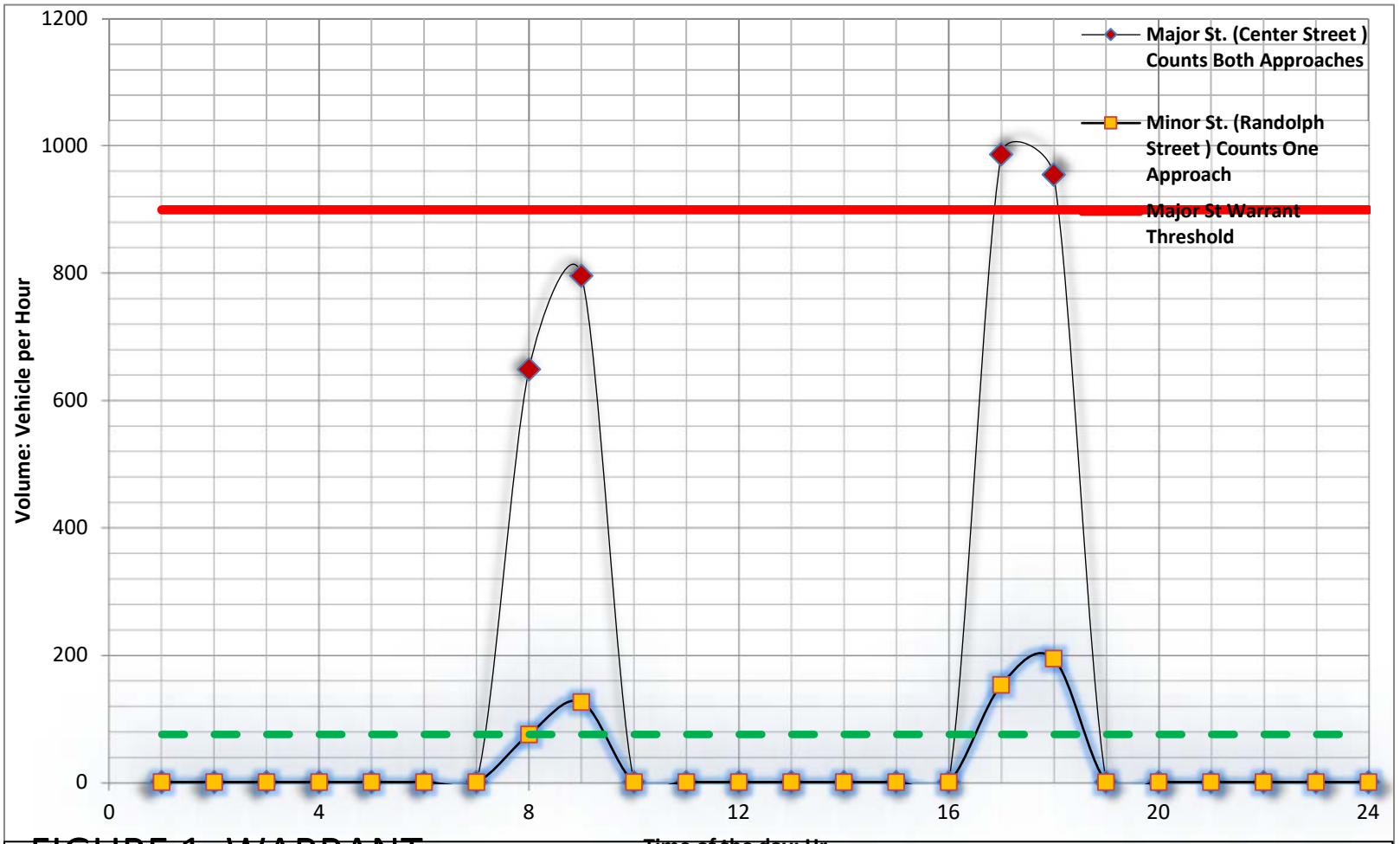


FIGURE 1: WARRANT 1B

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Future

Center Street @ Randolph Street

NO. OF LANES ON MAJOR ST.? 2

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 2

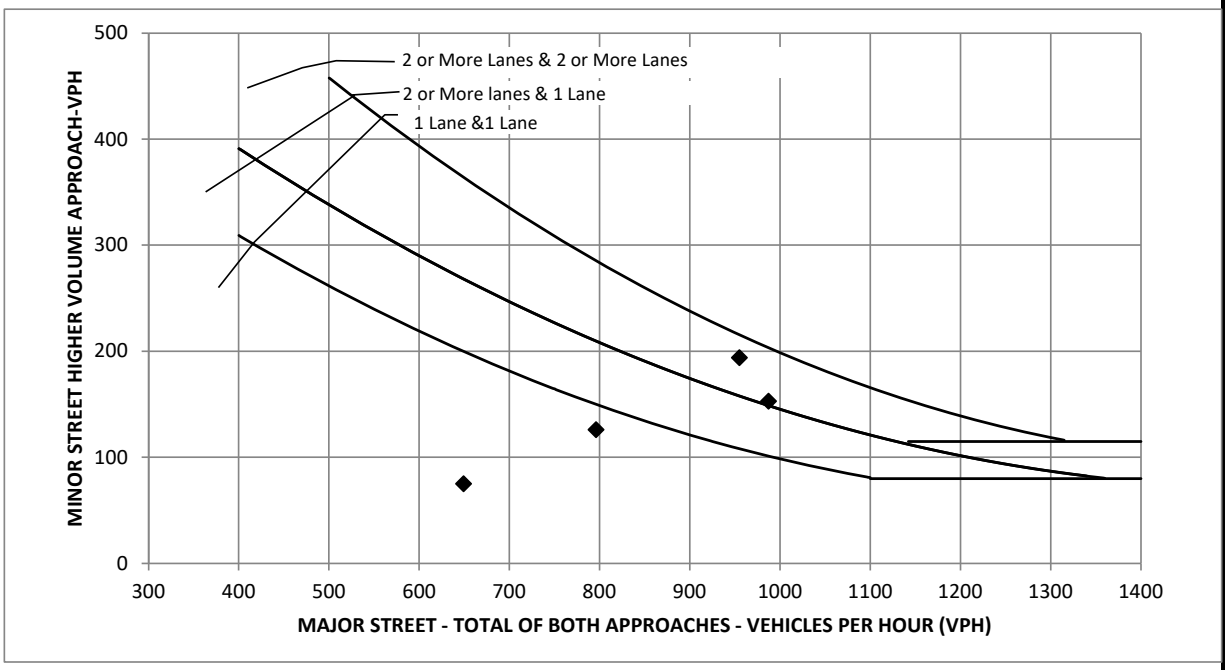
Does this intersection meet Warrant 1B for signal installation? NO

Data Collection Date: 10/19/2021

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Future		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

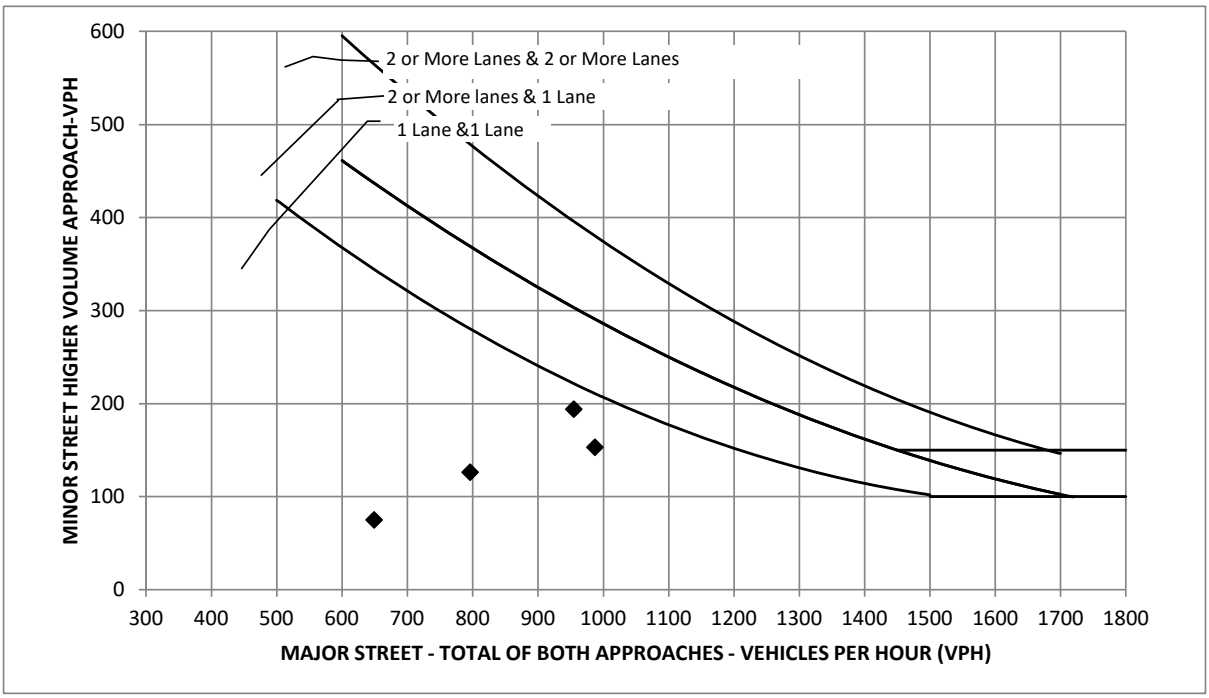


How Many Hours Are Met	**2**
Is Warrant 2 (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Future		
Intersection:	Center Street @ Randolph Street		
Date	1/14/2022	by	FV

2	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**0**
Is Warrant 3 B (100%) Met?	**NO**

Summary of Warrants

Spot Number:	Scenario 1 - Future		
Major Street:	Center Street	Minor Street:	Cady Street
Intersection:	Center Street at Cady Street		
City/Twp:	Northville, MI		
Date Performed:	1/14/2022	Performed By:	F&V
Date Volumes Collected:	5/15/2018		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**NO**
	Condition A	NO
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**NO**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**NO**
	Condition A	**N/A**
	Condition B	**NO**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St?**
1	**: No. of Lanes on Minor St?**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: if answer 4 is Yes, then what is the of the population isolated community?**
NO	**: Have other remedial measures been tried?**

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?	
Time	**N-S**	E-W												
00:01 - 01:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
01:00 - 02:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
02:00 - 03:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
03:00 - 04:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
04:00 - 05:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
05:00 - 06:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
06:00 - 07:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
07:00 - 08:00	1092	90	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**	
08:00 - 09:00	1063	63	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
09:00 - 10:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
10:00 - 11:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
11:00 - 12:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
12:00 - 13:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
13:00 - 14:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
14:00 - 15:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
15:00 - 16:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
16:00 - 17:00	1197	85	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**	
17:00 - 18:00	1386	99	500	150	**NO**	750	75	**YES**	N/A	N/A	N/A	N/A	**N/A**	
18:00 - 19:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
19:00 - 20:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
20:00 - 21:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
21:00 - 22:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
22:00 - 23:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	
23:00 - 00:00	0	0	500	150	**NO**	750	75	**NO**	N/A	N/A	N/A	N/A	**N/A**	

Number of Hours that met the warrant 1A =	**0**
Number of Hours that met the warrant 1B =	**3**
Number of Hours that met the warrant 1 A & B =	**0**

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	**NO**
B. Is the Interruption of Continuous Traffic Met? (Condition B)	**NO**
C. Combination of Warrants A and B Criteria Met?	**N/A**

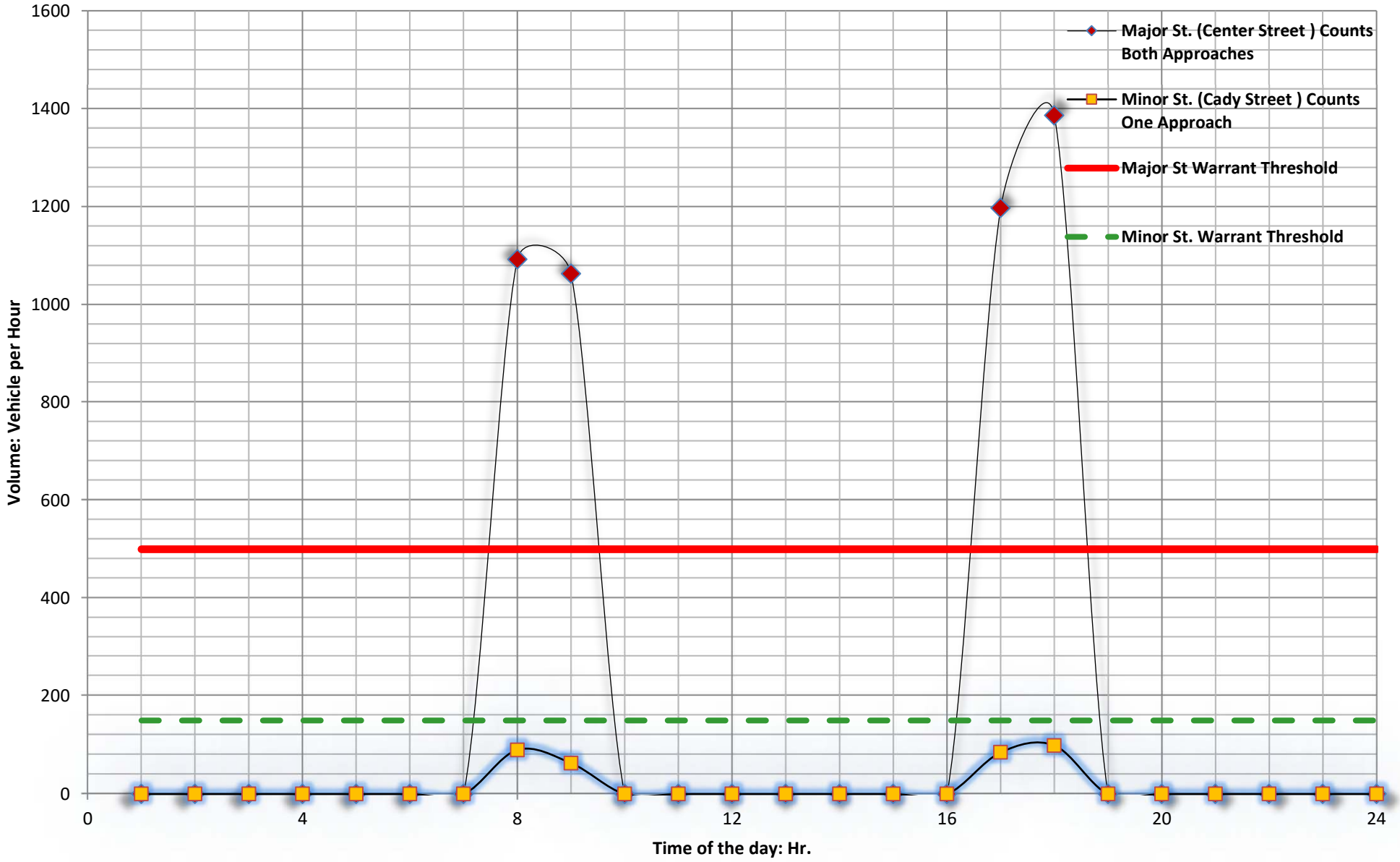


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Future

Center Street @ Cady Street

NO. OF LANES ON MAJOR ST.? 1

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 0

Does this intersection meet Warrant 1A for signal installation? NO

Data Collection Date: 5/15/2018

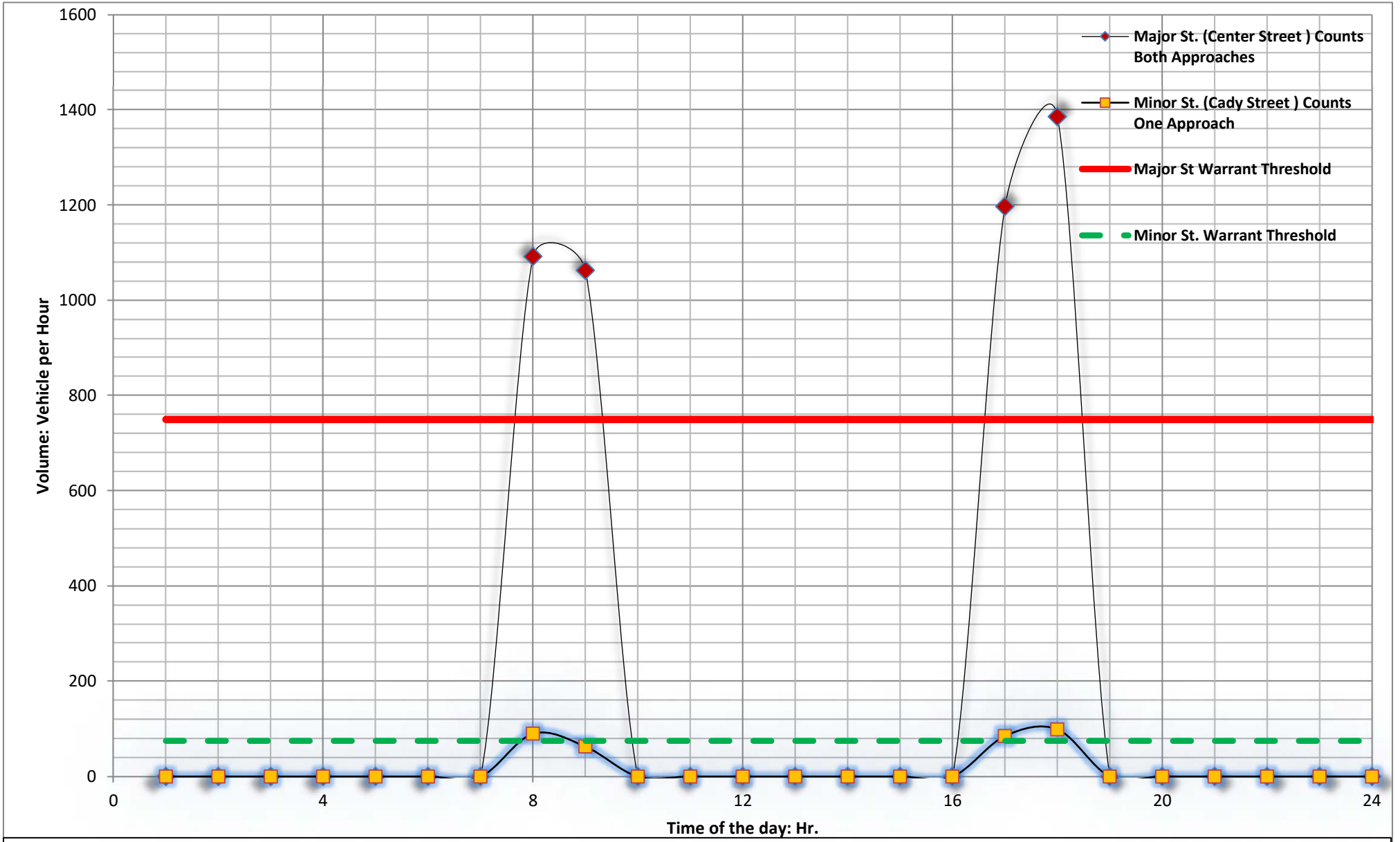


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? **NO**

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? **NO**

Spot Number: **Scenario 1 - Future**

Center Street @ Cady Street

NO. OF LANES ON MAJOR ST.? 1

NO. OF LANES ON MINOR ST.? 1

Number of Hours that met the Warrant: 3

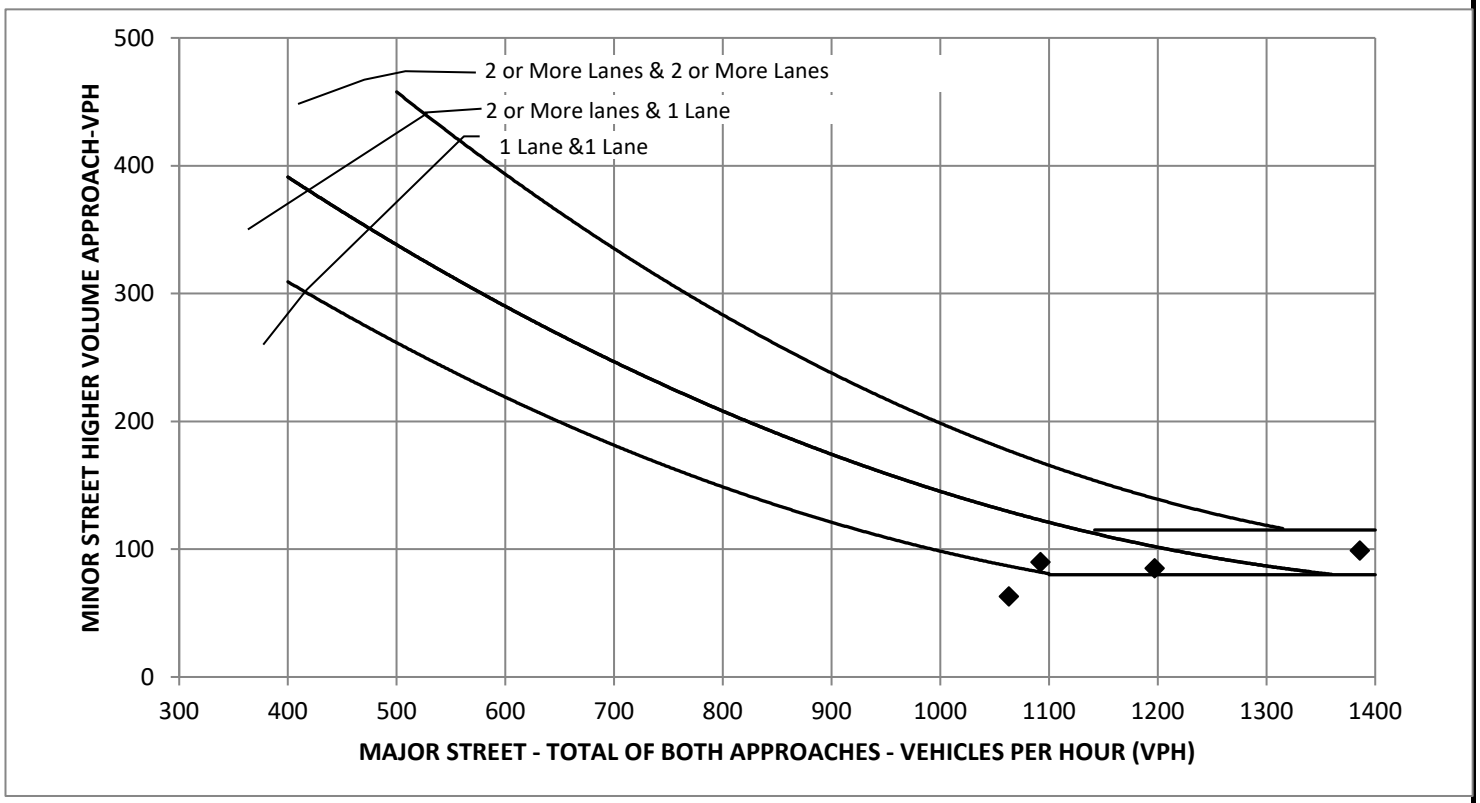
Does this intersection meet Warrant 1B for signal installation? **NO**

Data Collection Date: 5/15/2018

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Future		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

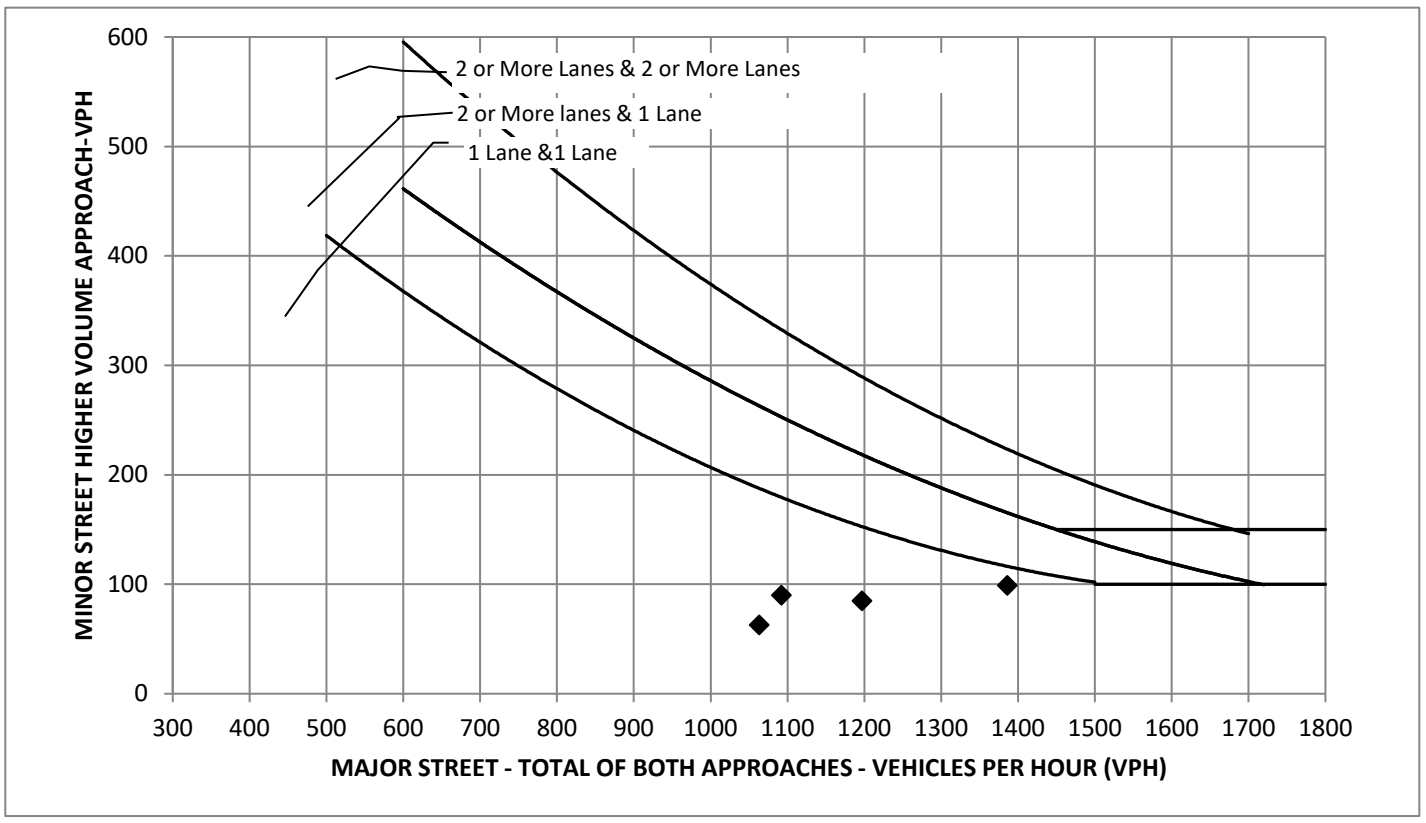


How Many Hours Are Met	**3**
Is Warrant 2 (100%) Met?	**NO**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Future		
Intersection:	Center Street @ Cady Street		
Date	1/14/2022	by	F&V

1	**: No. of Lanes on Major St.**
1	**: No. of Lanes on Minor St.**
25	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**0**
Is Warrant 3 B (100%) Met?	**NO**

Summary of Warrants

Spot Number:	Scenario 1 - Future		
Major Street:	Northville Road	Minor Street:	7 Mile Road
Intersection:	Northville Road at 7 Mile Road		
City/Twp:	Northville		
Date Performed:	1/13/2022	Performed By:	FV
Date Volumes Collected:	10/18/2018		

Warrant	Condition	Is Warrant Met
Data Validation Error		**NO**
WARRANT 1: Eight-Hour Vehicular Volume		**YES**
	Condition A	YES
	Condition B	NO
	Condition A&B	N/A
WARRANT 2: Four-Hour Vehicular Volume	(100%)	**YES**
WARRANT 3: Peak-Hour Vehicular Volume	(100%)	**YES**
	Condition A	**N/A**
	Condition B	**YES**
WARRANT 4: Pedestrian Volume	(100%)	**NO**
	Four Hour	NO
	Peak Hour	NO
(Threshold)	HAWK	NO
(Threshold)	RRFB	NO
WARRANT 5: School Crossing		**NO**
WARRANT 6: Coordinated Signal System		**NO**
WARRANT 7: Crash Experience		**NO**
	Condition A	NO
	Condition B	NO
WARRANT 8: Roadway Network		**NO**
WARRANT 9: Intersection Near a Grade Crossing		**#N/A**

Issue to Be Addressed by Signalization:

0

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 1: Eight-Hour Vehicular Volume

Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	: No. of Lanes on Major St?
2	: No. of Lanes on Minor St?
35	: Speed limit or 85th Percentile? (MPH)
NO	: Is the intersection within an Isolated community?
0	: if answer 4 is Yes, then what is the of the population isolated community?
NO	: Have other remedial measures been tried?

USE 100% WARRANTS 1A AND 1B. DO NOT USE COMBINATION OF A & B

	Major Volume (Both Apr.)	Minor Volume (One Apr.)	Condition A Major Volume	Condition A Minor Volume	Warrant Condition A Met?	Condition B Major Volume	Condition B Minor Volume	Warrant Condition B Met?	Combination Major A	Combination Minor A	Combination Major B	Combination Minor B	Warrant Condition A&B met?
Time	N-S	E-W											
00:01 - 01:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
01:00 - 02:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
02:00 - 03:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
03:00 - 04:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
04:00 - 05:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
05:00 - 06:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
06:00 - 07:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
07:00 - 08:00	707	293	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
08:00 - 09:00	883	348	600	200	YES	900	100	NO	N/A	N/A	N/A	N/A	N/A
09:00 - 10:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
10:00 - 11:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
11:00 - 12:00	957	279	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
12:00 - 13:00	1043	320	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
13:00 - 14:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
14:00 - 15:00	1073	262	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
15:00 - 16:00	1324	297	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
16:00 - 17:00	1572	311	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
17:00 - 18:00	1796	343	600	200	YES	900	100	YES	N/A	N/A	N/A	N/A	N/A
18:00 - 19:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
19:00 - 20:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
20:00 - 21:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
21:00 - 22:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
22:00 - 23:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A
23:00 - 00:00	0	0	600	200	NO	900	100	NO	N/A	N/A	N/A	N/A	N/A

Number of Hours that met the warrant 1A =	8
Number of Hours that met the warrant 1B =	6
Number of Hours that met the warrant 1 A & B =	0

A. Is the Minimum Vehicular Volume Warrant Met? (Condition A)	YES
B. Is the Interruption of Continuous Traffic Met? (Condition B)	NO
C. Combination of Warrants A and B Criteria Met?	N/A

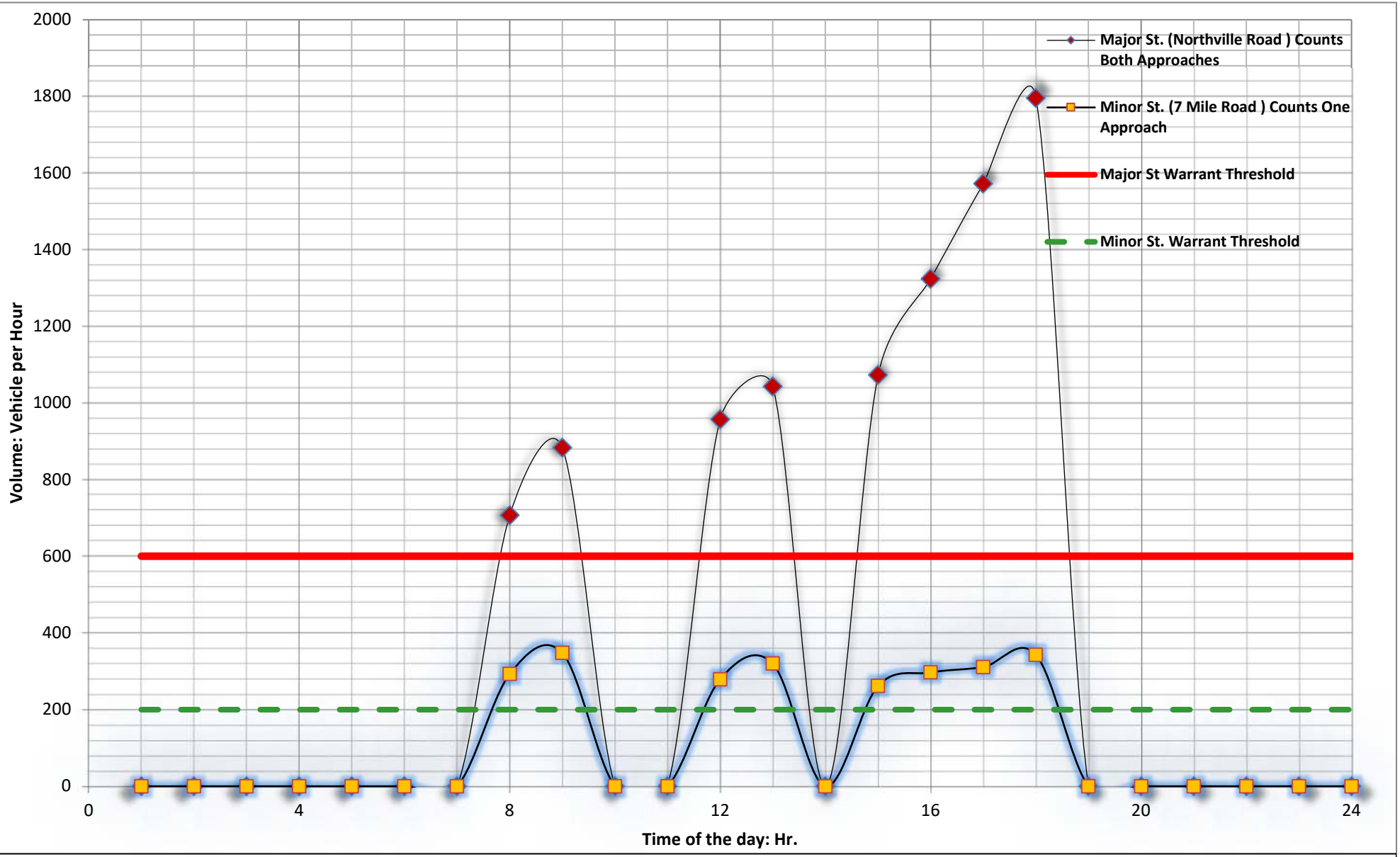


FIGURE 1: WARRANT **1A**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? NO

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? NO

Spot Number: Scenario 1 - Future

Northville Road @ 7 Mile Road

NO. OF LANES ON MAJOR ST.? 3

NO. OF LANES ON MINOR ST.? 2

Number of Hours that met the Warrant: 8

Does this intersection meet Warrant 1A for signal installation? YES

Data Collection Date: 10/18/2018

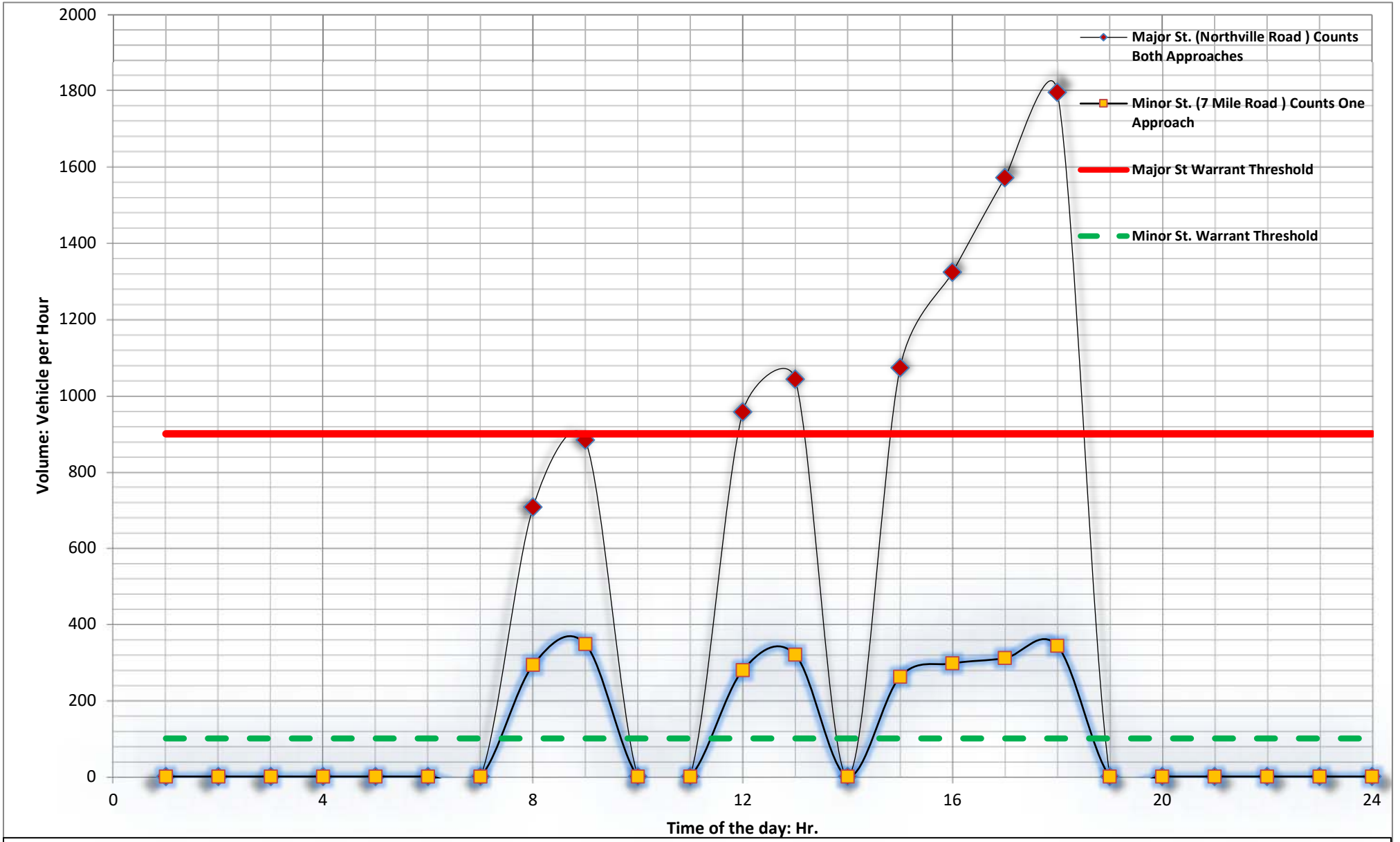


FIGURE 1: WARRANT **1B**

IS THERE A REDUCTION IN THE WARRANT THRESHOLDS TO 70% ...

1- DUE TO SPEED? **NO**

2- DUE TO ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000? **NO**

Spot Number: **Scenario 1 - Future**

Northville Road @ 7 Mile Road

NO. OF LANES ON MAJOR ST.? **3**

NO. OF LANES ON MINOR ST.? **2**

Number of Hours that met the Warrant: **6**

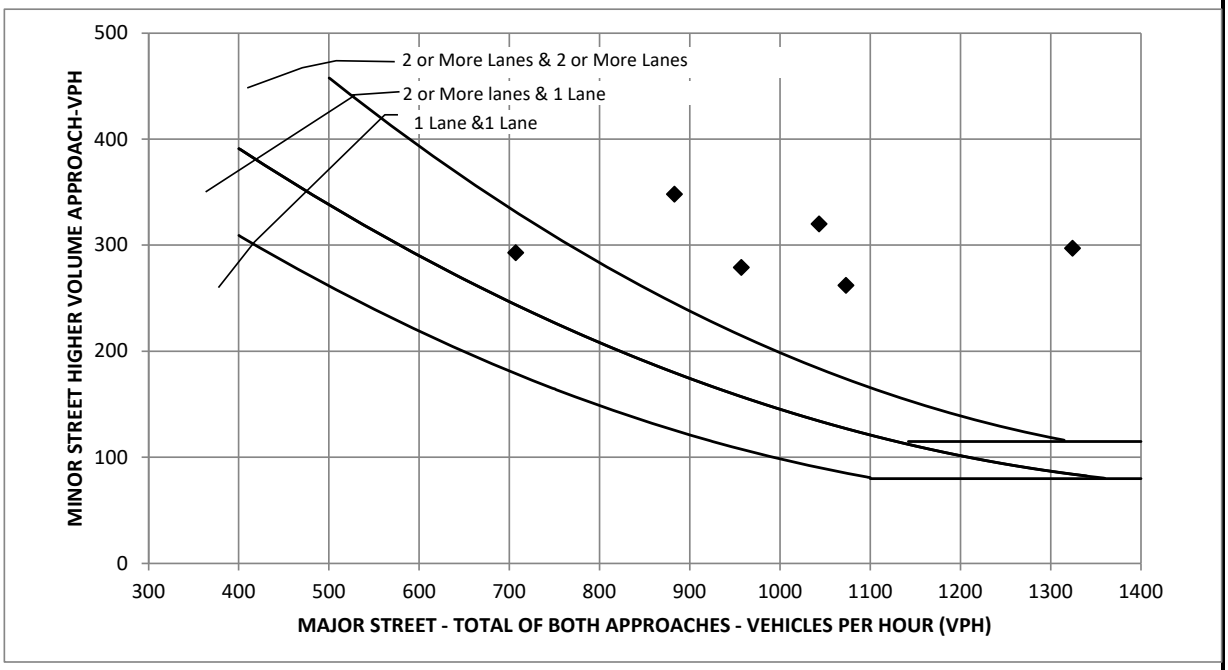
Does this intersection meet Warrant 1B for signal installation? **NO**

Data Collection Date: **10/18/2018**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 2: Four-Hour Vehicular Volume

Spot Number:	Scenario 1 - Future		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**

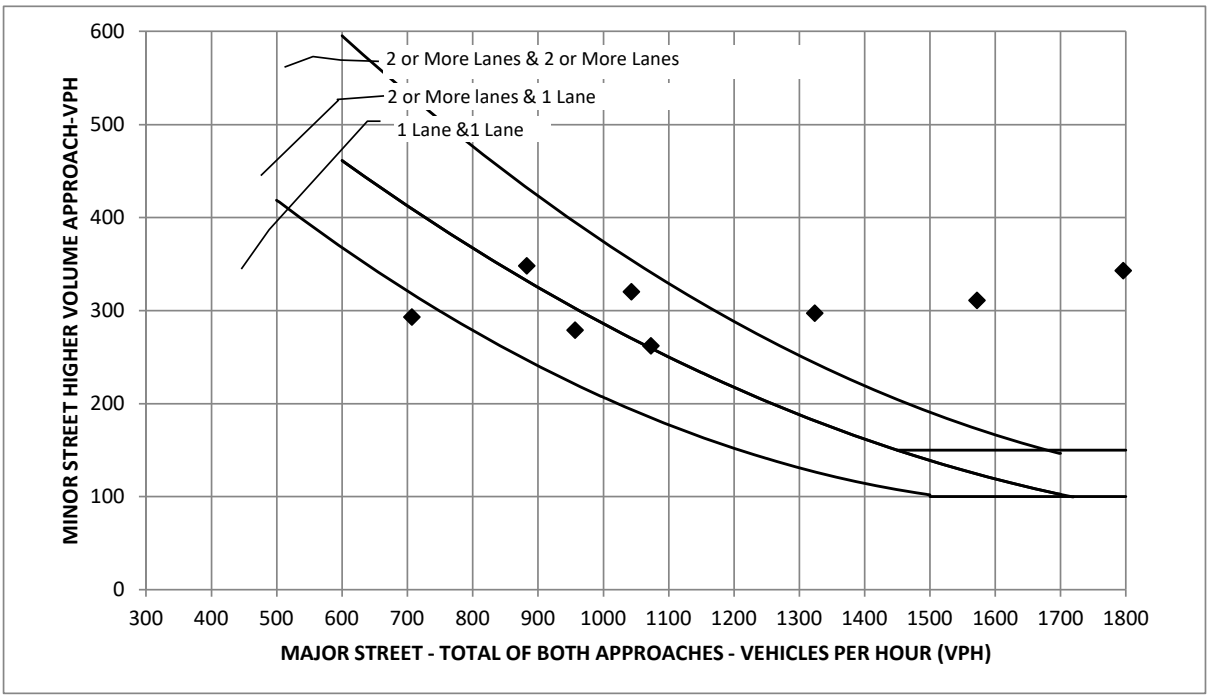


How Many Hours Are Met	**7**
Is Warrant 2 (100%) Met?	**YES**

Michigan Manual of Uniform Traffic Control Devices
Worksheet for Signal Warrants (Section 4C)
WARRANT 3 B(100%): Peak-Hour Vehicular Volume

Spot Number:	Scenario 1 - Future		
Intersection:	Northville Road @ 7 Mile Road		
Date	1/13/2022	by	FV

3	**: No. of Lanes on Major St.**
2	**: No. of Lanes on Minor St.**
35	**: Speed limit or 85th Percentile? (MPH)**
NO	**: Is the intersection within an Isolated community?**
0	**: What is the of the population isolated community?**



How Many Hours Are Met	**3**
Is Warrant 3 B (100%) Met?	**YES**

Appendix F

SUPPLEMENTAL INFORMATION

Proportionality Analysis

The figure above depicts the percent increase the site-generated trips will have on existing traffic volume associated with the study intersections of concern
i.e. Existing volume = 1,000 veh/hr > Future volume = 1,050 veh/hr ==> **5% Increase**

** Changes in traffic volumes of 5% or less are generally indiscernible from typical daily fluctuations in traffic volumes*

Optimizations consistent between ALL scenarios

Table: Proposed Signal Timing (Int #8 and Int #9)

Phase	PM Peak Hour					
	Existing Operations			Proposed Operations		
	Yellow Interval	Red Clearance	Green Split	Yellow Interval	Red Clearance	Green Split
INT #8 - Main Street & Hutton Street						
EB/WB	3.0	2.5	33.2	No Change		20.5
NB/SB	3.0	2.3	16.0			28.7
Cycle Length	60 seconds			No Change		
INT #9 - Main Street & Griswold Street						
EB/WB	3.0	2.6	27.8	No Change		21.4
NB/SB	3.6	2.2	20.8			27.8
Cycle Length	60 seconds			No Change		

* No change in signal timing during AM peak period.

Table: Proposed Signal Timing (Int #28)

INT #26/27 - Northville Road & S. Seven Mile Road							
Phase	Existing Operations			Proposed Operations			
	Yellow Interval	Red Clearance	Green Split (AM/PM)	Yellow Interval	Red Clearance	Green Split (AM)	Green Split (PM)
WB	4	2.2	28.6	No Change		18.8	20.8
NBTR		2.4	16.4			21.6	22.6
SBL		2.4	16.0			20.6	17.6
SBT		2.4	38.8			48.6	46.6
Cycle Length	80 seconds			No Change			