

Appendix A

Traffic

Existing Traffic Counts

Existing High School Trip Generation Comparison Table

Intermediate School Expansion Calculations

Middle/Intermediate School Projected Growth Map

High School Projected Growth Map

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1	Page 1 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events



Base Information, Observed (12) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **Mid Valley Drive and Grant Street**

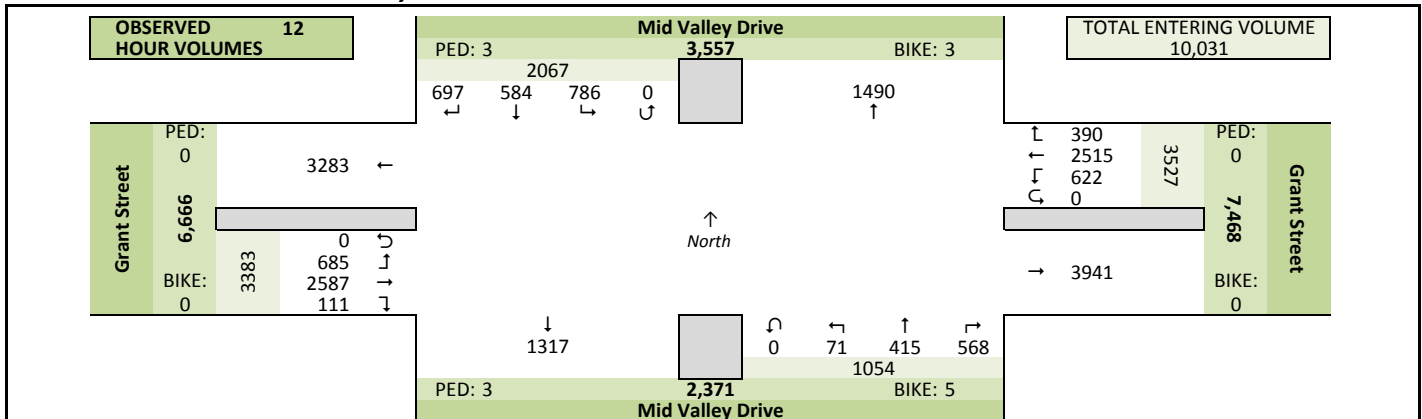
Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction	↑	
North Leg	Mid Valley Drive		
East Leg	Grant Street		
South Leg	Mid Valley Drive		
West Leg	Grant Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementry school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
	Other (describe)	None	

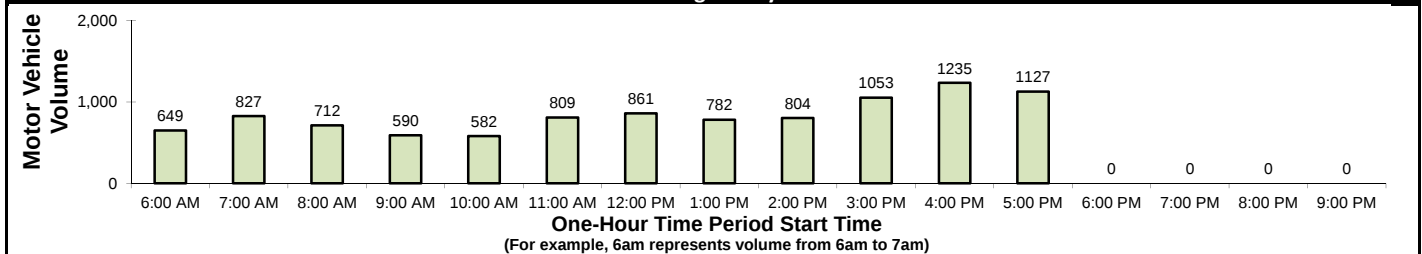
Count Information

Hrs Counted: 6:00 AM-6:00 PM				
1st Day of Count		Thursday, November 15, 2018		Weather
AM Peak Period		Friday, November 16, 2018		Clear & Dry
Midday Peak Period		Tuesday, May 14, 2019		Clear & Dry
PM Peak Period		Thursday, November 15, 2018		Clear & Dry
Calculated Peak Hours				
	AM	7:00-8:00am	MD	11:45-12:45pm
	PM	4:15-5:15pm		
Peak Hours Selected for Analysis				
	AM	7:00-8:00am	MD	11:45-12:45pm
	PM	2:45-3:45pm		
Daily/Seasonal Adjustment Group		(2) Urban Arterials & Collectors		
Count Expansion Group		(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor		0.966	Count Expansion Factor	1.330
Company Name		TADI, Inc.		Manual Adj. 1.000
Observers	AM Peak Period	Amy Scheuerlein		
	Midday Peak Period	Ted Atwell		
	PM Peak Period	Amy Scheuerlein		
Comments	2017 DOT Seasonal Factors			

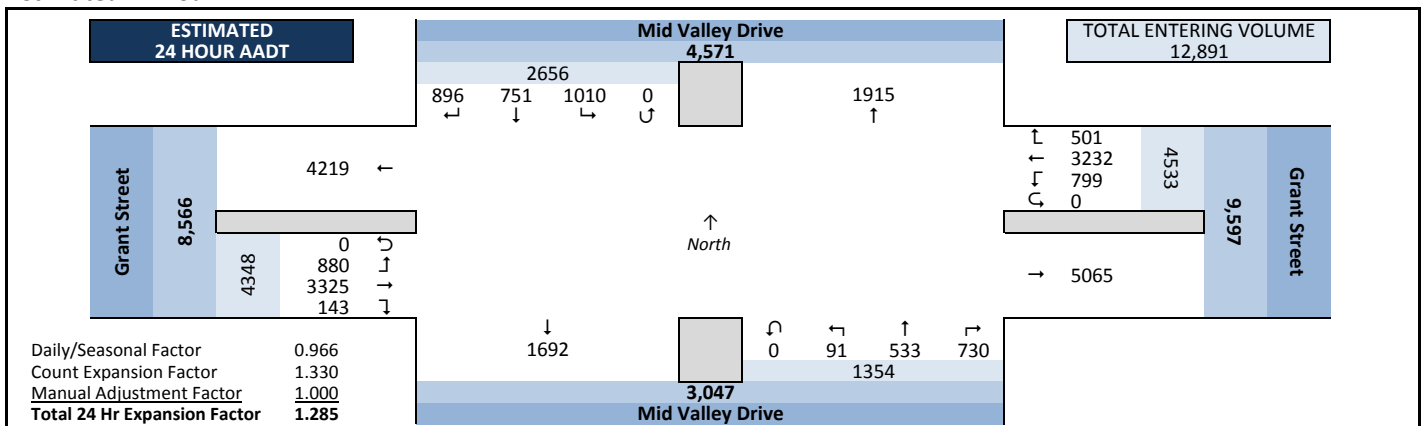
Observed 12 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



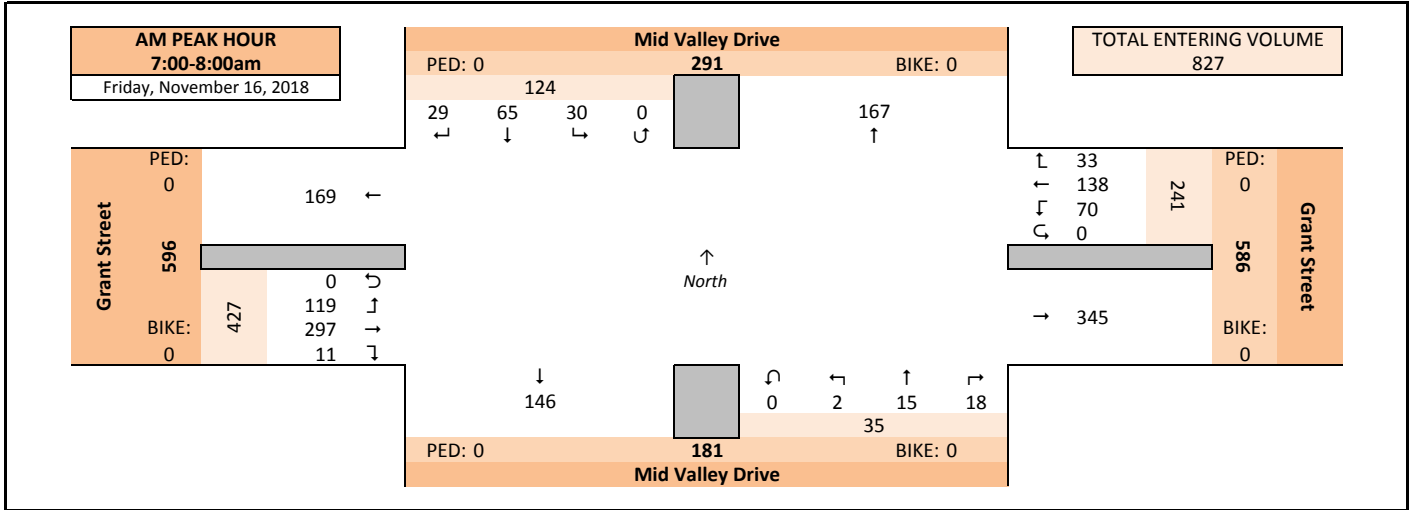
Intersection Traffic Volume Report

Count Basics			Page 2 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

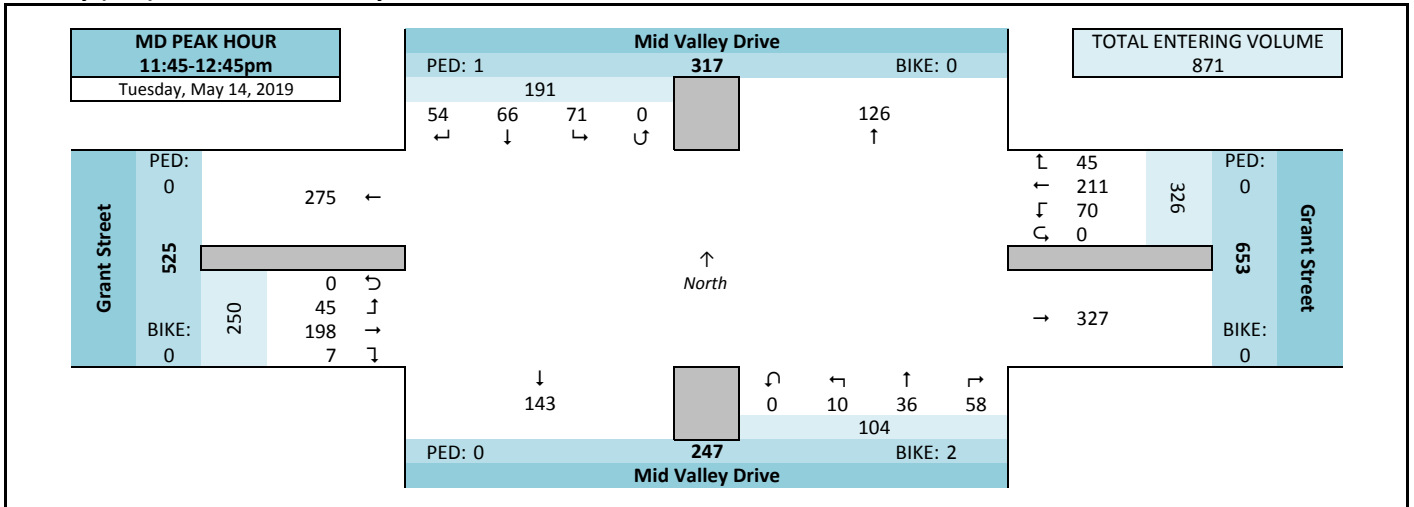
Peak Hour Volume Graphical Summary

Mid Valley Drive and Grant Street

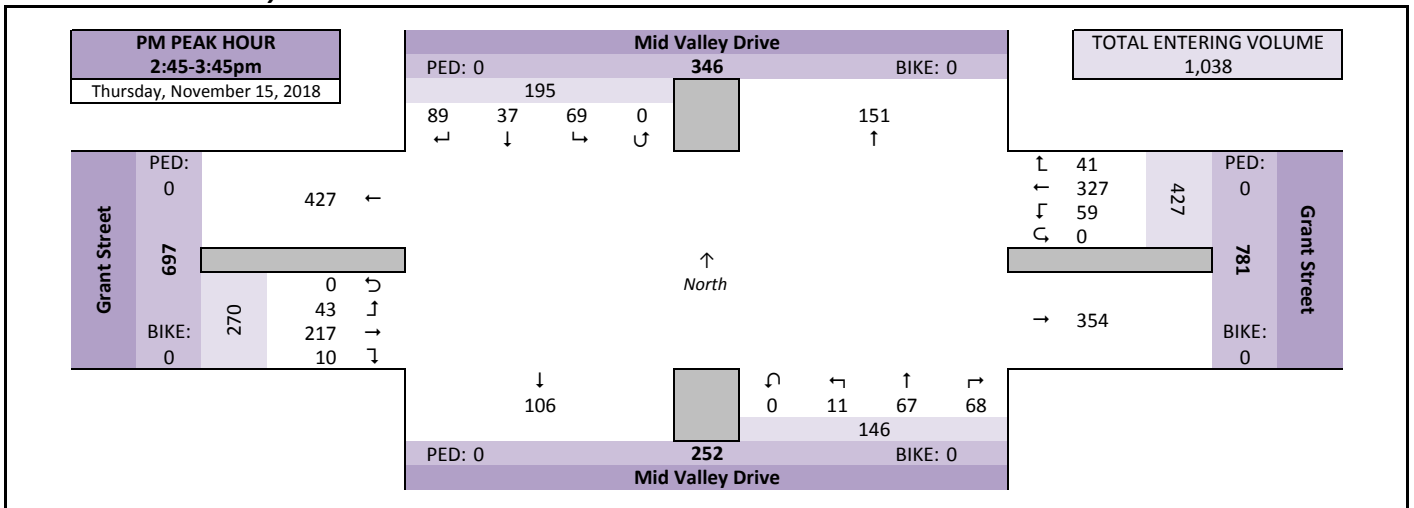
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Count Basics			Page 3 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 12		Non-Holiday	No Special Events

All Motor Vehicles

Peak Hour Volumes, Truck Percentages, and PHFs

Friday, November 16, 2018		↓					←					↑					→					Totals
		From North					From East					From South					From West					
AM Peak Hour	AM Peak Hour	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	7:00 AM	5	7	6	0	18	7	30	12	0	49	3	5	1	0	9	2	78	39	0	119	195
	7:15 AM	11	11	6	0	28	9	40	14	0	63	4	2	0	0	6	3	74	19	0	96	193
	7:30 AM	10	25	7	0	42	9	30	22	0	61	2	3	0	0	5	2	71	30	0	103	211
	7:45 AM	3	22	11	0	36	8	38	22	0	68	9	5	1	0	15	4	74	31	0	109	228
	Peak Hour Volume	29	65	30	0	124	33	138	70	0	241	18	15	2	0	35	11	297	119	0	427	827
	Rounded Hourly Volume	30	65	30	0	125	35	140	70	0	245	20	15	0	0	35	10	295	120	0	425	830
	% Single Unit Trucks	17.2	4.6	6.7	0.0	8.1	15.2	13.0	2.9	0.0	10.4	5.6	20.0	0.0	0.0	11.4	0.0	8.8	3.4	0.0	7.0	8.3
	% Heavy 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	17.2	4.6	6.7	0.0	8.1	15.2	13.0	2.9	0.0	10.4	5.6	20.0	0.0	0.0	11.4	0.0	8.8	3.4	0.0	7.0	8.3	
Peak Hour Factor (PHF)	0.66	0.65	0.68	0.00	0.74	0.92	0.86	0.80	0.00	0.89	0.50	0.75	0.50	0.00	0.58	0.69	0.95	0.76	0.00	0.90	0.91	

Tuesday, May 14, 2019		↓ From North					← From East					↑ From South					→ From West					Totals
Midday (MD) Peak Hour	MD Peak Hour	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	11:45 AM	13	18	22	0	53	10	51	18	0	79	18	9	1	0	28	1	52	8	0	61	221
	12:00 PM	12	13	20	0	45	17	51	19	0	87	8	8	4	0	20	2	54	15	0	71	223
	12:15 PM	11	16	15	0	42	9	58	20	0	87	22	8	4	0	34	2	49	7	0	58	221
	12:30 PM	18	19	14	0	51	9	51	13	0	73	10	11	1	0	22	2	43	15	0	60	206
	Peak Hour Volume	54	66	71	0	191	45	211	70	0	326	58	36	10	0	104	7	198	45	0	250	871
	Rounded Hourly Volume	55	65	70	0	190	45	210	70	0	325	60	35	10	0	105	5	200	45	0	250	870
	% Single Unit Trucks	3.7	7.6	4.2	0.0	5.2	2.2	6.2	2.9	0.0	4.9	0.0	8.3	30.0	0.0	5.8	14.3	7.1	6.7	0.0	7.2	5.7
	% Heavy Trucks	1.9	0.0	0.0	0.0	0.5	4.4	0.5	0.0	0.0	0.9	1.7	2.8	0.0	0.0	1.9	0.0	0.5	0.0	0.0	0.4	0.8
% Trucks (Total)	5.6	7.6	4.2	0.0	5.8	6.7	6.6	2.9	0.0	5.8	1.7	11.1	30.0	0.0	7.7	14.3	7.6	6.7	0.0	7.6	6.5	
Peak Hour Factor (PHF)	0.75	0.87	0.81	0.00	0.90	0.66	0.91	0.87	0.00	0.94	0.66	0.82	0.62	0.00	0.76	0.87	0.92	0.75	0.00	0.88	0.98	

Thursday, November 15, 2018		↓ From North					← From East					↑ From South					→ From West					
PM Peak Hour	PM Peak Hour	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	2:45 PM	17	10	15	0	42	10	88	20	0	118	14	13	1	0	28	2	49	11	0	62	250
	3:00 PM	24	10	13	0	47	10	90	14	0	114	23	18	4	0	45	5	56	12	0	73	279
	3:15 PM	28	11	21	0	60	10	75	11	0	96	16	8	4	0	28	3	48	9	0	60	244
	3:30 PM	20	6	20	0	46	11	74	14	0	99	15	28	2	0	45	0	64	11	0	75	265
	Peak Hour Volume	89	37	69	0	195	41	327	59	0	427	68	67	11	0	146	10	217	43	0	270	1038
	Rounded Hourly Volume	90	35	70	0	195	40	325	60	0	425	70	65	10	0	145	10	215	45	0	270	1035
	% Single Unit Trucks	7.9	10.8	4.3	0.0	7.2	4.9	7.6	1.7	0.0	6.6	2.9	11.9	18.2	0.0	8.2	10.0	5.5	9.3	0.0	6.3	6.8
	% Heavy Trucks	1.1	0.0	0.0	0.0	0.5	4.9	0.0	0.0	0.0	0.5	1.5	0.0	9.1	0.0	1.4	0.0	0.5	0.0	0.0	0.4	0.6
% Trucks (Total)	9.0	10.8	4.3	0.0	7.7	9.8	7.6	1.7	0.0	7.0	4.4	11.9	27.3	0.0	9.6	10.0	6.0	9.3	0.0	6.7	7.4	
Peak Hour Factor (PHF)	0.79	0.84	0.82	0.00	0.81	0.93	0.91	0.74	0.00	0.90	0.74	0.60	0.69	0.00	0.81	0.50	0.85	0.90	0.00	0.90	0.93	

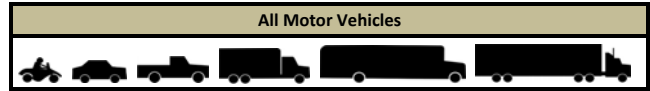
[illegible]

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

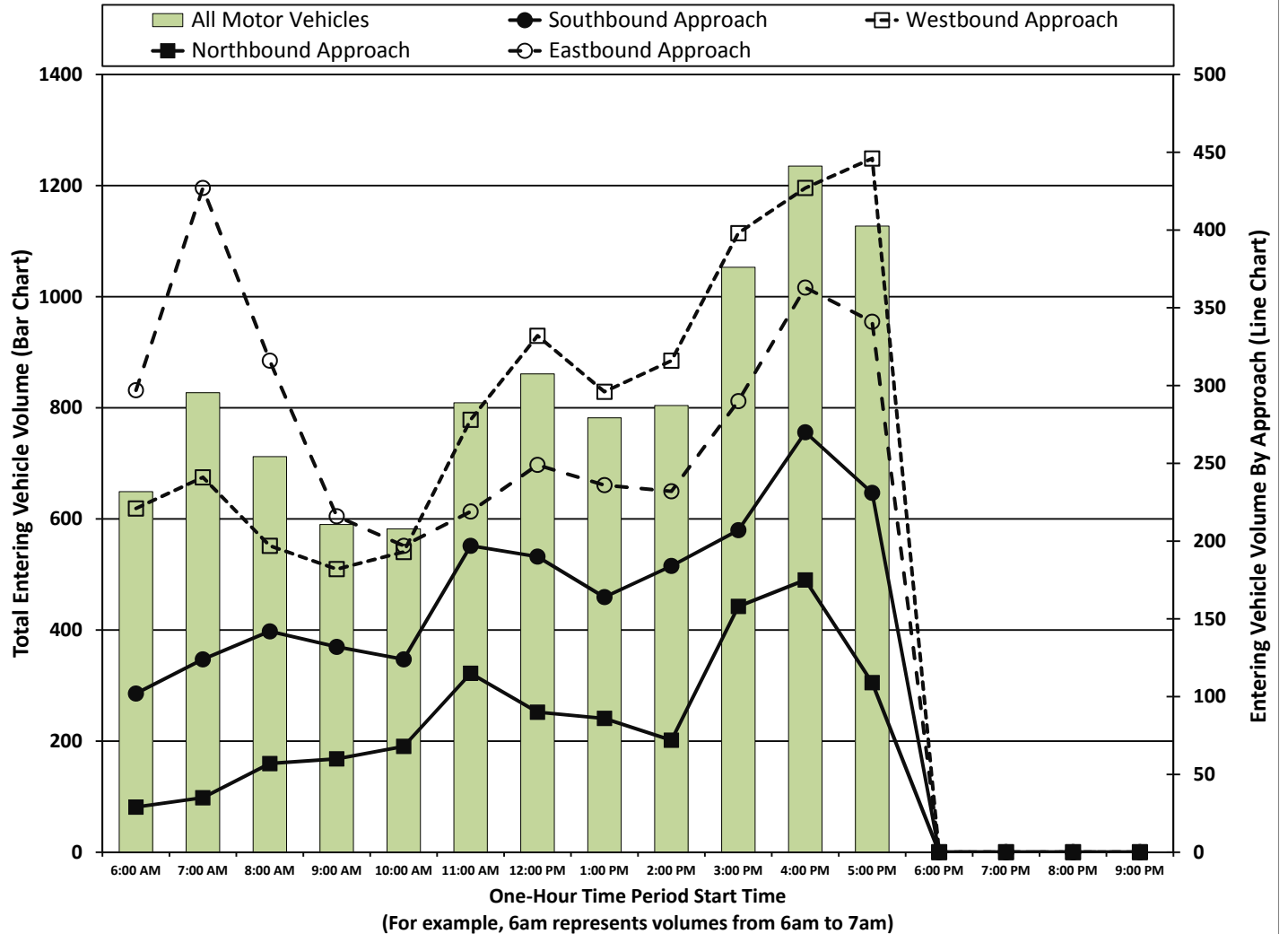
Mid Valley Drive and Grant Street



One-Hour Motor Vehicle Data

One-Hour Time Period Start Time	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals		
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM	6:00 AM	26	22	54	0	102	19	141	61	0	221	21	7	1	0	29	6	212	79	0	297	649	518	131
	7:00 AM	29	65	30	0	124	33	138	70	0	241	18	15	2	0	35	11	297	119	0	427	827	668	159
	8:00 AM	35	60	47	0	142	20	136	41	0	197	30	25	2	0	57	10	240	66	0	316	712	513	199
	9:00 AM	29	54	49	0	132	21	125	36	0	182	30	25	5	0	60	13	169	34	0	216	590	398	192
MD	10:00 AM	29	42	53	0	124	27	129	37	0	193	31	32	5	0	68	5	156	36	0	197	582	390	192
	11:00 AM	48	64	85	0	197	38	184	56	0	278	69	41	5	0	115	7	180	32	0	219	809	497	312
	12:00 PM	54	68	68	0	190	49	215	68	0	332	47	33	10	0	90	9	193	47	0	249	861	581	280
	1:00 PM	62	39	63	0	164	38	207	51	0	296	45	35	6	0	86	6	184	46	0	236	782	532	250
PM	2:00 PM	55	42	87	0	184	33	224	59	0	316	37	30	5	0	72	10	178	44	0	232	804	548	256
	3:00 PM	96	38	73	0	207	40	314	44	0	398	78	67	13	0	158	12	229	49	0	290	1053	688	365
	4:00 PM	123	55	92	0	270	39	336	52	0	427	103	64	8	0	175	8	291	64	0	363	1235	790	445
	5:00 PM	111	35	85	0	231	33	366	47	0	446	59	41	9	0	109	14	258	69	0	341	1127	787	340
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals	697	584	786	0	2067	390	2515	622	0	3527	568	415	71	0	1054	111	2587	685	0	3383	10031	6910	3121

Graphical Summary of Hourly Volumes



Mid Valley Drive and Grant Street

Count Basics		Page 5 of 13
Start Date:	Thursday, November 15, 2018	Weekday
		Schools in Session
Total Number of Hours Counted: 12		Non-Holiday
		No Special Events



15-Minute Motor Vehicle Data

Animate Motor Vehicle Data																		Hourly Sum	PHF				
15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals		
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM	3	2	9	0	14	3	28	6	0	37	11	2	0	0	13	0	60	9	0	69	133	
	6:15 AM	11	6	18	0	35	2	41	14	0	57	5	2	0	0	7	2	51	15	0	68	167	
	6:30 AM	4	4	11	0	19	7	45	16	0	68	3	2	1	0	6	1	35	24	0	60	153	
	6:45 AM	8	10	16	0	34	7	27	25	0	59	2	1	0	0	3	3	66	31	0	100	196	
	7:00 AM	5	7	6	0	18	7	30	12	0	49	3	5	1	0	9	2	78	39	0	119	195	
	7:15 AM	11	11	6	0	28	9	40	14	0	63	4	2	0	0	6	3	74	19	0	96	193	
	7:30 AM	10	25	7	0	42	9	30	22	0	61	2	3	0	0	5	2	71	30	0	103	211	
	7:45 AM	3	22	11	0	36	8	38	22	0	68	9	5	1	0	15	4	74	31	0	109	228	
	8:00 AM	12	19	9	0	40	4	28	16	0	48	4	6	0	0	10	3	56	19	0	78	176	
	8:15 AM	9	15	14	0	38	5	40	8	0	53	6	7	0	0	13	0	62	16	0	78	182	
	8:30 AM	6	17	11	0	34	4	36	10	0	50	5	5	0	0	10	3	54	13	0	70	164	
	8:45 AM	8	9	13	0	30	7	32	7	0	46	15	7	2	0	24	4	68	18	0	90	190	
Midday Peak Period	9:00 AM	3	11	16	0	30	7	38	10	0	55	5	1	0	0	6	4	39	8	0	51	142	
	9:15 AM	12	10	12	0	34	3	27	8	0	38	13	7	0	0	20	3	41	10	0	54	146	
	9:30 AM	5	15	9	0	29	5	30	10	0	45	6	10	2	0	18	4	31	8	0	43	135	
	9:45 AM	9	18	12	0	39	6	30	8	0	44	6	7	3	0	16	2	58	8	0	68	167	
	10:00 AM	5	9	16	0	30	7	26	9	0	42	8	9	2	0	19	1	48	14	0	63	154	
	10:15 AM	4	13	10	0	27	5	33	12	0	50	4	8	0	0	12	0	31	9	0	40	129	
	10:30 AM	6	8	12	0	26	9	33	3	0	45	8	6	2	0	16	2	40	6	0	48	135	
	10:45 AM	14	12	15	0	41	6	37	13	0	56	11	9	1	0	21	2	37	7	0	46	164	
	11:00 AM	12	15	25	0	52	10	45	10	0	65	13	5	0	0	18	3	43	11	0	57	192	
	11:15 AM	14	8	19	0	41	8	45	16	0	69	21	18	0	0	39	1	39	3	0	43	192	
	11:30 AM	9	23	19	0	51	10	43	12	0	65	17	9	4	0	30	2	46	10	0	58	204	
	11:45 AM	13	18	22	0	53	10	51	18	0	79	18	9	1	0	28	1	52	8	0	61	221	
PM Peak Period	12:00 PM	12	13	20	0	45	17	51	19	0	87	8	8	4	0	20	2</						

Peak Hour All Vehicle Volume Summary

Hourly Time Period	From North					From East					From South					From West					Total Hourly	
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Volume	PHF
AM 7:00 AM	29	65	30	0	124	33	138	70	0	241	18	15	2	0	35	11	297	119	0	427	827	0.91
MD 11:45 AM	54	66	71	0	191	45	211	70	0	326	58	36	10	0	104	7	198	45	0	250	871	0.98
PM 2:45 PM	89	37	69	0	195	41	327	59	0	427	68	67	11	0	146	10	217	43	0	270	1038	0.93

Intersection Traffic Volume Report

15-Minute Automobile Data

Mid Valley Drive and Grant Street

Count Basics			Page 6 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events



15-Minute Automobile Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	3	2	8	0	13	3	28	6	0	37	10	0	0	0	10	0	60	9	0	69	129	602	
	6:15 AM	11	5	17	0	33	2	38	14	0	54	5	1	0	0	6	2	51	15	0	68	161	644	
	6:30 AM	4	4	11	0	19	7	34	16	0	57	3	1	1	0	5	1	35	22	0	58	139	664	
	6:45 AM	6	10	15	0	31	6	19	19	0	44	2	1	0	0	3	3	64	28	0	95	173	717	
	7:00 AM	4	6	5	0	15	7	30	11	0	48	2	3	1	0	6	2	64	36	0	102	171	758	
	7:15 AM	10	11	5	0	26	7	37	14	0	58	4	2	0	0	6	3	69	19	0	91	181	749	
	7:30 AM	7	24	7	0	38	8	21	21	0	50	2	2	0	0	4	2	69	29	0	100	192	732	
	7:45 AM	3	21	11	0	35	6	32	22	0	60	9	5	1	0	15	4	69	31	0	104	214	687	
	8:00 AM	12	17	8	0	37	3	27	15	0	45	4	3	0	0	7	1	53	19	0	73	162	650	
	8:15 AM	9	14	13	0	36	4	37	6	0	47	5	7	0	0	12	0	56	13	0	69	164	622	
	8:30 AM	6	17	9	0	32	4	34	10	0	48	5	4	0	0	9	2	43	13	0	58	147	591	
	8:45 AM	8	9	13	0	30	6	29	7	0	42	12	6	2	0	20	3	64	18	0	85	177	568	
Midday Peak Period	9:00 AM	3	11	13	0	27	7	35	10	0	52	5	1	0	0	6	4	37	8	0	49	134	541	
	9:15 AM	10	9	10	0	29	2	26	8	0	36	12	7	0	0	19	2	37	10	0	49	133	548	
	9:30 AM	5	12	9	0	26	3	28	10	0	41	6	8	1	0	15	4	30	8	0	42	124	533	
	9:45 AM	8	16	12	0	36	5	25	8	0	38	6	7	3	0	16	1	52	7	0	60	150	527	
	10:00 AM	4	8	16	0	28	7	23	8	0	38	5	9	2	0	16	1	45	13	0	59	141	531	
	10:15 AM	4	13	7	0	24	5	33	11	0	49	3	7	0	0	10	0	26	9	0	35	118	565	
	10:30 AM	3	7	12	0	22	7	31	3	0	41	7	5	0	0	12	1	36	6	0	43	118	622	
	10:45 AM	13	12	14	0	39	6	34	13	0	53	11	7	1	0	19	2	34	7	0	43	154	694	
	11:00 AM	11	11	25	0	47	9	42	9	0	60	13	5	0	0	18	2	39	9	0	50	175	750	
	11:15 AM	13	6	18	0	37	7	44	15	0	66	18	15	0	0	33	1	36	2	0	39	175	781	
	11:30 AM	6	20	19	0	45	10	41	11	0	62	16	7	4	0	27	1	45	10	0	56	190	813	
	11:45 AM	13	16	22	0	51	10	49	17	0	76	17	8	1	0	26	1	48	8	0	57	210	814	
PM Peak Period	12:00 PM	11	13	18	0	42	16	46	19	0	81	8	8	3	0	19	1	50	13	0	64	206	801	
	12:15 PM	11	13	15	0	39	8	55	20	0	83	22	7	2	0	31	2	46	6	0	54	207	781	
	12:30 PM	16	19	13	0	48	8	47	12	0	67	10	9	1	0	20	2	39	15	0	56	191	743	
	12:45 PM	12	17	18	0	47	13	53	16	0	82	7	5	1	0	13	0	45	10	0	55	197	764	
	1:00 PM	19	8	12	0	39	13	41	13	0	67	8	13	1	0	22	3	46	9	0	58	186	716	
	1:15 PM	16	8	19	0	43	9	35	10	0	54	15	9	2	0	26	0	33	13	0	46	169	686	
	1:30 PM	10	9	11	0	30	11	68	15	0	94	12	5	2	0	19	1	54	14	0	69	212	683	
	1:45 PM	10	6	15	0	31	3	51	8	0	62	8	4	0	0	12	1	36	7	0	44	149	657	
	2:00 PM	6	11	21	0	38	6	35	11	0	52	6	5	2	0	13	1	44	8	0	53	156	746	
	2:15 PM	14	8	16	0	38	10	41	15	0	66	5	6	0	0	11	4	43	4	0	51	166	835	
	2:30 PM	10	10	24	0	44	5	56	9	0	70	9	4	2	0	15	2	39	16	0	57	186	895	
	2:45 PM	16	10	14	0	40	10	87	20	0	117	14	9	0	0	23	2	47	9	0	58	238	961	
PM Peak Period	3:00 PM	20	9	13	0	42	8	71	14	0	93	23	17	3	0	43	4	52	11	0	67	245	966	
	3:15 PM	27	9	19	0	55	9	73	11	0	93	13	7	3	0	23	3	44	8	0	55	226	1010	
	3:30 PM	18	5	20	0	43	10	71	13	0	94	15	26	2	0	43	0	61	11	0	72	252	1081	
	3:45 PM	24	8	19	0	51	9	72	3	0	84	23	10	2	0	35	3	55	15	0	73	243	1153	
	4:00 PM	22	18	22	0	62	7	81	14	0	102	28	13	1	0	42	0	70	13	0	83	289	1184	
	4:15 PM	36	12	30	0	78	11	83	16	0	110	17	12	0	0	29	3	64	13	0	80	297	1210	
	4:30 PM	33	14	17	0	64	12	91	7	0	110	31	20	2	0	53	1	81	15	0	97	324	1188	
	4:45 PM	28	7	20	0	55	4	76	13	0	93	23	16	2	0	41	3	63	19	0	85	274	1142	
	5:00 PM	32	2	16	0	50	7	114	9	0	130	22	15	4	0	41	3	76	15	0	94	315		
	5:15 PM	27	12	25	0	64	10	92	11	0	113	13	4	2	0	19	3	64	12	0	79	275		
	5:30 PM	25	11	21	0	57	9	85	13	0	107	13	15	1	0	29	2	63	20	0	85	278		
	5:45 PM	27	6	23	0	56	5	69	13	0	87	10	5	2	0	17	6	53	20	0	79	239		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		646	526	740	0	1912	354	2370	589	0	3313	537	365	57	0	959	93	2430	645	0	3168	9352		

Peak Hour Automobile Volume Summary

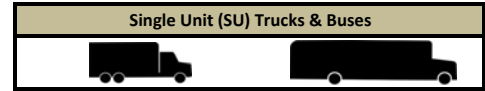
Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	24	62	28	0	114	28	120	68	0	216	17	12	2	0	31	11	271	115	0	397	758
MD 11:45 AM	51	61	68	0	180	42	197	68	0	307	57	32	7	0	96	6	183	42	0	231	814
PM 2:45 PM	81	33	66	0	180	37	302	58	0	397	65	59	8	0	132	9	204	39	0	252	961

Intersection Traffic Volume Report

15-Minute Single Unit (SU) Truck & Bus Data

Mid Valley Drive and Grant Street

Count Basics			Page 7 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events



15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	1	0	1	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	4	46	
	6:15 AM	0	1	1	0	2	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	6	66	
	6:30 AM	0	0	0	0	0	0	11	0	0	11	0	1	0	0	1	0	0	2	0	2	14	72	
	6:45 AM	2	0	1	0	3	1	8	6	0	15	0	0	0	0	0	0	2	2	0	4	22	77	
	7:00 AM	1	1	1	0	3	0	0	1	0	1	1	2	0	0	3	0	14	3	0	17	24	69	
	7:15 AM	1	0	1	0	2	2	3	0	0	5	0	0	0	0	0	0	5	0	0	5	12	58	
	7:30 AM	3	1	0	0	4	1	9	1	0	11	0	1	0	0	1	0	2	1	0	3	19	63	
	7:45 AM	0	1	0	0	1	2	6	0	0	8	0	0	0	0	0	0	5	0	0	5	14	61	
	8:00 AM	0	2	1	0	3	1	1	1	0	3	0	2	0	0	2	2	3	0	0	5	13	59	
	8:15 AM	0	1	1	0	2	0	3	2	0	5	1	0	0	0	1	0	6	3	0	9	17	53	
	8:30 AM	0	0	2	0	2	0	2	0	0	2	0	1	0	0	1	1	11	0	0	12	17	46	
	8:45 AM	0	0	0	0	0	1	3	0	0	4	2	1	0	0	3	1	4	0	0	5	12	37	
Midday Peak Period	9:00 AM	0	0	3	0	3	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	7	40	
	9:15 AM	1	0	2	0	3	1	1	0	0	2	0	0	0	0	0	1	4	0	0	5	10	44	
	9:30 AM	0	3	0	0	3	1	2	0	0	3	0	1	1	0	2	0	0	0	0	0	8	43	
	9:45 AM	1	2	0	0	3	1	4	0	0	5	0	0	0	0	0	1	6	0	0	7	15	51	
	10:00 AM	1	0	0	0	1	0	3	1	0	4	3	0	0	0	3	0	2	1	0	3	11	45	
	10:15 AM	0	0	2	0	2	0	0	0	0	0	1	1	0	0	2	0	5	0	0	5	9	47	
	10:30 AM	3	1	0	0	4	2	2	0	0	4	1	1	2	0	4	1	3	0	0	4	16	50	
	10:45 AM	1	0	1	0	2	0	3	0	0	3	0	2	0	0	2	0	2	0	0	2	9	47	
	11:00 AM	1	4	0	0	5	0	3	0	0	3	0	0	0	0	0	1	2	2	0	5	13	48	
	11:15 AM	1	2	0	0	3	0	1	0	0	1	1	3	0	0	4	0	3	1	0	4	12	49	
	11:30 AM	3	3	0	0	6	0	2	1	0	3	1	2	0	0	3	1	0	0	0	1	13	49	
	11:45 AM	0	2	0	0	2	0	2	1	0	3	0	1	0	0	1	0	4	0	0	4	10	50	
PM Peak Period	12:00 PM	0	0	2	0	2	1	4	0	0	5	0	0	1	0	1	1	3	2	0	6	14	52	
	12:15 PM	0	3	0	0	3	0	3	0	0	3	0	0	2	0	2	0	3	1	0	4	12	48	
	12:30 PM	2	0	1	0	3	0	4	1	0	5	0	2	0	0	2	0	4	0	0	4	14	46	
	12:45 PM	1	2	1	0	4	0	2	0	0	2	0	1	0	0	1	3	2	0	0	5	12	52	
	1:00 PM	1	1	0	0	2	0	4	1	0	5	1	0	0	0	1	0	2	0	0	2	10	58	
	1:15 PM	0	0	3	0	3	0	3	0	0	3	1	0	0	0	1	0	3	0	0	3	10	59	
	1:30 PM	1	6	0	0	7	0	3	2	0	5	0	3	1	0	4	0	3	1	0	4	20	64	
	1:45 PM	4	1	2	0	7	1	1	1	0	3	0	1	0	0	1	1	5	1	0	7	18	61	
	2:00 PM	1	1	4	0	6	1	0	0	0	1	0	1	0	0	1	0	1	2	0	3	11	54	
	2:15 PM	6	0	2	0	8	0	2	3	0	5	0	0	0	0	0	1	0	1	0	2	15	75	
	2:30 PM	1	1	5	0	7	0	2	1	0	3	3	1	0	0	4	0	1	2	0	3	17	76	
	2:45 PM	1	0	1	0	2	0	1	0	0	1	0	4	0	0	4	0	2	2	0	4	11	71	
PM Peak Period	3:00 PM	4	1	0	0	5	1	19	0	0	20	0	1	1	0	2	1	3	1	0	5	32	80	
	3:15 PM	1	2	2	0	5	0	2	0	0	2	2	1	1	0	4	0	4	1	0	5	16	60	
	3:30 PM	1	1	0	0	2	1	3	1	0	5	0	2	0	0	2	0	3	0	0	3	12	57	
	3:45 PM	0	2	0	0	2	0	3	2	0	5	1	2	1	0	4	1	6	2	0	9	20	55	
	4:00 PM	0	1	0	0	1	2	0	1	0	3	2	0	1	0	3	0	5	0	0	5	12	47	
	4:15 PM	1	0	1	0	2	1	0	0	0	1	1	1	0	0	2	1	7	0	0	8	13	40	
	4:30 PM	1	0	1	0	2	0	2	1	0	3	1	2	0	0	3	0	1	1	0	2	10	34	
	4:45 PM	2	1	1	0	4	2	2	0	0	4	0	0	2	0	2	0	0	2	0	2	12	26	
	5:00 PM	0	1	0	0	1	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	5	18	
	5:15 PM	0	1	0	0	1	0	3	0	0	3	0	1	0	0	1	0	1	1	0	2	7		
	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2		
	5:45 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	4		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		47	51	43	0	141	25	139	29	0	193	24	46	13	0	83	18	145	36	0	199	616		

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

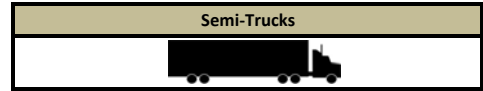
Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume	
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM	5	3	2	0	10	5	18	2	0	25	1	3	0	0	4	0	26	4	0	0	30	69
MD 11:45 AM	2	5	3	0	10	1	13	2	0	16	0	3	3	0	6	1	14	3	0	0	18	50
PM 2:45 PM	7	4	3	0	14	2	25	1	0	28	2	8	2	0	12	1	12	4	0	0	17	71

Intersection Traffic Volume Report

Count Basics			Page 8 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

15-Minute Semi-Truck Data

Mid Valley Drive and Grant Street



15-Minute Semi-Truck Data

15-Minute Time Period Start Time	From North Mid Valley Drive					From East Grant Street					From South Mid Valley Drive					From West Grant Street					15-Min Totals	Hourly Sum	
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	3
	8:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	8
	9:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	9
	9:15 AM	1	1	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3	10
	9:30 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	3	9
	9:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	1	2	7	
Midday Peak Period	10:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	6
	10:15 AM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	8
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	11
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	11
	11:00 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	2	0	0	2	4	11
	11:15 AM	0	0	1	0	1	1	0	1	0	2	2	0	0	0	2	0	0	0	0	0	5	10
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	7
	11:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	7
	12:00 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	3	8
	12:15 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2	7
	12:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	9
	12:45 PM	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	8
	1:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	8
	1:15 PM	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	2	4	7
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	1:45 PM	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	5
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	4
	2:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
	2:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	6
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	6
	3:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	2	7
	3:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2	6
	3:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
	3:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	5
	4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4
	4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	5
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
	5:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		4	7	3	0	14	11	6	4	0	21	7	4	1	0	12	0	12	4	0	16	63	

Peak Hour Semi-Truck Volume Summary

Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume	
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
MD 11:45 AM	0	1	0	0	1	3	1	0	0	0	4	0	1	0	0	1	0	1	0	0	1	7
PM 2:45 PM	0	2	0	0	2	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Mid Valley Drive and Grant Street



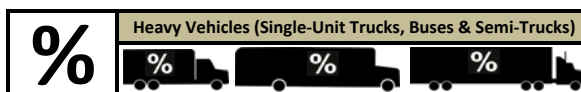
15-Minute Heavy Vehicle Data

15-Minute Time Period Start Time	From North Mid Valley Drive					From East Grant Street					From South Mid Valley Drive					From West Grant Street					15-Min Totals	Hourly Sum	
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period																							
6:00 AM	0	0	1	0	1	0	0	0	0	0	1	0	2	0	0	3	0	0	0	0	0	4	47
6:15 AM	0	1	1	0	2	0	3	0	0	3	0	1	0	0	0	1	0	0	0	0	0	6	67
6:30 AM	0	0	0	0	0	0	11	0	0	11	0	1	0	0	0	1	0	0	2	0	2	14	73
6:45 AM	2	0	1	0	3	1	8	6	0	15	0	0	0	0	0	0	0	2	3	0	5	23	78
7:00 AM	1	1	1	0	3	0	0	1	0	1	1	2	0	0	0	3	0	14	3	0	17	24	69
7:15 AM	1	0	1	0	2	2	3	0	0	5	0	0	0	0	0	0	5	0	0	0	5	12	59
7:30 AM	3	1	0	0	4	1	9	1	0	11	0	1	0	0	0	1	0	2	1	0	3	19	65
7:45 AM	0	1	0	0	1	2	6	0	0	8	0	0	0	0	0	0	0	5	0	0	5	14	63
8:00 AM	0	2	1	0	3	1	1	1	0	3	0	3	0	0	0	3	2	3	0	0	5	14	62
8:15 AM	0	1	1	0	2	1	3	2	0	6	1	0	0	0	0	1	0	6	3	0	9	18	56
8:30 AM	0	0	2	0	2	0	2	0	0	2	0	1	0	0	0	1	1	11	0	0	12	17	51
8:45 AM	0	0	0	0	0	1	3	0	0	4	3	1	0	0	0	4	1	4	0	0	5	13	45
9:00 AM	0	0	3	0	3	0	3	0	0	3	0	0	0	0	0	0	0	2	0	0	2	8	49
9:15 AM	2	1	2	0	5	1	1	0	0	2	1	0	0	0	0	1	1	4	0	0	5	13	54
9:30 AM	0	3	0	0	3	2	2	0	0	4	0	2	1	0	0	3	0	1	0	0	1	11	52
9:45 AM	1	2	0	0	3	1	5	0	0	6	0	0	0	0	0	0	1	6	1	0	8	17	58
Midday Peak Period																							
10:00 AM	1	1	0	0	2	0	3	1	0	4	3	0	0	0	0	3	0	3	1	0	4	13	51
10:15 AM	0	0	3	0	3	0	0	1	0	1	1	1	0	0	0	2	0	5	0	0	5	11	55
10:30 AM	3	1	0	0	4	2	2	0	0	4	1	1	2	0	0	4	1	4	0	0	5	17	61
10:45 AM	1	0	1	0	2	0	3	0	0	3	0	2	0	0	0	2	0	3	0	0	3	10	58
11:00 AM	1	4	0	0	5	1	3	1	0	5	0	0	0	0	0	0	1	4	2	0	7	17	59
11:15 AM	1	2	1	0	4	1	1	1	0	3	3	3	0	0	0	6	0	3	1	0	4	17	59
11:30 AM	3	3	0	0	6	0	2	1	0	3	1	2	0	0	0	3	1	1	0	0	2	14	56
11:45 AM	0	2	0	0	2	0	2	1	0	3	1	1	0	0	0	2	0	4	0	0	4	11	57
12:00 PM	1	0	2	0	3	1	5	0	0	6	0	0	1	0	0	1	1	4	2	0	7	17	60
12:15 PM	0	3	0	0	3	1	3	0	0	4	0	1	2	0	0	3	0	3	1	0	4	14	55
12:30 PM	2	0	1	0	3	1	4	1	0	6	0	2	0	0	0	2	0	4	0	0	4	15	55
12:45 PM	1	3	1	0	5	1	2	0	0	3	0	1	0	0	0	1	3	2	0	0	5	14	60
1:00 PM	1	1	0	0	2	0	5	1	0	6	1	0	0	0	0	1	0	3	0	0	3	12	66
1:15 PM	0	0	4	0	4	1	3	0	0	4	1	0	0	0	0	1	0	4	1	0	5	14	66
1:30 PM	1	6	0	0	7	0	3	2	0	5	0	3	1	0	0	4	0	3	1	0	4	20	68
1:45 PM	5	1	2	0	8	1	1	2	0	4	0	1	0	0	0	1	1	5	1	0	7	20	66
PM Peak Period																							
2:00 PM	1	1	4	0	6	1	0	0	0	1	0	1	0	0	0	1	0	2	2	0	4	12	58
2:15 PM	6	1	2	0	9	0	2	3	0	5	0	0	0	0	0	0	1	0	1	0	2	16	80
2:30 PM	1	1	5	0	7	1	2	1	0	4	3	1	0	0	0	4	0	1	2	0	3	18	82
2:45 PM	1	0	1	0	2	0	1	0	0	1	0	4	1	0	0	5	0	2	2	0	4	12	77
3:00 PM	4	1	0	0	5	2	19	0	0	21	0	0	1	1	0	2	1	4	1	0	6	34	87
3:15 PM	1	2	2	0	5	1	2	0	0	3	3	1	1	0	0	5	0	4	1	0	5	18	66
3:30 PM	2	1	0	0	3	1	3	1	0	5	0	2	0	0	0	2	0	3	0	0	3	13	63
3:45 PM	0	3	0	0	3	0	3	2	0	5	1	3	1	0	0	5	1	6	2	0	9	22	60
4:00 PM	0	1	0	0	1	2	1	1	0	4	2	0	1	0	0	3	0	5	0	0	5	13	51
4:15 PM	1	1	1	0	3	1	0	0	0	1	1	1	0	0	0	2	1	7	1	0	9	15	45
4:30 PM	1	0	1	0	2	0	2	1	0	3	1	2	0	0	0	3	0	1	1	0	2	10	37
4:45 PM	2	2	1	0	5	2	2	0	0	4	0	0	2	0	0	2	0	0	2	0	2	13	29
5:00 PM	0	1	0	0	1	1	3	1	0	5	1	0	0	0	0	1	0	0	0	0	0	7	20
5:15 PM	0	1	0	0	1	0	3	0	0	3	0	1	0	0	0	1	0	1	1	0	2	7	
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
5:45 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	4	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	51	58	46	0	155	36	145	33	0	214	31	50	14	0	95	18	157	40	0	0	215	679	

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	5	3	2	0	10	5	18	2	0	25	1	3	0	0	4	0	26	4	0	0	30
AM 11:45 AM	3	5	3	0	11	3	14	2	0	19	1	4	3	0	8	1	15	3	0	19	57
PM 2:45 PM	8	4	3	0	15	4	25	1	0	30	3	8	3	0	14	1	13	4	0	18	77

Mid Valley Drive and Grant Street



15-Minute Heavy Vehicle Percentages

Animate Heavy Vehicle Emissions																						Hourly Heavy Vehicle	
15-Minute Time Period Start Time		From North					From East					From South					From West					Total Heavy Vehicle	Hourly Heavy Vehicle
		Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					Vehicle	Vehicle
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Percent	Percent
AM Peak Period	6:00 AM	0.0	0.0	11.1	0.0	7.1	0.0	0.0	0.0	0.0	0.0	9.1	100.0	0.0	0.0	23.1	0.0	0.0	0.0	0.0	0.0	3.0	7.2
	6:15 AM	0.0	16.7	5.6	0.0	5.7	0.0	7.3	0.0	0.0	5.3	0.0	50.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	3.6	9.4
	6:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	24.4	0.0	0.0	16.2	0.0	50.0	0.0	0.0	16.7	0.0	0.0	8.3	0.0	0.0	3.3	9.2
	6:45 AM	25.0	0.0	6.2	0.0	8.8	14.3	29.6	24.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0	0.0	3.0	9.7	0.0	5.0	11.7	9.8
	7:00 AM	20.0	14.3	16.7	0.0	16.7	0.0	0.0	8.3	0.0	2.0	33.3	40.0	0.0	0.0	33.3	0.0	17.9	7.7	0.0	14.3	12.3	8.3
	7:15 AM	9.1	0.0	16.7	0.0	7.1	22.2	7.5	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	5.2	6.2	7.3
	7:30 AM	30.0	4.0	0.0	0.0	9.5	11.1	30.0	4.5	0.0	18.0	0.0	33.3	0.0	0.0	20.0	0.0	2.8	3.3	0.0	2.9	9.0	8.2
	7:45 AM	0.0	4.5	0.0	0.0	2.8	25.0	15.8	0.0	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	4.6	6.1	8.4
	8:00 AM	0.0	10.5	11.1	0.0	7.5	25.0	3.6	6.2	0.0	6.2	0.0	50.0	0.0	0.0	30.0	66.7	5.4	0.0	0.0	6.4	8.0	8.7
	8:15 AM	0.0	6.7	7.1	0.0	5.3	20.0	7.5	25.0	0.0	11.3	16.7	0.0	0.0	0.0	7.7	0.0	9.7	18.7	0.0	11.5	9.9	8.3
	8:30 AM	0.0	0.0	18.2	0.0	5.9	0.0	5.6	0.0	0.0	4.0	0.0	20.0	0.0	0.0	10.0	33.3	20.4	0.0	0.0	17.1	10.4	7.9
	8:45 AM	0.0	0.0	0.0	0.0	0.0	14.3	9.4	0.0	0.0	8.7	20.0	14.3	0.0	0.0	16.7	25.0	5.9	0.0	0.0	5.6	6.8	7.3
9:00 AM	0.0	0.0	18.7	0.0	10.0	0.0	7.9	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	3.9	5.6	8.3	
9:15 AM	16.7	10.0	16.7	0.0	14.7	33.3	3.7	0.0	0.0	5.3	7.7	0.0	0.0	0.0	5.0	33.3	9.8	0.0	0.0	9.3	8.9	9.0	
9:30 AM	0.0	20.0	0.0	0.0	10.3	40.0	6.7	0.0	0.0	8.9	0.0	20.0	50.0	0.0	16.7	0.0	3.2	0.0	0.0	2.3	8.1	8.9	
9:45 AM	11.1	11.1	0.0	0.0	7.7	16.7	16.7	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.0	50.0	10.3	12.5	0.0	11.8	10.2	9.9	
Midday Peak Period	10:00 AM	20.0	11.1	0.0	0.0	6.7	0.0	11.5	11.1	0.0	9.5	37.5	0.0	0.0	0.0	15.8	0.0	6.2	7.1	0.0	6.3	8.4	8.8
	10:15 AM	0.0	0.0	30.0	0.0	11.1	0.0	0.0	8.3	0.0	2.0	25.0	12.5	0.0	0.0	16.7	0.0	16.1	0.0	0.0	12.5	8.5	8.9
	10:30 AM	50.0	12.5	0.0	0.0	15.4	22.2	6.1	0.0	0.0	8.9	12.5	16.7	100.0	0.0	25.0	50.0	10.0	0.0	0.0	10.4	12.6	8.9
	10:45 AM	7.1	0.0																				

Peak Hour Heavy Vehicle Percentages Summary

Hourly Time Period Start Time	From North					From East					From South					From West					Hourly Heavy Vehicle Percent
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	17.2	4.6	6.7	0.0	8.1	15.2	13.0	2.9	0.0	10.4	5.6	20.0	0.0	0.0	11.4	0.0	8.8	3.4	0.0	7.0	8.3
MD 11:45 AM	5.6	7.6	4.2	0.0	5.8	6.7	6.6	2.9	0.0	5.8	1.7	11.1	30.0	0.0	7.7	14.3	7.6	6.7	0.0	7.6	6.5
PM 2:45 PM	9.0	10.8	4.3	0.0	7.7	9.8	7.6	1.7	0.0	7.0	4.4	11.9	27.3	0.0	9.6	10.0	6.0	9.3	0.0	6.7	7.4

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Mid Valley Drive and Grant Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum		
	Mid Valley Drive			Grant Street			Mid Valley Drive			Grant Street						
	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	8:15 AM	0	0	0	0	0	1	0	1	0	0	0	1	1		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	9:30 AM	0	0	0	0	0	0	1	1	0	0	0	1	1		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	3		
	10:45 AM	0	0	0	0	0	1	0	1	0	0	0	1	3		
	11:00 AM	1	0	1	0	0	0	0	0	0	0	0	1	3		
	11:15 AM	0	0	0	0	0	0	1	1	0	0	0	1	2		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	11:45 AM	0	0	0	0	0	0	1	1	0	0	0	1	3		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3		
	12:30 PM	1	0	1	0	0	0	1	1	0	0	0	2	7		
	12:45 PM	0	1	1	0	0	0	0	0	0	0	0	1	5		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	5		
	1:15 PM	0	2	2	0	0	1	1	2	0	0	0	4	5		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1		
	1:45 PM	1	0	1	0	0	0	0	0	0	0	0	1	1		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0			
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0			
Totals		3	3	6	0	0	0	3	5	8	0	0	0	14		

Special Pedestrians

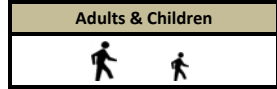
Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 12		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Mid Valley Drive and Grant Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time		Crossing North Approach 			Crossing East Approach 			Crossing South Approach 			Crossing West Approach 			15-Min Totals	Hourly Sum
		Mid Valley Drive			Grant Street			Mid Valley Drive			Grant Street				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	0
	6:30 AM	0		0	0		0	0		0	0		0	0	0
	6:45 AM	0		0	0		0	0		0	0		0	0	0
	7:00 AM	0		0	0		0	0		0	0		0	0	0
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	1
	7:45 AM	0		0	0		0	0		0	0		0	0	1
	8:00 AM	0		0	0		0	0		0	0		0	0	1
	8:15 AM	0		0	0		0	1		1	0		0	1	1
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	1
	10:15 AM	0		0	0		0	0		0	0		0	0	2
	10:30 AM	0		0	0		0	0		0	0		0	0	2
	10:45 AM	0		0	0		0	1		1	0		0	1	2
	11:00 AM	1		1	0		0	0		0	0		0	1	1
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	1
	12:00 PM	0		0	0		0	0		0	0		0	0	1
	12:15 PM	0		0	0		0	0		0	0		0	0	1
	12:30 PM	1		1	0		0	0		0	0		0	1	2
	12:45 PM	0		0	0		0	0		0	0		0	0	1
	1:00 PM	0		0	0		0	0		0	0		0	0	2
	1:15 PM	0		0	0		0	1		1	0		0	1	2
	1:30 PM	0		0	0		0	0		0	0		0	0	1
	1:45 PM	1		1	0		0	0		0	0		0	1	1
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	0
	2:15 PM	0		0	0		0	0		0	0		0	0	0
	2:30 PM	0		0	0		0	0		0	0		0	0	0
	2:45 PM	0		0	0		0	0		0	0		0	0	0
	3:00 PM	0		0	0		0	0		0	0		0	0	0
	3:15 PM	0		0	0		0	0		0	0		0	0	0
	3:30 PM	0		0	0		0	0		0	0		0	0	0
	3:45 PM	0		0	0		0	0		0	0		0	0	0
	4:00 PM	0		0	0		0	0		0	0		0	0	0
	4:15 PM	0		0	0		0	0		0	0		0	0	0
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Totals		3	0	3	0	0	0	3	0	3	0	0	0	6	

Count Basics			Page 13 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Bicyclists

15-Minute Bicycle Data

Peak Hour Bicycle Turning Movement Volume Summary

Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	Mid Valley Drive					Grant Street					Mid Valley Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD 11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1	Page 1 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events



Base Information, Observed (12) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **Apollo Way and Grant Street**

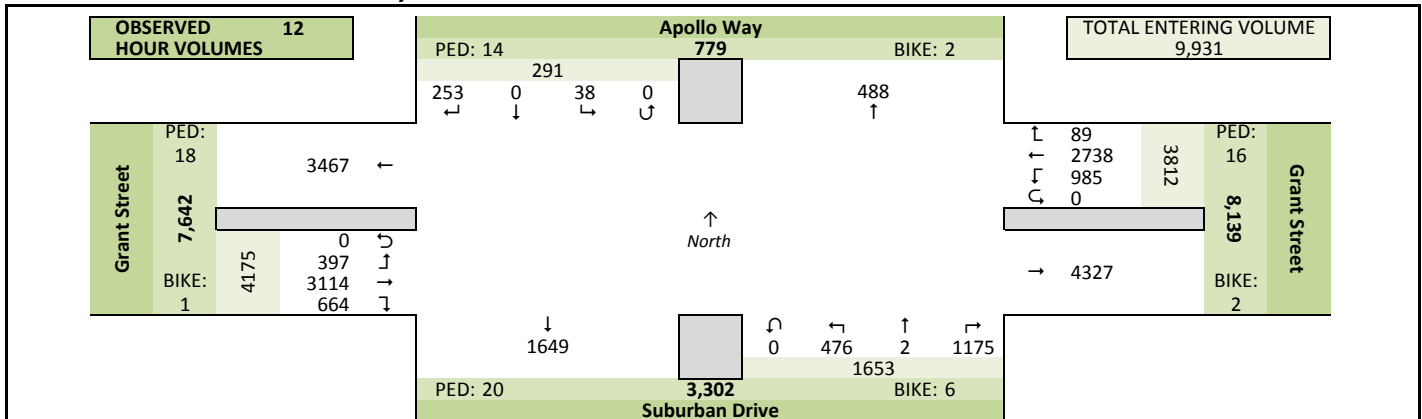
Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction		↑
North Leg	Apollo Way		
East Leg	Grant Street		
South Leg	Suburban Drive		
West Leg	Grant Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementry school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
	Other (describe)	None	None

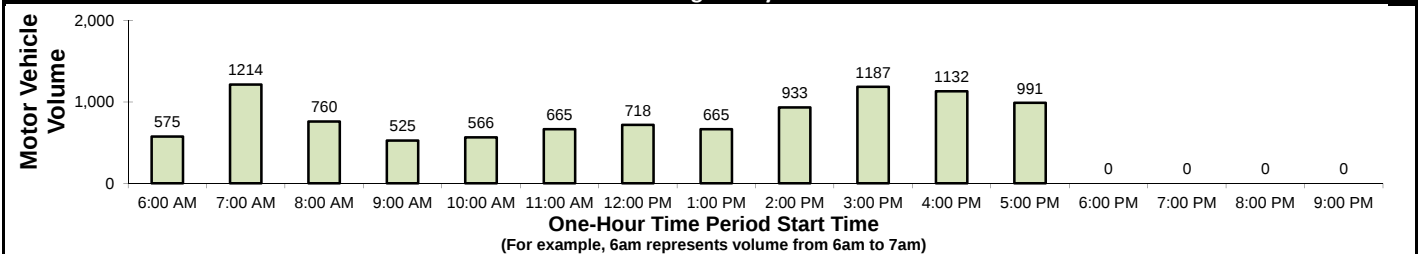
Count Information

Hrs Counted: 6:00 AM-6:00 PM					
1st Day of Count		Monday, November 12, 2018		Weather	
AM Peak Period		Tuesday, November 13, 2018		Clear & Dry	
Midday Peak Period		Wednesday, May 15, 2019		Clear & Dry	
PM Peak Period		Monday, November 12, 2018		Clear & Dry	
Calculated Peak Hours					
	AM	6:45-7:45am	MD	11:30-12:30am	PM 2:45-3:45pm
Peak Hours Selected for Analysis					
	AM	7:00-8:00am	MD	11:30-12:30am	PM 2:45-3:45pm
Daily/Seasonal Adjustment Group			(2) Urban Arterials & Collectors		
Count Expansion Group			(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor			0.952	Count Expansion Factor 1.330	
Company Name			TADI, Inc.		Manual Adj. 1.000
Observers	AM Peak Period		Lee Oestreich		
	Midday Peak Period		Jeff Schleif		
	PM Peak Period		Lee Oestreich		
Comments	2017 DOT Seasonal Factors				

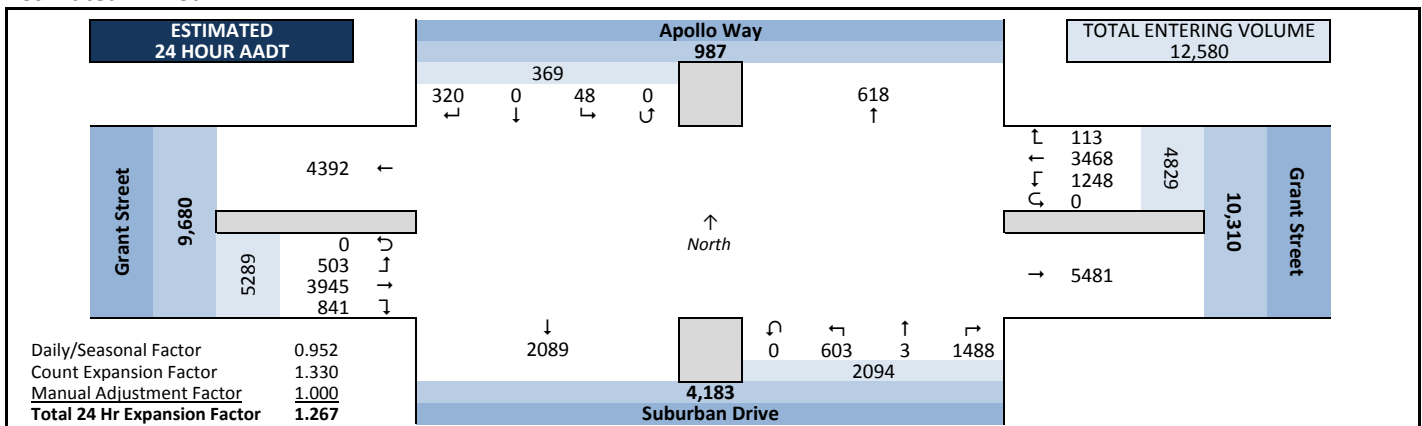
Observed 12 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



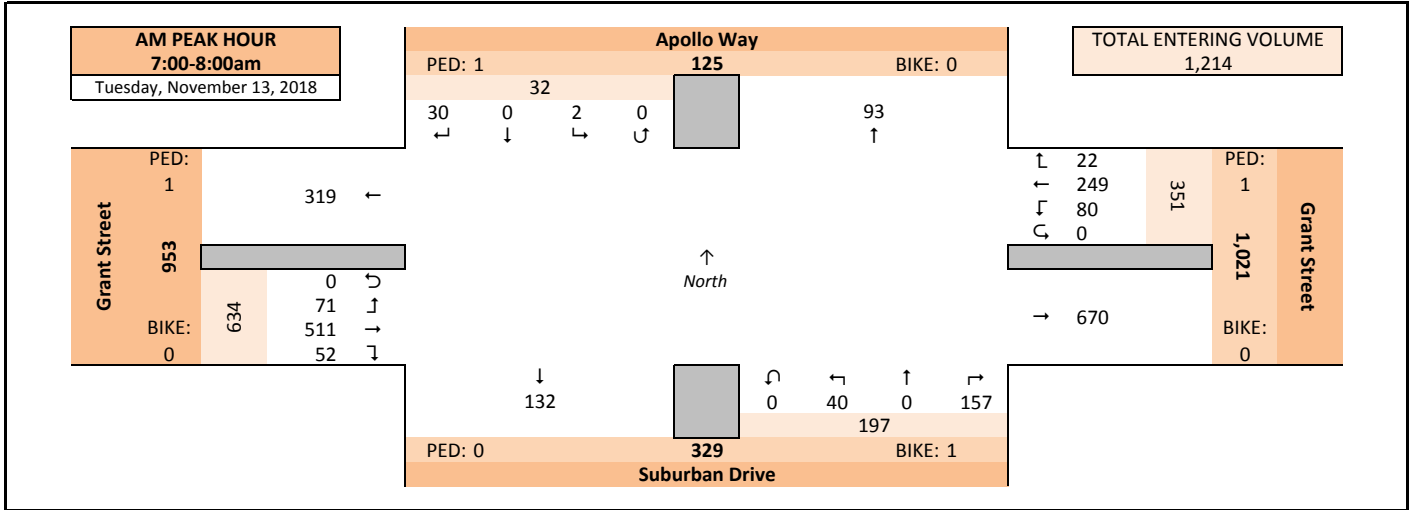
Intersection Traffic Volume Report

Count Basics			Page 2 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

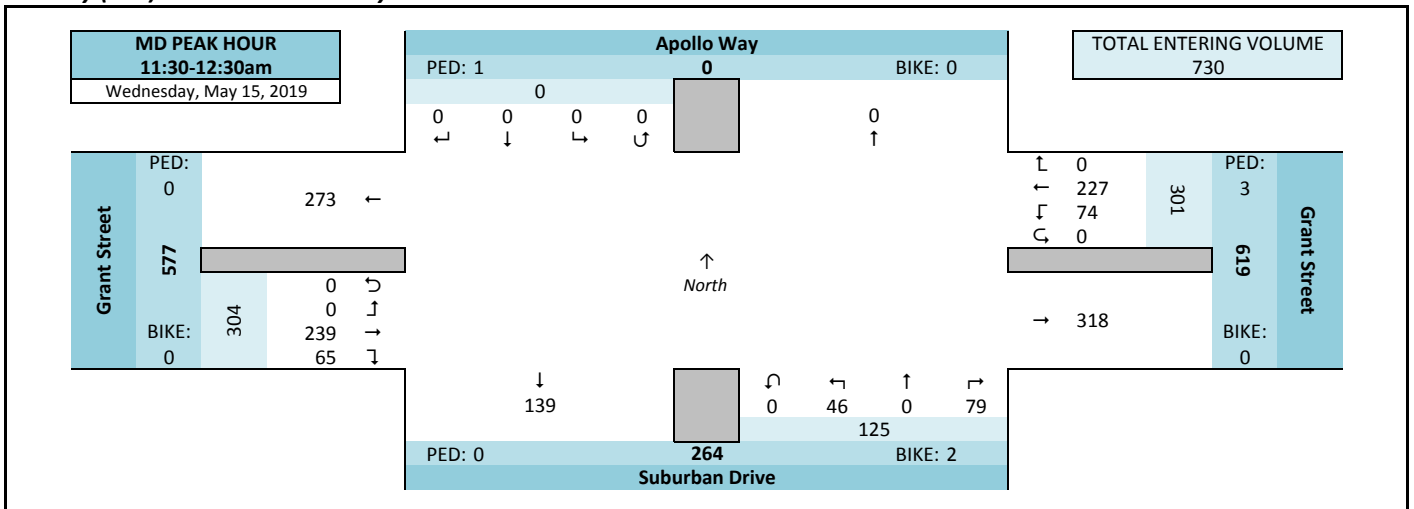
Peak Hour Volume Graphical Summary

Apollo Way and Grant Street

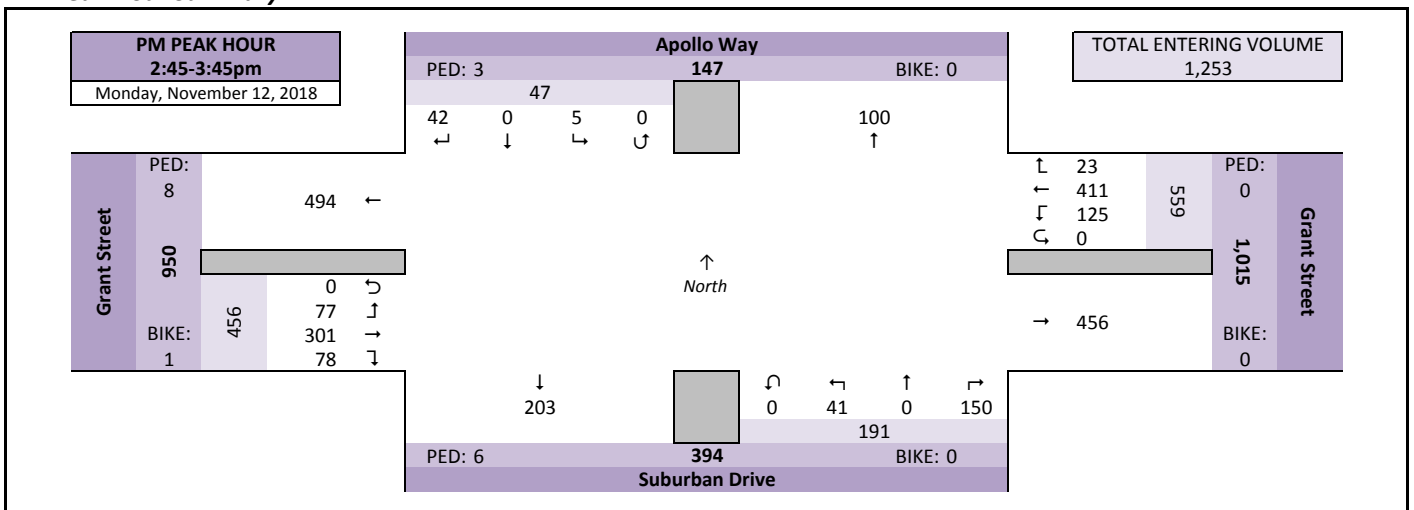
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



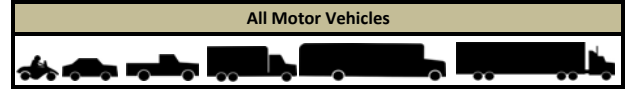
Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Peak Hour Volume Summary

Apollo Way and Grant Street

Peak Hour Volumes, Truck Percentages, and PHFs



Tuesday, November 13, 2018		From North					From East					From South					From West					
AM Peak Hour	AM Peak Hour	Apollo Way					Grant Street					Suburban Drive					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	7:00 AM	6	0	1	0	7	7	54	18	0	79	47	0	8	0	55	14	162	17	0	193	334
	7:15 AM	7	0	0	0	7	5	81	21	0	107	47	0	7	0	54	19	216	16	0	251	419
	7:30 AM	10	0	1	0	11	9	60	22	0	91	43	0	13	0	56	9	62	27	0	98	256
	7:45 AM	7	0	0	0	7	1	54	19	0	74	20	0	12	0	32	10	71	11	0	92	205
	Peak Hour Volume	30	0	2	0	32	22	249	80	0	351	157	0	40	0	197	52	511	71	0	634	1214
	Rounded Hourly Volume	30	0	0	0	30	20	250	80	0	350	155	0	40	0	195	50	510	70	0	630	1205
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	1.2	7.5	0.0	2.6	0.6	0.0	7.5	0.0	2.0	5.8	5.9	0.0	0.0	5.2	3.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	7.5	0.0	2.8	0.6	0.0	7.5	0.0	2.0	5.8	5.9	0.0	0.0	5.2	3.9
Peak Hour Factor (PHF)	0.75	0.00	0.50	0.00	0.73	0.61	0.77	0.91	0.00	0.82	0.84	0.00	0.77	0.00	0.88	0.68	0.59	0.66	0.00	0.63	0.72	

Wednesday, May 15, 2019		From North					From East					From South					From West					
Midday (MD) Peak Hour	MD Peak Hour	Apollo Way					Grant Street					Suburban Drive					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	11:30 AM	0	0	0	0	0	0	60	19	0	79	12	0	4	0	16	12	68	0	0	80	175
	11:45 AM	0	0	0	0	0	0	50	20	0	70	24	0	17	0	41	11	53	0	0	64	175
	12:00 PM	0	0	0	0	0	0	64	16	0	80	20	0	12	0	32	21	57	0	0	78	190
	12:15 PM	0	0	0	0	0	0	53	19	0	72	23	0	13	0	36	21	61	0	0	82	190
	Peak Hour Volume	0	0	0	0	0	0	227	74	0	301	79	0	46	0	125	65	239	0	0	304	730
	Rounded Hourly Volume	0	0	0	0	0	0	225	75	0	300	80	0	45	0	125	65	240	0	0	305	730
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.7	0.0	2.7	5.1	0.0	2.2	0.0	4.0	4.6	5.0	0.0	0.0	4.9	3.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.3
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	3.1	2.7	0.0	3.0	5.1	0.0	2.2	0.0	4.0	4.6	5.4	0.0	0.0	5.3	4.1	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.92	0.00	0.94	0.82	0.00	0.68	0.00	0.76	0.77	0.88	0.00	0.00	0.93	0.96	

Monday, November 12, 2018		From North					From East					From South					From West					
PM Peak Hour	PM Peak Hour	Apollo Way					Grant Street					Suburban Drive					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	2:45 PM	12	0	0	0	12	4	142	35	0	181	31	0	8	0	39	24	90	20	0	134	366
	3:00 PM	10	0	1	0	11	5	114	38	0	157	26	0	5	0	31	22	64	14	0	100	299
	3:15 PM	9	0	3	0	12	4	75	28	0	107	51	0	16	0	67	13	67	23	0	103	289
	3:30 PM	11	0	1	0	12	10	80	24	0	114	42	0	12	0	54	19	80	20	0	119	299
	Peak Hour Volume	42	0	5	0	47	23	411	125	0	559	150	0	41	0	191	78	301	77	0	456	1253
	Rounded Hourly Volume	40	0	5	0	45	25	410	125	0	560	150	0	40	0	190	80	300	75	0	455	1250
	% Single Unit Trucks	2.4	0.0	0.0	0.0	2.1	0.0	5.8	1.6	0.0	4.7	2.7	0.0	2.4	0.0	2.6	6.4	9.3	1.3	0.0	7.5	5.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2
% Trucks (Total)	2.4	0.0	0.0	0.0	2.1	0.0	6.1	1.6	0.0	4.8	2.7	0.0	2.4	0.0	2.6	6.4	9.6	1.3	0.0	7.7	5.4	
Peak Hour Factor (PHF)	0.87	0.00	0.42	0.00	0.98	0.57	0.72	0.82	0.00	0.77	0.74	0.00	0.64	0.00	0.71	0.81	0.84	0.84	0.00	0.85	0.86	

Peak Hour Pedestrian and Bicyclist Volumes

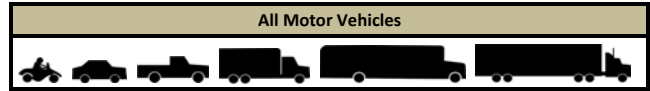
Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
15-Minute Start Time		Apollo Way			Grant Street			Suburban Drive			Grant Street			
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:00 AM	1	0	1	1	0	1	0	0	0	0	0	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
	7:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	0	1	1	0	1	0	1	1	1	0	1	4
MD	11:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	2	2	0	0	0	2
	12:15 PM	0	0	0	3	0	3	0	0	0	0	0	0	3
	Total	1	0	1	3	0	3	0	2	2	0	0	0	6
PM	2:45 PM	2	0	2	0	0	0	5	0	5	3	0	3	10
	3:00 PM	1	0	1	0	0	0	0	0	0	1	0	1	2
	3:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1
	3:30 PM	0	0	0	0	0	0	0	0	0	4	1	5	5
	Total	3	0	3	0	0	0	6	0	6	8	1	9	18

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

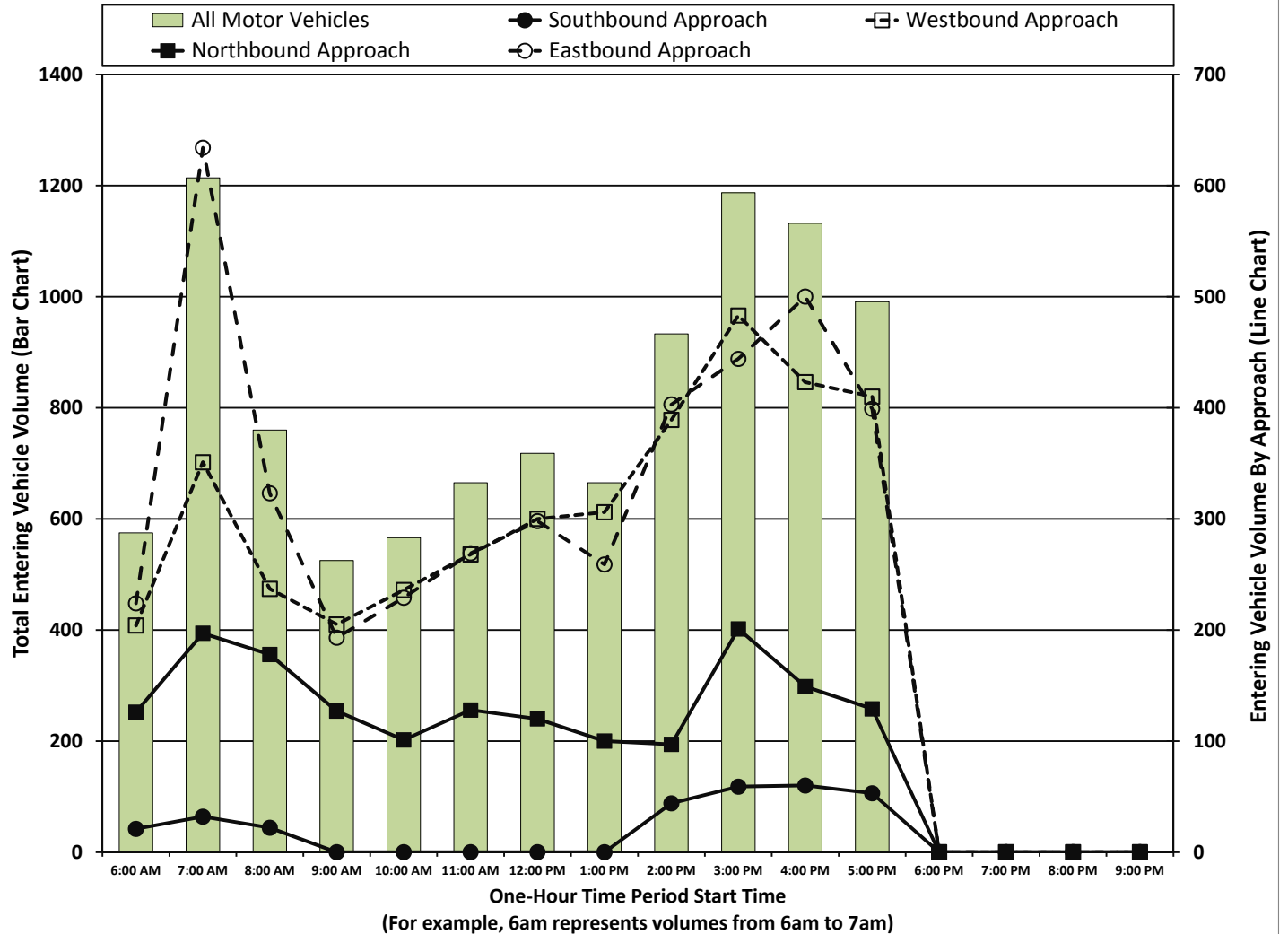
Apollo Way and Grant Street



One-Hour Motor Vehicle Data

One-Hour Time Period	↓ From North					← From East					↑ From South					→ From West					Total Vehicle Volume	Directional Volume Totals		
	Apollo Way					Grant Street					Suburban Drive					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		E/W	N/S	
AM	6:00 AM	16	0	5	0	21	6	153	45	0	204	83	1	42	0	126	25	153	46	0	224	575	428	147
	7:00 AM	30	0	2	0	32	22	249	80	0	351	157	0	40	0	197	52	511	71	0	634	1214	985	229
	8:00 AM	21	0	1	0	22	7	160	70	0	237	128	0	50	0	178	47	239	37	0	323	760	560	200
	9:00 AM	0	0	0	0	0	0	157	48	0	205	82	0	45	0	127	28	165	0	0	193	525	398	127
MD	10:00 AM	0	0	0	0	0	2	182	52	0	236	72	0	29	0	101	45	184	0	0	229	566	465	101
	11:00 AM	0	0	0	0	0	0	191	77	0	268	81	0	47	0	128	47	222	0	0	269	665	537	128
	12:00 PM	0	0	0	0	0	0	236	64	0	300	75	0	45	0	120	67	231	0	0	298	718	598	120
	1:00 PM	0	0	0	0	0	0	234	72	0	306	72	0	28	0	100	48	211	0	0	259	665	565	100
PM	2:00 PM	39	0	5	0	44	13	281	95	0	389	79	0	18	0	97	62	289	52	0	403	933	792	141
	3:00 PM	48	0	11	0	59	21	347	115	0	483	153	0	48	0	201	74	291	79	0	444	1187	927	260
	4:00 PM	52	0	8	0	60	12	272	139	0	423	104	1	44	0	149	93	345	62	0	500	1132	923	209
	5:00 PM	47	0	6	0	53	6	276	128	0	410	89	0	40	0	129	76	273	50	0	399	991	809	182
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals	253	0	38	0	291	89	2738	985	0	3812	1175	2	476	0	1653	664	3114	397	0	4175	9931	7987	1944

Graphical Summary of Hourly Volumes



Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume	PHF
	Apollo Way					Grant Street					Suburban Drive					Grant Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM	30	0	2	0	32	22	249	80	0	351	157	0	40	0	197	52	511	71	0	634	1214	0.72
MD 11:30 AM	0	0	0	0	0	0	227	74	0	301	79	0	46	0	125	65	239	0	0	304	730	0.96
PM 2:45 PM	42	0	5	0	47	23	411	125	0	559	150	0	41	0	191	78	301	77	0	456	1253	0.86

Intersection Traffic Volume Report

15-Minute Automobile Data

Apollo Way and Grant Street

Count Basics			Page 6 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Automobiles (Cars, Light Trucks, & Motorcycles)



15-Minute Automobile Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Apollo Way					Grant Street					Suburban Drive					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
6:00 AM	3	0	2	0	5	2	20	6	0	28	16	0	6	0	22	5	10	9	0	24	79	559		
6:15 AM	4	0	3	0	7	2	35	7	0	44	16	0	10	0	26	2	38	13	0	53	130	791		
6:30 AM	3	0	0	0	3	1	38	9	0	48	19	0	15	0	34	7	38	8	0	53	138	1068		
6:45 AM	6	0	0	0	6	0	57	22	0	79	32	1	11	0	44	10	57	16	0	83	212	1179		
7:00 AM	6	0	1	0	7	7	54	14	0	75	46	0	8	0	54	13	145	17	0	175	311	1167		
7:15 AM	7	0	0	0	7	5	79	20	0	104	47	0	6	0	53	18	209	16	0	243	407	1070		
7:30 AM	10	0	1	0	11	9	59	21	0	89	43	0	11	0	54	9	59	27	0	95	249	884		
7:45 AM	7	0	0	0	7	1	53	19	0	73	20	0	12	0	32	9	68	11	0	88	200	787		
8:00 AM	10	0	0	0	10	4	43	20	0	67	39	0	17	0	56	9	48	24	0	81	214	723		
8:15 AM	9	0	1	0	10	3	42	24	0	69	44	0	15	0	59	13	57	13	0	83	221	617		
8:30 AM	0	0	0	0	0	0	30	15	0	45	25	0	6	0	31	13	63	0	0	76	152	517		
8:45 AM	0	0	0	0	0	0	38	9	0	47	17	0	8	0	25	9	55	0	0	64	136	487		
9:00 AM	0	0	0	0	0	0	29	9	0	38	20	0	8	0	28	4	38	0	0	42	108	493		
9:15 AM	0	0	0	0	0	0	36	14	0	50	16	0	10	0	26	4	41	0	0	45	121	517		
9:30 AM	0	0	0	0	0	0	33	8	0	41	25	0	14	0	39	9	33	0	0	42	122	510		
9:45 AM	0	0	0	0	0	0	49	14	0	63	17	0	11	0	28	7	44	0	0	51	142	525		
10:00 AM	0	0	0	0	0	0	36	12	0	48	25	0	8	0	33	10	41	0	0	51	132	533		
10:15 AM	0	0	0	0	0	0	44	14	0	58	6	0	2	0	8	9	39	0	0	48	114	540		
10:30 AM	0	0	0	0	0	0	53	5	0	58	21	0	9	0	30	10	39	0	0	49	137	581		
10:45 AM	0	0	0	0	0	0	44	18	0	62	16	0	10	0	26	8	54	0	0	62	150	611		
11:00 AM	0	0	0	0	0	0	39	10	0	49	23	0	14	0	37	11	42	0	0	53	139	630		
11:15 AM	0	0	0	0	0	0	36	27	0	63	22	0	8	0	30	9	53	0	0	62	155	677		
11:30 AM	0	0	0	0	0	0	58	19	0	77	10	0	4	0	14	12	64	0	0	76	167	700		
11:45 AM	0	0	0	0	0	0	47	20	0	67	24	0	17	0	41	11	50	0	0	61	169	691		
12:00 PM	0	0	0	0	0	0	62	15	0	77	20	0	12	0	32	21	56	0	0	77	186	688		
12:15 PM	0	0	0	0	0	0	53	18	0	71	21	0	12	0	33	18	56	0	0	74	178	655		
12:30 PM	0	0	0	0	0	0	56	18	0	74	13	0	12	0	25	12	47	0	0	59	158	635		
12:45 PM	0	0	0	0	0	0	57	11	0	68	18	0	7	0	25	12	61	0	0	73	166	640		
1:00 PM	0	0	0	0	0	0	40	19	0	59	17	0	8	0	25	10	59	0	0	69	153	634		
1:15 PM	0	0	0	0	0	0	60	19	0	79	15	0	8	0	23	11	45	0	0	56	158	645		
1:30 PM	0	0	0	0	0	0	74	11	0	85	12	0	5	0	17	9	52	0	0	61	163	676		
1:45 PM	0	0	0	0	0	0	50	20	0	70	23	0	7	0	30	14	46	0	0	60	160	711		
2:00 PM	8	0	1	0	9	3	39	16	0	58	15	0	2	0	17	11	61	8	0	80	164	887		
2:15 PM	7	0	2	0	9	3	49	21	0	73	17	0	6	0	23	8	63	13	0	84	189	1003		
2:30 PM	12	0	2	0	14	3	47	23	0	73	16	0	2	0	18	15	67	11	0	93	198	1089		
2:45 PM	12	0	0	0	12	4	136	34	0	174	29	0	8	0	37	24	69	20	0	113	336	1185		
3:00 PM	10	0	1	0	11	5	100	38	0	143	25	0	5	0	30	22	61	13	0	96	280	1146		
3:15 PM	8	0	3	0	11	4	73	27	0	104	51	0	15	0	66	8	63	23	0	94	275	1156		
3:30 PM	11	0	1	0	12	10	77	24	0	111	41	0	12	0	53	19	79	20	0	118	294	1166		
3:45 PM	18	0	6	0	24	2	76	25	0	103	33	0	15	0	48	20	80	22	0	122	297	1167		
4:00 PM	16	0	2	0	18	4	75	35	0	114	33	0	9	0	42	19	79	18	0	116	290	1121		
4:15 PM	11	0	1	0	12	2	71	33	0	106	24	0	13	0	37	32	82	16	0	130	285	1075		
4:30 PM	13	0	3	0	16	3	66	43	0	112	23	1	9	0	33	25	94	15	0	134	295	1052		
4:45 PM	12	0	2	0	14	2	57	27	0	86	24	0	12	0	36	15	87	13	0	115	251	1012		
5:00 PM	15	0	2	0	17	1	64	37	0	102	23	0	12	0	35	17	60	13	0	90	244	981		
5:15 PM	12	0	2	0	14	1	63	37	0	101	18	0	9	0	27	21	87	12	0	120	262			
5:30 PM	8	0	1	0	9	2	76	26	0	104	29	0	12	0	41	17	70	14	0	101	255			
5:45 PM	12	0	1	0	13	2	69	28	0	99	18	0	7	0	25	20	54	9	0	83	220			
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Totals	250	0	38	0	288	85	2642	961	0	3688	1147	2	459	0	1608	621	2963	394	0	3978	9562			

Peak Hour Automobile Volume Summary

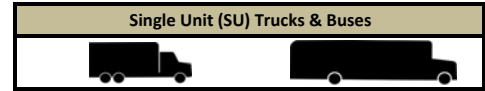
Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	Apollo Way					Grant Street					Suburban Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	30	0	2	0	32	22	245	74	0	341	156	0	37	0	193	49	481	71	0	601	1167
MD 11:30 AM	0	0	0	0	0	0	220	72	0	292	75	0	45	0	120	62	226	0	0	288	700
PM 2:45 PM	41	0	5	0	46	23	386	123	0	532	146	0	40	0	186	73	272	76	0	421	1185

Intersection Traffic Volume Report

15-Minute Single Unit (SU) Truck & Bus Data

Apollo Way and Grant Street

Count Basics			Page 7 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events



15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Apollo Way					Grant Street					Suburban Drive					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	13	
	6:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	2	34	
	6:30 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	2	0	0	2	4	43	
	6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5	46	
	7:00 AM	0	0	0	0	0	0	0	4	0	4	1	0	0	0	1	1	17	0	0	18	23	46	
	7:15 AM	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	1	7	0	0	8	11	31	
	7:30 AM	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	0	3	0	0	3	7	30	
	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	5	34	
	8:00 AM	2	0	0	0	2	0	0	2	0	2	0	0	1	0	1	1	2	0	0	3	8	35	
	8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	2	2	0	0	4	10	32	
	8:30 AM	0	0	0	0	0	0	3	0	0	3	3	0	0	0	3	0	5	0	0	5	11	28	
	8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	6	29	
	9:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	2	0	0	2	5	30	
	9:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	2	1	0	0	3	6	32	
	9:30 AM	0	0	0	0	0	0	3	1	0	4	3	0	0	0	3	1	4	0	0	5	12	35	
	9:45 AM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	1	2	0	0	3	7	27	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	1	4	0	0	5	7	33	
	10:15 AM	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	3	2	0	0	5	9	36	
	10:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4	36	
	10:45 AM	0	0	0	0	0	2	2	1	0	5	1	0	0	0	1	4	3	0	0	7	13	38	
	11:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	3	3	0	0	6	10	31	
	11:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	1	3	0	0	4	9	25	
	11:30 AM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	3	0	0	3	6	28	
	11:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6	30	
	12:00 PM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	1	0	0	1	4	28	
	12:15 PM	0	0	0	0	0	0	0	1	0	1	2	0	1	0	3	3	5	0	0	8	12	29	
	12:30 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	1	3	0	0	4	8	24	
	12:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	4	20	
	1:00 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	2	0	0	2	5	28	
	1:15 PM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	2	2	0	0	4	7	27	
	1:30 PM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	1	0	0	1	4	25	
	1:45 PM	0	0	0	0	0	0	4	1	0	5	1	0	0	0	1	2	4	0	0	6	12	26	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	4	44	
	2:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	1	0	0	3	5	58	
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	5	66	
	2:45 PM	0	0	0	0	0	0	6	1	0	7	2	0	0	0	2	0	21	0	0	21	30	66	
	3:00 PM	0	0	0	0	0	0	13	0	0	13	1	0	0	0	1	0	3	1	0	4	18	39	
	3:15 PM	1	0	0	0	1	0	2	1	0	3	0	0	1	0	1	5	3	0	0	8	13	25	
	3:30 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	1	0	0	1	5	14	
	3:45 PM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	3	12	
	4:00 PM	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	0	0	0	0	0	4	10	
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	2	9	
	4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	3	10	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	8	
	5:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	3	8	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	3		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1		
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		3	0	0	0	3	4	82	23	0	109	28	0	17	0	45	43	142	3	0	188	345		

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period Start Time	↓ From North					↶ From East					↑ From South					↷ From West					Total Hourly Volume
	Apollo Way					Grant Street					Suburban Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	3	6	0	9	1	0	3	0	4	3	30	0	0	33	46
MD 11:30 AM	0	0	0	0	0	0	6	2	0	8	4	0	1	0	5	3	12	0	0	15	28
PM 2:45 PM	1	0	0	0	1	0	24	2	0	26	4	0	1	0	5	5	28	1	0	34	68

Intersection Traffic Volume Report

15-Minute Semi-Truck Data

Count Basics		Page 8 of 13	
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Apollo Way and Grant Street



15-Minute Semi-Truck Data

[illegible]

Peak Hour Semi-Truck Volume Summary

Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	Apollo Way					Grant Street					Suburban Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MD 11:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	
PM 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Apollo Way and Grant Street



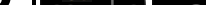
15-Minute Heavy Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Apollo Way					Grant Street					Suburban Drive					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	16	
	6:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	3	37	
	6:30 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	3	0	0	3	5	46	
	6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	6	48	
	7:00 AM	0	0	0	0	0	0	0	4	0	4	1	0	0	0	1	1	17	0	0	18	23	47	
	7:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	1	7	0	0	8	12	32	
	7:30 AM	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	0	3	0	0	3	7	30	
	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	5	36	
	8:00 AM	2	0	0	0	2	0	0	2	0	2	0	0	1	0	1	1	2	0	0	3	8	37	
	8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	2	2	0	0	4	10	34	
	8:30 AM	0	0	0	0	0	0	3	0	0	3	3	0	0	0	3	0	7	0	0	7	13	30	
	8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	6	30	
	9:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	2	0	0	2	5	32	
	9:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	2	1	0	0	3	6	34	
	9:30 AM	0	0	0	0	0	0	4	1	0	5	3	0	0	0	3	1	4	0	0	5	13	37	
	9:45 AM	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	1	2	0	0	3	8	28	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	1	4	0	0	5	7	33	
	10:15 AM	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	3	2	0	0	5	9	37	
	10:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4	38	
	10:45 AM	0	0	0	0	0	2	2	1	0	5	1	0	0	0	1	4	3	0	0	7	13	42	
	11:00 AM	0	0	0	0	0	0	2	1	0	3	0	0	2	0	2	3	3	0	0	6	11	35	
	11:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	2	0	2	1	3	0	0	4	10	28	
	11:30 AM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	4	0	0	4	8	30	
	11:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6	31	
	12:00 PM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	1	0	0	1	4	30	
	12:15 PM	0	0	0	0	0	0	0	1	0	1	2	0	1	0	3	3	5	0	0	8	12	31	
	12:30 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	1	4	0	0	5	9	27	
	12:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	1	0	0	1	5	23	
	1:00 PM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	2	0	0	2	5	31	
	1:15 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	2	2	0	0	4	8	31	
	1:30 PM	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	0	1	0	0	1	5	28	
	1:45 PM	0	0	0	0	0	0	5	1	0	6	1	0	0	0	1	2	4	0	0	6	13	29	
PM Peak Period	2:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	5	46	
	2:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	1	0	0	3	5	60	
	2:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	4	0	0	5	6	69	
	2:45 PM	0	0	0	0	0	0	6	1	0	7	2	0	0	0	2	0	21	0	0	21	30	68	
	3:00 PM	0	0	0	0	0	0	14	0	0	14	1	0	0	0	1	0	3	1	0	4	19	41	
	3:15 PM	1	0	0	0	1	0	2	1	0	3	0	0	1	0	1	5	4	0	0	9	14	26	
	3:30 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	1	0	0	1	5	14	
	3:45 PM	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	3	13	
	4:00 PM	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	0	0	0	0	0	4	11	
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	2	12	
	4:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	4	13	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	10	
	5:00 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	0	1	0	1	5	10	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	3		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1		
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		3	0	0	0	3	4	96	24	0	124	28	0	17	0	45	43	151	3	0	197	369		

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume
	Apollo Way					Grant Street					Suburban Drive					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	4	6	0	10	1	0	3	0	4	3	30	0	0	33	47
MD 11:30 AM	0	0	0	0	0	0	7	2	0	9	4	0	1	0	5	3	13	0	0	16	30
PM 2:45 PM	1	0	0	0	1	0	25	2	0	27	4	0	1	0	5	5	29	1	0	35	68

15-Minute Heavy Vehicle Percentages

Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)	
%	

15-Minute Heavy Vehicle Percentages

Peak Hour Heavy Vehicle Percentages Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Hourly Heavy Vehicle Percent
		Apollo Way					Grant Street					Suburban Drive					Grant Street					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	1.6	7.5	0.0	2.8	0.6	0.0	7.5	0.0	2.0	5.8	5.9	0.0	0.0	5.2	3.0
MD	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	3.1	2.7	0.0	3.0	5.1	0.0	2.2	0.0	4.0	4.6	5.4	0.0	0.0	5.3	4.0
PM	2:45 PM	2.4	0.0	0.0	0.0	2.1	0.0	6.1	1.6	0.0	4.8	2.7	0.0	2.4	0.0	2.6	6.4	9.6	1.3	0.0	7.7	5.0

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Apollo Way and Grant Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		Apollo Way			Grant Street			Suburban Drive			Grant Street				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	
	6:15 AM	1	0	1	0	0	0	1	0	1	0	0	0	4	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	
	7:00 AM	1	0	1	1	0	1	0	0	0	0	0	2	4	
	7:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	2	
	7:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Midday Peak Period	8:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	6
	8:45 AM	0	0	0	2	0	2	0	0	0	0	0	0	2	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	9:15 AM	1	0	1	1	0	1	1	0	1	0	0	0	3	11
	9:30 AM	0	0	0	0	2	2	0	0	0	0	0	0	2	9
	9:45 AM	0	0	0	2	0	2	2	0	2	0	0	0	4	9
	10:00 AM	0	1	1	1	0	1	0	0	0	0	0	0	2	5
	10:15 AM	0	0	0	0	0	0	0	1	1	0	0	0	1	4
	10:30 AM	0	0	0	1	0	1	0	0	0	1	0	1	2	3
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
PM Peak Period	11:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	1	2
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	11:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	6
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	12:00 PM	0	0	0	0	0	0	0	2	2	0	0	0	2	7
	12:15 PM	0	0	0	3	0	3	0	0	0	0	0	0	3	5
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	12:45 PM	0	0	0	2	0	2	0	0	0	0	0	0	2	8
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	1:15 PM	2	0	2	0	0	0	0	1	1	0	0	0	3	12
	1:30 PM	1	0	1	0	0	0	2	0	2	0	0	0	3	11
	1:45 PM	0	1	1	3	0	3	0	0	0	0	0	0	4	14
	2:00 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	20
	2:15 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	20
	2:30 PM	0	0	0	0	0	0	3	0	3	3	0	3	6	19
	2:45 PM	2	0	2	0	0	0	5	0	5	3	0	3	10	18
	3:00 PM	1	0	1	0	0	0	0	0	0	1	0	1	2	12
	3:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	12
	3:30 PM	0	0	0	0	0	0	0	0	0	4	1	5	5	12
	3:45 PM	0	0	0	0	0	0	3	0	3	1	0	1	4	7
	4:00 PM	1	0	1	0	0	0	1	0	1	0	0	0	2	3
	4:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	2	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		14	2	16	16	2	18	20	6	26	18	1	19	79	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

15-Minute Adult & Children Count (Manual Entry)

Adults & Children



15-Minute Time Period Start Time		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		Apollo Way			Grant Street			Suburban Drive			Grant Street				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	2
	6:15 AM	1		1	0		0	1		1	0		0	2	4
	6:30 AM	0		0	0		0	0		0	0		0	0	3
	6:45 AM	0		0	0		0	0		0	0		0	0	3
	7:00 AM	1		1	1		1	0		0	0		0	2	3
	7:15 AM	0		0	0		0	0		0	1		1	1	1
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	1
	8:00 AM	0		0	0		0	0		0	0		0	0	3
	8:15 AM	0		0	0		0	0		0	0		0	0	3
	8:30 AM	1		1	0		0	0		0	0		0	1	6
	8:45 AM	0		0	2		2	0		0	0		0	2	5
	9:00 AM	0		0	0		0	0		0	0		0	0	7
	9:15 AM	1		1	1		1	1		1	0		0	3	8
9:30 AM	0		0	0		0	0		0	0		0	0	5	
9:45 AM	0		0	2		2	2		2	0		0	4	7	
Midday Peak Period	10:00 AM	0		0	1		1	0		0	0		0	1	3
	10:15 AM	0		0	0		0	0		0	0		0	0	2
	10:30 AM	0		0	1		1	0		0	1		1	2	2
	10:45 AM	0		0	0		0	0		0	0		0	0	1
	11:00 AM	0		0	0		0	0		0	0		0	0	1
	11:15 AM	0		0	0		0	0		0	0		0	0	1
	11:30 AM	1		1	0		0	0		0	0		0	1	4
	11:45 AM	0		0	0		0	0		0	0		0	0	3
	12:00 PM	0		0	0		0	0		0	0		0	0	5
	12:15 PM	0		0	3		3	0		0	0		0	3	5
	12:30 PM	0		0	0		0	0		0	0		0	0	4
	12:45 PM	0		0	2		2	0		0	0		0	2	7
	1:00 PM	0		0	0		0	0		0	0		0	0	8
	1:15 PM	2		2	0		0	0		0	0		0	2	10
1:30 PM	1		1	0		0	2		2	0		0	3	10	
1:45 PM	0		0	3		3	0		0	0		0	3	13	
PM Peak Period	2:00 PM	1		1	0		0	0		0	1		1	2	20
	2:15 PM	1		1	0		0	0		0	1		1	2	20
	2:30 PM	0		0	0		0	3		3	3		3	6	19
	2:45 PM	2		2	0		0	5		5	3		3	10	17
	3:00 PM	1		1	0		0	0		0	1		1	2	11
	3:15 PM	0		0	0		0	1		1	0		0	1	11
	3:30 PM	0		0	0		0	0		0	4		4	4	11
	3:45 PM	0		0	0		0	3		3	1		1	4	7
	4:00 PM	1		1	0		0	1		1	0		0	2	3
	4:15 PM	0		0	0		0	1		1	0		0	1	1
	4:30 PM	0													

Intersection Traffic Volume Report

15-Minute Bicycle Turning Movement Count (Manual Entry)

Apollo Way and Grant Street

15-Minute Bicycle Data

Bicyclists


15-Minute Time Period Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum	
	Apollo Way					Grant Street					Suburban Drive					Grant Street							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
9:45 AM					0					0					0					0	0	0	
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
1:45 PM					0					0					0					0	0	0	
PM Peak Period	2:00 PM					0					0					0					0	0	0
	2:15 PM																						

Peak Hour Bicycle Turning Movement Volume Summary

[illegible]

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		Page 1 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session	
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events	



Base Information, Observed (6.5) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **Allard Street and Grant Street**

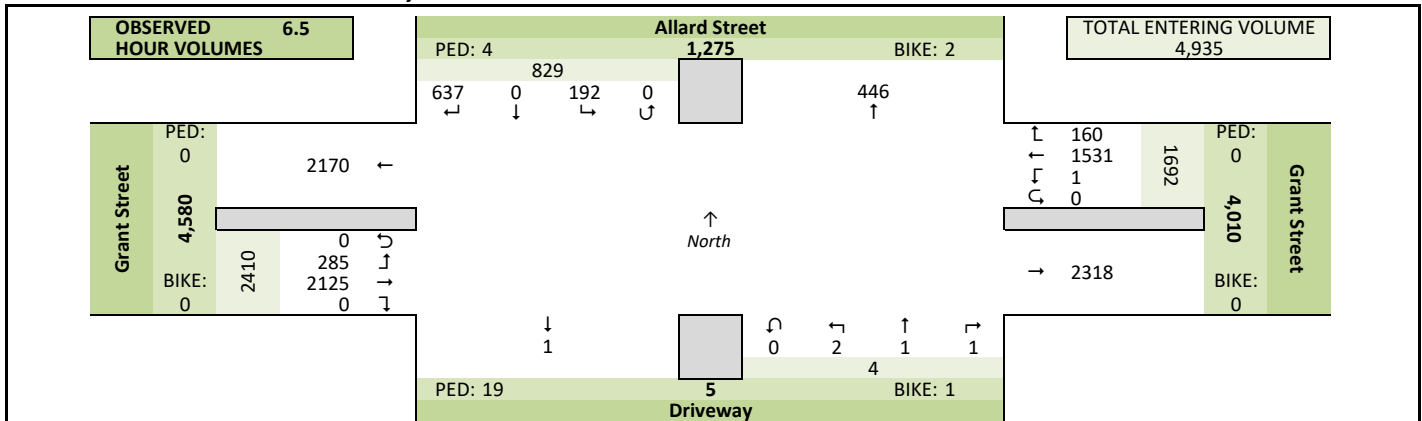
Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction	↑	
North Leg	Allard Street		
East Leg	Grant Street		
South Leg	Driveway		
West Leg	Grant Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementary school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
	Other (describe)	None	

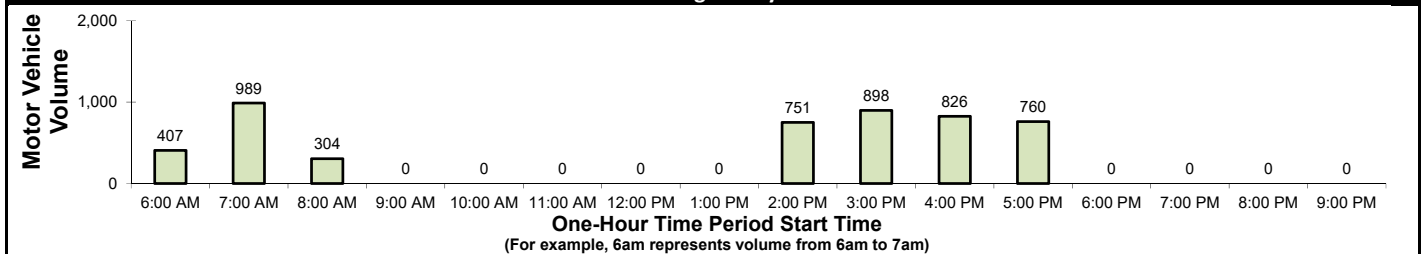
Count Information

Hrs Counted: 6:00 AM-8:30 AM and 2:00 PM-6:00 PM			
1st Day of Count		Monday, November 12, 2018	Weather
AM Peak Period		Tuesday, November 13, 2018	Clear & Dry
Midday Peak Period		Monday, November 12, 2018	Clear & Dry
PM Peak Period		Monday, November 12, 2018	Clear & Dry
Calculated Peak Hours			
	AM	6:45-7:45am MD	PM 2:45-3:45pm
Peak Hours Selected for Analysis			
	AM	7:00-8:00am MD	PM 2:45-3:45pm
Daily/Seasonal Adjustment Group		(2) Urban Arterials & Collectors	
Count Expansion Group		(2) Urban Arterials & Collectors	
Daily/Seasonal Adjustment Factor		0.953	Count Expansion Factor 1.890
Company Name		TADI, Inc.	Manual Adj. 1.000
Observers	AM Peak Period	Larry Numerich	
	Midday Peak Period	None	
	PM Peak Period	Larry Numerich	
Comments	2017 DOT Seasonal Factors		

Observed 6.5 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



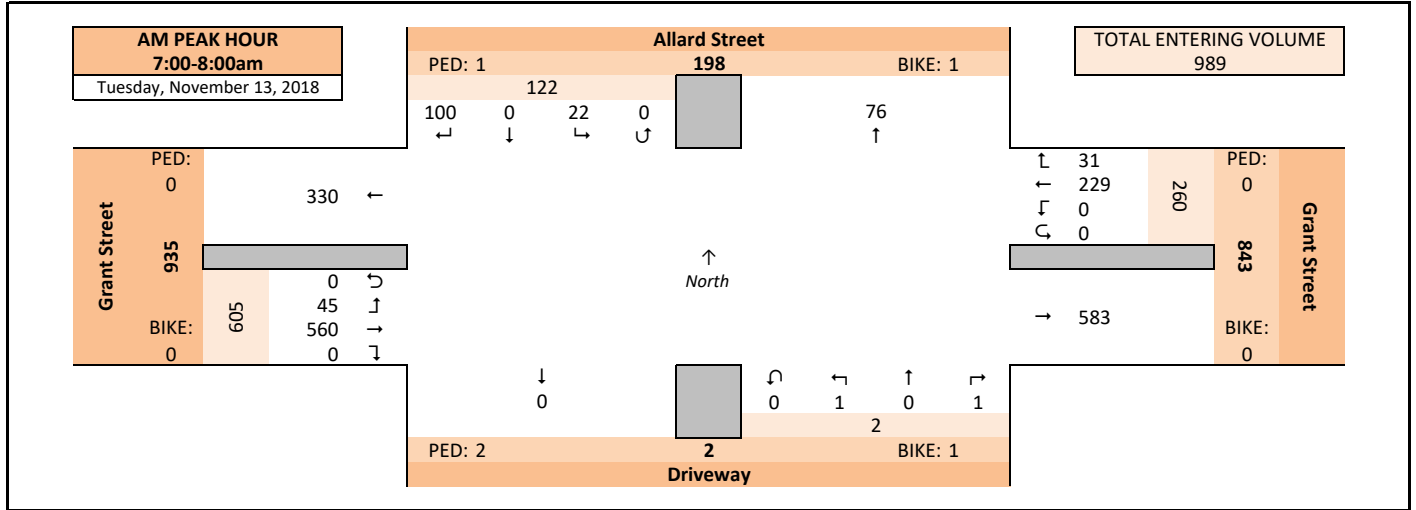
Intersection Traffic Volume Report

Count Basics		Page 2 of 13	
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events

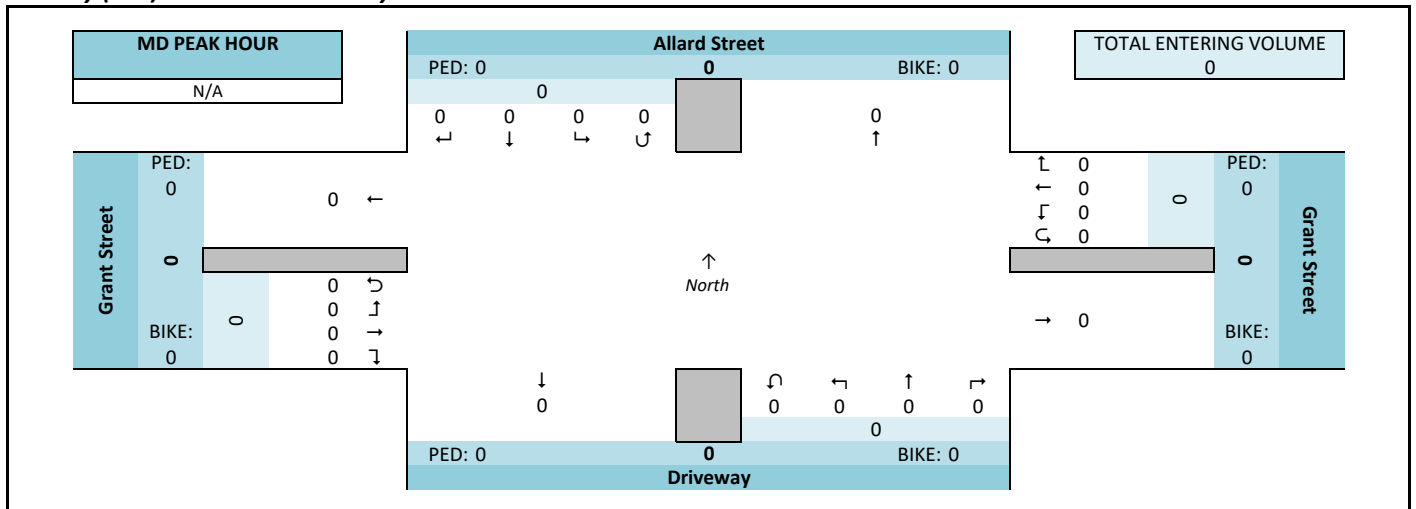
Peak Hour Volume Graphical Summary

Allard Street and Grant Street

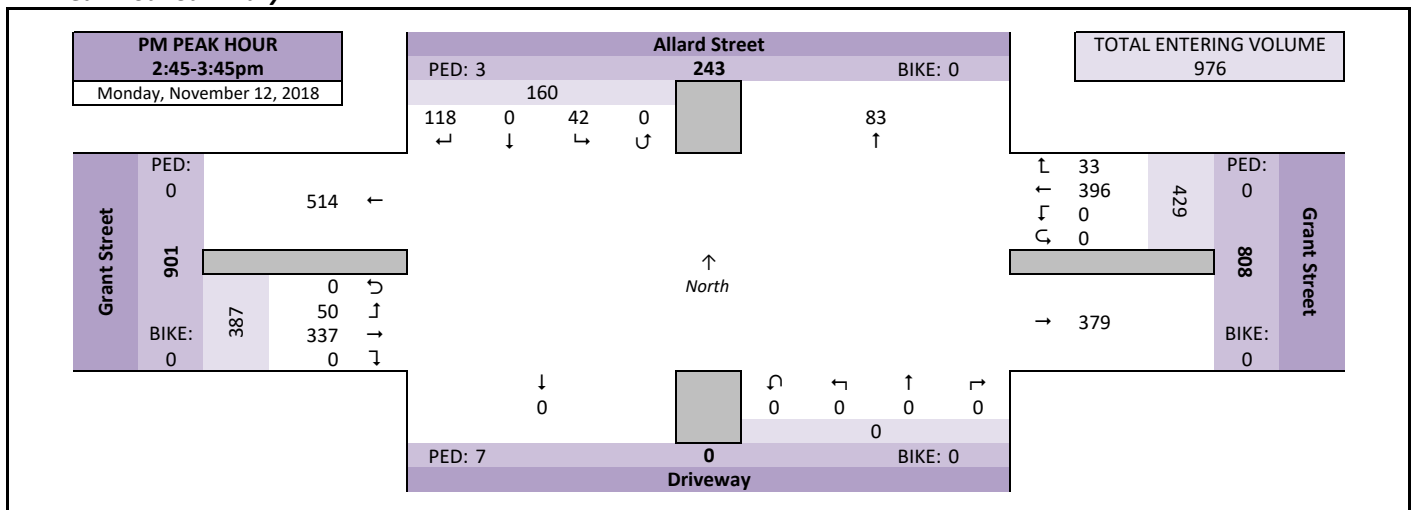
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



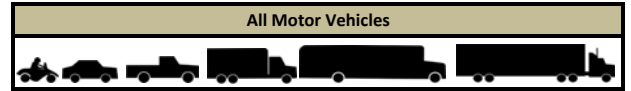
Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Peak Hour Volume Summary

Allard Street and Grant Street

Peak Hour Volumes, Truck Percentages, and PHFs



Tuesday, November 13, 2018		From North					From East					From South					From West					
AM Peak Hour	AM Peak Hour	Allard Street					Grant Street					Driveway					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	7:00 AM	21	0	6	0	27	9	58	0	0	67	1	0	1	0	2	0	182	11	0	193	289
	7:15 AM	23	0	6	0	29	9	78	0	0	87	0	0	0	0	0	0	235	17	0	252	368
	7:30 AM	25	0	3	0	28	7	56	0	0	63	0	0	0	0	0	0	69	9	0	78	169
	7:45 AM	31	0	7	0	38	6	37	0	0	43	0	0	0	0	0	0	74	8	0	82	163
	Peak Hour Volume	100	0	22	0	122	31	229	0	0	260	1	0	1	0	2	0	560	45	0	605	989
	Rounded Hourly Volume	100	0	20	0	120	30	230	0	0	260	0	0	0	0	0	0	560	45	0	605	985
	% Single Unit Trucks	1.0	0.0	4.5	0.0	1.6	6.5	3.5	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	5.1	4.3
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
% Trucks (Total)	1.0	0.0	4.5	0.0	1.6	6.5	3.9	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	5.1	4.4	
Peak Hour Factor (PHF)	0.81	0.00	0.79	0.00	0.80	0.86	0.73	0.00	0.00	0.75	0.25	0.00	0.25	0.00	0.25	0.00	0.60	0.66	0.00	0.60	0.67	

N/A		From North					From East					From South					From West					Totals
Midday (MD) Peak Hour	MD Peak Hour	Allard Street					Grant Street					Driveway					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	% Single Unit 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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Monday, November 12, 2018		From North					From East					From South					From West						
PM Peak Hour	PM Peak Hour	Allard Street					Grant Street					Driveway					Grant Street						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	2:45 PM	27	0	7	0	34	12	142	0	0	154	0	0	0	0	0	0	0	96	9	0	105	293
	3:00 PM	38	0	9	0	47	12	106	0	0	118	0	0	0	0	0	0	0	75	7	0	82	247
	3:15 PM	27	0	13	0	40	3	72	0	0	75	0	0	0	0	0	0	0	82	13	0	95	210
	3:30 PM	26	0	13	0	39	6	76	0	0	82	0	0	0	0	0	0	0	84	21	0	105	226
	Peak Hour Volume	118	0	42	0	160	33	396	0	0	429	0	0	0	0	0	0	0	337	50	0	387	976
	Rounded Hourly Volume	120	0	40	0	160	35	395	0	0	430	0	0	0	0	0	0	0	335	50	0	385	975
	% Single Unit Trucks	1.7	0.0	0.0	0.0	1.2	0.0	6.1	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	4.0	0.0	8.0	5.8
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.2
% Trucks (Total)	1.7	0.0	0.0	0.0	1.2	0.0	6.3	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	4.0	0.0	8.3	6.0	
Peak Hour Factor (PHF)	0.78	0.00	0.81	0.00	0.85	0.69	0.70	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.60	0.00	0.92	0.83	

Peak Hour Pedestrian and Bicyclist Volumes

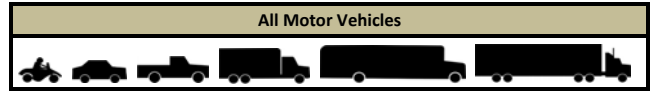
Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
15-Minute Start Time		Allard Street			Grant Street			Driveway			Grant Street			
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	
AM	7:00 AM	1	0	1	0	0	0	1	1	2	0	0	0	
	7:15 AM	0	1	1	0	0	0	1	0	1	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	1	1	2	0	0	0	2	1	3	0	0	0	
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
PM	2:45 PM	2	0	2	0	0	0	5	0	5	0	0	0	
	3:00 PM	1	0	1	0	0	0	0	0	0	0	0	1	
	3:15 PM	0	0	0	0	0	0	2	0	2	0	0	2	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	3	0	3	0	0	0	7	0	7	0	0	10	

Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

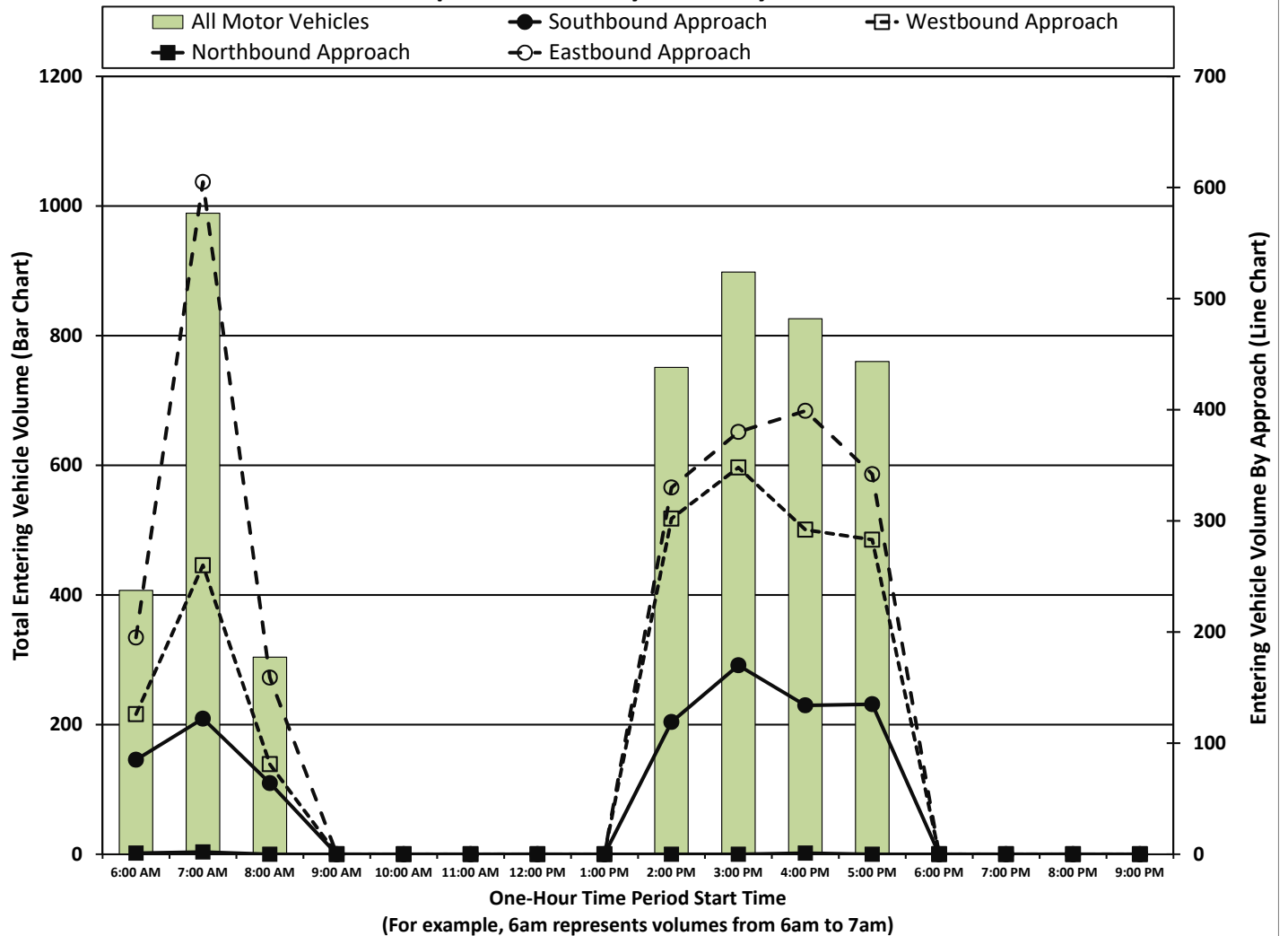
Allard Street and Grant Street



One-Hour Motor Vehicle Data

One-Hour Time Period	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals		
	Allard Street					Grant Street					Driveway					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
Start Time																						E/W	N/S	
AM	6:00 AM	73	0	12	0	85	11	115	0	0	126	0	1	0	0	1	0	163	32	0	195	407	321	86
	7:00 AM	100	0	22	0	122	31	229	0	0	260	1	0	1	0	2	0	560	45	0	605	989	865	124
	8:00 AM	55	0	9	0	64	6	75	0	0	81	0	0	0	0	0	0	129	30	0	159	304	240	64
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	81	0	38	0	119	31	271	0	0	302	0	0	0	0	0	0	294	36	0	330	751	632	119
	3:00 PM	119	0	51	0	170	32	315	1	0	348	0	0	0	0	0	0	328	52	0	380	898	728	170
	4:00 PM	104	0	30	0	134	27	265	0	0	292	0	0	1	0	1	0	352	47	0	399	826	691	135
	5:00 PM	105	0	30	0	135	22	261	0	0	283	0	0	0	0	0	0	299	43	0	342	760	625	135
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	637	0	192	0	829	160	1531	1	0	1692	1	1	2	0	4	0	2125	285	0	2410	4935	4102	833	

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

15-Minute Semi-Truck Data

Allard Street and Grant Street

15-Minute Semi-Truck Data

Count Basics		Page 8 of 13	
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events



A black silhouette of a semi-truck with a long trailer, positioned below the 'Semi-Trucks' label.

[illegible]

Peak Hour Semi-Truck Volume Summary

Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	Allard Street					Grant Street					Driveway					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

Allard Street and Grant Street



15-Minute Heavy Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Allard Street					Grant Street					Driveway					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	16	
	6:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	36	
	6:30 AM	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	6	45	
	6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	6	44	
	7:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	18	0	0	18	22	44	
	7:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	11	26	
	7:30 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	3	0	0	3	5	20	
	7:45 AM	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	6		
	8:00 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	4		
	8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	4	47	
	2:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	56	
	2:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5	58	
	2:45 PM	1	0	0	0	1	0	11	0	0	11	0	0	0	0	0	0	22	1	0	23	35	59	
	3:00 PM	1	0	0	0	1	0	9	0	0	9	0	0	0	0	0	0	3	0	0	3	13	29	
	3:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5	19	
	3:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	1	0	3	6	15	
	3:45 PM	1	0	2	0	3	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	5	13	
	4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	8	
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	7	
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4	6	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	5:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	7	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3		
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		4	0	5	0	9	3	57	0	0	60	0	0	0	0	0	0	89	2	0	91	160		

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume
	Allard Street					Grant Street					Driveway					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	1	0	1	0	2	2	9	0	0	11	0	0	0	0	0	0	31	0	0	31	44
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2:45 PM	2	0	0	0	2	0	25	0	0	25	0	0	0	0	0	0	30	2	0	32	59

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

Allard Street and Grant Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		Allard Street			Grant Street			Driveway			Grant Street				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	6:45 AM	0	0	0	0	0	0	3	0	3	0	0	0	3	8
	7:00 AM	1	0	1	0	0	0	1	1	2	0	0	0	3	5
	7:15 AM	0	1	1	0	0	0	1	0	1	0	0	0	2	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	2:45 PM	2	0	2	0	0	0	5	0	5	0	0	0	7	10
	3:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	7
	3:15 PM	0	0	0	0	0	0	2	0	2	0	0	0	2	8
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	3:45 PM	0	0	0	0	0	0	4	0	4	0	0	0	4	8
	4:00 PM	0	0	0	0	0	0	2	0	2	0	0	0	2	4
	4:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	2
	4:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		4	2	6	0	0	0	19	1	20	0	0	0	26	

Special Pedestrians

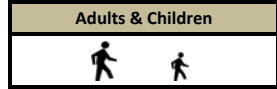
Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

Allard Street and Grant Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time		Crossing North Approach 			Crossing East Approach 			Crossing South Approach 			Crossing West Approach 			15-Min Totals	Hourly Sum
		Allard Street			Grant Street			Driveway			Grant Street				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	3
	6:15 AM	0		0	0		0	0		0	0		0	0	5
	6:30 AM	0		0	0		0	0		0	0		0	0	6
	6:45 AM	0		0	0		0	3		3	0		0	3	6
	7:00 AM	1		1	0		0	1		1	0		0	2	3
	7:15 AM	0		0	0		0	1		1	0		0	1	1
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	7
	2:15 PM	0		0	0		0	0		0	0		0	0	8
	2:30 PM	0		0	0		0	0		0	0		0	0	10
	2:45 PM	2		2	0		0	5		5	0		0	7	10
	3:00 PM	1		1	0		0	0		0	0		0	1	7
	3:15 PM	0		0	0		0	2		2	0		0	2	8
	3:30 PM	0		0	0		0	0		0	0		0	0	7
	3:45 PM	0		0	0		0	4		4	0		0	4	7
	4:00 PM	0		0	0		0	2		2	0		0	2	3
	4:15 PM	0		0	0		0	1		1	0		0	1	1
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Totals		4	0	4	0	0	0	19	0	19	0	0	0	23	

Count Basics			Page 13 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Bicyclists

15-Minute Bicycle Data

Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum	
	Allard Street					Grant Street					Driveway					Grant Street							
Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
9:45 AM					0					0					0					0	0	0	
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
1:45 PM					0					0					0					0	0	0	
PM Peak Period	2:00 PM					0					0					0					0	0	

Hourly Time Period Start Time		From North										From East										From South										From West										Total Hourly Volume
		Allard Street					Grant Street					Driveway					Grant Street																									
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total																					
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
PM	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		Page 1 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session	
Total Number of Hours Counted:	12	Non-Holiday	No Special Events	



Base Information, Observed (12) Hour and Estimated (24) Hour Volume Summaries

Intersection of: **VFW Park Drive and Grant Street**

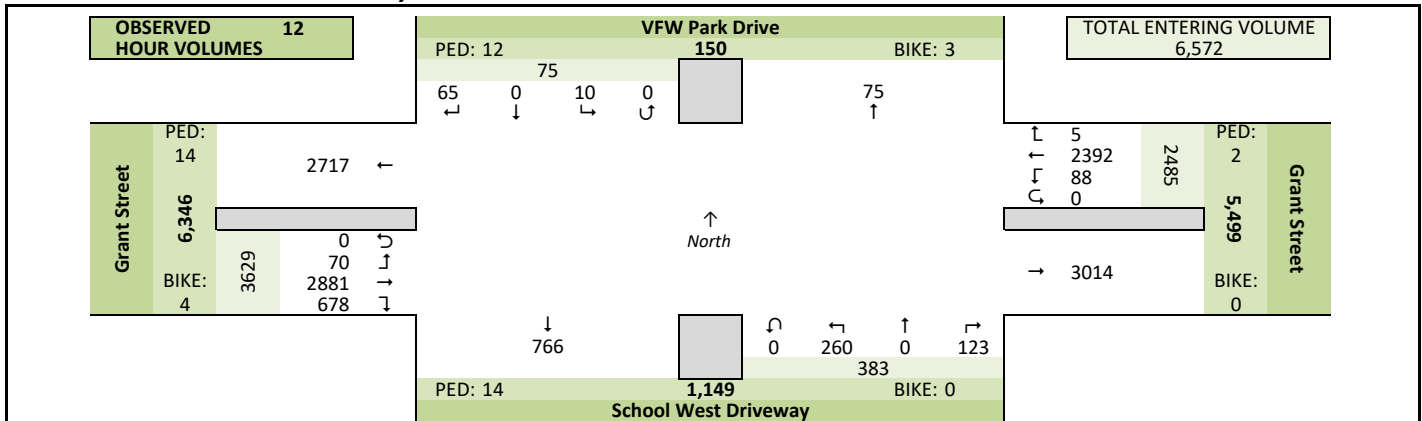
Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction		↑
North Leg	VFW Park Drive		
East Leg	Grant Street		
South Leg	School West Driveway		
West Leg	Grant Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementry school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
	Other (describe)	None	

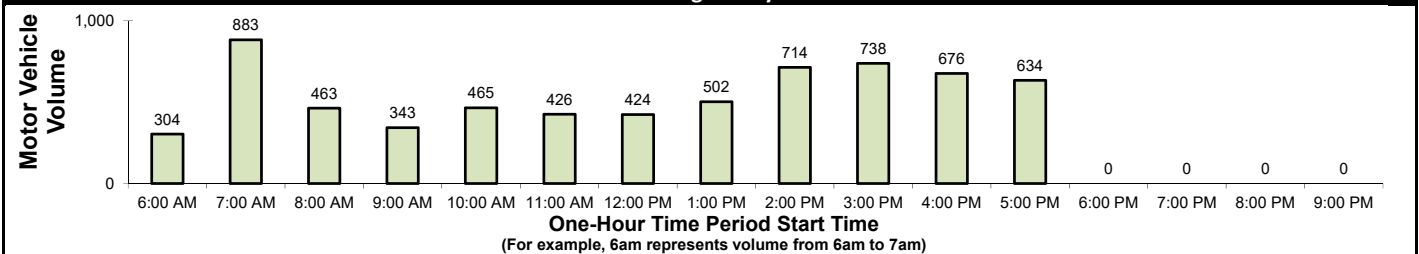
Count Information

Hrs Counted: 6:00 AM-6:00 PM					
1st Day of Count		Monday, November 12, 2018		Weather	
AM Peak Period		Tuesday, November 13, 2018		Clear & Dry	
Midday Peak Period		Monday, November 12, 2018		Clear & Dry	
PM Peak Period		Monday, November 12, 2018		Clear & Dry	
Calculated Peak Hours					
	AM	7:00-8:00am	MD	1:00-2:00pm	PM 2:45-3:45pm
Peak Hours Selected for Analysis					
	AM	7:00-8:00am	MD	1:00-2:00pm	PM 2:45-3:45pm
Daily/Seasonal Adjustment Group			(2) Urban Arterials & Collectors		
Count Expansion Group			(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor			0.953	Count Expansion Factor	1.330
Company Name				TADI, Inc.	Manual Adj. 1.000
Observers	AM Peak Period		Amy Scheuerlein		
	Midday Peak Period		None		
	PM Peak Period		Amy Scheuerlein		
Comments	2017 DOT Seasonal Factors				

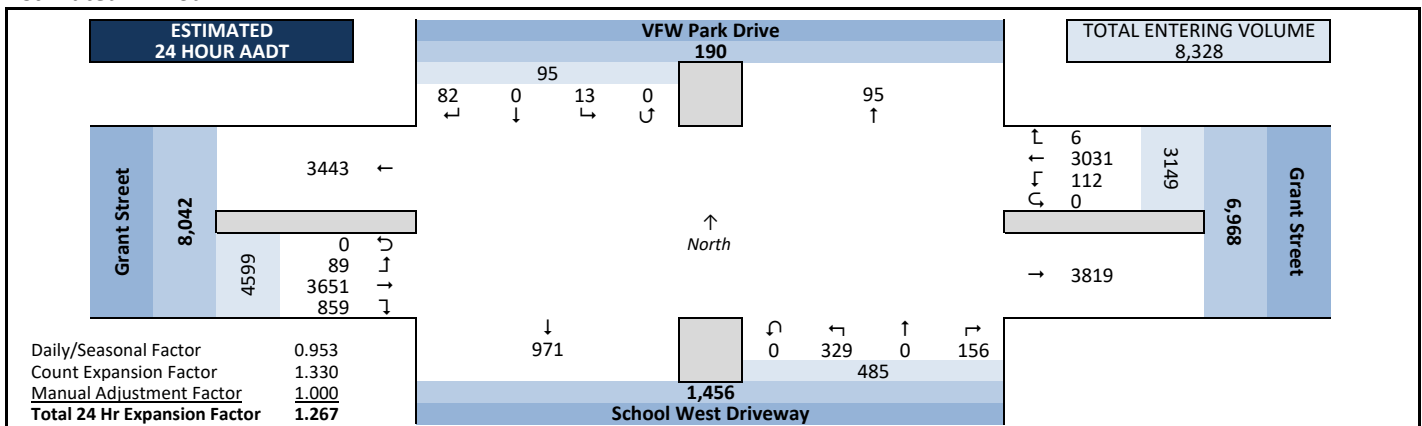
Observed 12 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



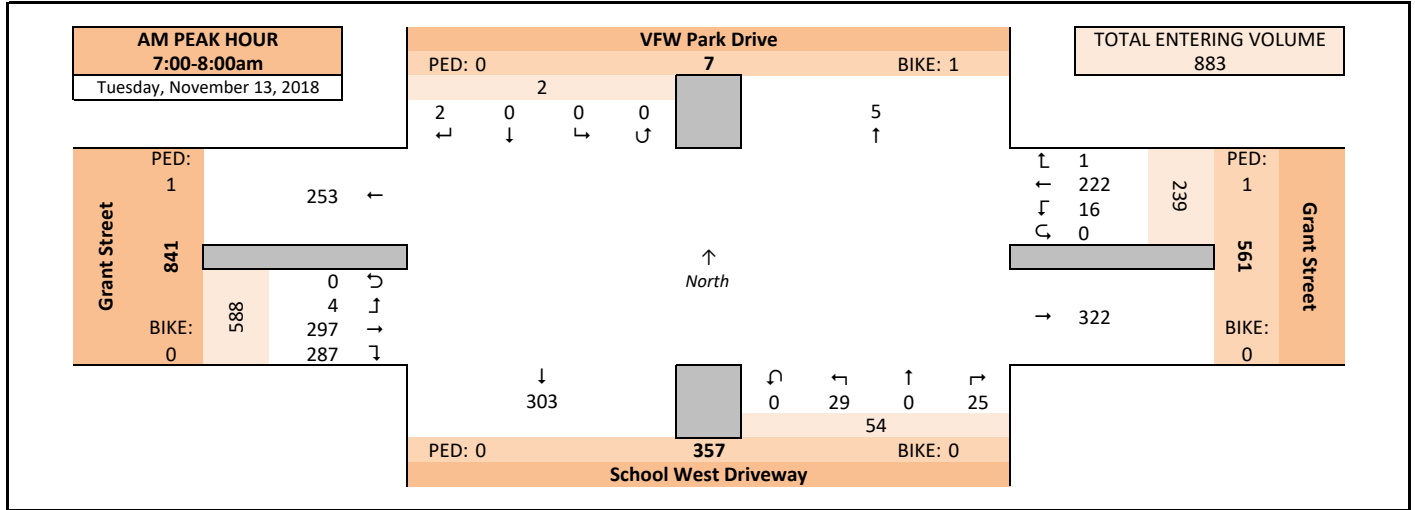
Intersection Traffic Volume Report

Count Basics			Page 2 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

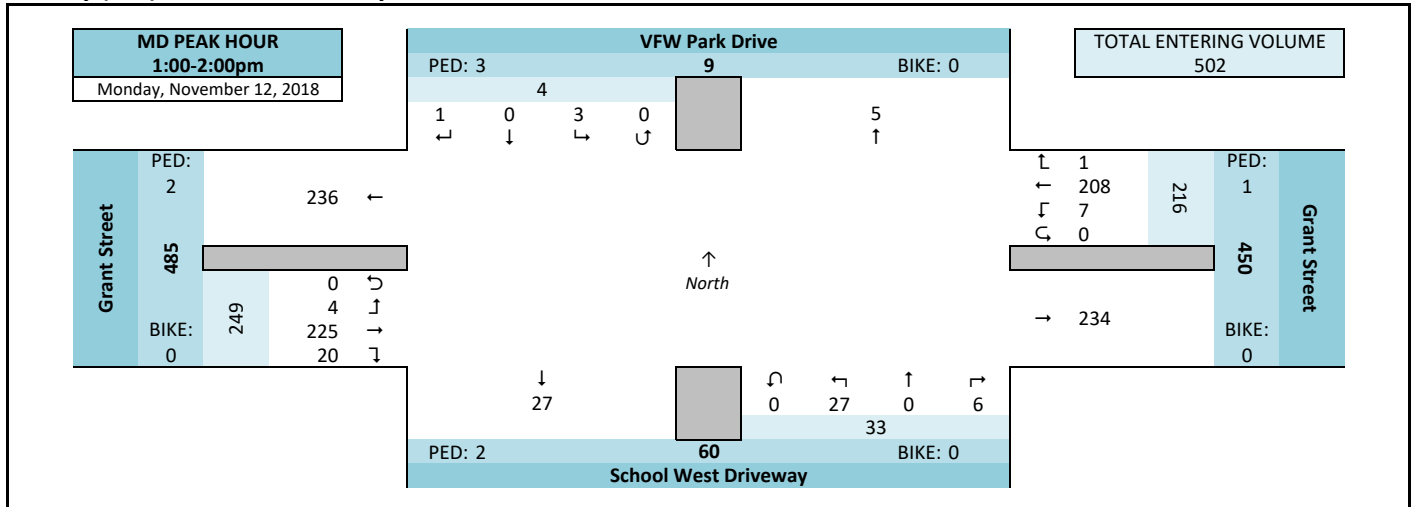
Peak Hour Volume Graphical Summary

VFW Park Drive and Grant Street

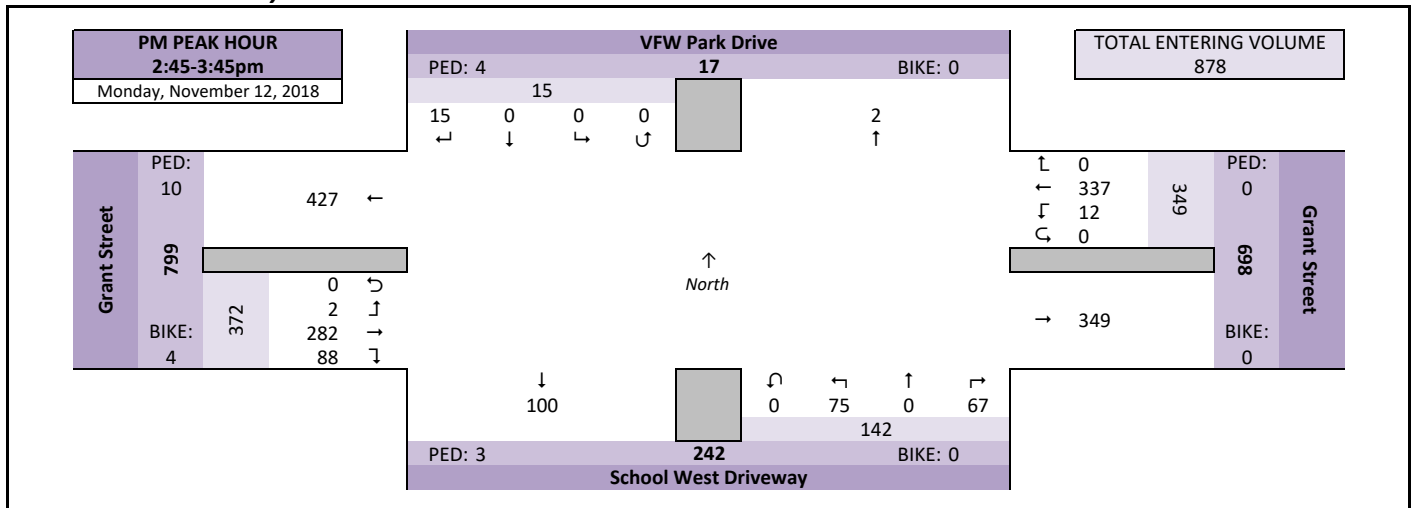
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



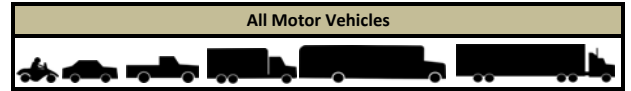
Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Peak Hour Volume Summary

VFW Park Drive and Grant Street

Peak Hour Volumes, Truck Percentages, and PHFs



Tuesday, November 13, 2018		↙					←					↗					→						
AM Peak Hour	AM Peak Hour	From North					From East					From South					From West						
		VFW Park Drive					Grant Street					School West Driveway					Grant Street						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	7:00 AM	0	0	0	0	0	0	0	61	9	0	70	3	0	3	0	6	120	67	0	0	187	263
	7:15 AM	0	0	0	0	0	0	0	67	5	0	72	16	0	19	0	35	150	91	0	0	241	348
	7:30 AM	1	0	0	0	1	1	55	2	0	58	5	0	6	0	11	13	62	2	0	77	147	
	7:45 AM	1	0	0	0	1	0	39	0	0	39	1	0	1	0	2	4	77	2	0	83	125	
	Peak Hour Volume	2	0	0	0	2	1	222	16	0	239	25	0	29	0	54	287	297	4	0	588	883	
	Rounded Hourly Volume	0	0	0	0	0	0	0	220	15	0	235	25	0	30	0	55	285	295	5	0	585	875
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	25.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	7.7	3.4	0.0	0.0	5.4	5.2
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	7.7	3.4	0.0	0.0	5.4	5.3	
Peak Hour Factor (PHF)	0.50	0.00	0.00	0.00	0.50	0.25	0.83	0.44	0.00	0.83	0.39	0.00	0.38	0.00	0.39	0.48	0.82	0.50	0.00	0.61	0.63		

Monday, November 12, 2018		From North					From East					From South					From West					
Midday (MD) Peak Hour	MD Peak Hour	VFW Park Drive					Grant Street					School West Driveway					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	1:00 PM	0	0	0	0	0	0	45	0	0	45	0	0	1	0	1	1	47	3	0	51	97
	1:15 PM	0	0	0	0	0	0	45	5	0	50	0	0	5	0	5	7	64	1	0	72	127
	1:30 PM	1	0	2	0	3	0	65	1	0	66	5	0	19	0	24	8	59	0	0	67	160
	1:45 PM	0	0	1	0	1	1	53	1	0	55	1	0	2	0	3	4	55	0	0	59	118
	Peak Hour Volume	1	0	3	0	4	1	208	7	0	216	6	0	27	0	33	20	225	4	0	249	502
	Rounded Hourly Volume	0	0	5	0	5	0	210	5	0	215	5	0	25	0	30	20	225	5	0	250	500
	% Single Unit Trucks	0.0	0.0	33.3	0.0	25.0	0.0	3.8	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	5.0	5.3	0.0	0.0	5.2	4.4
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
% Trucks (Total)	0.0	0.0	33.3	0.0	25.0	0.0	4.8	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	5.0	5.3	0.0	0.0	5.2	4.8	
Peak Hour Factor (PHF)	0.25	0.00	0.37	0.00	0.33	0.25	0.80	0.35	0.00	0.82	0.30	0.00	0.36	0.00	0.34	0.62	0.88	0.33	0.00	0.86	0.78	

Monday, November 12, 2018		From North					From East					From South					From West					
PM Peak Hour	PM Peak Hour	VFW Park Drive					Grant Street					School West Driveway					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	2:45 PM	7	0	0	0	7	0	106	7	0	113	61	0	42	0	103	50	52	1	0	103	326
	3:00 PM	4	0	0	0	4	0	101	2	0	103	3	0	11	0	14	13	70	1	0	84	205
	3:15 PM	2	0	0	0	2	0	60	2	0	62	2	0	12	0	14	13	83	0	0	96	174
	3:30 PM	2	0	0	0	2	0	70	1	0	71	1	0	10	0	11	12	77	0	0	89	173
	Peak Hour Volume	15	0	0	0	15	0	337	12	0	349	67	0	75	0	142	88	282	2	0	372	878
	Rounded Hourly Volume	15	0	0	0	15	0	335	10	0	345	65	0	75	0	140	90	280	0	0	370	870
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	7.4	16.7	0.0	7.7	0.0	0.0	0.0	0.0	0.0	26.1	2.5	0.0	0.0	8.1	6.5
% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.2
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	16.7	0.0	8.0	0.0	0.0	0.0	0.0	0.0	26.1	2.8	0.0	0.0	8.3	6.7
Peak Hour Factor (PHF)	0.54	0.00	0.00	0.00	0.54	0.00	0.79	0.43	0.00	0.77	0.27	0.00	0.45	0.00	0.34	0.44	0.85	0.50	0.00	0.90	0.67	

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total
 		North Approach 			East Approach 			South Approach 			West Approach 			Ped & Bike
		VFW Park Drive			Grant Street			School West Driveway			Grant Street			Bike
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Volume
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	1	1	1	0	1	0	0	0	1	0	1	3
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	1	1	1	0	1	0	0	0	1	0	1	3
MD	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30 PM	3	0	3	1	0	1	2	0	2	2	0	2	8
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	3	0	3	1	0	1	2	0	2	2	0	2	8
PM	2:45 PM	2	0	2	0	0	0	0	0	0	4	1	5	7
	3:00 PM	1	0	1	0	0	0	0	0	0	1	0	1	2
	3:15 PM	1	0	1	0	0	0	3	0	3	3	0	3	7
	3:30 PM	0	0	0	0	0	0	0	0	0	2	3	5	5
	Total	4	0	4	0	0	0	3	0	3	10	4	14	21

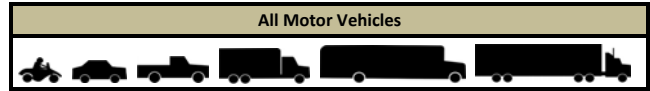
Intersection Traffic Volume Report

Hourly Volume Summary - Motor Vehicle Data

VFW Park Drive and Grant Street

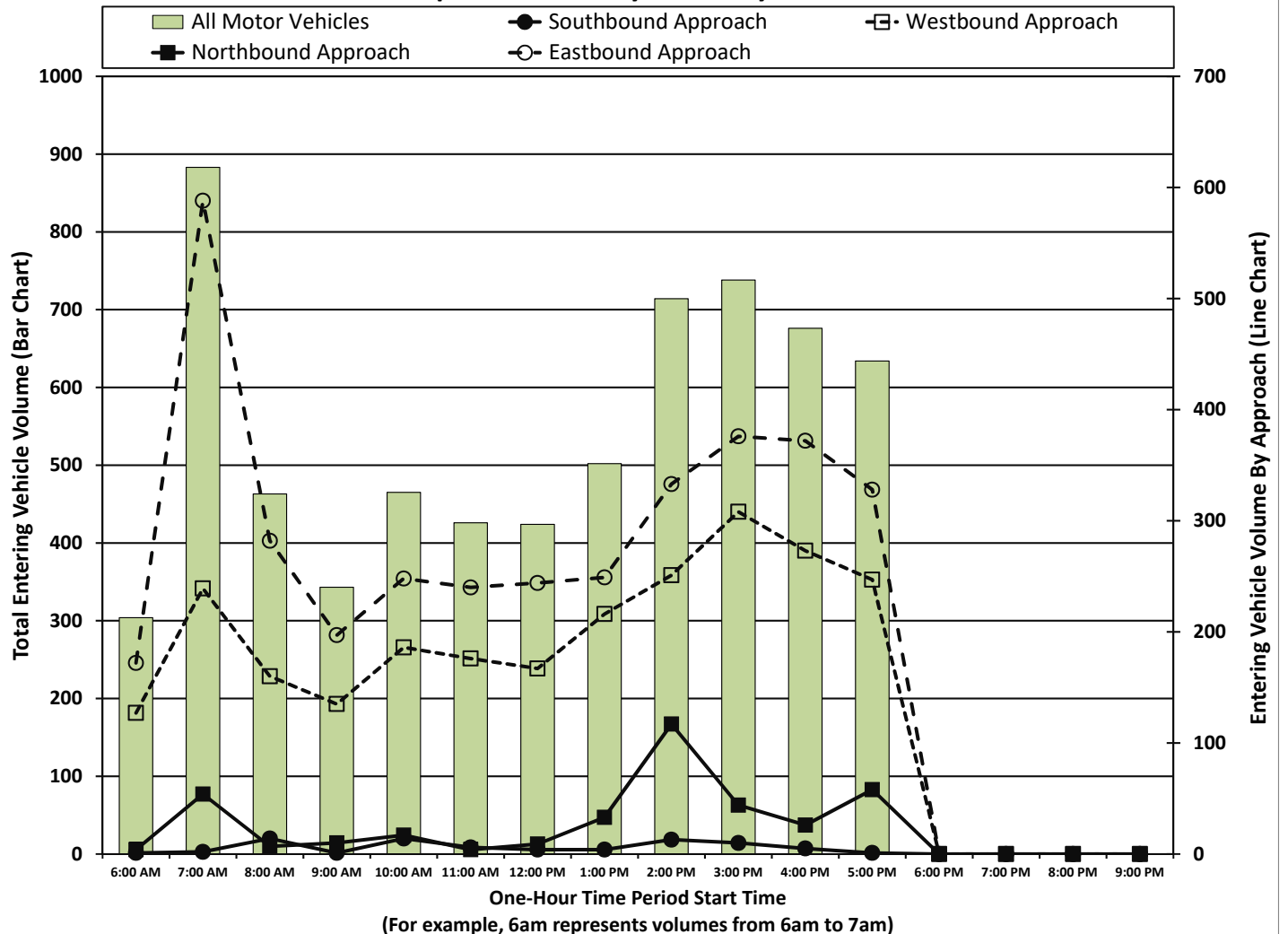
One-Hour Motor Vehicle Data

Count Basics			Page 4 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events



One-Hour Time Period	Start Time	From North VFW Park Drive					From East Grant Street					From South School West Driveway					From West Grant Street					Total Vehicle Volume	Directional Volume Totals E/W N/S	
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM	6:00 AM	0	0	1	0	1	0	121	6	0	127	1	0	3	0	4	36	134	2	0	172	304	299	5
	7:00 AM	2	0	0	0	2	1	222	16	0	239	25	0	29	0	54	287	297	4	0	588	883	827	56
	8:00 AM	12	0	2	0	14	3	150	7	0	160	2	0	5	0	7	49	221	12	0	282	463	442	21
	9:00 AM	1	0	0	0	1	0	133	2	0	135	0	0	10	0	10	15	181	1	0	197	343	332	11
MD	10:00 AM	14	0	0	0	14	0	184	2	0	186	4	0	13	0	17	24	212	12	0	248	465	434	31
	11:00 AM	6	0	0	0	6	0	173	3	0	176	1	0	3	0	4	11	223	6	0	240	426	416	10
	12:00 PM	3	0	1	0	4	0	166	1	0	167	2	0	7	0	9	9	227	8	0	244	424	411	13
	1:00 PM	1	0	3	0	4	1	208	7	0	216	6	0	27	0	33	20	225	4	0	249	502	465	37
PM	2:00 PM	12	0	1	0	13	0	234	17	0	251	61	0	56	0	117	89	242	2	0	333	714	584	130
	3:00 PM	10	0	0	0	10	0	298	10	0	308	6	0	38	0	44	56	318	2	0	376	738	684	54
	4:00 PM	4	0	1	0	5	0	267	6	0	273	4	0	22	0	26	40	327	5	0	372	676	645	31
	5:00 PM	0	0	1	0	1	0	236	11	0	247	11	0	47	0	58	42	274	12	0	328	634	575	59
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Totals	65	0	10	0	75	5	2392	88	0	2485	123	0	260	0	383	678	2881	70	0	3629	6572	6114	458

Graphical Summary of Hourly Volumes



15-Minute Single Unit (SU) Truck & Bus Data

Count Basics		Page 7 of 13
Start Date: Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 12	Non-Holiday	No Special Events

VFW Park Drive and Grant Street

15-Minute Single Unit (SU) Truck & Bus Data

15-Minute Time Period Start Time		↓ From North					← From East				↑ From South					→ From West					15-Min Totals	Hourly Sum			
		VFW Park Drive					Grant Street				School West Driveway					Grant Street									
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn			Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	15
	6:15 AM	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	39	
	6:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	1	0	0	3	5	47	
	6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	0	5	6	47	
	7:00 AM	0	0	0	0	0	0	4	4	0	8	0	0	0	0	0	17	1	0	0	18	26	46		
	7:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5	2	0	0	7	10	24		
	7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	0	3	5	19	
	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	0	4	5	16	
	8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	0	3	4	15	
	8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	0	2	5	19	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	19	
	8:45 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	2	0	0	2	4	23	
	9:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	0	4	8	26	
Midday Peak Period	9:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	0	3	5	25	
	9:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	0	3	6	24	
	9:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	0	5	7	24	
	10:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	0	2	6	20	
	10:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	0	5	6	17	
	10:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	2	0	0	0	3	5	12	
	10:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	11	
	11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	3	10	
	11:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	10	
	11:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	1	0	0	2	4	15	
	11:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	2	13	
	12:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0										

Peak Hour Single Unit (SU) Truck & Buses Volume Summary

Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume
		VFW Park Drive					Grant Street					School West Driveway					Grant Street					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:00 AM	0	0	0	0	0	0	10	4	0	14	0	0	0	0	0	22	10	0	0	32	46
MD	1:00 PM	0	0	1	0	1	0	8	0	8	8	0	0	0	0	0	1	12	0	0	13	22
PM	2:45 PM	0	0	0	0	0	0	25	2	0	27	0	0	0	0	0	23	7	0	0	30	57

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

VFW Park Drive and Grant Street



15-Minute Heavy Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	VFW Park Drive					Grant Street					School West Driveway					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	17	
	6:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	41	
	6:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2	1	0	3	5	49	
	6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	7	49	
	7:00 AM	0	0	0	0	0	0	4	4	0	8	0	0	0	0	0	17	1	0	0	18	26	47	
	7:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5	2	0	0	7	11	25	
	7:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5	19	
	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5	16	
	8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4	15	
	8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5	19	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	21	
	8:45 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	4	27	
	9:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8	31	
	9:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	7	30	
	9:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8	30	
	9:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	8	28	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7	23	
	10:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	7	20	
	10:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	3	0	0	4	6	15	
	10:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	15	
	11:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	4	15	
	11:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	14	
	11:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	1	0	4	6	19	
	11:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	16	
	12:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	3	18	
	12:15 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	7	22	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	3	19	
	12:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	5	22	
	1:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	7	24	
	1:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4	22	
	1:30 PM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	6	21	
	1:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	5	0	0	6	7	20	
PM Peak Period	2:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5	49	
	2:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	57	
	2:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5	59	
	2:45 PM	0	0	0	0	0	0	11	2	0	13	0	0	0	0	0	23	0	0	0	23	36	59	
	3:00 PM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	3	0	0	3	13	27	
	3:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5	17	
	3:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5	13	
	3:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4	12	
	4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	8	
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	7	
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4	6	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
	5:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	5	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1		
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		2	0	1	0	3	1	104	6	0	111	0	0	2	0	2	48	113	2	0	163	279		

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	VFW Park Drive					Grant Street					School West Driveway					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	11	4	0	15	0	0	0	0	0	22	10	0	0	32	47
MD 1:00 PM	0	0	1	0	1	0	10	0	0	10	0	0	0	0	0	1	12	0	0	13	24
PM 2:45 PM	0	0	0	0	0	0	26	2	0	28	0	0	0	0	0	23	8	0	0	31	54

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

VFW Park Drive and Grant Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		VFW Park Drive			Grant Street			School West Driveway			Grant Street				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	6:45 AM	0	0	0	0	0	0	3	0	3	0	0	0	3	6
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	7:15 AM	0	1	1	1	0	1	0	0	0	1	0	1	3	3
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	10:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	3
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	11:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	4
	11:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	3
	11:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	3
	11:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	4
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	12:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	3
	12:30 PM	0	1	1	0	0	0	1	0	1	0	0	0	2	2
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	1:30 PM	3	0	3	1	0	1	2	0	2	2	0	2	8	8
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	2:45 PM	2	0	2	0	0	0	0	0	4	1	5	7	21	
	3:00 PM	1	0	1	0	0	0	0	0	1	0	1	2	15	
	3:15 PM	1	0	1	0	0	3	0	3	3	0	3	7	14	
	3:30 PM	0	0	0	0	0	0	0	0	2	3	5	5	8	
	3:45 PM	0	0	0	0	0	1	0	1	0	0	0	1	4	
	4:00 PM	1	0	1	0	0	0	0	0	0	0	0	1	3	
	4:15 PM	0	0	0	0	0	1	0	1	0	0	0	1	2	
	4:30 PM	0	1	1	0	0	0	0	0	0	0	0	1	1	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 PM	1	0	1	0	0	0	0	0	1	0	1	2		
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		12	3	15	2	0	2	14	0	14	14	4	18	49	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
	VFW Park Drive			Grant Street			School West Driveway			Grant Street				
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	5
	6:45 AM	0	0	0	0	0	3	0	3	0	0	0	3	5
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2
	7:15 AM	0	0	1	1	0	0	1	0	1	2	0	2	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2
	10:30 AM	1	1	0	0	0	0	0	0	0	0	1	3	3
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	4
	11:00 AM	1	1	0	0	0	0	0	0	0	0	1	4	3
	11:15 AM	0	0	0	0	1	1	0	0	1	1	3	3	3
	11:30 AM	1	1	0	0	0	0	0	0	0	1	3	3	3
	11:45 AM	0	0	0	0	0	1	1	0	0	1	3	3	3
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	2
	12:15 PM	0	0	0	0	1	1	0	0	0	1	2	2	1
	12:30 PM	0	0	0	0	1	1	0	0	0	1	1	1	8
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	8	8
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	8	8
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	8	8
	1:30 PM	3	3	1	1	2	2	2	2	2	8	8	8	0
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	6	8
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	6	8
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	15	17
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	12	11
	2:45 PM	2	2	0	0	0	0	4	4	6	6	6	5	3
	3:00 PM	1	1	0	0	0	0	1	1	2	2	2	2	2
	3:15 PM	1	1	0	0	3	3	3	3	7	7	7	5	3
	3:30 PM	0	0	0	0	0	0	2	2	2	2	2	3	2
	3:45 PM	0	0	0	0	1	1	0	0	1	1	1	2	2
	4:00 PM	1	1	0	0	0	0	0	0	1	1	1	1	1
	4:15 PM													

Count Basics			Page 13 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	12	Non-Holiday	No Special Events

Bicyclists

15-Minute Bicycle Data

Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum
	VFW Park Drive					Grant Street					School West Driveway					Grant Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM					0					0					0					0	0
	6:15 AM					0					0					0					0	0
	6:30 AM					0					0					0					0	0
	6:45 AM					0					0					0					0	0
	7:00 AM					0					0					0					0	0
	7:15 AM					0					0					0					0	0
	7:30 AM					0					0					0					0	0
	7:45 AM					0					0					0					0	0
	8:00 AM					0					0					0					0	0
	8:15 AM					0					0					0					0	0
	8:30 AM					0					0					0					0	0
	8:45 AM					0					0					0					0	0
	9:00 AM					0					0					0					0	0
	9:15 AM					0					0					0					0	0
	9:30 AM					0					0					0					0	0
9:45 AM					0					0					0					0	0	
Midday Peak Period	10:00 AM					0					0					0					0	0
	10:15 AM					0					0					0					0	0
	10:30 AM					0					0					0					0	0
	10:45 AM					0					0					0					0	0
	11:00 AM					0					0					0					0	0
	11:15 AM					0					0					0					0	0
	11:30 AM					0					0					0					0	0
	11:45 AM					0					0					0					0	0
	12:00 PM					0					0					0					0	0
	12:15 PM					0					0					0					0	0
	12:30 PM					0					0					0					0	0
	12:45 PM					0					0					0					0	0
	1:00 PM					0					0					0					0	0
	1:15 PM					0					0					0					0	0
	1:30 PM					0					0					0					0	0
1:45 PM					0					0					0					0	0	
PM Peak Period	2:00 PM					0					0					0					0	0
	2:15 PM					0					0					0					0	0
	2:30 PM					0					0					0						

Hourly Time Period	Start Time	From North				From East				From South				From West				Total Hourly Volume				
		VFW Park Drive				Grant Street				School West Driveway				Grant Street								
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Base Information, Observed (6.5) Hour and Estimated (24) Hour Volume Summaries

Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction		↑
North Leg	Private Driveway		
East Leg	Grant Street		
South Leg	East Driveway		
West Leg	Grant Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementry school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
	Other (describe)	None	

Hrs Counted: 6:00 AM-8:30 AM and 2:00 PM-6:00 PM				
1st Day of Count		Monday, November 12, 2018		Weather
AM Peak Period		Tuesday, November 13, 2018		Clear & Dry
Midday Peak Period		Monday, November 12, 2018		Clear & Dry
PM Peak Period		Monday, November 12, 2018		Clear & Dry
Calculated Peak Hours				
AM	7:00-8:00am	MD		PM 2:45-3:45pm
Peak Hours Selected for Analysis				
AM	7:00-8:00am	MD		PM 2:45-3:45pm
Daily/Seasonal Adjustment Group		(2) Urban Arterials & Collectors		
Count Expansion Group		(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor		0.953	Count Expansion Factor	1.890
Company Name TADI, Inc.			Manual Adj.	1.000
Observers	AM Peak Period	Karlyn Bieberitz		
	Midday Peak Period	None		
	PM Peak Period	Karlyn Bieberitz		
Comments	2017 DOT Seasonal Factors			

The diagram illustrates the intersection of Grant Street and East Driveway. It includes observed hour volumes, total entering volume, and pedestrian/vehicle counts for each approach.

Observed Hour Volumes: 6.5

Total Entering Volume: 3,644

Private Driveway Approach (Northbound):

- PED: 7
- BIKE: 2
- Vehicle Volume: 3

Grant Street Approach (Eastbound):

- PED: 1
- BIKE: 0
- Vehicle Volume: 3,335

Grant Street Approach (Westbound):

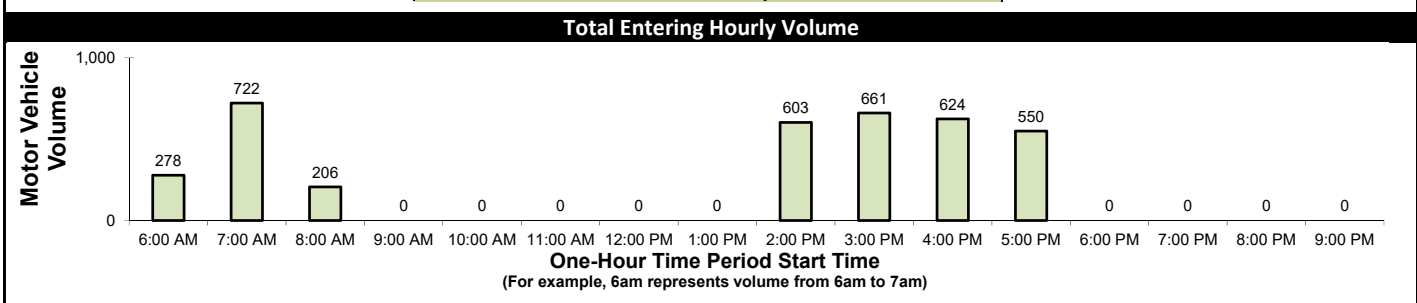
- PED: 0
- BIKE: 0
- Vehicle Volume: 3,263

East Driveway Approach (Southbound):

- PED: 12
- BIKE: 0
- Vehicle Volume: 687

Intersection Details:

- Northbound Lane: 1514 (Left), 1821 (Through/Right), 1735 (Through/Right), 85 (Through/Right)
- Southbound Lane: 211 (Left), 293 (Through/Right), 476 (Through/Right), 183 (Through/Right)
- Eastbound Lane: 1219 (Left), 126 (Through/Right), 0 (Through/Right)
- Westbound Lane: 1345 (Left), 1918 (Through/Right)



The diagram illustrates the traffic volume data for the intersection of Grant Street and East Driveway. It includes a table of expansion factors and a detailed traffic volume diagram.

Expansion Factors Table:

Factor	Value
Daily/Seasonal Factor	0.953
Count Expansion Factor	1.890
Manual Adjustment Factor	1.000
Total 24 Hr Expansion Factor	1.801

Traffic Volume Diagram:

The diagram shows the intersection of Grant Street and East Driveway. The north-south axis is labeled "North" with an upward arrow. The east-west axis is labeled "East Driveway" at the bottom and "Private Driveway" at the top. The intersection is marked with a central square.

Grant Street (Left Side):

- Approach from the north: 2726 vehicles (indicated by an upward arrow).
- Approach from the south: 3279 vehicles (indicated by a downward arrow).
- Intersection Volume: 6,005 vehicles.

Grant Street (Right Side):

- Approach from the north: 2422 vehicles (indicated by an upward arrow).
- Approach from the south: 3454 vehicles (indicated by a downward arrow).
- Intersection Volume: 5,876 vehicles.

East Driveway (Bottom):

- Approach from the north: 1,237 vehicles (indicated by a downward arrow).
- Approach from the south: 380 vehicles (indicated by an upward arrow).
- Intersection Volume: 1,237 vehicles.

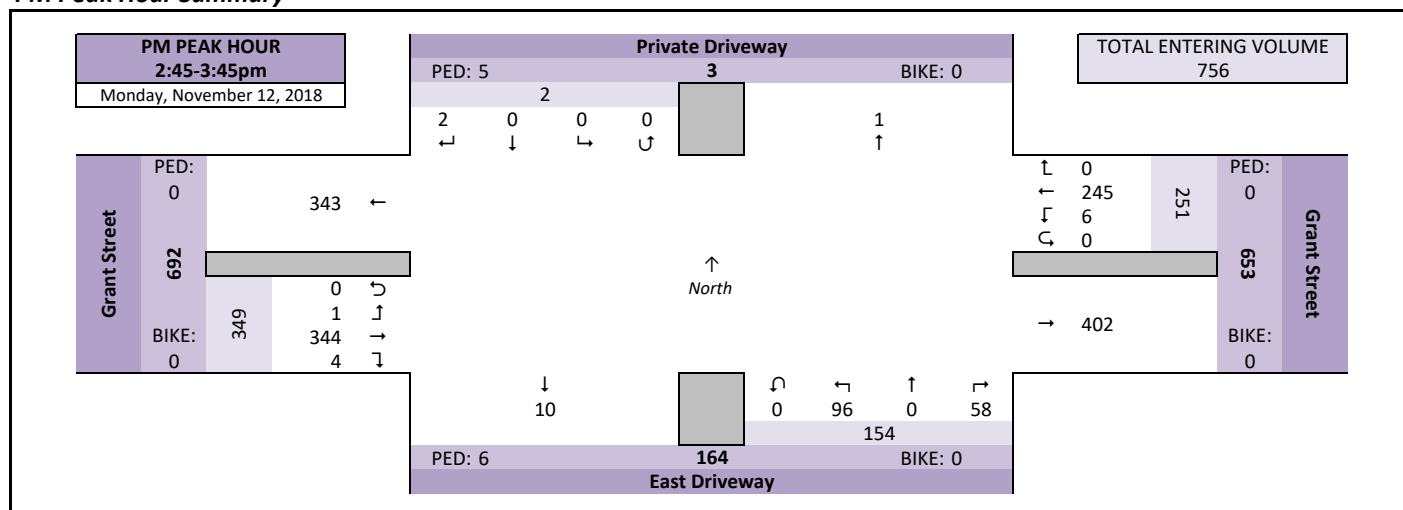
Private Driveway (Top):

- Approach from the north: 5 vehicles (indicated by a downward arrow).
- Approach from the south: 380 vehicles (indicated by an upward arrow).
- Intersection Volume: 1,237 vehicles.

TOTAL ENTERING VOLUME: 6,562

Peak Hour Volume Graphical Summary

All Motor Vehicles



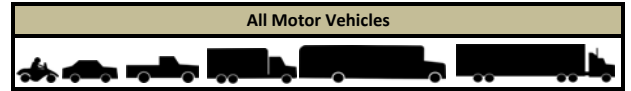
Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Peak Hour Volume Summary

East Driveway and Grant Street

Peak Hour Volumes, Truck Percentages, and PHFs



Tuesday, November 13, 2018		From North					From East					From South					From West						
AM Peak Hour	AM Peak Hour	Private Driveway					Grant Street					East Driveway					Grant Street						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	7:00 AM	0	0	0	0	0	0	45	31	0	76	28	0	24	0	52	28	40	0	0	68	196	
	7:15 AM	0	0	0	0	0	0	33	57	0	90	34	0	39	0	73	26	84	0	0	110	273	
	7:30 AM	0	0	0	0	0	0	43	6	0	49	5	0	12	0	17	0	66	0	0	66	132	
	7:45 AM	0	0	0	0	0	0	42	1	0	43	0	0	0	0	0	1	77	0	0	78	121	
	Peak Hour Volume	0	0	0	0	0	0	163	95	0	258	67	0	75	0	142	55	267	0	0	322	722	
	Rounded Hourly Volume	0	0	0	0	0	0	165	95	0	260	65	0	75	0	140	55	265	0	0	320	720	
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	3.5	29.9	0.0	6.7	0.0	17.6	0.0	3.4	0.0	0.0	2.8	6.0	
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.3	
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0	3.9	29.9	0.0	6.7	0.0	17.6	0.0	3.7	0.0	0.0	3.1	6.2	
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.42	0.00	0.72	0.49	0.00	0.48	0.00	0.49	0.49	0.79	0.00	0.00	0.73	0.66	

N/A		From North					From East					From South					From West					
Midday (MD) Peak Hour	MD Peak Hour	Private Driveway					Grant Street					East Driveway					Grant Street					Totals
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% Single Unit 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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Monday, November 12, 2018		From North					From East					From South					From West					
PM Peak Hour	PM Peak Hour	Private Driveway					Grant Street					East Driveway					Grant Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	2:45 PM	1	0	0	0	1	0	58	3	0	61	35	0	50	0	85	0	114	1	0	115	262
	3:00 PM	1	0	0	0	1	0	73	0	0	73	11	0	26	0	37	0	72	0	0	72	183
	3:15 PM	0	0	0	0	0	0	56	1	0	57	8	0	9	0	17	3	81	0	0	84	158
	3:30 PM	0	0	0	0	0	0	58	2	0	60	4	0	11	0	15	1	77	0	0	78	153
	Peak Hour Volume	2	0	0	0	2	0	245	6	0	251	58	0	96	0	154	4	344	1	0	349	756
	Rounded Hourly Volume	0	0	0	0	0	0	245	5	0	250	60	0	95	0	155	5	345	0	0	350	755
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.2	10.3	0.0	18.7	0.0	15.6	0.0	2.0	0.0	0.0	2.0	5.2
	% Heavy Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.3
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.6	10.3	0.0	18.7	0.0	15.6	0.0	2.3	0.0	0.0	2.3	5.4	
Peak Hour Factor (PHF)	0.50	0.00	0.00	0.00	0.50	0.00	0.84	0.50	0.00	0.86	0.41	0.00	0.48	0.00	0.45	0.33	0.75	0.25	0.00	0.76	0.72	

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total
		North Approach			East Approach			South Approach			West Approach			Ped & Bike
		Private Driveway			Grant Street			East Driveway			Grant Street			Bike
15-Minute Start Time		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Volume
AM	7:00 AM	1	0	1	0	0	0	0	0	0	1	0	1	2
	7:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1
	7:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1	1	2	0	0	0	1	0	1	1	0	1	4
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:45 PM	2	0	2	0	0	0	2	0	2	0	0	0	4
	3:00 PM	2	0	2	0	0	0	0	0	0	0	0	0	2
	3:15 PM	1	0	1	0	0	0	3	0	3	0	0	0	4
	3:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1
	Total	5	0	5	0	0	0	6	0	6	0	0	0	11

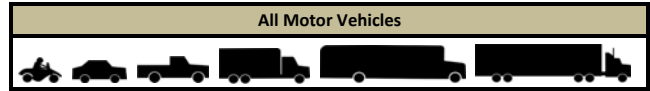
Intersection Traffic Volume Report

Hourly Volume Summary - Motor Vehicle Data

East Driveway and Grant Street

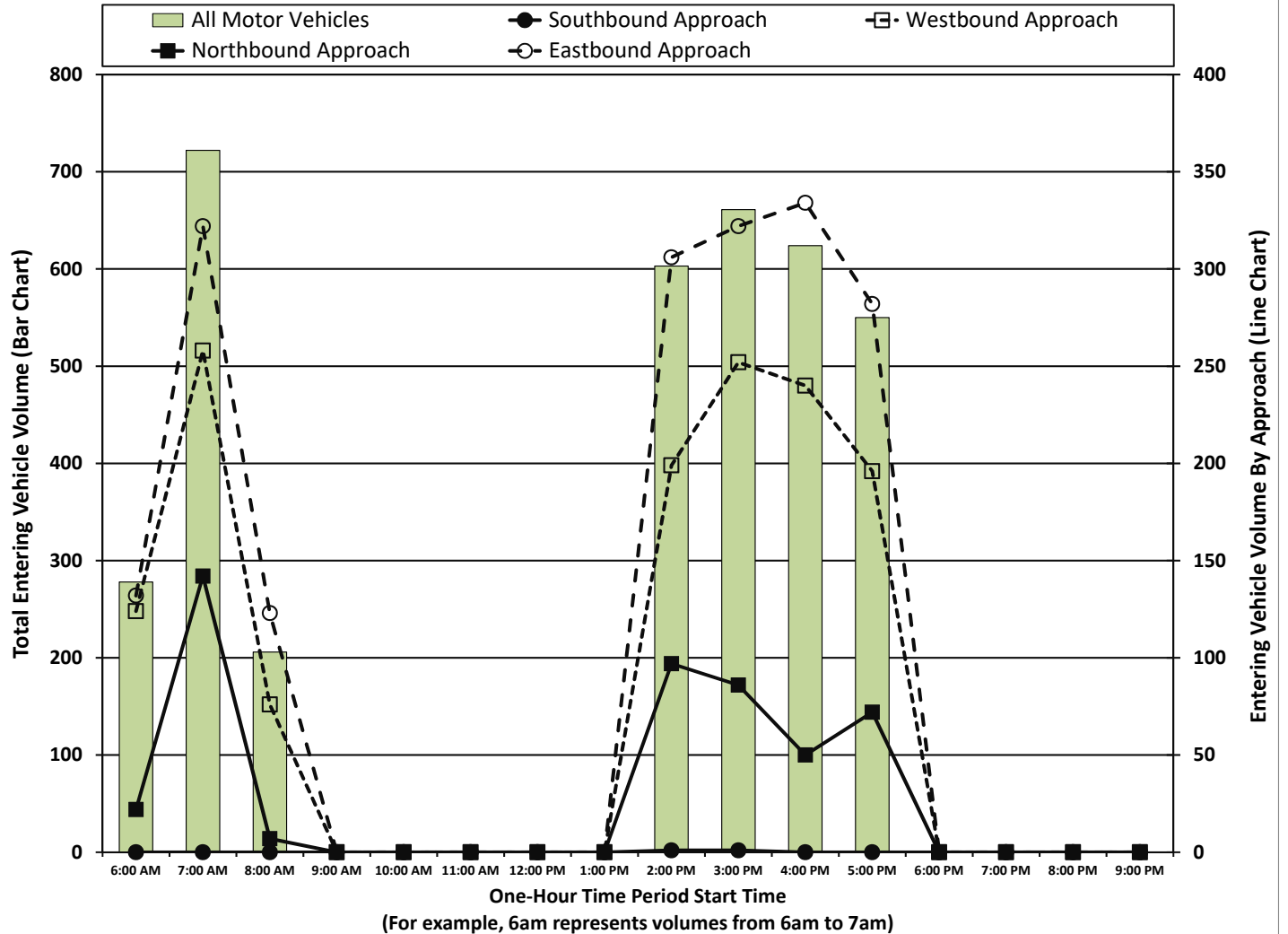
One-Hour Motor Vehicle Data

Count Basics			Page 4 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events



One-Hour Time Period	↓ From North					← From East					↑ From South					→ From West					Total Vehicle Volume	Directional Volume Totals		
	Private Driveway					Grant Street					East Driveway					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
Start Time																							E/W	N/S
AM	6:00 AM	0	0	0	0	0	0	111	13	0	124	5	0	17	0	22	24	108	0	0	132	278	256	22
	7:00 AM	0	0	0	0	0	0	163	95	0	258	67	0	75	0	142	55	267	0	0	322	722	580	142
	8:00 AM	0	0	0	0	0	0	74	2	0	76	3	0	4	0	7	1	122	0	0	123	206	199	7
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	1	0	0	0	1	0	191	8	0	199	40	0	57	0	97	0	305	1	0	306	603	505	98
	3:00 PM	1	0	0	0	1	0	247	5	0	252	26	0	60	0	86	4	318	0	0	322	661	574	87
	4:00 PM	0	0	0	0	0	0	238	2	0	240	16	0	34	0	50	0	334	0	0	334	624	574	50
	5:00 PM	0	0	0	0	0	0	195	1	0	196	26	0	46	0	72	1	281	0	0	282	550	478	72
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	2	0	0	0	2	0	1219	126	0	1345	183	0	293	0	476	85	1735	1	0	1821	3644	3166	478	

Graphical Summary of Hourly Volumes



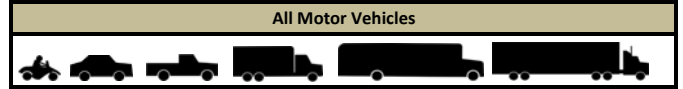
Intersection Traffic Volume Report

15-Minute Motor Vehicle Data

East Driveway and Grant Street

15-Minute Motor Vehicle Data

Count Basics			Page 5 of 13	
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session	
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events	



15-Minute Time Period	Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum	PHF			
		Private Driveway					Grant Street					East Driveway					Grant Street										
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total						
AM Peak Period	6:00 AM	0	0	0	0	0	0	17	1	0	18	0	0	0	0	0	1	16	0	0	17	35	278	0.65			
	6:15 AM	0	0	0	0	0	0	26	2	0	28	4	0	0	4	8	4	22	0	0	26	62	439	0.56			
	6:30 AM	0	0	0	0	0	0	27	4	0	31	0	0	0	4	4	7	32	0	0	39	74	650	0.60			
	6:45 AM	0	0	0	0	0	0	41	6	0	47	1	0	9	0	10	12	38	0	0	50	107	708	0.65			
	7:00 AM	0	0	0	0	0	0	45	31	0	76	28	0	24	0	52	28	40	0	0	68	196	722	0.66			
	7:15 AM	0	0	0	0	0	0	33	57	0	90	34	0	39	0	73	26	84	0	0	110	273	620	0.57			
	7:30 AM	0	0	0	0	0	0	43	6	0	49	5	0	12	0	17	0	66	0	0	66	132	459	0.87			
	7:45 AM	0	0	0	0	0	0	42	1	0	43	0	0	0	0	0	1	77	0	0	78	121					
	8:00 AM	0	0	0	0	0	0	35	1	0	36	1	0	4	0	5	0	53	0	0	53	94					
	8:15 AM	0	0	0	0	0	0	39	1	0	40	2	0	0	0	2	1	69	0	0	70	112					
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
PM Peak Period	2:00 PM	0	0	0	0	0	0	36	1	0	37	2	0	3	0	5	0	65	0	0	65	107	603	0.58			
	2:15 PM	0	0	0	0	0	0	51	1	0	52	1	0	2	0	3	0	56	0	0	56	111	679	0.65			
	2:30 PM	0	0	0	0	0	0	46	3	0	49	2	0	2	0	4	0	70	0	0	70	123	726	0.69			
	2:45 PM	1	0	0	0	1	0	58	3	0	61	35	0	50	0	85	0	114	1	0	115	262	756	0.72			
	3:00 PM	1	0	0	0	1	0	73	0	0	73	11	0	26	0	37	0	72	0	0	72	183	661	0.90			
	3:15 PM	0	0	0	0	0	0	56	1	0	57	8	0	9	0	17	3	81	0	0	84	158	638	0.96			
	3:30 PM	0	0	0	0	0	0	58	2	0	60	4	0	11	0	15	1	77	0	0	78	153	631	0.94			
	3:45 PM	0	0	0	0	0	0	60	2	0	62	3	0	14	0	17	0	88	0	0	88	167	643	0.96			
	4:00 PM	0	0	0	0	0	0	56	2	0	58	7	0	12	0	19	0	83	0	0	83	160	624	0.95			
	4:15 PM	0	0	0	0	0	0	58	0	0	58	2	0	12	0	14	0	79	0	0	79	151	596	0.90			
	4:30 PM	0	0	0	0	0	0	68	0	0	68	3	0	5	0	8	0	89	0	0	89	165	591	0.90			
	4:45 PM	0	0	0	0	0	0	56	0	0	56	4	0	5	0	9	0	83	0	0	83	148	565	0.95			
	5:00 PM	0	0	0	0	0	0	46	0	0	46	3	0	11	0	14	0	72	0	0	72	132	550	0.94			
	5:15 PM	0	0	0	0	0	0	53	0	0	53	2	0	5	0	7	0	86	0	0	86	146					
	5:30 PM	0	0	0	0	0	0	47	0	0	47	10	0	15	0	25	0	67	0	0	67	139					
	5:45 PM	0	0	0	0	0	0	49	1	0	50	11	0	15	0	26	1	56	0	0	57	133					
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Totals		2	0	0	0	2	0	1219	126	0	1345	183	0	293	0	476	85	1735	1	0	1821	3644					

Peak Hour All Vehicle Volume Summary

Hourly Time Period Start Time	From North					From East					From South					From West					Total Hourly Volume	PHF
	Private Driveway					Grant Street					East Driveway					Grant Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM	0	0	0	0	0	0	163	95	0	258	67	0	75	0	142	55	267	0	0	322	722	0.66
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2:45 PM	2	0	0	0	2	0	245	6	0	251	58	0	96	0	154	4	344	1	0	349	756	0.72

East Driveway and Grant Street

Count Basics			Page 6 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Automobiles (Cars, Light Trucks, & Motorcycles)

15-Minute Automobile Data

[illegible]

Peak Hour Automobile Volume Summary

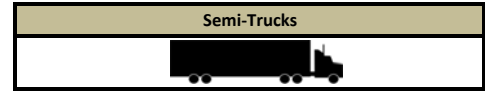
Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume
		Private Driveway					Grant Street					East Driveway					Grant Street					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	7:00 AM	0	0	0	0	0	0	153	95	0	248	47	0	70	0	117	55	257	0	0	312	677
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:45 PM	2	0	0	0	2	0	236	6	0	242	52	0	78	0	130	4	336	1	0	341	715

Intersection Traffic Volume Report

Count Basics				Page 8 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session	
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events	

15-Minute Semi-Truck Data

East Driveway and Grant Street



15-Minute Semi-Truck Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Private Driveway					Grant Street					East Driveway					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	7:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	2:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	3:00 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	5:00 PM	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	6	0	0	6	11		

Peak Hour Semi-Truck Volume Summary

Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	Private Driveway					Grant Street					East Driveway					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1

Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

East Driveway and Grant Street



15-Minute Heavy Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	Private Driveway					Grant Street					East Driveway					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	16	
	6:15 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	1	0	0	1	4	34	
	6:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3	45	
	6:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	7	47	
	7:00 AM	0	0	0	0	0	0	4	0	0	4	11	0	4	0	15	0	1	0	0	1	20	45	
	7:15 AM	0	0	0	0	0	0	4	0	0	4	9	0	0	0	9	0	2	0	0	2	15	29	
	7:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	5	19	
	7:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5		
	8:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4		
	8:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	1	0	0	2	5		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	5	34	
	2:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	39	
	2:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	5	41	
	2:45 PM	0	0	0	0	0	0	1	0	0	1	5	0	15	0	20	0	0	0	0	0	21	41	
	3:00 PM	0	0	0	0	0	0	3	0	0	3	1	0	3	0	4	0	3	0	0	3	10	24	
	3:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5	17	
	3:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5	13	
	3:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4	12	
	4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	8	
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	8	
	4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4	7	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
	5:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3	5	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1		
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		0	0	0	0	0	0	40	1	0	41	26	0	24	0	50	1	49	0	0	50	141		

Peak Hour Heavy Vehicle Volume Summary

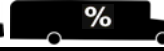
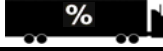
Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume
	Private Driveway					Grant Street					East Driveway					Grant Street					
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM 7:00 AM	0	0	0	0	0	0	10	0	0	10	20	0	5	0	25	0	10	0	0	10	45
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2:45 PM	0	0	0	0	0	0	9	0	0	9	6	0	18	0	24	0	8	0	0	8	41

Intersection Traffic Volume Report

15-Minute Heavy Vehicle Percentages

East Driveway and Grant Street

Count Basics			Page 10 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

%	Heavy Vehicles (Single-Unit Trucks, Buses & Semi-Trucks)		
%		%	

15-Minute Heavy Vehicle Percentages

15-Minute Time Period	Start Time	From North					From East					From South					From West					Total Heavy Vehicle Percent	Hourly Heavy Vehicle Percent		
		Private Driveway					Grant Street					East Driveway					Grant Street								
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	5.9	5.7	5.8		
	6:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	7.7	50.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	3.8	6.5	7.7		
	6:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	5.1	4.1	6.9		
	6:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	15.8	0.0	0.0	12.0	6.5	6.6		
	7:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.0	5.3	39.3	0.0	16.7	0.0	28.8	0.0	2.5	0.0	0.0	1.5	10.2	6.2		
	7:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	12.1	0.0	0.0	4.4	26.5	0.0	0.0	0.0	12.3	0.0	2.4	0.0	0.0	1.8	5.5	4.7		
	7:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.0	0.0	0.0	8.3	0.0	5.9	0.0	4.5	0.0	0.0	4.5	3.8	4.1		
	7:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	5.1	4.1			
	8:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	5.7	4.3			
	8:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	100.0	1.4	0.0	0.0	2.9	4.5			
	8:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	8:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	9:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	9:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	9:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	9:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Midday Peak Period	10:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	10:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	10:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	10:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	11:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	11:15 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	11:30 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	11:45 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	12:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	12:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	12:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	12:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	1:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	1:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	1:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	1:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
PM Peak Period	2:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	20.0	0.0	6.2	0.0	0.0	6.2	4.7	5.6		
	2:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	2.7	5.7		
	2:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	5.7	4.1	5.6		
	2:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.6	14.3	0.0	30.0	0.0	23.5	0.0	0.0	0.0	0.0	0.0	8.0	5.4		
	3:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	4.1	9.1	0.0	11.5	0.0	10.8	0.0	4.2	0.0	0.0	4.2	5.5	3.6		
	3:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.6	3.2	2.7		
	3:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.6	3.3	2.1		
	3:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	3.4	2.4	1.9		
	4:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.3		
	4:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3		
	4:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	3.4	2.4	1.2		
	4:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7		
	5:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	2.3	0.9		
	5:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	5:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.7			
	5:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8			
	6:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	6:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	6:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	6:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	7:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	7:15 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	7:30 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	7:45 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	8:00 PM																								

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

East Driveway and Grant Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		Private Driveway			Grant Street			East Driveway			Grant Street				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	6:45 AM	0	0	0	0	0	0	3	0	3	0	0	0	3	7
	7:00 AM	1	0	1	0	0	0	0	0	0	1	0	1	2	4
	7:15 AM	0	0	0	0	0	0	1	0	1	0	0	0	1	2
	7:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	2:45 PM	2	0	2	0	0	2	0	2	0	0	0	0	4	11
	3:00 PM	2	0	2	0	0	0	0	0	0	0	0	0	2	8
	3:15 PM	1	0	1	0	0	0	3	0	3	0	0	0	4	7
	3:30 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	5
	3:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	4
	4:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	3
	4:15 PM	0	1	1	0	0	0	1	0	1	0	0	0	2	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		7	2	9	0	0	0	12	0	12	1	0	1	22	

Special Pedestrians

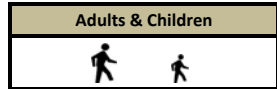
Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

East Driveway and Grant Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		Private Driveway			Grant Street			East Driveway			Grant Street				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	3
	6:15 AM	0		0	0		0	0		0	0		0	0	5
	6:30 AM	0		0	0		0	0		0	0		0	0	6
	6:45 AM	0		0	0		0	3		3	0		0	3	6
	7:00 AM	1		1	0		0	0		0	1		1	2	3
	7:15 AM	0		0	0		0	1		1	0		0	1	1
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	4
	2:15 PM	0		0	0		0	0		0	0		0	0	6
	2:30 PM	0		0	0		0	0		0	0		0	0	10
	2:45 PM	2		2	0		0	2		2	0		0	4	11
	3:00 PM	2		2	0		0	0		0	0		0	2	8
	3:15 PM	1		1	0		0	3		3	0		0	4	7
	3:30 PM	0		0	0		0	1		1	0		0	1	4
	3:45 PM	0		0	0		0	1		1	0		0	1	3
	4:00 PM	1		1	0		0	0		0	0		0	1	2
	4:15 PM	0		0	0		0	1		1	0		0	1	1
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
	8:00 PM	0		0	0		0	0		0	0		0	0	0
	8:15 PM	0		0	0		0	0		0	0		0	0	0
	8:30 PM	0		0	0		0	0		0	0		0	0	0
	8:45 PM	0		0	0		0	0		0	0		0	0	0
	9:00 PM	0		0	0		0	0		0	0		0	0	0
	9:15 PM	0		0	0		0	0		0	0		0	0	0
	9:30 PM	0		0	0		0	0		0	0		0	0	0
	9:45 PM	0		0	0		0	0		0	0		0	0	0
Totals		7	0	7	0	0	0	12	0	12	1	0	1	20	

Count Basics			Page 13 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Bicyclists

15-Minute Bicycle Data

15-Minute Time Period		From North					From East					From South					From West					15-Min Totals	Hourly Sum
Start Time		Private Driveway					Grant Street					East Driveway					Grant Street						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
9:45 AM					0					0					0					0	0	0	
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
1:45 PM					0					0					0					0	0	0	
PM Peak Period	2:00 PM	</																					

[illegible]

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		Page 1 of 13	
Start Date:	Monday, November 12, 2018	Weekday		Schools in Session	
Total Number of Hours Counted:	6.5	Non-Holiday		No Special Events	



Base Information, Observed (6.5) Hour and Estimated (24) Hour Volume Summaries

Intersection of: 6th Street and Grant Street

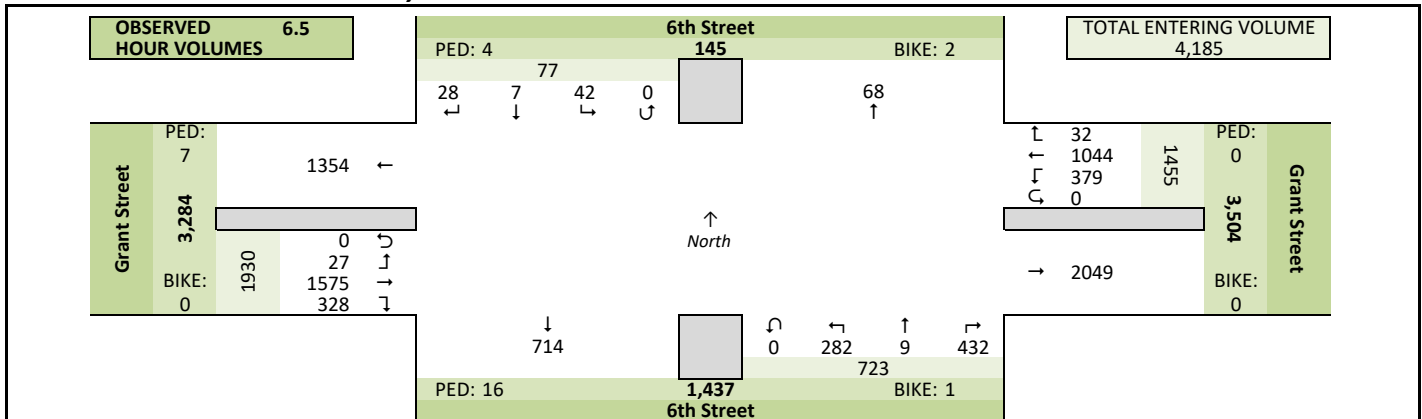
Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction	↑	
North Leg	6th Street		
East Leg	Grant Street		
South Leg	6th Street		
West Leg	Grant Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementry school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
	Other (describe)	None	

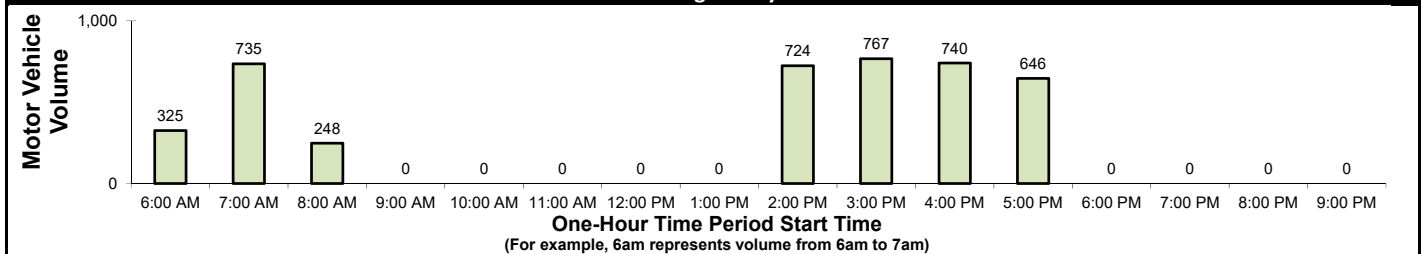
Count Information

Hrs Counted: 6:00 AM-8:30 AM and 2:00 PM-6:00 PM						
1st Day of Count		Monday, November 12, 2018		Weather		
AM Peak Period		Tuesday, November 13, 2018		Clear & Dry		
Midday Peak Period		Monday, November 12, 2018		Clear & Dry		
PM Peak Period		Monday, November 12, 2018		Clear & Dry		
Calculated Peak Hours						
AM		7:00-8:00am		MD		
PM					2:45-3:45pm	
Peak Hours Selected for Analysis						
AM		7:00-8:00am		MD		
PM					2:45-3:45pm	
Daily/Seasonal Adjustment Group			(2) Urban Arterials & Collectors			
Count Expansion Group			(2) Urban Arterials & Collectors			
Daily/Seasonal Adjustment Factor			0.953	Count Expansion Factor	1.890	
Company Name				TADI, Inc.	Manual Adj.	1.000
Observers	AM Peak Period		Ted Atwell			
	Midday Peak Period		None			
	PM Peak Period		Ted Atwell			
Comments		2017 DOT Seasonal Factors				

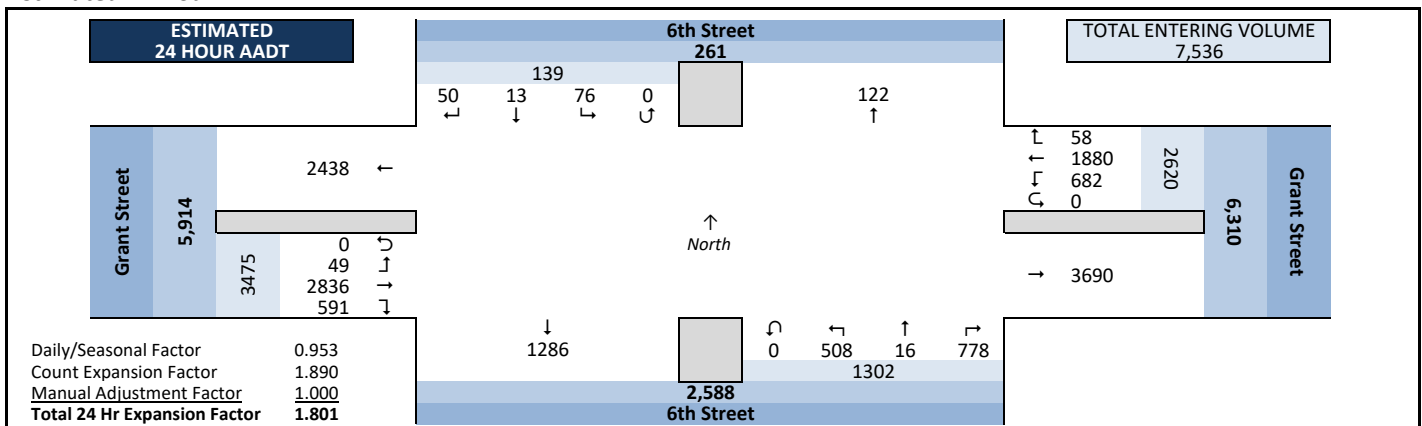
Observed 6.5 Hour Volume Summary



Total Entering Hourly Volume

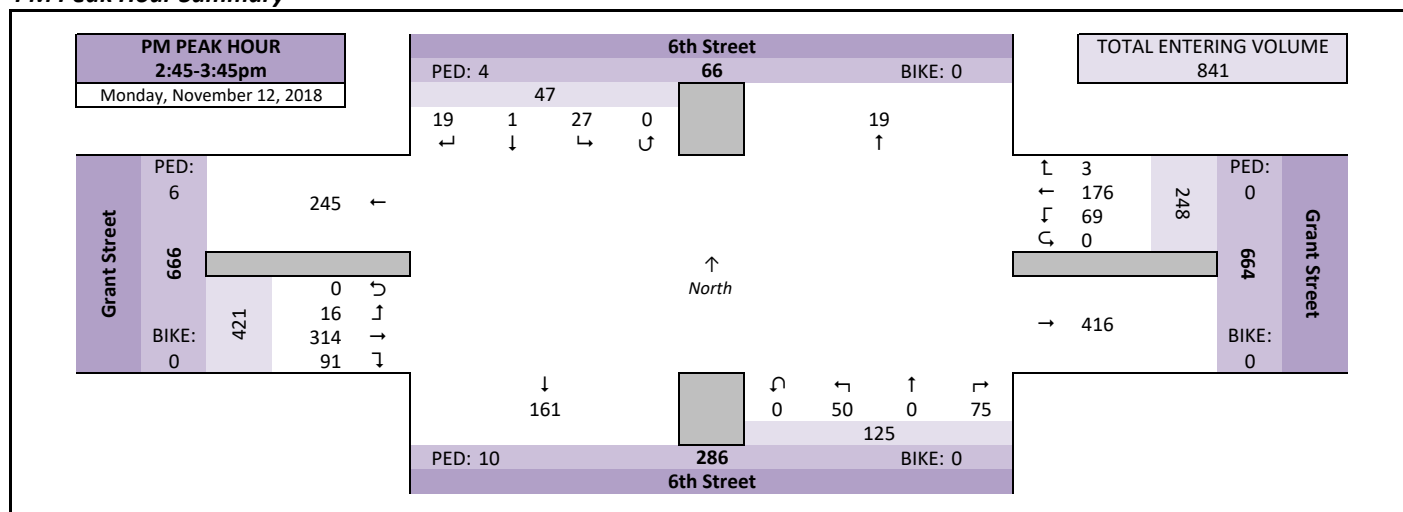


Estimated 24 Hour AADT



Peak Hour Volume Graphical Summary

All Motor Vehicles



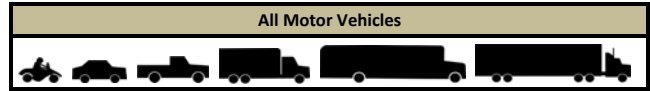
Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

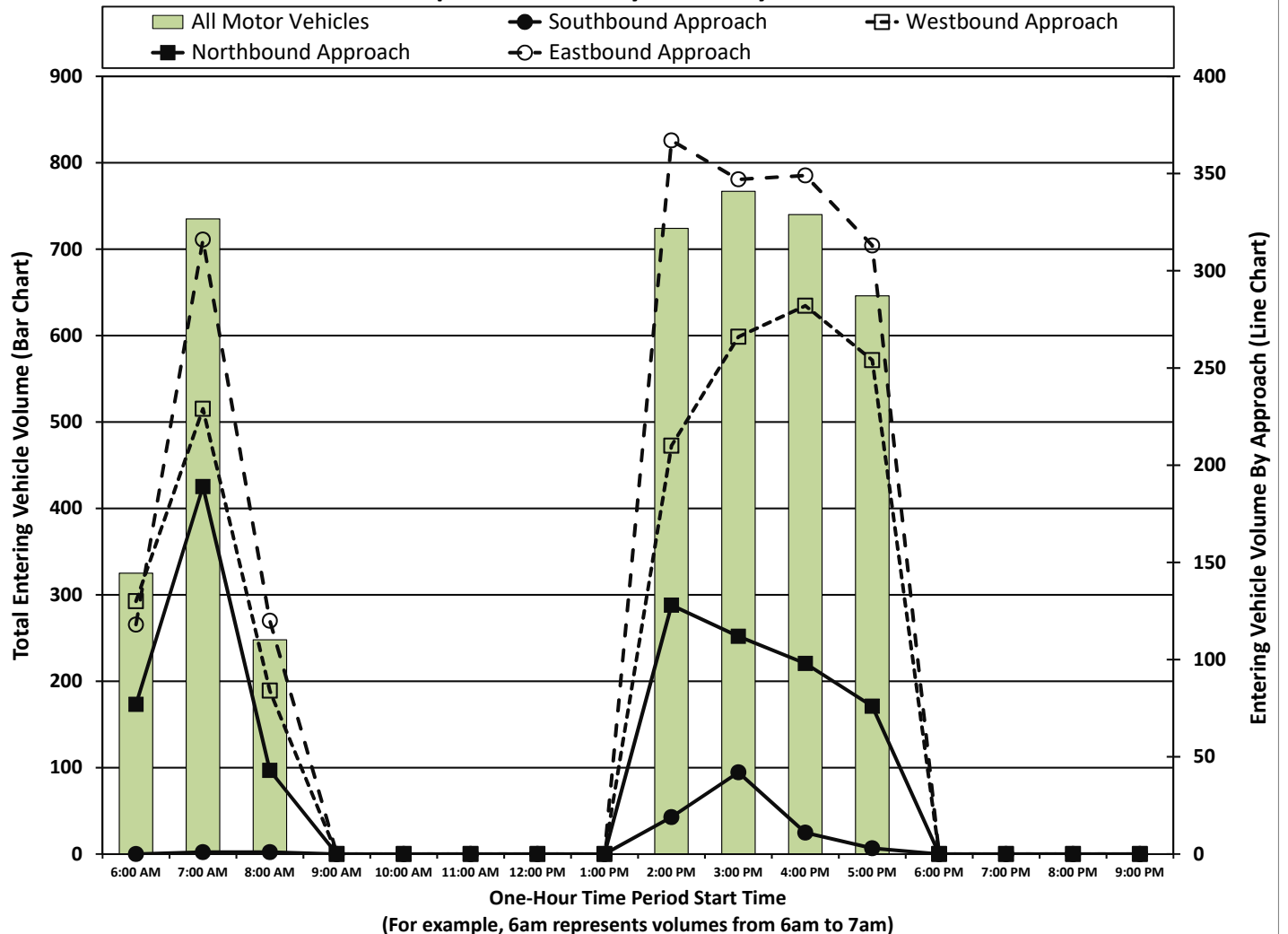
6th Street and Grant Street

One-Hour Motor Vehicle Data



One-Hour Time Period	From North						From East						From South						From West						Total Vehicle Volume	Directional Volume Totals	
	6th Street						Grant Street						6th Street						Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total							
Start Time																											
AM	6:00 AM	0	0	0	0	0	1	96	33	0	130	47	0	30	0	77	21	95	2	0	118	325	248	77			
	7:00 AM	1	0	0	0	1	15	182	32	0	229	103	4	82	0	189	73	241	2	0	316	735	545	190			
	8:00 AM	0	0	1	0	1	3	67	14	0	84	31	1	11	0	43	6	111	3	0	120	248	204	44			
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM	2:00 PM	8	2	9	0	19	0	139	71	0	210	74	1	53	0	128	98	255	14	0	367	724	577	147			
	3:00 PM	14	2	26	0	42	4	185	77	0	266	69	0	43	0	112	44	300	3	0	347	767	613	154			
	4:00 PM	5	1	5	0	11	3	204	75	0	282	66	0	32	0	98	48	299	2	0	349	740	631	109			
	5:00 PM	0	2	1	0	3	6	171	77	0	254	42	3	31	0	76	38	274	1	0	313	646	567	79			
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals	28	7	42	0	77	32	1044	379	0	1455	432	9	282	0	723	328	1575	27	0	1930	4185	3385	800				

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

Count Basics			Page 9 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Heavy Vehicle Data

6th Street and Grant Street



15-Minute Heavy Vehicle Data

15-Minute Time Period	From North					From East					From South					From West					15-Min Totals	Hourly Sum		
	6th Street					Grant Street					6th Street					Grant Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM Peak Period	6:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	23	
	6:15 AM	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	0	1	0	0	1	6	40	
	6:30 AM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	1	0	0	1	4	52	
	6:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4	1	6	0	0	7	11	55	
	7:00 AM	0	0	0	0	0	0	5	1	0	6	3	0	0	0	3	9	1	0	0	10	19	54	
	7:15 AM	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	10	3	0	0	13	18	42	
	7:30 AM	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	0	3	0	0	3	7	31	
	7:45 AM	0	0	0	0	0	0	0	2	0	2	1	0	2	0	3	3	2	0	0	5	10		
	8:00 AM	0	0	0	0	0	0	1	1	0	2	3	0	0	0	3	1	1	0	0	2	7		
	8:15 AM	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	0	3	0	0	3	7		
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	2	0	0	0	4	5	29	
	2:15 PM	0	0	0	0	0	0	0	4	0	4	0	0	2	0	2	1	2	0	0	3	9	33	
	2:30 PM	0	0	0	0	0	0	0	2	0	2	1	0	1	0	2	0	4	0	0	4	8	32	
	2:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	3	0	0	5	7	28	
	3:00 PM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	2	3	0	0	5	9	28	
	3:15 PM	0	0	0	0	0	0	1	1	0	2	1	0	1	0	2	0	4	0	0	4	8	22	
	3:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	0	0	0	2	4	16	
	3:45 PM	0	0	0	0	0	0	1	2	0	3	1	0	0	0	1	2	1	0	0	3	7	17	
	4:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	11	
	4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2	10	
	4:30 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	0	0	3	5	8	
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	6	
	5:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	7	
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	5:30 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	3		
	5:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	2		
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		0	0	0	0	0	0	32	18	0	50	23	0	12	0	35	33	48	0	0	81	166		

Peak Hour Heavy Vehicle Volume Summary

Hourly Time Period Start Time	↓ From North					← From East					↑ From South					→ From West					Total Hourly Volume	
	6th Street					Grant Street					6th Street					Grant Street						
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM	0	0	0	0	0	0	0	8	5	0	13	7	0	3	0	10	22	9	0	0	31	54
MD 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM 2:45 PM	0	0	0	0	0	0	0	7	2	0	9	2	0	1	0	3	4	12	0	0	16	28

Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

6th Street and Grant Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		6th Street			Grant Street			6th Street			Grant Street				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	7:00 AM	0	0	0	0	0	0	2	0	2	0	0	0	2	4
	7:15 AM	0	1	1	0	0	0	1	0	1	0	0	0	2	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 AM	0	0	0	0	0	0	0	1	1	0	0	0	1	
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0		
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	2:15 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	15
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	2:45 PM	2	0	2	0	0	0	5	0	5	3	0	3	10	20
	3:00 PM	0	0	0	0	0	0	2	0	2	2	0	2	4	11
	3:15 PM	2	0	2	0	0	0	3	0	3	1	0	1	6	8
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	3:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	4
	4:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	3
	4:15 PM	0	1	1	0	0	0	1	0	1	0	0	0	2	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		4	2	6	0	0	0	16	1	17	7	0	7	30	

Special Pedestrians

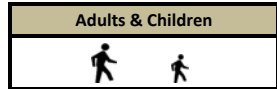
Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

6th Street and Grant Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time		Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum
		6th Street			Grant Street			6th Street			Grant Street				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	0
	6:15 AM	0		0	0		0	0		0	0		0	0	2
	6:30 AM	0		0	0		0	0		0	0		0	0	3
	6:45 AM	0		0	0		0	0		0	0		0	0	3
	7:00 AM	0		0	0		0	2		2	0		0	2	3
	7:15 AM	0		0	0		0	1		1	0		0	1	1
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	1
	1:45 PM	0		0	0		0	0		0	0		0	0	1
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	11
	2:15 PM	0		0	0		0	1		1	0		0	1	15
	2:30 PM	0		0	0		0	0		0	0		0	0	20
	2:45 PM	2		2	0		0	5		5	3		3	10	20
	3:00 PM	0		0	0		0	2		2	2		2	4	11
	3:15 PM	2		2	0		0	3		3	1		1	6	8
	3:30 PM	0		0	0		0	0		0	0		0	0	3
	3:45 PM	0		0	0		0	1		1	0		0	1	3
	4:00 PM	0		0	0		0	0		0	1		1	1	2
	4:15 PM	0		0	0		0	1		1	0		0	1	1
	4:30 PM	0		0	0		0	0		0	0		0	0	0
	4:45 PM	0		0	0		0	0		0	0		0	0	0
	5:00 PM	0		0	0		0	0		0	0		0	0	0
	5:15 PM	0		0	0		0	0		0	0		0	0	0
	5:30 PM	0		0	0		0	0		0	0		0	0	0
	5:45 PM	0		0	0		0	0		0	0		0	0	0
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
8:00 PM	0		0	0		0	0		0	0		0	0	0	
8:15 PM	0		0	0		0	0		0	0		0	0	0	
8:30 PM	0		0	0		0	0		0	0		0	0	0	
8:45 PM	0		0	0		0	0		0	0		0	0	0	
9:00 PM	0		0	0		0	0		0	0		0	0	0	
9:15 PM	0		0	0		0	0		0	0		0	0	0	
9:30 PM	0		0	0		0	0		0	0		0	0	0	
9:45 PM	0		0	0		0	0		0	0		0	0	0	
Totals		4	0	4	0	0	0	16	0	16	7	0	7	27	

Count Basics			Page 13 of 13
Start Date:	Monday, November 12, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Bicyclists

15-Minute Bicycle Data

15-Minute Time Period																						Hourly Sum	
Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum	
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
6:00 AM					0					0					0					0	0	0	
6:15 AM					0					0					0					0	0	0	
6:30 AM					0					0					0					0	0	0	
6:45 AM					0					0					0					0	0	0	
7:00 AM					0					0					0					0	0	0	
7:15 AM					0					0					0					0	0	0	
7:30 AM					0					0					0					0	0	0	
7:45 AM					0					0					0					0	0	0	
8:00 AM					0					0					0					0	0	0	
8:15 AM					0					0					0					0	0	0	
8:30 AM					0					0					0					0	0	0	
8:45 AM					0					0					0					0	0	0	
9:00 AM					0					0					0					0	0	0	
9:15 AM					0					0					0					0	0	0	
9:30 AM					0					0					0					0	0	0	
9:45 AM					0					0					0					0	0	0	
10:00 AM					0					0					0					0	0	0	
10:15 AM					0					0					0					0	0	0	
10:30 AM					0					0					0					0	0	0	
10:45 AM					0					0					0					0	0	0	
11:00 AM					0					0					0					0	0	0	
11:15 AM					0					0					0					0	0	0	
11:30 AM					0					0					0					0	0	0	
11:45 AM					0					0					0					0	0	0	
12:00 PM					0					0					0					0	0	0	
12:15 PM					0					0					0					0	0	0	
12:30 PM					0					0					0					0	0	0	
12:45 PM					0					0					0					0	0	0	
1:00 PM					0					0					0					0	0	0	
1:15 PM					0					0					0					0	0	0	
1:30 PM					0					0					0					0	0	0	
1:45 PM					0					0					0					0	0	0	
2:00 PM					0					0					0					0	0		

		Peak Hours Study Parking Movement Volume Summary																					
Hourly Time Period Start Time		From North					From East					From South					From West					Total Hourly Volume	
		6th Street					Grant Street					6th Street					Grant Street						
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM 7:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MD 12:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM 2:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1	Page 1 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events



Base Information, Observed (6.5) Hour and Estimated (24) Hour Volume Summaries

Intersection of: 6th Street and Helena Street

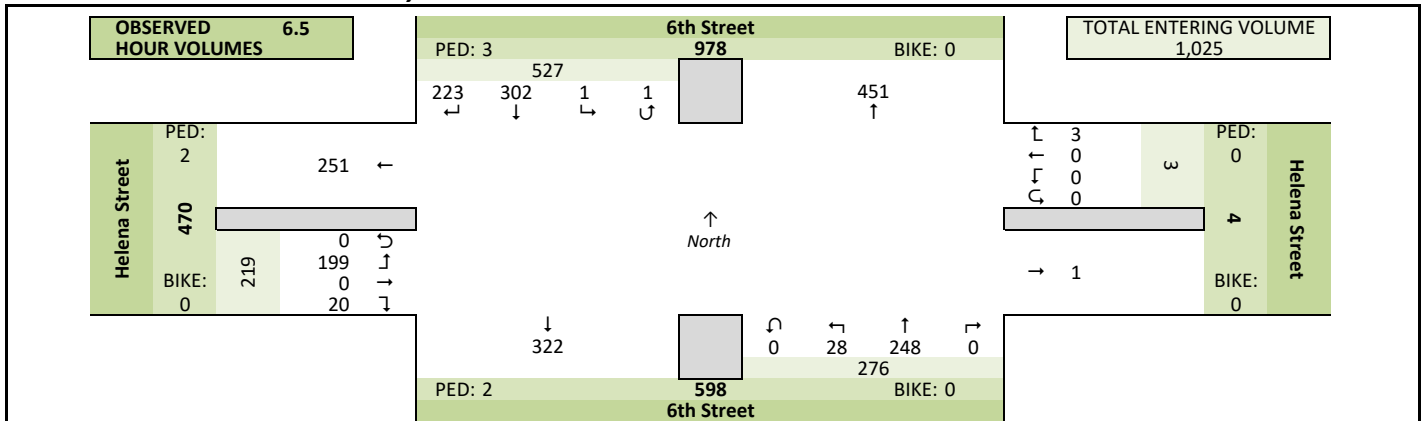
Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction		↑
North Leg	6th Street		
East Leg	Helena Street		
South Leg	6th Street		
West Leg	Helena Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
	Pre-school children	None	
	Elementry school age children	None	
	Visually impaired (white cane/helper dog)	None	
	Elderly/disabled (except wheelchairs)	None	
	Wheelchairs/electric scooters	None	
	Other (describe)	None	

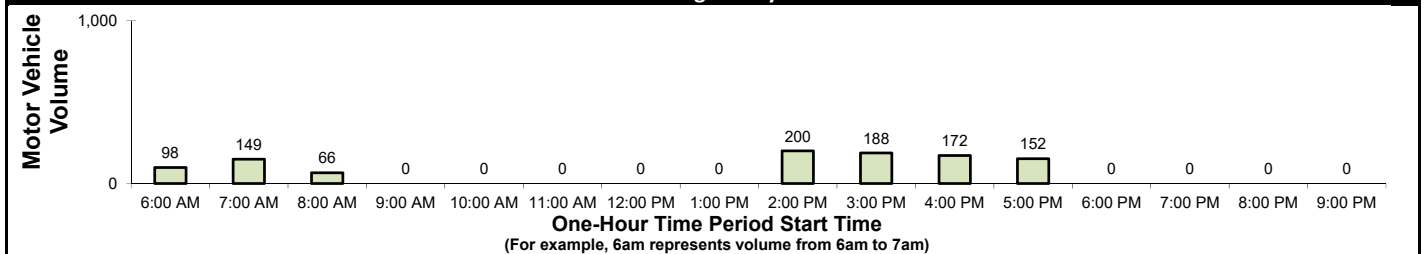
Count Information

Hrs Counted: 6:00 AM-8:30 AM and 2:00 PM-6:00 PM			
1st Day of Count		Thursday, November 15, 2018	Weather
AM Peak Period		Friday, November 16, 2018	Clear & Dry
Midday Peak Period		Thursday, November 15, 2018	Clear & Dry
PM Peak Period		Thursday, November 15, 2018	Clear & Dry
Calculated Peak Hours			
AM	7:00-8:00am	MD	PM 2:45-3:45pm
Peak Hours Selected for Analysis			
AM	7:00-8:00am	MD	PM 2:45-3:45pm
Daily/Seasonal Adjustment Group		(2) Urban Arterials & Collectors	
Count Expansion Group		(2) Urban Arterials & Collectors	
Daily/Seasonal Adjustment Factor		0.971	Count Expansion Factor 1.890
Company Name		TADI, Inc.	Manual Adj. 1.000
Observers	AM Peak Period	Lee Oestreich	
	Midday Peak Period	None	
	PM Peak Period	Lee Oestreich	
Comments	2017 DOT Seasonal Factors		

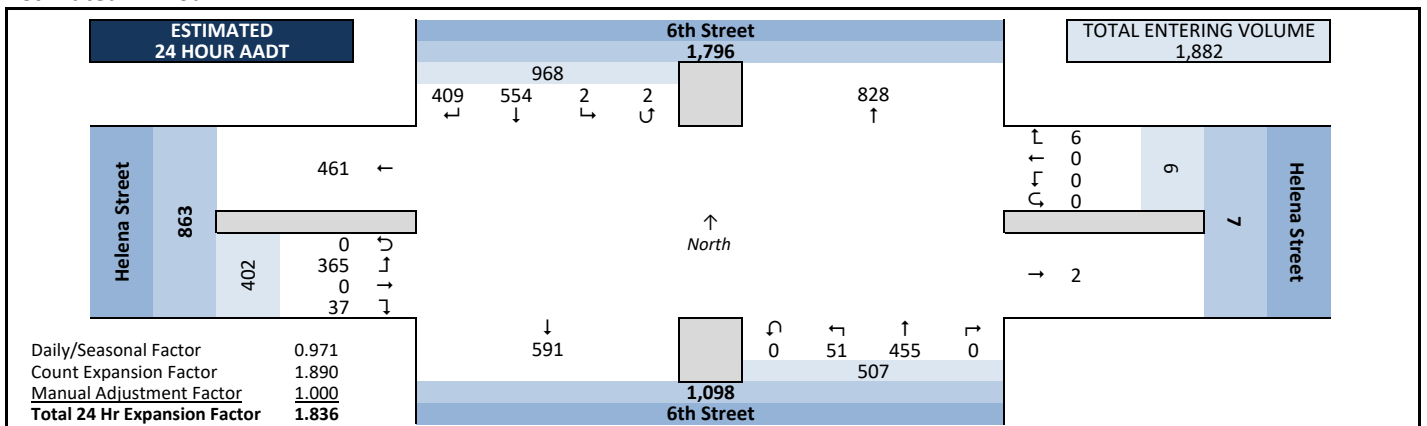
Observed 6.5 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



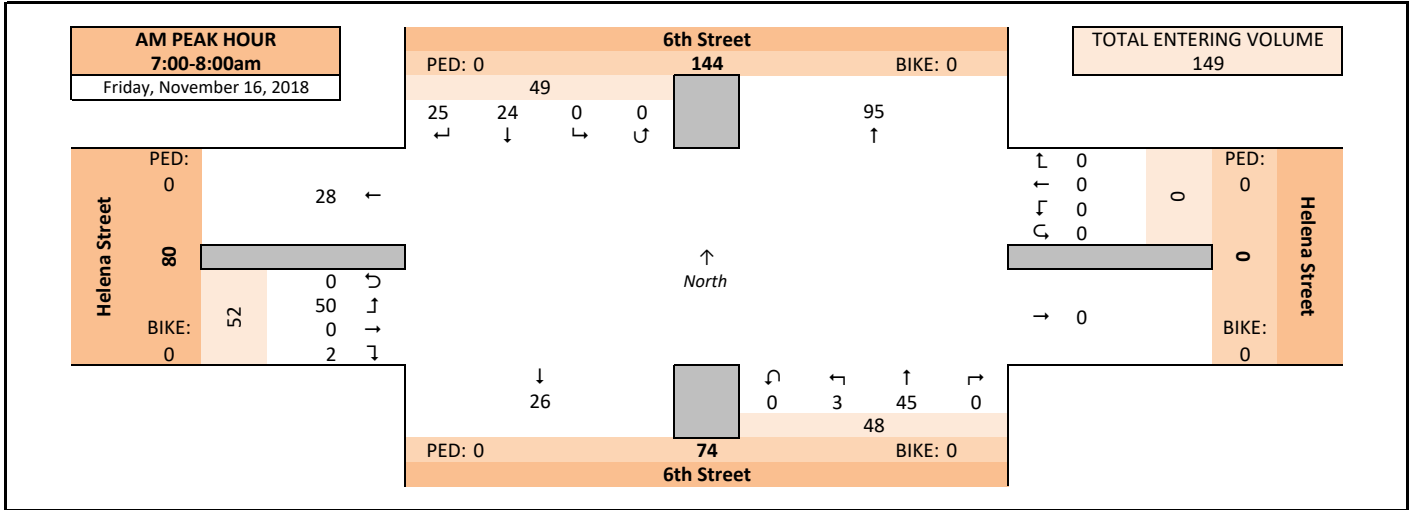
Intersection Traffic Volume Report

Count Basics			Page 2 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events

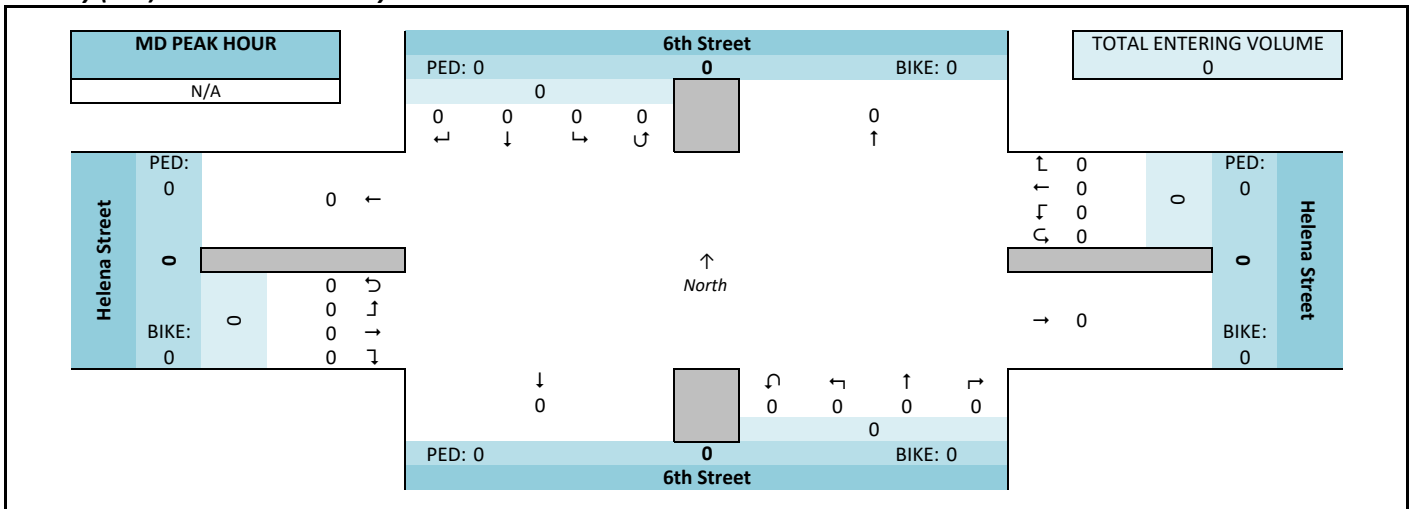
Peak Hour Volume Graphical Summary

6th Street and Helena Street

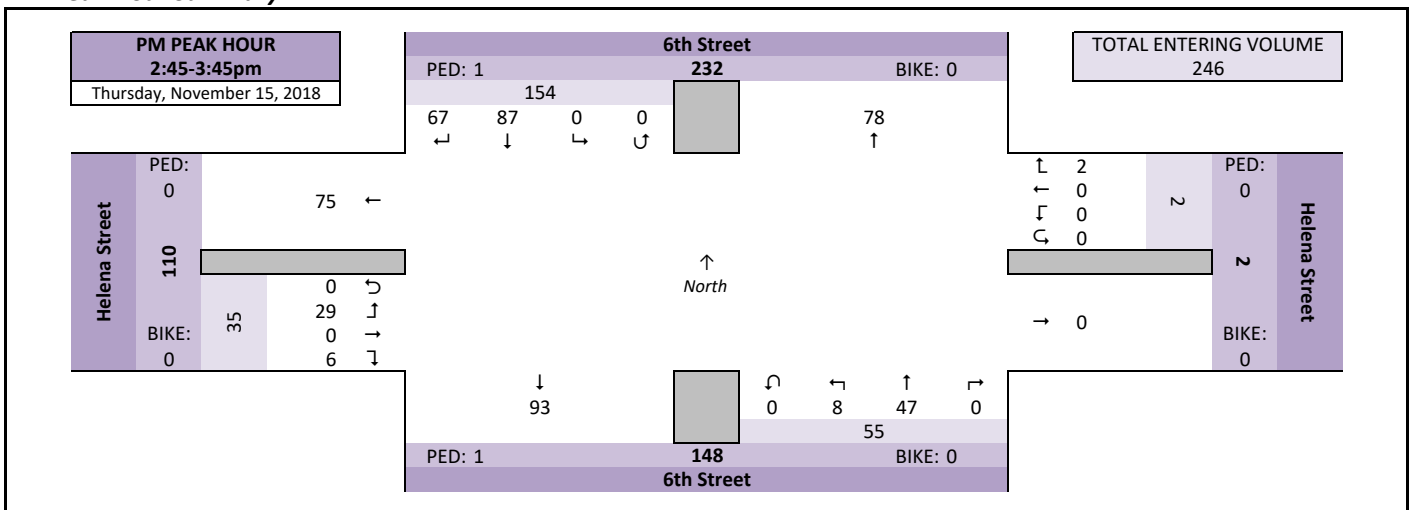
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Peak Hour Volume Summary

6th Street and Helena Street

Peak Hour Volumes, Truck Percentages, and PHFs

Friday, November 16, 2018		From North					From East					From South					From West					
		6th Street					Helena Street					6th Street					Helena Street					
AM Peak Hour	AM Peak Hour																					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	7:00 AM	12	6	0	0	18	0	0	0	0	0	0	13	0	0	13	0	0	16	0	16	47
	7:15 AM	7	3	0	0	10	0	0	0	0	0	0	15	2	0	17	1	0	13	0	14	41
	7:30 AM	2	5	0	0	7	0	0	0	0	0	0	12	0	0	12	0	0	12	0	12	31
	7:45 AM	4	10	0	0	14	0	0	0	0	0	0	5	1	0	6	1	0	9	0	10	30
	Peak Hour Volume	25	24	0	0	49	0	0	0	0	0	0	45	3	0	48	2	0	50	0	52	149
	Rounded Hourly Volume	25	25	0	0	50	0	0	0	0	0	0	45	5	0	50	0	0	50	0	50	150
	% Single Unit Trucks	36.0	29.2	0.0	0.0	32.7	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	18.7	0.0	0.0	0.0	0.0	0.0	16.8
	% Heavy 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	36.0	29.2	0.0	0.0	32.7	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	18.7	0.0	0.0	0.0	0.0	0.0	16.8	
Peak Hour Factor (PHF)	0.52	0.60	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.37	0.00	0.71	0.50	0.00	0.78	0.00	0.81	0.79	

N/A		From North					From East					From South					From West					Totals
Midday (MD) Peak Hour	MD Peak Hour	6th Street					Helena Street					6th Street					Helena Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	% Single Unit 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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Thursday, November 15, 2018		From North					From East					From South					From West						
PM Peak Hour	PM Peak Hour	6th Street					Helena Street					6th Street					Helena Street						
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals	
	2:45 PM	37	51	0	0	88	1	0	0	0	0	1	0	4	2	0	6	2	0	5	0	7	102
	3:00 PM	12	9	0	0	21	1	0	0	0	0	1	0	27	4	0	31	1	0	7	0	8	61
	3:15 PM	11	17	0	0	28	0	0	0	0	0	0	0	9	1	0	10	1	0	13	0	14	52
	3:30 PM	7	10	0	0	17	0	0	0	0	0	0	0	7	1	0	8	2	0	4	0	6	31
	Peak Hour Volume	67	87	0	0	154	2	0	0	0	0	2	0	47	8	0	55	6	0	29	0	35	246
	Rounded Hourly Volume	65	85	0	0	150	0	0	0	0	0	0	0	45	10	0	55	5	0	30	0	35	240
	% Single Unit Trucks	1.5	3.4	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	12.5	0.0	9.1	16.7	0.0	3.4	0.0	5.7	4.5
% Heavy 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	1.5	3.4	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	12.5	0.0	9.1	16.7	0.0	3.4	0.0	5.7	4.5	
Peak Hour Factor (PHF)	0.45	0.43	0.00	0.00	0.44	0.50	0.00	0.00	0.00	0.50	0.00	0.44	0.50	0.00	0.44	0.75	0.00	0.56	0.00	0.62	0.60		

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
15-Minute Start Time		6th Street			Helena Street			6th Street			Helena Street			
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	
PM	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15 PM	1	0	1	0	0	0	1	0	1	0	0	2	
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	1	0	1	0	0	0	1	0	1	0	0	2	

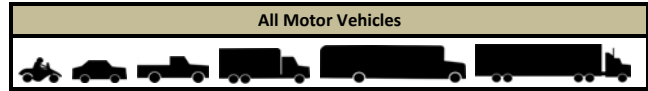
Intersection Traffic Volume Report

Count Basics			Page 4 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Hourly Volume Summary - Motor Vehicle Data

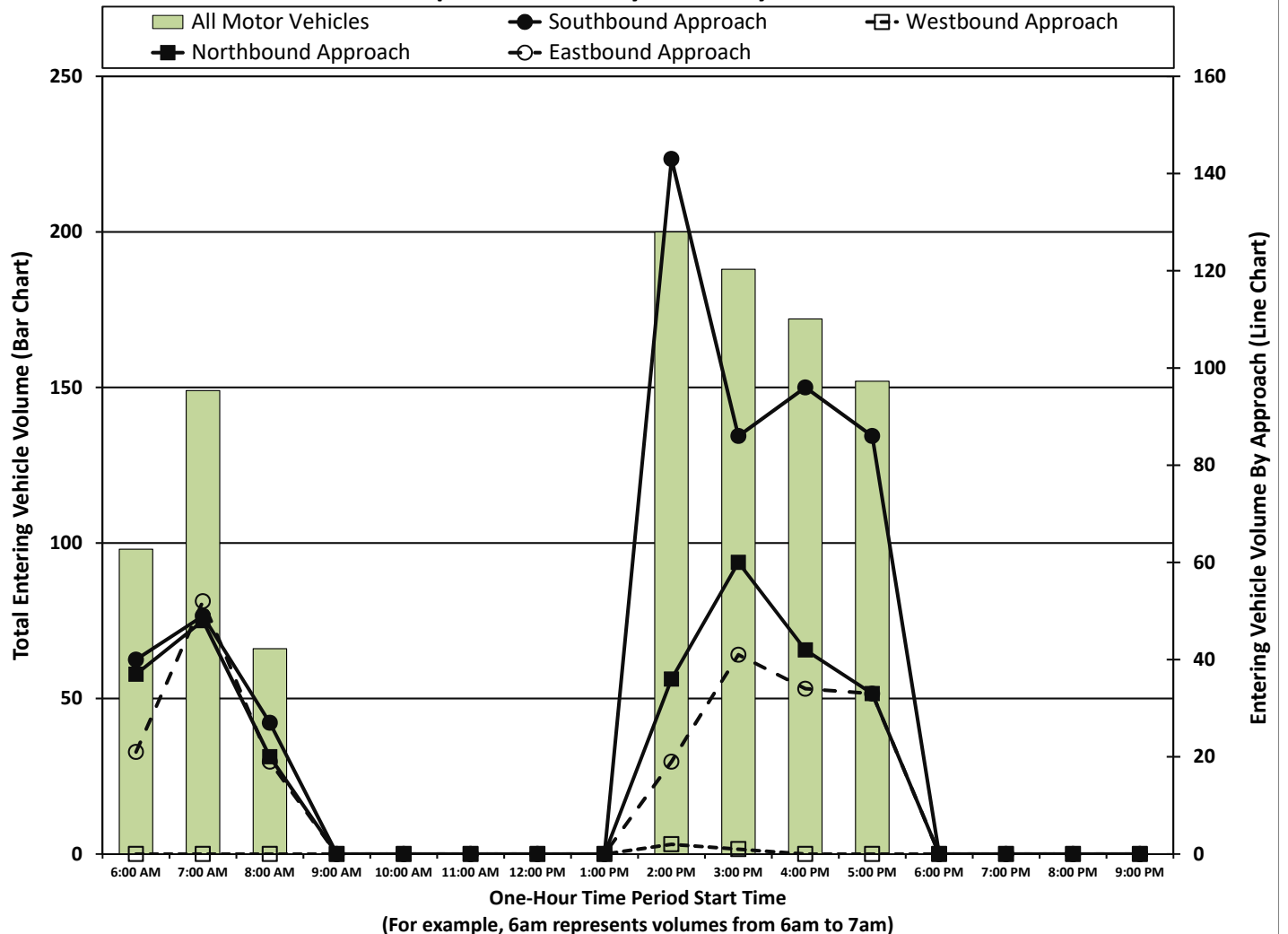
6th Street and Helena Street

One-Hour Motor Vehicle Data



One-Hour Time Period	From North					From East					From South					From West					Total Vehicle Volume	Directional Volume Totals		
	6th Street					Helena Street					6th Street					Helena Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
Start Time																						E/W	N/S	
AM	6:00 AM	5	35	0	0	40	0	0	0	0	0	0	35	2	0	37	2	0	19	0	21	98	21	77
	7:00 AM	25	24	0	0	49	0	0	0	0	0	0	45	3	0	48	2	0	50	0	52	149	52	97
	8:00 AM	17	9	0	1	27	0	0	0	0	0	0	17	3	0	20	2	0	17	0	19	66	19	47
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	52	90	1	0	143	2	0	0	0	2	0	31	5	0	36	2	0	17	0	19	200	21	179
	3:00 PM	39	47	0	0	86	1	0	0	0	1	0	54	6	0	60	4	0	37	0	41	188	42	146
	4:00 PM	42	54	0	0	96	0	0	0	0	0	0	39	3	0	42	4	0	30	0	34	172	34	138
	5:00 PM	43	43	0	0	86	0	0	0	0	0	0	27	6	0	33	4	0	29	0	33	152	33	119
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	223	302	1	1	527	3	0	0	0	3	0	248	28	0	276	20	0	199	0	219	1025	222	803	

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

6th Street and Helena Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		North Approach			East Approach			South Approach			West Approach				
		6th Street			Helena Street			6th Street			Helena Street				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	6:15 AM	0	0	0	0	0	0	1	0	1	1	0	1	2	3
	6:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	1
	6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	3:15 PM	1	0	1	0	0	0	1	0	1	0	0	0	2	4
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	3:45 PM	2	0	2	0	0	0	0	0	0	0	0	0	2	2
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0		
Totals		3	0	3	0	0	0	2	0	2	2	0	2	7	

Special Pedestrians

Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

15-Minute Adult & Children Count (Manual Entry)

Adults & Children

15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time	Crossing North Approach			Crossing East Approach			Crossing South Approach			Crossing West Approach			15-Min Totals	Hourly Sum	
	6th Street			Helena Street			6th Street			Helena Street					
	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total			
AM Peak Period															
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
6:15 AM	0	0	0	0	0	0	1	0	1	1	0	1	2	3	
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	1	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Midday Peak Period															
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PM Peak Period															
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
3:15 PM	1	0	1	0											

Intersection Traffic Volume Report

Count Basics		Version 2013.14.1		Page 1 of 13	
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session		
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events		



Base Information, Observed (6.5) Hour and Estimated (24) Hour Volume Summaries

Intersection of: 7th Street and Helena Street

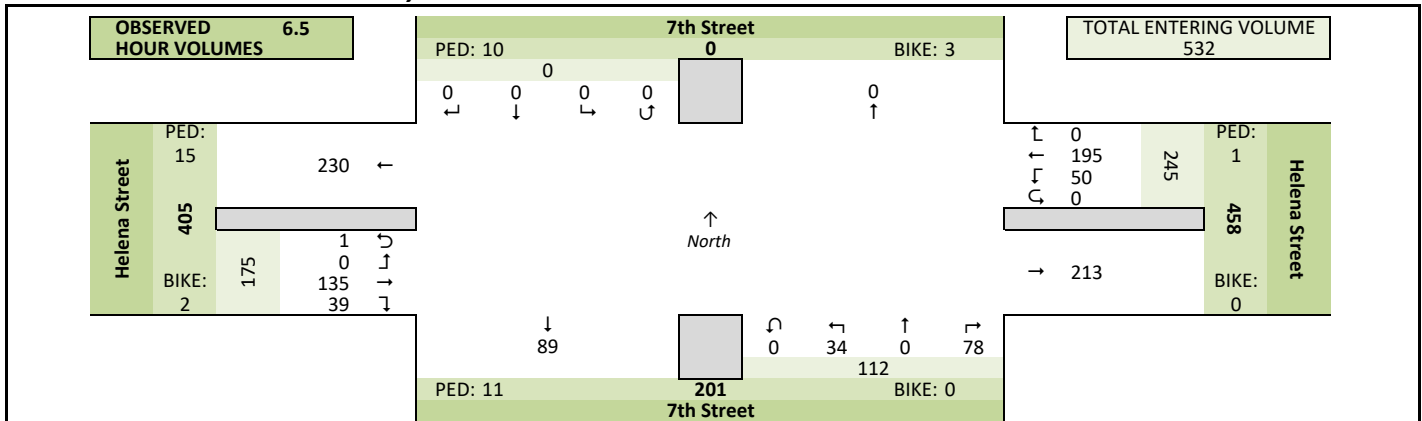
Site Information

Municipality	City of DePere		
County	Brown	WisDOT Region	NE
Traffic Control	Partial Stop Control		
Roadway Names	North Direction ↑		
North Leg	7th Street		
East Leg	Helena Street		
South Leg	7th Street		
West Leg	Helena Street		
Special Considerations			
Schools	In Session		
Holidays	None		
Special Events	None		
Special Pedestrians Observed			
Pre-school children	None		
Elementary school age children	None		
Visually impaired (white cane/helper dog)	None		
Elderly/disabled (except wheelchairs)	None		
Wheelchairs/electric scooters	None		
Other (describe)	None		

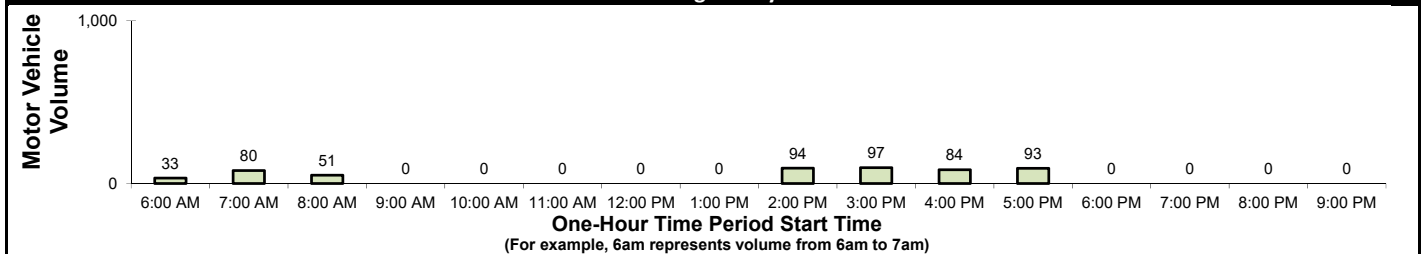
Count Information

Hrs Counted:	6:00 AM-8:30 AM and 2:00 PM-6:00 PM		
1st Day of Count	Thursday, November 15, 2018		Weather
AM Peak Period	Friday, November 16, 2018		Clear & Dry
Midday Peak Period	Thursday, November 15, 2018		Clear & Dry
PM Peak Period	Thursday, November 15, 2018		Clear & Dry
Calculated Peak Hours			
AM	7:00-8:00am	MD	PM 2:45-3:45pm
Peak Hours Selected for Analysis			
AM	7:00-8:00am	MD	PM 2:45-3:45pm
Daily/Seasonal Adjustment Group	(2) Urban Arterials & Collectors		
Count Expansion Group	(2) Urban Arterials & Collectors		
Daily/Seasonal Adjustment Factor	0.971	Count Expansion Factor	1.890
Company Name	TADI, Inc.		Manual Adj. 1.000
Observers			
AM Peak Period	Wendy Picard		
Midday Peak Period	None		
PM Peak Period	Wendy Picard		
Comments	2017 DOT Seasonal Factors		

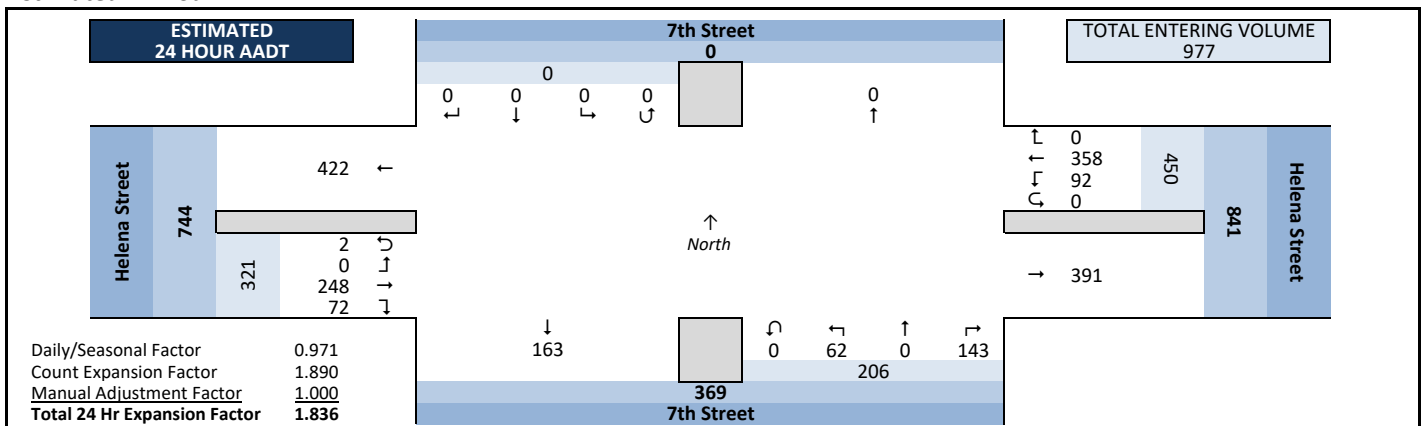
Observed 6.5 Hour Volume Summary



Total Entering Hourly Volume



Estimated 24 Hour AADT



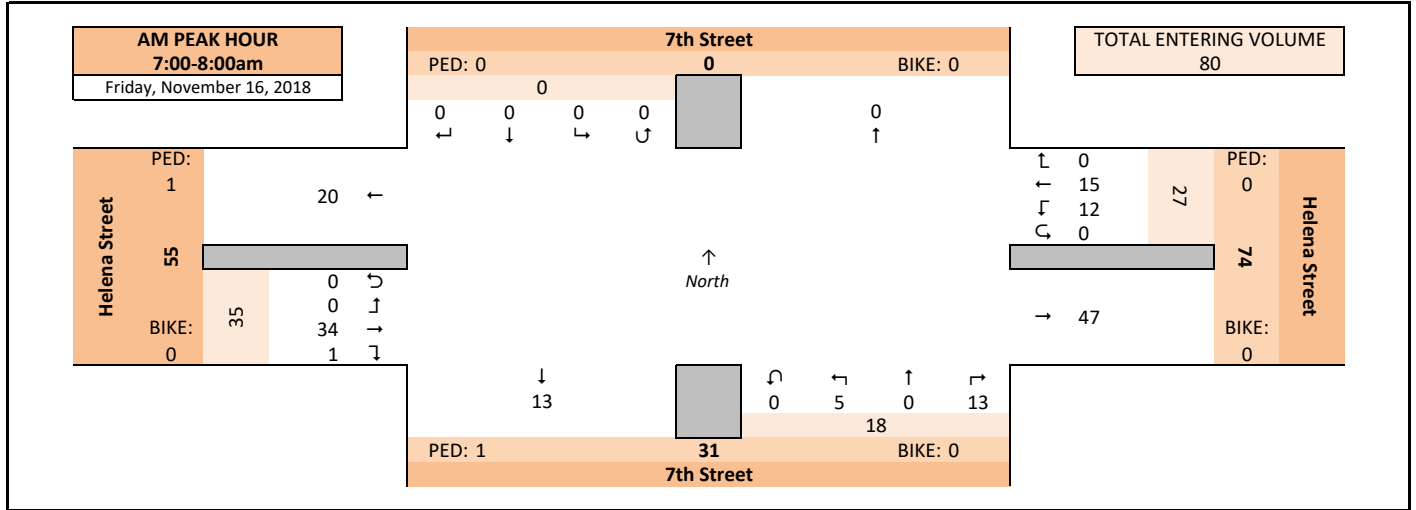
Intersection Traffic Volume Report

Peak Hour Volume Graphical Summary

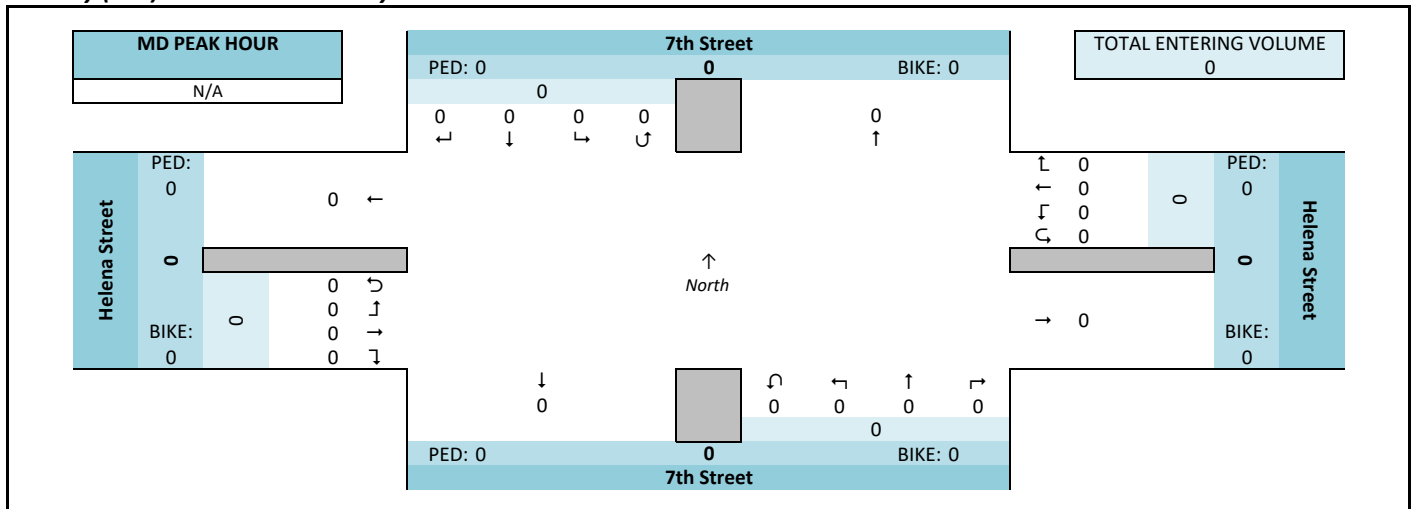
Count Basics		Page 2 of 13	
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events

7th Street and Helena Street

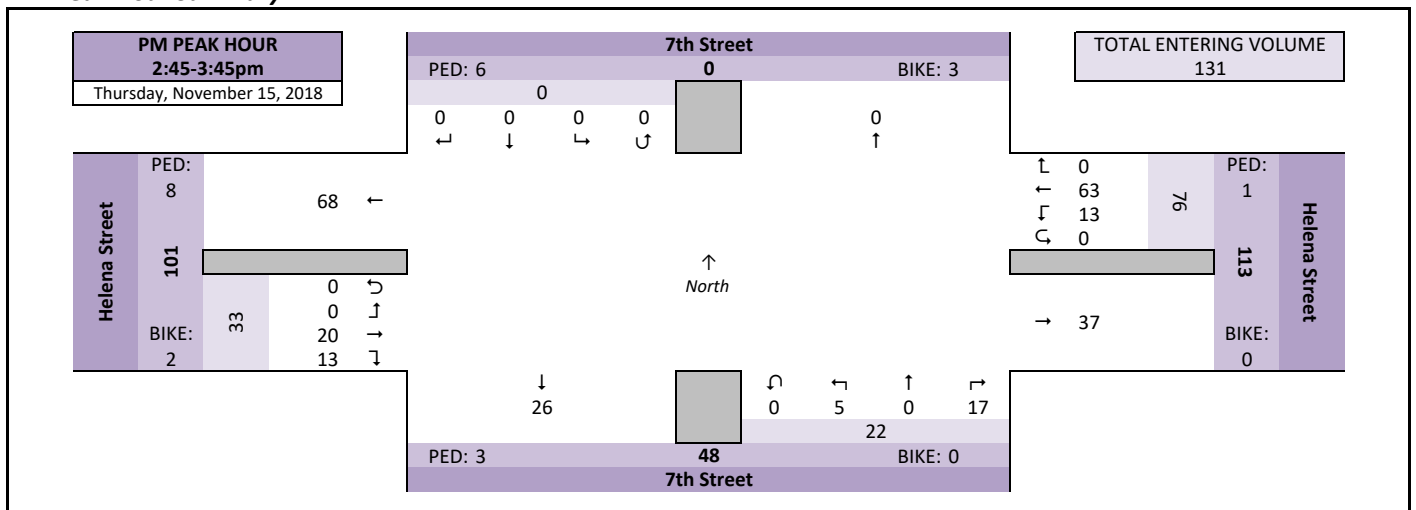
AM Peak Hour Summary



Midday (MD) Peak Hour Summary



PM Peak Hour Summary



Intersection Traffic Volume Report

Count Basics			Page 3 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Peak Hour Volume Summary

7th Street and Helena Street

Peak Hour Volumes, Truck Percentages, and PHFs

Friday, November 16, 2018		From North					From East					From South					From West					
		7th Street					Helena Street					7th Street					Helena Street					
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
AM Peak Hour	AM Peak Hour																					
	Start Time																					
	7:00 AM	0	0	0	0	0	0	4	8	0	12	7	0	2	0	9	1	8	0	0	9	30
	7:15 AM	0	0	0	0	0	0	7	2	0	9	3	0	2	0	5	0	9	0	0	9	23
	7:30 AM	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	0	8	0	0	8	12
	7:45 AM	0	0	0	0	0	0	3	1	0	4	1	0	1	0	2	0	9	0	0	9	15
	Peak Hour Volume	0	0	0	0	0	0	15	12	0	27	13	0	5	0	18	1	34	0	0	35	80
	Rounded Hourly Volume	0	0	0	0	0	0	15	10	0	25	15	0	5	0	20	0	35	0	0	35	80
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	20.0	50.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
	% Heavy 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	20.0	50.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2	
Peak Hour Factor (PHF)		0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.37	0.00	0.56	0.46	0.00	0.62	0.00	0.50	0.25	0.94	0.00	0.00	0.97	0.67

N/A		↴ From North					↶ From East					↴ From South					↷ From West					Totals
Midday (MD) Peak Hour	MD Peak Hour	7th Street					Helena Street					7th Street					Helena Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Peak Hour Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Rounded Hourly Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	% Single Unit 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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Thursday, November 15, 2018		From North					From East					From South					From West					
PM Peak Hour	PM Peak Hour	7th Street					Helena Street					7th Street					Helena Street					
	Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Totals
	2:45 PM	0	0	0	0	0	0	36	6	0	42	3	0	2	0	5	5	5	0	0	10	57
	3:00 PM	0	0	0	0	0	0	9	6	0	15	3	0	1	0	4	3	5	0	0	8	27
	3:15 PM	0	0	0	0	0	0	10	0	0	10	9	0	1	0	10	3	6	0	0	9	29
	3:30 PM	0	0	0	0	0	0	8	1	0	9	2	0	1	0	3	2	4	0	0	6	18
	Peak Hour Volume	0	0	0	0	0	0	63	13	0	76	17	0	5	0	22	13	20	0	0	33	131
	Rounded Hourly Volume	0	0	0	0	0	0	65	15	0	80	15	0	5	0	20	15	20	0	0	35	135
	% Single Unit Trucks	0.0	0.0	0.0	0.0	0.0	0.0	1.6	7.7	0.0	2.6	5.9	0.0	0.0	0.0	4.5	0.0	5.0	0.0	0.0	3.0	3.1
% Heavy 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% Trucks (Total)	0.0	0.0	0.0	0.0	0.0	0.0	1.6	7.7	0.0	2.6	5.9	0.0	0.0	0.0	4.5	0.0	5.0	0.0	0.0	3.0	3.1	
Peak Hour Factor (PHF)	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.54	0.00	0.45	0.47	0.00	0.62	0.00	0.55	0.65	0.83	0.00	0.00	0.82	0.57	

Peak Hour Pedestrian and Bicyclist Volumes

Pedestrians and Bicyclists		Crossing 			Crossing 			Crossing 			Crossing 			Total Ped & Bike Volume
		North Approach			East Approach			South Approach			West Approach			
15-Minute Start Time		7th Street			Helena Street			7th Street			Helena Street			
AM	7:00 AM	0	0	0	0	0	0	1	0	1	1	0	1	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	1	0	1	1	0	1	2
MD	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:45 PM	2	2	4	0	0	0	1	0	1	7	1	8	13
	3:00 PM	1	0	1	1	0	1	1	0	1	0	0	0	3
	3:15 PM	2	0	2	0	0	0	1	0	1	0	0	0	3
	3:30 PM	1	1	2	0	0	0	0	0	0	1	1	2	4
	Total	6	3	9	1	0	1	3	0	3	8	2	10	23

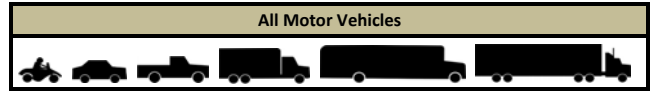
Intersection Traffic Volume Report

Hourly Volume Summary - Motor Vehicle Data

7th Street and Helena Street

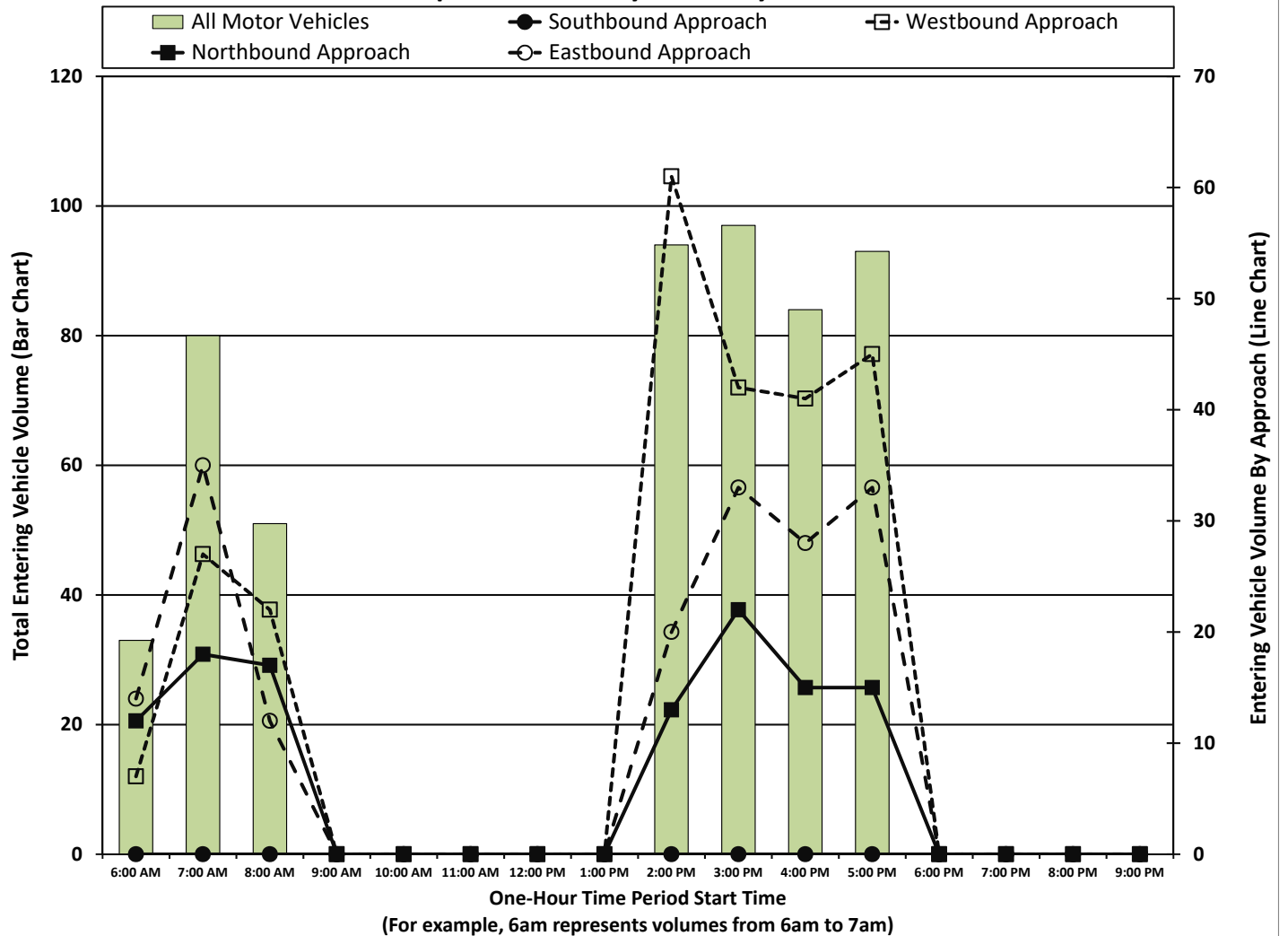
One-Hour Motor Vehicle Data

Count Basics			Page 4 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events



One-Hour Time Period	↓ From North					← From East					↑ From South					→ From West					Total Vehicle Volume	Directional Volume Totals		
	7th Street					Helena Street					7th Street					Helena Street								
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
Start Time	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	E/W	N/S		
AM	6:00 AM	0	0	0	0	0	0	7	0	0	7	8	0	4	0	12	1	13	0	0	14	33	21	12
	7:00 AM	0	0	0	0	0	0	15	12	0	27	13	0	5	0	18	1	34	0	0	35	80	62	18
	8:00 AM	0	0	0	0	0	0	17	5	0	22	12	0	5	0	17	3	9	0	0	12	51	34	17
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MD	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	2:00 PM	0	0	0	0	0	0	50	11	0	61	8	0	5	0	13	7	12	0	1	20	94	81	13
	3:00 PM	0	0	0	0	0	0	35	7	0	42	18	0	4	0	22	10	23	0	0	33	97	75	22
	4:00 PM	0	0	0	0	0	0	31	10	0	41	11	0	4	0	15	7	21	0	0	28	84	69	15
	5:00 PM	0	0	0	0	0	0	40	5	0	45	8	0	7	0	15	10	23	0	0	33	93	78	15
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	195	50	0	245	78	0	34	0	112	39	135	0	1	175	532	420	112	

Graphical Summary of Hourly Volumes



Intersection Traffic Volume Report

Count Basics			Page 11 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

15-Minute Pedestrian and Bicyclist Data

7th Street and Helena Street



15-Minute Pedestrian and Bicyclist Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		7th Street			Helena Street			7th Street			Helena Street				
		Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total	Pedestrian	Bicyclist	Total		
AM Peak Period	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	6:15 AM	2	0	2	0	0	0	1	0	1	1	0	1	4	9
	6:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	1	5
	6:45 AM	0	0	0	0	0	0	1	0	1	1	0	1	2	4
	7:00 AM	0	0	0	0	0	0	1	0	1	1	0	1	2	2
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Midday Peak Period	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak Period	2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	19
	2:45 PM	2	2	4	0	0	0	1	0	1	7	1	8	13	23
	3:00 PM	1	0	1	1	0	1	1	0	1	0	0	0	3	11
	3:15 PM	2	0	2	0	0	0	1	0	1	0	0	0	3	8
	3:30 PM	1	1	2	0	0	0	0	0	0	1	1	2	4	7
	3:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	3
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	4:15 PM	1	0	1	0	0	0	1	0	1	0	0	0	2	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	4:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	1	4
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	5:15 PM	0	0	0	0	0	0	3	0	3	0	0	0	3	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	3	0	3	3	0
	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals		10	3	13	1	0	1	11	0	11	15	2	17	42	

Special Pedestrians

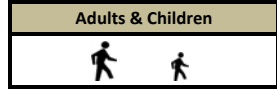
Pedestrian Type	None	1 or 2	A Few	Several	Many	Unknown
Pre-school Children	x					
Elementary School Age Children	x					
Visually Impaired (white cane/helper dog)	x					
Elderly/Disabled (except wheelchairs)	x					
Wheelchairs/Electric Scooters	x					
Other (None)	x					

Intersection Traffic Volume Report

Count Basics			Page 12 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted: 6.5		Non-Holiday	No Special Events

15-Minute Adult & Children Count (Manual Entry)

7th Street and Helena Street



15-Minute Adult & Children Pedestrian Data

15-Minute Time Period Start Time		Crossing 			Crossing 			Crossing 			Crossing 			15-Min Totals	Hourly Sum
		7th Street			Helena Street			7th Street			Helena Street				
		Adults	Children	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children	Total		
AM Peak Period	6:00 AM	0		0	0		0	0		0	0		0	0	7
	6:15 AM	2		2	0		0	1		1	1		1	4	9
	6:30 AM	1		1	0		0	0		0	0		0	1	5
	6:45 AM	0		0	0		0	1		1	1		1	2	4
	7:00 AM	0		0	0		0	1		1	1		1	2	2
	7:15 AM	0		0	0		0	0		0	0		0	0	0
	7:30 AM	0		0	0		0	0		0	0		0	0	0
	7:45 AM	0		0	0		0	0		0	0		0	0	0
	8:00 AM	0		0	0		0	0		0	0		0	0	0
	8:15 AM	0		0	0		0	0		0	0		0	0	0
	8:30 AM	0		0	0		0	0		0	0		0	0	0
	8:45 AM	0		0	0		0	0		0	0		0	0	0
	9:00 AM	0		0	0		0	0		0	0		0	0	0
	9:15 AM	0		0	0		0	0		0	0		0	0	0
	9:30 AM	0		0	0		0	0		0	0		0	0	0
	9:45 AM	0		0	0		0	0		0	0		0	0	0
Midday Peak Period	10:00 AM	0		0	0		0	0		0	0		0	0	0
	10:15 AM	0		0	0		0	0		0	0		0	0	0
	10:30 AM	0		0	0		0	0		0	0		0	0	0
	10:45 AM	0		0	0		0	0		0	0		0	0	0
	11:00 AM	0		0	0		0	0		0	0		0	0	0
	11:15 AM	0		0	0		0	0		0	0		0	0	0
	11:30 AM	0		0	0		0	0		0	0		0	0	0
	11:45 AM	0		0	0		0	0		0	0		0	0	0
	12:00 PM	0		0	0		0	0		0	0		0	0	0
	12:15 PM	0		0	0		0	0		0	0		0	0	0
	12:30 PM	0		0	0		0	0		0	0		0	0	0
	12:45 PM	0		0	0		0	0		0	0		0	0	0
	1:00 PM	0		0	0		0	0		0	0		0	0	0
	1:15 PM	0		0	0		0	0		0	0		0	0	0
	1:30 PM	0		0	0		0	0		0	0		0	0	0
	1:45 PM	0		0	0		0	0		0	0		0	0	0
PM Peak Period	2:00 PM	0		0	0		0	0		0	0		0	0	10
	2:15 PM	0		0	0		0	0		0	0		0	0	13
	2:30 PM	0		0	0		0	0		0	0		0	0	16
	2:45 PM	2		2	0		0	1		1	7		7	10	18
	3:00 PM	1		1	1		1	1		1	0		0	3	9
	3:15 PM	2		2	0		0	1		1	0		0	3	6
	3:30 PM	1		1	0		0	0		0	1		1	2	5
	3:45 PM	0		0	0		0	0		0	1		1	1	3
	4:00 PM	0		0	0		0	0		0	0		0	0	3
	4:15 PM	1		1	0		0	1		1	0		0	2	3
	4:30 PM	0		0	0		0	0		0	0		0	0	4
	4:45 PM	0		0	0		0	1		1	0		0	1	4
	5:00 PM	0		0	0		0	0		0	0		0	0	6
	5:15 PM	0		0	0		0	3		3	0		0	3	6
	5:30 PM	0		0	0		0	0		0	0		0	0	3
	5:45 PM	0		0	0		0	0		0	3		3	3	3
	6:00 PM	0		0	0		0	0		0	0		0	0	0
	6:15 PM	0		0	0		0	0		0	0		0	0	0
	6:30 PM	0		0	0		0	0		0	0		0	0	0
	6:45 PM	0		0	0		0	0		0	0		0	0	0
	7:00 PM	0		0	0		0	0		0	0		0	0	0
	7:15 PM	0		0	0		0	0		0	0		0	0	0
	7:30 PM	0		0	0		0	0		0	0		0	0	0
	7:45 PM	0		0	0		0	0		0	0		0	0	0
8:00 PM	0		0	0		0	0		0	0		0	0	0	
8:15 PM	0		0	0		0	0		0	0		0	0	0	
8:30 PM	0		0	0		0	0		0	0		0	0	0	
8:45 PM	0		0	0		0	0		0	0		0	0	0	
9:00 PM	0		0	0		0	0		0	0		0	0	0	
9:15 PM	0		0	0		0	0		0	0		0	0	0	
9:30 PM	0		0	0		0	0		0	0		0	0	0	
9:45 PM	0		0	0		0	0		0	0		0	0	0	
Totals		10	0	10	1	0	1	11	0	11	15	0	15	37	

Count Basics			Page 13 of 13
Start Date:	Thursday, November 15, 2018	Weekday	Schools in Session
Total Number of Hours Counted:	6.5	Non-Holiday	No Special Events

Bicyclists

15-Minute Bicycle Data

Start Time	From North					From East					From South					From West					15-Min Totals	Hourly Sum	
	7th Street					Helena Street					7th Street					Helena Street							
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total			
AM Peak Period	6:00 AM					0					0					0					0	0	0
	6:15 AM					0					0					0					0	0	0
	6:30 AM					0					0					0					0	0	0
	6:45 AM					0					0					0					0	0	0
	7:00 AM					0					0					0					0	0	0
	7:15 AM					0					0					0					0	0	0
	7:30 AM					0					0					0					0	0	0
	7:45 AM					0					0					0					0	0	0
	8:00 AM					0					0					0					0	0	0
	8:15 AM					0					0					0					0	0	0
	8:30 AM					0					0					0					0	0	0
	8:45 AM					0					0					0					0	0	0
	9:00 AM					0					0					0					0	0	0
	9:15 AM					0					0					0					0	0	0
	9:30 AM					0					0					0					0	0	0
9:45 AM					0					0					0					0	0	0	
Midday Peak Period	10:00 AM					0					0					0					0	0	0
	10:15 AM					0					0					0					0	0	0
	10:30 AM					0					0					0					0	0	0
	10:45 AM					0					0					0					0	0	0
	11:00 AM					0					0					0					0	0	0
	11:15 AM					0					0					0					0	0	0
	11:30 AM					0					0					0					0	0	0
	11:45 AM					0					0					0					0	0	0
	12:00 PM					0					0					0					0	0	0
	12:15 PM					0					0					0					0	0	0
	12:30 PM					0					0					0					0	0	0
	12:45 PM					0					0					0					0	0	0
	1:00 PM					0					0					0					0	0	0
	1:15 PM					0					0					0					0	0	0
	1:30 PM					0					0					0					0	0	0
1:45 PM					0					0					0					0	0	0	
PM Peak Period	2:00 PM					0					0					0					0	0	

[illegible]

Appendix Existing (High School Expansion) Trip Generation Comparison

Land Use	ITE Code	Proposed Size	Weekday Daily	AM Peak			PM Peak		
				In	Out	Total	In	Out	Total
High School (Expansion) - Counts	TADI	461 Students	1,240 FCE	230 (68%)	110 (32%)	340 FCE	65 (32%)	135 (68%)	200 FCE
High School (Expansion) - ITE	530	461 Students	1,010	230 (70%)	100 (30%)	330	45 (23%)	150 (77%)	195

Intermediate School Expansion Volumes

Current Elementary School Populations

5th Grade	
Hemlock	146
Westwood	125
	271

4th Grade	
Hemlock	112
Westwood	122
	234

Based on overall population, assumed class sizes of 350 students for each grade
6th graders come from adjacent middle school - no change to current traffic pattern

Future 6th - current 5th graders come from 2 grade schools (Assume expansion from neighborhoods to the west)

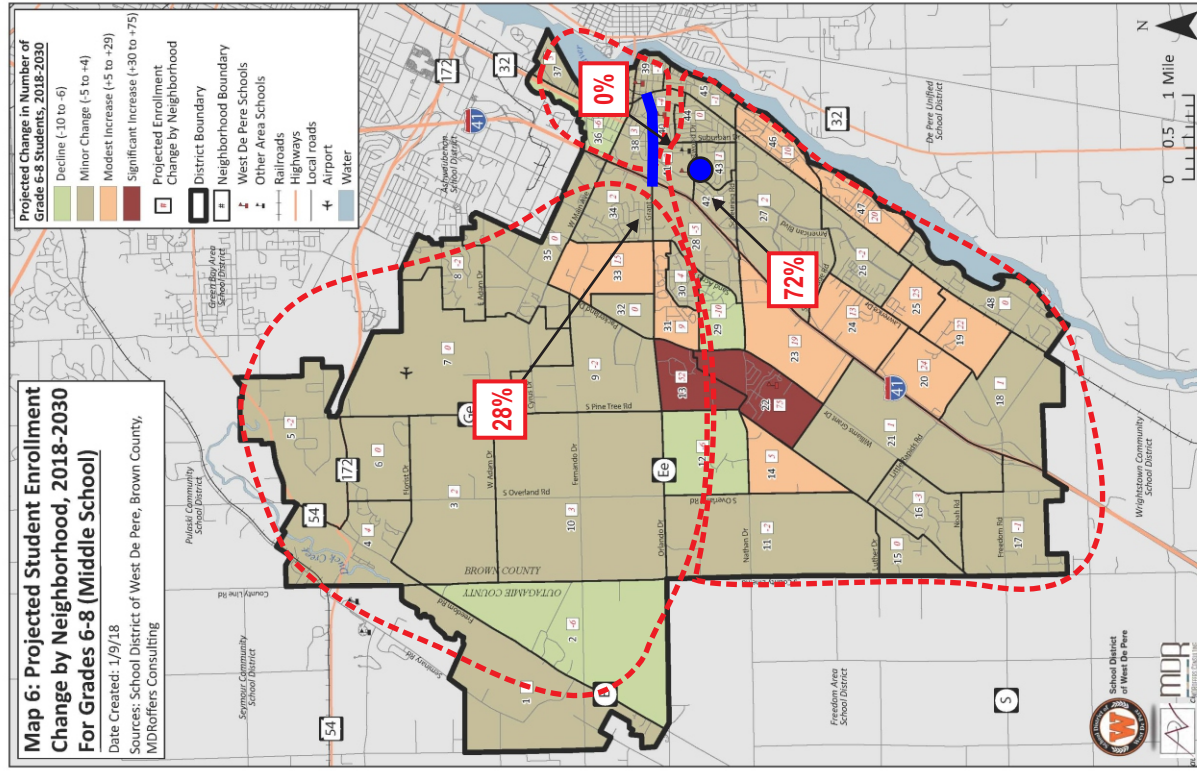
Hemlock exist	146
expand	79 calc'd from expected 350 students / grade in future
Westwood exist	125
expand	0
	350

Future 5th - current 4th graders come from 2 grade schools (Assume expansion from neighborhoods to the west)

Hemlock exist	112
expand	116 calc'd from expected 350 students / grade in future
Westwood exist	122
expand	0
	350

Total new students from the west

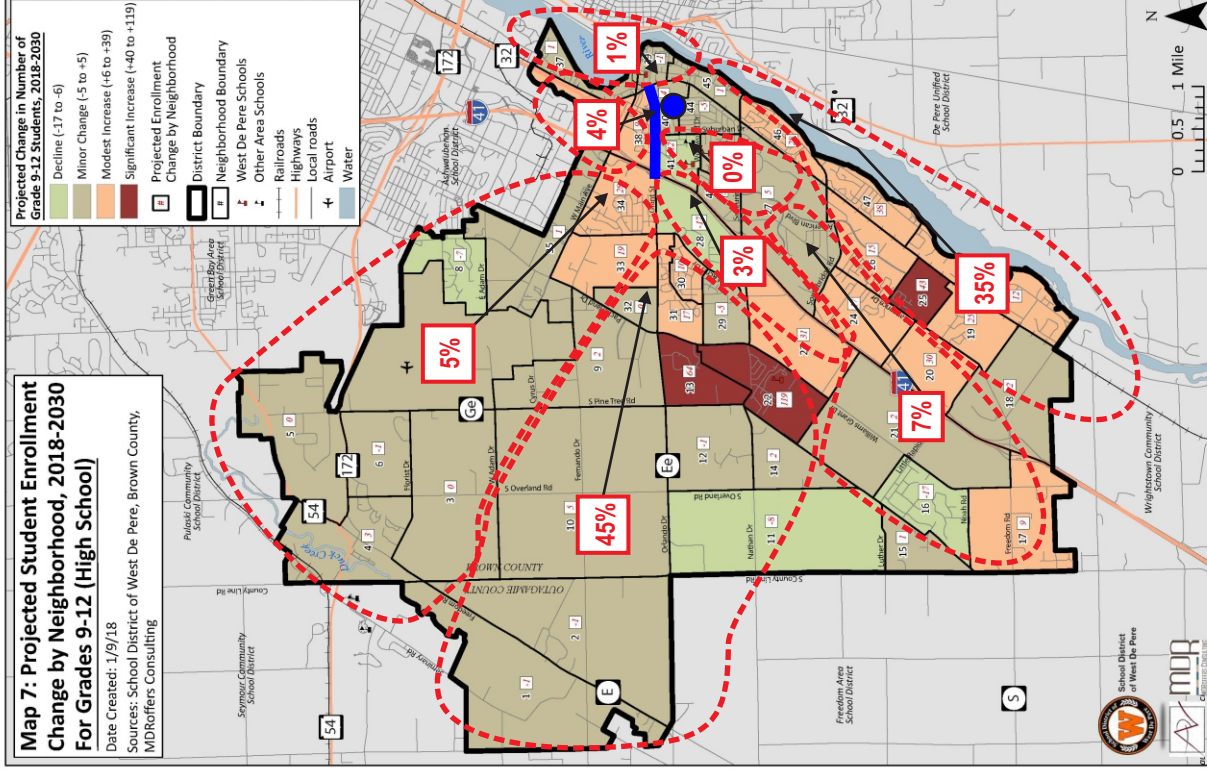
453 includes new hemlock students + expansion of both new grades



LEGEND

- West De Pere High School
- Grant Street Study Area
- Percentage of New Traffic Expected to/from High School

X%



Appendix B
Existing Traffic
Peak Hour Analysis Outputs

Existing Traffic

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Future Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	324	11	77	154	38	1	16	22	33	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	456	11	0	231	38	0	17	22	0	104	33
Intersection Summary												

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	295	10	70	140	35	1	15	20	30	65	30
Future Vol, veh/h	120	295	10	70	140	35	1	15	20	30	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	324	11	77	154	38	1	16	22	33	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	336	0	0	969	936	326	923	909	156
Stage 1	-	-	-	-	-	-	589	589	-	309	309	-
Stage 2	-	-	-	-	-	-	380	347	-	614	600	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1351	-	-	1180	-	-	224	256	695	244	269	874
Stage 1	-	-	-	-	-	-	479	481	-	688	649	-
Stage 2	-	-	-	-	-	-	624	619	-	469	480	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1350	-	-	1179	-	-	139	208	694	191	219	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	139	208	-	191	219	-
Stage 1	-	-	-	-	-	-	421	423	-	605	601	-
Stage 2	-	-	-	-	-	-	490	573	-	384	422	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.2			2.4			16.7			31.3		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	202	694	1350	-	-	1179	-	-	209	872		
HCM Lane V/C Ratio	0.087	0.032	0.098	-	-	0.065	-	-	0.5	0.038		
HCM Control Delay (s)	24.5	10.4	8	0	-	8.3	0	-	38.3	9.3		
HCM Lane LOS	C	B	A	A	-	A	A	-	E	A		
HCM 95th %tile Q(veh)	0.3	0.1	0.3	-	-	0.2	-	-	2.5	0.1		

Volume

200: Suburban Drive & Grant Street

06/28/2019



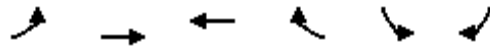
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	520	50	80	250	40	155
Future Volume (vph)	520	50	80	250	40	155
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	722	69	111	347	56	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	722	69	0	458	56	215
Intersection Summary						

Intersection						
Int Delay, s/veh	5.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	520	50	80	250	40	155
Future Vol, veh/h	520	50	80	250	40	155
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	722	69	111	347	56	215
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	792	0	1293	724
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	570	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	824	-	180	426
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	566	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	823	-	150	425
Mov Cap-2 Maneuver	-	-	-	-	150	-
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	565	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		26	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	150	425	-	-	823	-
HCM Lane V/C Ratio	0.37	0.507	-	-	0.135	-
HCM Control Delay (s)	42.5	21.8	-	-	10.1	0
HCM Lane LOS	E	C	-	-	B	A
HCM 95th %tile Q(veh)	1.6	2.8	-	-	0.5	-

Volume

300: Grant Street & Apollo Way

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	70	605	300	20	1	30
Future Volume (vph)	70	605	300	20	1	30
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	97	840	417	28	1	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	937	417	28	1	42
Intersection Summary						

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔	↔	↔	↔
Traffic Vol, veh/h	70	605	300	20	1	30
Future Vol, veh/h	70	605	300	20	1	30
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	97	840	417	28	1	42

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	446	0	0 1453 419
Stage 1	-	-	- 418 -
Stage 2	-	-	- 1035 -
Critical Hdwy	4.15	-	- 6.41 6.21
Critical Hdwy Stg 1	-	-	- 5.41 -
Critical Hdwy Stg 2	-	-	- 5.41 -
Follow-up Hdwy	2.245	-	- 3.509 3.309
Pot Cap-1 Maneuver	1098	-	- 144 636
Stage 1	-	-	- 666 -
Stage 2	-	-	- 344 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1097	-	- 120 635
Mov Cap-2 Maneuver	-	-	- 120 -
Stage 1	-	-	- 555 -
Stage 2	-	-	- 344 -

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1097	-	-	-	120	635
HCM Lane V/C Ratio	0.089	-	-	-	0.012	0.066
HCM Control Delay (s)	8.6	0	-	-	35.4	11.1
HCM Lane LOS	A	A	-	-	E	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0	0.2

Volume
400: Grant Street & Allard Street

06/28/2019



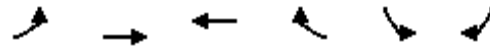
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	45	560	220	30	20	100
Future Volume (vph)	45	560	220	30	20	100
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	67	836	328	45	30	149
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	903	328	45	30	149
Intersection Summary						

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	560	220	30	20	100
Future Vol, veh/h	45	560	220	30	20	100
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	67	836	328	45	30	149
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	374	0	-	0	1300	330
Stage 1	-	-	-	-	329	-
Stage 2	-	-	-	-	971	-
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	1168	-	-	-	178	712
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	367	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1167	-	-	-	159	711
Mov Cap-2 Maneuver	-	-	-	-	159	-
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	367	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		15		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1167	-	-	-	159	711
HCM Lane V/C Ratio	0.058	-	-	-	0.188	0.21
HCM Control Delay (s)	8.3	0	-	-	32.8	11.4
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.8

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	575	250	1	1	1
Future Volume (vph)	5	575	250	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	913	397	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	921	397	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	575	250	1	1	1
Future Vol, veh/h	5	575	250	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	913	397	2	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	400	0	-	0	1328	399
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	930	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1143	-	-	-	172	653
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	386	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1142	-	-	-	169	652
Mov Cap-2 Maneuver	-	-	-	-	169	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	386	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		18.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1142	-	-	-	268	
HCM Lane V/C Ratio	0.007	-	-	-	0.012	
HCM Control Delay (s)	8.2	0	-	-	18.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	290	285	15	220	30	25
Future Volume (vph)	290	285	15	220	30	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	460	452	24	349	48	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	460	452	0	373	48	40
Intersection Summary						

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	290	285	15	220	30	25
Future Vol, veh/h	290	285	15	220	30	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	460	452	24	349	48	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	913	0	859	462
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	398	-
Critical Hdwy	-	-	4.16	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.254	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	730	-	328	602
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	729	-	314	601
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	680	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.6		15.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	314	601	-	-	729	-
HCM Lane V/C Ratio	0.152	0.066	-	-	0.033	-
HCM Control Delay (s)	18.5	11.4	-	-	10.1	0
HCM Lane LOS	C	B	-	-	B	A
HCM 95th %tile Q(veh)	0.5	0.2	-	-	0.1	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	55	95	160	75	65
Future Volume (vph)	260	55	95	160	75	65
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	83	144	242	114	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	83	144	242	114	98
Intersection Summary						

Intersection						
Int Delay, s/veh	5.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	260	55	95	160	75	65
Future Vol, veh/h	260	55	95	160	75	65
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	83	144	242	114	98
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	478	0	926	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	531	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1074	-	279	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1073	-	241	619
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	558	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.3		23	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	241	619	-	-	1073	-
HCM Lane V/C Ratio	0.472	0.159	-	-	0.134	-
HCM Control Delay (s)	32.6	11.9	-	-	8.9	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile O(veh)	2.3	0.6	-	-	0.5	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	75	30	175	15	80	5	105	1	1	1
Future Volume (vph)	1	250	75	30	175	15	80	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	99	39	230	20	105	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	429	0	0	289	0	0	250	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	75	30	175	15	80	5	105	1	1	1
Future Vol, veh/h	1	250	75	30	175	15	80	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	99	39	230	20	105	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	431	0	0	704	713	383	773	752	242
Stage 1	-	-	-	-	-	-	384	384	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	454	433	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1107	-	-	348	354	658	317	340	799
Stage 1	-	-	-	-	-	-	633	606	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	588	583	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1104	-	-	334	338	655	238	324	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	334	338	-	238	324	-
Stage 1	-	-	-	-	-	-	630	604	-	694	627	-
Stage 2	-	-	-	-	-	-	654	614	-	458	581	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			21.9			15.4		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	458	1268	-	-	1104	-	-	351				
HCM Lane V/C Ratio	0.546	0.001	-	-	0.036	-	-	0.011				
HCM Control Delay (s)	21.9	7.8	0	-	8.4	0	-	15.4				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile O(veh)	3.2	0	-	-	0.1	-	-	0				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Future Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	52	1	15	30	0	7	0	22	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	45	0	0	29	0	0	0	0
Intersection Summary												

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	0	35	1	10	20	0	5	0	15	0	0	0
Future Vol, veh/h	0	35	1	10	20	0	5	0	15	0	0	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	0	52	1	15	30	0	7	0	22	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	54	0	0	115	115	55	126	115	32
Stage 1	-	-	-	-	-	-	54	54	-	61	61	-
Stage 2	-	-	-	-	-	-	61	61	-	65	54	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1588	-	-	1374	-	-	864	777	1015	850	777	1045
Stage 1	-	-	-	-	-	-	961	852	-	953	846	-
Stage 2	-	-	-	-	-	-	953	846	-	948	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1373	-	-	855	767	1013	823	767	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	767	-	823	767	-
Stage 1	-	-	-	-	-	-	960	851	-	952	836	-
Stage 2	-	-	-	-	-	-	942	836	-	926	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.6			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	968	1586	-	-	1373	-	-	-				
HCM Lane V/C Ratio	0.031	-	-	-	0.011	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	7.7	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	1	5	45	25	25
Future Volume (vph)	50	1	5	45	25	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	1	6	57	32	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	63	32	32
Intersection Summary						

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	1	5	45	25	25
Future Vol, veh/h	50	1	5	45	25	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	1	6	57	32	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	103	34	65	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	898	1042	1435	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	893	1040	1434	-	-	-
Mov Cap-2 Maneuver	893	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	0.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1434	-	895	-	-	
HCM Lane V/C Ratio	0.004	-	0.072	-	-	
HCM Control Delay (s)	7.5	0	9.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	190	105	1
Future Volume (vph)	1	1	1	190	105	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1	1	1	241	133	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	242	134	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	190	105	1
Future Vol, veh/h	1	1	1	190	105	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	1	1	241	133	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	379	136	135	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	625	915	1351	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	913	1350	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1350	-	741	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.7	0	9.9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

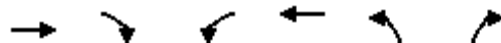
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Future Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	231	11	65	349	43	11	70	75	75	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	11	0	414	43	0	81	75	0	113	97
Intersection Summary												

Intersection												
Int Delay, s/veh	9.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	215	10	60	325	40	10	65	70	70	35	90
Future Vol, veh/h	45	215	10	60	325	40	10	65	70	70	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	231	11	65	349	43	11	70	75	75	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	393	0	0	243	0	0	897	851	233	886	819	351
Stage 1	-	-	-	-	-	-	328	328	-	480	480	-
Stage 2	-	-	-	-	-	-	569	523	-	406	339	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1139	-	-	1295	-	-	252	289	787	259	303	679
Stage 1	-	-	-	-	-	-	668	633	-	556	544	-
Stage 2	-	-	-	-	-	-	493	518	-	610	629	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1138	-	-	1294	-	-	176	256	786	170	269	678
Mov Cap-2 Maneuver	-	-	-	-	-	-	176	256	-	170	269	-
Stage 1	-	-	-	-	-	-	635	601	-	528	508	-
Stage 2	-	-	-	-	-	-	366	484	-	463	598	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.1			19			30.3		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	241		786	1138	-	-	1294	-	-	194	678	
HCM Lane V/C Ratio	0.335		0.096	0.043	-	-	0.05	-	-	0.582	0.143	
HCM Control Delay (s)	27.3		10.1	8.3	0	-	7.9	0	-	46.6	11.2	
HCM Lane LOS	D		B	A	A	-	A	A	-	E	B	
HCM 95th %tile Q(veh)	1.4		0.3	0.1	-	-	0.2	-	-	3.2	0.5	

Volume

200: Suburban Drive & Grant Street

06/28/2019



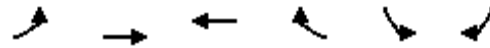
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	300	80	125	400	40	150
Future Volume (vph)	300	80	125	400	40	150
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	349	93	145	465	47	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	349	93	0	610	47	174
Intersection Summary						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	80	125	400	40	150
Future Vol, veh/h	300	80	125	400	40	150
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	349	93	145	465	47	174
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	448	0	1118	363
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	763	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1097	-	228	680
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	459	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1091	-	185	671
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	455	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.1		16.1	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	185	671	-	-	1091	-
HCM Lane V/C Ratio	0.251	0.26	-	-	0.133	-
HCM Control Delay (s)	30.9	12.2	-	-	8.8	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	1	1	-	-	0.5	-

Volume

300: Grant Street & Apollo Way

06/28/2019

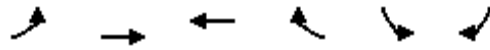


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	75	375	485	25	5	40
Future Volume (vph)	75	375	485	25	5	40
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	87	436	564	29	6	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	523	564	29	6	47
Intersection Summary						

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	375	485	25	5	40
Future Vol, veh/h	75	375	485	25	5	40
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	87	436	564	29	6	47
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	596	0	-	0	1178	568
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	611	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	952	-	-	-	211	522
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	949	-	-	-	184	520
Mov Cap-2 Maneuver	-	-	-	-	184	-
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	540	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		14		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	949	-	-	-	184	520
HCM Lane V/C Ratio	0.092	-	-	-	0.032	0.089
HCM Control Delay (s)	9.2	0	-	-	25.2	12.6
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.3

Volume
400: Grant Street & Allard Street

06/28/2019



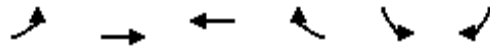
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	50	330	390	35	40	120
Future Volume (vph)	50	330	390	35	40	120
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	60	398	470	42	48	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	458	470	42	48	145
Intersection Summary						

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	330	390	35	40	120
Future Vol, veh/h	50	330	390	35	40	120
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	60	398	470	42	48	145
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	515	0	-	0	992	474
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	519	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1021	-	-	-	274	592
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	599	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1018	-	-	-	252	590
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	597	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.2	0		15.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1018	-	-	-	252	590
HCM Lane V/C Ratio	0.059	-	-	-	0.191	0.245
HCM Control Delay (s)	8.8	0	-	-	22.6	13.1
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	1

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	370	410	1	1	15
Future Volume (vph)	1	370	410	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	552	612	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	553	612	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	370	410	1	1	15
Future Vol, veh/h	1	370	410	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	552	612	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	617	0	-	0	1171	626
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	555	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	934	-	-	-	214	486
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	930	-	-	-	212	480
Mov Cap-2 Maneuver	-	-	-	-	212	-
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	575	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.5		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	930	-	-	-	-	445
HCM Lane V/C Ratio	0.002	-	-	-	-	0.054
HCM Control Delay (s)	8.9	0	-	-	-	13.5
HCM Lane LOS	A	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0.2

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	280	90	10	335	75	65
Future Volume (vph)	280	90	10	335	75	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	418	134	15	500	112	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	134	0	515	112	97
Intersection Summary						

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	280	90	10	335	75	65
Future Vol, veh/h	280	90	10	335	75	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	418	134	15	500	112	97
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	555	0	961	422
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	540	-
Critical Hdwy	-	-	4.18	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.272	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	986	-	286	634
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	586	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	983	-	276	632
Mov Cap-2 Maneuver	-	-	-	-	276	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	580	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		19.7	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	276	632	-	-	983	-
HCM Lane V/C Ratio	0.406	0.154	-	-	0.015	-
HCM Control Delay (s)	26.7	11.7	-	-	8.7	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	1.9	0.5	-	-	0	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	5	5	250	95	60
Future Volume (vph)	340	5	5	250	95	60
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	7	7	347	132	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	7	7	347	132	83
Intersection Summary						

Intersection

Int Delay, s/veh 4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	340	5	5	250	95	60
Future Vol, veh/h	340	5	5	250	95	60
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	7	7	347	132	83

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	485
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1068
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1062
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	313	555	-	-	1062	-
HCM Lane V/C Ratio	0.422	0.15	-	-	0.007	-
HCM Control Delay (s)	24.6	12.6	-	-	8.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	2	0.5	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	90	70	185	5	50	1	75	25	1	20
Future Volume (vph)	15	295	90	70	185	5	50	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	110	85	226	6	61	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	488	0	0	317	0	0	153	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	295	90	70	185	5	50	1	75	25	1	20
Future Vol, veh/h	15	295	90	70	185	5	50	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	110	85	226	6	61	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	480	0	0	879	867	426	901	919	239
Stage 1	-	-	-	-	-	-	461	461	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	498	516	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1072	-	-	268	291	628	260	272	802
Stage 1	-	-	-	-	-	-	581	565	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	556	536	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1062	-	-	233	255	621	202	239	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	255	-	202	239	-
Stage 1	-	-	-	-	-	-	565	549	-	612	543	-
Stage 2	-	-	-	-	-	-	534	541	-	464	520	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.3			21.4			19.7		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	371	1314	-	-	1062	-	-	300				
HCM Lane V/C Ratio	0.414	0.014	-	-	0.08	-	-	0.187				
HCM Control Delay (s)	21.4	7.8	0	-	8.7	0	-	19.7				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Future Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	35	26	26	105	0	9	0	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	131	0	0	35	0	0	0	0
Intersection Summary												

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	0	20	15	15	60	0	5	0	15	0	0	0
Future Vol, veh/h	0	20	15	15	60	0	5	0	15	0	0	0
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	0	35	26	26	105	0	9	0	26	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	64	0	0	216	214	52	225	227	119
Stage 1	-	-	-	-	-	-	51	51	-	163	163	-
Stage 2	-	-	-	-	-	-	165	163	-	62	64	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1473	-	-	1532	-	-	734	678	1007	733	674	935
Stage 1	-	-	-	-	-	-	954	846	-	841	765	-
Stage 2	-	-	-	-	-	-	830	758	-	952	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1528	-	-	716	660	1003	699	656	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	660	-	699	656	-
Stage 1	-	-	-	-	-	-	951	843	-	836	747	-
Stage 2	-	-	-	-	-	-	809	740	-	926	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			9.1			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	912	1465	-	-	1528	-	-	-				
HCM Lane V/C Ratio	0.038	-	-	-	0.017	-	-	-				
HCM Control Delay (s)	9.1	0	-	-	7.4	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	5	10	45	85	65
Future Volume (vph)	30	5	10	45	85	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	8	17	75	142	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	0	92	142	108
Intersection Summary						

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	5	10	45	85	65
Future Vol, veh/h	30	5	10	45	85	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	8	17	75	142	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	253	144	251	0	-	0
Stage 1	143	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	727	893	1275	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	715	891	1274	-	-	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.3	1.4		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1274	-	736	-	-	
HCM Lane V/C Ratio	0.013	-	0.079	-	-	
HCM Control Delay (s)	7.9	0	10.3	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	125	160	1
Future Vol, veh/h	1	1	1	125	160	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	2	2	208	267	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	482	270	270	0	-	0
Stage 1	269	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	545	771	1254	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	770	1253	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.7	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1253	-	637	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	7.9	0	10.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Appendix C

Build Traffic

Peak Hour Analysis Outputs

Full Build (Existing Access) Traffic

Full Build (Existing Access with Apollo Way Removed) Traffic

Full Build (With New Southern Access) Traffic

Full Build (With New Southern Access –Bus/Staff Only) Traffic

Full Build (With New Butler Full Access) Traffic

Full Build (With New Butler Exit Only Access) Traffic

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	610	11	0	324	44	0	17	27	0	115	33
Intersection Summary												

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Future Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	478	11	82	242	44	1	16	27	44	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	490	0	0	1224	1194	480	1177	1161	244
Stage 1	-	-	-	-	-	-	743	743	-	407	407	-
Stage 2	-	-	-	-	-	-	481	451	-	770	754	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1247	-	-	1033	-	-	149	179	568	163	190	780
Stage 1	-	-	-	-	-	-	393	409	-	609	587	-
Stage 2	-	-	-	-	-	-	550	556	-	384	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1032	-	-	74	138	567	117	146	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	138	-	117	146	-
Stage 1	-	-	-	-	-	-	335	349	-	519	531	-
Stage 2	-	-	-	-	-	-	412	503	-	297	348	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			2			21.5			87.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	131	567	1246	-	-	1032	-	-	133	779		
HCM Lane V/C Ratio	0.134	0.048	0.106	-	-	0.08	-	-	0.868	0.042		
HCM Control Delay (s)	36.7	11.7	8.2	0	-	8.8	0	-	109.3	9.8		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	A		
HCM 95th %tile Q(veh)	0.5	0.2	0.4	-	-	0.3	-	-	5.6	0.1		

Volume

200: Suburban Drive & Grant Street

06/28/2019



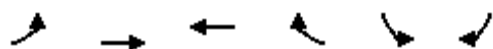
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	655	50	80	315	40	155
Future Volume (vph)	655	50	80	315	40	155
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	910	69	111	438	56	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	910	69	0	549	56	215
Intersection Summary						

Intersection						
Int Delay, s/veh	7.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	655	50	80	315	40	155
Future Vol, veh/h	655	50	80	315	40	155
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	910	69	111	438	56	215
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	980	0	1572	912
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	661	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	700	-	121	332
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	699	-	95	331
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	513	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.3		44.7	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	95	331	-	-	699	-
HCM Lane V/C Ratio	0.585	0.65	-	-	0.159	-
HCM Control Delay (s)	86.2	34	-	-	11.1	0
HCM Lane LOS	F	D	-	-	B	A
HCM 95th %tile Q(veh)	2.7	4.3	-	-	0.6	-

Volume

300: Grant Street & Apollo Way

06/28/2019

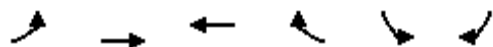


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	70	740	365	20	5	30
Future Volume (vph)	70	740	365	20	5	30
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	97	1028	507	28	7	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1125	507	28	7	42
Intersection Summary						

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	740	365	20	5	30
Future Vol, veh/h	70	740	365	20	5	30
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	97	1028	507	28	7	42
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	536	0	-	0	1731	509
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	1223	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1017	-	-	-	97	566
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	279	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1016	-	-	-	75	565
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	279	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		18.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1016	-	-	-	75	565
HCM Lane V/C Ratio	0.096	-	-	-	0.093	0.074
HCM Control Delay (s)	8.9	0	-	-	57.8	11.9
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3	0.2

Volume
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	45	700	285	30	25	100
Future Volume (vph)	45	700	285	30	25	100
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	67	1045	425	45	37	149
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1112	425	45	37	149
Intersection Summary						

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↑	↗	↖	↗
Traffic Vol, veh/h	45	700	285	30	25	100
Future Vol, veh/h	45	700	285	30	25	100
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	67	1045	425	45	37	149

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	471	0	0 1606 427
Stage 1	-	-	- 426 -
Stage 2	-	-	- 1180 -
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	1075	-	- 116 628
Stage 1	-	-	- 659 -
Stage 2	-	-	- 292 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1074	-	- 98 627
Mov Cap-2 Maneuver	-	-	- 98 -
Stage 1	-	-	- 560 -
Stage 2	-	-	- 292 -

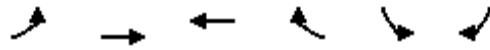
Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1074	-	-	-	98	627
HCM Lane V/C Ratio	0.063	-	-	-	0.381	0.238
HCM Control Delay (s)	8.6	0	-	-	62.7	12.5
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5	0.9

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	720	315	1	1	1
Future Volume (vph)	5	720	315	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	1143	500	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1151	500	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	720	315	1	1	1
Future Vol, veh/h	5	720	315	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1143	500	2	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	503	0	-	0	1661	502
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	1160	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1046	-	-	-	108	571
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	300	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1045	-	-	-	106	570
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	300	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		25.5		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1045	-	-	-	-	179
HCM Lane V/C Ratio	0.008	-	-	-	-	0.018
HCM Control Delay (s)	8.5	0	-	-	-	25.5
HCM Lane LOS	A	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	-	0.1

Volume
600: West D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	305	415	60	250	65	25
Future Volume (vph)	305	415	60	250	65	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	484	659	95	397	103	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	484	659	0	492	103	40
Intersection Summary						

Intersection

Int Delay, s/veh 3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	305	415	60	250	65	25
Future Vol, veh/h	305	415	60	250	65	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	484	659	95	397	103	40

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1144
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.16
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.254
Pot Cap-1 Maneuver	-	-	596
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	595
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	34.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	194	582	-	-	595	-
HCM Lane V/C Ratio	0.532	0.068	-	-	0.16	-
HCM Control Delay (s)	42.9	11.6	-	-	12.2	0
HCM Lane LOS	E	B	-	-	B	A
HCM 95th %tile Q(veh)	2.7	0.2	-	-	0.6	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	70	135	205	105	100
Future Volume (vph)	260	70	135	205	105	100
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	106	205	311	159	152
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	106	205	311	159	152
Intersection Summary						

Intersection						
Int Delay, s/veh	15.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	260	70	135	205	105	100
Future Vol, veh/h	260	70	135	205	105	100
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	106	205	311	159	152
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	501	0	1117	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	722	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1053	-	214	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	453	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1052	-	172	619
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	453	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.7		59.4	
HCM LOS					F	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	172	619	-	-	1052	-
HCM Lane V/C Ratio	0.925	0.245	-	-	0.194	-
HCM Control Delay (s)	103.9	12.7	-	-	9.2	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	7	1	-	-	0.7	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	110	30	175	15	165	5	105	1	1	1
Future Volume (vph)	1	250	110	30	175	15	165	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	145	39	230	20	217	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	475	0	0	289	0	0	362	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	19											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	110	30	175	15	165	5	105	1	1	1
Future Vol, veh/h	1	250	110	30	175	15	165	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	145	39	230	20	217	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	477	0	0	727	736	406	796	798	242
Stage 1	-	-	-	-	-	-	407	407	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	477	479	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1065	-	-	336	343	638	306	320	799
Stage 1	-	-	-	-	-	-	615	592	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	571	557	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1062	-	-	322	327	636	228	305	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	322	327	-	228	305	-
Stage 1	-	-	-	-	-	-	613	590	-	694	626	-
Stage 2	-	-	-	-	-	-	652	613	-	441	555	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.2			58.3			15.8		
HCM LOS							F			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	397	1268	-	-	1062	-	-	336				
HCM Lane V/C Ratio	0.911	0.001	-	-	0.037	-	-	0.012				
HCM Control Delay (s)	58.3	7.8	0	-	8.5	0	-	15.8				
HCM Lane LOS	F	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	9.7	0	-	-	0.1	-	-	0				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Future Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	52	1	15	30	0	7	0	22	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	45	0	0	29	0	0	0	0
Intersection Summary												

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	0	35	1	10	20	0	5	0	15	0	0	0
Future Vol, veh/h	0	35	1	10	20	0	5	0	15	0	0	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	0	52	1	15	30	0	7	0	22	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	54	0	0	115	115	55	126	115	32
Stage 1	-	-	-	-	-	-	54	54	-	61	61	-
Stage 2	-	-	-	-	-	-	61	61	-	65	54	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1588	-	-	1374	-	-	864	777	1015	850	777	1045
Stage 1	-	-	-	-	-	-	961	852	-	953	846	-
Stage 2	-	-	-	-	-	-	953	846	-	948	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1373	-	-	855	767	1013	823	767	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	767	-	823	767	-
Stage 1	-	-	-	-	-	-	960	851	-	952	836	-
Stage 2	-	-	-	-	-	-	942	836	-	926	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.6			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	968	1586	-	-	1373	-	-	-				
HCM Lane V/C Ratio	0.031	-	-	-	0.011	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	7.7	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	1	5	130	60	25
Future Volume (vph)	50	1	5	130	60	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	1	6	165	76	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	171	76	32
Intersection Summary						

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	1	5	130	60	25
Future Vol, veh/h	50	1	5	130	60	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	1	6	165	76	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	255	78	109	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	736	985	1382	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	731	983	1381	-	-	-
Mov Cap-2 Maneuver	731	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1381	-	735	-	-	
HCM Lane V/C Ratio	0.005	-	0.088	-	-	
HCM Control Delay (s)	7.6	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	0	0	275	140	0
Future Volume (vph)	0	0	0	275	140	0
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	0	0	348	177	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	348	177	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	275	140	0
Future Vol, veh/h	0	0	0	275	140	0
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	0	0	0	348	177	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	527	179	178	0	-	0
Stage 1	178	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	513	866	1302	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	512	864	1301	-	-	-
Mov Cap-2 Maneuver	512	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	715	-	-	-	-	-

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)	1301	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

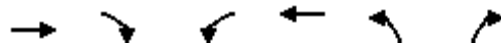
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	11	0	505	54	0	81	75	0	119	97
Intersection Summary												

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Future Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	269	11	70	435	54	11	70	75	81	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	281	0	0	1037	996	271	1020	953	437
Stage 1	-	-	-	-	-	-	366	366	-	576	576	-
Stage 2	-	-	-	-	-	-	671	630	-	444	377	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1048	-	-	1253	-	-	202	237	749	210	253	607
Stage 1	-	-	-	-	-	-	637	609	-	492	493	-
Stage 2	-	-	-	-	-	-	433	463	-	581	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1047	-	-	1252	-	-	133	206	748	126	220	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	206	-	126	220	-
Stage 1	-	-	-	-	-	-	602	576	-	465	455	-
Stage 2	-	-	-	-	-	-	308	427	-	434	572	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			1			24			55.4		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	192	748	1047	-	-	1252	-	-	146	606		
HCM Lane V/C Ratio	0.42	0.101	0.046	-	-	0.056	-	-	0.81	0.16		
HCM Control Delay (s)	36.7	10.4	8.6	0	-	8	0	-	90.9	12.1		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	B		
HCM 95th %tile Q(veh)	1.9	0.3	0.1	-	-	0.2	-	-	5.1	0.6		

Volume

200: Suburban Drive & Grant Street

06/28/2019



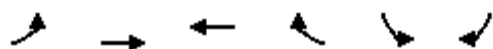
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	330	80	125	490	40	150
Future Volume (vph)	330	80	125	490	40	150
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	384	93	145	570	47	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	93	0	715	47	174
Intersection Summary						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	330	80	125	490	40	150
Future Vol, veh/h	330	80	125	490	40	150
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	384	93	145	570	47	174
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	483	0	1258	398
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	868	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1064	-	188	649
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	409	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1058	-	148	640
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	406	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		18.5	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	148	640	-	-	1058	-
HCM Lane V/C Ratio	0.314	0.273	-	-	0.137	-
HCM Control Delay (s)	40.1	12.7	-	-	8.9	0
HCM Lane LOS	E	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	1.1	-	-	0.5	-

Volume

300: Grant Street & Apollo Way

06/28/2019

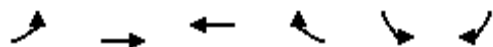


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	75	405	575	30	5	40
Future Volume (vph)	75	405	575	30	5	40
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	87	471	669	35	6	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	558	669	35	6	47
Intersection Summary						

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Vol, veh/h	75	405	575	30	5	40
Future Vol, veh/h	75	405	575	30	5	40
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	87	471	669	35	6	47
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	707	0	-	0	1318	673
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	646	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	864	-	-	-	173	455
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	862	-	-	-	148	453
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	520	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		15.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	862	-	-	-	148	453
HCM Lane V/C Ratio	0.101	-	-	-	0.039	0.103
HCM Control Delay (s)	9.6	0	-	-	30.3	13.9
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.3

Volume
400: Grant Street & Allard Street

06/28/2019



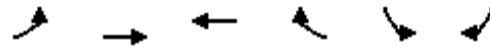
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	50	360	485	40	40	120
Future Volume (vph)	50	360	485	40	40	120
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	60	434	584	48	48	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	494	584	48	48	145
Intersection Summary						

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	360	485	40	40	120
Future Vol, veh/h	50	360	485	40	40	120
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	60	434	584	48	48	145
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	635	0	-	0	1142	588
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	555	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	920	-	-	-	223	511
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	203	509
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	575	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		18.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	917	-	-	-	203	509
HCM Lane V/C Ratio	0.066	-	-	-	0.237	0.284
HCM Control Delay (s)	9.2	0	-	-	28.2	14.9
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	1.2

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	400	510	1	1	15
Future Volume (vph)	1	400	510	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	597	761	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	598	761	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	400	510	1	1	15
Future Vol, veh/h	1	400	510	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	597	761	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	766	0	-	0	1365	775
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	600	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	821	-	-	-	163	400
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	818	-	-	-	161	395
Mov Cap-2 Maneuver	-	-	-	-	161	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	548	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		15.6		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	818	-	-	-	362	
HCM Lane V/C Ratio	0.002	-	-	-	0.066	
HCM Control Delay (s)	9.4	0	-	-	15.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	285	115	20	385	125	65
Future Volume (vph)	285	115	20	385	125	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	425	172	30	575	187	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	425	172	0	605	187	97
Intersection Summary						

Intersection						
Int Delay, s/veh	9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	285	115	20	385	125	65
Future Vol, veh/h	285	115	20	385	125	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	425	172	30	575	187	97
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	600	0	1073	429
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	-	-	4.18	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.272	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	948	-	245	628
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	945	-	231	626
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	519	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		46.2	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	231	626	-	-	945	-
HCM Lane V/C Ratio	0.808	0.155	-	-	0.032	-
HCM Control Delay (s)	64.1	11.8	-	-	8.9	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	6	0.5	-	-	0.1	-

Volume
700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	10	10	260	145	110
Future Volume (vph)	340	10	10	260	145	110
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	14	14	361	201	153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	14	14	361	201	153
Intersection Summary						

Intersection						
Int Delay, s/veh	8.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	340	10	10	260	145	110
Future Vol, veh/h	340	10	10	260	145	110
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	14	14	361	201	153
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	492	0	868	479
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	390	-
Critical Hdwy	-	-	4.14	-	6.56	6.36
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	5.56	-
Follow-up Hdwy	-	-	2.236	-	3.644	3.444
Pot Cap-1 Maneuver	-	-	1061	-	305	559
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1055	-	299	555
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	654	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		28	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	299	555	-	-	1055	-
HCM Lane V/C Ratio	0.674	0.275	-	-	0.013	-
HCM Control Delay (s)	38.7	13.9	-	-	8.5	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	4.5	1.1	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	140	70	185	5	65	1	75	25	1	20
Future Volume (vph)	15	295	140	70	185	5	65	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	171	85	226	6	79	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	549	0	0	317	0	0	171	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	295	140	70	185	5	65	1	75	25	1	20
Future Vol, veh/h	15	295	140	70	185	5	65	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	171	85	226	6	79	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	541	0	0	910	898	457	932	980	239
Stage 1	-	-	-	-	-	-	492	492	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	529	577	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1018	-	-	255	279	604	248	251	802
Stage 1	-	-	-	-	-	-	558	548	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	535	503	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1008	-	-	221	244	598	190	219	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	244	-	190	219	-
Stage 1	-	-	-	-	-	-	542	532	-	611	540	-
Stage 2	-	-	-	-	-	-	531	538	-	443	488	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.4			26.8			20.7		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	333	1314	-	-	1008	-	-	285				
HCM Lane V/C Ratio	0.516	0.014	-	-	0.085	-	-	0.197				
HCM Control Delay (s)	26.8	7.8	0	-	8.9	0	-	20.7				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2.8	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Future Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	35	26	26	105	0	9	0	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	131	0	0	35	0	0	0	0
Intersection Summary												

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	0	20	15	15	60	0	5	0	15	0	0	0
Future Vol, veh/h	0	20	15	15	60	0	5	0	15	0	0	0
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	0	35	26	26	105	0	9	0	26	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	64	0	0	216	214	52	225	227	119
Stage 1	-	-	-	-	-	-	51	51	-	163	163	-
Stage 2	-	-	-	-	-	-	165	163	-	62	64	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1473	-	-	1532	-	-	734	678	1007	733	674	935
Stage 1	-	-	-	-	-	-	954	846	-	841	765	-
Stage 2	-	-	-	-	-	-	830	758	-	952	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1528	-	-	716	660	1003	699	656	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	660	-	699	656	-
Stage 1	-	-	-	-	-	-	951	843	-	836	747	-
Stage 2	-	-	-	-	-	-	809	740	-	926	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			9.1			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	912	1465	-	-	1528	-	-	-				
HCM Lane V/C Ratio	0.038	-	-	-	0.017	-	-	-				
HCM Control Delay (s)	9.1	0	-	-	7.4	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	5	10	60	135	65
Future Volume (vph)	30	5	10	60	135	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	8	17	100	225	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	0	117	225	108
Intersection Summary						

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	5	10	60	135	65
Future Vol, veh/h	30	5	10	60	135	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	8	17	100	225	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	361	227	334	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	630	802	1187	-	-	-
Stage 1	802	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	619	800	1186	-	-	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.2	1.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1186	-	640	-	-	
HCM Lane V/C Ratio	0.014	-	0.091	-	-	
HCM Control Delay (s)	8.1	0	11.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	0	0	140	210	0
Future Volume (vph)	0	0	0	140	210	0
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	0	0	233	350	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	233	350	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	140	210	0
Future Vol, veh/h	0	0	0	140	210	0
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	0	0	0	233	350	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	585	352	351	0	-	0
Stage 1	351	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	475	694	1170	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	474	693	1169	-	-	-
Mov Cap-2 Maneuver	474	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	806	-	-	-	-	-
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)	1169	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

Volume
100: Mid Valley Drive & Grant Street

06/28/2019

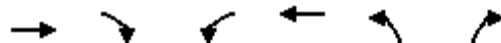
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	610	11	0	324	44	0	17	27	0	115	33
Intersection Summary												

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Future Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	478	11	82	242	44	1	16	27	44	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	490	0	0	1224	1194	480	1177	1161	244
Stage 1	-	-	-	-	-	-	743	743	-	407	407	-
Stage 2	-	-	-	-	-	-	481	451	-	770	754	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1247	-	-	1033	-	-	149	179	568	163	190	780
Stage 1	-	-	-	-	-	-	393	409	-	609	587	-
Stage 2	-	-	-	-	-	-	550	556	-	384	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1032	-	-	74	138	567	117	146	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	138	-	117	146	-
Stage 1	-	-	-	-	-	-	335	349	-	519	531	-
Stage 2	-	-	-	-	-	-	412	503	-	297	348	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			2			21.5			87.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	131	567	1246	-	-	1032	-	-	133	779		
HCM Lane V/C Ratio	0.134	0.048	0.106	-	-	0.08	-	-	0.868	0.042		
HCM Control Delay (s)	36.7	11.7	8.2	0	-	8.8	0	-	109.3	9.8		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	A		
HCM 95th %tile Q(veh)	0.5	0.2	0.4	-	-	0.3	-	-	5.6	0.1		

Volume

200: Suburban Drive & Grant Street

06/28/2019



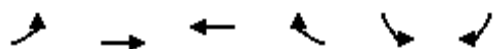
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	655	50	80	315	40	155
Future Volume (vph)	655	50	80	315	40	155
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	910	69	111	438	56	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	910	69	0	549	56	215
Intersection Summary						

Intersection						
Int Delay, s/veh	7.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	655	50	80	315	40	155
Future Vol, veh/h	655	50	80	315	40	155
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	910	69	111	438	56	215
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	980	0	1572	912
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	661	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	700	-	121	332
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	699	-	95	331
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	513	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.3		44.7	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	95	331	-	-	699	-
HCM Lane V/C Ratio	0.585	0.65	-	-	0.159	-
HCM Control Delay (s)	86.2	34	-	-	11.1	0
HCM Lane LOS	F	D	-	-	B	A
HCM 95th %tile Q(veh)	2.7	4.3	-	-	0.6	-

Volume

300: Grant Street & Apollo Way

06/28/2019

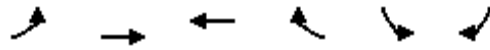


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	810	395	0	0	0
Future Volume (vph)	0	810	395	0	0	0
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1125	549	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1125	549	0	0	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	810	395	0	0	0
Future Vol, veh/h	0	810	395	0	0	0
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	0	1125	549	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	550	0	-	0	1676	551
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	1126	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1005	-	-	-	105	536
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	311	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1004	-	-	-	105	535
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	311	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1004	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	-

Volume
400: Grant Street & Allard Street

06/28/2019



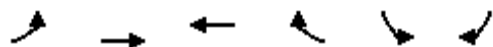
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	115	695	265	50	30	130
Future Volume (vph)	115	695	265	50	30	130
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	172	1037	396	75	45	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1209	396	75	45	194
Intersection Summary						

Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Vol, veh/h	115	695	265	50	30	130
Future Vol, veh/h	115	695	265	50	30	130
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	172	1037	396	75	45	194
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	472	0	-	0	1779	398
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	1382	-
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	1074	-	-	-	90	652
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	233	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1073	-	-	-	56	651
Mov Cap-2 Maneuver	-	-	-	-	56	-
Stage 1	-	-	-	-	422	-
Stage 2	-	-	-	-	233	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.3	0		44.8		
HCM LOS	E					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1073	-	-	-	56	651
HCM Lane V/C Ratio	0.16	-	-	-	0.8	0.298
HCM Control Delay (s)	9	0	-	-	182.8	12.9
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.6	-	-	-	3.5	1.2

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	720	315	1	1	1
Future Volume (vph)	5	720	315	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	1143	500	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1151	500	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	720	315	1	1	1
Future Vol, veh/h	5	720	315	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1143	500	2	2	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	503	0	-	0	1661	502
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	1160	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1046	-	-	-	108	571
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	300	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1045	-	-	-	106	570
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	300	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		25.5		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1045	-	-	-	179	
HCM Lane V/C Ratio	0.008	-	-	-	0.018	
HCM Control Delay (s)	8.5	0	-	-	25.5	
HCM Lane LOS	A	A	-	-	D	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Volume

600: West D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	305	415	60	250	65	25
Future Volume (vph)	305	415	60	250	65	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	484	659	95	397	103	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	484	659	0	492	103	40
Intersection Summary						

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	305	415	60	250	65	25
Future Vol, veh/h	305	415	60	250	65	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	484	659	95	397	103	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1144	0	1073	486
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	-	-	4.16	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.254	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	596	-	245	583
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	557	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	595	-	194	582
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	556	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		34.2	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	194	582	-	-	595	-
HCM Lane V/C Ratio	0.532	0.068	-	-	0.16	-
HCM Control Delay (s)	42.9	11.6	-	-	12.2	0
HCM Lane LOS	E	B	-	-	B	A
HCM 95th %tile Q(veh)	2.7	0.2	-	-	0.6	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	70	135	205	105	100
Future Volume (vph)	260	70	135	205	105	100
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	106	205	311	159	152
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	106	205	311	159	152
Intersection Summary						

Intersection						
Int Delay, s/veh	15.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	260	70	135	205	105	100
Future Vol, veh/h	260	70	135	205	105	100
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	106	205	311	159	152
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	501	0	1117	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	722	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1053	-	214	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	453	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1052	-	172	619
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	453	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.7		59.4	
HCM LOS					F	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	172	619	-	-	1052	-
HCM Lane V/C Ratio	0.925	0.245	-	-	0.194	-
HCM Control Delay (s)	103.9	12.7	-	-	9.2	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	7	1	-	-	0.7	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	110	30	175	15	165	5	105	1	1	1
Future Volume (vph)	1	250	110	30	175	15	165	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	145	39	230	20	217	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	475	0	0	289	0	0	362	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	19											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	110	30	175	15	165	5	105	1	1	1
Future Vol, veh/h	1	250	110	30	175	15	165	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	145	39	230	20	217	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	477	0	0	727	736	406	796	798	242
Stage 1	-	-	-	-	-	-	407	407	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	477	479	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1065	-	-	336	343	638	306	320	799
Stage 1	-	-	-	-	-	-	615	592	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	571	557	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1062	-	-	322	327	636	228	305	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	322	327	-	228	305	-
Stage 1	-	-	-	-	-	-	613	590	-	694	626	-
Stage 2	-	-	-	-	-	-	652	613	-	441	555	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.2			58.3			15.8		
HCM LOS							F			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	397	1268	-	-	1062	-	-	336				
HCM Lane V/C Ratio	0.911	0.001	-	-	0.037	-	-	0.012				
HCM Control Delay (s)	58.3	7.8	0	-	8.5	0	-	15.8				
HCM Lane LOS	F	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	9.7	0	-	-	0.1	-	-	0				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Future Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	52	1	15	30	0	7	0	22	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	45	0	0	29	0	0	0	0
Intersection Summary												

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	0	35	1	10	20	0	5	0	15	0	0	0
Future Vol, veh/h	0	35	1	10	20	0	5	0	15	0	0	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	0	52	1	15	30	0	7	0	22	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	54	0	0	115	115	55	126	115	32
Stage 1	-	-	-	-	-	-	54	54	-	61	61	-
Stage 2	-	-	-	-	-	-	61	61	-	65	54	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1588	-	-	1374	-	-	864	777	1015	850	777	1045
Stage 1	-	-	-	-	-	-	961	852	-	953	846	-
Stage 2	-	-	-	-	-	-	953	846	-	948	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1373	-	-	855	767	1013	823	767	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	767	-	823	767	-
Stage 1	-	-	-	-	-	-	960	851	-	952	836	-
Stage 2	-	-	-	-	-	-	942	836	-	926	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.6			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	968	1586	-	-	1373	-	-	-				
HCM Lane V/C Ratio	0.031	-	-	-	0.011	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	7.7	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	1	5	130	60	25
Future Volume (vph)	50	1	5	130	60	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	1	6	165	76	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	171	76	32
Intersection Summary						

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	1	5	130	60	25
Future Vol, veh/h	50	1	5	130	60	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	1	6	165	76	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	255	78	109	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	736	985	1382	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	731	983	1381	-	-	-
Mov Cap-2 Maneuver	731	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1381	-	735	-	-	
HCM Lane V/C Ratio	0.005	-	0.088	-	-	
HCM Control Delay (s)	7.6	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	0	0	275	140	0
Future Volume (vph)	0	0	0	275	140	0
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	0	0	348	177	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	348	177	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	275	140	0
Future Vol, veh/h	0	0	0	275	140	0
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	0	0	0	348	177	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	527	179	178	0	-	0
Stage 1	178	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	513	866	1302	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	512	864	1301	-	-	-
Mov Cap-2 Maneuver	512	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	715	-	-	-	-	-
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)	1301	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

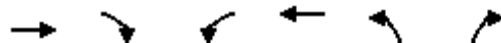
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	11	0	505	54	0	81	75	0	119	97
Intersection Summary												

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Future Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	269	11	70	435	54	11	70	75	81	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	281	0	0	1037	996	271	1020	953	437
Stage 1	-	-	-	-	-	-	366	366	-	576	576	-
Stage 2	-	-	-	-	-	-	671	630	-	444	377	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1048	-	-	1253	-	-	202	237	749	210	253	607
Stage 1	-	-	-	-	-	-	637	609	-	492	493	-
Stage 2	-	-	-	-	-	-	433	463	-	581	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1047	-	-	1252	-	-	133	206	748	126	220	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	206	-	126	220	-
Stage 1	-	-	-	-	-	-	602	576	-	465	455	-
Stage 2	-	-	-	-	-	-	308	427	-	434	572	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			1			24			55.4		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	192	748	1047	-	-	1252	-	-	146	606		
HCM Lane V/C Ratio	0.42	0.101	0.046	-	-	0.056	-	-	0.81	0.16		
HCM Control Delay (s)	36.7	10.4	8.6	0	-	8	0	-	90.9	12.1		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	B		
HCM 95th %tile Q(veh)	1.9	0.3	0.1	-	-	0.2	-	-	5.1	0.6		

Volume

200: Suburban Drive & Grant Street

06/28/2019



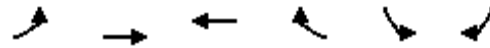
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	330	80	125	490	40	150
Future Volume (vph)	330	80	125	490	40	150
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	384	93	145	570	47	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	93	0	715	47	174
Intersection Summary						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	330	80	125	490	40	150
Future Vol, veh/h	330	80	125	490	40	150
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	384	93	145	570	47	174
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	483	0	1258	398
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	868	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1064	-	188	649
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	409	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1058	-	148	640
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	406	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		18.5	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	148	640	-	-	1058	-
HCM Lane V/C Ratio	0.314	0.273	-	-	0.137	-
HCM Control Delay (s)	40.1	12.7	-	-	8.9	0
HCM Lane LOS	E	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	1.1	-	-	0.5	-

Volume

300: Grant Street & Apollo Way

06/28/2019

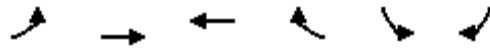


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	480	615	0	0	0
Future Volume (vph)	0	480	615	0	0	0
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	558	715	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	558	715	0	0	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	480	615	0	0	0
Future Vol, veh/h	0	480	615	0	0	0
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	0	558	715	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	718	0	-	0	1277	719
Stage 1	-	-	-	-	718	-
Stage 2	-	-	-	-	559	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	856	-	-	-	184	428
Stage 1	-	-	-	-	483	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	854	-	-	-	183	426
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	570	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	854	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	-

Volume
400: Grant Street & Allard Street

06/28/2019



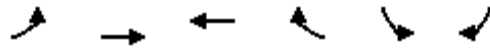
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	125	355	455	70	45	160
Future Volume (vph)	125	355	455	70	45	160
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	151	428	548	84	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	579	548	84	54	193
Intersection Summary						

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Vol, veh/h	125	355	455	70	45	160
Future Vol, veh/h	125	355	455	70	45	160
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	151	428	548	84	54	193
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	635	0	-	0	1282	552
Stage 1	-	-	-	-	551	-
Stage 2	-	-	-	-	731	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	920	-	-	-	183	535
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	478	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	143	533
Mov Cap-2 Maneuver	-	-	-	-	143	-
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	477	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.5	0		21.9		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	917	-	-	-	143	533
HCM Lane V/C Ratio	0.164	-	-	-	0.379	0.362
HCM Control Delay (s)	9.7	0	-	-	44.8	15.5
HCM Lane LOS	A	A	-	-	E	C
HCM 95th %tile Q(veh)	0.6	-	-	-	1.6	1.6

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	400	510	1	1	15
Future Volume (vph)	1	400	510	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	597	761	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	598	761	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	400	510	1	1	15
Future Vol, veh/h	1	400	510	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	597	761	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	766	0	-	0	1365	775
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	600	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	821	-	-	-	163	400
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	818	-	-	-	161	395
Mov Cap-2 Maneuver	-	-	-	-	161	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	548	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		15.6		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	818	-	-	-	362	
HCM Lane V/C Ratio	0.002	-	-	-	0.066	
HCM Control Delay (s)	9.4	0	-	-	15.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Volume
600: West D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	285	115	20	385	125	65
Future Volume (vph)	285	115	20	385	125	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	425	172	30	575	187	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	425	172	0	605	187	97
Intersection Summary						

Intersection						
Int Delay, s/veh	9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	285	115	20	385	125	65
Future Vol, veh/h	285	115	20	385	125	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	425	172	30	575	187	97
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	600	0	1073	429
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	645	-
Critical Hdwy	-	-	4.18	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.272	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	948	-	245	628
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	524	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	945	-	231	626
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	519	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		46.2	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	231	626	-	-	945	-
HCM Lane V/C Ratio	0.808	0.155	-	-	0.032	-
HCM Control Delay (s)	64.1	11.8	-	-	8.9	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	6	0.5	-	-	0.1	-

Volume

700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	10	10	260	145	110
Future Volume (vph)	340	10	10	260	145	110
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	14	14	361	201	153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	14	14	361	201	153
Intersection Summary						

Intersection						
Int Delay, s/veh	8.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	340	10	10	260	145	110
Future Vol, veh/h	340	10	10	260	145	110
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	14	14	361	201	153
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	492	0	868	479
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	390	-
Critical Hdwy	-	-	4.14	-	6.56	6.36
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	5.56	-
Follow-up Hdwy	-	-	2.236	-	3.644	3.444
Pot Cap-1 Maneuver	-	-	1061	-	305	559
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1055	-	299	555
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	654	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		28	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	299	555	-	-	1055	-
HCM Lane V/C Ratio	0.674	0.275	-	-	0.013	-
HCM Control Delay (s)	38.7	13.9	-	-	8.5	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	4.5	1.1	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	140	70	185	5	65	1	75	25	1	20
Future Volume (vph)	15	295	140	70	185	5	65	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	171	85	226	6	79	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	549	0	0	317	0	0	171	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	295	140	70	185	5	65	1	75	25	1	20
Future Vol, veh/h	15	295	140	70	185	5	65	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	171	85	226	6	79	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	541	0	0	910	898	457	932	980	239
Stage 1	-	-	-	-	-	-	492	492	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	529	577	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1018	-	-	255	279	604	248	251	802
Stage 1	-	-	-	-	-	-	558	548	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	535	503	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1008	-	-	221	244	598	190	219	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	221	244	-	190	219	-
Stage 1	-	-	-	-	-	-	542	532	-	611	540	-
Stage 2	-	-	-	-	-	-	531	538	-	443	488	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.4			26.8			20.7		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	333	1314	-	-	1008	-	-	285				
HCM Lane V/C Ratio	0.516	0.014	-	-	0.085	-	-	0.197				
HCM Control Delay (s)	26.8	7.8	0	-	8.9	0	-	20.7				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2.8	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Future Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	35	26	26	105	0	9	0	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	131	0	0	35	0	0	0	0
Intersection Summary												

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	0	20	15	15	60	0	5	0	15	0	0	0
Future Vol, veh/h	0	20	15	15	60	0	5	0	15	0	0	0
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	0	35	26	26	105	0	9	0	26	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	64	0	0	216	214	52	225	227	119
Stage 1	-	-	-	-	-	-	51	51	-	163	163	-
Stage 2	-	-	-	-	-	-	165	163	-	62	64	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1473	-	-	1532	-	-	734	678	1007	733	674	935
Stage 1	-	-	-	-	-	-	954	846	-	841	765	-
Stage 2	-	-	-	-	-	-	830	758	-	952	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1528	-	-	716	660	1003	699	656	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	660	-	699	656	-
Stage 1	-	-	-	-	-	-	951	843	-	836	747	-
Stage 2	-	-	-	-	-	-	809	740	-	926	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			9.1			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	912	1465	-	-	1528	-	-	-				
HCM Lane V/C Ratio	0.038	-	-	-	0.017	-	-	-				
HCM Control Delay (s)	9.1	0	-	-	7.4	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	5	10	60	135	65
Future Volume (vph)	30	5	10	60	135	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	8	17	100	225	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	0	117	225	108
Intersection Summary						

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	5	10	60	135	65
Future Vol, veh/h	30	5	10	60	135	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	8	17	100	225	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	361	227	334	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	630	802	1187	-	-	-
Stage 1	802	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	619	800	1186	-	-	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.2	1.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1186	-	640	-	-	
HCM Lane V/C Ratio	0.014	-	0.091	-	-	
HCM Control Delay (s)	8.1	0	11.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	0	0	0	140	210	0
Future Volume (vph)	0	0	0	140	210	0
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	0	0	0	233	350	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	233	350	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	140	210	0
Future Vol, veh/h	0	0	0	140	210	0
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	0	0	0	233	350	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	585	352	351	0	-	0
Stage 1	351	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	475	694	1170	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	474	693	1169	-	-	-
Mov Cap-2 Maneuver	474	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	806	-	-	-	-	-
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)	1169	-	-	-	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Control Delay (s)	0	-	0	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	-	-	

Lanes and Geometrics
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%				0%				0%			
Storage Length (ft)	0	0		0			0	0	0		0	0
Storage Lanes	0	1		0			1	0	1		0	1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850				0.850				0.850	
Flt Protected	0.989				0.988				0.997		0.981	
Satd. Flow (prot)	0	1756	1509	0	1707	1468	0	1707	1455	0	1726	1495
Flt Permitted	0.989				0.988				0.997		0.981	
Satd. Flow (perm)	0	1756	1509	0	1707	1468	0	1707	1455	0	1726	1495
Link Speed (mph)	35				35				45		45	
Link Distance (ft)	762				2580				466		733	
Travel Time (s)	14.8				50.3				7.1		11.1	
Intersection Summary												
Area Type:	Other											

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Future Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	478	11	82	242	44	1	16	27	44	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	490	0	0	1224	1194	480	1177	1161	244
Stage 1	-	-	-	-	-	-	743	743	-	407	407	-
Stage 2	-	-	-	-	-	-	481	451	-	770	754	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1247	-	-	1033	-	-	149	179	568	163	190	780
Stage 1	-	-	-	-	-	-	393	409	-	609	587	-
Stage 2	-	-	-	-	-	-	550	556	-	384	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1032	-	-	74	138	567	117	146	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	138	-	117	146	-
Stage 1	-	-	-	-	-	-	335	349	-	519	531	-
Stage 2	-	-	-	-	-	-	412	503	-	297	348	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			2			21.5			87.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	131	567	1246	-	-	1032	-	-	133	779		
HCM Lane V/C Ratio	0.134	0.048	0.106	-	-	0.08	-	-	0.868	0.042		
HCM Control Delay (s)	36.7	11.7	8.2	0	-	8.8	0	-	109.3	9.8		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	A		
HCM 95th %tile Q(veh)	0.5	0.2	0.4	-	-	0.3	-	-	5.6	0.1		

Lanes and Geometrics

200: Suburban Drive & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.994	0.950	
Satd. Flow (prot)	1810	1538	0	1834	1770	1583
Flt Permitted				0.994	0.950	
Satd. Flow (perm)	1810	1538	0	1834	1770	1583
Link Speed (mph)	35			35	25	
Link Distance (ft)	2580			150	979	
Travel Time (s)	50.3			2.9	26.7	
Intersection Summary						
Area Type:	Other					

Intersection						
Int Delay, s/veh	3.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	↗
Traffic Vol, veh/h	635	50	45	315	40	90
Future Vol, veh/h	635	50	45	315	40	90
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	882	69	63	438	56	125
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	952	0	1448	884
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	718	-	145	344
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	569	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	717	-	128	343
Mov Cap-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	357	-
Stage 2	-	-	-	-	568	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.3		31.2	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	128	343	-	-	717	-
HCM Lane V/C Ratio	0.434	0.364	-	-	0.087	-
HCM Control Delay (s)	53.1	21.4	-	-	10.5	0
HCM Lane LOS	F	C	-	-	B	A
HCM 95th %tile O(veh)	1.9	1.6	-	-	0.3	-

Lanes and Geometrics

300: Grant Street & Apollo Way

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↗	↗	↗	↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected		0.995			0.950	
Satd. Flow (prot)	0	1800	1845	1568	1787	1599
Flt Permitted		0.995			0.950	
Satd. Flow (perm)	0	1800	1845	1568	1787	1599
Link Speed (mph)		35	35		25	
Link Distance (ft)		150	690		614	
Travel Time (s)		2.9	13.4		16.7	

Intersection Summary

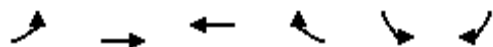
Area Type: Other

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	655	330	20	5	30
Future Vol, veh/h	70	655	330	20	5	30
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	97	910	458	28	7	42
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	487	0	-	0	1564	460
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	1105	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1061	-	-	-	123	603
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	318	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1060	-	-	-	100	602
Mov Cap-2 Maneuver	-	-	-	-	100	-
Stage 1	-	-	-	-	519	-
Stage 2	-	-	-	-	318	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		16		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1060	-	-	-	100	602
HCM Lane V/C Ratio	0.092	-	-	-	0.069	0.069
HCM Control Delay (s)	8.7	0	-	-	43.7	11.4
HCM Lane LOS	A	A	-	-	E	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.2	0.2

Lanes and Geometrics

400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↗	↗	↗	↗	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected		0.997			0.950	
Satd. Flow (prot)	0	1804	1827	1553	1770	1583
Flt Permitted		0.997			0.950	
Satd. Flow (perm)	0	1804	1827	1553	1770	1583
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	

Intersection Summary

Area Type: Other

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	615	250	30	25	100
Future Vol, veh/h	45	615	250	30	25	100
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	67	918	373	45	37	149
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	419	0	-	0	1427	375
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	1053	-
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	1124	-	-	-	149	671
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	336	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1123	-	-	-	131	670
Mov Cap-2 Maneuver	-	-	-	-	131	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	336	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		18.1		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1123	-	-	-	131	670
HCM Lane V/C Ratio	0.06	-	-	-	0.285	0.223
HCM Control Delay (s)	8.4	0	-	-	43.1	11.9
HCM Lane LOS	A	A	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.1	0.8

Lanes and Geometrics

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	0			0	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1810	1792	1524	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1810	1792	1524	1711	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		720	140		338	
Travel Time (s)		19.6	3.8		9.2	

Intersection Summary

Area Type: Other

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	635	280	1	1	1
Future Vol, veh/h	5	635	280	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1008	444	2	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	447	0	-	0	1470	446
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	1025	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1098	-	-	-	141	614
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	348	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1097	-	-	-	138	613
Mov Cap-2 Maneuver	-	-	-	-	138	-
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	348	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		21.2		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1097	-	-	-	225	
HCM Lane V/C Ratio	0.007	-	-	-	0.014	
HCM Control Delay (s)	8.3	0	-	-	21.2	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0	

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.998	0.950	
Satd. Flow (prot)	1810	1538	0	1789	1787	1599
Flt Permitted				0.998	0.950	
Satd. Flow (perm)	1810	1538	0	1789	1787	1599
Link Speed (mph)	25			25	25	
Link Distance (ft)	140			416	390	
Travel Time (s)	3.8			11.3	10.6	
Intersection Summary						
Area Type:	Other					

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	335	10	230	50	25
Future Vol, veh/h	300	335	10	230	50	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	476	532	16	365	79	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1009	0	875	478
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	398	-
Critical Hdwy	-	-	4.16	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.254	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	671	-	321	589
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	670	-	311	588
Mov Cap-2 Maneuver	-	-	-	-	311	-
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	680	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		17.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	311	588	-	-	670	-
HCM Lane V/C Ratio	0.255	0.067	-	-	0.024	-
HCM Control Delay (s)	20.5	11.6	-	-	10.5	0
HCM Lane LOS	C	B	-	-	B	A
HCM 95th %tile Q(veh)	1	0.2	-	-	0.1	-

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1845	1568	1736	1827	1530	1369
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1845	1568	1736	1827	1530	1369
Link Speed (mph)	25			25	25	
Link Distance (ft)	416			639	346	
Travel Time (s)	11.3			17.4	9.4	
Intersection Summary						
Area Type:	Other					

Intersection						
Int Delay, s/veh	6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	260	65	90	155	85	45
Future Vol, veh/h	260	65	90	155	85	45
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	98	136	235	129	68
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	493	0	903	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	508	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1060	-	288	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1059	-	251	619
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	572	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.3		25.9	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	619	-	-	1059	-
HCM Lane V/C Ratio	0.513	0.11	-	-	0.129	-
HCM Control Delay (s)	33.5	11.5	-	-	8.9	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	2.7	0.4	-	-	0.4	-

Lanes and Geometrics
800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.976			0.991			0.921			0.955	
Flt Protected					0.993			0.981			0.984	
Satd. Flow (prot)	0	1686	0	0	1764	0	0	1635	0	0	1768	0
Flt Permitted					0.993			0.981			0.984	
Satd. Flow (perm)	0	1686	0	0	1764	0	0	1635	0	0	1768	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		639			333			469			187	
Travel Time (s)		17.4			9.1			12.8			5.1	
Intersection Summary												
Area Type:	Other											

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	55	30	175	15	70	5	105	1	1	1
Future Vol, veh/h	1	250	55	30	175	15	70	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	72	39	230	20	92	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	404	0	0	690	699	369	760	725	242
Stage 1	-	-	-	-	-	-	370	370	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	441	406	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1133	-	-	355	360	670	324	353	799
Stage 1	-	-	-	-	-	-	644	615	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	597	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1130	-	-	341	344	667	245	337	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	341	344	-	245	337	-
Stage 1	-	-	-	-	-	-	641	613	-	694	628	-
Stage 2	-	-	-	-	-	-	655	615	-	467	598	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			19.8			15.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	477	1268	-	-	1130	-	-	361				
HCM Lane V/C Ratio	0.497	0.001	-	-	0.035	-	-	0.011				
HCM Control Delay (s)	19.8	7.8	0	-	8.3	0	-	15.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile O(veh)	2.7	0	-	-	0.1	-	-	0				

Lanes and Geometrics

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.897			0.901			0.918	
Flt Protected		0.966			0.996			0.988			0.981	
Satd. Flow (prot)	0	1815	0	0	1276	0	0	1675	0	0	1694	0
Flt Permitted		0.966			0.996			0.988			0.981	
Satd. Flow (perm)	0	1815	0	0	1276	0	0	1675	0	0	1694	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		716			536			376			406	
Travel Time (s)		19.5			14.6			10.3			11.1	
Intersection Summary												
Area Type:	Other											

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	85	35	1	10	20	95	5	1	15	35	1	55
Future Vol, veh/h	85	35	1	10	20	95	5	1	15	35	1	55
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	127	52	1	15	30	142	7	1	22	52	1	82
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	173	0	0	54	0	0	482	511	55	451	440	103
Stage 1	-	-	-	-	-	-	308	308	-	132	132	-
Stage 2	-	-	-	-	-	-	174	203	-	319	308	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1410	-	-	1374	-	-	496	467	1015	520	513	955
Stage 1	-	-	-	-	-	-	704	662	-	874	789	-
Stage 2	-	-	-	-	-	-	830	735	-	695	662	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1409	-	-	1373	-	-	416	417	1013	466	459	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	416	417	-	466	459	-
Stage 1	-	-	-	-	-	-	638	600	-	792	779	-
Stage 2	-	-	-	-	-	-	747	725	-	614	600	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.5			0.6			10.2			11.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	719	1409	-	-	1373	-	-	674				
HCM Lane V/C Ratio	0.044	0.09	-	-	0.011	-	-	0.202				
HCM Control Delay (s)	10.2	7.8	0	-	7.7	0	-	11.7				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.7				

Lanes and Geometrics
950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.944					0.850
Flt Protected	0.971			0.964		
Satd. Flow (prot)	1724	0	0	1539	1429	1214
Flt Permitted	0.971			0.964		
Satd. Flow (perm)	1724	0	0	1539	1429	1214
Link Speed (mph)	25			25	25	
Link Distance (ft)	536			562	1297	
Travel Time (s)	14.6			15.3	35.4	

Intersection Summary

Area Type: Other

Intersection						
Int Delay, s/veh	6.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	35	100	35	5	25
Future Vol, veh/h	50	35	100	35	5	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	44	127	44	6	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	306	8	39	0	-	0
Stage 1	7	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	688	1077	1468	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	625	1075	1467	-	-	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.6	5.7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1467	-	755	-	-	
HCM Lane V/C Ratio	0.086	-	0.143	-	-	
HCM Control Delay (s)	7.7	0	10.6	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	0.5	-	-	

Lanes and Geometrics
960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.999	
Flt Protected	0.976					
Satd. Flow (prot)	1711	0	0	1597	1427	0
Flt Permitted	0.976					
Satd. Flow (perm)	1711	0	0	1597	1427	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	352			1297	469	
Travel Time (s)	9.6			35.4	12.8	

Intersection Summary

Area Type: Other

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	190	105	1
Future Vol, veh/h	1	1	1	190	105	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	1	1	241	133	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	379	136	135	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	625	915	1351	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	913	1350	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1350	-	741	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.7	0	9.9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

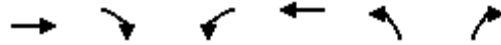
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	11	0	505	54	0	81	75	0	119	97
Intersection Summary												

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Future Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	269	11	70	435	54	11	70	75	81	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	281	0	0	1037	996	271	1020	953	437
Stage 1	-	-	-	-	-	-	366	366	-	576	576	-
Stage 2	-	-	-	-	-	-	671	630	-	444	377	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1048	-	-	1253	-	-	202	237	749	210	253	607
Stage 1	-	-	-	-	-	-	637	609	-	492	493	-
Stage 2	-	-	-	-	-	-	433	463	-	581	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1047	-	-	1252	-	-	133	206	748	126	220	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	206	-	126	220	-
Stage 1	-	-	-	-	-	-	602	576	-	465	455	-
Stage 2	-	-	-	-	-	-	308	427	-	434	572	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			1			24			55.4		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	192	748	1047	-	-	1252	-	-	146	606		
HCM Lane V/C Ratio	0.42	0.101	0.046	-	-	0.056	-	-	0.81	0.16		
HCM Control Delay (s)	36.7	10.4	8.6	0	-	8	0	-	90.9	12.1		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	B		
HCM 95th %tile Q(veh)	1.9	0.3	0.1	-	-	0.2	-	-	5.1	0.6		

Volume

200: Suburban Drive & Grant Street

06/28/2019



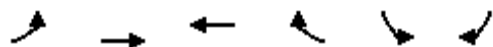
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	310	80	70	470	40	85
Future Volume (vph)	310	80	70	470	40	85
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	360	93	81	547	47	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	93	0	628	47	99
Intersection Summary						

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	310	80	70	470	40	85
Future Vol, veh/h	310	80	70	470	40	85
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	360	93	81	547	47	99
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	1083	374
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	717	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1086	-	239	670
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1080	-	210	661
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	478	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		16.4	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	210	661	-	-	1080	-
HCM Lane V/C Ratio	0.221	0.15	-	-	0.075	-
HCM Control Delay (s)	27	11.4	-	-	8.6	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0.5	-	-	0.2	-

Volume

300: Grant Street & Apollo Way

06/28/2019

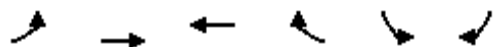


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	75	320	500	30	5	40
Future Volume (vph)	75	320	500	30	5	40
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	87	372	581	35	6	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	459	581	35	6	47
Intersection Summary						

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	320	500	30	5	40
Future Vol, veh/h	75	320	500	30	5	40
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	87	372	581	35	6	47
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	619	0	-	0	1131	585
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	547	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	933	-	-	-	225	511
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	580	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	930	-	-	-	197	509
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	490	-
Stage 2	-	-	-	-	578	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.8	0		14		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	930	-	-	-	197	509
HCM Lane V/C Ratio	0.094	-	-	-	0.03	0.091
HCM Control Delay (s)	9.3	0	-	-	23.8	12.8
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.3

Volume
400: Grant Street & Allard Street

06/28/2019



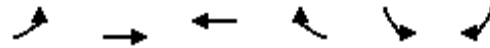
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	50	275	410	40	40	120
Future Volume (vph)	50	275	410	40	40	120
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	60	331	494	48	48	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	391	494	48	48	145
Intersection Summary						

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	275	410	40	40	120
Future Vol, veh/h	50	275	410	40	40	120
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	60	331	494	48	48	145
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	545	0	-	0	949	498
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	452	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	995	-	-	-	290	574
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	992	-	-	-	267	572
Mov Cap-2 Maneuver	-	-	-	-	267	-
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	641	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.4	0		15.4		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	992	-	-	-	267	572
HCM Lane V/C Ratio	0.061	-	-	-	0.18	0.253
HCM Control Delay (s)	8.9	0	-	-	21.4	13.4
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6	1

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	315	435	1	1	15
Future Volume (vph)	1	315	435	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	470	649	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	471	649	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	315	435	1	1	15
Future Vol, veh/h	1	315	435	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	470	649	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	654	0	-	0	1126	663
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	473	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	905	-	-	-	228	463
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	629	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	902	-	-	-	226	457
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	626	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.9		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	902	-	-	-	430	
HCM Lane V/C Ratio	0.002	-	-	-	0.056	
HCM Control Delay (s)	9	0	-	-	13.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	280	35	5	335	100	65
Future Volume (vph)	280	35	5	335	100	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	418	52	7	500	149	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	52	0	507	149	97
Intersection Summary						

Intersection						
Int Delay, s/veh	4.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	280	35	5	335	100	65
Future Vol, veh/h	280	35	5	335	100	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	418	52	7	500	149	97
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	473	0	945	422
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	524	-
Critical Hdwy	-	-	4.18	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.272	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	1058	-	292	634
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1055	-	286	632
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	656	-
Stage 2	-	-	-	-	590	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		23.1	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	286	632	-	-	1055	-
HCM Lane V/C Ratio	0.522	0.154	-	-	0.007	-
HCM Control Delay (s)	30.5	11.7	-	-	8.4	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	2.8	0.5	-	-	0	-

Volume

700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	5	1	245	95	35
Future Volume (vph)	340	5	1	245	95	35
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	7	1	340	132	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	7	1	340	132	49
Intersection Summary						

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	340	5	1	245	95	35
Future Vol, veh/h	340	5	1	245	95	35
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	7	1	340	132	49
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	485	0	821	479
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	343	-
Critical Hdwy	-	-	4.14	-	6.56	6.36
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	5.56	-
Follow-up Hdwy	-	-	2.236	-	3.644	3.444
Pot Cap-1 Maneuver	-	-	1068	-	326	559
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	688	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1062	-	323	555
Mov Cap-2 Maneuver	-	-	-	-	323	-
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	687	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		20.5	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	323	555	-	-	1062	-
HCM Lane V/C Ratio	0.408	0.088	-	-	0.001	-
HCM Control Delay (s)	23.6	12.1	-	-	8.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	1.9	0.3	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Future Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	79	85	226	6	49	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	0	0	317	0	0	141	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	295	65	70	185	5	40	1	75	25	1	20
Future Vol, veh/h	15	295	65	70	185	5	40	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	79	85	226	6	49	1	91	30	1	24
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	236	0	0	449	0	0	864	852	411	886	888	239
Stage 1	-	-	-	-	-	-	446	446	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	483	485	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1101	-	-	274	297	641	266	284	802
Stage 1	-	-	-	-	-	-	591	574	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	567	553	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1091	-	-	239	262	634	207	250	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	239	262	-	207	250	-
Stage 1	-	-	-	-	-	-	575	558	-	612	545	-
Stage 2	-	-	-	-	-	-	536	542	-	475	538	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0.3		2.3			18.8			19.3			
HCM LOS						C			C			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	401	1314	-	-	1091	-	-	307				
HCM Lane V/C Ratio	0.353	0.014	-	-	0.078	-	-	0.183				
HCM Control Delay (s)	18.8	7.8	0	-	8.6	0	-	19.3				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.6	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Future Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	114	35	26	26	105	44	9	2	26	123	2	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	0	0	175	0	0	37	0	0	230	0
Intersection Summary												

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	65	20	15	15	60	25	5	1	15	70	1	60
Future Vol, veh/h	65	20	15	15	60	25	5	1	15	70	1	60
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	114	35	26	26	105	44	9	2	26	123	2	105
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	64	0	0	520	486	52	476	477	141
Stage 1	-	-	-	-	-	-	279	279	-	185	185	-
Stage 2	-	-	-	-	-	-	241	207	-	291	292	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1419	-	-	1532	-	-	462	477	1007	501	489	910
Stage 1	-	-	-	-	-	-	721	674	-	819	749	-
Stage 2	-	-	-	-	-	-	756	725	-	719	673	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1528	-	-	371	425	1003	445	436	898
Mov Cap-2 Maneuver	-	-	-	-	-	-	371	425	-	445	436	-
Stage 1	-	-	-	-	-	-	658	615	-	746	730	-
Stage 2	-	-	-	-	-	-	648	707	-	639	614	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.1			1.1			10.6			15.3		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	682	1411	-	-	1528	-	-	579				
HCM Lane V/C Ratio	0.054	0.081	-	-	0.017	-	-	0.397				
HCM Control Delay (s)	10.6	7.8	0	-	7.4	0	-	15.3				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.1	-	-	1.9				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	75	35	35	60	65
Future Volume (vph)	30	75	35	35	60	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	125	58	58	100	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	175	0	0	116	100	108
Intersection Summary						

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	75	35	35	60	65
Future Vol, veh/h	30	75	35	35	60	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	125	58	58	100	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	276	102	209	0	-	0
Stage 1	101	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	705	942	1321	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	672	940	1320	-	-	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	3.9		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1320	-	844	-	-	
HCM Lane V/C Ratio	0.044	-	0.207	-	-	
HCM Control Delay (s)	7.9	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	125	160	1
Future Vol, veh/h	1	1	1	125	160	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	2	2	208	267	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	482	270	270	0	-	0
Stage 1	269	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	545	771	1254	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	770	1253	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.7	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1253	-	637	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	7.9	0	10.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

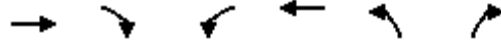
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	610	11	0	324	44	0	17	27	0	115	33
Intersection Summary												

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Future Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	478	11	82	242	44	1	16	27	44	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	490	0	0	1224	1194	480	1177	1161	244
Stage 1	-	-	-	-	-	-	743	743	-	407	407	-
Stage 2	-	-	-	-	-	-	481	451	-	770	754	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1247	-	-	1033	-	-	149	179	568	163	190	780
Stage 1	-	-	-	-	-	-	393	409	-	609	587	-
Stage 2	-	-	-	-	-	-	550	556	-	384	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1032	-	-	74	138	567	117	146	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	138	-	117	146	-
Stage 1	-	-	-	-	-	-	335	349	-	519	531	-
Stage 2	-	-	-	-	-	-	412	503	-	297	348	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			2			21.5			87.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	131	567	1246	-	-	1032	-	-	133	779		
HCM Lane V/C Ratio	0.134	0.048	0.106	-	-	0.08	-	-	0.868	0.042		
HCM Control Delay (s)	36.7	11.7	8.2	0	-	8.8	0	-	109.3	9.8		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	A		
HCM 95th %tile Q(veh)	0.5	0.2	0.4	-	-	0.3	-	-	5.6	0.1		

Volume

200: Suburban Drive & Grant Street

06/28/2019



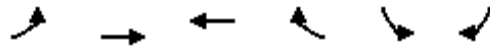
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	635	50	75	315	40	150
Future Volume (vph)	635	50	75	315	40	150
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	882	69	104	438	56	208
Shared Lane Traffic (%)						
Lane Group Flow (vph)	882	69	0	542	56	208
Intersection Summary						

Intersection						
Int Delay, s/veh	6.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	635	50	75	315	40	150
Future Vol, veh/h	635	50	75	315	40	150
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	882	69	104	438	56	208
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	952	0	1530	884
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	647	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	718	-	129	344
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	521	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	717	-	104	343
Mov Cap-2 Maneuver	-	-	-	-	104	-
Stage 1	-	-	-	-	326	-
Stage 2	-	-	-	-	520	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.1		39.6	
HCM LOS					E	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	104	343	-	-	717	-
HCM Lane V/C Ratio	0.534	0.607	-	-	0.145	-
HCM Control Delay (s)	73.8	30.5	-	-	10.9	0
HCM Lane LOS	F	D	-	-	B	A
HCM 95th %tile Q(veh)	2.5	3.8	-	-	0.5	-

Volume

300: Grant Street & Apollo Way

06/28/2019

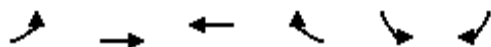


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	70	715	360	20	5	30
Future Volume (vph)	70	715	360	20	5	30
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	97	993	500	28	7	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1090	500	28	7	42
Intersection Summary						

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	715	360	20	5	30
Future Vol, veh/h	70	715	360	20	5	30
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	97	993	500	28	7	42
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	529	0	-	0	1689	502
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	1188	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1023	-	-	-	103	571
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	291	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1022	-	-	-	81	570
Mov Cap-2 Maneuver	-	-	-	-	81	-
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	291	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		17.8		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1022	-	-	-	81	570
HCM Lane V/C Ratio	0.095	-	-	-	0.086	0.073
HCM Control Delay (s)	8.9	0	-	-	53.6	11.8
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3	0.2

Volume
400: Grant Street & Allard Street

06/28/2019



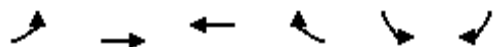
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	45	675	280	30	25	100
Future Volume (vph)	45	675	280	30	25	100
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	67	1007	418	45	37	149
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1074	418	45	37	149
Intersection Summary						

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	675	280	30	25	100
Future Vol, veh/h	45	675	280	30	25	100
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	67	1007	418	45	37	149
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	464	0	-	0	1561	420
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	1142	-
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	1082	-	-	-	123	633
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	304	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1081	-	-	-	105	632
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	304	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		21.3		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1081	-	-	-	105	632
HCM Lane V/C Ratio	0.062	-	-	-	0.355	0.236
HCM Control Delay (s)	8.6	0	-	-	57.1	12.4
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.4	0.9

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	695	310	1	1	1
Future Volume (vph)	5	695	310	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	1103	492	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1111	492	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	695	310	1	1	1
Future Vol, veh/h	5	695	310	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1103	492	2	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	495	0	-	0	1613	494
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	1120	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1053	-	-	-	115	577
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	313	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1052	-	-	-	112	576
Mov Cap-2 Maneuver	-	-	-	-	112	-
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	313	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		24.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1052	-	-	-	188	
HCM Lane V/C Ratio	0.008	-	-	-	0.017	
HCM Control Delay (s)	8.4	0	-	-	24.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Volume
600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	305	390	55	245	65	25
Future Volume (vph)	305	390	55	245	65	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	484	619	87	389	103	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	484	619	0	476	103	40
Intersection Summary						

Intersection

Int Delay, s/veh 3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	305	390	55	245	65	25
Future Vol, veh/h	305	390	55	245	65	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	484	619	87	389	103	40

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1104
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.16
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.254
Pot Cap-1 Maneuver	-	-	618
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	617
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	31
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	207	582	-	-	617	-
HCM Lane V/C Ratio	0.498	0.068	-	-	0.141	-
HCM Control Delay (s)	38.5	11.6	-	-	11.8	0
HCM Lane LOS	E	B	-	-	B	A
HCM 95th %tile Q(veh)	2.5	0.2	-	-	0.5	-

Volume

700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	70	130	200	100	80
Future Volume (vph)	260	70	130	200	100	80
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	106	197	303	152	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	106	197	303	152	121
Intersection Summary						

Intersection

Int Delay, s/veh 12.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	260	70	130	200	100	80
Future Vol, veh/h	260	70	130	200	100	80
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	106	197	303	152	121

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	501
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1053
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1052
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.6	52.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	179	619	-	-	1052	-
HCM Lane V/C Ratio	0.846	0.196	-	-	0.187	-
HCM Control Delay (s)	84.7	12.2	-	-	9.2	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	6	0.7	-	-	0.7	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	90	30	175	15	155	5	105	1	1	1
Future Volume (vph)	1	250	90	30	175	15	155	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	118	39	230	20	204	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	448	0	0	289	0	0	349	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	15.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	250	90	30	175	15	155	5	105	1	1	1
Future Vol, veh/h	1	250	90	30	175	15	155	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	118	39	230	20	204	7	138	1	1	1
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	251	0	0	450	0	0	713	722	392	783	771	242
Stage 1	-	-	-	-	-	-	393	393	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	464	452	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1090	-	-	343	349	650	312	332	799
Stage 1	-	-	-	-	-	-	626	601	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	580	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1087	-	-	329	333	648	233	316	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	329	333	-	233	316	-
Stage 1	-	-	-	-	-	-	623	599	-	694	627	-
Stage 2	-	-	-	-	-	-	653	613	-	450	570	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		1.2			47.5			15.6			
HCM LOS						E			C			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	409	1268	-	-	1087	-	-	344				
HCM Lane V/C Ratio	0.853	0.001	-	-	0.036	-	-	0.011				
HCM Control Delay (s)	47.5	7.8	0	-	8.4	0	-	15.6				
HCM Lane LOS	E	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	8.3	0	-	-	0.1	-	-	0				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	25	35	1	10	20	10	5	1	15	1	1	25
Future Volume (vph)	25	35	1	10	20	10	5	1	15	1	1	25
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	37	52	1	15	30	15	7	1	22	1	1	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	60	0	0	30	0	0	39	0
Intersection Summary												

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	25	35	1	10	20	10	5	1	15	1	1	25
Future Vol, veh/h	25	35	1	10	20	10	5	1	15	1	1	25
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	37	52	1	15	30	15	7	1	22	1	1	37
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	54	0	0	216	204	55	208	197	40
Stage 1	-	-	-	-	-	-	128	128	-	69	69	-
Stage 2	-	-	-	-	-	-	88	76	-	139	128	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1568	-	-	1374	-	-	743	694	1015	752	700	1034
Stage 1	-	-	-	-	-	-	878	792	-	944	839	-
Stage 2	-	-	-	-	-	-	922	834	-	866	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1567	-	-	1373	-	-	695	668	1013	714	674	1032
Mov Cap-2 Maneuver	-	-	-	-	-	-	695	668	-	714	674	-
Stage 1	-	-	-	-	-	-	856	772	-	920	829	-
Stage 2	-	-	-	-	-	-	876	824	-	824	772	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3			1.9			9.2			8.8		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	894	1567	-	-	1373	-	-	996				
HCM Lane V/C Ratio	0.035	0.024	-	-	0.011	-	-	0.04				
HCM Control Delay (s)	9.2	7.4	0	-	7.7	0	-	8.8				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.1				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	1	15	120	40	25
Future Volume (vph)	50	1	15	120	40	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	1	19	152	51	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	171	51	32
Intersection Summary						

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	1	15	120	40	25
Future Vol, veh/h	50	1	15	120	40	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	1	19	152	51	32
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	243	53	84	0	-	0
Stage 1	52	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	748	1017	1412	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	735	1015	1411	-	-	-
Mov Cap-2 Maneuver	735	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	10.3		0.8		0	
HCM LOS	B					
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1411		-	739	-	-
HCM Lane V/C Ratio	0.013		-	0.087	-	-
HCM Control Delay (s)	7.6		0	10.3	-	-
HCM Lane LOS	A		A	B	-	-
HCM 95th %tile Q(veh)	0		-	0.3	-	-

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	190	105	1
Future Volume (vph)	1	1	1	190	105	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1	1	1	241	133	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	242	134	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	190	105	1
Future Vol, veh/h	1	1	1	190	105	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	1	1	241	133	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	379	136	135	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	625	915	1351	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	913	1350	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1350	-	741	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.7	0	9.9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

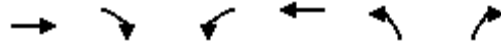
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	11	0	505	54	0	81	75	0	119	97
Intersection Summary												

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Future Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	269	11	70	435	54	11	70	75	81	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	281	0	0	1037	996	271	1020	953	437
Stage 1	-	-	-	-	-	-	366	366	-	576	576	-
Stage 2	-	-	-	-	-	-	671	630	-	444	377	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1048	-	-	1253	-	-	202	237	749	210	253	607
Stage 1	-	-	-	-	-	-	637	609	-	492	493	-
Stage 2	-	-	-	-	-	-	433	463	-	581	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1047	-	-	1252	-	-	133	206	748	126	220	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	206	-	126	220	-
Stage 1	-	-	-	-	-	-	602	576	-	465	455	-
Stage 2	-	-	-	-	-	-	308	427	-	434	572	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			1			24			55.4		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	192	748	1047	-	-	1252	-	-	146	606		
HCM Lane V/C Ratio	0.42	0.101	0.046	-	-	0.056	-	-	0.81	0.16		
HCM Control Delay (s)	36.7	10.4	8.6	0	-	8	0	-	90.9	12.1		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	B		
HCM 95th %tile Q(veh)	1.9	0.3	0.1	-	-	0.2	-	-	5.1	0.6		

Volume

200: Suburban Drive & Grant Street

06/28/2019



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	310	80	120	470	40	145
Future Volume (vph)	310	80	120	470	40	145
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	360	93	140	547	47	169
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	93	0	687	47	169
Intersection Summary						

Intersection

Int Delay, s/veh 3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	310	80	120	470	40	145
Future Vol, veh/h	310	80	120	470	40	145
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	360	93	140	547	47	169

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	459
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.15
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.245
Pot Cap-1 Maneuver	-	-	1086
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1080
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

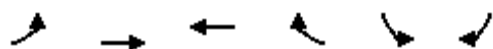
Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	17.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	163	661	-	-	1080	-
HCM Lane V/C Ratio	0.285	0.255	-	-	0.129	-
HCM Control Delay (s)	35.7	12.3	-	-	8.8	0
HCM Lane LOS	E	B	-	-	A	A
HCM 95th %tile Q(veh)	1.1	1	-	-	0.4	-

Volume

300: Grant Street & Apollo Way

06/28/2019

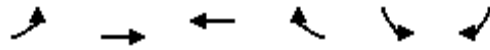


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	75	380	550	30	5	40
Future Volume (vph)	75	380	550	30	5	40
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	87	442	640	35	6	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	529	640	35	6	47
Intersection Summary						

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	380	550	30	5	40
Future Vol, veh/h	75	380	550	30	5	40
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	87	442	640	35	6	47
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	678	0	-	0	1260	644
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	617	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	886	-	-	-	188	473
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	538	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	883	-	-	-	162	471
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	536	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.6	0		15.1		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	883	-	-	-	162	471
HCM Lane V/C Ratio	0.099	-	-	-	0.036	0.099
HCM Control Delay (s)	9.5	0	-	-	28	13.5
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.3

Volume
400: Grant Street & Allard Street

06/28/2019



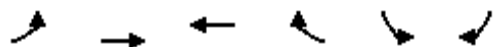
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	50	335	460	40	40	120
Future Volume (vph)	50	335	460	40	40	120
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	60	404	554	48	48	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	464	554	48	48	145
Intersection Summary						

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	335	460	40	40	120
Future Vol, veh/h	50	335	460	40	40	120
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	60	404	554	48	48	145
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	605	0	-	0	1082	558
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	525	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	944	-	-	-	242	531
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	595	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	941	-	-	-	221	529
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	593	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.2	0		17.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	941	-	-	-	221	529
HCM Lane V/C Ratio	0.064	-	-	-	0.218	0.273
HCM Control Delay (s)	9.1	0	-	-	25.8	14.3
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8	1.1

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	375	485	1	1	15
Future Volume (vph)	1	375	485	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	560	724	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	561	724	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	375	485	1	1	15
Future Vol, veh/h	1	375	485	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	560	724	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	729	0	-	0	1291	738
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	563	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	848	-	-	-	181	420
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	845	-	-	-	179	414
Mov Cap-2 Maneuver	-	-	-	-	179	-
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	570	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		15		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	845	-	-	-	383	
HCM Lane V/C Ratio	0.002	-	-	-	0.062	
HCM Control Delay (s)	9.3	0	-	-	15	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	285	90	20	360	125	65
Future Volume (vph)	285	90	20	360	125	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	425	134	30	537	187	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	425	134	0	567	187	97
Intersection Summary						

Intersection						
Int Delay, s/veh	8.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	285	90	20	360	125	65
Future Vol, veh/h	285	90	20	360	125	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	425	134	30	537	187	97
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	562	0	1035	429
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	607	-
Critical Hdwy	-	-	4.18	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.272	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	980	-	258	628
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	977	-	244	626
Mov Cap-2 Maneuver	-	-	-	-	244	-
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	541	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		40.6	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	244	626	-	-	977	-
HCM Lane V/C Ratio	0.765	0.155	-	-	0.031	-
HCM Control Delay (s)	55.6	11.8	-	-	8.8	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	5.5	0.5	-	-	0.1	-

Volume

700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	10	10	260	120	100
Future Volume (vph)	340	10	10	260	120	100
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	14	14	361	167	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	14	14	361	167	139
Intersection Summary						

Intersection

Int Delay, s/veh 6.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	340	10	10	260	120	100
Future Vol, veh/h	340	10	10	260	120	100
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	14	14	361	167	139

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	492
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1061
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1055
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	23.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	299	555	-	-	1055	-
HCM Lane V/C Ratio	0.557	0.25	-	-	0.013	-
HCM Control Delay (s)	31.2	13.6	-	-	8.5	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	3.2	1	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	130	70	185	5	65	1	75	25	1	20
Future Volume (vph)	15	295	130	70	185	5	65	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	159	85	226	6	79	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	537	0	0	317	0	0	171	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	295	130	70	185	5	65	1	75	25	1	20
Future Vol, veh/h	15	295	130	70	185	5	65	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	159	85	226	6	79	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	529	0	0	904	892	451	926	968	239
Stage 1	-	-	-	-	-	-	486	486	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	523	565	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1028	-	-	258	281	608	250	255	802
Stage 1	-	-	-	-	-	-	563	551	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	539	510	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1018	-	-	224	246	602	192	223	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	224	246	-	192	223	-
Stage 1	-	-	-	-	-	-	547	534	-	611	541	-
Stage 2	-	-	-	-	-	-	532	538	-	447	495	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.4			26.3			20.5		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	337	1314	-	-	1018	-	-	288				
HCM Lane V/C Ratio	0.51	0.014	-	-	0.084	-	-	0.195				
HCM Control Delay (s)	26.3	7.8	0	-	8.9	0	-	20.5				
HCM Lane LOS	D	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2.8	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	5	20	15	15	60	1	5	1	15	5	1	10
Future Volume (vph)	5	20	15	15	60	1	5	1	15	5	1	10
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	35	26	26	105	2	9	2	26	9	2	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	70	0	0	133	0	0	37	0	0	29	0
Intersection Summary												

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	5	20	15	15	60	1	5	1	15	5	1	10
Future Vol, veh/h	5	20	15	15	60	1	5	1	15	5	1	10
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	9	35	26	26	105	2	9	2	26	9	2	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	113	0	0	64	0	0	245	234	52	245	246	120
Stage 1	-	-	-	-	-	-	69	69	-	164	164	-
Stage 2	-	-	-	-	-	-	176	165	-	81	82	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1470	-	-	1532	-	-	703	661	1007	711	658	934
Stage 1	-	-	-	-	-	-	934	832	-	840	764	-
Stage 2	-	-	-	-	-	-	819	756	-	930	829	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1462	-	-	1528	-	-	669	639	1003	674	636	922
Mov Cap-2 Maneuver	-	-	-	-	-	-	669	639	-	674	636	-
Stage 1	-	-	-	-	-	-	926	825	-	830	746	-
Stage 2	-	-	-	-	-	-	781	738	-	897	822	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			1.5			9.3			9.6		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	875	1462	-	-	1528	-	-	807				
HCM Lane V/C Ratio	0.042	0.006	-	-	0.017	-	-	0.035				
HCM Control Delay (s)	9.3	7.5	0	-	7.4	0	-	9.6				
HCM Lane LOS	A	A	A	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	10	10	60	125	65
Future Volume (vph)	30	10	10	60	125	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	17	17	100	208	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	0	0	117	208	108
Intersection Summary						

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	10	10	60	125	65
Future Vol, veh/h	30	10	10	60	125	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	17	17	100	208	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	344	210	317	0	-	0
Stage 1	209	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	644	820	1205	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	633	818	1204	-	-	-
Mov Cap-2 Maneuver	633	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11	1.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1204	-	671	-	-	
HCM Lane V/C Ratio	0.014	-	0.099	-	-	
HCM Control Delay (s)	8	0	11	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	125	160	1
Future Vol, veh/h	1	1	1	125	160	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	2	2	208	267	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	482	270	270	0	-	0
Stage 1	269	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	545	771	1254	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	770	1253	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.7	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1253	-	637	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	7.9	0	10.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

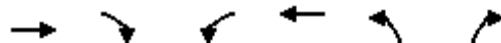
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	610	11	0	324	44	0	17	27	0	115	33
Intersection Summary												

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Future Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	478	11	82	242	44	1	16	27	44	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	490	0	0	1224	1194	480	1177	1161	244
Stage 1	-	-	-	-	-	-	743	743	-	407	407	-
Stage 2	-	-	-	-	-	-	481	451	-	770	754	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1247	-	-	1033	-	-	149	179	568	163	190	780
Stage 1	-	-	-	-	-	-	393	409	-	609	587	-
Stage 2	-	-	-	-	-	-	550	556	-	384	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1032	-	-	74	138	567	117	146	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	138	-	117	146	-
Stage 1	-	-	-	-	-	-	335	349	-	519	531	-
Stage 2	-	-	-	-	-	-	412	503	-	297	348	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			2			21.5			87.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	131	567	1246	-	-	1032	-	-	133	779		
HCM Lane V/C Ratio	0.134	0.048	0.106	-	-	0.08	-	-	0.868	0.042		
HCM Control Delay (s)	36.7	11.7	8.2	0	-	8.8	0	-	109.3	9.8		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	A		
HCM 95th %tile Q(veh)	0.5	0.2	0.4	-	-	0.3	-	-	5.6	0.1		

Volume

200: Suburban Drive & Grant Street

06/28/2019



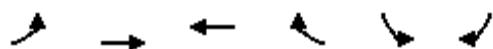
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	635	50	45	315	40	90
Future Volume (vph)	635	50	45	315	40	90
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	882	69	63	438	56	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	882	69	0	501	56	125
Intersection Summary						

Intersection						
Int Delay, s/veh	3.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	↗
Traffic Vol, veh/h	635	50	45	315	40	90
Future Vol, veh/h	635	50	45	315	40	90
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	882	69	63	438	56	125
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	952	0	1448	884
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	718	-	145	344
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	569	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	717	-	128	343
Mov Cap-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	357	-
Stage 2	-	-	-	-	568	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.3		31.2	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	128	343	-	-	717	-
HCM Lane V/C Ratio	0.434	0.364	-	-	0.087	-
HCM Control Delay (s)	53.1	21.4	-	-	10.5	0
HCM Lane LOS	F	C	-	-	B	A
HCM 95th %tile O(veh)	1.9	1.6	-	-	0.3	-

Volume

300: Grant Street & Apollo Way

06/28/2019

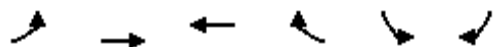


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	725	360	0	0	0
Future Volume (vph)	0	725	360	0	0	0
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	1007	500	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1007	500	0	0	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	725	360	0	0	0
Future Vol, veh/h	0	725	360	0	0	0
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	0	1007	500	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	501	0	-	0	1509	502
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	1008	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1048	-	-	-	133	571
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	354	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1047	-	-	-	133	570
Mov Cap-2 Maneuver	-	-	-	-	133	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	354	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1047	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile O(veh)	0	-	-	-	-	-

Volume
400: Grant Street & Allard Street

06/28/2019



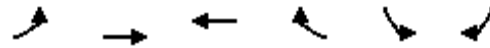
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	115	610	230	50	30	130
Future Volume (vph)	115	610	230	50	30	130
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	172	910	343	75	45	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1082	343	75	45	194
Intersection Summary						

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	115	610	230	50	30	130
Future Vol, veh/h	115	610	230	50	30	130
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	172	910	343	75	45	194
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	419	0	-	0	1599	345
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	1255	-
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	1124	-	-	-	117	698
Stage 1	-	-	-	-	718	-
Stage 2	-	-	-	-	268	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1123	-	-	-	81	697
Mov Cap-2 Maneuver	-	-	-	-	81	-
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	268	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.4	0		27.5		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1123	-	-	-	81	697
HCM Lane V/C Ratio	0.153	-	-	-	0.553	0.278
HCM Control Delay (s)	8.8	0	-	-	94.4	12.1
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	2.4	1.1

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	635	280	1	1	1
Future Volume (vph)	5	635	280	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	1008	444	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1016	444	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	635	280	1	1	1
Future Vol, veh/h	5	635	280	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1008	444	2	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	447	0	-	0	1470	446
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	1025	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1098	-	-	-	141	614
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	348	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1097	-	-	-	138	613
Mov Cap-2 Maneuver	-	-	-	-	138	-
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	348	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		21.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1097	-	-	-	225	
HCM Lane V/C Ratio	0.007	-	-	-	0.014	
HCM Control Delay (s)	8.3	0	-	-	21.2	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	300	335	10	230	50	25
Future Volume (vph)	300	335	10	230	50	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	476	532	16	365	79	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	476	532	0	381	79	40
Intersection Summary						

Intersection						
Int Delay, s/veh	1.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	335	10	230	50	25
Future Vol, veh/h	300	335	10	230	50	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	476	532	16	365	79	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1009	0	875	478
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	398	-
Critical Hdwy	-	-	4.16	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.254	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	671	-	321	589
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	670	-	311	588
Mov Cap-2 Maneuver	-	-	-	-	311	-
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	680	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		17.5	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	311	588	-	-	670	-
HCM Lane V/C Ratio	0.255	0.067	-	-	0.024	-
HCM Control Delay (s)	20.5	11.6	-	-	10.5	0
HCM Lane LOS	C	B	-	-	B	A
HCM 95th %tile Q(veh)	1	0.2	-	-	0.1	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	65	90	155	85	45
Future Volume (vph)	260	65	90	155	85	45
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	98	136	235	129	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	98	136	235	129	68
Intersection Summary						

Intersection						
Int Delay, s/veh	6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	260	65	90	155	85	45
Future Vol, veh/h	260	65	90	155	85	45
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	98	136	235	129	68
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	493	0	903	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	508	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1060	-	288	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1059	-	251	619
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	572	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.3		25.9	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	619	-	-	1059	-
HCM Lane V/C Ratio	0.513	0.11	-	-	0.129	-
HCM Control Delay (s)	33.5	11.5	-	-	8.9	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile O(veh)	2.7	0.4	-	-	0.4	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	55	30	175	15	70	5	105	1	1	1
Future Volume (vph)	1	250	55	30	175	15	70	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	72	39	230	20	92	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	402	0	0	289	0	0	237	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	55	30	175	15	70	5	105	1	1	1
Future Vol, veh/h	1	250	55	30	175	15	70	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	72	39	230	20	92	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	404	0	0	690	699	369	760	725	242
Stage 1	-	-	-	-	-	-	370	370	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	441	406	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1133	-	-	355	360	670	324	353	799
Stage 1	-	-	-	-	-	-	644	615	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	597	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1130	-	-	341	344	667	245	337	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	341	344	-	245	337	-
Stage 1	-	-	-	-	-	-	641	613	-	694	628	-
Stage 2	-	-	-	-	-	-	655	615	-	467	598	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			19.8			15.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	477	1268	-	-	1130	-	-	361				
HCM Lane V/C Ratio	0.497	0.001	-	-	0.035	-	-	0.011				
HCM Control Delay (s)	19.8	7.8	0	-	8.3	0	-	15.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2.7	0	-	-	0.1	-	-	0				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	85	35	1	10	20	95	5	1	15	35	1	55
Future Volume (vph)	85	35	1	10	20	95	5	1	15	35	1	55
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	127	52	1	15	30	142	7	1	22	52	1	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	0	0	187	0	0	30	0	0	135	0
Intersection Summary												

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	85	35	1	10	20	95	5	1	15	35	1	55
Future Vol, veh/h	85	35	1	10	20	95	5	1	15	35	1	55
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	127	52	1	15	30	142	7	1	22	52	1	82
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	173	0	0	54	0	0	482	511	55	451	440	103
Stage 1	-	-	-	-	-	-	308	308	-	132	132	-
Stage 2	-	-	-	-	-	-	174	203	-	319	308	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1410	-	-	1374	-	-	496	467	1015	520	513	955
Stage 1	-	-	-	-	-	-	704	662	-	874	789	-
Stage 2	-	-	-	-	-	-	830	735	-	695	662	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1409	-	-	1373	-	-	416	417	1013	466	459	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	416	417	-	466	459	-
Stage 1	-	-	-	-	-	-	638	600	-	792	779	-
Stage 2	-	-	-	-	-	-	747	725	-	614	600	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.5			0.6			10.2			11.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	719	1409	-	-	1373	-	-	674				
HCM Lane V/C Ratio	0.044	0.09	-	-	0.011	-	-	0.202				
HCM Control Delay (s)	10.2	7.8	0	-	7.7	0	-	11.7				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.7				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	35	100	35	5	25
Future Volume (vph)	50	35	100	35	5	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	44	127	44	6	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	0	171	6	32
Intersection Summary						

Intersection						
Int Delay, s/veh	6.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	35	100	35	5	25
Future Vol, veh/h	50	35	100	35	5	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	44	127	44	6	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	306	8	39	0	-	0
Stage 1	7	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	688	1077	1468	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	625	1075	1467	-	-	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.6	5.7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1467	-	755	-	-	
HCM Lane V/C Ratio	0.086	-	0.143	-	-	
HCM Control Delay (s)	7.7	0	10.6	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	0.5	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	190	105	1
Future Volume (vph)	1	1	1	190	105	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1	1	1	241	133	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	242	134	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	190	105	1
Future Vol, veh/h	1	1	1	190	105	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	1	1	241	133	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	379	136	135	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	625	915	1351	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	913	1350	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1350	-	741	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.7	0	9.9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	11	0	505	54	0	81	75	0	119	97
Intersection Summary												

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Future Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	269	11	70	435	54	11	70	75	81	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	281	0	0	1037	996	271	1020	953	437
Stage 1	-	-	-	-	-	-	366	366	-	576	576	-
Stage 2	-	-	-	-	-	-	671	630	-	444	377	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1048	-	-	1253	-	-	202	237	749	210	253	607
Stage 1	-	-	-	-	-	-	637	609	-	492	493	-
Stage 2	-	-	-	-	-	-	433	463	-	581	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1047	-	-	1252	-	-	133	206	748	126	220	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	206	-	126	220	-
Stage 1	-	-	-	-	-	-	602	576	-	465	455	-
Stage 2	-	-	-	-	-	-	308	427	-	434	572	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			1			24			55.4		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	192	748	1047	-	-	1252	-	-	146	606		
HCM Lane V/C Ratio	0.42	0.101	0.046	-	-	0.056	-	-	0.81	0.16		
HCM Control Delay (s)	36.7	10.4	8.6	0	-	8	0	-	90.9	12.1		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	B		
HCM 95th %tile Q(veh)	1.9	0.3	0.1	-	-	0.2	-	-	5.1	0.6		

Volume

200: Suburban Drive & Grant Street

06/28/2019



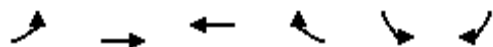
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	310	80	70	470	40	85
Future Volume (vph)	310	80	70	470	40	85
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	360	93	81	547	47	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	93	0	628	47	99
Intersection Summary						

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	310	80	70	470	40	85
Future Vol, veh/h	310	80	70	470	40	85
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	360	93	81	547	47	99
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	1083	374
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	717	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1086	-	239	670
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1080	-	210	661
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	478	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		16.4	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	210	661	-	-	1080	-
HCM Lane V/C Ratio	0.221	0.15	-	-	0.075	-
HCM Control Delay (s)	27	11.4	-	-	8.6	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0.5	-	-	0.2	-

Volume

300: Grant Street & Apollo Way

06/28/2019



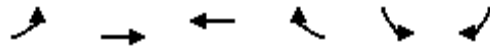
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	395	540	0	0	0
Future Volume (vph)	0	395	540	0	0	0
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	459	628	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	459	628	0	0	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	395	540	0	0	0
Future Vol, veh/h	0	395	540	0	0	0
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	0	459	628	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	631	0	-	0	1091	632
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	460	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	923	-	-	-	238	480
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	636	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	920	-	-	-	237	478
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	634	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	920	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	-

Volume

400: Grant Street & Allard Street

06/28/2019



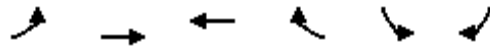
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	125	270	380	70	45	160
Future Volume (vph)	125	270	380	70	45	160
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	151	325	458	84	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	476	458	84	54	193
Intersection Summary						

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	125	270	380	70	45	160
Future Vol, veh/h	125	270	380	70	45	160
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	151	325	458	84	54	193
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	545	0	-	0	1089	462
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	628	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	995	-	-	-	240	602
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	534	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	992	-	-	-	194	600
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	532	-
Approach	EB	WB		SB		
HCM Control Delay, s	2.9	0		17.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	992	-	-	-	194	600
HCM Lane V/C Ratio	0.152	-	-	-	0.279	0.321
HCM Control Delay (s)	9.3	0	-	-	30.6	13.8
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	1.1	1.4

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	315	435	1	1	15
Future Volume (vph)	1	315	435	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	470	649	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	471	649	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	315	435	1	1	15
Future Vol, veh/h	1	315	435	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	470	649	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	654	0	-	0	1126	663
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	473	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	905	-	-	-	228	463
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	629	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	902	-	-	-	226	457
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	626	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.9		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	902	-	-	-	430	
HCM Lane V/C Ratio	0.002	-	-	-	0.056	
HCM Control Delay (s)	9	0	-	-	13.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Volume
600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	280	35	5	335	100	65
Future Volume (vph)	280	35	5	335	100	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	418	52	7	500	149	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	52	0	507	149	97
Intersection Summary						

Intersection

Int Delay, s/veh 4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↗	↖
Traffic Vol, veh/h	280	35	5	335	100	65
Future Vol, veh/h	280	35	5	335	100	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	418	52	7	500	149	97

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	473
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	1058
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1055
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	23.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	286	632	-	-	1055	-
HCM Lane V/C Ratio	0.522	0.154	-	-	0.007	-
HCM Control Delay (s)	30.5	11.7	-	-	8.4	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	2.8	0.5	-	-	0	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	5	1	245	95	35
Future Volume (vph)	340	5	1	245	95	35
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	7	1	340	132	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	7	1	340	132	49
Intersection Summary						

Intersection

Int Delay, s/veh 3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	340	5	1	245	95	35
Future Vol, veh/h	340	5	1	245	95	35
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	7	1	340	132	49

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	485
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1068
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1062
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	323	555	-	-	1062	-
HCM Lane V/C Ratio	0.408	0.088	-	-	0.001	-
HCM Control Delay (s)	23.6	12.1	-	-	8.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	1.9	0.3	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Future Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	79	85	226	6	49	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	0	0	317	0	0	141	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	295	65	70	185	5	40	1	75	25	1	20
Future Vol, veh/h	15	295	65	70	185	5	40	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	79	85	226	6	49	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	449	0	0	864	852	411	886	888	239
Stage 1	-	-	-	-	-	-	446	446	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	483	485	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1101	-	-	274	297	641	266	284	802
Stage 1	-	-	-	-	-	-	591	574	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	567	553	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1091	-	-	239	262	634	207	250	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	239	262	-	207	250	-
Stage 1	-	-	-	-	-	-	575	558	-	612	545	-
Stage 2	-	-	-	-	-	-	536	542	-	475	538	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.3			18.8			19.3		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	401	1314	-	-	1091	-	-	307				
HCM Lane V/C Ratio	0.353	0.014	-	-	0.078	-	-	0.183				
HCM Control Delay (s)	18.8	7.8	0	-	8.6	0	-	19.3				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile O(veh)	1.6	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Future Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	114	35	26	26	105	44	9	2	26	123	2	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	0	0	175	0	0	37	0	0	230	0
Intersection Summary												

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	65	20	15	15	60	25	5	1	15	70	1	60
Future Vol, veh/h	65	20	15	15	60	25	5	1	15	70	1	60
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	114	35	26	26	105	44	9	2	26	123	2	105
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	64	0	0	520	486	52	476	477	141
Stage 1	-	-	-	-	-	-	279	279	-	185	185	-
Stage 2	-	-	-	-	-	-	241	207	-	291	292	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1419	-	-	1532	-	-	462	477	1007	501	489	910
Stage 1	-	-	-	-	-	-	721	674	-	819	749	-
Stage 2	-	-	-	-	-	-	756	725	-	719	673	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1528	-	-	371	425	1003	445	436	898
Mov Cap-2 Maneuver	-	-	-	-	-	-	371	425	-	445	436	-
Stage 1	-	-	-	-	-	-	658	615	-	746	730	-
Stage 2	-	-	-	-	-	-	648	707	-	639	614	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.1			1.1			10.6			15.3		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	682	1411	-	-	1528	-	-	579				
HCM Lane V/C Ratio	0.054	0.081	-	-	0.017	-	-	0.397				
HCM Control Delay (s)	10.6	7.8	0	-	7.4	0	-	15.3				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.1	-	-	1.9				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	75	35	35	60	65
Future Volume (vph)	30	75	35	35	60	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	125	58	58	100	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	175	0	0	116	100	108
Intersection Summary						

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	75	35	35	60	65
Future Vol, veh/h	30	75	35	35	60	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	125	58	58	100	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	276	102	209	0	-	0
Stage 1	101	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	705	942	1321	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	672	940	1320	-	-	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	3.9		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1320	-	844	-	-	
HCM Lane V/C Ratio	0.044	-	0.207	-	-	
HCM Control Delay (s)	7.9	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	125	160	1
Future Vol, veh/h	1	1	1	125	160	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	2	2	208	267	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	482	270	270	0	-	0
Stage 1	269	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	545	771	1254	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	770	1253	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.7	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1253	-	637	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	7.9	0	10.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

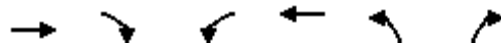
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	610	11	0	324	44	0	17	27	0	115	33
Intersection Summary												

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Future Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	478	11	82	242	44	1	16	27	44	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	490	0	0	1224	1194	480	1177	1161	244
Stage 1	-	-	-	-	-	-	743	743	-	407	407	-
Stage 2	-	-	-	-	-	-	481	451	-	770	754	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1247	-	-	1033	-	-	149	179	568	163	190	780
Stage 1	-	-	-	-	-	-	393	409	-	609	587	-
Stage 2	-	-	-	-	-	-	550	556	-	384	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1032	-	-	74	138	567	117	146	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	138	-	117	146	-
Stage 1	-	-	-	-	-	-	335	349	-	519	531	-
Stage 2	-	-	-	-	-	-	412	503	-	297	348	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			2			21.5			87.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	131	567	1246	-	-	1032	-	-	133	779		
HCM Lane V/C Ratio	0.134	0.048	0.106	-	-	0.08	-	-	0.868	0.042		
HCM Control Delay (s)	36.7	11.7	8.2	0	-	8.8	0	-	109.3	9.8		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	A		
HCM 95th %tile Q(veh)	0.5	0.2	0.4	-	-	0.3	-	-	5.6	0.1		

Volume

200: Suburban Drive & Grant Street

06/28/2019



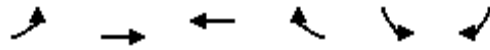
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	655	50	80	315	40	155
Future Volume (vph)	655	50	80	315	40	155
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	910	69	111	438	56	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	910	69	0	549	56	215
Intersection Summary						

Intersection						
Int Delay, s/veh	7.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	655	50	80	315	40	155
Future Vol, veh/h	655	50	80	315	40	155
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	910	69	111	438	56	215
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	980	0	1572	912
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	661	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	700	-	121	332
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	699	-	95	331
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	513	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.3		44.7	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	95	331	-	-	699	-
HCM Lane V/C Ratio	0.585	0.65	-	-	0.159	-
HCM Control Delay (s)	86.2	34	-	-	11.1	0
HCM Lane LOS	F	D	-	-	B	A
HCM 95th %tile Q(veh)	2.7	4.3	-	-	0.6	-

Volume

300: Grant Street & Apollo Way

06/28/2019

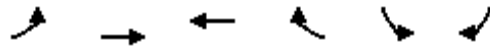


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	70	740	365	20	5	30
Future Volume (vph)	70	740	365	20	5	30
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	97	1028	507	28	7	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1125	507	28	7	42
Intersection Summary						

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↖	↗
Traffic Vol, veh/h	70	740	365	20	5	30
Future Vol, veh/h	70	740	365	20	5	30
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	97	1028	507	28	7	42
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	536	0	-	0	1731	509
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	1223	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1017	-	-	-	97	566
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	279	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1016	-	-	-	75	565
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	279	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		18.5		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1016	-	-	-	75	565
HCM Lane V/C Ratio	0.096	-	-	-	0.093	0.074
HCM Control Delay (s)	8.9	0	-	-	57.8	11.9
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile O(veh)	0.3	-	-	-	0.3	0.2

Volume
400: Grant Street & Allard Street

06/28/2019



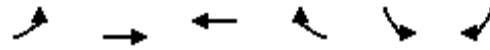
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	45	700	285	30	25	100
Future Volume (vph)	45	700	285	30	25	100
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	67	1045	425	45	37	149
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1112	425	45	37	149
Intersection Summary						

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	700	285	30	25	100
Future Vol, veh/h	45	700	285	30	25	100
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	67	1045	425	45	37	149
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	471	0	-	0	1606	427
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	1180	-
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	1075	-	-	-	116	628
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	292	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1074	-	-	-	98	627
Mov Cap-2 Maneuver	-	-	-	-	98	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	292	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		22.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1074	-	-	-	98	627
HCM Lane V/C Ratio	0.063	-	-	-	0.381	0.238
HCM Control Delay (s)	8.6	0	-	-	62.7	12.5
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5	0.9

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	720	315	1	1	1
Future Volume (vph)	5	720	315	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	1143	500	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1151	500	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	720	315	1	1	1
Future Vol, veh/h	5	720	315	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1143	500	2	2	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	503	0	-	0	1661	502
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	1160	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1046	-	-	-	108	571
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	300	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1045	-	-	-	106	570
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	300	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		25.5		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1045	-	-	-	179	
HCM Lane V/C Ratio	0.008	-	-	-	0.018	
HCM Control Delay (s)	8.5	0	-	-	25.5	
HCM Lane LOS	A	A	-	-	D	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Volume
600: West D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	305	415	20	250	65	25
Future Volume (vph)	305	415	20	250	65	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	484	659	32	397	103	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	484	659	0	429	103	40
Intersection Summary						

Intersection						
Int Delay, s/veh	2.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	305	415	20	250	65	25
Future Vol, veh/h	305	415	20	250	65	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	484	659	32	397	103	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1144	0	947	486
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	462	-
Critical Hdwy	-	-	4.16	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.254	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	596	-	291	583
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	636	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	595	-	270	582
Mov Cap-2 Maneuver	-	-	-	-	270	-
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	635	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		22.2	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	270	582	-	-	595	-
HCM Lane V/C Ratio	0.382	0.068	-	-	0.053	-
HCM Control Delay (s)	26.3	11.6	-	-	11.4	0
HCM Lane LOS	D	B	-	-	B	A
HCM 95th %tile Q(veh)	1.7	0.2	-	-	0.2	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	70	100	165	105	70
Future Volume (vph)	260	70	100	165	105	70
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	106	152	250	159	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	106	152	250	159	106
Intersection Summary						

Intersection						
Int Delay, s/veh	9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	260	70	100	165	105	70
Future Vol, veh/h	260	70	100	165	105	70
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	106	152	250	159	106
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	501	0	950	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	555	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1053	-	270	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	544	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1052	-	231	619
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	543	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.4		34.3	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	231	619	-	-	1052	-
HCM Lane V/C Ratio	0.689	0.171	-	-	0.144	-
HCM Control Delay (s)	49.2	12	-	-	9	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	4.4	0.6	-	-	0.5	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	80	30	175	15	90	5	105	1	1	1
Future Volume (vph)	1	250	80	30	175	15	90	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	105	39	230	20	118	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	435	0	0	289	0	0	263	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	250	80	30	175	15	90	5	105	1	1	1
Future Vol, veh/h	1	250	80	30	175	15	90	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	105	39	230	20	118	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	437	0	0	707	716	386	776	758	242
Stage 1	-	-	-	-	-	-	387	387	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	457	439	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1102	-	-	346	352	655	316	338	799
Stage 1	-	-	-	-	-	-	631	604	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	585	580	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1099	-	-	332	336	653	237	322	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	332	336	-	237	322	-
Stage 1	-	-	-	-	-	-	628	602	-	694	627	-
Stage 2	-	-	-	-	-	-	654	614	-	455	578	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			23.8			15.4		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	448	1268	-	-	1099	-	-	350				
HCM Lane V/C Ratio	0.587	0.001	-	-	0.036	-	-	0.011				
HCM Control Delay (s)	23.8	7.8	0	-	8.4	0	-	15.4				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	3.7	0	-	-	0.1	-	-	0				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Future Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	52	1	15	30	0	7	0	22	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	45	0	0	29	0	0	0	0
Intersection Summary												

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	0	35	1	10	20	0	5	0	15	0	0	0
Future Vol, veh/h	0	35	1	10	20	0	5	0	15	0	0	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	0	52	1	15	30	0	7	0	22	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	54	0	0	115	115	55	126	115	32
Stage 1	-	-	-	-	-	-	54	54	-	61	61	-
Stage 2	-	-	-	-	-	-	61	61	-	65	54	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1588	-	-	1374	-	-	864	777	1015	850	777	1045
Stage 1	-	-	-	-	-	-	961	852	-	953	846	-
Stage 2	-	-	-	-	-	-	953	846	-	948	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1373	-	-	855	767	1013	823	767	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	767	-	823	767	-
Stage 1	-	-	-	-	-	-	960	851	-	952	836	-
Stage 2	-	-	-	-	-	-	942	836	-	926	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.6			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	968	1586	-	-	1373	-	-	-				
HCM Lane V/C Ratio	0.031	-	-	-	0.011	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	7.7	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	1	5	130	60	25
Future Volume (vph)	50	1	5	130	60	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	1	6	165	76	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	171	76	32
Intersection Summary						

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	1	5	130	60	25
Future Vol, veh/h	50	1	5	130	60	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	1	6	165	76	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	255	78	109	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	736	985	1382	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	731	983	1381	-	-	-
Mov Cap-2 Maneuver	731	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1381	-	735	-	-	
HCM Lane V/C Ratio	0.005	-	0.088	-	-	
HCM Control Delay (s)	7.6	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	30	75	200	110	1
Future Volume (vph)	1	30	75	200	110	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1	38	95	253	139	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	0	0	348	140	0
Intersection Summary						

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	30	75	200	110	1
Future Vol, veh/h	1	30	75	200	110	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	38	95	253	139	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	585	142	141	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	475	908	1344	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	435	906	1343	-	-	-
Mov Cap-2 Maneuver	435	-	-	-	-	-
Stage 1	814	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	2.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1343	-	875	-	-	
HCM Lane V/C Ratio	0.071	-	0.045	-	-	
HCM Control Delay (s)	7.9	0	9.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	11	0	505	54	0	81	75	0	119	97
Intersection Summary												

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Future Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	269	11	70	435	54	11	70	75	81	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	281	0	0	1037	996	271	1020	953	437
Stage 1	-	-	-	-	-	-	366	366	-	576	576	-
Stage 2	-	-	-	-	-	-	671	630	-	444	377	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1048	-	-	1253	-	-	202	237	749	210	253	607
Stage 1	-	-	-	-	-	-	637	609	-	492	493	-
Stage 2	-	-	-	-	-	-	433	463	-	581	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1047	-	-	1252	-	-	133	206	748	126	220	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	206	-	126	220	-
Stage 1	-	-	-	-	-	-	602	576	-	465	455	-
Stage 2	-	-	-	-	-	-	308	427	-	434	572	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			1			24			55.4		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	192	748	1047	-	-	1252	-	-	146	606		
HCM Lane V/C Ratio	0.42	0.101	0.046	-	-	0.056	-	-	0.81	0.16		
HCM Control Delay (s)	36.7	10.4	8.6	0	-	8	0	-	90.9	12.1		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	B		
HCM 95th %tile Q(veh)	1.9	0.3	0.1	-	-	0.2	-	-	5.1	0.6		

Volume

200: Suburban Drive & Grant Street

06/28/2019



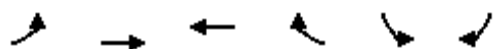
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	330	80	125	490	40	150
Future Volume (vph)	330	80	125	490	40	150
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	384	93	145	570	47	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	93	0	715	47	174
Intersection Summary						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	330	80	125	490	40	150
Future Vol, veh/h	330	80	125	490	40	150
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	384	93	145	570	47	174
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	483	0	1258	398
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	868	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1064	-	188	649
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	409	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1058	-	148	640
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	406	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		18.5	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	148	640	-	-	1058	-
HCM Lane V/C Ratio	0.314	0.273	-	-	0.137	-
HCM Control Delay (s)	40.1	12.7	-	-	8.9	0
HCM Lane LOS	E	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	1.1	-	-	0.5	-

Volume

300: Grant Street & Apollo Way

06/28/2019



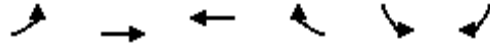
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	75	405	575	30	5	40
Future Volume (vph)	75	405	575	30	5	40
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	87	471	669	35	6	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	558	669	35	6	47
Intersection Summary						

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	405	575	30	5	40
Future Vol, veh/h	75	405	575	30	5	40
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	87	471	669	35	6	47
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	707	0	-	0	1318	673
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	646	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	864	-	-	-	173	455
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	862	-	-	-	148	453
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	520	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		15.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	862	-	-	-	148	453
HCM Lane V/C Ratio	0.101	-	-	-	0.039	0.103
HCM Control Delay (s)	9.6	0	-	-	30.3	13.9
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.3

Volume

400: Grant Street & Allard Street

06/28/2019



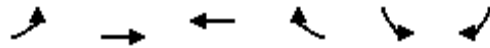
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	50	360	485	40	40	120
Future Volume (vph)	50	360	485	40	40	120
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	60	434	584	48	48	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	494	584	48	48	145
Intersection Summary						

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	360	485	40	40	120
Future Vol, veh/h	50	360	485	40	40	120
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	60	434	584	48	48	145
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	635	0	-	0	1142	588
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	555	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	920	-	-	-	223	511
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	203	509
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	575	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		18.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	917	-	-	-	203	509
HCM Lane V/C Ratio	0.066	-	-	-	0.237	0.284
HCM Control Delay (s)	9.2	0	-	-	28.2	14.9
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	1.2

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	400	510	1	1	15
Future Volume (vph)	1	400	510	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	597	761	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	598	761	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	400	510	1	1	15
Future Vol, veh/h	1	400	510	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	597	761	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	766	0	-	0	1365	775
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	600	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	821	-	-	-	163	400
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	818	-	-	-	161	395
Mov Cap-2 Maneuver	-	-	-	-	161	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	548	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		15.6		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	818	-	-	-	362	
HCM Lane V/C Ratio	0.002	-	-	-	0.066	
HCM Control Delay (s)	9.4	0	-	-	15.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Volume
600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	285	115	10	385	125	65
Future Volume (vph)	285	115	10	385	125	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	425	172	15	575	187	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	425	172	0	590	187	97
Intersection Summary						

Intersection						
Int Delay, s/veh	7.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	285	115	10	385	125	65
Future Vol, veh/h	285	115	10	385	125	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	425	172	15	575	187	97
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	600	0	1043	429
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	615	-
Critical Hdwy	-	-	4.18	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.272	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	948	-	255	628
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	541	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	945	-	246	626
Mov Cap-2 Maneuver	-	-	-	-	246	-
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	536	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.2		39.8	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	246	626	-	-	945	-
HCM Lane V/C Ratio	0.758	0.155	-	-	0.016	-
HCM Control Delay (s)	54.4	11.8	-	-	8.9	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	5.4	0.5	-	-	0	-

Volume

700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	10	5	250	145	65
Future Volume (vph)	340	10	5	250	145	65
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	14	7	347	201	90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	14	7	347	201	90
Intersection Summary						

Intersection

Int Delay, s/veh 7.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	340	10	5	250	145	65
Future Vol, veh/h	340	10	5	250	145	65
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	14	7	347	201	90

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	492
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1061
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1055
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	28.2
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	313	555	-	-	1055	-
HCM Lane V/C Ratio	0.643	0.163	-	-	0.007	-
HCM Control Delay (s)	35.1	12.7	-	-	8.4	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	4.2	0.6	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	95	70	185	5	50	1	75	25	1	20
Future Volume (vph)	15	295	95	70	185	5	50	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	116	85	226	6	61	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	494	0	0	317	0	0	153	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	295	95	70	185	5	50	1	75	25	1	20
Future Vol, veh/h	15	295	95	70	185	5	50	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	116	85	226	6	61	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	486	0	0	882	870	429	904	925	239
Stage 1	-	-	-	-	-	-	464	464	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	501	522	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1067	-	-	267	290	626	259	270	802
Stage 1	-	-	-	-	-	-	578	564	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	554	533	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1057	-	-	233	255	619	200	237	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	255	-	200	237	-
Stage 1	-	-	-	-	-	-	562	548	-	612	543	-
Stage 2	-	-	-	-	-	-	534	541	-	462	518	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.3			21.4			19.9		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	371	1314	-	-	1057	-	-	298				
HCM Lane V/C Ratio	0.414	0.014	-	-	0.081	-	-	0.188				
HCM Control Delay (s)	21.4	7.8	0	-	8.7	0	-	19.9				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Future Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	35	26	26	105	0	9	0	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	131	0	0	35	0	0	0	0
Intersection Summary												

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	0	20	15	15	60	0	5	0	15	0	0	0
Future Vol, veh/h	0	20	15	15	60	0	5	0	15	0	0	0
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	0	35	26	26	105	0	9	0	26	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	64	0	0	216	214	52	225	227	119
Stage 1	-	-	-	-	-	-	51	51	-	163	163	-
Stage 2	-	-	-	-	-	-	165	163	-	62	64	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1473	-	-	1532	-	-	734	678	1007	733	674	935
Stage 1	-	-	-	-	-	-	954	846	-	841	765	-
Stage 2	-	-	-	-	-	-	830	758	-	952	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1528	-	-	716	660	1003	699	656	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	660	-	699	656	-
Stage 1	-	-	-	-	-	-	951	843	-	836	747	-
Stage 2	-	-	-	-	-	-	809	740	-	926	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			9.1			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	912	1465	-	-	1528	-	-	-				
HCM Lane V/C Ratio	0.038	-	-	-	0.017	-	-	-				
HCM Control Delay (s)	9.1	0	-	-	7.4	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	5	10	60	135	65
Future Volume (vph)	30	5	10	60	135	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	8	17	100	225	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	0	117	225	108
Intersection Summary						

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	5	10	60	135	65
Future Vol, veh/h	30	5	10	60	135	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	8	17	100	225	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	361	227	334	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	630	802	1187	-	-	-
Stage 1	802	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	619	800	1186	-	-	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.2	1.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1186	-	640	-	-	
HCM Lane V/C Ratio	0.014	-	0.091	-	-	
HCM Control Delay (s)	8.1	0	11.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	45	15	125	165	1
Future Volume (vph)	1	45	15	125	165	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	75	25	208	275	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	0	233	277	0
Intersection Summary						

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	45	15	125	165	1
Future Vol, veh/h	1	45	15	125	165	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	75	25	208	275	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	536	278	278	0	-	0
Stage 1	277	-	-	-	-	-
Stage 2	259	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	507	763	1246	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	494	762	1245	-	-	-
Mov Cap-2 Maneuver	494	-	-	-	-	-
Stage 1	753	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.3	0.9		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1245	-	753	-	-	
HCM Lane V/C Ratio	0.02	-	0.102	-	-	
HCM Control Delay (s)	8	0	10.3	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

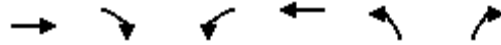
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	610	11	0	324	44	0	17	27	0	115	33
Intersection Summary												

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Future Vol, veh/h	120	435	10	75	220	40	1	15	25	40	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	478	11	82	242	44	1	16	27	44	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	490	0	0	1224	1194	480	1177	1161	244
Stage 1	-	-	-	-	-	-	743	743	-	407	407	-
Stage 2	-	-	-	-	-	-	481	451	-	770	754	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1247	-	-	1033	-	-	149	179	568	163	190	780
Stage 1	-	-	-	-	-	-	393	409	-	609	587	-
Stage 2	-	-	-	-	-	-	550	556	-	384	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1246	-	-	1032	-	-	74	138	567	117	146	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	138	-	117	146	-
Stage 1	-	-	-	-	-	-	335	349	-	519	531	-
Stage 2	-	-	-	-	-	-	412	503	-	297	348	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7			2			21.5			87.2		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	131	567	1246	-	-	1032	-	-	133	779		
HCM Lane V/C Ratio	0.134	0.048	0.106	-	-	0.08	-	-	0.868	0.042		
HCM Control Delay (s)	36.7	11.7	8.2	0	-	8.8	0	-	109.3	9.8		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	A		
HCM 95th %tile Q(veh)	0.5	0.2	0.4	-	-	0.3	-	-	5.6	0.1		

Volume

200: Suburban Drive & Grant Street

06/28/2019



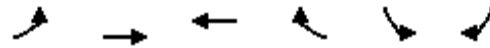
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	655	50	80	315	40	155
Future Volume (vph)	655	50	80	315	40	155
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	910	69	111	438	56	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	910	69	0	549	56	215
Intersection Summary						

Intersection						
Int Delay, s/veh	7.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	655	50	80	315	40	155
Future Vol, veh/h	655	50	80	315	40	155
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	910	69	111	438	56	215
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	980	0	1572	912
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	661	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	700	-	121	332
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	699	-	95	331
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	513	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.3		44.7	
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	95	331	-	-	699	-
HCM Lane V/C Ratio	0.585	0.65	-	-	0.159	-
HCM Control Delay (s)	86.2	34	-	-	11.1	0
HCM Lane LOS	F	D	-	-	B	A
HCM 95th %tile Q(veh)	2.7	4.3	-	-	0.6	-

Volume

300: Grant Street & Apollo Way

06/28/2019

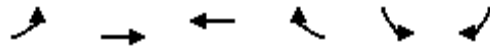


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	70	740	365	20	5	30
Future Volume (vph)	70	740	365	20	5	30
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	97	1028	507	28	7	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1125	507	28	7	42
Intersection Summary						

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	740	365	20	5	30
Future Vol, veh/h	70	740	365	20	5	30
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	1	1
Mvmt Flow	97	1028	507	28	7	42
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	536	0	-	0	1731	509
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	1223	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1017	-	-	-	97	566
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	279	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1016	-	-	-	75	565
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	279	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		18.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1016	-	-	-	75	565
HCM Lane V/C Ratio	0.096	-	-	-	0.093	0.074
HCM Control Delay (s)	8.9	0	-	-	57.8	11.9
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.3	0.2

Volume
400: Grant Street & Allard Street

06/28/2019



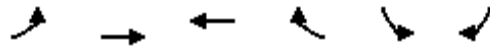
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	45	700	285	30	25	100
Future Volume (vph)	45	700	285	30	25	100
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	67	1045	425	45	37	149
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1112	425	45	37	149
Intersection Summary						

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↗	↖	↗
Traffic Vol, veh/h	45	700	285	30	25	100
Future Vol, veh/h	45	700	285	30	25	100
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	5	5	4	4	2	2
Mvmt Flow	67	1045	425	45	37	149
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	471	0	-	0	1606	427
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	1180	-
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	1075	-	-	-	116	628
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	292	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1074	-	-	-	98	627
Mov Cap-2 Maneuver	-	-	-	-	98	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	292	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		22.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1074	-	-	-	98	627
HCM Lane V/C Ratio	0.063	-	-	-	0.381	0.238
HCM Control Delay (s)	8.6	0	-	-	62.7	12.5
HCM Lane LOS	A	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5	0.9

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	720	315	1	1	1
Future Volume (vph)	5	720	315	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	1143	500	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1151	500	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	720	315	1	1	1
Future Vol, veh/h	5	720	315	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1143	500	2	2	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	503	0	-	0	1661	502
Stage 1	-	-	-	-	501	-
Stage 2	-	-	-	-	1160	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1046	-	-	-	108	571
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	300	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1045	-	-	-	106	570
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	300	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		25.5		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1045	-	-	-	179	
HCM Lane V/C Ratio	0.008	-	-	-	0.018	
HCM Control Delay (s)	8.5	0	-	-	25.5	
HCM Lane LOS	A	A	-	-	D	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Volume
600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	305	415	60	250	65	25
Future Volume (vph)	305	415	60	250	65	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	484	659	95	397	103	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	484	659	0	492	103	40
Intersection Summary						

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	305	415	60	250	65	25
Future Vol, veh/h	305	415	60	250	65	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	484	659	95	397	103	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1144	0	1073	486
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	-	-	4.16	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.254	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	596	-	245	583
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	557	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	595	-	194	582
Mov Cap-2 Maneuver	-	-	-	-	194	-
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	556	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		34.2	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	194	582	-	-	595	-
HCM Lane V/C Ratio	0.532	0.068	-	-	0.16	-
HCM Control Delay (s)	42.9	11.6	-	-	12.2	0
HCM Lane LOS	E	B	-	-	B	A
HCM 95th %tile Q(veh)	2.7	0.2	-	-	0.6	-

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	70	135	205	105	70
Future Volume (vph)	260	70	135	205	105	70
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	106	205	311	159	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	106	205	311	159	106
Intersection Summary						

Intersection						
Int Delay, s/veh	15.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	260	70	135	205	105	70
Future Vol, veh/h	260	70	135	205	105	70
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	106	205	311	159	106
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	501	0	1117	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	722	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1053	-	214	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	453	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1052	-	172	619
Mov Cap-2 Maneuver	-	-	-	-	172	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	453	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.7		67.1	
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	172	619	-	-	1052	-
HCM Lane V/C Ratio	0.925	0.171	-	-	0.194	-
HCM Control Delay (s)	103.9	12	-	-	9.2	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile O(veh)	7	0.6	-	-	0.7	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	80	30	175	15	165	5	105	1	1	1
Future Volume (vph)	1	250	80	30	175	15	165	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	105	39	230	20	217	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	435	0	0	289	0	0	362	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	17.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	80	30	175	15	165	5	105	1	1	1
Future Vol, veh/h	1	250	80	30	175	15	165	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	105	39	230	20	217	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	437	0	0	707	716	386	776	758	242
Stage 1	-	-	-	-	-	-	387	387	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	457	439	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1102	-	-	346	352	655	316	338	799
Stage 1	-	-	-	-	-	-	631	604	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	585	580	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1099	-	-	332	336	653	237	322	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	332	336	-	237	322	-
Stage 1	-	-	-	-	-	-	628	602	-	694	627	-
Stage 2	-	-	-	-	-	-	654	614	-	455	578	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			52.5			15.4		
HCM LOS							F			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	409	1268	-	-	1099	-	-	350				
HCM Lane V/C Ratio	0.885	0.001	-	-	0.036	-	-	0.011				
HCM Control Delay (s)	52.5	7.8	0	-	8.4	0	-	15.4				
HCM Lane LOS	F	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	9.1	0	-	-	0.1	-	-	0				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Future Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	52	1	15	30	0	7	0	22	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	45	0	0	29	0	0	0	0
Intersection Summary												

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	0	35	1	10	20	0	5	0	15	0	0	0
Future Vol, veh/h	0	35	1	10	20	0	5	0	15	0	0	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	0	52	1	15	30	0	7	0	22	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	54	0	0	115	115	55	126	115	32
Stage 1	-	-	-	-	-	-	54	54	-	61	61	-
Stage 2	-	-	-	-	-	-	61	61	-	65	54	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1588	-	-	1374	-	-	864	777	1015	850	777	1045
Stage 1	-	-	-	-	-	-	961	852	-	953	846	-
Stage 2	-	-	-	-	-	-	953	846	-	948	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1373	-	-	855	767	1013	823	767	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	767	-	823	767	-
Stage 1	-	-	-	-	-	-	960	851	-	952	836	-
Stage 2	-	-	-	-	-	-	942	836	-	926	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.6			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	968	1586	-	-	1373	-	-	-				
HCM Lane V/C Ratio	0.031	-	-	-	0.011	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	7.7	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	1	5	130	60	25
Future Volume (vph)	50	1	5	130	60	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	1	6	165	76	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	171	76	32
Intersection Summary						

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	1	5	130	60	25
Future Vol, veh/h	50	1	5	130	60	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	1	6	165	76	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	255	78	109	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	736	985	1382	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	731	983	1381	-	-	-
Mov Cap-2 Maneuver	731	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	0.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1381	-	735	-	-	
HCM Lane V/C Ratio	0.005	-	0.088	-	-	
HCM Control Delay (s)	7.6	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	30	1	275	110	1
Future Volume (vph)	1	30	1	275	110	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1	38	1	348	139	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	0	0	349	140	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	30	1	275	110	1
Future Vol, veh/h	1	30	1	275	110	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	38	1	348	139	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	492	142	141	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	351	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	538	908	1344	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	906	1343	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	714	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1343	-	886	-	-	
HCM Lane V/C Ratio	0.001	-	0.044	-	-	
HCM Control Delay (s)	7.7	0	9.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	317	11	0	505	54	0	81	75	0	119	97
Intersection Summary												

Intersection												
Int Delay, s/veh	13.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Future Vol, veh/h	45	250	10	65	405	50	10	65	70	75	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	269	11	70	435	54	11	70	75	81	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	490	0	0	281	0	0	1037	996	271	1020	953	437
Stage 1	-	-	-	-	-	-	366	366	-	576	576	-
Stage 2	-	-	-	-	-	-	671	630	-	444	377	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1048	-	-	1253	-	-	202	237	749	210	253	607
Stage 1	-	-	-	-	-	-	637	609	-	492	493	-
Stage 2	-	-	-	-	-	-	433	463	-	581	605	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1047	-	-	1252	-	-	133	206	748	126	220	606
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	206	-	126	220	-
Stage 1	-	-	-	-	-	-	602	576	-	465	455	-
Stage 2	-	-	-	-	-	-	308	427	-	434	572	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			1			24			55.4		
HCM LOS							C			F		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	192	748	1047	-	-	1252	-	-	146	606		
HCM Lane V/C Ratio	0.42	0.101	0.046	-	-	0.056	-	-	0.81	0.16		
HCM Control Delay (s)	36.7	10.4	8.6	0	-	8	0	-	90.9	12.1		
HCM Lane LOS	E	B	A	A	-	A	A	-	F	B		
HCM 95th %tile Q(veh)	1.9	0.3	0.1	-	-	0.2	-	-	5.1	0.6		

Volume

200: Suburban Drive & Grant Street

06/28/2019



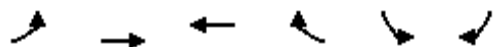
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	330	80	125	490	40	150
Future Volume (vph)	330	80	125	490	40	150
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	384	93	145	570	47	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	384	93	0	715	47	174
Intersection Summary						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	330	80	125	490	40	150
Future Vol, veh/h	330	80	125	490	40	150
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	384	93	145	570	47	174
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	483	0	1258	398
Stage 1	-	-	-	-	390	-
Stage 2	-	-	-	-	868	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1064	-	188	649
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	409	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1058	-	148	640
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	406	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		18.5	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	148	640	-	-	1058	-
HCM Lane V/C Ratio	0.314	0.273	-	-	0.137	-
HCM Control Delay (s)	40.1	12.7	-	-	8.9	0
HCM Lane LOS	E	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	1.1	-	-	0.5	-

Volume

300: Grant Street & Apollo Way

06/28/2019

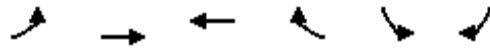


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	75	405	575	30	5	40
Future Volume (vph)	75	405	575	30	5	40
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	87	471	669	35	6	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	558	669	35	6	47
Intersection Summary						

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	↕
Traffic Vol, veh/h	75	405	575	30	5	40
Future Vol, veh/h	75	405	575	30	5	40
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	87	471	669	35	6	47
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	707	0	-	0	1318	673
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	646	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	864	-	-	-	173	455
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	862	-	-	-	148	453
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	520	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.5	0		15.7		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	862	-	-	-	148	453
HCM Lane V/C Ratio	0.101	-	-	-	0.039	0.103
HCM Control Delay (s)	9.6	0	-	-	30.3	13.9
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.3

Volume
400: Grant Street & Allard Street

06/28/2019



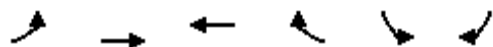
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	50	360	485	40	40	120
Future Volume (vph)	50	360	485	40	40	120
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	60	434	584	48	48	145
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	494	584	48	48	145
Intersection Summary						

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	360	485	40	40	120
Future Vol, veh/h	50	360	485	40	40	120
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	6	6	1	1
Mvmt Flow	60	434	584	48	48	145
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	635	0	-	0	1142	588
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	555	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	920	-	-	-	223	511
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	917	-	-	-	203	509
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	575	-
Approach	EB	WB		SB		
HCM Control Delay, s	1.1	0		18.2		
HCM LOS	C					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	917	-	-	-	203	509
HCM Lane V/C Ratio	0.066	-	-	-	0.237	0.284
HCM Control Delay (s)	9.2	0	-	-	28.2	14.9
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9	1.2

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	400	510	1	1	15
Future Volume (vph)	1	400	510	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	597	761	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	598	761	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	400	510	1	1	15
Future Vol, veh/h	1	400	510	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	597	761	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	766	0	-	0	1365	775
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	600	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	821	-	-	-	163	400
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	818	-	-	-	161	395
Mov Cap-2 Maneuver	-	-	-	-	161	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	548	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		15.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	818	-	-	-	362	
HCM Lane V/C Ratio	0.002	-	-	-	0.066	
HCM Control Delay (s)	9.4	0	-	-	15.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	285	115	20	385	125	65
Future Volume (vph)	285	115	20	385	125	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	425	172	30	575	187	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	425	172	0	605	187	97
Intersection Summary						

Intersection

Int Delay, s/veh 9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	285	115	20	385	125	65
Future Vol, veh/h	285	115	20	385	125	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	425	172	30	575	187	97

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	600
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	948
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	945
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	46.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	231	626	-	-	945	-
HCM Lane V/C Ratio	0.808	0.155	-	-	0.032	-
HCM Control Delay (s)	64.1	11.8	-	-	8.9	0
HCM Lane LOS	F	B	-	-	A	A
HCM 95th %tile Q(veh)	6	0.5	-	-	0.1	-

Volume
700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	10	10	260	145	65
Future Volume (vph)	340	10	10	260	145	65
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	14	14	361	201	90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	14	14	361	201	90
Intersection Summary						

Intersection						
Int Delay, s/veh	7.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	340	10	10	260	145	65
Future Vol, veh/h	340	10	10	260	145	65
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	14	14	361	201	90
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	492	0	868	479
Stage 1	-	-	-	-	478	-
Stage 2	-	-	-	-	390	-
Critical Hdwy	-	-	4.14	-	6.56	6.36
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	5.56	-
Follow-up Hdwy	-	-	2.236	-	3.644	3.444
Pot Cap-1 Maneuver	-	-	1061	-	305	559
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1055	-	299	555
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	654	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		30.7	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	299	555	-	-	1055	-
HCM Lane V/C Ratio	0.674	0.163	-	-	0.013	-
HCM Control Delay (s)	38.7	12.7	-	-	8.5	-
HCM Lane LOS	E	B	-	-	A	-
HCM 95th %tile Q(veh)	4.5	0.6	-	-	0	-

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	95	70	185	5	65	1	75	25	1	20
Future Volume (vph)	15	295	95	70	185	5	65	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	116	85	226	6	79	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	494	0	0	317	0	0	171	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	295	95	70	185	5	65	1	75	25	1	20
Future Vol, veh/h	15	295	95	70	185	5	65	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	116	85	226	6	79	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	486	0	0	882	870	429	904	925	239
Stage 1	-	-	-	-	-	-	464	464	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	501	522	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1067	-	-	267	290	626	259	270	802
Stage 1	-	-	-	-	-	-	578	564	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	554	533	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1057	-	-	233	255	619	200	237	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	255	-	200	237	-
Stage 1	-	-	-	-	-	-	562	548	-	612	543	-
Stage 2	-	-	-	-	-	-	534	541	-	462	518	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.3			24.9			19.9		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	349	1314	-	-	1057	-	-	298				
HCM Lane V/C Ratio	0.493	0.014	-	-	0.081	-	-	0.188				
HCM Control Delay (s)	24.9	7.8	0	-	8.7	0	-	19.9				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile O(veh)	2.6	0	-	-	0.3	-	-	0.7				

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Future Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	35	26	26	105	0	9	0	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	131	0	0	35	0	0	0	0
Intersection Summary												

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	0	20	15	15	60	0	5	0	15	0	0	0
Future Vol, veh/h	0	20	15	15	60	0	5	0	15	0	0	0
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	0	35	26	26	105	0	9	0	26	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	64	0	0	216	214	52	225	227	119
Stage 1	-	-	-	-	-	-	51	51	-	163	163	-
Stage 2	-	-	-	-	-	-	165	163	-	62	64	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1473	-	-	1532	-	-	734	678	1007	733	674	935
Stage 1	-	-	-	-	-	-	954	846	-	841	765	-
Stage 2	-	-	-	-	-	-	830	758	-	952	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1528	-	-	716	660	1003	699	656	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	660	-	699	656	-
Stage 1	-	-	-	-	-	-	951	843	-	836	747	-
Stage 2	-	-	-	-	-	-	809	740	-	926	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			9.1			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	912	1465	-	-	1528	-	-	-				
HCM Lane V/C Ratio	0.038	-	-	-	0.017	-	-	-				
HCM Control Delay (s)	9.1	0	-	-	7.4	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-				

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	5	10	60	135	65
Future Volume (vph)	30	5	10	60	135	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	8	17	100	225	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	0	117	225	108
Intersection Summary						

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	5	10	60	135	65
Future Vol, veh/h	30	5	10	60	135	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	8	17	100	225	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	361	227	334	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	630	802	1187	-	-	-
Stage 1	802	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	619	800	1186	-	-	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.2	1.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1186	-	640	-	-	
HCM Lane V/C Ratio	0.014	-	0.091	-	-	
HCM Control Delay (s)	8.1	0	11.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	45	1	140	165	1
Future Volume (vph)	1	45	1	140	165	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	75	2	233	275	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	0	235	277	0
Intersection Summary						

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	45	1	140	165	1
Future Vol, veh/h	1	45	1	140	165	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	75	2	233	275	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	515	278	278	0	-	0
Stage 1	277	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	522	763	1246	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	520	762	1245	-	-	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.3	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1245	-	754	-	-	
HCM Lane V/C Ratio	0.001	-	0.102	-	-	
HCM Control Delay (s)	7.9	0	10.3	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Appendix D
Improvement
Peak Hour Analysis Outputs

Existing Traffic – With Modifications
Full Build (With New Southern Access) Traffic – With
Modifications

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Future Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850			0.850			0.850			0.850	
Flt Protected		0.986			0.984			0.997			0.984	
Satd. Flow (prot)	0	1751	1509	0	1700	1468	0	1707	1455	0	1731	1495
Flt Permitted		0.986			0.984			0.997			0.984	
Satd. Flow (perm)	0	1751	1509	0	1700	1468	0	1707	1455	0	1731	1495
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		762			2580			466			733	
Travel Time (s)		14.8			50.3			7.1			11.1	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Adj. Flow (vph)	132	324	11	77	154	38	1	16	22	33	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	456	11	0	231	38	0	17	22	0	104	33
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	55.3%				ICU Level of Service B							
Analysis Period (min)	15											

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Future Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	324	11	77	154	38	1	16	22	33	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	456	11	0	231	38	0	17	22	0	104	33
Intersection Summary												

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	295	10	70	140	35	1	15	20	30	65	30
Future Vol, veh/h	120	295	10	70	140	35	1	15	20	30	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	324	11	77	154	38	1	16	22	33	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	336	0	0	969	936	326	923	909	156
Stage 1	-	-	-	-	-	-	589	589	-	309	309	-
Stage 2	-	-	-	-	-	-	380	347	-	614	600	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1351	-	-	1180	-	-	224	256	695	244	269	874
Stage 1	-	-	-	-	-	-	479	481	-	688	649	-
Stage 2	-	-	-	-	-	-	624	619	-	469	480	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1350	-	-	1179	-	-	139	208	694	191	219	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	139	208	-	191	219	-
Stage 1	-	-	-	-	-	-	421	423	-	605	601	-
Stage 2	-	-	-	-	-	-	490	573	-	384	422	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.2			2.4			16.7			31.3		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	202	694	1350	-	-	1179	-	-	209	872		
HCM Lane V/C Ratio	0.087	0.032	0.098	-	-	0.065	-	-	0.5	0.038		
HCM Control Delay (s)	24.5	10.4	8	0	-	8.3	0	-	38.3	9.3		
HCM Lane LOS	C	B	A	A	-	A	A	-	E	A		
HCM 95th %tile Q(veh)	0.3	0.1	0.3	-	-	0.2	-	-	2.5	0.1		

Lanes, Volumes, Timings
200: Suburban Drive & Grant Street

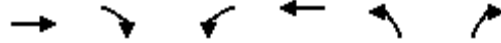
06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	50	80	250	40	155
Future Volume (vph)	520	50	80	250	40	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.988	0.950	
Satd. Flow (prot)	1810	1538	0	1823	1770	1583
Flt Permitted				0.988	0.950	
Satd. Flow (perm)	1810	1538	0	1823	1770	1583
Link Speed (mph)	35			35	25	
Link Distance (ft)	2580			150	979	
Travel Time (s)	50.3			2.9	26.7	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Adj. Flow (vph)	722	69	111	347	56	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	722	69	0	458	56	215
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	58.6%			ICU Level of Service B		
Analysis Period (min)	15					

Volume

200: Suburban Drive & Grant Street

06/28/2019

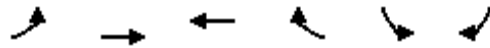


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	520	50	80	250	40	155
Future Volume (vph)	520	50	80	250	40	155
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	722	69	111	347	56	215
Shared Lane Traffic (%)						
Lane Group Flow (vph)	722	69	0	458	56	215
Intersection Summary						

Intersection						
Int Delay, s/veh	5.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	520	50	80	250	40	155
Future Vol, veh/h	520	50	80	250	40	155
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	722	69	111	347	56	215
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	792	0	1293	724
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	570	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	824	-	180	426
Stage 1	-	-	-	-	481	-
Stage 2	-	-	-	-	566	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	823	-	150	425
Mov Cap-2 Maneuver	-	-	-	-	150	-
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	565	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		26	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	150	425	-	-	823	-
HCM Lane V/C Ratio	0.37	0.507	-	-	0.135	-
HCM Control Delay (s)	42.5	21.8	-	-	10.1	0
HCM Lane LOS	E	C	-	-	B	A
HCM 95th %tile O(veh)	1.6	2.8	-	-	0.5	-

Lanes, Volumes, Timings
400: Grant Street & Allard Street

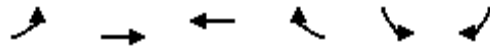
06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	115	560	200	50	20	130
Future Volume (vph)	115	560	200	50	20	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1810	1827	1553	1770	1583
Flt Permitted	0.578				0.950	
Satd. Flow (perm)	1045	1810	1827	1520	1764	1547
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				75		194
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Adj. Flow (vph)	172	836	299	75	30	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	836	299	75	30	194
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	45.0	45.0	45.0	45.0	15.0	15.0
Total Split (%)	75.0%	75.0%	75.0%	75.0%	25.0%	25.0%
Maximum Green (s)	40.0	40.0	40.0	40.0	10.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	33.2	33.2	33.2	33.2	10.3	10.3
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.21	0.21
v/c Ratio	0.24	0.67	0.24	0.07	0.08	0.40
Control Delay	5.5	10.0	4.9	1.3	20.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	10.0	4.9	1.3	20.2	7.2
LOS	A	B	A	A	C	A
Approach Delay		9.2	4.2		8.9	
Approach LOS		A	A		A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 46.1%

ICU Level of Service A

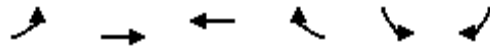
Analysis Period (min) 15

Splits and Phases: 400: Grant Street & Allard Street



Volume
400: Grant Street & Allard Street

06/28/2019

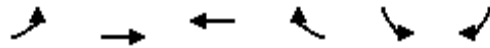


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	115	560	200	50	20	130
Future Volume (vph)	115	560	200	50	20	130
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	172	836	299	75	30	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	836	299	75	30	194
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

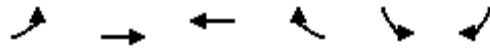
06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	560	200	50	20	130
Future Volume (veh/h)	115	560	200	50	20	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1826	1841	1841	1870	1870
Adj Flow Rate, veh/h	172	836	299	75	30	194
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	5	5	4	4	2	2
Cap, veh/h	638	1040	1048	869	371	331
Arrive On Green	0.57	0.57	0.57	0.57	0.21	0.21
Sat Flow, veh/h	984	1826	1841	1526	1781	1585
Grp Volume(v), veh/h	172	836	299	75	30	194
Grp Sat Flow(s),veh/h/ln	984	1826	1841	1526	1781	1585
Q Serve(g_s), s	4.9	16.4	3.8	1.0	0.6	5.0
Cycle Q Clear(g_c), s	8.7	16.4	3.8	1.0	0.6	5.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	638	1040	1048	869	371	331
V/C Ratio(X)	0.27	0.80	0.29	0.09	0.08	0.59
Avail Cap(c_a), veh/h	951	1621	1634	1355	395	352
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	7.2	7.7	5.0	4.4	14.4	16.1
Incr Delay (d2), s/veh	0.2	1.7	0.1	0.0	0.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	1.0	0.2	0.2	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	9.4	5.1	4.4	14.4	18.3
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		1008	374		224	
Approach Delay, s/veh		9.0	5.0		17.8	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				30.7	14.4	30.7
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				40.0	10.0	40.0
Max Q Clear Time (g_c+l1), s				18.4	7.0	5.8
Green Ext Time (p_c), s				7.3	0.2	2.3
Intersection Summary						
HCM 6th Ctrl Delay			9.3			
HCM 6th LOS			A			

Lanes, Volumes, Timings
500: Grant Street & VFW D/W

06/28/2019

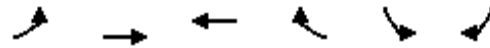


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	575	250	1	1	1
Future Volume (vph)	5	575	250	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1810	1792	1524	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1810	1792	1524	1711	0
Link Speed (mph)	25		25	25		
Link Distance (ft)	720		140	338		
Travel Time (s)	19.6		3.8	9.2		
Confl. Peds. (#/hr)	1			1	1	1
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Adj. Flow (vph)	8	913	397	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	921	397	2	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)	0		0	12		
Link Offset(ft)	0		0	0		
Crosswalk Width(ft)	16		16	16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control	Free		Free	Stop		
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	44.6%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	575	250	1	1	1
Future Volume (vph)	5	575	250	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	913	397	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	921	397	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	575	250	1	1	1
Future Vol, veh/h	5	575	250	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	913	397	2	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	400	0	-	0	1328	399
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	930	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1143	-	-	-	172	653
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	386	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1142	-	-	-	169	652
Mov Cap-2 Maneuver	-	-	-	-	169	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	386	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		18.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1142	-	-	-	268	
HCM Lane V/C Ratio	0.007	-	-	-	0.012	
HCM Control Delay (s)	8.2	0	-	-	18.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Lanes, Volumes, Timings
600: West D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	290	285	15	220	30	25
Future Volume (vph)	290	285	15	220	30	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.997	0.950	
Satd. Flow (prot)	1810	1538	0	1787	1787	1599
Flt Permitted				0.997	0.950	
Satd. Flow (perm)	1810	1538	0	1787	1787	1599
Link Speed (mph)	25			25	25	
Link Distance (ft)	140			416	390	
Travel Time (s)	3.8			11.3	10.6	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Adj. Flow (vph)	460	452	24	349	48	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	460	452	0	373	48	40
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.8%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

600: West D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	290	285	15	220	30	25
Future Volume (vph)	290	285	15	220	30	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	460	452	24	349	48	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	460	452	0	373	48	40
Intersection Summary						

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	290	285	15	220	30	25
Future Vol, veh/h	290	285	15	220	30	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	460	452	24	349	48	40
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	913	0	859	462
Stage 1	-	-	-	-	461	-
Stage 2	-	-	-	-	398	-
Critical Hdwy	-	-	4.16	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.254	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	730	-	328	602
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	729	-	314	601
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	610	-
Stage 2	-	-	-	-	680	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.6		15.3	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	314	601	-	-	729	-
HCM Lane V/C Ratio	0.152	0.066	-	-	0.033	-
HCM Control Delay (s)	18.5	11.4	-	-	10.1	0
HCM Lane LOS	C	B	-	-	B	A
HCM 95th %tile Q(veh)	0.5	0.2	-	-	0.1	-

Lanes, Volumes, Timings
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	260	55	95	160	75	65
Future Volume (vph)	260	55	95	160	75	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1845	1568	1736	1827	1530	1369
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1845	1568	1736	1827	1530	1369
Link Speed (mph)	25			25	25	
Link Distance (ft)	416			639	346	
Travel Time (s)	11.3			17.4	9.4	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Adj. Flow (vph)	394	83	144	242	114	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	83	144	242	114	98
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.4%			ICU Level of Service A		
Analysis Period (min)	15					

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	55	95	160	75	65
Future Volume (vph)	260	55	95	160	75	65
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	83	144	242	114	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	83	144	242	114	98
Intersection Summary						

Intersection

Int Delay, s/veh 5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	260	55	95	160	75	65
Future Vol, veh/h	260	55	95	160	75	65
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	83	144	242	114	98

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	478
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1074
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1073
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	23
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	241	619	-	-	1073	-
HCM Lane V/C Ratio	0.472	0.159	-	-	0.134	-
HCM Control Delay (s)	32.6	11.9	-	-	8.9	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	2.3	0.6	-	-	0.5	-

Lanes, Volumes, Timings
800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	250	75	30	175	15	80	5	105	1	1	1
Future Volume (vph)	1	250	75	30	175	15	80	5	105	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.969				0.991				0.925		0.955	
Flt Protected					0.993				0.979		0.984	
Satd. Flow (prot)	0	1674	0	0	1764	0	0	1639	0	0	1768	0
Flt Permitted					0.993				0.979		0.984	
Satd. Flow (perm)	0	1674	0	0	1764	0	0	1639	0	0	1768	0
Link Speed (mph)	25				25				25		25	
Link Distance (ft)	639				333				469		187	
Travel Time (s)	17.4				9.1				12.8		5.1	
Confl. Peds. (#/hr)	1	3		3			1	1	1		1	1
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Adj. Flow (vph)	1	329	99	39	230	20	105	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	429	0	0	289	0	0	250	0	0	3	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0		0	
Link Offset(ft)	0				0				0		0	
Crosswalk Width(ft)	16				16				16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		15	9		15	9		15	9	
Sign Control	Free				Free				Stop		Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	55.8%				ICU Level of Service B							
Analysis Period (min)	15											

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	75	30	175	15	80	5	105	1	1	1
Future Volume (vph)	1	250	75	30	175	15	80	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	99	39	230	20	105	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	429	0	0	289	0	0	250	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	75	30	175	15	80	5	105	1	1	1
Future Vol, veh/h	1	250	75	30	175	15	80	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	99	39	230	20	105	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	431	0	0	704	713	383	773	752	242
Stage 1	-	-	-	-	-	-	384	384	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	454	433	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1107	-	-	348	354	658	317	340	799
Stage 1	-	-	-	-	-	-	633	606	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	588	583	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1104	-	-	334	338	655	238	324	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	334	338	-	238	324	-
Stage 1	-	-	-	-	-	-	630	604	-	694	627	-
Stage 2	-	-	-	-	-	-	654	614	-	458	581	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			21.9			15.4		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	458	1268	-	-	1104	-	-	351				
HCM Lane V/C Ratio	0.546	0.001	-	-	0.036	-	-	0.011				
HCM Control Delay (s)	21.9	7.8	0	-	8.4	0	-	15.4				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	3.2	0	-	-	0.1	-	-	0				

Lanes, Volumes, Timings
900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Future Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.997							0.898				
Flt Protected					0.984		0.988					
Satd. Flow (prot)	0	1876	0	0	1406	0	0	1669	0	0	1881	0
Flt Permitted					0.984		0.988					
Satd. Flow (perm)	0	1876	0	0	1406	0	0	1669	0	0	1881	0
Link Speed (mph)	25			25				25		25		
Link Distance (ft)	716			536				376		406		
Travel Time (s)	19.5			14.6				10.3		11.1		
Confl. Peds. (#/hr)	1			1	1			1	1	1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	0	52	1	15	30	0	7	0	22	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	45	0	0	29	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0				0		0		
Link Offset(ft)	0			0				0		0		
Crosswalk Width(ft)	16			16				16		16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		15	9		15	9		15	9	
Sign Control	Free			Free				Stop		Stop		
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 18.8%				ICU Level of Service A								
Analysis Period (min) 15												

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Future Volume (vph)	0	35	1	10	20	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	52	1	15	30	0	7	0	22	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	53	0	0	45	0	0	29	0	0	0	0
Intersection Summary												

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	0	35	1	10	20	0	5	0	15	0	0	0
Future Vol, veh/h	0	35	1	10	20	0	5	0	15	0	0	0
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	0	52	1	15	30	0	7	0	22	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	31	0	0	54	0	0	115	115	55	126	115	32
Stage 1	-	-	-	-	-	-	54	54	-	61	61	-
Stage 2	-	-	-	-	-	-	61	61	-	65	54	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1588	-	-	1374	-	-	864	777	1015	850	777	1045
Stage 1	-	-	-	-	-	-	961	852	-	953	846	-
Stage 2	-	-	-	-	-	-	953	846	-	948	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1586	-	-	1373	-	-	855	767	1013	823	767	1043
Mov Cap-2 Maneuver	-	-	-	-	-	-	855	767	-	823	767	-
Stage 1	-	-	-	-	-	-	960	851	-	952	836	-
Stage 2	-	-	-	-	-	-	942	836	-	926	851	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.6			8.8			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	968	1586	-	-	1373	-	-	-				
HCM Lane V/C Ratio	0.031	-	-	-	0.011	-	-	-				
HCM Control Delay (s)	8.8	0	-	-	7.7	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-				

Lanes, Volumes, Timings
950: 6th Street & Helena Street

06/28/2019

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	1	5	45	25	25
Future Volume (vph)	50	1	5	45	25	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.998					0.850
Flt Protected	0.953			0.995		
Satd. Flow (prot)	1789	0	0	1589	1429	1214
Flt Permitted	0.953			0.995		
Satd. Flow (perm)	1789	0	0	1589	1429	1214
Link Speed (mph)	25			25	25	
Link Distance (ft)	536			562	1297	
Travel Time (s)	14.6			15.3	35.4	
Confl. Peds. (#/hr)	1	1	1			1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Adj. Flow (vph)	63	1	6	57	32	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	63	32	32
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	16.9%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	1	5	45	25	25
Future Volume (vph)	50	1	5	45	25	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	1	6	57	32	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	63	32	32
Intersection Summary						

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	1	5	45	25	25
Future Vol, veh/h	50	1	5	45	25	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	1	6	57	32	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	103	34	65	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	898	1042	1435	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	893	1040	1434	-	-	-
Mov Cap-2 Maneuver	893	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	0.8		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1434	-	895	-	-	
HCM Lane V/C Ratio	0.004	-	0.072	-	-	
HCM Control Delay (s)	7.5	0	9.3	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

Lanes, Volumes, Timings
960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	1	1	190	105	1
Future Volume (vph)	1	1	1	190	105	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					0.999
Flt Protected	0.976					
Satd. Flow (prot)	1711	0	0	1597	1427	0
Flt Permitted	0.976					
Satd. Flow (perm)	1711	0	0	1597	1427	0
Link Speed (mph)	25				25	25
Link Distance (ft)	352				1297	469
Travel Time (s)	9.6				35.4	12.8
Confl. Peds. (#/hr)	1	1	1	1		
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Adj. Flow (vph)	1	1	1	241	133	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	242	134	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12				0	0
Link Offset(ft)	0				0	0
Crosswalk Width(ft)	16				16	16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9		
Sign Control	Stop				Free	Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.1%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	190	105	1
Future Volume (vph)	1	1	1	190	105	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1	1	1	241	133	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	242	134	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	190	105	1
Future Vol, veh/h	1	1	1	190	105	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	1	1	241	133	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	379	136	135	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	625	915	1351	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	913	1350	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1350	-	741	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.7	0	9.9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Future Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850				0.850				0.850	
Flt Protected	0.991				0.992				0.993		0.968	
Satd. Flow (prot)	0	1760	1509	0	1761	1509	0	1715	1468	0	1703	1495
Flt Permitted	0.991				0.992				0.993		0.968	
Satd. Flow (perm)	0	1760	1509	0	1761	1509	0	1715	1468	0	1703	1495
Link Speed (mph)	35				35				45			
Link Distance (ft)	762				2580				466			
Travel Time (s)	14.8				50.3				7.1			
Confl. Peds. (#/hr)	1	1		1	1		1	1		1	1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Adj. Flow (vph)	48	231	11	65	349	43	11	70	75	75	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	11	0	414	43	0	81	75	0	113	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0			
Link Offset(ft)	0				0				0			
Crosswalk Width(ft)	16				16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free				Free				Stop			
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 56.6%				ICU Level of Service B								
Analysis Period (min) 15												

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Future Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	231	11	65	349	43	11	70	75	75	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	11	0	414	43	0	81	75	0	113	97
Intersection Summary												

Intersection												
Int Delay, s/veh	9.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	215	10	60	325	40	10	65	70	70	35	90
Future Vol, veh/h	45	215	10	60	325	40	10	65	70	70	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	231	11	65	349	43	11	70	75	75	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	393	0	0	243	0	0	897	851	233	886	819	351
Stage 1	-	-	-	-	-	-	328	328	-	480	480	-
Stage 2	-	-	-	-	-	-	569	523	-	406	339	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1139	-	-	1295	-	-	252	289	787	259	303	679
Stage 1	-	-	-	-	-	-	668	633	-	556	544	-
Stage 2	-	-	-	-	-	-	493	518	-	610	629	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1138	-	-	1294	-	-	176	256	786	170	269	678
Mov Cap-2 Maneuver	-	-	-	-	-	-	176	256	-	170	269	-
Stage 1	-	-	-	-	-	-	635	601	-	528	508	-
Stage 2	-	-	-	-	-	-	366	484	-	463	598	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.1			19			30.3		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	241		786	1138	-	-	1294	-	-	194	678	
HCM Lane V/C Ratio	0.335		0.096	0.043	-	-	0.05	-	-	0.582	0.143	
HCM Control Delay (s)	27.3		10.1	8.3	0	-	7.9	0	-	46.6	11.2	
HCM Lane LOS	D		B	A	A	-	A	A	-	E	B	
HCM 95th %tile Q(veh)	1.4		0.3	0.1	-	-	0.2	-	-	3.2	0.5	

Lanes, Volumes, Timings
200: Suburban Drive & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	300	80	125	400	40	150
Future Volume (vph)	300	80	125	400	40	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.988	0.950	
Satd. Flow (prot)	1759	1495	0	1788	1752	1568
Flt Permitted				0.988	0.950	
Satd. Flow (perm)	1759	1495	0	1788	1752	1568
Link Speed (mph)	35			35	25	
Link Distance (ft)	2580			150	979	
Travel Time (s)	50.3			2.9	26.7	
Confl. Peds. (#/hr)		6	6		8	8
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Adj. Flow (vph)	349	93	145	465	47	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	349	93	0	610	47	174
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.4%			ICU Level of Service B		
Analysis Period (min)	15					

Volume

200: Suburban Drive & Grant Street

06/28/2019

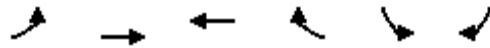


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	300	80	125	400	40	150
Future Volume (vph)	300	80	125	400	40	150
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	349	93	145	465	47	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	349	93	0	610	47	174
Intersection Summary						

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	300	80	125	400	40	150
Future Vol, veh/h	300	80	125	400	40	150
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	349	93	145	465	47	174
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	448	0	1118	363
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	763	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1097	-	228	680
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	459	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1091	-	185	671
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	455	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.1		16.1	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	185	671	-	-	1091	-
HCM Lane V/C Ratio	0.251	0.26	-	-	0.133	-
HCM Control Delay (s)	30.9	12.2	-	-	8.8	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	1	1	-	-	0.5	-

Lanes, Volumes, Timings
400: Grant Street & Allard Street

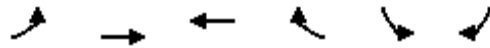
06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	125	325	365	60	45	160
Future Volume (vph)	125	325	365	60	45	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1671	1759	1792	1524	1787	1599
Flt Permitted	0.487				0.950	
Satd. Flow (perm)	856	1759	1792	1489	1784	1564
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				72		193
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	3			3	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Adj. Flow (vph)	151	392	440	72	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	392	440	72	54	193
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Split (%)	65.0%	65.0%	65.0%	65.0%	35.0%	35.0%
Maximum Green (s)	34.0	34.0	34.0	34.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	20.8	20.8	20.8	20.8	10.1	10.1
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.28	0.28
v/c Ratio	0.31	0.39	0.43	0.08	0.11	0.34
Control Delay	8.8	8.0	8.3	2.1	11.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	8.0	8.3	2.1	11.8	4.7
LOS	A	A	A	A	B	A
Approach Delay		8.2	7.5		6.3	
Approach LOS		A	A		A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 52.5%

ICU Level of Service A

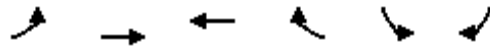
Analysis Period (min) 15

Splits and Phases: 400: Grant Street & Allard Street



Volume
400: Grant Street & Allard Street

06/28/2019

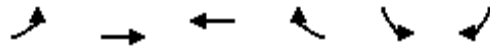


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	125	325	365	60	45	160
Future Volume (vph)	125	325	365	60	45	160
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	151	392	440	72	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	392	440	72	54	193
Intersection Summary						

Queues

400: Grant Street & Allard Street

06/28/2019

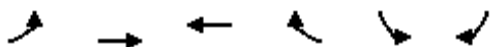


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	151	392	440	72	54	193
v/c Ratio	0.31	0.39	0.43	0.08	0.11	0.34
Control Delay	8.8	8.0	8.3	2.1	11.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	8.0	8.3	2.1	11.8	4.7
Queue Length 50th (ft)	18	49	57	0	7	0
Queue Length 95th (ft)	41	84	95	10	27	28
Internal Link Dist (ft)		610	640		617	
Turn Bay Length (ft)						
Base Capacity (vph)	796	1637	1668	1391	782	793
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.24	0.26	0.05	0.07	0.24
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

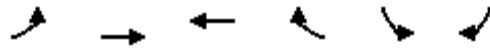
06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	125	325	365	60	45	160
Future Volume (veh/h)	125	325	365	60	45	160
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	1781	1781	1811	1811	1885	1885
Adj Flow Rate, veh/h	151	392	440	72	54	193
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	8	8	6	6	1	1
Cap, veh/h	452	835	849	717	456	406
Arrive On Green	0.47	0.47	0.47	0.47	0.25	0.25
Sat Flow, veh/h	845	1781	1811	1530	1795	1598
Grp Volume(v), veh/h	151	392	440	72	54	193
Grp Sat Flow(s),veh/h/ln	845	1781	1811	1530	1795	1598
Q Serve(g_s), s	5.5	5.4	6.1	0.9	0.8	3.7
Cycle Q Clear(g_c), s	11.7	5.4	6.1	0.9	0.8	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	452	835	849	717	456	406
V/C Ratio(X)	0.33	0.47	0.52	0.10	0.12	0.48
Avail Cap(c_a), veh/h	852	1680	1708	1443	797	709
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	10.8	6.5	6.7	5.3	10.3	11.4
Incr Delay (d2), s/veh	0.4	0.4	0.5	0.1	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	1.7	0.2	0.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	6.9	7.2	5.4	10.5	12.3
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		543	512		247	
Approach Delay, s/veh		8.1	7.0		11.9	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				21.9	14.2	21.9
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				34.0	16.0	34.0
Max Q Clear Time (g_c+I1), s				13.7	5.7	8.1
Green Ext Time (p_c), s				3.2	0.6	3.3
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
HCM 6th LOS			A			

Lanes, Volumes, Timings
500: Grant Street & VFW D/W

06/28/2019

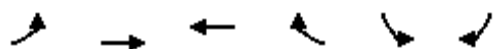


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Traffic Volume (vph)	1	370	410	1	1	15
Future Volume (vph)	1	370	410	1	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.871	
Flt Protected					0.998	
Satd. Flow (prot)	0	1759	1759	1495	1635	0
Flt Permitted					0.998	
Satd. Flow (perm)	0	1759	1759	1495	1635	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		720	140		338	
Travel Time (s)		19.6	3.8		9.2	
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Adj. Flow (vph)	1	552	612	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	553	612	1	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 34.4%				ICU Level of Service A		
Analysis Period (min) 15						

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	370	410	1	1	15
Future Volume (vph)	1	370	410	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	552	612	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	553	612	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	370	410	1	1	15
Future Vol, veh/h	1	370	410	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	552	612	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	617	0	-	0	1171	626
Stage 1	-	-	-	-	616	-
Stage 2	-	-	-	-	555	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	934	-	-	-	214	486
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	930	-	-	-	212	480
Mov Cap-2 Maneuver	-	-	-	-	212	-
Stage 1	-	-	-	-	538	-
Stage 2	-	-	-	-	575	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.5		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	930	-	-	-	-	445
HCM Lane V/C Ratio	0.002	-	-	-	-	0.054
HCM Control Delay (s)	8.9	0	-	-	-	13.5
HCM Lane LOS	A	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0.2

Lanes, Volumes, Timings
600: West D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	280	90	10	335	75	65
Future Volume (vph)	280	90	10	335	75	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.999	0.950	
Satd. Flow (prot)	1759	1495	0	1758	1787	1599
Flt Permitted				0.999	0.950	
Satd. Flow (perm)	1759	1495	0	1758	1787	1599
Link Speed (mph)	25			25	25	
Link Distance (ft)	140			416	390	
Travel Time (s)	3.8			11.3	10.6	
Confl. Peds. (#/hr)		3	3		10	1
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Adj. Flow (vph)	418	134	15	500	112	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	134	0	515	112	97
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	36.8%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	280	90	10	335	75	65
Future Volume (vph)	280	90	10	335	75	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	418	134	15	500	112	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	134	0	515	112	97
Intersection Summary						

Intersection						
Int Delay, s/veh	3.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	280	90	10	335	75	65
Future Vol, veh/h	280	90	10	335	75	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	418	134	15	500	112	97
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	555	0	961	422
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	540	-
Critical Hdwy	-	-	4.18	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.272	-	3.509	3.309
Pot Cap-1 Maneuver	-	-	986	-	286	634
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	586	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	983	-	276	632
Mov Cap-2 Maneuver	-	-	-	-	276	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	580	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		19.7	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	276	632	-	-	983	-
HCM Lane V/C Ratio	0.406	0.154	-	-	0.015	-
HCM Control Delay (s)	26.7	11.7	-	-	8.7	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	1.9	0.5	-	-	0	-

Lanes, Volumes, Timings
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	340	5	5	250	95	60
Future Volume (vph)	340	5	5	250	95	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1863	1583	1736	1827	1556	1392
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1863	1583	1736	1827	1556	1392
Link Speed (mph)	25			25	25	
Link Distance (ft)	416			639	346	
Travel Time (s)	11.3			17.4	9.4	
Confl. Peds. (#/hr)		6	6		1	1
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Adj. Flow (vph)	472	7	7	347	132	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	7	7	347	132	83
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.1%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	5	5	250	95	60
Future Volume (vph)	340	5	5	250	95	60
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	7	7	347	132	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	7	7	347	132	83
Intersection Summary						

Intersection

Int Delay, s/veh 4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	340	5	5	250	95	60
Future Vol, veh/h	340	5	5	250	95	60
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	7	7	347	132	83

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	485
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1068
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1062
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	313	555	-	-	1062	-
HCM Lane V/C Ratio	0.422	0.15	-	-	0.007	-
HCM Control Delay (s)	24.6	12.6	-	-	8.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	2	0.5	-	-	0	-

Lanes, Volumes, Timings
800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	295	90	70	185	5	50	1	75	25	1	20
Future Volume (vph)	15	295	90	70	185	5	50	1	75	25	1	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.997			0.920			0.941	
Flt Protected		0.998			0.987			0.980			0.973	
Satd. Flow (prot)	0	1769	0	0	1798	0	0	1679	0	0	1722	0
Flt Permitted		0.998			0.987			0.980			0.973	
Satd. Flow (perm)	0	1769	0	0	1798	0	0	1679	0	0	1722	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		639			333			469			187	
Travel Time (s)		17.4			9.1			12.8			5.1	
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	18	360	110	85	226	6	61	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	488	0	0	317	0	0	153	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	54.5%											
Analysis Period (min)	15											
ICU Level of Service A												

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	90	70	185	5	50	1	75	25	1	20
Future Volume (vph)	15	295	90	70	185	5	50	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	110	85	226	6	61	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	488	0	0	317	0	0	153	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	295	90	70	185	5	50	1	75	25	1	20
Future Vol, veh/h	15	295	90	70	185	5	50	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	110	85	226	6	61	1	91	30	1	24
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	236	0	0	480	0	0	879	867	426	901	919	239
Stage 1	-	-	-	-	-	-	461	461	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	498	516	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1072	-	-	268	291	628	260	272	802
Stage 1	-	-	-	-	-	-	581	565	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	556	536	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1062	-	-	233	255	621	202	239	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	255	-	202	239	-
Stage 1	-	-	-	-	-	-	565	549	-	612	543	-
Stage 2	-	-	-	-	-	-	534	541	-	464	520	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			2.3			21.4			19.7		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	371	1314	-	-	1062	-	-	300				
HCM Lane V/C Ratio	0.414	0.014	-	-	0.08	-	-	0.187				
HCM Control Delay (s)	21.4	7.8	0	-	8.7	0	-	19.7				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2	0	-	-	0.3	-	-	0.7				

Lanes, Volumes, Timings
900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Future Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.942								0.900			
Flt Protected					0.990				0.987			
Satd. Flow (prot)	0	1738	0	0	1826	0	0	1607	0	0	1881	0
Flt Permitted					0.990				0.987			
Satd. Flow (perm)	0	1738	0	0	1826	0	0	1607	0	0	1881	0
Link Speed (mph)	25				25				25			
Link Distance (ft)	716				536				376			
Travel Time (s)	19.5				14.6				10.3			
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)					3							
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Adj. Flow (vph)	0	35	26	26	105	0	9	0	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	131	0	0	35	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0			
Link Offset(ft)	0				0				0			
Crosswalk Width(ft)	16				16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free				Free				Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.5%				ICU Level of Service A							
Analysis Period (min)	15											

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Future Volume (vph)	0	20	15	15	60	0	5	0	15	0	0	0
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	35	26	26	105	0	9	0	26	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	131	0	0	35	0	0	0	0
Intersection Summary												

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	0	20	15	15	60	0	5	0	15	0	0	0
Future Vol, veh/h	0	20	15	15	60	0	5	0	15	0	0	0
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	0	35	26	26	105	0	9	0	26	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	64	0	0	216	214	52	225	227	119
Stage 1	-	-	-	-	-	-	51	51	-	163	163	-
Stage 2	-	-	-	-	-	-	165	163	-	62	64	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1473	-	-	1532	-	-	734	678	1007	733	674	935
Stage 1	-	-	-	-	-	-	954	846	-	841	765	-
Stage 2	-	-	-	-	-	-	830	758	-	952	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1465	-	-	1528	-	-	716	660	1003	699	656	923
Mov Cap-2 Maneuver	-	-	-	-	-	-	716	660	-	699	656	-
Stage 1	-	-	-	-	-	-	951	843	-	836	747	-
Stage 2	-	-	-	-	-	-	809	740	-	926	841	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			9.1			0		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	912	1465	-	-	1528	-	-	-				
HCM Lane V/C Ratio	0.038	-	-	-	0.017	-	-	-				
HCM Control Delay (s)	9.1	0	-	-	7.4	0	-	0				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	-				

Lanes, Volumes, Timings
950: 6th Street & Helena Street

06/28/2019

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	5	10	45	85	65
Future Volume (vph)	30	5	10	45	85	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.981					0.850
Flt Protected	0.959			0.991		
Satd. Flow (prot)	1686	0	0	1727	1845	1568
Flt Permitted	0.959			0.991		
Satd. Flow (perm)	1686	0	0	1727	1845	1568
Link Speed (mph)	25			25	25	
Link Distance (ft)	536			562	1297	
Travel Time (s)	14.6			15.3	35.4	
Confl. Peds. (#/hr)	1	1	1			1
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Adj. Flow (vph)	50	8	17	75	142	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	0	92	142	108
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.9%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	5	10	45	85	65
Future Volume (vph)	30	5	10	45	85	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	8	17	75	142	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	0	92	142	108
Intersection Summary						

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	5	10	45	85	65
Future Vol, veh/h	30	5	10	45	85	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	8	17	75	142	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	253	144	251	0	-	0
Stage 1	143	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	727	893	1275	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	715	891	1274	-	-	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.3	1.4		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1274	-	736	-	-	
HCM Lane V/C Ratio	0.013	-	0.079	-	-	
HCM Control Delay (s)	7.9	0	10.3	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Lanes, Volumes, Timings
960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932			0.999		
Flt Protected	0.976					
Satd. Flow (prot)	1711	0	0	1743	1843	0
Flt Permitted	0.976					
Satd. Flow (perm)	1711	0	0	1743	1843	0
Link Speed (mph)	25			25		
Link Distance (ft)	352			1297		
Travel Time (s)	9.6			35.4		
Confl. Peds. (#/hr)	1	1	1			1
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0		
Link Offset(ft)	0			0		
Crosswalk Width(ft)	16			16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.0%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	125	160	1
Future Vol, veh/h	1	1	1	125	160	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	2	2	208	267	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	482	270	270	0	-	0
Stage 1	269	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	545	771	1254	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	770	1253	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.7	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1253	-	637	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	7.9	0	10.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			1.00	0.99		1.00	0.98
Frt		0.997			0.977				0.850			0.850
Flt Protected	0.950			0.950				0.997			0.981	
Satd. Flow (prot)	1687	1770	0	1641	1682	0	0	1707	1455	0	1726	1495
Flt Permitted	0.584			0.447				0.979			0.867	
Satd. Flow (perm)	1036	1770	0	772	1682	0	0	1676	1436	0	1525	1463
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			25				36			36
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		762			2580			466			733	
Travel Time (s)		14.8			50.3			7.1			11.1	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	489	0	82	286	0	0	17	27	0	115	33
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	39.0	39.0		39.0	39.0		21.0	21.0	21.0	21.0	21.0	21.0
Total Split (%)	65.0%	65.0%		65.0%	65.0%		35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Maximum Green (s)	34.0	34.0		34.0	34.0		16.0	16.0	16.0	16.0	16.0	16.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Act Effect Green (s)	23.6	23.6		23.6	23.6			10.5	10.5		10.5	10.5
Actuated g/C Ratio	0.59	0.59		0.59	0.59			0.26	0.26		0.26	0.26
v/c Ratio	0.21	0.46		0.18	0.28			0.04	0.07		0.29	0.08
Control Delay	7.2	8.5		7.2	6.4			12.3	5.4		14.9	6.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	7.2	8.5		7.2	6.4			12.3	5.4		14.9	6.1
LOS	A	A		A	A			B	A		B	A
Approach Delay		8.2			6.6			8.1			12.9	
Approach LOS		A			A			A			B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.3

Intersection LOS: A

Intersection Capacity Utilization 60.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 100: Mid Valley Drive & Grant Street



Volume

100: Mid Valley Drive & Grant Street

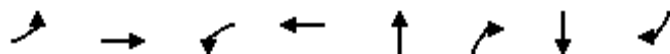
06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	489	0	82	286	0	0	17	27	0	115	33
Intersection Summary												

Queues

100: Mid Valley Drive & Grant Street

06/28/2019



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	132	489	82	286	17	27	115	33
v/c Ratio	0.21	0.46	0.18	0.28	0.04	0.07	0.29	0.08
Control Delay	7.2	8.5	7.2	6.4	12.3	5.4	14.9	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	8.5	7.2	6.4	12.3	5.4	14.9	6.1
Queue Length 50th (ft)	15	65	9	30	2	0	16	0
Queue Length 95th (ft)	40	136	28	69	15	12	59	15
Internal Link Dist (ft)		682		2500	386		653	
Turn Bay Length (ft)								
Base Capacity (vph)	899	1537	670	1464	685	608	623	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.32	0.12	0.20	0.02	0.04	0.18	0.05
Intersection Summary								

HCM 6th Signalized Intersection Summary

100: Mid Valley Drive & Grant Street

06/28/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (veh/h)	120	435	10	75	220	40	1	15	25	40	65	30
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	1796	1796	1796	1752	1752	1752	1737	1737	1737	1781	1781	1781
Adj Flow Rate, veh/h	132	478	11	82	242	44	1	16	27	44	71	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	7	7	10	10	10	11	11	11	8	8	8
Cap, veh/h	572	788	18	423	649	118	121	423	367	248	309	376
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1049	1749	40	849	1442	262	27	1698	1471	396	1238	1507
Grp Volume(v), veh/h	132	0	489	82	0	286	17	0	27	115	0	33
Grp Sat Flow(s),veh/h/ln	1049	0	1789	849	0	1704	1725	0	1471	1634	0	1507
Q Serve(g_s), s	3.2	0.0	6.9	2.7	0.0	3.7	0.0	0.0	0.5	0.0	0.0	0.6
Cycle Q Clear(g_c), s	6.9	0.0	6.9	9.6	0.0	3.7	0.2	0.0	0.5	1.7	0.0	0.6
Prop In Lane	1.00		0.02	1.00		0.15	0.06		1.00	0.38		1.00
Lane Grp Cap(c), veh/h	572	0	806	423	0	768	545	0	367	557	0	376
V/C Ratio(X)	0.23	0.00	0.61	0.19	0.00	0.37	0.03	0.00	0.07	0.21	0.00	0.09
Avail Cap(c_a), veh/h	1171	0	1826	908	0	1740	935	0	706	917	0	724
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.3	0.0	6.9	10.5	0.0	6.0	9.5	0.0	9.6	10.0	0.0	9.6
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.2	0.0	0.3	0.0	0.0	0.1	0.2	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	0.5	0.0	1.5	0.4	0.0	0.7	0.1	0.0	0.1	0.4	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.5	0.0	7.7	10.8	0.0	6.3	9.5	0.0	9.6	10.2	0.0	9.7
LnGrp LOS	A	A	A	B	A	A	A	A	A	B	A	A
Approach Vol, veh/h	621			368			44			148		
Approach Delay, s/veh	7.8			7.3			9.6			10.1		
Approach LOS	A			A			A			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	13.3			20.0			13.3			20.0		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	16.0			34.0			16.0			34.0		
Max Q Clear Time (g_c+I1), s	2.5			8.9			3.7			11.6		
Green Ext Time (p_c), s	0.1			3.8			0.4			2.2		
Intersection Summary												
HCM 6th Ctrl Delay	8.0											
HCM 6th LOS	A											

Lanes, Volumes, Timings
200: Suburban Drive & Grant Street

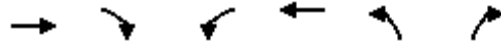
06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	50	45	315	40	90
Future Volume (vph)	635	50	45	315	40	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.994	0.950	
Satd. Flow (prot)	1810	1538	0	1834	1770	1583
Flt Permitted				0.994	0.950	
Satd. Flow (perm)	1810	1538	0	1834	1770	1583
Link Speed (mph)	35			35	25	
Link Distance (ft)	2580			150	979	
Travel Time (s)	50.3			2.9	26.7	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Adj. Flow (vph)	882	69	63	438	56	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	882	69	0	501	56	125
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	64.8%			ICU Level of Service C		
Analysis Period (min)	15					

Volume

200: Suburban Drive & Grant Street

06/28/2019

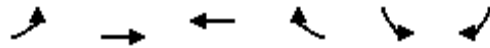


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	635	50	45	315	40	90
Future Volume (vph)	635	50	45	315	40	90
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	3%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	882	69	63	438	56	125
Shared Lane Traffic (%)						
Lane Group Flow (vph)	882	69	0	501	56	125
Intersection Summary						

Intersection						
Int Delay, s/veh	3.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	635	50	45	315	40	90
Future Vol, veh/h	635	50	45	315	40	90
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	5	5	3	3	2	2
Mvmt Flow	882	69	63	438	56	125
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	952	0	1448	884
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.13	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.227	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	718	-	145	344
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	569	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	717	-	128	343
Mov Cap-2 Maneuver	-	-	-	-	128	-
Stage 1	-	-	-	-	357	-
Stage 2	-	-	-	-	568	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.3		31.2	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	128	343	-	-	717	-
HCM Lane V/C Ratio	0.434	0.364	-	-	0.087	-
HCM Control Delay (s)	53.1	21.4	-	-	10.5	0
HCM Lane LOS	F	C	-	-	B	A
HCM 95th %tile Q(veh)	1.9	1.6	-	-	0.3	-

Lanes, Volumes, Timings
400: Grant Street & Allard Street

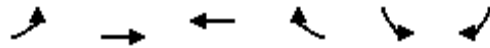
06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	115	610	230	50	30	130
Future Volume (vph)	115	610	230	50	30	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1810	1827	1553	1770	1583
Flt Permitted	0.555				0.950	
Satd. Flow (perm)	1004	1810	1827	1520	1764	1547
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				75		194
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Adj. Flow (vph)	172	910	343	75	45	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	910	343	75	45	194
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	45.0	45.0	45.0	45.0	15.0	15.0
Total Split (%)	75.0%	75.0%	75.0%	75.0%	25.0%	25.0%
Maximum Green (s)	40.0	40.0	40.0	40.0	10.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	36.0	36.0	36.0	36.0	10.3	10.3
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.20	0.20
v/c Ratio	0.24	0.72	0.27	0.07	0.13	0.42
Control Delay	5.4	10.9	4.8	1.2	21.5	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	10.9	4.8	1.2	21.5	7.5
LOS	A	B	A	A	C	A
Approach Delay		10.0	4.2		10.1	
Approach LOS		B	A		B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 8.6

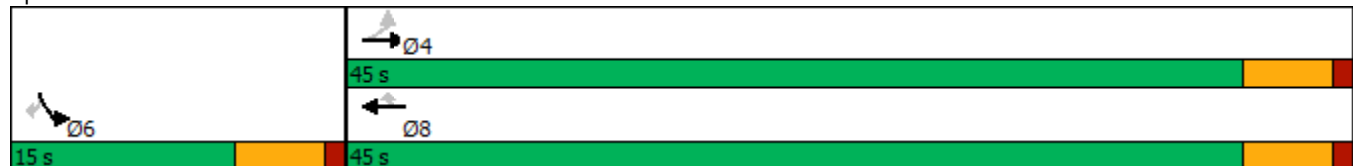
Intersection LOS: A

Intersection Capacity Utilization 48.8%

ICU Level of Service A

Analysis Period (min) 15

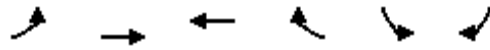
Splits and Phases: 400: Grant Street & Allard Street



Volume

400: Grant Street & Allard Street

06/28/2019

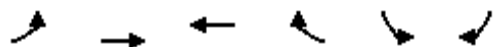


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	115	610	230	50	30	130
Future Volume (vph)	115	610	230	50	30	130
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	172	910	343	75	45	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	910	343	75	45	194
Intersection Summary						

Queues

400: Grant Street & Allard Street

06/28/2019

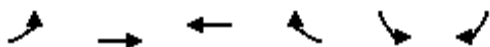


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	172	910	343	75	45	194
v/c Ratio	0.24	0.72	0.27	0.07	0.13	0.42
Control Delay	5.4	10.9	4.8	1.2	21.5	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	10.9	4.8	1.2	21.5	7.5
Queue Length 50th (ft)	20	179	41	0	12	0
Queue Length 95th (ft)	29	162	48	5	28	17
Internal Link Dist (ft)		610	640		617	
Turn Bay Length (ft)						
Base Capacity (vph)	797	1437	1451	1223	356	466
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.63	0.24	0.06	0.13	0.42
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

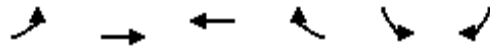
06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	610	230	50	30	130
Future Volume (veh/h)	115	610	230	50	30	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1826	1841	1841	1870	1870
Adj Flow Rate, veh/h	172	910	343	75	45	194
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	5	5	4	4	2	2
Cap, veh/h	625	1091	1100	912	351	313
Arrive On Green	0.60	0.60	0.60	0.60	0.20	0.20
Sat Flow, veh/h	945	1826	1841	1526	1781	1585
Grp Volume(v), veh/h	172	910	343	75	45	194
Grp Sat Flow(s),veh/h/ln	945	1826	1841	1526	1781	1585
Q Serve(g_s), s	5.4	19.5	4.5	1.0	1.0	5.5
Cycle Q Clear(g_c), s	9.9	19.5	4.5	1.0	1.0	5.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	625	1091	1100	912	351	313
V/C Ratio(X)	0.27	0.83	0.31	0.08	0.13	0.62
Avail Cap(c_a), veh/h	837	1499	1511	1253	366	325
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	7.3	7.9	4.8	4.1	16.1	17.9
Incr Delay (d2), s/veh	0.2	3.1	0.2	0.0	0.2	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.2	1.2	0.2	0.4	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.5	10.9	5.0	4.2	16.3	21.3
LnGrp LOS	A	B	A	A	B	C
Approach Vol, veh/h		1082	418		239	
Approach Delay, s/veh		10.4	4.9		20.3	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				34.1	14.6	34.1
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				40.0	10.0	40.0
Max Q Clear Time (g_c+I1), s				21.5	7.5	6.5
Green Ext Time (p_c), s				7.6	0.2	2.6
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

Lanes, Volumes, Timings
500: Grant Street & VFW D/W

06/28/2019

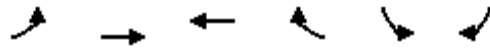


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	5	635	280	1	1	1
Future Volume (vph)	5	635	280	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.932	
Flt Protected					0.976	
Satd. Flow (prot)	0	1810	1792	1524	1711	0
Flt Permitted					0.976	
Satd. Flow (perm)	0	1810	1792	1524	1711	0
Link Speed (mph)	25		25	25		
Link Distance (ft)	720		140	338		
Travel Time (s)	19.6		3.8	9.2		
Confl. Peds. (#/hr)	1			1	1	1
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Adj. Flow (vph)	8	1008	444	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1016	444	2	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)	0		0	12		
Link Offset(ft)	0		0	0		
Crosswalk Width(ft)	16		16	16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control	Free		Free	Stop		
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 47.7%				ICU Level of Service A		
Analysis Period (min) 15						

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	5	635	280	1	1	1
Future Volume (vph)	5	635	280	1	1	1
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	8	1008	444	2	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1016	444	2	4	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	635	280	1	1	1
Future Vol, veh/h	5	635	280	1	1	1
Conflicting Peds, #/hr	1	0	0	1	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	8	1008	444	2	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	447	0	-	0	1470	446
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	1025	-
Critical Hdwy	4.15	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.245	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1098	-	-	-	141	614
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	348	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1097	-	-	-	138	613
Mov Cap-2 Maneuver	-	-	-	-	138	-
Stage 1	-	-	-	-	636	-
Stage 2	-	-	-	-	348	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		21.2		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1097	-	-	-	225	
HCM Lane V/C Ratio	0.007	-	-	-	0.014	
HCM Control Delay (s)	8.3	0	-	-	21.2	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Lanes, Volumes, Timings
600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	↗
Traffic Volume (vph)	300	335	10	230	50	25
Future Volume (vph)	300	335	10	230	50	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.998	0.950	
Satd. Flow (prot)	1810	1538	0	1789	1787	1599
Flt Permitted				0.998	0.950	
Satd. Flow (perm)	1810	1538	0	1789	1787	1599
Link Speed (mph)	25			25	25	
Link Distance (ft)	140			416	390	
Travel Time (s)	3.8			11.3	10.6	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Adj. Flow (vph)	476	532	16	365	79	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	476	532	0	381	79	40
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.2%			ICU Level of Service A		
Analysis Period (min)	15					

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	300	335	10	230	50	25
Future Volume (vph)	300	335	10	230	50	25
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.63	0.63	0.63	0.63	0.63	0.63
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	476	532	16	365	79	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	476	532	0	381	79	40
Intersection Summary						

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	300	335	10	230	50	25
Future Vol, veh/h	300	335	10	230	50	25
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	5	5	6	6	1	1
Mvmt Flow	476	532	16	365	79	40

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1009
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.16
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.254
Pot Cap-1 Maneuver	-	-	671
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	670
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	311	588	-	-	670	-
HCM Lane V/C Ratio	0.255	0.067	-	-	0.024	-
HCM Control Delay (s)	20.5	11.6	-	-	10.5	0
HCM Lane LOS	C	B	-	-	B	A
HCM 95th %tile Q(veh)	1	0.2	-	-	0.1	-

Lanes, Volumes, Timings
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	260	65	90	155	85	45
Future Volume (vph)	260	65	90	155	85	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1845	1568	1736	1827	1530	1369
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1845	1568	1736	1827	1530	1369
Link Speed (mph)	25			25	25	
Link Distance (ft)	416			639	346	
Travel Time (s)	11.3			17.4	9.4	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Adj. Flow (vph)	394	98	136	235	129	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	98	136	235	129	68
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.7%			ICU Level of Service A		
Analysis Period (min)	15					

Volume
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	260	65	90	155	85	45
Future Volume (vph)	260	65	90	155	85	45
Confl. Peds. (#/hr)		1	1		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	4%	4%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	394	98	136	235	129	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	98	136	235	129	68
Intersection Summary						

Intersection						
Int Delay, s/veh	6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	260	65	90	155	85	45
Future Vol, veh/h	260	65	90	155	85	45
Conflicting Peds, #/hr	0	1	1	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	3	3	4	4	18	18
Mvmt Flow	394	98	136	235	129	68
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	493	0	903	396
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	508	-
Critical Hdwy	-	-	4.14	-	6.58	6.38
Critical Hdwy Stg 1	-	-	-	-	5.58	-
Critical Hdwy Stg 2	-	-	-	-	5.58	-
Follow-up Hdwy	-	-	2.236	-	3.662	3.462
Pot Cap-1 Maneuver	-	-	1060	-	288	620
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	573	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1059	-	251	619
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	564	-
Stage 2	-	-	-	-	572	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		3.3		25.9	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	619	-	-	1059	-
HCM Lane V/C Ratio	0.513	0.11	-	-	0.129	-
HCM Control Delay (s)	33.5	11.5	-	-	8.9	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	2.7	0.4	-	-	0.4	-

Lanes, Volumes, Timings
800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	250	55	30	175	15	70	5	105	1	1	1
Future Volume (vph)	1	250	55	30	175	15	70	5	105	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.976				0.991				0.921		0.955	
Flt Protected					0.993				0.981		0.984	
Satd. Flow (prot)	0	1686	0	0	1764	0	0	1635	0	0	1768	0
Flt Permitted					0.993				0.981		0.984	
Satd. Flow (perm)	0	1686	0	0	1764	0	0	1635	0	0	1768	0
Link Speed (mph)	25				25				25		25	
Link Distance (ft)	639				333				469		187	
Travel Time (s)	17.4				9.1				12.8		5.1	
Confl. Peds. (#/hr)	1	3		3			1	1	1		1	1
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Adj. Flow (vph)	1	329	72	39	230	20	92	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	402	0	0	289	0	0	237	0	0	3	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0		0	
Link Offset(ft)	0				0				0		0	
Crosswalk Width(ft)	16				16				16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		15	9		15	9		15	9	
Sign Control	Free				Free				Stop		Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 53.3%												
ICU Level of Service A												
Analysis Period (min) 15												

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	1	250	55	30	175	15	70	5	105	1	1	1
Future Volume (vph)	1	250	55	30	175	15	70	5	105	1	1	1
Confl. Peds. (#/hr)	1		3	3		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	10%	10%	10%	6%	6%	6%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	329	72	39	230	20	92	7	138	1	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	402	0	0	289	0	0	237	0	0	3	0
Intersection Summary												

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	250	55	30	175	15	70	5	105	1	1	1
Future Vol, veh/h	1	250	55	30	175	15	70	5	105	1	1	1
Conflicting Peds, #/hr	1	0	3	3	0	1	1	0	1	1	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	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	10	10	10	6	6	6	5	5	5	1	1	1
Mvmt Flow	1	329	72	39	230	20	92	7	138	1	1	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	251	0	0	404	0	0	690	699	369	760	725	242
Stage 1	-	-	-	-	-	-	370	370	-	319	319	-
Stage 2	-	-	-	-	-	-	320	329	-	441	406	-
Critical Hdwy	4.2	-	-	4.16	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.29	-	-	2.254	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1269	-	-	1133	-	-	355	360	670	324	353	799
Stage 1	-	-	-	-	-	-	644	615	-	695	655	-
Stage 2	-	-	-	-	-	-	685	641	-	597	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1268	-	-	1130	-	-	341	344	667	245	337	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	341	344	-	245	337	-
Stage 1	-	-	-	-	-	-	641	613	-	694	628	-
Stage 2	-	-	-	-	-	-	655	615	-	467	598	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.1			19.8			15.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	477	1268	-	-	1130	-	-	361				
HCM Lane V/C Ratio	0.497	0.001	-	-	0.035	-	-	0.011				
HCM Control Delay (s)	19.8	7.8	0	-	8.3	0	-	15.1				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	2.7	0	-	-	0.1	-	-	0				

Lanes, Volumes, Timings
900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	35	1	10	20	95	5	1	15	35	1	55
Future Volume (vph)	85	35	1	10	20	95	5	1	15	35	1	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.897			0.901			0.918	
Flt Protected		0.966			0.996			0.988			0.981	
Satd. Flow (prot)	0	1815	0	0	1276	0	0	1675	0	0	1694	0
Flt Permitted		0.966			0.996			0.988			0.981	
Satd. Flow (perm)	0	1815	0	0	1276	0	0	1675	0	0	1694	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		716			536			376			406	
Travel Time (s)		19.5			14.6			10.3			11.1	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	127	52	1	15	30	142	7	1	22	52	1	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	0	0	187	0	0	30	0	0	135	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	85	35	1	10	20	95	5	1	15	35	1	55
Future Volume (vph)	85	35	1	10	20	95	5	1	15	35	1	55
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	1%	33%	33%	33%	1%	1%	1%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	127	52	1	15	30	142	7	1	22	52	1	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	0	0	187	0	0	30	0	0	135	0
Intersection Summary												

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	85	35	1	10	20	95	5	1	15	35	1	55
Future Vol, veh/h	85	35	1	10	20	95	5	1	15	35	1	55
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	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	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	1	1	1	33	33	33	1	1	1	1	1	1
Mvmt Flow	127	52	1	15	30	142	7	1	22	52	1	82
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	173	0	0	54	0	0	482	511	55	451	440	103
Stage 1	-	-	-	-	-	-	308	308	-	132	132	-
Stage 2	-	-	-	-	-	-	174	203	-	319	308	-
Critical Hdwy	4.11	-	-	4.43	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.497	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1410	-	-	1374	-	-	496	467	1015	520	513	955
Stage 1	-	-	-	-	-	-	704	662	-	874	789	-
Stage 2	-	-	-	-	-	-	830	735	-	695	662	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1409	-	-	1373	-	-	416	417	1013	466	459	953
Mov Cap-2 Maneuver	-	-	-	-	-	-	416	417	-	466	459	-
Stage 1	-	-	-	-	-	-	638	600	-	792	779	-
Stage 2	-	-	-	-	-	-	747	725	-	614	600	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.5			0.6			10.2			11.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	719	1409	-	-	1373	-	-	674				
HCM Lane V/C Ratio	0.044	0.09	-	-	0.011	-	-	0.202				
HCM Control Delay (s)	10.2	7.8	0	-	7.7	0	-	11.7				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.7				

Lanes, Volumes, Timings
950: 6th Street & Helena Street

06/28/2019

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	35	100	35	5	25
Future Volume (vph)	50	35	100	35	5	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.944					0.850
Flt Protected	0.971			0.964		
Satd. Flow (prot)	1724	0	0	1539	1429	1214
Flt Permitted	0.971			0.964		
Satd. Flow (perm)	1724	0	0	1539	1429	1214
Link Speed (mph)	25			25	25	
Link Distance (ft)	536			562	1297	
Travel Time (s)	14.6			15.3	35.4	
Confl. Peds. (#/hr)	1	1	1			1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Adj. Flow (vph)	63	44	127	44	6	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	0	171	6	32
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.9%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	50	35	100	35	5	25
Future Volume (vph)	50	35	100	35	5	25
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	44	127	44	6	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	0	0	171	6	32
Intersection Summary						

Intersection						
Int Delay, s/veh	6.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	35	100	35	5	25
Future Vol, veh/h	50	35	100	35	5	25
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	63	44	127	44	6	32
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	306	8	39	0	-	0
Stage 1	7	-	-	-	-	-
Stage 2	299	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	688	1077	1468	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	625	1075	1467	-	-	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.6	5.7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1467	-	755	-	-	
HCM Lane V/C Ratio	0.086	-	0.143	-	-	
HCM Control Delay (s)	7.7	0	10.6	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.3	-	0.5	-	-	

Lanes, Volumes, Timings
960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	1	1	190	105	1
Future Volume (vph)	1	1	1	190	105	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932			0.999		
Flt Protected	0.976					
Satd. Flow (prot)	1711	0	0	1597	1427	0
Flt Permitted	0.976					
Satd. Flow (perm)	1711	0	0	1597	1427	0
Link Speed (mph)	25			25		
Link Distance (ft)	352			1297 469		
Travel Time (s)	9.6			35.4 12.8		
Confl. Peds. (#/hr)	1	1	1			1
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Adj. Flow (vph)	1	1	1	241	133	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	242	134	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0 0		
Link Offset(ft)	0			0 0		
Crosswalk Width(ft)	16			16 16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	21.1%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	190	105	1
Future Volume (vph)	1	1	1	190	105	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	19%	19%	33%	33%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1	1	1	241	133	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	242	134	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	190	105	1
Future Vol, veh/h	1	1	1	190	105	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	79	79	79	79	79	79
Heavy Vehicles, %	1	1	19	19	33	33
Mvmt Flow	1	1	1	241	133	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	379	136	135	0	-	0
Stage 1	135	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.29	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.371	-	-	-
Pot Cap-1 Maneuver	625	915	1351	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	913	1350	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1350	-	741	-	-	
HCM Lane V/C Ratio	0.001	-	0.003	-	-	
HCM Control Delay (s)	7.7	0	9.9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			1.00	0.99		1.00	0.98
Frt		0.994			0.983				0.850			0.850
Flt Protected	0.950			0.950				0.993			0.967	
Satd. Flow (prot)	1687	1764	0	1687	1741	0	0	1715	1468	0	1701	1495
Flt Permitted	0.440			0.588				0.944			0.746	
Satd. Flow (perm)	781	1764	0	1043	1741	0	0	1630	1449	0	1312	1463
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			16				75			97
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		762			2580			466			733	
Travel Time (s)		14.8			50.3			7.1			11.1	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	280	0	70	489	0	0	81	75	0	119	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0	23.0	23.0	23.0	23.0
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%	38.3%	38.3%	38.3%	38.3%
Maximum Green (s)	32.0	32.0		32.0	32.0		18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Act Effect Green (s)	22.1	22.1		22.1	22.1		10.8	10.8	10.8	10.8	10.8	10.8
Actuated g/C Ratio	0.57	0.57		0.57	0.57		0.28	0.28	0.28	0.28	0.28	0.28
v/c Ratio	0.11	0.28		0.12	0.49		0.18	0.16	0.16	0.33	0.20	0.20
Control Delay	6.8	7.2		6.7	9.1		13.1	5.3	5.3	15.3	5.1	5.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.2		6.7	9.1		13.1	5.3	5.3	15.3	5.1	5.1
LOS	A	A		A	A		B	A	A	B	A	A
Approach Delay		7.1			8.8		9.4			10.7		
Approach LOS		A			A		A			B		

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.7

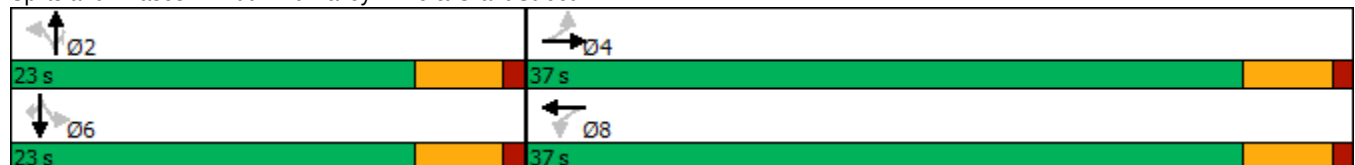
Intersection LOS: A

Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 100: Mid Valley Drive & Grant Street



Volume

100: Mid Valley Drive & Grant Street

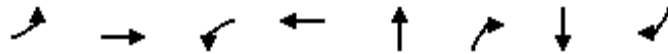
06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	280	0	70	489	0	0	81	75	0	119	97
Intersection Summary												

Queues

100: Mid Valley Drive & Grant Street

06/28/2019



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	48	280	70	489	81	75	119	97
v/c Ratio	0.11	0.28	0.12	0.49	0.18	0.16	0.33	0.20
Control Delay	6.8	7.2	6.7	9.1	13.1	5.3	15.3	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.2	6.7	9.1	13.1	5.3	15.3	5.1
Queue Length 50th (ft)	5	32	7	63	11	0	17	0
Queue Length 95th (ft)	19	76	25	146	44	23	64	26
Internal Link Dist (ft)		682		2500	386		653	
Turn Bay Length (ft)								
Base Capacity (vph)	658	1488	879	1470	773	726	622	744
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.19	0.08	0.33	0.10	0.10	0.19	0.13
Intersection Summary								

HCM 6th Signalized Intersection Summary

100: Mid Valley Drive & Grant Street

06/28/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (veh/h)	45	250	10	65	405	50	10	65	70	75	35	90
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	1796	1796	1796	1796	1796	1796	1752	1752	1752	1781	1781	1781
Adj Flow Rate, veh/h	48	269	11	70	435	54	11	70	75	81	38	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7	7	7	7	10	10	10	8	8	8
Cap, veh/h	393	740	30	551	677	84	141	456	415	395	152	422
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	871	1713	70	1055	1567	194	82	1629	1483	790	542	1507
Grp Volume(v), veh/h	48	0	280	70	0	489	81	0	75	119	0	97
Grp Sat Flow(s),veh/h/ln	871	0	1784	1055	0	1761	1711	0	1483	1331	0	1507
Q Serve(g_s), s	1.6	0.0	3.7	1.7	0.0	7.6	0.0	0.0	1.3	1.2	0.0	1.7
Cycle Q Clear(g_c), s	9.2	0.0	3.7	5.3	0.0	7.6	1.2	0.0	1.3	2.4	0.0	1.7
Prop In Lane	1.00		0.04	1.00		0.11	0.14		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	393	0	770	551	0	761	597	0	415	547	0	422
V/C Ratio(X)	0.12	0.00	0.36	0.13	0.00	0.64	0.14	0.00	0.18	0.22	0.00	0.23
Avail Cap(c_a), veh/h	820	0	1644	1068	0	1623	988	0	769	863	0	781
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	6.6	8.4	0.0	7.8	9.4	0.0	9.5	9.8	0.0	9.6
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.1	0.0	0.9	0.1	0.0	0.2	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.9	0.3	0.0	1.8	0.3	0.0	0.3	0.5	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	0.0	6.9	8.5	0.0	8.7	9.5	0.0	9.7	10.0	0.0	9.9
LnGrp LOS	B	A	A	A	A	A	A	A	A	B	A	A
Approach Vol, veh/h	328			559			156			216		
Approach Delay, s/veh	7.6			8.7			9.6			10.0		
Approach LOS	A			A			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	14.7			20.0			14.7			20.0		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	18.0			32.0			18.0			32.0		
Max Q Clear Time (g_c+I1), s	3.3			11.2			4.4			9.6		
Green Ext Time (p_c), s	0.5			1.8			0.7			3.4		
Intersection Summary												
HCM 6th Ctrl Delay	8.7											
HCM 6th LOS	A											

Lanes, Volumes, Timings
200: Suburban Drive & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	310	80	70	470	40	85
Future Volume (vph)	310	80	70	470	40	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected				0.994	0.950	
Satd. Flow (prot)	1759	1495	0	1799	1752	1568
Flt Permitted				0.994	0.950	
Satd. Flow (perm)	1759	1495	0	1799	1752	1568
Link Speed (mph)	35			35	25	
Link Distance (ft)	2580			150	979	
Travel Time (s)	50.3			2.9	26.7	
Confl. Peds. (#/hr)		6	6		8	8
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Adj. Flow (vph)	360	93	81	547	47	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	93	0	628	47	99
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	60.6%			ICU Level of Service B		
Analysis Period (min)	15					

Volume

200: Suburban Drive & Grant Street

06/28/2019

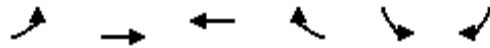


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	310	80	70	470	40	85
Future Volume (vph)	310	80	70	470	40	85
Confl. Peds. (#/hr)		6	6		8	8
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	360	93	81	547	47	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	360	93	0	628	47	99
Intersection Summary						

Intersection						
Int Delay, s/veh	2.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	↑
Traffic Vol, veh/h	310	80	70	470	40	85
Future Vol, veh/h	310	80	70	470	40	85
Conflicting Peds, #/hr	0	6	6	0	8	8
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	3	3
Mvmt Flow	360	93	81	547	47	99
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	459	0	1083	374
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	717	-
Critical Hdwy	-	-	4.15	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.245	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1086	-	239	670
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	482	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1080	-	210	661
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	478	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.1		16.4	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	210	661	-	-	1080	-
HCM Lane V/C Ratio	0.221	0.15	-	-	0.075	-
HCM Control Delay (s)	27	11.4	-	-	8.6	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	0.5	-	-	0.2	-

Lanes, Volumes, Timings
300: Grant Street & Apollo Way

06/28/2019

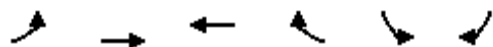


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↶	↶	↶	↶
Traffic Volume (vph)	0	395	540	0	0	0
Future Volume (vph)	0	395	540	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	0	1759	1810	1810	1863	1863
Flt Permitted						
Satd. Flow (perm)	0	1759	1810	1810	1863	1863
Link Speed (mph)		35	35		25	
Link Distance (ft)		150	690		614	
Travel Time (s)		2.9	13.4		16.7	
Confl. Peds. (#/hr)	3			3	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Adj. Flow (vph)	0	459	628	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	459	628	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.7%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

300: Grant Street & Apollo Way

06/28/2019

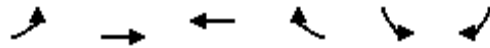


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	0	395	540	0	0	0
Future Volume (vph)	0	395	540	0	0	0
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	5%	5%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	0	459	628	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	459	628	0	0	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	395	540	0	0	0
Future Vol, veh/h	0	395	540	0	0	0
Conflicting Peds, #/hr	3	0	0	3	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	8	8	5	5	2	2
Mvmt Flow	0	459	628	0	0	0
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	631	0	-	0	1091	632
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	460	-
Critical Hdwy	4.18	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.272	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	923	-	-	-	238	480
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	636	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	920	-	-	-	237	478
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	634	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	920	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0	0
HCM Lane LOS	A	-	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	-	-	-

Lanes, Volumes, Timings
400: Grant Street & Allard Street

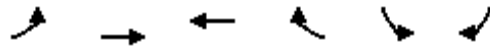
06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	125	270	380	70	45	160
Future Volume (vph)	125	270	380	70	45	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.99
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1671	1759	1792	1524	1787	1599
Flt Permitted	0.472				0.950	
Satd. Flow (perm)	829	1759	1792	1489	1784	1578
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				84		193
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	3			3	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Adj. Flow (vph)	151	325	458	84	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	325	458	84	54	193
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Split (%)	65.0%	65.0%	65.0%	65.0%	35.0%	35.0%
Maximum Green (s)	34.0	34.0	34.0	34.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	21.2	21.2	21.2	21.2	10.1	10.1
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.27	0.27
v/c Ratio	0.32	0.32	0.45	0.09	0.11	0.34
Control Delay	8.8	7.2	8.3	2.0	12.2	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	7.2	8.3	2.0	12.2	4.8
LOS	A	A	A	A	B	A
Approach Delay		7.7	7.4		6.4	
Approach LOS		A	A		A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.1

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 53.3%

ICU Level of Service A

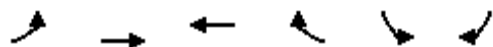
Analysis Period (min) 15

Splits and Phases: 400: Grant Street & Allard Street



Volume
400: Grant Street & Allard Street

06/28/2019

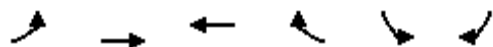


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	125	270	380	70	45	160
Future Volume (vph)	125	270	380	70	45	160
Confl. Peds. (#/hr)	3			3	1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	151	325	458	84	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	325	458	84	54	193
Intersection Summary						

Queues

400: Grant Street & Allard Street

06/28/2019

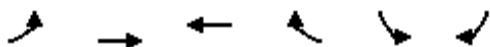


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	151	325	458	84	54	193
v/c Ratio	0.32	0.32	0.45	0.09	0.11	0.34
Control Delay	8.8	7.2	8.3	2.0	12.2	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	7.2	8.3	2.0	12.2	4.8
Queue Length 50th (ft)	18	39	60	0	7	0
Queue Length 95th (ft)	41	67	99	10	28	29
Internal Link Dist (ft)		610	640		617	
Turn Bay Length (ft)						
Base Capacity (vph)	764	1622	1652	1379	775	794
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.20	0.28	0.06	0.07	0.24
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

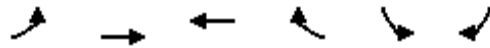
06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	125	270	380	70	45	160
Future Volume (veh/h)	125	270	380	70	45	160
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	1781	1781	1811	1811	1885	1885
Adj Flow Rate, veh/h	151	325	458	84	54	193
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	8	8	6	6	1	1
Cap, veh/h	438	839	853	720	454	404
Arrive On Green	0.47	0.47	0.47	0.47	0.25	0.25
Sat Flow, veh/h	822	1781	1811	1530	1795	1598
Grp Volume(v), veh/h	151	325	458	84	54	193
Grp Sat Flow(s),veh/h/ln	822	1781	1811	1530	1795	1598
Q Serve(g_s), s	5.8	4.3	6.5	1.1	0.8	3.7
Cycle Q Clear(g_c), s	12.3	4.3	6.5	1.1	0.8	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	438	839	853	720	454	404
V/C Ratio(X)	0.34	0.39	0.54	0.12	0.12	0.48
Avail Cap(c_a), veh/h	823	1672	1700	1436	793	706
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	11.1	6.2	6.8	5.4	10.4	11.5
Incr Delay (d2), s/veh	0.5	0.3	0.5	0.1	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.9	1.8	0.2	0.3	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.6	6.5	7.3	5.4	10.5	12.4
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		476	542		247	
Approach Delay, s/veh		8.1	7.0		12.0	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.0	14.2	22.0
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				34.0	16.0	34.0
Max Q Clear Time (g_c+I1), s				14.3	5.7	8.5
Green Ext Time (p_c), s				2.8	0.6	3.5
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
HCM 6th LOS			A			

Lanes, Volumes, Timings
500: Grant Street & VFW D/W

06/28/2019

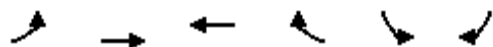


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	315	435	1	1	15
Future Volume (vph)	1	315	435	1	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.871	
Flt Protected					0.998	
Satd. Flow (prot)	0	1759	1759	1495	1635	0
Flt Permitted					0.998	
Satd. Flow (perm)	0	1759	1759	1495	1635	0
Link Speed (mph)		25	25		25	
Link Distance (ft)		720	140		338	
Travel Time (s)		19.6	3.8		9.2	
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Adj. Flow (vph)	1	470	649	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	471	649	1	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	35.7%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

500: Grant Street & VFW D/W

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Volume (vph)	1	315	435	1	1	15
Future Volume (vph)	1	315	435	1	1	15
Confl. Peds. (#/hr)	4			4	1	10
Confl. Bikes (#/hr)						4
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	1	470	649	1	1	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	471	649	1	23	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	315	435	1	1	15
Future Vol, veh/h	1	315	435	1	1	15
Conflicting Peds, #/hr	4	0	0	4	1	10
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	1	470	649	1	1	22
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	654	0	-	0	1126	663
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	473	-
Critical Hdwy	4.18	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.272	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	905	-	-	-	228	463
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	629	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	902	-	-	-	226	457
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	626	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.9		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	902	-	-	-	430	
HCM Lane V/C Ratio	0.002	-	-	-	0.056	
HCM Control Delay (s)	9	0	-	-	13.9	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Lanes, Volumes, Timings
600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	↗
Traffic Volume (vph)	280	35	5	335	100	65
Future Volume (vph)	280	35	5	335	100	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.850				0.850	
Flt Protected			0.999		0.950	
Satd. Flow (prot)	1759	1495	0	1758	1787	1599
Flt Permitted			0.999		0.950	
Satd. Flow (perm)	1759	1495	0	1758	1787	1599
Link Speed (mph)	25		25		25	
Link Distance (ft)	140		416		390	
Travel Time (s)	3.8		11.3		10.6	
Confl. Peds. (#/hr)	3		3		10	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Adj. Flow (vph)	418	52	7	500	149	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	52	0	507	149	97
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0		0		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		15	
Sign Control	Free		Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	34.1%			ICU Level of Service A		
Analysis Period (min)	15					

Volume
600: West D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	280	35	5	335	100	65
Future Volume (vph)	280	35	5	335	100	65
Confl. Peds. (#/hr)		3	3		10	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	8%	8%	8%	8%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	418	52	7	500	149	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	418	52	0	507	149	97
Intersection Summary						

Intersection

Int Delay, s/veh 4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Traffic Vol, veh/h	280	35	5	335	100	65
Future Vol, veh/h	280	35	5	335	100	65
Conflicting Peds, #/hr	0	3	3	0	10	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	8	8	8	8	1	1
Mvmt Flow	418	52	7	500	149	97

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	473
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.18
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.272
Pot Cap-1 Maneuver	-	-	1058
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1055
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	23.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	286	632	-	-	1055	-
HCM Lane V/C Ratio	0.522	0.154	-	-	0.007	-
HCM Control Delay (s)	30.5	11.7	-	-	8.4	0
HCM Lane LOS	D	B	-	-	A	A
HCM 95th %tile Q(veh)	2.8	0.5	-	-	0	-

Lanes, Volumes, Timings
700: East D/W & Grant Street

06/28/2019

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	340	5	1	245	95	35
Future Volume (vph)	340	5	1	245	95	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1863	1583	1736	1827	1556	1392
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1863	1583	1736	1827	1556	1392
Link Speed (mph)	25			25	25	
Link Distance (ft)	416			639	346	
Travel Time (s)	11.3			17.4	9.4	
Confl. Peds. (#/hr)		6	6		1	1
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Adj. Flow (vph)	472	7	1	340	132	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	7	1	340	132	49
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.1%			ICU Level of Service A		
Analysis Period (min)	15					

Volume
700: East D/W & Grant Street

06/28/2019

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Volume (vph)	340	5	1	245	95	35
Future Volume (vph)	340	5	1	245	95	35
Confl. Peds. (#/hr)		6	6		1	1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	4%	16%	16%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	472	7	1	340	132	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	472	7	1	340	132	49
Intersection Summary						

Intersection

Int Delay, s/veh 3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Traffic Vol, veh/h	340	5	1	245	95	35
Future Vol, veh/h	340	5	1	245	95	35
Conflicting Peds, #/hr	0	6	6	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	0	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	2	2	4	4	16	16
Mvmt Flow	472	7	1	340	132	49

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	485
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1068
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1062
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	323	555	-	-	1062	-
HCM Lane V/C Ratio	0.408	0.088	-	-	0.001	-
HCM Control Delay (s)	23.6	12.1	-	-	8.4	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	1.9	0.3	-	-	0	-

Lanes, Volumes, Timings
800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Future Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.977			0.997			0.913			0.941	
Flt Protected		0.998			0.987			0.983			0.973	
Satd. Flow (prot)	0	1781	0	0	1798	0	0	1672	0	0	1722	0
Flt Permitted		0.998			0.987			0.983			0.973	
Satd. Flow (perm)	0	1781	0	0	1798	0	0	1672	0	0	1722	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		639			333			469			187	
Travel Time (s)		17.4			9.1			12.8			5.1	
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	18	360	79	85	226	6	49	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	0	0	317	0	0	141	0	0	55	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	52.2%				ICU Level of Service A							
Analysis Period (min)	15											

Volume

800: 6th Street & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Future Volume (vph)	15	295	65	70	185	5	40	1	75	25	1	20
Confl. Peds. (#/hr)	4		10	10		4	6		1	1		6
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	2%	2%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	18	360	79	85	226	6	49	1	91	30	1	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	457	0	0	317	0	0	141	0	0	55	0
Intersection Summary												

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	295	65	70	185	5	40	1	75	25	1	20
Future Vol, veh/h	15	295	65	70	185	5	40	1	75	25	1	20
Conflicting Peds, #/hr	4	0	10	10	0	4	6	0	1	1	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	4	4	4	4	4	4	2	2	2	1	1	1
Mvmt Flow	18	360	79	85	226	6	49	1	91	30	1	24
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	236	0	0	449	0	0	864	852	411	886	888	239
Stage 1	-	-	-	-	-	-	446	446	-	403	403	-
Stage 2	-	-	-	-	-	-	418	406	-	483	485	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1319	-	-	1101	-	-	274	297	641	266	284	802
Stage 1	-	-	-	-	-	-	591	574	-	626	601	-
Stage 2	-	-	-	-	-	-	612	598	-	567	553	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1314	-	-	1091	-	-	239	262	634	207	250	794
Mov Cap-2 Maneuver	-	-	-	-	-	-	239	262	-	207	250	-
Stage 1	-	-	-	-	-	-	575	558	-	612	545	-
Stage 2	-	-	-	-	-	-	536	542	-	475	538	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0.3		2.3			18.8			19.3			
HCM LOS						C			C			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	401	1314	-	-	1091	-	-	307				
HCM Lane V/C Ratio	0.353	0.014	-	-	0.078	-	-	0.183				
HCM Control Delay (s)	18.8	7.8	0	-	8.6	0	-	19.3				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	1.6	0	-	-	0.3	-	-	0.7				

Lanes, Volumes, Timings
900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Future Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.980			0.966			0.905			0.938	
Flt Protected		0.968			0.993			0.988			0.974	
Satd. Flow (prot)	0	1750	0	0	1769	0	0	1618	0	0	1719	0
Flt Permitted		0.968			0.993			0.988			0.974	
Satd. Flow (perm)	0	1750	0	0	1769	0	0	1618	0	0	1719	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		716			536			376			406	
Travel Time (s)		19.5			14.6			10.3			11.1	
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Adj. Flow (vph)	114	35	26	26	105	44	9	2	26	123	2	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	0	0	175	0	0	37	0	0	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	33.7%											
Analysis Period (min)	15											
ICU Level of Service A												

Volume

900: 7th Street/South D/W & Helena Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Future Volume (vph)	65	20	15	15	60	25	5	1	15	70	1	60
Confl. Peds. (#/hr)	6		3	3		6	8		1	1		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	114	35	26	26	105	44	9	2	26	123	2	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	175	0	0	175	0	0	37	0	0	230	0
Intersection Summary												

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	65	20	15	15	60	25	5	1	15	70	1	60
Future Vol, veh/h	65	20	15	15	60	25	5	1	15	70	1	60
Conflicting Peds, #/hr	6	0	3	3	0	6	8	0	1	1	0	8
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	57	57	57	57	57	57	57	57	57	57	57	57
Heavy Vehicles, %	3	3	3	3	3	3	5	5	5	1	1	1
Mvmt Flow	114	35	26	26	105	44	9	2	26	123	2	105
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	155	0	0	64	0	0	520	486	52	476	477	141
Stage 1	-	-	-	-	-	-	279	279	-	185	185	-
Stage 2	-	-	-	-	-	-	241	207	-	291	292	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.15	6.55	6.25	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.11	5.51	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.545	4.045	3.345	3.509	4.009	3.309
Pot Cap-1 Maneuver	1419	-	-	1532	-	-	462	477	1007	501	489	910
Stage 1	-	-	-	-	-	-	721	674	-	819	749	-
Stage 2	-	-	-	-	-	-	756	725	-	719	673	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1411	-	-	1528	-	-	371	425	1003	445	436	898
Mov Cap-2 Maneuver	-	-	-	-	-	-	371	425	-	445	436	-
Stage 1	-	-	-	-	-	-	658	615	-	746	730	-
Stage 2	-	-	-	-	-	-	648	707	-	639	614	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.1			1.1			10.6			15.3		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	682	1411	-	-	1528	-	-	579				
HCM Lane V/C Ratio	0.054	0.081	-	-	0.017	-	-	0.397				
HCM Control Delay (s)	10.6	7.8	0	-	7.4	0	-	15.3				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.2	0.3	-	-	0.1	-	-	1.9				

Lanes, Volumes, Timings
950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	75	35	35	60	65
Future Volume (vph)	30	75	35	35	60	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.904					0.850
Flt Protected	0.986	0.976				
Satd. Flow (prot)	1598	0	0	1701	1845	1568
Flt Permitted	0.986	0.976				
Satd. Flow (perm)	1598	0	0	1701	1845	1568
Link Speed (mph)	25	25				25
Link Distance (ft)	536	562				1297
Travel Time (s)	14.6	15.3				35.4
Confl. Peds. (#/hr)	1	1	1	1		
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Adj. Flow (vph)	50	125	58	58	100	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	175	0	0	116	100	108
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12	0				0
Link Offset(ft)	0	0				0
Crosswalk Width(ft)	16	16				16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9		
Sign Control	Stop	Free				Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	23.7%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

950: 6th Street & Helena Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	30	75	35	35	60	65
Future Volume (vph)	30	75	35	35	60	65
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	50	125	58	58	100	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	175	0	0	116	100	108
Intersection Summary						

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	75	35	35	60	65
Future Vol, veh/h	30	75	35	35	60	65
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	60	60	60	60
Heavy Vehicles, %	6	6	9	9	3	3
Mvmt Flow	50	125	58	58	100	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	276	102	209	0	-	0
Stage 1	101	-	-	-	-	-
Stage 2	175	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.19	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.281	-	-	-
Pot Cap-1 Maneuver	705	942	1321	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	672	940	1320	-	-	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	3.9		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1320	-	844	-	-	
HCM Lane V/C Ratio	0.044	-	0.207	-	-	
HCM Control Delay (s)	7.9	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-	

Lanes, Volumes, Timings
960: 6th Street & Butler Street

06/28/2019

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932				0.999	
Flt Protected	0.976					
Satd. Flow (prot)	1711	0	0	1743	1843	0
Flt Permitted	0.976					
Satd. Flow (perm)	1711	0	0	1743	1843	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	352			1297	469	
Travel Time (s)	9.6			35.4	12.8	
Confl. Peds. (#/hr)	1	1	1			1
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	19.0%			ICU Level of Service A		
Analysis Period (min)	15					

Volume

960: 6th Street & Butler Street

06/28/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Volume (vph)	1	1	1	125	160	1
Future Volume (vph)	1	1	1	125	160	1
Confl. Peds. (#/hr)	1	1	1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.60	0.60	0.60	0.60	0.60	0.60
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	2	2	2	208	267	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	210	269	0
Intersection Summary						

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	125	160	1
Future Vol, veh/h	1	1	1	125	160	1
Conflicting Peds, #/hr	1	1	1	0	0	1
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	60	60	60	60	60	60
Heavy Vehicles, %	1	1	9	9	3	3
Mvmt Flow	2	2	2	208	267	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	482	270	270	0	-	0
Stage 1	269	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.19	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.281	-	-	-
Pot Cap-1 Maneuver	545	771	1254	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	543	770	1253	-	-	-
Mov Cap-2 Maneuver	543	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.7	0.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1253	-	637	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	7.9	0	10.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Appendix E

Traffic Signal Warrant Outputs

Grant Street at Mid Valley Drive

Grant Street at Suburban Drive/Apollo Way

Grant Street at Allard Street

Grant Street at West High School Driveway

Grant Street RRFB Analysis

Page 1

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Hourly Volume Data																						
One Hour Time Period Start Time	From North (SB)					From East (WB)					From South (NB)					From West (EB)				Total Vehicle Volume		
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn		Total	
AM	6:00	89	0	17	106	17	115	0		132	0	1	0		1	0	163	78		241	480	
	7:00	130	0	29	159	53	259	0		312	1	0	1		2		615	116		731	1204	
	8:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
	9:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
MD	10:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
	11:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
	12:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
	13:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
PM	14:00	120	0	43	163	44	291	0		335	0	0	0		0		239	88		327	825	
	15:00	167	0	62	229	53	315	1		369	0	0	0		0		328	131		459	1057	
	16:00	156	0	38	194	39	265	0		304	0	0	1		1		352	109		461	960	
	17:00	152	0	36	188	28	261	0		289	0	0	0		0		299	93		392	869	
	18:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
	19:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
	20:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
	21:00	0	0	0	0	0	0	0		0	0	0	0		0		0	0		0	0	
Totals		814	0	225	0	1039	234	1506	1	0	1741	1	1	2	0	4	0	1996	615	0	2611	5395

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

373107

1043161

00

00

00

00

00

00

662163

828229

765195

681188

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at Allard Street

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: Allard Street

Critical Approach Speed: 25 mph

Critical Approach Speed: 25 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 3

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/13/2018	Tuesday	6:00	AM	10:00	AM
11/12/2018	Monday	10:00	AM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	No
Warrant 3: Peak Hour Volume	N/A
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume**100%****Warrant Evaluated? Yes**

Condition A :		
Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	1	4

Satisfied? No

Condition B:		
Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	1	5

Satisfied? No

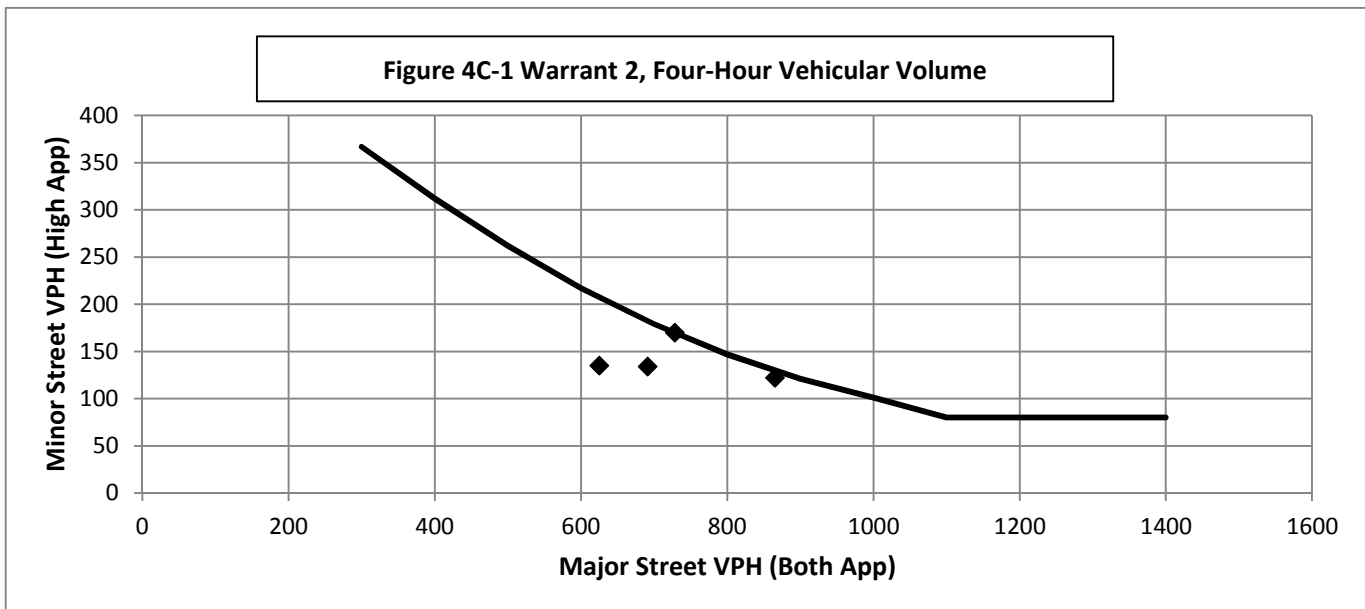
Condition C:		
Combination of A & B at 80%		

Satisfied? No**Warrant Satisfied? No****Manually Set To:**

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	321	85	406
2	7:00	8:00	865	122	987
3	8:00	9:00	0	0	0
4	9:00	10:00	0	0	0
5	10:00	11:00	0	0	0
6	11:00	12:00	0	0	0
7	12:00	13:00	0	0	0
8	13:00	14:00	0	0	0
9	14:00	15:00	632	119	751
10	15:00	16:00	728	170	898
11	16:00	17:00	691	134	825
12	17:00	18:00	625	135	760
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Hour Start	15:00	7:00	16:00	17:00
Major Road Vol.	728	865	691	625
Minor Road Vol.	170	122	134	135



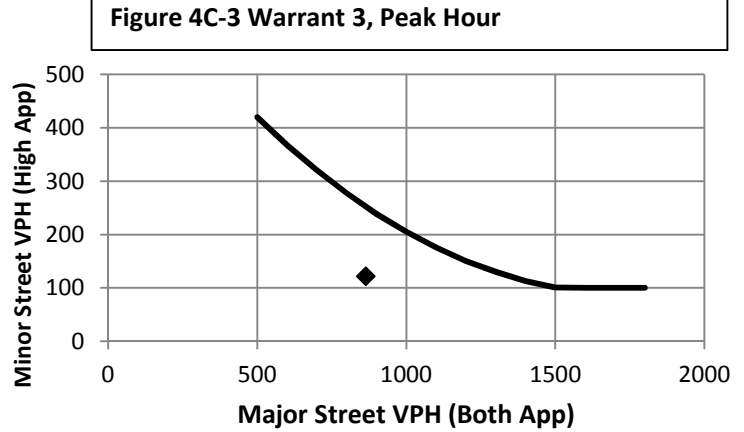
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	No
Volume on Minor Approach	100	
Total Entering Volume (veh/h)	650	

Manually Set Peak Hour?

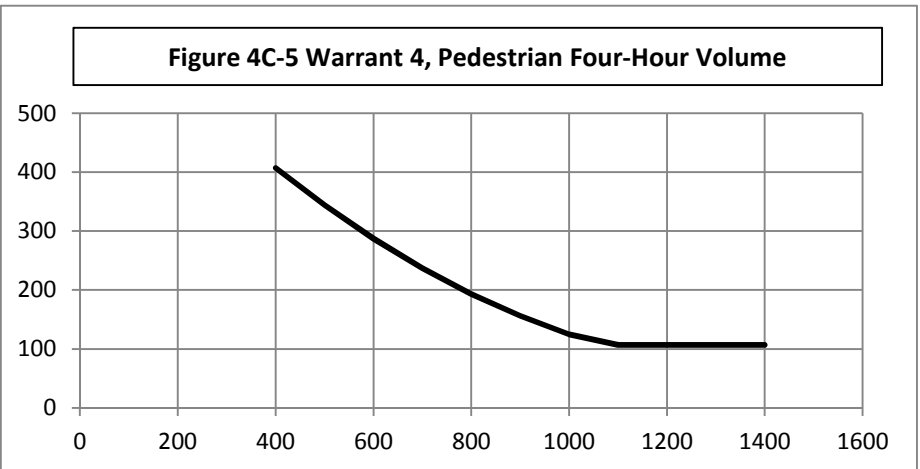
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
7:00	865	122

**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

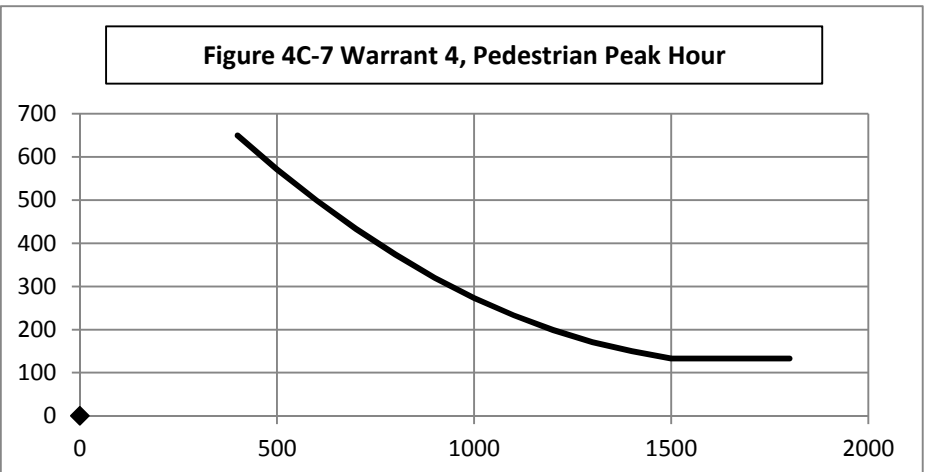
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)		No	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		987	No	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing**100%**

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	7:00	865	122	40.87

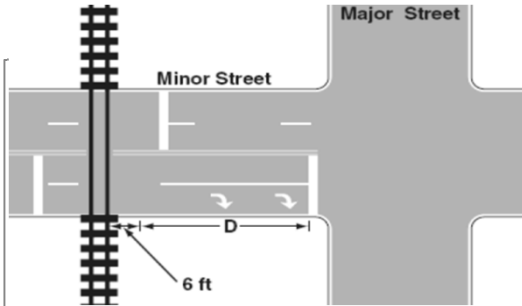
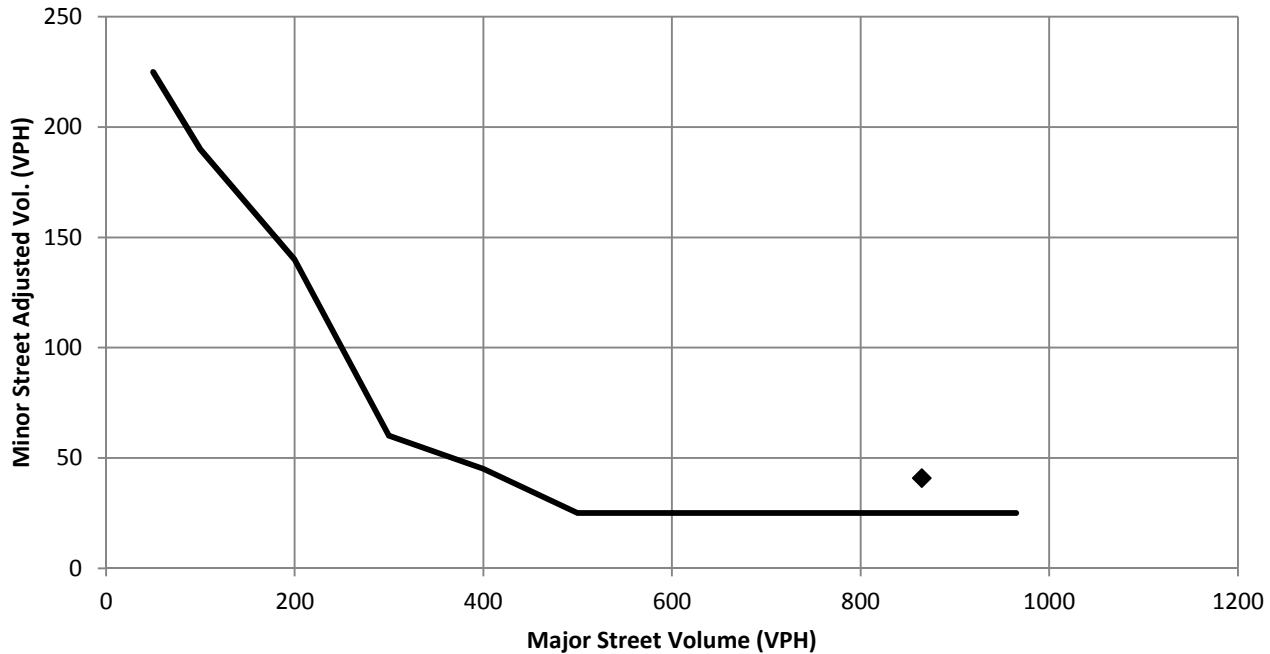


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																
One Hour Time Period Start Time	↓ From North (SB)				← From East (WB)				↑ From South (NB)				→ From West (EB)			
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Total Vehicle Volume
AM	6:00	73	0	12	85	11	115	0		126	0	1	0		1	195
	7:00	100	0	22	122	31	229	0		260	1	0	1		2	605
	8:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	9:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	10:00	0	0	0	0	0	0	0		0	0	0	0		0	0
MD	11:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	12:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	13:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	14:00	81	0	38	119	31	271	0		302	0	0	0		0	751
	15:00	119	0	51	170	32	315	1		348	0	0	0		0	898
PM	16:00	104	0	30	134	27	265	0		292	0	0	1		1	399
	17:00	105	0	30	135	22	261	0		283	0	0	0		0	826
	18:00															760
	19:00															0
	20:00															0
Totals		582	0	183	0	765	154	1456	1	1611	1	1	2	0	4	4631

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Major Road Volume Totals:					
East/West					
Right	Thru	Left	T+LT	Total	
11	278	32	310	321	
31	789	45	834	865	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
31	565	36	601	632	
32	643	53	696	728	
27	617	47	664	691	
22	560	43	603	625	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
154	3452	256	3708	3862	

Minor Road Highest Volume:					
North/South					
Right	Thru	Left	T+LT	Total	
73	0	12	12	85	
100	0	22	22	122	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
81	0	38	38	119	
119	0	51	51	170	
104	0	30	30	134	
105	0	30	30	135	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
582	0	183	183	765	

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)
From North (SB)

100%

From East (WB)

100%

From South (NB)

100%

From West (EB)

100%

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at Allard Street

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: Allard Street

Critical Approach Speed: 25 mph

Critical Approach Speed: 25 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 3

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on EXISTING volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/13/2018	Tuesday	6:00	AM	10:00	AM
11/12/2018	Monday	10:00	AM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	Yes
Warrant 3: Peak Hour Volume	N/A
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume**100%****Warrant Evaluated? Yes**

Condition A :		
Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	5	5

Satisfied? No

Condition B:		
Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	3	5

Satisfied? No

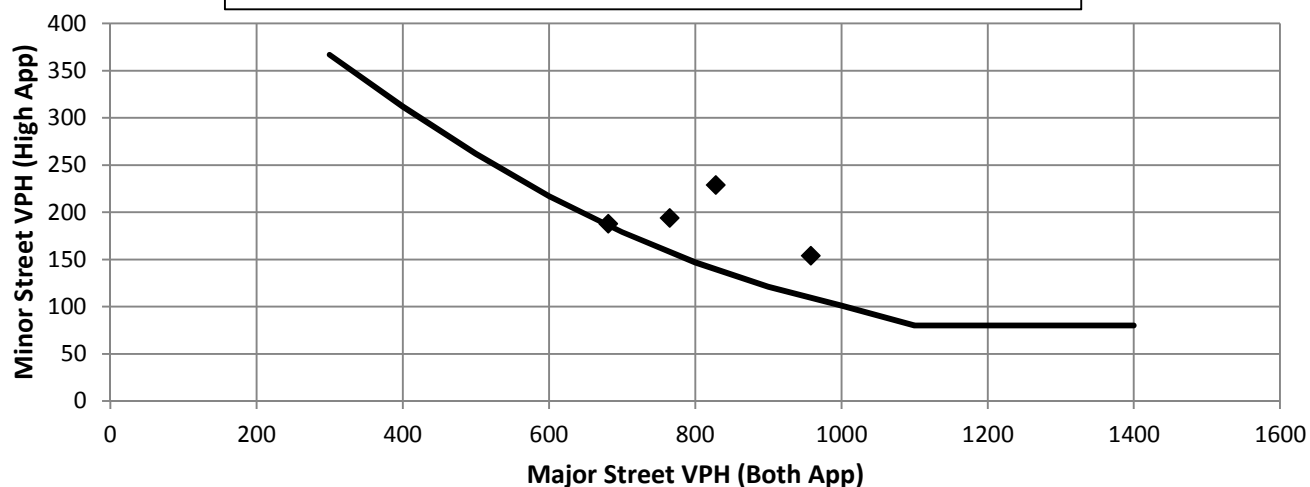
Condition C:		
Combination of A & B at 80%		

Satisfied? No**Warrant Satisfied? No****Manually Set To:**

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	373	106	479
2	7:00	8:00	958	154	1112
3	8:00	9:00	0	0	0
4	9:00	10:00	0	0	0
5	10:00	11:00	0	0	0
6	11:00	12:00	0	0	0
7	12:00	13:00	0	0	0
8	13:00	14:00	0	0	0
9	14:00	15:00	697	163	860
10	15:00	16:00	828	229	1057
11	16:00	17:00	765	194	959
12	17:00	18:00	681	188	869
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? Yes****Manually Set To:**

Hour Start	7:00	15:00	16:00	17:00
Major Road Vol.	958	828	765	681
Minor Road Vol.	154	229	194	188

Figure 4C-1 Warrant 2, Four-Hour Vehicular Volume

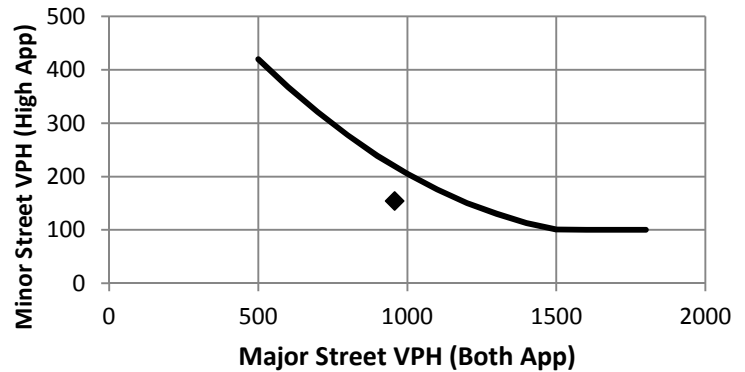
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	No
Volume on Minor Approach	100	
Total Entering Volume (veh/h)	650	

Manually Set Peak Hour?

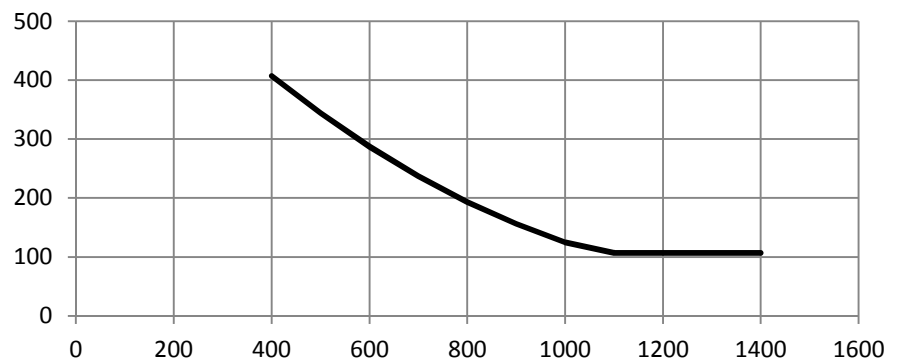
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
7:00	958	154

Figure 4C-3 Warrant 3, Peak Hour**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

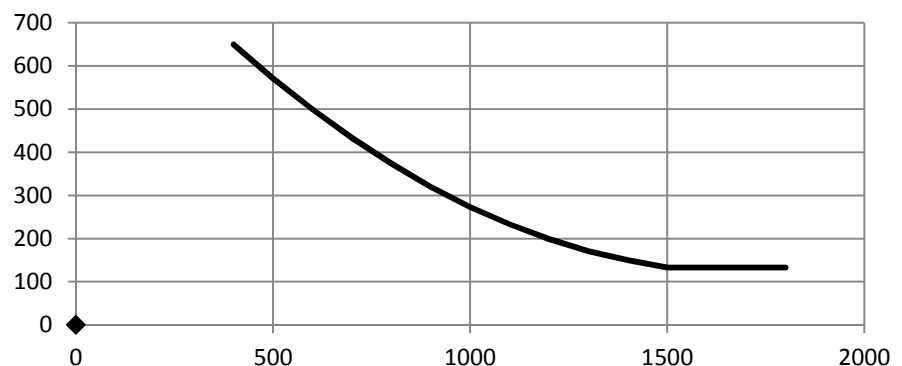
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Figure 4C-5 Warrant 4, Pedestrian Four-Hour Volume****Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?**Figure 4C-7 Warrant 4, Pedestrian Peak Hour**

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)		No	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		1112	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	7:00	958	154	51.59

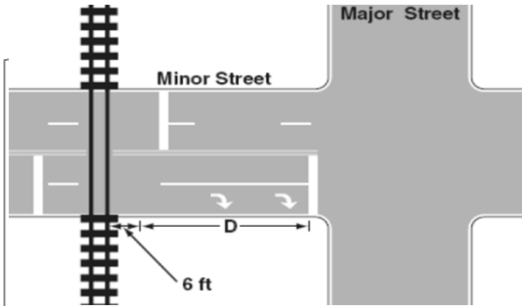
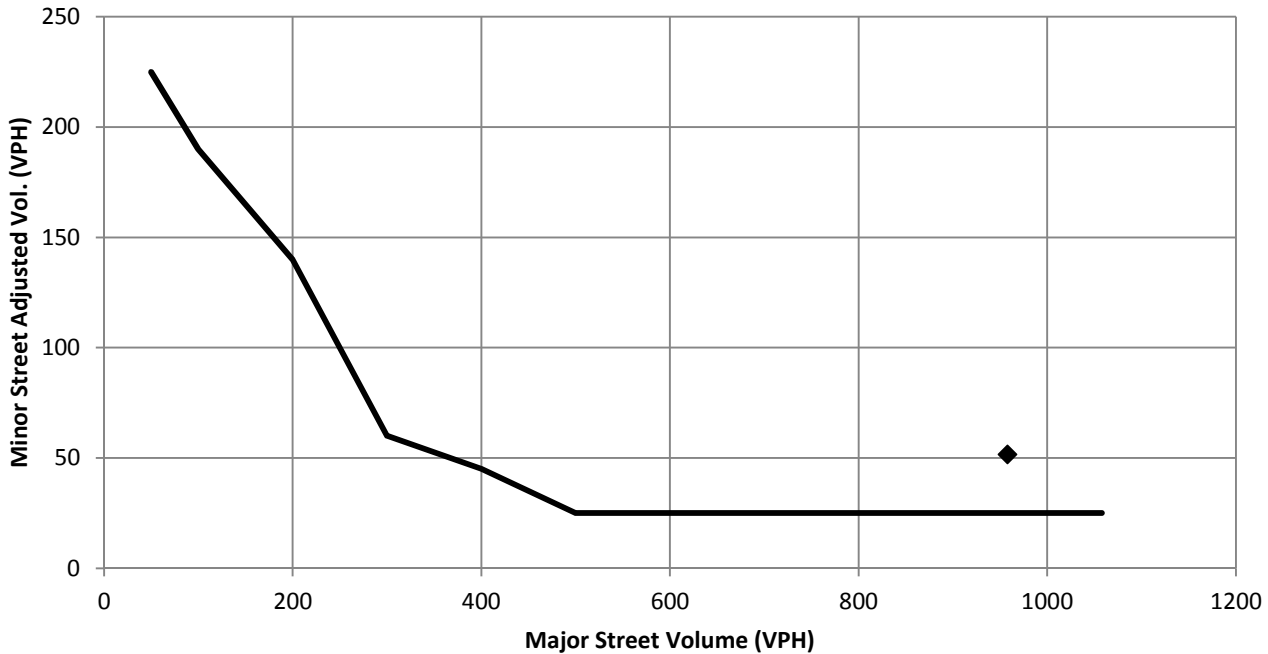


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																						
One Hour Time Period Start Time	From North (SB)					From East (WB)					From South (NB)					From West (EB)					Total Vehicle Volume	
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	6:00	89	0	17		106	17	115	0		132	0	1	0		1	0	163	78		241	480
	7:00	130	0	24		154	53	229	0		282	1	0	1		2	0	560	116		676	1114
	8:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
	9:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
MD	10:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
	11:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
	12:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
	13:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
PM	14:00	120	0	43		163	44	271	0		315	0	0	0		0	0	294	88		382	860
	15:00	167	0	62		229	53	315	1		369	0	0	0		0	0	328	131		459	1057
	16:00	156	0	38		194	39	265	0		304	0	0	1		1	0	352	109		461	960
	17:00	152	0	36		188	28	261	0		289	0	0	0		0	0	299	93		392	869
	18:00																					0
	19:00																					0
20:00																					0	
21:00																					0	
Totals		814	0	220	0	1034	234	1456	1	0	1691	1	1	2	0	4	0	1996	615	0	2611	5340

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Major Road Volume Totals:					
East/West					
Right	Thru	Left	T+LT	Total	
17	278	78	356	373	
53	789	116	905	958	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
44	565	88	653	697	
53	643	132	775	828	
39	617	109	726	765	
28	560	93	653	681	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
234	3452	616	4068	4302	

Minor Road Highest Volume:					
North/South					
Right	Thru	Left	T+LT	Total	
89	0	17	17	106	
130	0	24	24	154	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
120	0	43	43	163	
167	0	62	62	229	
156	0	38	38	194	
152	0	36	36	188	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
814	0	220	220	1034	

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)
From North (SB)

100%

From East (WB)

100%

From South (NB)

100%

From West (EB)

100%

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at Allard Street

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: Allard Street

Critical Approach Speed: 25 mph

Critical Approach Speed: 25 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 3

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/13/2018	Tuesday	6:00	AM	10:00	AM
11/12/2018	Monday	10:00	AM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	Yes
Warrant 3: Peak Hour Volume	N/A
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume

100%

Warrant Evaluated? Yes

Warrant Satisfied? No

Manually Set To:

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	5	5

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	3	5

Satisfied? No

Condition C: Combination of A & B at 80%		
---	--	--

Satisfied? No

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	373	106	479
2	7:00	8:00	1043	159	1202
3	8:00	9:00	0	0	0
4	9:00	10:00	0	0	0
5	10:00	11:00	0	0	0
6	11:00	12:00	0	0	0
7	12:00	13:00	0	0	0
8	13:00	14:00	0	0	0
9	14:00	15:00	662	163	825
10	15:00	16:00	828	229	1057
11	16:00	17:00	765	194	959
12	17:00	18:00	681	188	869
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume

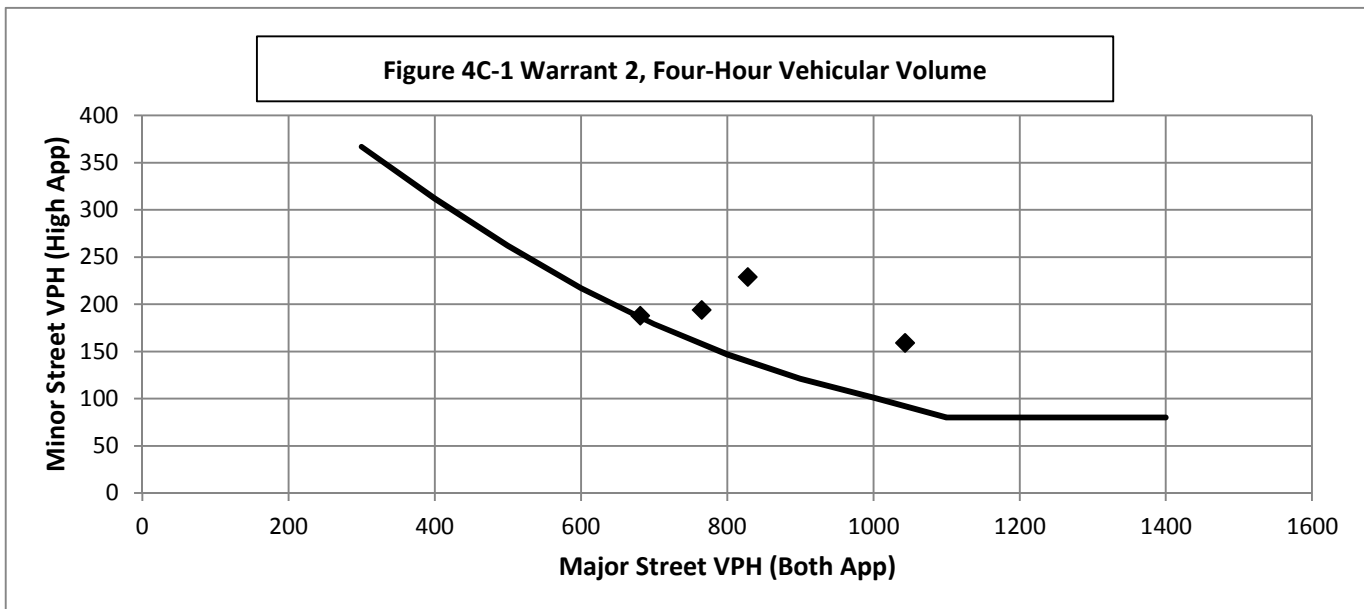
100%

Warrant Evaluated? Yes

Warrant Satisfied? Yes

Manually Set To:

Hour Start	7:00	15:00	16:00	17:00
Major Road Vol.	1043	828	765	681
Minor Road Vol.	159	229	194	188



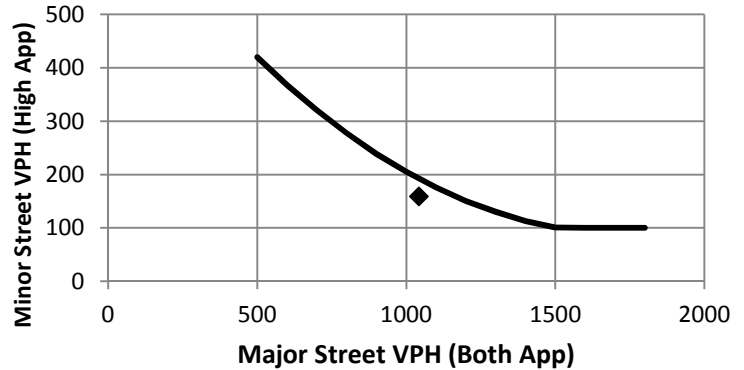
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:**

Condition justifying use of warrant:

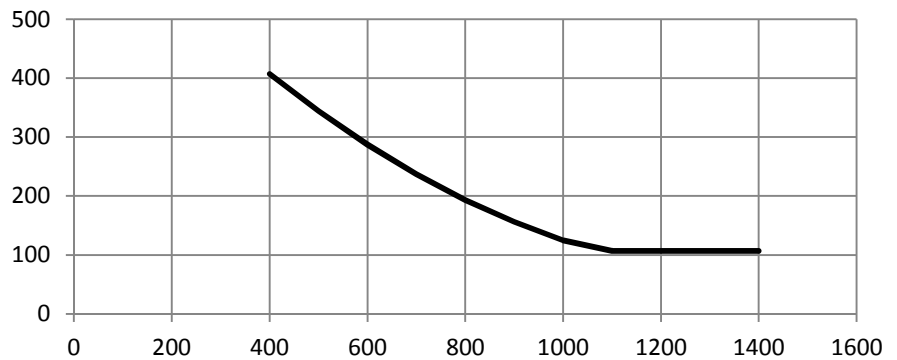
Criteria		Met?
Delay on Minor Approach	4	No
Volume on Minor Approach	100	
Total Entering Volume (veh/h)	650	

Manually Set Peak Hour?

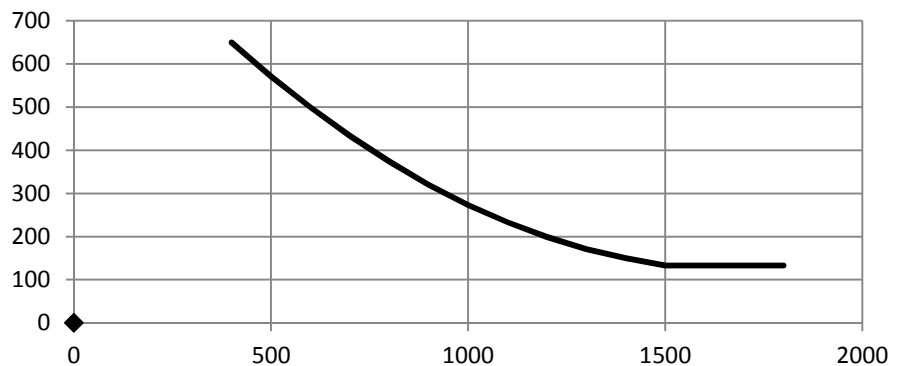
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
7:00	1043	159

Figure 4C-3 Warrant 3, Peak Hour**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?**Avg. walk speed less than 3.5 ft/s?****Criterion A Satisfied?****Figure 4C-5 Warrant 4, Pedestrian Four-Hour Volume****Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?**Figure 4C-7 Warrant 4, Pedestrian Peak Hour**

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)		No	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		1202	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	7:00	1043	159	53.265

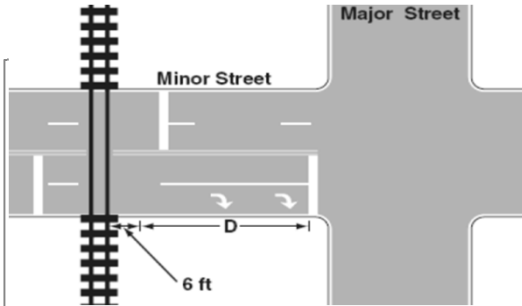
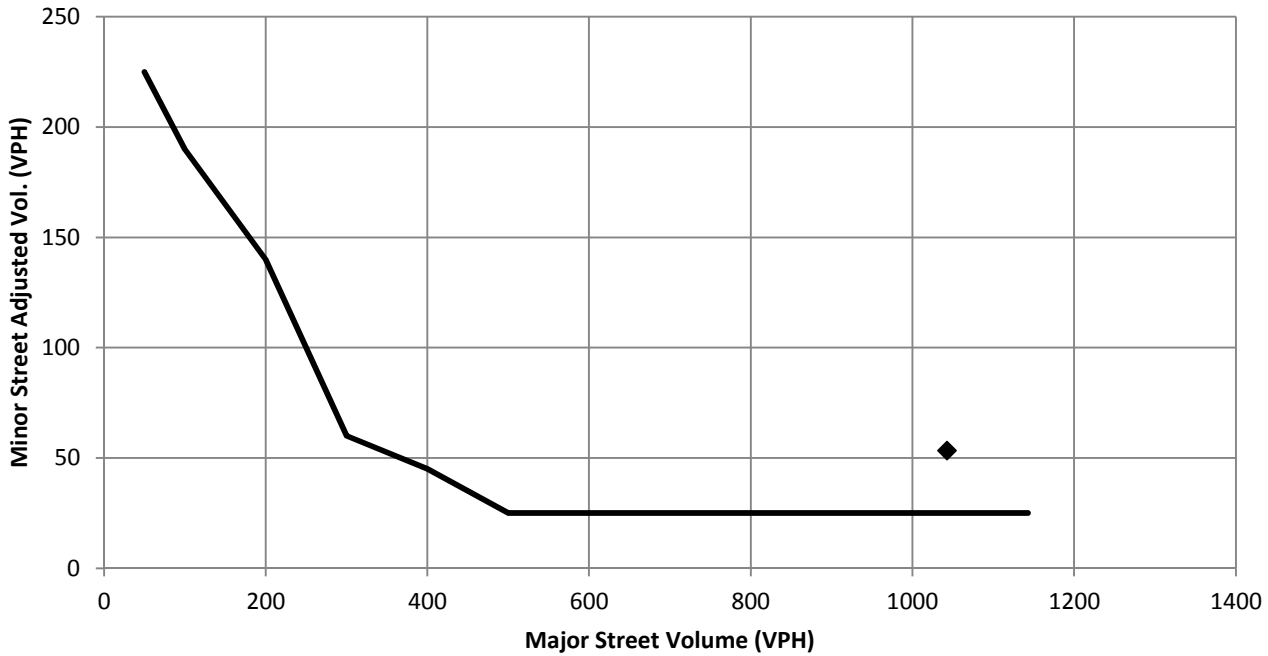


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																				
One Hour Time Period Start Time		↓ From North (SB)				← From East (WB)				↑ From South (NB)				→ From West (EB)			Total Vehicle Volume			
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total				
AM	6:00	89	0	17		106	17	115	0		132	0	1	0		1	163	78	241	480
	7:00	130	0	29		159	53	259	0		312	1	0	1		2	615	116	731	1204
	8:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
	9:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
MD	10:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
	11:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
	12:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
	13:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	0
PM	14:00	120	0	43		163	44	291	0		335	0	0	0		0	239	88	327	825
	15:00	167	0	62		229	53	315	1		369	0	0	0		0	328	131	459	1057
	16:00	156	0	38		194	39	265	0		304	0	0	1		1	352	109	461	960
	17:00	152	0	36		188	28	261	0		289	0	0	0		0	299	93	392	869
	18:00																			0
	19:00																			0
	20:00																			0
	21:00																			0
	Totals	814	0	225	0	1039	234	1506	1	0	1741	1	1	2	0	4	1996	615	0	2611

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Major Road Volume Totals:				
East/West				
Right	Thru	Left	T+LT	Total
17	278	78	356	373
53	874	116	990	1043
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
44	530	88	618	662
53	643	132	775	828
39	617	109	726	765
28	560	93	653	681
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
234	3502	616	4118	4352

Minor Road Highest Volume:				
North/South				
Right	Thru	Left	T+LT	Total
89	0	17	17	106
130	0	29	29	159
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
120	0	43	43	163
167	0	62	62	229
156	0	38	38	194
152	0	36	36	188
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
814	0	225	225	1039

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)

From North (SB)

100%

From East (WB)

100%

From South (NB)

100%

From West (EB)

100%

Page 1

[illegible][illegible]

Background Traffic

[illegible][illegible][illegible]

High School Expansion

[illegible][illegible][illegible]

Intermediate School

[illegible][illegible][illegible]

Hourly Volume Data																
One Hour Time Period Start Time	↓ From North (SB)				← From East (WB)				↑ From South (NB)				→ From West (EB)			
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Total Vehicle Volume
AM	6:00	26	22	54		102	19	141	61	221	21	7	1		29	649
	7:00	29	65	40	134	38	218	75		331	23	15	2		40	1072
	8:00	35	60	47	142	20	136	41		197	30	25	2		57	712
	9:00	29	54	49	132	21	125	36		182	30	25	5		60	590
MD	10:00	29	42	53	124	27	129	37		193	31	32	5		68	582
	11:00	48	64	85	197	38	184	56		278	69	41	5		115	809
	12:00	54	68	68	190	49	215	68		332	47	33	10		90	861
	13:00	62	39	63	164	38	207	51		296	45	35	6		86	782
PM	14:00	55	42	92	189	43	304	64		411	37	30	5		72	939
	15:00	96	38	73	207	40	314	44		398	78	67	13		158	1053
	16:00	123	55	92	270	39	336	52		427	103	64	8		175	1235
	17:00	111	35	85	231	33	366	47		446	59	41	9		109	1127
	18:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	19:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	20:00	0	0	0	0	0	0	0		0	0	0	0		0	0
Totals	21:00	697	584	801	0	2082	405	2675	632	3712	573	415	71	0	1059	10411

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

518131

898174

513199

398192

390192

497312

581280

532250

678261

688365

790445

787340

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at Mid Valley Drive

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: Mid Valley Drive

Critical Approach Speed: 35 mph

Critical Approach Speed: 45 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 4 or more

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/16/2018	Friday	6:00	AM	8:00	PM
11/15/2019	Thursday	2:00	PM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	No
Warrant 3: Peak Hour Volume	No
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume**100%****Warrant Evaluated? Yes**

Condition A :		
Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	6	9

Satisfied? No

Condition B:		
Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	2	4

Satisfied? No

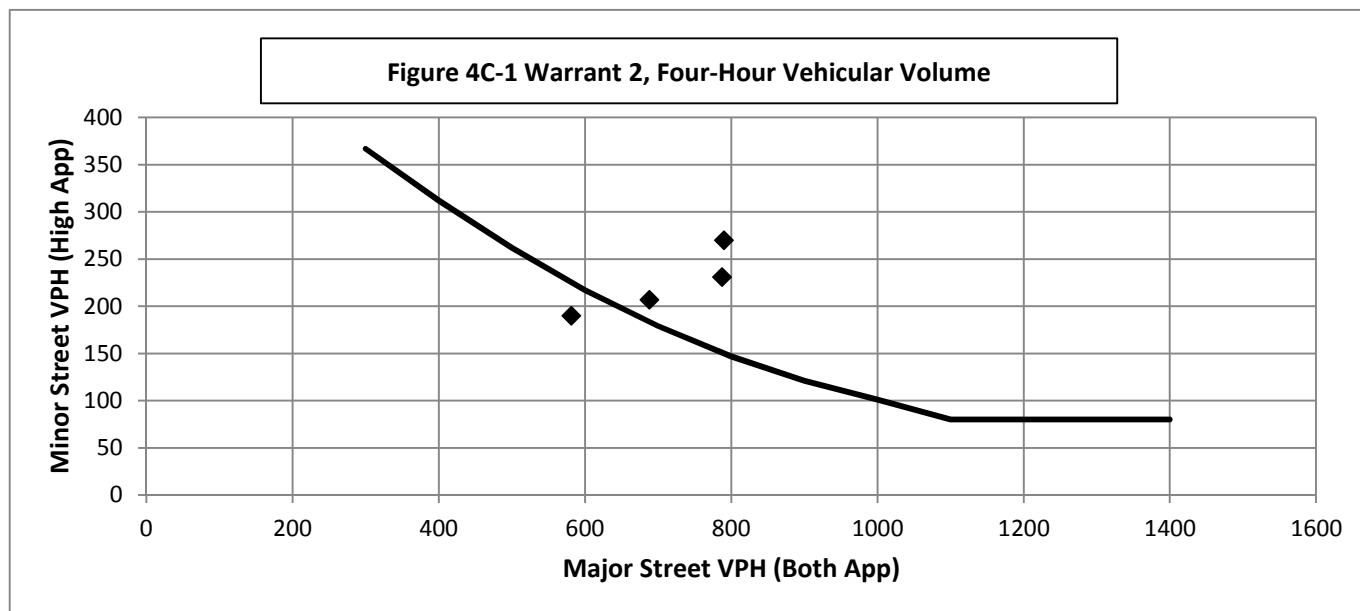
Condition C:		
Combination of A & B at 80%		

Satisfied? No**Warrant Satisfied? No****Manually Set To:**

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	518	102	620
2	7:00	8:00	668	124	792
3	8:00	9:00	513	142	655
4	9:00	10:00	398	132	530
5	10:00	11:00	390	124	514
6	11:00	12:00	497	197	694
7	12:00	13:00	581	190	771
8	13:00	14:00	532	164	696
9	14:00	15:00	548	184	732
10	15:00	16:00	688	207	895
11	16:00	17:00	790	270	1060
12	17:00	18:00	787	231	1018
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Hour Start	16:00	17:00	15:00	12:00
Major Road Vol.	790	787	688	581
Minor Road Vol.	270	231	207	190



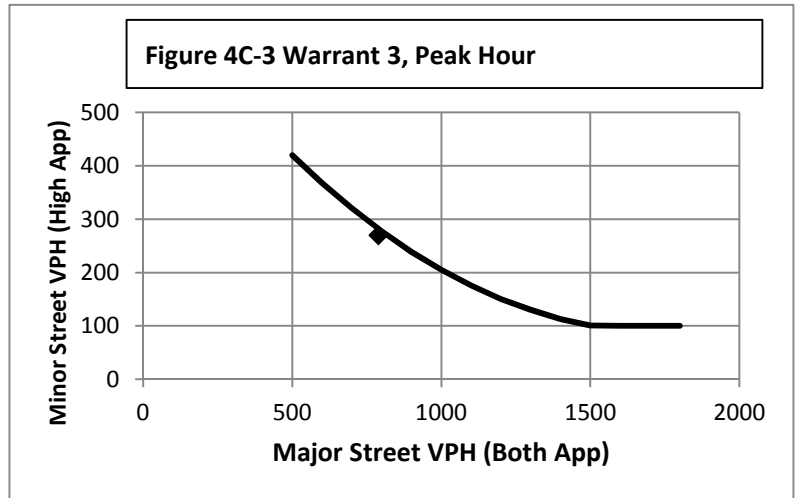
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	Yes
Volume on Minor Approach	100	
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

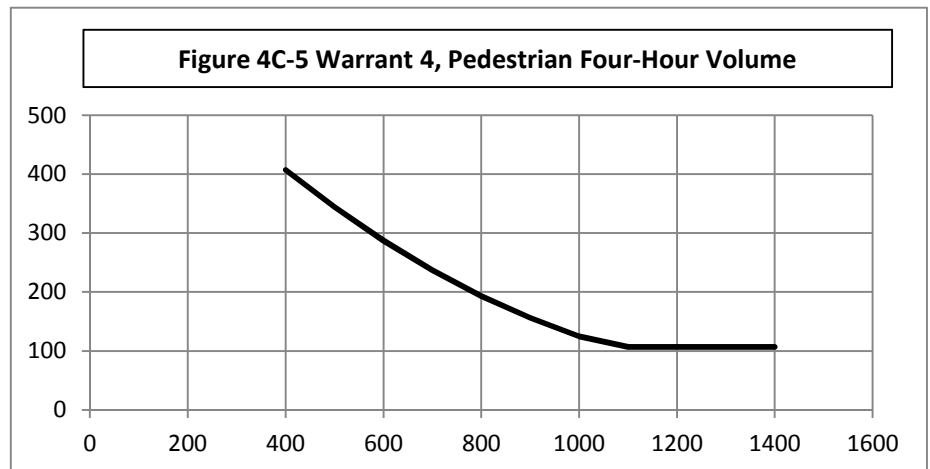
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
16:00	790	270

**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

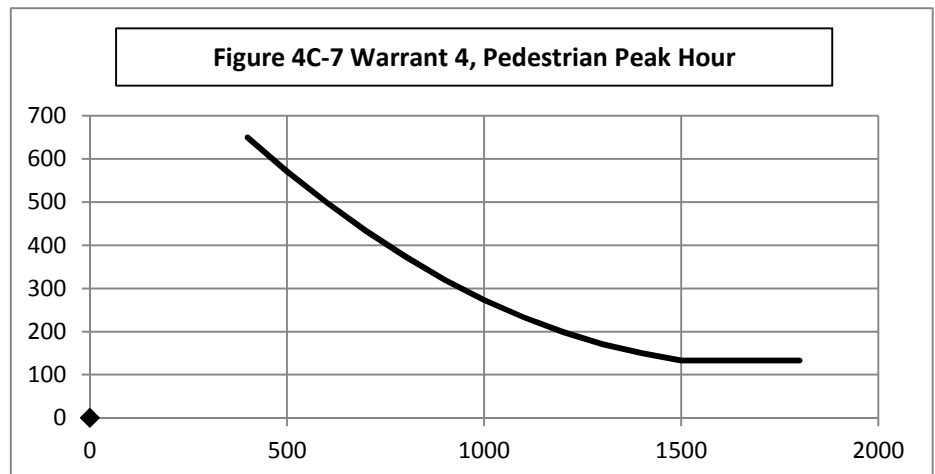
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)		Yes	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		1060	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing**100%**

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	16:00	790	270	90.45

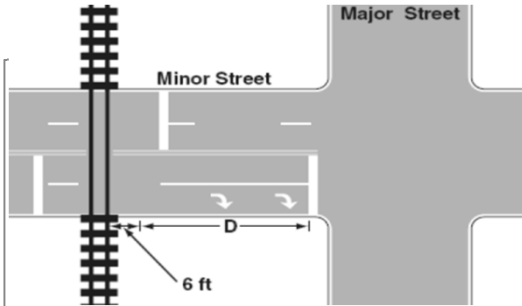
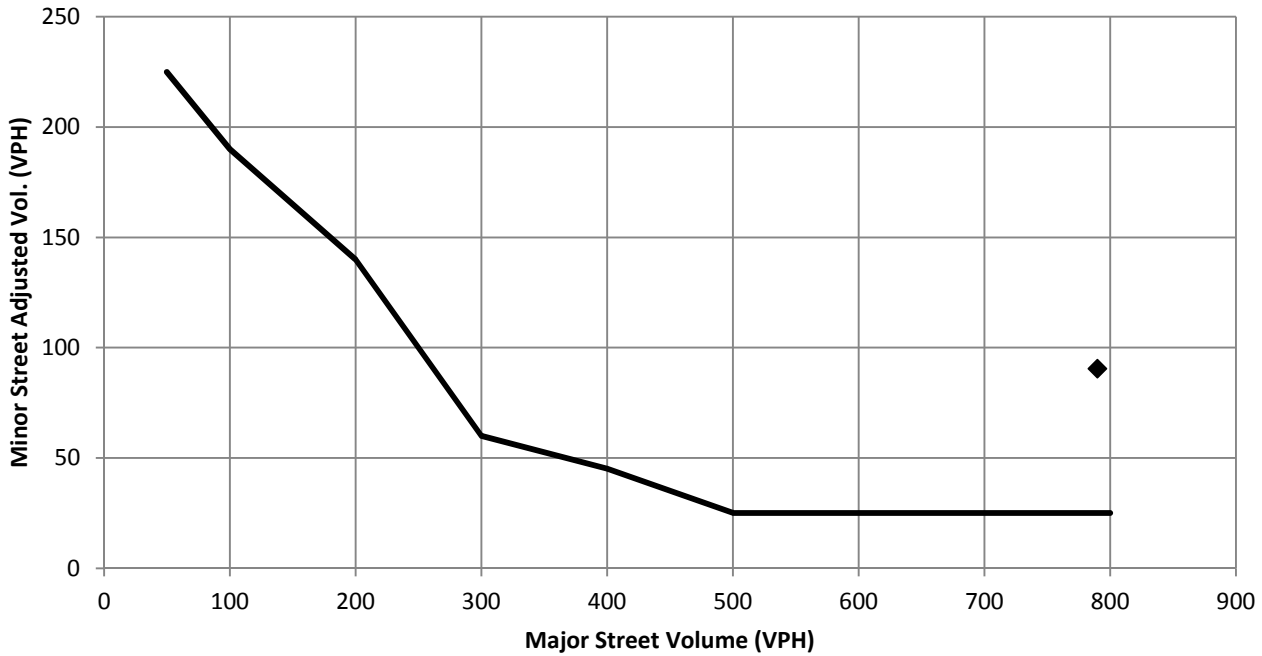


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																						
One Hour Time Period Start Time		↓ From North (SB)					← From East (WB)					↑ From South (NB)					→ From West (EB)					Total Vehicle Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	6:00	26	22	54		102	19	141	61		221	21	7	1		29	6	212	79		297	649
	7:00	29	65	30		124	33	138	70		241	18	15	2		35	11	297	119		427	827
	8:00	35	60	47		142	20	136	41		197	30	25	2		57	10	240	66		316	712
	9:00	29	54	49		132	21	125	36		182	30	25	5		60	13	169	34		216	590
MD	10:00	29	42	53		124	27	129	37		193	31	32	5		68	5	156	36		197	582
	11:00	48	64	85		197	38	184	56		278	69	41	5		115	7	180	32		219	809
	12:00	54	68	68		190	49	215	68		332	47	33	10		90	9	193	47		249	861
	13:00	62	39	63		164	38	207	51		296	45	35	6		86	6	184	46		236	782
PM	14:00	55	42	87		184	33	224	59		316	37	30	5		72	10	178	44		232	804
	15:00	96	38	73		207	40	314	44		398	78	67	13		158	12	229	49		290	1053
	16:00	123	55	92		270	39	336	52		427	103	64	8		175	8	291	64		363	1235
	17:00	111	35	85		231	33	366	47		446	59	41	9		109	14	258	69		341	1127
	18:00																					0
	19:00																					0
	20:00																					0
21:00																						0
Totals		697	584	786	0	2067	390	2515	622	0	3527	568	415	71	0	1054	111	2587	685	0	3383	10031

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Major Road Volume Totals:				
East/West				
Right	Thru	Left	T+LT	Total
25	353	140	493	518
44	435	189	624	668
30	376	107	483	513
34	294	70	364	398
32	285	73	358	390
45	364	88	452	497
58	408	115	523	581
44	391	97	488	532
43	402	103	505	548
52	543	93	636	688
47	627	116	743	790
47	624	116	740	787
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
501	5102	1307	6409	6910

Minor Road Highest Volume:				
North/South				
Right	Thru	Left	T+LT	Total
26	22	54	76	102
29	65	30	95	124
35	60	47	107	142
29	54	49	103	132
29	42	53	95	124
48	64	85	149	197
54	68	68	136	190
62	39	63	102	164
55	42	87	129	184
96	38	73	111	207
123	55	92	147	270
111	35	85	120	231
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
697	584	786	1370	2067

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)

From North (SB)

100%

From East (WB)

100%

From South (NB)

100%

From West (EB)

100%

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at Mid Valley Drive

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: Mid Valley Drive

Critical Approach Speed: 35 mph

Critical Approach Speed: 45 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 4 or more

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/16/2018	Friday	6:00	AM	8:00	PM
11/15/2019	Thursday	2:00	PM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	Yes
Warrant 3: Peak Hour Volume	N/A
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume

100%

Warrant Evaluated? Yes

Warrant Satisfied? No

Manually Set To:

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	6	9

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	3	5

Satisfied? No

Condition C: Combination of A & B at 80%		
---	--	--

Satisfied? No

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	518	102	620
2	7:00	8:00	898	134	1032
3	8:00	9:00	513	142	655
4	9:00	10:00	398	132	530
5	10:00	11:00	390	124	514
6	11:00	12:00	497	197	694
7	12:00	13:00	581	190	771
8	13:00	14:00	532	164	696
9	14:00	15:00	678	189	867
10	15:00	16:00	688	207	895
11	16:00	17:00	790	270	1060
12	17:00	18:00	787	231	1018
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume

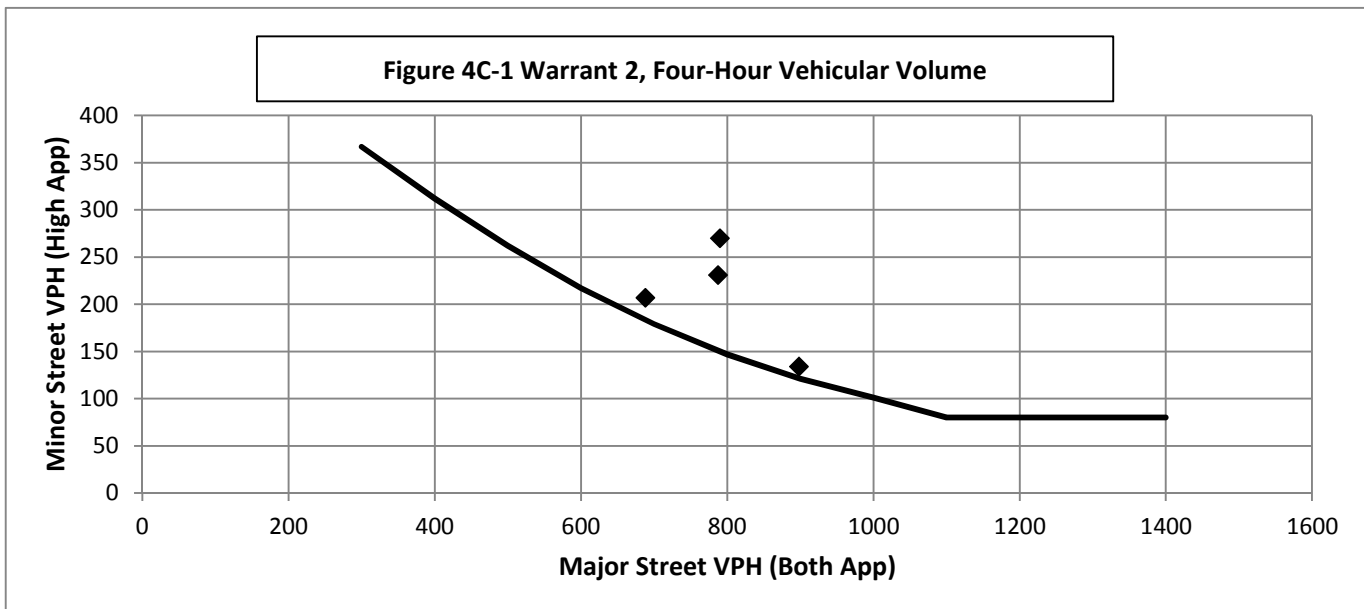
100%

Warrant Evaluated? Yes

Warrant Satisfied? Yes

Manually Set To:

Hour Start	16:00	7:00	17:00	15:00
Major Road Vol.	790	898	787	688
Minor Road Vol.	270	134	231	207



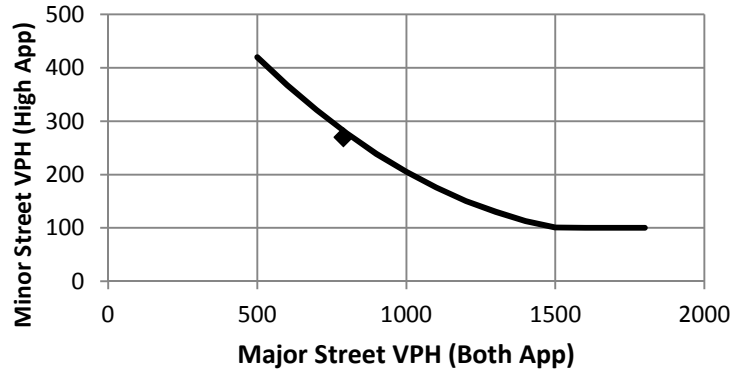
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	
Volume on Minor Approach	100	
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

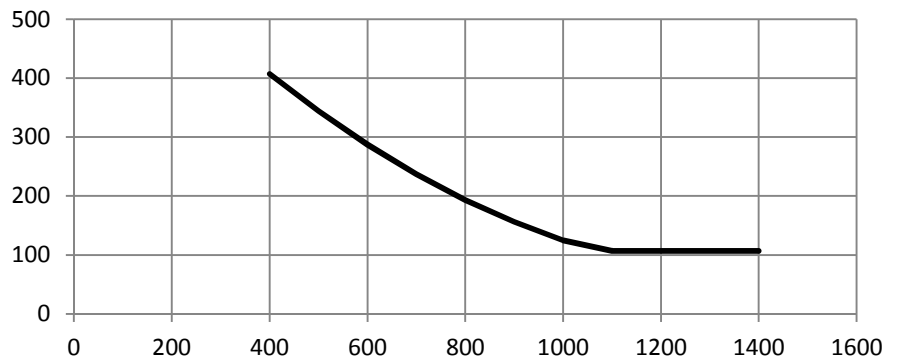
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
16:00	790	270

Figure 4C-3 Warrant 3, Peak Hour**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

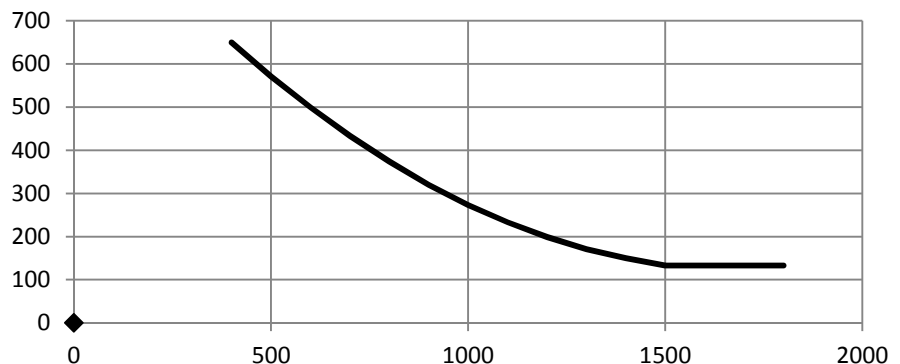
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Figure 4C-5 Warrant 4, Pedestrian Four-Hour Volume****Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?**Figure 4C-7 Warrant 4, Pedestrian Peak Hour**

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)		Yes	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		1060	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	16:00	790	270	90.45

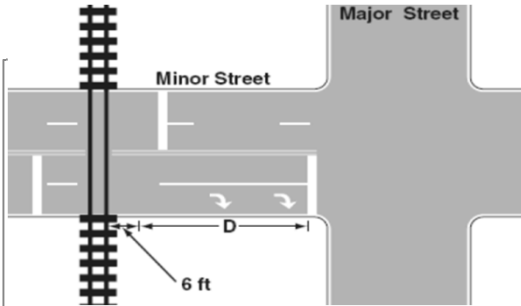
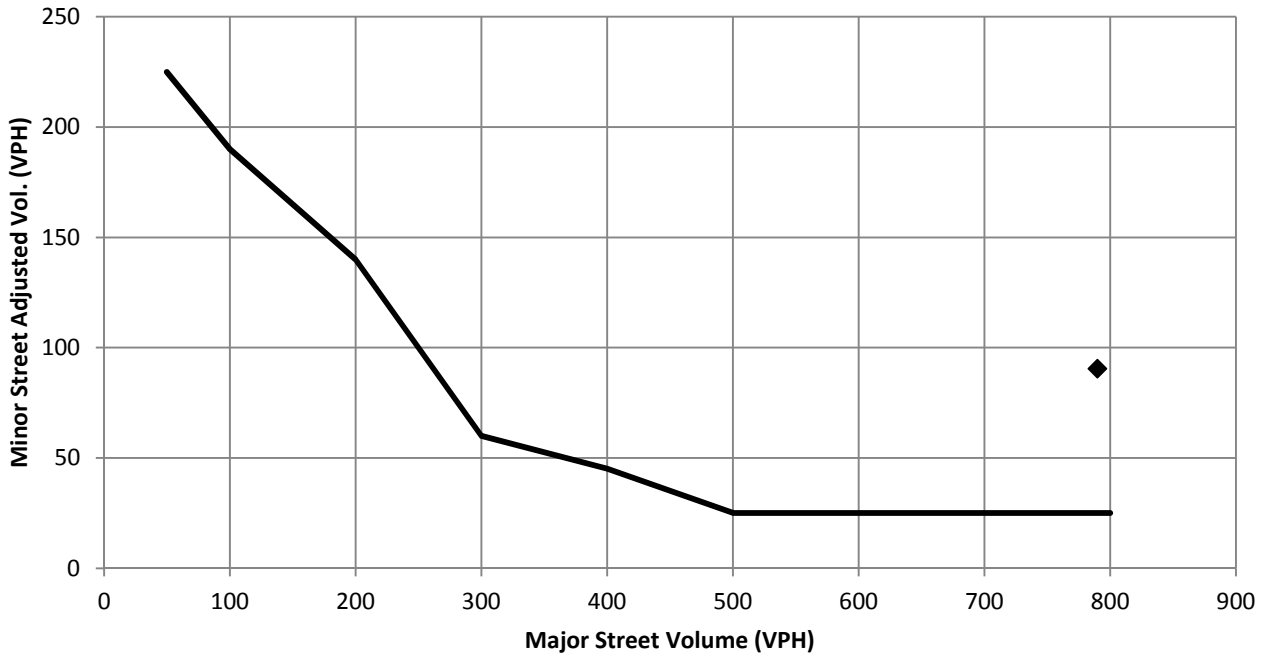


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																						
One Hour Time Period Start Time		↓ From North (SB)					← From East (WB)					↑ From South (NB)					→ From West (EB)					Total Vehicle Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	6:00	26	22	54		102	19	141	61		221	21	7	1		29	6	212	79		297	649
	7:00	29	65	40		134	38	218	75		331	23	15	2		40	11	437	119		567	1072
	8:00	35	60	47		142	20	136	41		197	30	25	2		57	10	240	66		316	712
	9:00	29	54	49		132	21	125	36		182	30	25	5		60	13	169	34		216	590
MD	10:00	29	42	53		124	27	129	37		193	31	32	5		68	5	156	36		197	582
	11:00	48	64	85		197	38	184	56		278	69	41	5		115	7	180	32		219	809
	12:00	54	68	68		190	49	215	68		332	47	33	10		90	9	193	47		249	861
	13:00	62	39	63		164	38	207	51		296	45	35	6		86	6	184	46		236	782
PM	14:00	55	42	92		189	43	304	64		411	37	30	5		72	10	213	44		267	939
	15:00	96	38	73		207	40	314	44		398	78	67	13		158	12	229	49		290	1053
	16:00	123	55	92		270	39	336	52		427	103	64	8		175	8	291	64		363	1235
	17:00	111	35	85		231	33	366	47		446	59	41	9		109	14	258	69		341	1127
	18:00																					0
	19:00																					0
	20:00																					0
Totals		697	584	801	0	2082	405	2675	632	0	3712	573	415	71	0	1059	111	2762	685	0	3558	10411

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Major Road Volume Totals:				
East/West				
Right	Thru	Left	T+LT	Total
25	353	140	493	518
49	655	194	849	898
30	376	107	483	513
34	294	70	364	398
32	285	73	358	390
45	364	88	452	497
58	408	115	523	581
44	391	97	488	532
53	517	108	625	678
52	543	93	636	688
47	627	116	743	790
47	624	116	740	787
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
516	5437	1317	6754	7270

Minor Road Highest Volume:				
North/South				
Right	Thru	Left	T+LT	Total
26	22	54	76	102
29	65	40	105	134
35	60	47	107	142
29	54	49	103	132
29	42	53	95	124
48	64	85	149	197
54	68	68	136	190
62	39	63	102	164
55	42	92	134	189
96	38	73	111	207
123	55	92	147	270
111	35	85	120	231
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
697	584	801	1385	2082

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)
From North (SB)

100%

From East (WB)

100%

From South (NB)

100%

From West (EB)

100%

Page 1

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Hourly Volume Data																
One Hour Time Period Start Time	↓ From North (SB)				← From East (WB)				↑ From South (NB)				→ From West (EB)			
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Total Vehicle Volume
AM	6:00	16	0	5	21	6	153	45		204	83	1	42		126	224
	7:00	30	0	7	37	22	279	45		346	92	0	40		132	749
	8:00	21	0	1	22	7	160	70		237	128	0	50		178	323
	9:00	0	0	0	0	0	157	48		205	82	0	45		127	193
MD	10:00	0	0	0	0	2	182	52		236	72	0	29		101	229
	11:00	0	0	0	0	0	191	77		268	81	0	47		128	269
	12:00	0	0	0	0	0	236	64		300	75	0	45		120	298
	13:00	0	0	0	0	0	234	72		306	72	0	28		100	259
PM	14:00	39	0	5	44	18	296	40		354	14	0	18		32	413
	15:00	48	0	11	59	21	347	115		483	153	0	48		201	444
	16:00	52	0	8	60	12	272	139		423	104	1	44		149	500
	17:00	47	0	6	53	6	276	128		410	89	0	40		129	399
	18:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	19:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	20:00	0	0	0	0	0	0	0		0	0	0	0		0	0
	21:00	0	0	0	0	0	0	0		0	0	0	0		0	0
Totals		253	0	43	0	296	94	2783	895	0	3772	1045	2	476	0	4300

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

428 147
1095 169
560 200
398 127
465 101
537 128
598 120
565 100
767 76
927 260
923 209
809 182

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at Suburban Drive/Apollo Way

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: Suburban Drive

Critical Approach Speed: 25 mph

Critical Approach Speed: 25 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 4 or more

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/13/2018	Tuesday	6:00	AM	8:00	PM
11/12/2018	Monday	2:00	PM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	No
Warrant 3: Peak Hour Volume	No
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume**100%****Warrant Evaluated? Yes**

Condition A :		
Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	3	8

Satisfied? No

Condition B:		
Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	5	5

Satisfied? No

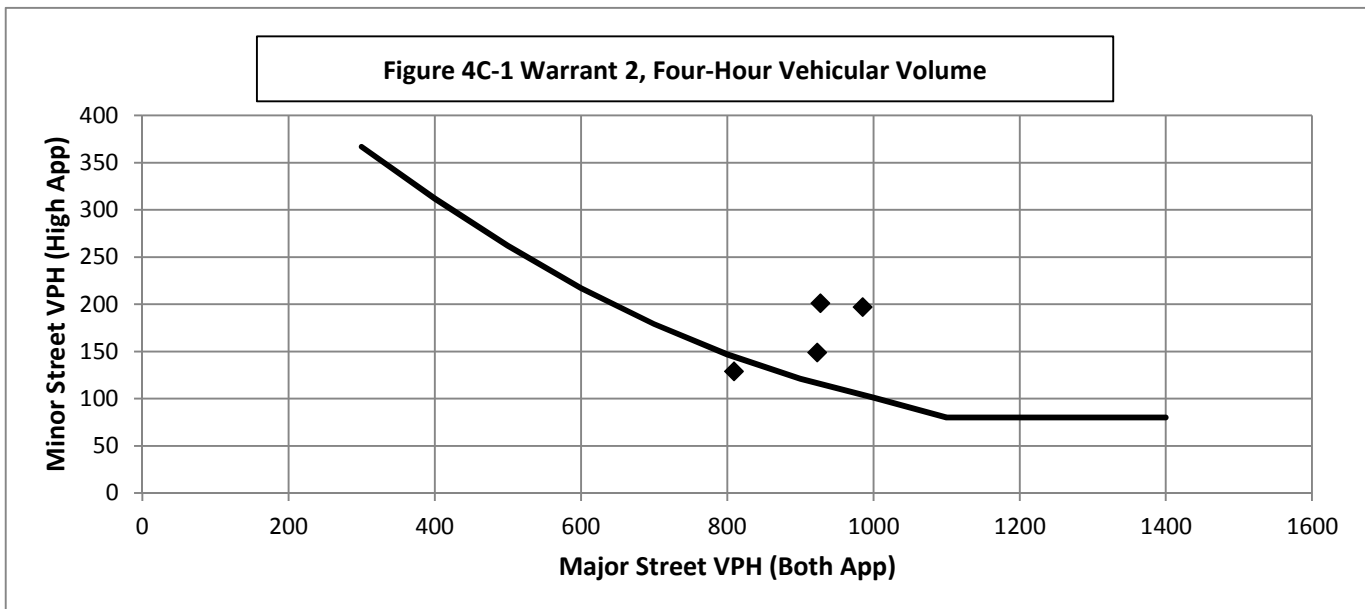
Condition C:		
Combination of A & B at 80%		

Satisfied? No**Warrant Satisfied? No****Manually Set To:**

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	428	126	554
2	7:00	8:00	985	197	1182
3	8:00	9:00	560	178	738
4	9:00	10:00	398	127	525
5	10:00	11:00	465	101	566
6	11:00	12:00	537	128	665
7	12:00	13:00	598	120	718
8	13:00	14:00	565	100	665
9	14:00	15:00	792	97	889
10	15:00	16:00	927	201	1128
11	16:00	17:00	923	149	1072
12	17:00	18:00	809	129	938
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Hour Start	7:00	15:00	16:00	17:00
Major Road Vol.	985	927	923	809
Minor Road Vol.	197	201	149	129



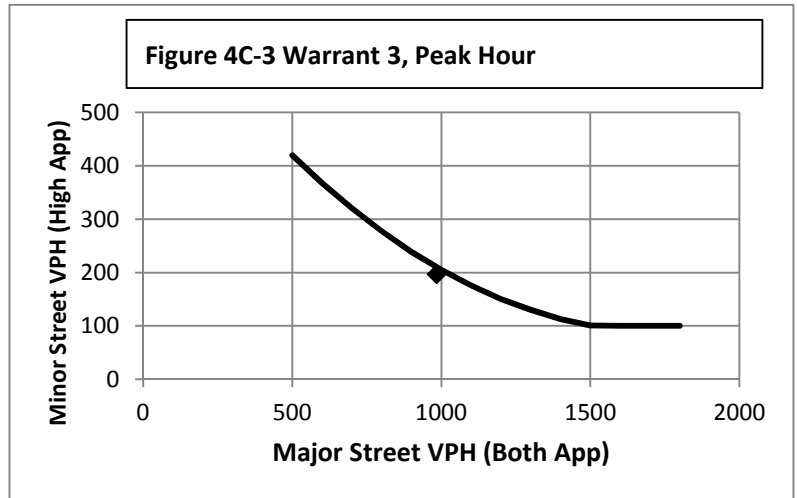
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	Yes
Volume on Minor Approach	100	Yes
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

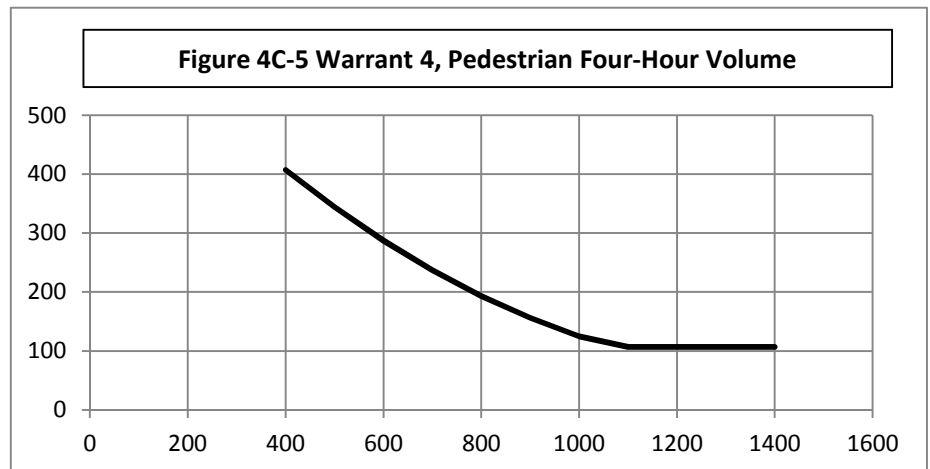
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
7:00	985	197

**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

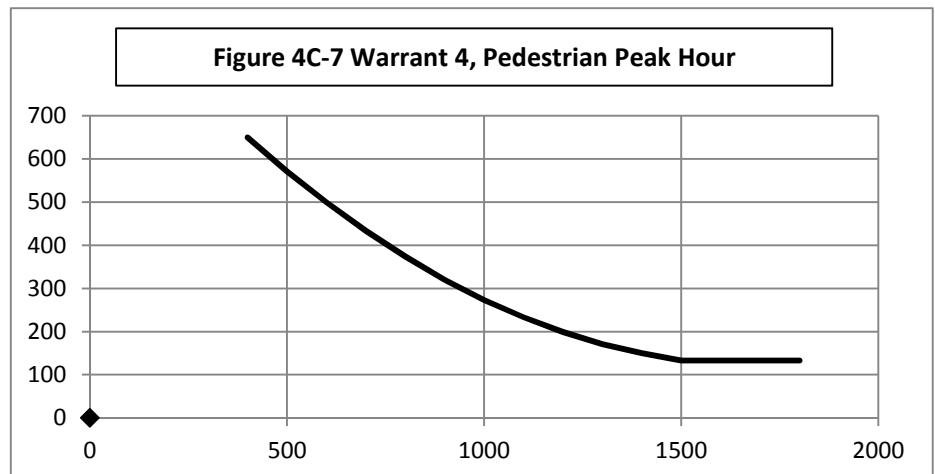
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)		Yes	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		1182	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	7:00	985	197	65.995

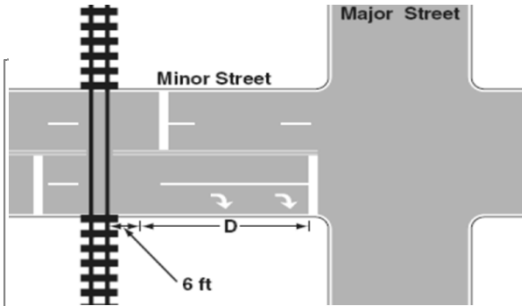
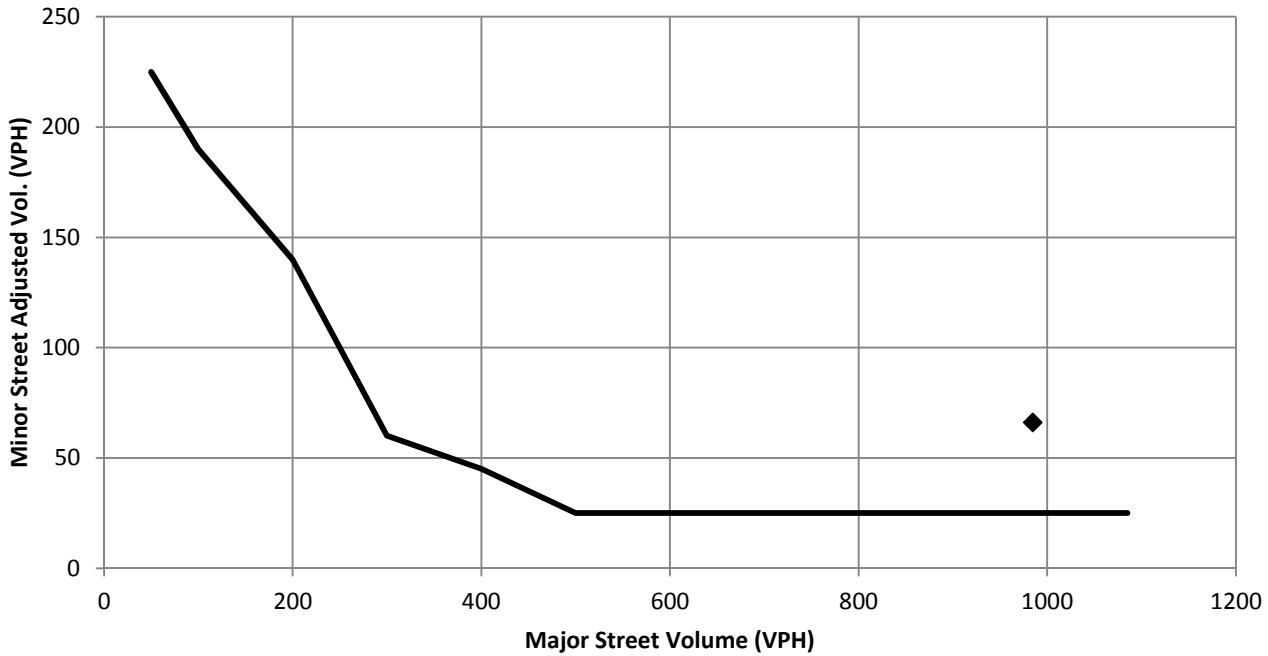


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																						
One Hour Time Period Start Time	↓ From North (SB)					← From East (WB)					↑ From South (NB)					→ From West (EB)					Total Vehicle Volume	
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total		
AM	6:00	16	0	5		21	6	153	45		204	83	1	42		126	25	153	46		224	575
	7:00	30	0	2		32	22	249	80		351	157	0	40		197	52	511	71		634	1214
	8:00	21	0	1		22	7	160	70		237	128	0	50		178	47	239	37		323	760
	9:00	0	0	0		0	0	157	48		205	82	0	45		127	28	165	0		193	525
MD	10:00	0	0	0		0	2	182	52		236	72	0	29		101	45	184	0		229	566
	11:00	0	0	0		0	0	191	77		268	81	0	47		128	47	222	0		269	665
	12:00	0	0	0		0	0	236	64		300	75	0	45		120	67	231	0		298	718
	13:00	0	0	0		0	0	234	72		306	72	0	28		100	48	211	0		259	665
PM	14:00	39	0	5		44	13	281	95		389	79	0	18		97	62	289	52		403	933
	15:00	48	0	11		59	21	347	115		483	153	0	48		201	74	291	79		444	1187
	16:00	52	0	8		60	12	272	139		423	104	1	44		149	93	345	62		500	1132
	17:00	47	0	6		53	6	276	128		410	89	0	40		129	76	273	50		399	991
	18:00																					0
	19:00																					0
	20:00																					0
Totals		253	0	38	0	291	89	2738	985	0	3812	1175	2	476	0	1653	664	3114	397	0	4175	9931

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Major Road Volume Totals:					
East/West					
Right	Thru	Left	T+LT	Total	
31	306	91	397	428	
74	760	151	911	985	
54	399	107	506	560	
28	322	48	370	398	
47	366	52	418	465	
47	413	77	490	537	
67	467	64	531	598	
48	445	72	517	565	
75	570	147	717	792	
95	638	194	832	927	
105	617	201	818	923	
82	549	178	727	809	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
753	5852	1382	7234	7987	

Minor Road Highest Volume:					
North/South					
Right	Thru	Left	T+LT	Total	
83	1	42	43	126	
157	0	40	40	197	
128	0	50	50	178	
82	0	45	45	127	
72	0	29	29	101	
81	0	47	47	128	
75	0	45	45	120	
72	0	28	28	100	
79	0	18	18	97	
153	0	48	48	201	
104	1	44	45	149	
89	0	40	40	129	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
1175	2	476	478	1653	

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)
From North (SB)

100%

From East (WB)

100%

From South (NB)

100%

From West (EB)

100%

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at Suburban Drive/Apollo Way

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: Suburban Drive

Critical Approach Speed: 25 mph

Critical Approach Speed: 25 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 4 or more

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/13/2018	Tuesday	6:00	AM	8:00	PM
11/12/2018	Monday	2:00	PM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	No
Warrant 3: Peak Hour Volume	No
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume

100%

Warrant Evaluated? Yes

Warrant Satisfied? No

Manually Set To:

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	2	8

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	4	4

Satisfied? No

Condition C: Combination of A & B at 80%		
---	--	--

Satisfied? No

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	428	126	554
2	7:00	8:00	1095	132	1227
3	8:00	9:00	560	178	738
4	9:00	10:00	398	127	525
5	10:00	11:00	465	101	566
6	11:00	12:00	537	128	665
7	12:00	13:00	598	120	718
8	13:00	14:00	565	100	665
9	14:00	15:00	767	44	811
10	15:00	16:00	927	201	1128
11	16:00	17:00	923	149	1072
12	17:00	18:00	809	129	938
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume

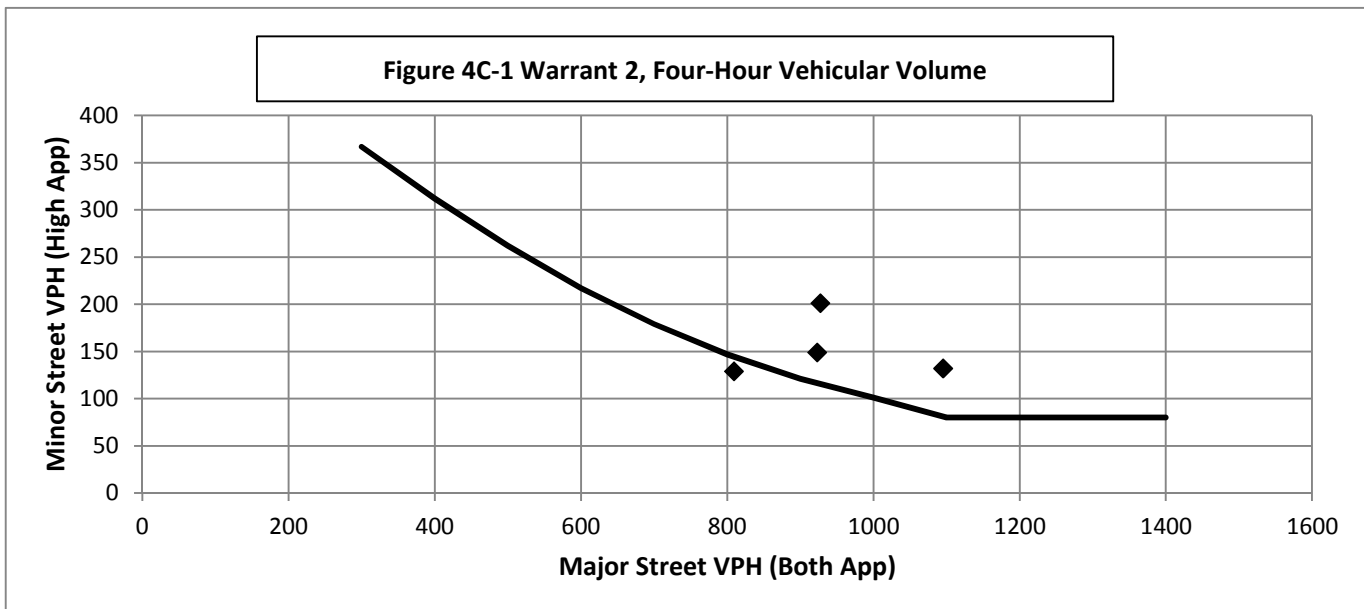
100%

Warrant Evaluated? Yes

Warrant Satisfied? No

Manually Set To:

Hour Start	7:00	15:00	16:00	17:00
Major Road Vol.	1095	927	923	809
Minor Road Vol.	132	201	149	129



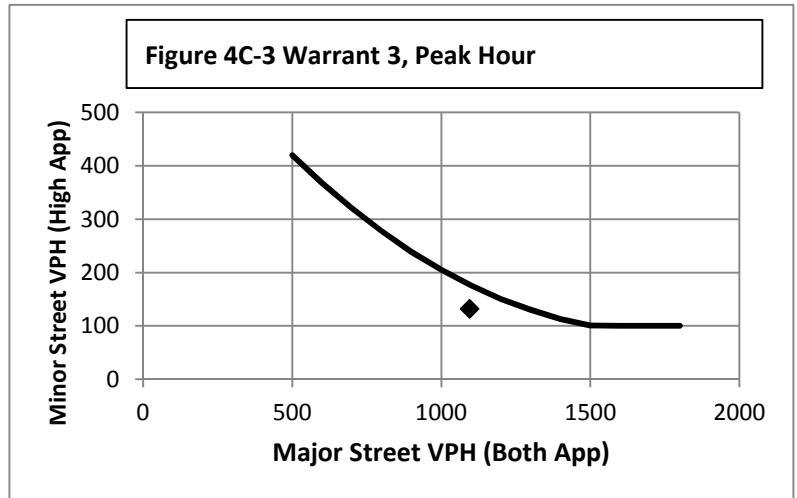
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	Yes
Volume on Minor Approach	100	Yes
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

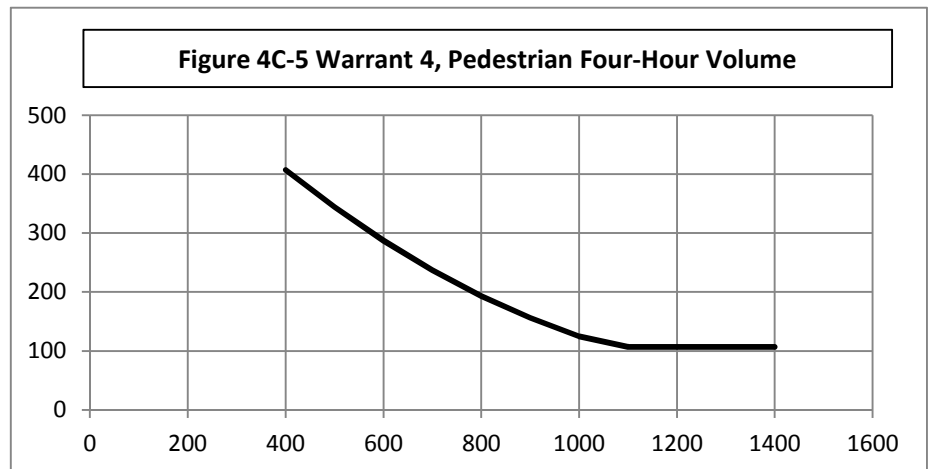
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
7:00	1095	132

**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

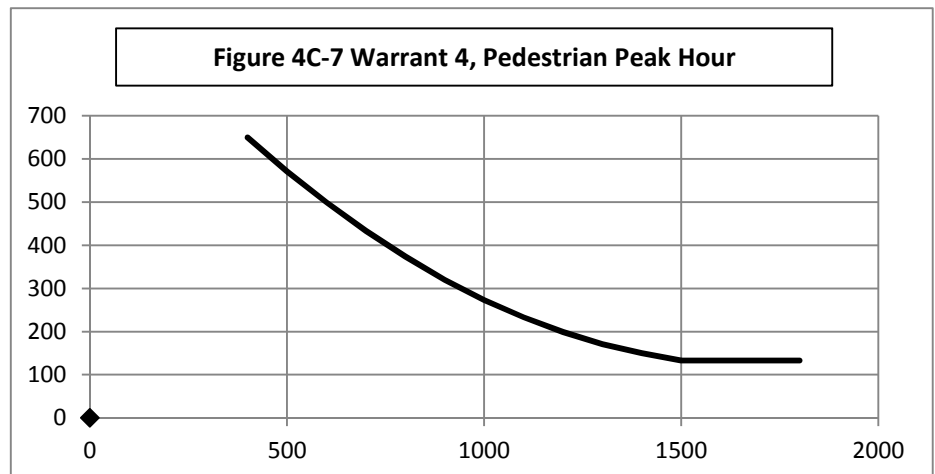
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)	Yes		Yes
	Warrant 1, Condition B (80%)	No		
	Warrant 4, Criterion A (80%)	No		
	Warrant 4, Criterion B (80%)	Yes		

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		1227	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	7:00	1095	132	44.22

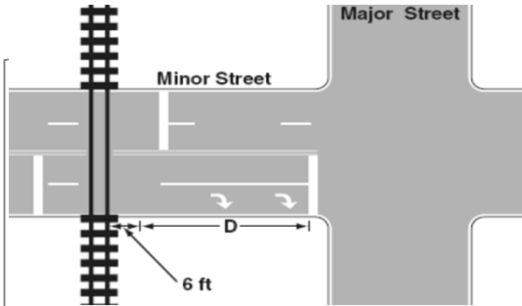
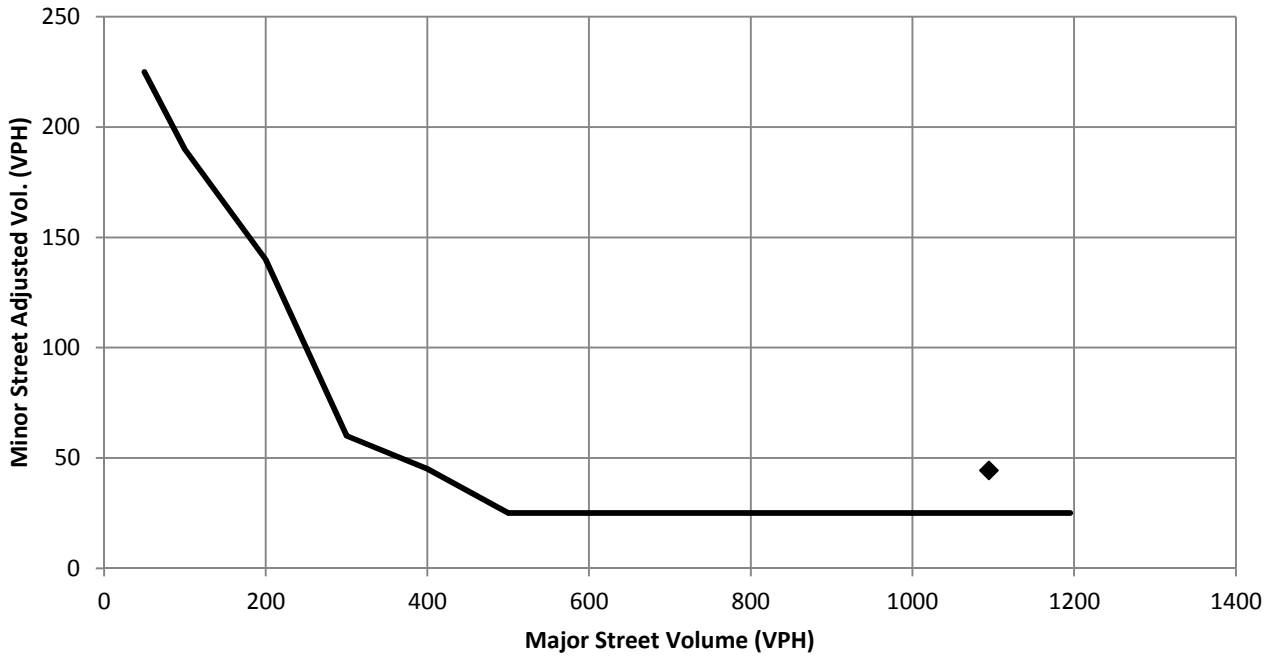


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																
One Hour Time Period Start Time	↓ From North (SB)				← From East (WB)				↑ From South (NB)				→ From West (EB)			
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Total Vehicle Volume
AM	6:00	16	0	5	21	6	153	45		204	83	1	42		126	25
	7:00	30	0	7	37	22	279	45		346	92	0	40		132	52
	8:00	21	0	1	22	7	160	70		237	128	0	50		178	47
	9:00	0	0	0	0	0	157	48		205	82	0	45		127	28
MD	10:00	0	0	0	0	2	182	52		236	72	0	29		101	45
	11:00	0	0	0	0	0	191	77		268	81	0	47		128	47
	12:00	0	0	0	0	0	236	64		300	75	0	45		120	67
	13:00	0	0	0	0	0	234	72		306	72	0	28		100	48
PM	14:00	39	0	5	44	18	296	40		354	14	0	18		32	62
	15:00	48	0	11	59	21	347	115		483	153	0	48		201	74
	16:00	52	0	8	60	12	272	139		423	104	1	44		149	93
	17:00	47	0	6	53	6	276	128		410	89	0	40		129	76
	18:00															
	19:00															
	20:00															
Totals	21:00	253	0	43	0	296	94	2783	895	0	3772	1045	2	476	0	1523
664																
3239																
397																
0																
4300																
9891																

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Major Road Volume Totals:					
East/West					
Right	Thru	Left	T+LT	Total	
31	306	91	397	428	
74	905	116	1021	1095	
54	399	107	506	560	
28	322	48	370	398	
47	366	52	418	465	
47	413	77	490	537	
67	467	64	531	598	
48	445	72	517	565	
80	595	92	687	767	
95	638	194	832	927	
105	617	201	818	923	
82	549	178	727	809	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
758	6022	1292	7314	8072	

Minor Road Highest Volume:					
North/South					
Right	Thru	Left	T+LT	Total	
83	1	42	43	126	
92	0	40	40	132	
128	0	50	50	178	
82	0	45	45	127	
72	0	29	29	101	
81	0	47	47	128	
75	0	45	45	120	
72	0	28	28	100	
39	0	5	5	44	
153	0	48	48	201	
104	1	44	45	149	
89	0	40	40	129	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
1070	2	463	465	1535	

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)

From North (SB)	100%
From East (WB)	100%
From South (NB)	100%
From West (EB)	100%

VFW D/W & Grant Street

Page 1

By: DJL
Date: 4/11/2019

[illegible][illegible][illegible][illegible]

Growth Rate	0.000%	0.000%	0.000%	0.000%	0.000%	5.000%	5.000%	0.000%	5.000%	5.000%	0.000%	0.000%
-------------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

50% increase in volume to/from south approach D/W

Hourly Volume Data																						
One Hour Time Period Start Time		↓ From North (SB)					← From East (WB)					↑ From South (NB)					→ From West (EB)					Total Vehicle Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	6:00	0	0	1		1	0	121	9		130	2	0	5		7	54	134	2		190	328
	7:00	2	0	0		2	1	222	24		247	38	0	44		82	431	297	4		732	1063
	8:00	12	0	2		14	3	150	11		164	3	0	8		11	74	221	12		307	496
	9:00	1	0	0		1	0	133	3		136	0	0	15		15	23	181	1		205	357
MD	10:00	14	0	0		14	0	184	3		187	6	0	20		26	36	212	12		260	487
	11:00	6	0	0		6	0	173	5		178	2	0	5		7	17	223	6		246	437
	12:00	3	0	1		4	0	166	2		168	3	0	11		14	14	227	8		249	435
	13:00	1	0	3		4	1	208	11		220	9	0	41		50	30	225	4		259	533
PM	14:00	12	0	1		13	0	234	26		260	92	0	84		176	134	242	2		378	827
	15:00	10	0	0		10	0	298	15		313	9	0	57		66	84	318	2		404	793
	16:00	4	0	1		5	0	267	9		276	6	0	33		39	60	327	5		392	712
	17:00	0	0	1		1	0	236	17		253	17	0	71		88	63	274	12		349	691
	18:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
	19:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
	20:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
	21:00	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
Totals		65	0	10	0	75	5	2392	135	0	2532	187	0	394	0	581	1020	2881	70	0	3971	7159

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

320 8
979 84
471 25
341 16
447 40
424 13
417 18
479 54
638 189
717 76
668 44
602 89

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at West Driveway

County: Brown

City: De Pere

Major Street: Grant Street

Critical Approach Speed: 25 mph

Lanes: 1 lane

Minor Street: West Driveway/VFW

Critical Approach Speed: 25 mph

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 4 or more

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/13/2018	Tuesday	6:00	AM	10:00	AM
11/12/2018	Monday	10:00	AM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	No
Warrant 3: Peak Hour Volume	No
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume**100%****Warrant Evaluated? Yes**

Condition A :		
Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	0	0

Satisfied? No

Condition B:		
Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	0	0

Satisfied? No

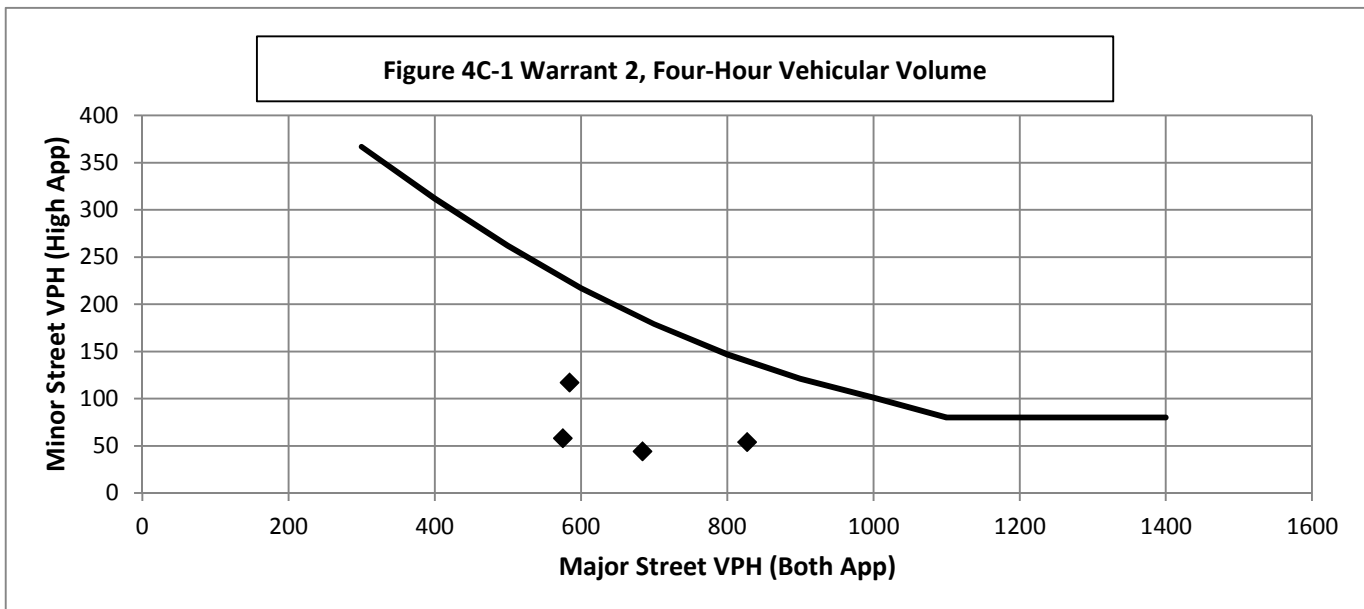
Condition C:		
Combination of A & B at 80%		

Satisfied? No**Warrant Satisfied? No****Manually Set To:**

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	299	4	303
2	7:00	8:00	827	54	881
3	8:00	9:00	442	14	456
4	9:00	10:00	332	10	342
5	10:00	11:00	434	17	451
6	11:00	12:00	416	6	422
7	12:00	13:00	411	9	420
8	13:00	14:00	465	33	498
9	14:00	15:00	584	117	701
10	15:00	16:00	684	44	728
11	16:00	17:00	645	26	671
12	17:00	18:00	575	58	633
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Hour Start	7:00	14:00	15:00	17:00
Major Road Vol.	827	584	684	575
Minor Road Vol.	54	117	44	58



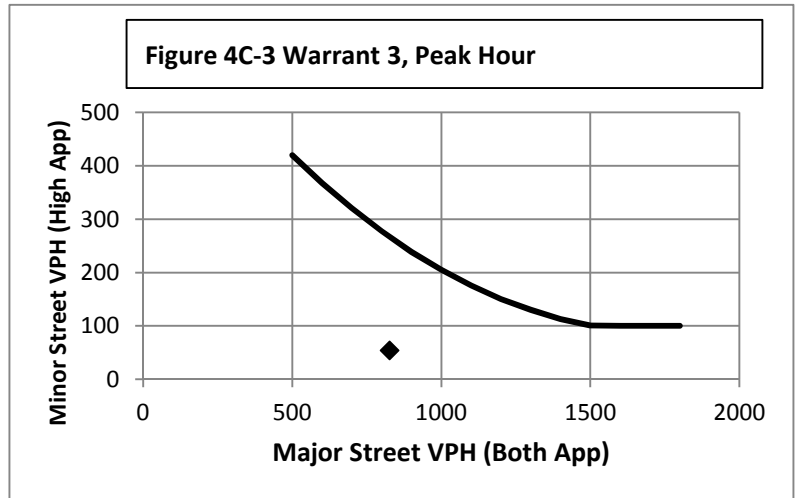
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	Yes
Volume on Minor Approach	100	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

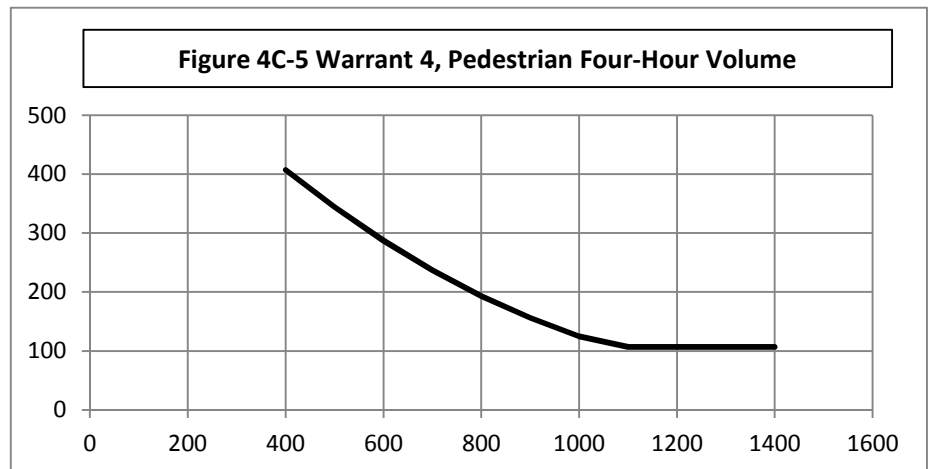
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
7:00	827	54

**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

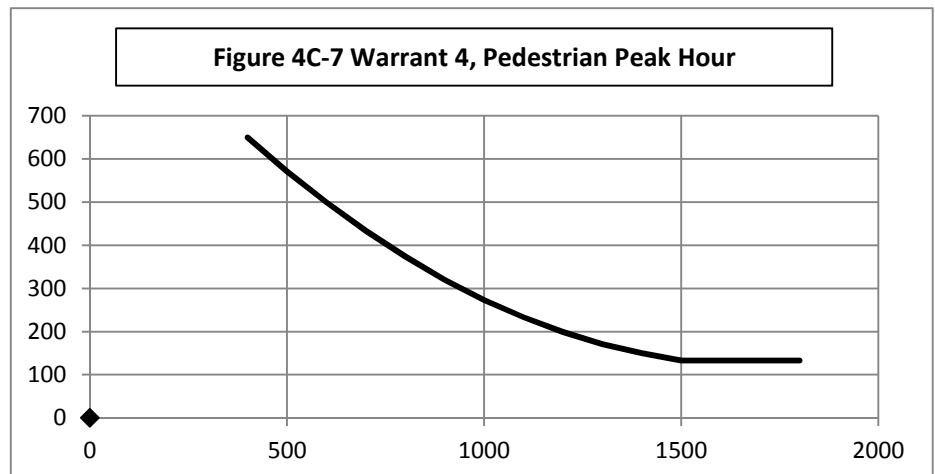
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.		# of crashes per 12 months	
3	Warrant 1, Condition A (80%)		No	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		881	No	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	7:00	827	54	18.09

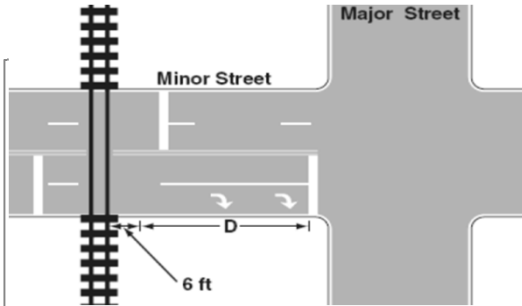
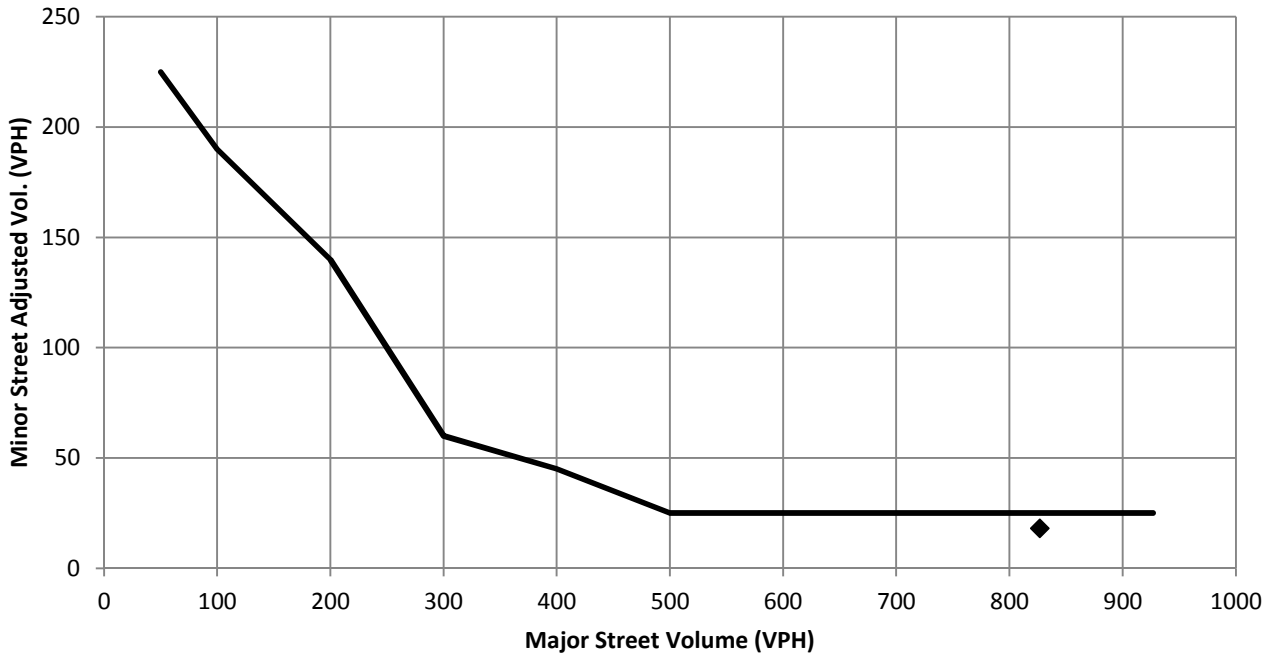


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																						
One Hour Time Period Start Time		↓ From North (SB)					← From East (WB)					↑ From South (NB)					→ From West (EB)					Total Vehicle Volume
		Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	
AM	6:00	0	0	1		1	0	121	6		127	1	0	3		4	36	134	2		172	304
	7:00	2	0	0		2	1	222	16		239	25	0	29		54	287	297	4		588	883
	8:00	12	0	2		14	3	150	7		160	2	0	5		7	49	221	12		282	463
	9:00	1	0	0		1	0	133	2		135	0	0	10		10	15	181	1		197	343
MD	10:00	14	0	0		14	0	184	2		186	4	0	13		17	24	212	12		248	465
	11:00	6	0	0		6	0	173	3		176	1	0	3		4	11	223	6		240	426
	12:00	3	0	1		4	0	166	1		167	2	0	7		9	9	227	8		244	424
	13:00	1	0	3		4	1	208	7		216	6	0	27		33	20	225	4		249	502
PM	14:00	12	0	1		13	0	234	17		251	61	0	56		117	89	242	2		333	714
	15:00	10	0	0		10	0	298	10		308	6	0	38		44	56	318	2		376	738
	16:00	4	0	1		5	0	267	6		273	4	0	22		26	40	327	5		372	676
	17:00	0	0	1		1	0	236	11		247	11	0	47		58	42	274	12		328	634
	18:00																					0
	19:00																					0
	20:00																					0
	21:00																					0
Totals		65	0	10	0	75	5	2392	88	0	2485	123	0	260	0	383	678	2881	70	0	3629	6572

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Minor Road Highest Volume:					
North/South					
Right	Thru	Left	T+LT	Total	
1	0	3	3	4	
25	0	29	29	54	
12	0	2	2	14	
0	0	10	10	10	
4	0	13	13	17	
6	0	0	0	6	
2	0	7	7	9	
6	0	27	27	33	
61	0	56	56	117	
6	0	38	38	44	
4	0	22	22	26	
11	0	47	47	58	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
138	0	254	254	392	

Major Road Volume Totals:					
East/West					
Right	Thru	Left	T+LT	Total	
36	255	8	263	299	
288	519	20	539	827	
52	371	19	390	442	
15	314	3	317	332	
24	396	14	410	434	
11	396	9	405	416	
9	393	9	402	411	
21	433	11	444	465	
89	476	19	495	584	
56	616	12	628	684	
40	594	11	605	645	
42	510	23	533	575	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
683	5273	158	5431	6114	

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)

From North (SB)	100%
From East (WB)	100%
From South (NB)	100%
From West (EB)	100%

Wisconsin Department of Transportation Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Grant Street at West Driveway

County: Brown

City: De Pere

Major Street: Grant Street

Minor Street: West Driveway/VFW

Critical Approach Speed: 25 mph

Critical Approach Speed: 25 mph

Lanes: 1 lane

Lanes: 1 lane

% Right Turns Included

From North (SB) 100%

From East (WB) 100%

From South (NB) 100%

From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No

Total number of approaches at intersection? 4 or more

If it is a "T" intersection, inflate minor threshold to 150%? No

Manually set volume level? No

Analysis based on **EXISTING** volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
11/13/2018	Tuesday	6:00	AM	10:00	AM
11/12/2018	Monday	10:00	AM	6:00	PM

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	No
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	No
Warrant 3: Peak Hour Volume	No
Warrant 4: Pedestrian Volume	N/A
Criterion A: Four-Hour	
Criterion B: Peak-Hour	
Warrant 5: School Crossing	N/A
Warrant 6: Coordinated Signal System	N/A
Warrant 7: Crash Experience	N/A
Warrant 8: Roadway Network	N/A
Warrant 9: Intersection Near a Grade Crossing	N/A

Warrant Analysis Conducted By:

Name: Don Lee

Agency: TADi

Date: 4/11/2019

Warrant 1: Eight - Hour Vehicular Volume

100%

Warrant Evaluated? Yes

Warrant Satisfied? No

Manually Set To:

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	500	400
Minor Rd. Req	150	120
Number of Hours	1	1

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	750	600
Minor Rd. Req	75	60
Number of Hours	1	4

Satisfied? No

Condition C: Combination of A & B at 80%		
---	--	--

Satisfied? No

6:00 AM		Enter Start Time (Military Time) (HH:MM)			Total
Time Period	From	To	Major Road: Both App. (VPH)	Minor Road: High App. (VPH)	
1	6:00	7:00	320	7	327
2	7:00	8:00	979	82	1061
3	8:00	9:00	471	14	485
4	9:00	10:00	341	15	356
5	10:00	11:00	447	26	473
6	11:00	12:00	424	7	431
7	12:00	13:00	417	14	431
8	13:00	14:00	479	50	529
9	14:00	15:00	638	176	814
10	15:00	16:00	717	66	783
11	16:00	17:00	668	39	707
12	17:00	18:00	602	88	690
13	18:00	19:00	0	0	0
14	19:00	20:00	0	0	0
15	20:00	21:00	0	0	0
16	21:00	22:00	0	0	0

Warrant 2: Four-Hour Volume

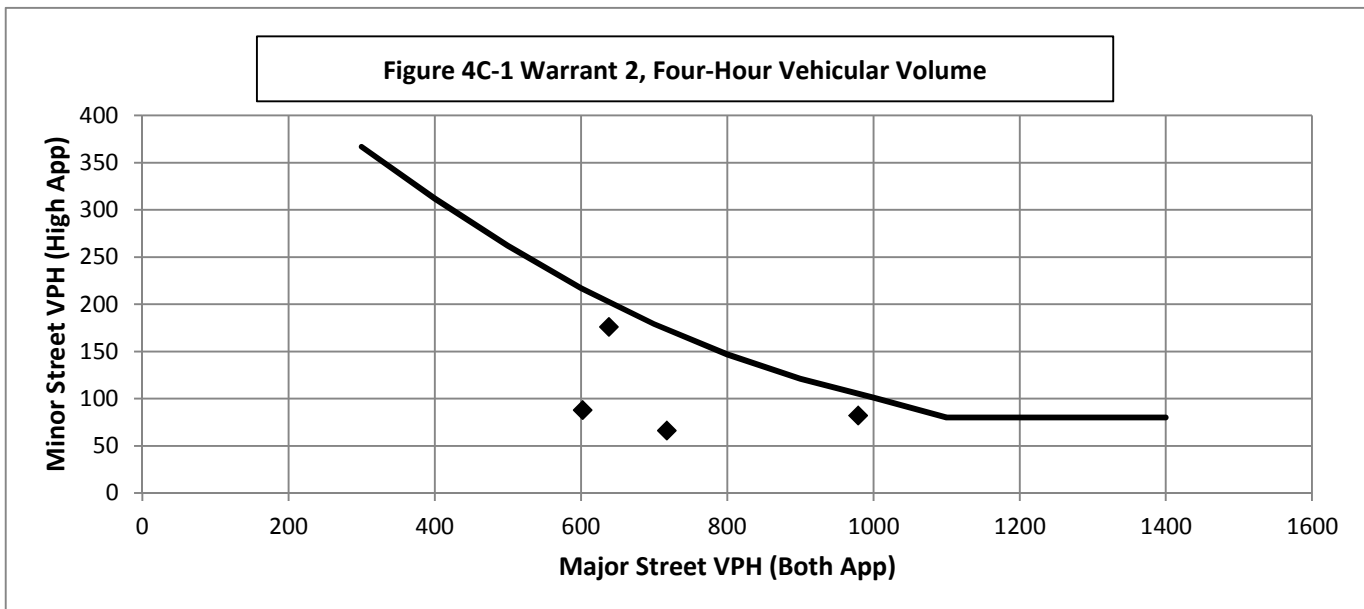
100%

Warrant Evaluated? Yes

Warrant Satisfied? No

Manually Set To:

Hour Start	7:00	14:00	15:00	17:00
Major Road Vol.	979	638	717	602
Minor Road Vol.	82	176	66	88



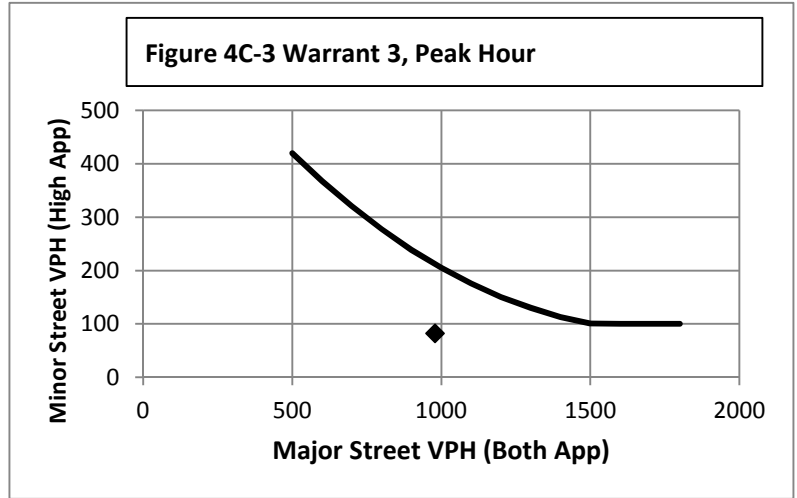
Warrant 3: Peak Hour Volume**100%****Warrant Evaluated? Yes****Warrant Satisfied? No****Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	4	Yes
Volume on Minor Approach	100	Yes
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour?

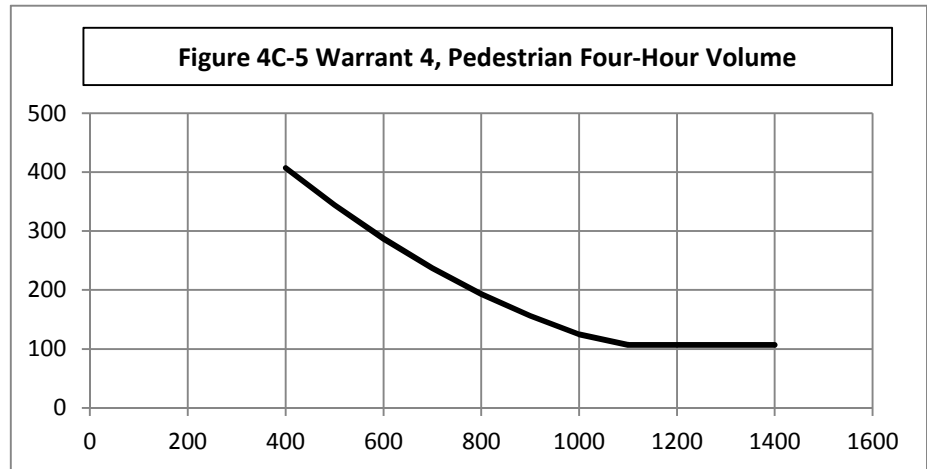
Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
7:00	979	82

**Warrant 4: Pedestrian Volume****100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criterion A: Four Hour**

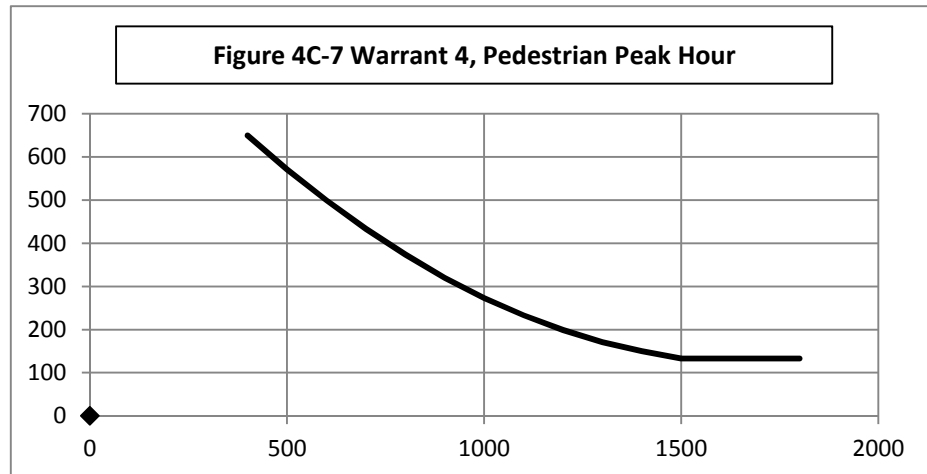
Hour (Start)	Pedestrian Volume	Major Road Vol.
		0
		0
		0
		0

Manually Set Major Rd Vol?

Avg. walk speed less than 3.5 ft/s?

Criterion A Satisfied?**Criterion B: Peak Hour**

Peak Hour	Pedestrian Vol.	Major Road Vol.
0:00	0	0

Criterion B Satisfied?

Warrant 5: School Crossing**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	There are a MINIMUM of 20 school children during the highest crossing hour.	
2	There are fewer adequate gaps in the major road traffic stream during the period when the school children are using the crossing than the number of minutes in the same period.	
3	The nearest traffic signal along the major road is located more than 300 ft away. Or, the nearest traffic signal is within 300 ft but the proposed traffic signal will not restrict the progressive movement of traffic.	

Warrant 6: Coordinated Signal System**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Fulfilled?**

1	Signal spacing > 1000 ft	
2	On a one-way road or a road that has traffic predominantly in one direction, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning.	
3	On a two-way road, adjacent signals do not provide the necessary degree of platooning and the proposed and the adjacent signals will collectively provide a progressive operation.	

Warrant 7: Crash Experience**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Adequate trial of other remedial measures has failed to reduce crash frequency.			
	Measures Tried:			
2	Five or more reported crashes, of types susceptible to correction by signal, have occurred within a 12 month period.	# of crashes per 12 months		
3	Warrant 1, Condition A (80%)		No	Yes
	Warrant 1, Condition B (80%)		No	
	Warrant 4, Criterion A (80%)		No	
	Warrant 4, Criterion B (80%)		Yes	

Warrant 8: Roadway Network**100%****Warrant Evaluated? No****Warrant Satisfied? N/A****Manually Set To:****Criteria****Met?****Fulfilled?**

1	Total entering volume of at least 1,000 veh/h during typical weekday peak hour		1061	Yes	No
	Five-year projected volumes that satisfy one or more of Warrants 1, 2, or 3.			No	
2	Total entering vol. of at least 1,000 veh/h for each of any 5 hrs of non-normal business day (Sat. or Sun.)				
	Hour				
	Volume				

Characteristics of Major Routes - Select yes if all intersecting routes have characteristic**Fulfilled?**

1	Part of the road or highway system that serves as the principal roadway network for through traffic flow	
2	Rural or suburban highway outside of, entering, or traversing a city	
3	Appears as a major route on an official plan	

Warrant 9: Intersection Near a Grade Crossing

100%

Warrant Evaluated? No

Warrant Satisfied? N/A

Manually Set To:

Adjustment Factors			Manually Set Peak Hour?				
Rail Traffic per Day	% High Occupancy Buses on Minor Road	% Tractor-Trailer Trucks on Minor Road	D	Peak Hour	Major Road Vol.	Minor Road Vol.	Adjusted Minor Vol.
1	0	0% to 2.5%	660	7:00	979	82	27.47

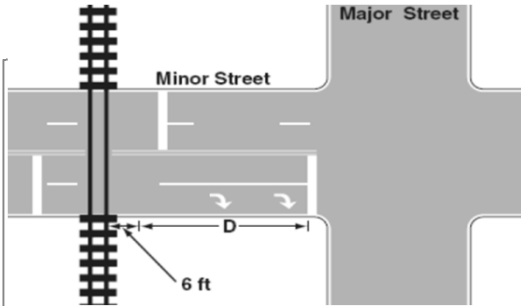
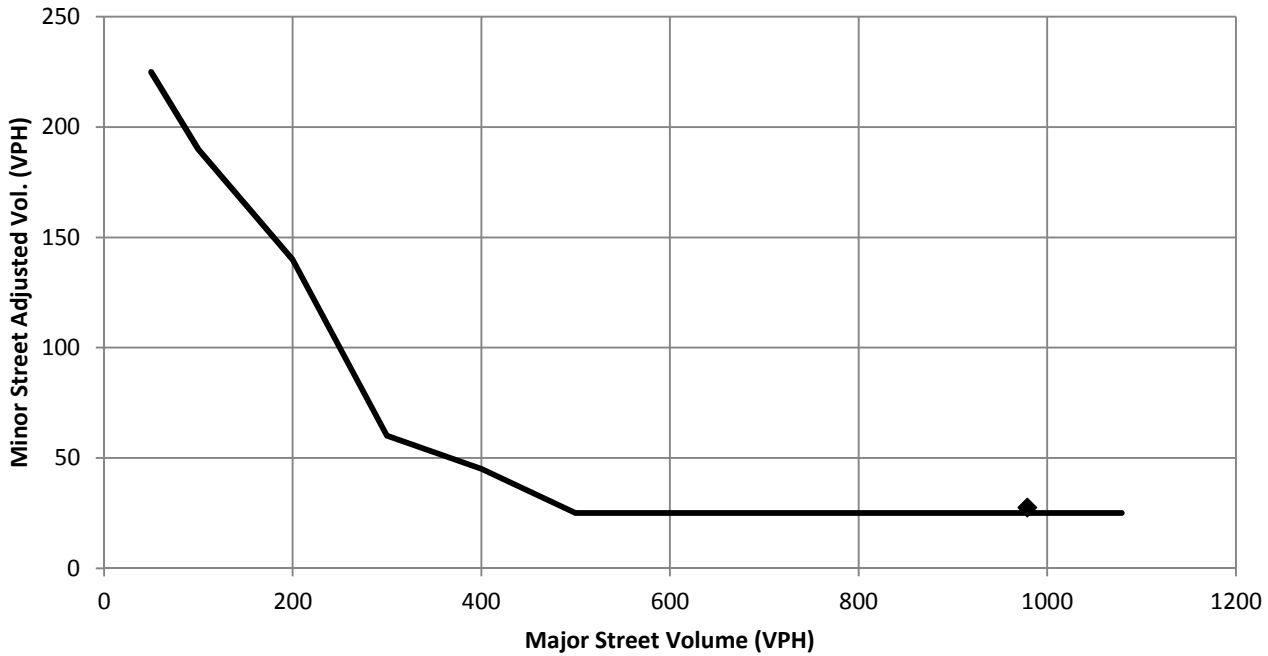


Figure 4C-9 Warrant9, Intersection Near a grade Crossing (One Approach Lane at the Track Crossing)



Conclusions/Comments:

Updated: 12/6/2017

Hourly Volume Data																
One Hour Time Period Start Time	↓ From North (SB)				← From East (WB)				↑ From South (NB)				→ From West (EB)			
	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Right	Thru	Left	U-Tn	Total	Total Vehicle Volume
AM	6:00	0	0	1	1	0	121	9		130	2	0	5		7	190
	7:00	2	0	0	2	1	222	24		247	38	0	44		82	732
	8:00	12	0	2	14	3	150	11		164	3	0	8		11	307
	9:00	1	0	0	1	0	133	3		136	0	0	15		15	205
MD	10:00	14	0	0	14	0	184	3		187	6	0	20		26	260
	11:00	6	0	0	6	0	173	5		178	2	0	5		7	246
	12:00	3	0	1	4	0	166	2		168	3	0	11		14	249
	13:00	1	0	3	4	1	208	11		220	9	0	41		50	259
PM	14:00	12	0	1	13	0	234	26		260	92	0	84		176	378
	15:00	10	0	0	10	0	298	15		313	9	0	57		66	404
	16:00	4	0	1	5	0	267	9		276	6	0	33		39	392
	17:00	0	0	1	1	0	236	17		253	17	0	71		88	349
	18:00															0
	19:00															0
	20:00															0
	21:00															0
Totals		65	0	10	75	5	2392	135	0	2532	187	0	394	0	581	7159

Note: Copy volume data and paste into cells using paste special -> values

Note: U-Turns are counted as Left Turns in the Volume Totals

Minor Road Highest Volume:					
North/South					
Right	Thru	Left	T+LT	Total	
2	0	5	5	7	
38	0	44	44	82	
12	0	2	2	14	
0	0	15	15	15	
6	0	20	20	26	
2	0	5	5	7	
3	0	11	11	14	
9	0	41	41	50	
92	0	84	84	176	
9	0	57	57	66	
6	0	33	33	39	
17	0	71	71	88	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
196	0	388	388	584	

Major Road Volume Totals:					
East/West					
Right	Thru	Left	T+LT	Total	
54	255	11	266	320	
432	519	28	547	979	
77	371	23	394	471	
23	314	4	318	341	
36	396	15	411	447	
17	396	11	407	424	
14	393	10	403	417	
31	433	15	448	479	
134	476	28	504	638	
84	616	17	633	717	
60	594	14	608	668	
63	510	29	539	602	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
0	0	0	0	0	
1025	5273	205	5478	6503	

Please Select the Major Road:

E/W

Major Road Left Turn as Minor Approach?

No

% Right Turns Included (Default 0%)
From North (SB)

100%

From East (WB)

100%

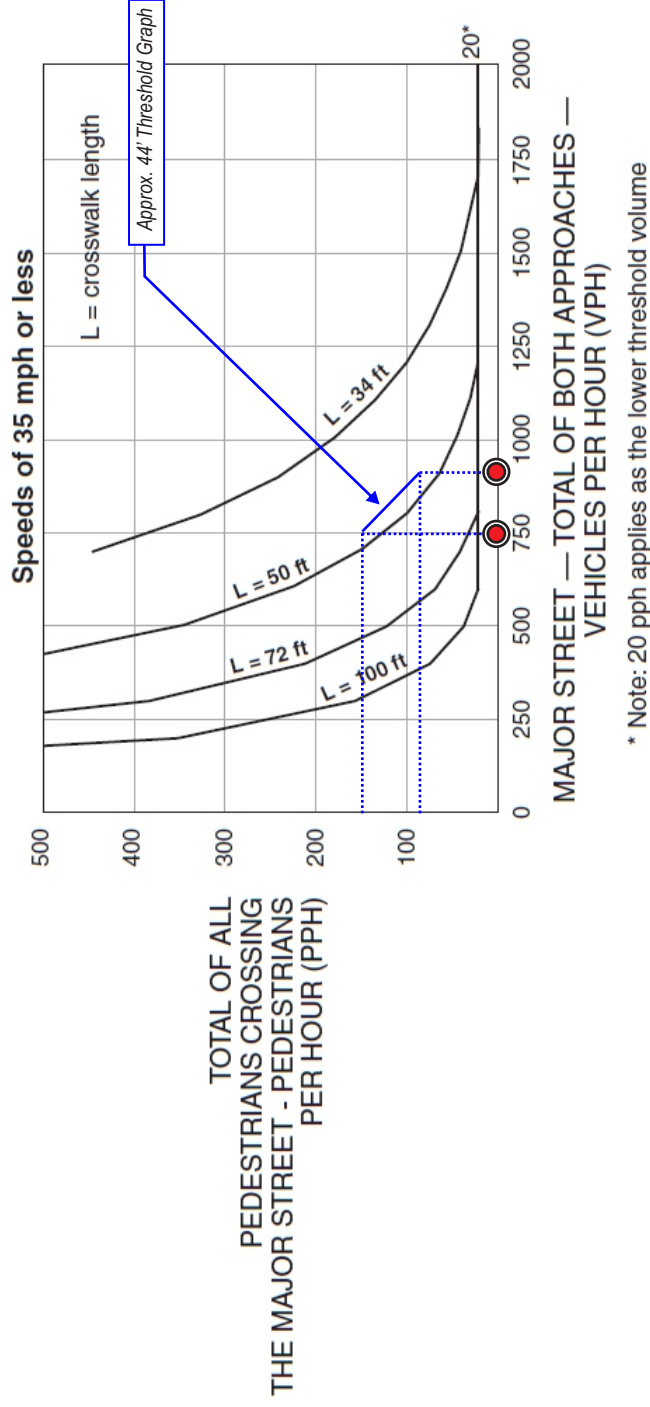
From South (NB)

100%

From West (EB)

100%

Figure 4F-1. Guidelines for the Installation of Pedestrian Hybrid Beacons on Low-Speed Roadways



PEAK HOUR VEHICLE VOLUMES

Morning Peak Hour 915
Afternoon Peak Hour 750



Appendix F

ICE Analysis

Grant Street at Mid Valley Drive

Grant Street at Allard Street



PHASE I: ICE MEMORANDUM

To: [DOT ICE Review](#)
From: Don Lee, P.E.
Date: 4/17/2019
RE: TIA
Mid Valley Drive at Grant Street
City of De Pere, Brown County
Traffic Impact Analysis (TIA)

Project Description:

The West De Pere School District is expecting significant growth within the district into the foreseeable future. To plan for this growth; an expansion of the West De Pere High School, as well as modifications to the Westwood Elementary School and construction of a new West De Pere Intermediate School have been proposed. A TIA has been prepared to analyze the adjacent intersections along the Grant Street corridor including the referenced intersection. Under existing and full build traffic scenarios, the minor street (Mid Valley Drive) approaches at the intersection are expected to operate unacceptably which necessitates the need for a higher level of control at the intersection.

Grant Street (CTH HH) is a two-lane undivided east/west county highway within the limits of the study area intersection. The posted speed limit along Grant Street is 25 miles per hour (mph) to the east of Mid Valley Drive and 35 mph to the west. According to the WisDOT, the Year 2018 average annual daily traffic volumes (AADT's) on Grant Street were approximately 8,700 vehicles per day (vpd) west of Mid Valley Drive and 9,200-vpd east of Lawrence Drive. Mid Valley Drive is a two-lane undivided north/south local collector street that runs parallel to Interstate 41, with a 45 mph posted speed limit. There are currently no available AADT volumes along Mid Valley Drive within the limits of the study area; however, ADT volumes of 3,900-vpd to the north of Grant Avenue and 2,400-vpd to the south were extrapolated from the 6.5 hours of peak hour turning movement counts taken as part of this study.

Alternatives:

See Phase I ICE Brainstorming Guide (attached)

Safety Considerations:

No reported crashes were identified at this intersection over the past 5 years. However, according to the city of De Pere, three non-reportable crashes occurred in the past year at the intersection. Therefore, no crash patterns are present at the current intersection.

Operational Analysis:

All movements at the intersection are expected to operate acceptably at LOS B or better under the full build traffic volumes under traffic signal control (Synchro outputs attached).

All movements at the intersection are expected to operate acceptably at LOS B or better under the full build traffic volumes under single lane roundabout control (HCS7 outputs attached).



PHASE I: ICE MEMORANDUM

Other Considerations:

Existing roundabout control is located approximately 600-feet and 1,500-feet east of the Mid Valley Drive intersection.

Feasibility of Alternatives:

See Phase I ICE Brainstorming Guide (attached)

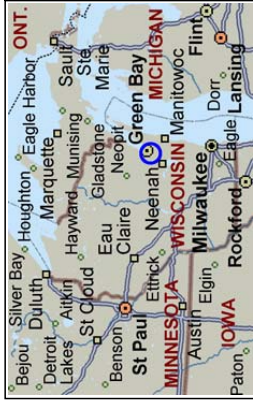
Conclusion:

Even though both traffic control options provide acceptable operations from a delay perspective, due to the presence of existing roundabout control to the east and minimal right-of-way impacts under the roundabout alternative, the recommended control at this intersection is roundabout control.

Attachments:

See attachment checklist attached.

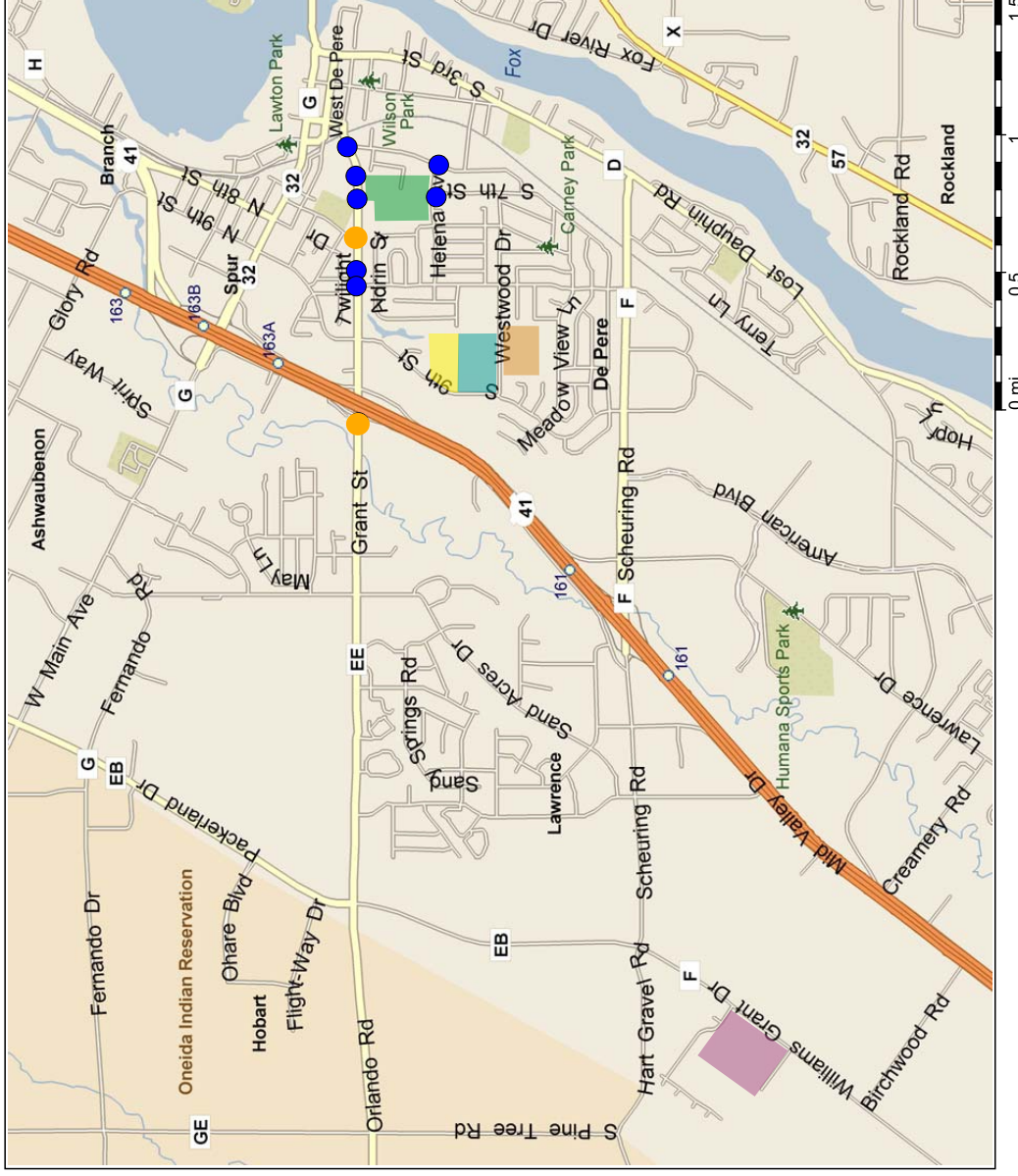
West De Pere, Wisconsin



● ICE Analysis Intersection

LEGEND

- Study Intersection
- Proposed Intermediate School
- West De Pere High School
- West De Pere Middle School
- Westwood Elementary School
- Hemlock Creek Elementary School



2279: 6-28-19



EXHIBIT 1-1 PROJECT OVERVIEW MAP

DEPERE, WISCONSIN

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ICE SUBMITTAL CHECKLIST						
Level of ICE (Check Applicable Box):		☒ Phase I: Scoping ICE	☐ Phase II: Alternative Selection ICE			
Documentation		Submittal Requirements		Submittal to Region		Submittal to BTO
Report		Phase I ICE	Phase II ICE	Included	N/A	Included N/A
Phase I: ICE Memorandum Required N/A ☒ ☐						
Project Description Project Location Map Required Aerial Photo of Intersection Optional						
Description of Alternatives Considered Phase I: ICE Brainstorming Guide Optional ^(a) N/A ☒ ☐ Phase II: ICE Worksheet N/A Required ☐ ☐						
Traffic Volume Data Turning Movement Counts (field count data) Optional Required ☐ ☐ Segment Traffic Forecasts Optional Required ☐ ☐ Intersection Traffic Forecasts Optional Required ☐ ☐						
Safety Considerations Crash Diagrams with summary of crashes per year and crash rates Optional Required ☐ ☐						
Additional Modes of Transportation Wisconsin Bike Map (bike rating) Optional Optional ☐ ☐ 5-Year Summary of OSOW and Long Truck Routes Optional Optional ☐ ☐						
Operational Analysis (as applicable) AWSC Warrants Optional Required ☐ ☐ Traffic Signal Warrants Optional Required ☐ ☐ Electronic Files for HCS, Sidra, & Synchro Optional Required ☐ Not Applicable						

ICE SUBMITTAL CHECKLIST

Level of ICE (Check Applicable Box):						
☒ Phase I: Scoping ICE		☐ Phase II: Alternative Selection ICE				
Documentation	Submittal Requirements		Submittal to Region		Submittal to BTO	
	Phase I ICE	Phase II ICE	Included	N/A	Included	N/A
▪ HCS Worksheets ~ HCS 2010 Formatted Summary Report (AWSC, TWSC, Roundabouts) ~ HCS 2010 Full Formatted Report (Signals) ▪ Sidra Worksheets (Roundabouts only) ~ Site Layout ~ Input Volumes ~ Input Comparison (“with Standard Model Defaults”) ~ Movement Summary (HCM 2010) ~ Lane Summary (HCM 2010) ▪ Synchro Worksheets ~ Signalized Intersection Report (with following data: Lane Inputs, Volume Inputs, Timing Inputs, Actuated Inputs, Queues) ~ HCM 2010 Signalized “Summary” report (with 95th percentile queue) ~ Unsignalized Intersection Report (with following data: Lane Inputs, Volume Inputs) ~ HCM 2010 AWSC or TWSC ▪ SimTraffic Outputs for each run	Optional	Required	☒	☐	☐	☐
	Optional	Required	☒	☐	☐	☐
	Optional	Required	☐	☐	☐	☐
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	Optional	Required	☐	☐	☐	☐
	Optional	Required	☐			

(a) Completion of the Phase 1: ICE Brainstorming Guide is optional, but highly recommended. If this guide is completed, the region shall submit it to BTO for review along with the Phase 1: ICE memorandum.

(b) Submit all Paramics or Vissim models to BTO for review as a separate process outside of the ICE process. BTO does not generally review the SimTraffic analyses, thus the DT 2291 form for SimTraffic models should be submitted along with the ICE report to ensure that all SimTraffic analyses referenced in the ICE report has gone through the Traffic Model Peer Review Process

Phase I: ICE Brainstorming Guide

Date: 4/17/2019

Intersection: Grant Street at Mid Valley Drive

Project ID: TIA

Reason for ICE: Expansion expected within local school district - operational issues expected at intersection under existing conditions and full build traffic conditions

Control: Stop Control

Major Road AADT: 8,700

Minor Road AADT: 3,900

List of Alternatives:

[illegible]

Lanes and Geometrics
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%				0%				0%		0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.850				0.850			0.850			0.850
Flt Protected		0.986			0.984			0.997			0.984	
Satd. Flow (prot)	0	1751	1509	0	1700	1468	0	1707	1455	0	1731	1495
Flt Permitted		0.986			0.984			0.997			0.984	
Satd. Flow (perm)	0	1751	1509	0	1700	1468	0	1707	1455	0	1731	1495
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		762			2580			466			733	
Travel Time (s)		14.8			50.3			7.1			11.1	
Intersection Summary												
Area Type:	Other											

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Future Volume (vph)	120	295	10	70	140	35	1	15	20	30	65	30
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	132	324	11	77	154	38	1	16	22	33	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	456	11	0	231	38	0	17	22	0	104	33
Intersection Summary												

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	120	295	10	70	140	35	1	15	20	30	65	30
Future Vol, veh/h	120	295	10	70	140	35	1	15	20	30	65	30
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	7	7	10	10	10	11	11	11	8	8	8
Mvmt Flow	132	324	11	77	154	38	1	16	22	33	71	33
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	193	0	0	336	0	0	969	936	326	923	909	156
Stage 1	-	-	-	-	-	-	589	589	-	309	309	-
Stage 2	-	-	-	-	-	-	380	347	-	614	600	-
Critical Hdwy	4.17	-	-	4.2	-	-	7.21	6.61	6.31	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.61	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.29	-	-	3.599	4.099	3.399	3.572	4.072	3.372
Pot Cap-1 Maneuver	1351	-	-	1180	-	-	224	256	695	244	269	874
Stage 1	-	-	-	-	-	-	479	481	-	688	649	-
Stage 2	-	-	-	-	-	-	624	619	-	469	480	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1350	-	-	1179	-	-	139	208	694	191	219	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	139	208	-	191	219	-
Stage 1	-	-	-	-	-	-	421	423	-	605	601	-
Stage 2	-	-	-	-	-	-	490	573	-	384	422	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.2			2.4			16.7			31.3		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	202	694	1350	-	-	1179	-	-	209	872		
HCM Lane V/C Ratio	0.087	0.032	0.098	-	-	0.065	-	-	0.5	0.038		
HCM Control Delay (s)	24.5	10.4	8	0	-	8.3	0	-	38.3	9.3		
HCM Lane LOS	C	B	A	A	-	A	A	-	E	A		
HCM 95th %tile Q(veh)	0.3	0.1	0.3	-	-	0.2	-	-	2.5	0.1		

Lanes and Geometrics
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)	0%				0%				0%			
Storage Length (ft)	0	0		0			0	0	0		0	0
Storage Lanes	0	1		0			1	0	1		0	1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850				0.850				0.850	
Flt Protected	0.991				0.992				0.993		0.968	
Satd. Flow (prot)	0	1760	1509	0	1761	1509	0	1715	1468	0	1703	1495
Flt Permitted	0.991				0.992				0.993		0.968	
Satd. Flow (perm)	0	1760	1509	0	1761	1509	0	1715	1468	0	1703	1495
Link Speed (mph)	35				35				45		45	
Link Distance (ft)	762				2580				466		733	
Travel Time (s)	14.8				50.3				7.1		11.1	
Intersection Summary												
Area Type:	Other											

Volume

100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Future Volume (vph)	45	215	10	60	325	40	10	65	70	70	35	90
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	231	11	65	349	43	11	70	75	75	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	11	0	414	43	0	81	75	0	113	97
Intersection Summary												

Intersection												
Int Delay, s/veh	9.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	45	215	10	60	325	40	10	65	70	70	35	90
Future Vol, veh/h	45	215	10	60	325	40	10	65	70	70	35	90
Conflicting Peds, #/hr	1	0	1	1	0	1	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	7	7	7	7	7	7	10	10	10	8	8	8
Mvmt Flow	48	231	11	65	349	43	11	70	75	75	38	97
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	393	0	0	243	0	0	897	851	233	886	819	351
Stage 1	-	-	-	-	-	-	328	328	-	480	480	-
Stage 2	-	-	-	-	-	-	569	523	-	406	339	-
Critical Hdwy	4.17	-	-	4.17	-	-	7.2	6.6	6.3	7.18	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.6	-	6.18	5.58	-
Follow-up Hdwy	2.263	-	-	2.263	-	-	3.59	4.09	3.39	3.572	4.072	3.372
Pot Cap-1 Maneuver	1139	-	-	1295	-	-	252	289	787	259	303	679
Stage 1	-	-	-	-	-	-	668	633	-	556	544	-
Stage 2	-	-	-	-	-	-	493	518	-	610	629	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1138	-	-	1294	-	-	176	256	786	170	269	678
Mov Cap-2 Maneuver	-	-	-	-	-	-	176	256	-	170	269	-
Stage 1	-	-	-	-	-	-	635	601	-	528	508	-
Stage 2	-	-	-	-	-	-	366	484	-	463	598	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.1			19			30.3		
HCM LOS							C			D		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	241		786	1138	-	-	1294	-	-	194	678	
HCM Lane V/C Ratio	0.335		0.096	0.043	-	-	0.05	-	-	0.582	0.143	
HCM Control Delay (s)	27.3		10.1	8.3	0	-	7.9	0	-	46.6	11.2	
HCM Lane LOS	D		B	A	A	-	A	A	-	E	B	
HCM 95th %tile Q(veh)	1.4		0.3	0.1	-	-	0.2	-	-	3.2	0.5	

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	Exis
Time Analyzed	AM Peak Hour - Existing
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Mid Valley Dr.
E/W Street Name	Grant Street
N/S Street Name	Mid Valley Drive
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.91
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LTR				LTR				LTR				LTR			
Volume (V), veh/h	0	120	295	10	0	70	140	35	0	5	15	20	0	30	65	30
Percent Heavy Vehicles, %	7	7	7	7	10	10	10	10	11	11	11	11	8	8	8	8
Flow Rate (V_{PCE}), pc/h	0	141	347	12	0	85	169	42	0	6	18	24	0	36	77	36
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000			4.2000			4.2000	
Follow-Up Headway (s)		2.8000			2.8000			2.8000			2.8000	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		500.00			296.00			48.00			149.00	
Entry Volume veh/h		467.29			269.09			43.24			137.96	
Circulating Flow (v_c), pc/h	198			165			524			260		
Exiting Flow (v_{ex}), pc/h	407			211			201			174		
Capacity (C_{PCE}), pc/h		1102.21			1130.86			855.35			1050.32	
Capacity (c), veh/h		1030.10			1028.06			770.59			972.52	
v/c Ratio (x)		0.45			0.26			0.06			0.14	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		8.6			6.0			5.2			5.0	
Lane LOS		A			A			A			A	
95% Queue, veh		2.4			1.1			0.2			0.5	
Approach Delay, s/veh	8.6			6.0			5.2			5.0		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh LOS	7.2						A					

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	Exis
Time Analyzed	PM Peak Hour - Existing
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Mid Valley Dr.
E/W Street Name	Grant Street
N/S Street Name	Mid Valley Drive
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.93
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LTR				LTR				LTR				LTR			
Volume (V), veh/h	0	45	215	10	0	60	325	40	0	10	65	70	0	70	35	90
Percent Heavy Vehicles, %	7	7	7	7	7	7	7	7	10	10	10	10	8	8	8	8
Flow Rate (V_{PCE}), pc/h	0	52	247	12	0	69	374	46	0	12	77	83	0	81	41	105
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000			4.2000			4.2000	
Follow-Up Headway (s)		2.8000			2.8000			2.8000			2.8000	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		311.00			489.00			172.00			227.00	
Entry Volume veh/h		290.65			457.01			156.36			210.19	
Circulating Flow (v_c), pc/h	191			141			380			455		
Exiting Flow (v_{ex}), pc/h	411			491			175			122		
Capacity (C_{PCE}), pc/h		1108.22			1152.17			956.72			902.51	
Capacity (c), veh/h		1035.72			1076.80			869.75			835.66	
v/c Ratio (x)		0.28			0.42			0.18			0.25	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		6.2			7.9			5.9			7.0	
Lane LOS		A			A			A			A	
95% Queue, veh		1.2			2.2			0.7			1.0	
Approach Delay, s/veh	6.2			7.9			5.9			7.0		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh LOS	7.0						A					

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (vph)	120	435	10	75	220	40	1	15	25	40	65	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			1.00	0.99		1.00	0.98
Frt		0.997			0.977				0.850			0.850
Flt Protected	0.950			0.950				0.997			0.981	
Satd. Flow (prot)	1687	1770	0	1641	1682	0	0	1707	1455	0	1726	1495
Flt Permitted	0.584			0.447				0.979			0.867	
Satd. Flow (perm)	1036	1770	0	772	1682	0	0	1676	1436	0	1525	1463
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			25				36			36
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		762			2580			466			733	
Travel Time (s)		14.8			50.3			7.1			11.1	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	7%	7%	10%	10%	10%	11%	11%	11%	8%	8%	8%
Adj. Flow (vph)	132	478	11	82	242	44	1	16	27	44	71	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	489	0	82	286	0	0	17	27	0	115	33
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	39.0	39.0		39.0	39.0		21.0	21.0	21.0	21.0	21.0	21.0
Total Split (%)	65.0%	65.0%		65.0%	65.0%		35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Maximum Green (s)	34.0	34.0		34.0	34.0		16.0	16.0	16.0	16.0	16.0	16.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Act Effect Green (s)	23.6	23.6		23.6	23.6		10.5	10.5	10.5	10.5	10.5	10.5
Actuated g/C Ratio	0.59	0.59		0.59	0.59		0.26	0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.21	0.46		0.18	0.28		0.04	0.07	0.07	0.29	0.08	0.08
Control Delay	7.2	8.5		7.2	6.4		12.3	5.4	5.4	14.9	6.1	6.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	8.5		7.2	6.4		12.3	5.4	5.4	14.9	6.1	6.1
LOS	A	A		A	A		B	A	A	B	A	A
Approach Delay		8.2			6.6		8.1			12.9		
Approach LOS		A			A		A			B		

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.3

Intersection LOS: A

Intersection Capacity Utilization 60.8%

ICU Level of Service B

Analysis Period (min) 15

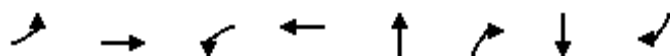
Splits and Phases: 100: Mid Valley Drive & Grant Street



Queues

100: Mid Valley Drive & Grant Street

06/28/2019



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	132	489	82	286	17	27	115	33
v/c Ratio	0.21	0.46	0.18	0.28	0.04	0.07	0.29	0.08
Control Delay	7.2	8.5	7.2	6.4	12.3	5.4	14.9	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	8.5	7.2	6.4	12.3	5.4	14.9	6.1
Queue Length 50th (ft)	15	65	9	30	2	0	16	0
Queue Length 95th (ft)	40	136	28	69	15	12	59	15
Internal Link Dist (ft)		682		2500	386		653	
Turn Bay Length (ft)								
Base Capacity (vph)	899	1537	670	1464	685	608	623	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.32	0.12	0.20	0.02	0.04	0.18	0.05
Intersection Summary								

HCM 6th Signalized Intersection Summary

100: Mid Valley Drive & Grant Street

06/28/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	435	10	75	220	40	1	15	25	40	65	30
Future Volume (veh/h)	120	435	10	75	220	40	1	15	25	40	65	30
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	1796	1796	1796	1752	1752	1752	1737	1737	1737	1781	1781	1781
Adj Flow Rate, veh/h	132	478	11	82	242	44	1	16	27	44	71	33
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	7	7	10	10	10	11	11	11	8	8	8
Cap, veh/h	572	788	18	423	649	118	121	423	367	248	309	376
Arrive On Green	0.45	0.45	0.45	0.45	0.45	0.45	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1049	1749	40	849	1442	262	27	1698	1471	396	1238	1507
Grp Volume(v), veh/h	132	0	489	82	0	286	17	0	27	115	0	33
Grp Sat Flow(s),veh/h/ln	1049	0	1789	849	0	1704	1725	0	1471	1634	0	1507
Q Serve(g_s), s	3.2	0.0	6.9	2.7	0.0	3.7	0.0	0.0	0.5	0.0	0.0	0.6
Cycle Q Clear(g_c), s	6.9	0.0	6.9	9.6	0.0	3.7	0.2	0.0	0.5	1.7	0.0	0.6
Prop In Lane	1.00		0.02	1.00		0.15	0.06		1.00	0.38		1.00
Lane Grp Cap(c), veh/h	572	0	806	423	0	768	545	0	367	557	0	376
V/C Ratio(X)	0.23	0.00	0.61	0.19	0.00	0.37	0.03	0.00	0.07	0.21	0.00	0.09
Avail Cap(c_a), veh/h	1171	0	1826	908	0	1740	935	0	706	917	0	724
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.3	0.0	6.9	10.5	0.0	6.0	9.5	0.0	9.6	10.0	0.0	9.6
Incr Delay (d2), s/veh	0.2	0.0	0.7	0.2	0.0	0.3	0.0	0.0	0.1	0.2	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	0.5	0.0	1.5	0.4	0.0	0.7	0.1	0.0	0.1	0.4	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.5	0.0	7.7	10.8	0.0	6.3	9.5	0.0	9.6	10.2	0.0	9.7
LnGrp LOS	A	A	A	B	A	A	A	A	A	B	A	A
Approach Vol, veh/h	621			368			44			148		
Approach Delay, s/veh	7.8			7.3			9.6			10.1		
Approach LOS	A			A			A			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	13.3			20.0			13.3			20.0		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	16.0			34.0			16.0			34.0		
Max Q Clear Time (g_c+I1), s	2.5			8.9			3.7			11.6		
Green Ext Time (p_c), s	0.1			3.8			0.4			2.2		
Intersection Summary												
HCM 6th Ctrl Delay	8.0											
HCM 6th LOS	A											

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (vph)	45	250	10	65	405	50	10	65	70	75	35	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	1.00			1.00	0.99		1.00	0.98
Frt		0.994			0.983				0.850			0.850
Flt Protected	0.950			0.950				0.993			0.967	
Satd. Flow (prot)	1687	1764	0	1687	1741	0	0	1715	1468	0	1701	1495
Flt Permitted	0.440			0.588				0.944			0.746	
Satd. Flow (perm)	781	1764	0	1043	1741	0	0	1630	1449	0	1312	1463
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			16				75			97
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		762			2580			466			733	
Travel Time (s)		14.8			50.3			7.1			11.1	
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	10%	10%	10%	8%	8%	8%
Adj. Flow (vph)	48	269	11	70	435	54	11	70	75	81	38	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	280	0	70	489	0	0	81	75	0	119	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lanes, Volumes, Timings
100: Mid Valley Drive & Grant Street

06/28/2019

	          											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	20.0	20.0		20.0	20.0		15.0	15.0	15.0	15.0	15.0	15.0
Total Split (s)	37.0	37.0		37.0	37.0		23.0	23.0	23.0	23.0	23.0	23.0
Total Split (%)	61.7%	61.7%		61.7%	61.7%		38.3%	38.3%	38.3%	38.3%	38.3%	38.3%
Maximum Green (s)	32.0	32.0		32.0	32.0		18.0	18.0	18.0	18.0	18.0	18.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Act Effect Green (s)	22.1	22.1		22.1	22.1		10.8	10.8	10.8	10.8	10.8	10.8
Actuated g/C Ratio	0.57	0.57		0.57	0.57		0.28	0.28	0.28	0.28	0.28	0.28
v/c Ratio	0.11	0.28		0.12	0.49		0.18	0.16	0.16	0.33	0.20	0.20
Control Delay	6.8	7.2		6.7	9.1		13.1	5.3	5.3	15.3	5.1	5.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.2		6.7	9.1		13.1	5.3	5.3	15.3	5.1	5.1
LOS	A	A		A	A		B	A	A	B	A	A
Approach Delay		7.1			8.8		9.4			10.7		
Approach LOS		A			A		A			B		

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 8.7

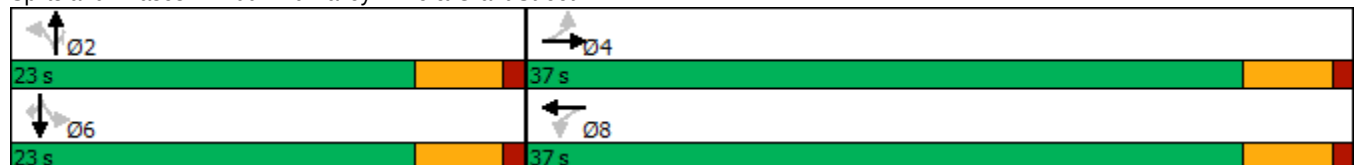
Intersection LOS: A

Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15

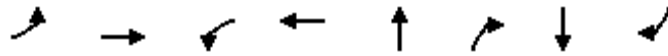
Splits and Phases: 100: Mid Valley Drive & Grant Street



Queues

100: Mid Valley Drive & Grant Street

06/28/2019



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	48	280	70	489	81	75	119	97
v/c Ratio	0.11	0.28	0.12	0.49	0.18	0.16	0.33	0.20
Control Delay	6.8	7.2	6.7	9.1	13.1	5.3	15.3	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	7.2	6.7	9.1	13.1	5.3	15.3	5.1
Queue Length 50th (ft)	5	32	7	63	11	0	17	0
Queue Length 95th (ft)	19	76	25	146	44	23	64	26
Internal Link Dist (ft)		682		2500	386		653	
Turn Bay Length (ft)								
Base Capacity (vph)	658	1488	879	1470	773	726	622	744
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.19	0.08	0.33	0.10	0.10	0.19	0.13
Intersection Summary								

HCM 6th Signalized Intersection Summary

100: Mid Valley Drive & Grant Street

06/28/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	250	10	65	405	50	10	65	70	75	35	90
Future Volume (veh/h)	45	250	10	65	405	50	10	65	70	75	35	90
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	1796	1796	1796	1796	1796	1796	1752	1752	1752	1781	1781	1781
Adj Flow Rate, veh/h	48	269	11	70	435	54	11	70	75	81	38	97
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7	7	7	7	10	10	10	8	8	8
Cap, veh/h	393	740	30	551	677	84	141	456	415	395	152	422
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	871	1713	70	1055	1567	194	82	1629	1483	790	542	1507
Grp Volume(v), veh/h	48	0	280	70	0	489	81	0	75	119	0	97
Grp Sat Flow(s),veh/h/ln	871	0	1784	1055	0	1761	1711	0	1483	1331	0	1507
Q Serve(g_s), s	1.6	0.0	3.7	1.7	0.0	7.6	0.0	0.0	1.3	1.2	0.0	1.7
Cycle Q Clear(g_c), s	9.2	0.0	3.7	5.3	0.0	7.6	1.2	0.0	1.3	2.4	0.0	1.7
Prop In Lane	1.00		0.04	1.00		0.11	0.14		1.00	0.68		1.00
Lane Grp Cap(c), veh/h	393	0	770	551	0	761	597	0	415	547	0	422
V/C Ratio(X)	0.12	0.00	0.36	0.13	0.00	0.64	0.14	0.00	0.18	0.22	0.00	0.23
Avail Cap(c_a), veh/h	820	0	1644	1068	0	1623	988	0	769	863	0	781
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	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	6.6	8.4	0.0	7.8	9.4	0.0	9.5	9.8	0.0	9.6
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.1	0.0	0.9	0.1	0.0	0.2	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.9	0.3	0.0	1.8	0.3	0.0	0.3	0.5	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	0.0	6.9	8.5	0.0	8.7	9.5	0.0	9.7	10.0	0.0	9.9
LnGrp LOS	B	A	A	A	A	A	A	A	A	B	A	A
Approach Vol, veh/h	328			559			156			216		
Approach Delay, s/veh	7.6			8.7			9.6			10.0		
Approach LOS	A			A			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	14.7			20.0			14.7			20.0		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	18.0			32.0			18.0			32.0		
Max Q Clear Time (g_c+I1), s	3.3			11.2			4.4			9.6		
Green Ext Time (p_c), s	0.5			1.8			0.7			3.4		
Intersection Summary												
HCM 6th Ctrl Delay	8.7											
HCM 6th LOS	A											

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	FBld
Time Analyzed	AM Peak Hour - Full Build
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Mid Valley Dr.
E/W Street Name	Grant Street
N/S Street Name	Mid Valley Drive
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.91
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LTR				LTR				LTR				LTR			
Volume (V), veh/h	0	120	435	10	0	75	220	40	0	5	15	25	0	40	65	30
Percent Heavy Vehicles, %	7	7	7	7	10	10	10	10	11	11	11	11	8	8	8	8
Flow Rate (V_{PCE}), pc/h	0	141	511	12	0	91	266	48	0	6	18	30	0	47	77	36
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000			4.2000			4.2000	
Follow-Up Headway (s)		2.8000			2.8000			2.8000			2.8000	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		664.00			405.00			54.00			160.00	
Entry Volume veh/h		620.56			368.18			48.65			148.15	
Circulating Flow (v_c), pc/h	215			165			699			363		
Exiting Flow (v_{ex}), pc/h	588			308			207			180		
Capacity (C_{PCE}), pc/h		1087.73			1130.86			746.51			969.46	
Capacity (c), veh/h		1016.57			1028.06			672.53			897.65	
v/c Ratio (x)		0.61			0.36			0.07			0.17	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		12.0			7.2			6.1			5.6	
Lane LOS		B			A			A			A	
95% Queue, veh		4.3			1.6			0.2			0.6	
Approach Delay, s/veh	12.0			7.2			6.1			5.6		
Approach LOS	B			A			A			A		
Intersection Delay, s/veh LOS	9.5						A					

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	FBld
Time Analyzed	PM Peak Hour - Full Build
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Mid Valley Dr.
E/W Street Name	Grant Street
N/S Street Name	Mid Valley Drive
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.93
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Lane Assignment	LTR				LTR				LTR				LTR			
Volume (V), veh/h	0	45	250	10	0	65	405	50	0	10	65	70	0	75	35	90
Percent Heavy Vehicles, %	7	7	7	7	7	7	7	7	10	10	10	10	8	8	8	8
Flow Rate (v_{pce}), pc/h	0	52	288	12	0	75	466	58	0	12	77	83	0	87	41	105
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1				1				1			
Pedestrians Crossing, p/h	0				0				0				0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000			4.2000			4.2000	
Follow-Up Headway (s)		2.8000			2.8000			2.8000			2.8000	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		352.00			599.00			172.00			233.00	
Entry Volume veh/h		328.97			559.81			156.36			215.74	
Circulating Flow (v_c), pc/h	203			141			427			553		
Exiting Flow (v_{ex}), pc/h	458			583			187			128		
Capacity (C_{pce}), pc/h		1097.93			1152.17			922.38			836.28	
Capacity (c), veh/h		1026.10			1076.80			838.53			774.33	
v/c Ratio (x)		0.32			0.52			0.19			0.28	

Delay and Level of Service

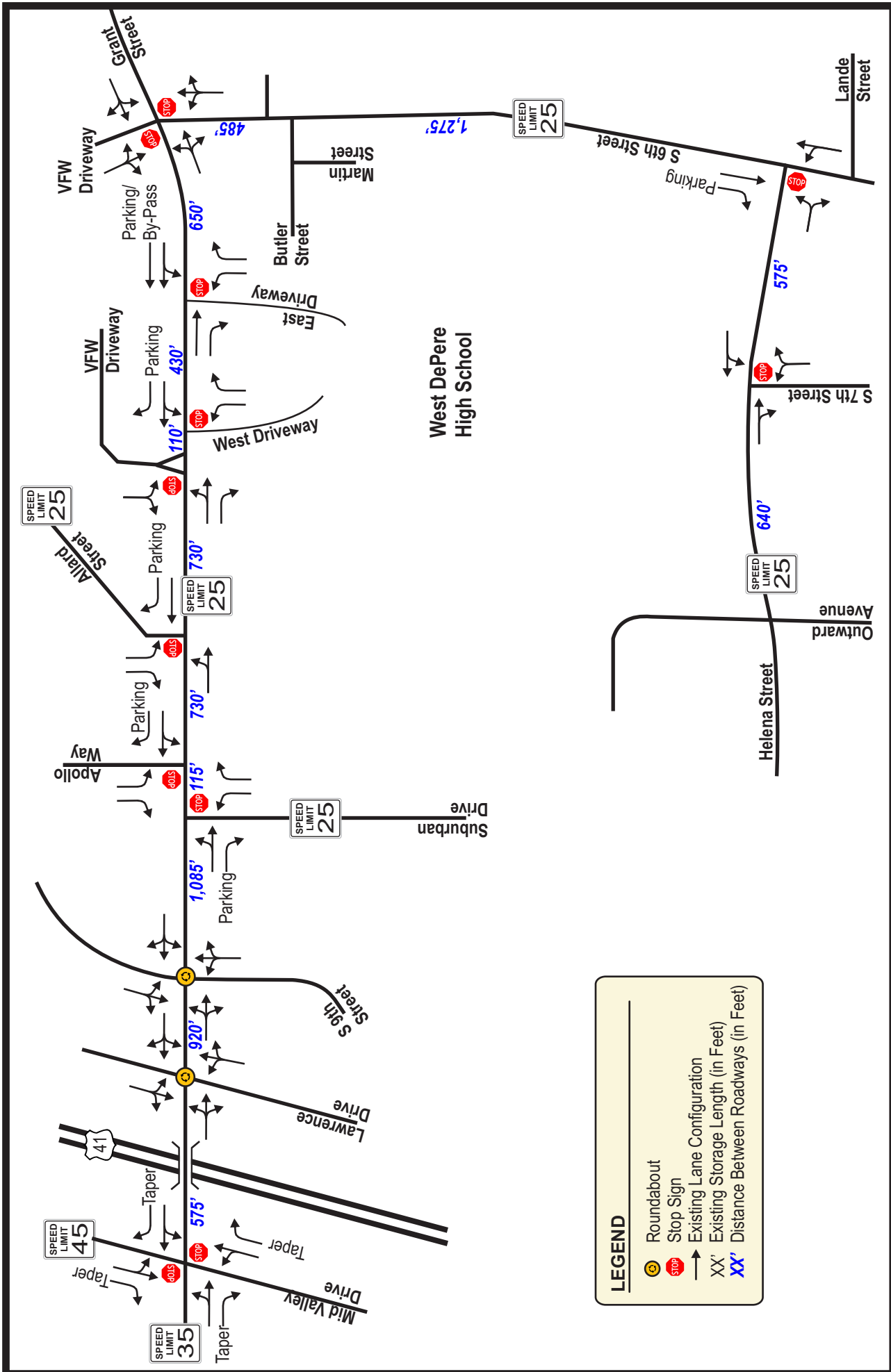
Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		6.8			9.5			6.2			7.8	
Lane LOS		A			A			A			A	
95% Queue, veh		1.4			3.1			0.7			1.1	
Approach Delay, s/veh	6.8			9.5			6.2			7.8		
Approach LOS	A			A			A			A		
Intersection Delay, s/veh LOS	8.1						A					



West De Pere High School
De Pere, WI
August 9, 2018

2279: 6-28-19

DEPERE, WISCONSIN



LEGEND

- Roundabout
- Stop Sign
- Existing Lane Configuration
- XX' Existing Storage Length (in Feet)
- XX' Distance Between Roadways (in Feet)

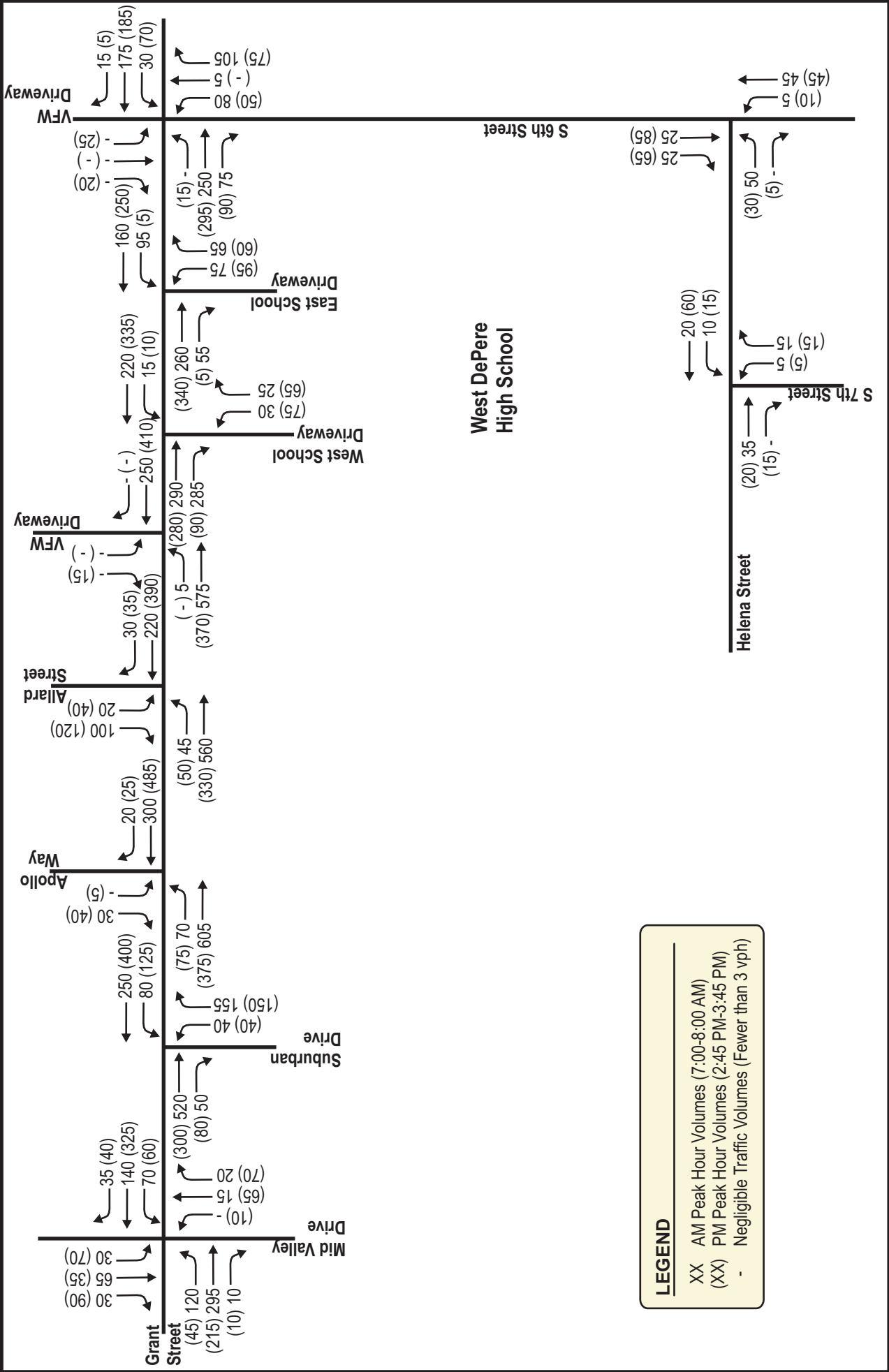
TADI
TRAFFIC ANALYSIS & DESIGN, INC.

EXHIBIT 3-1
EXISTING TRANSPORTATION DETAIL

DEPERE, WISCONSIN

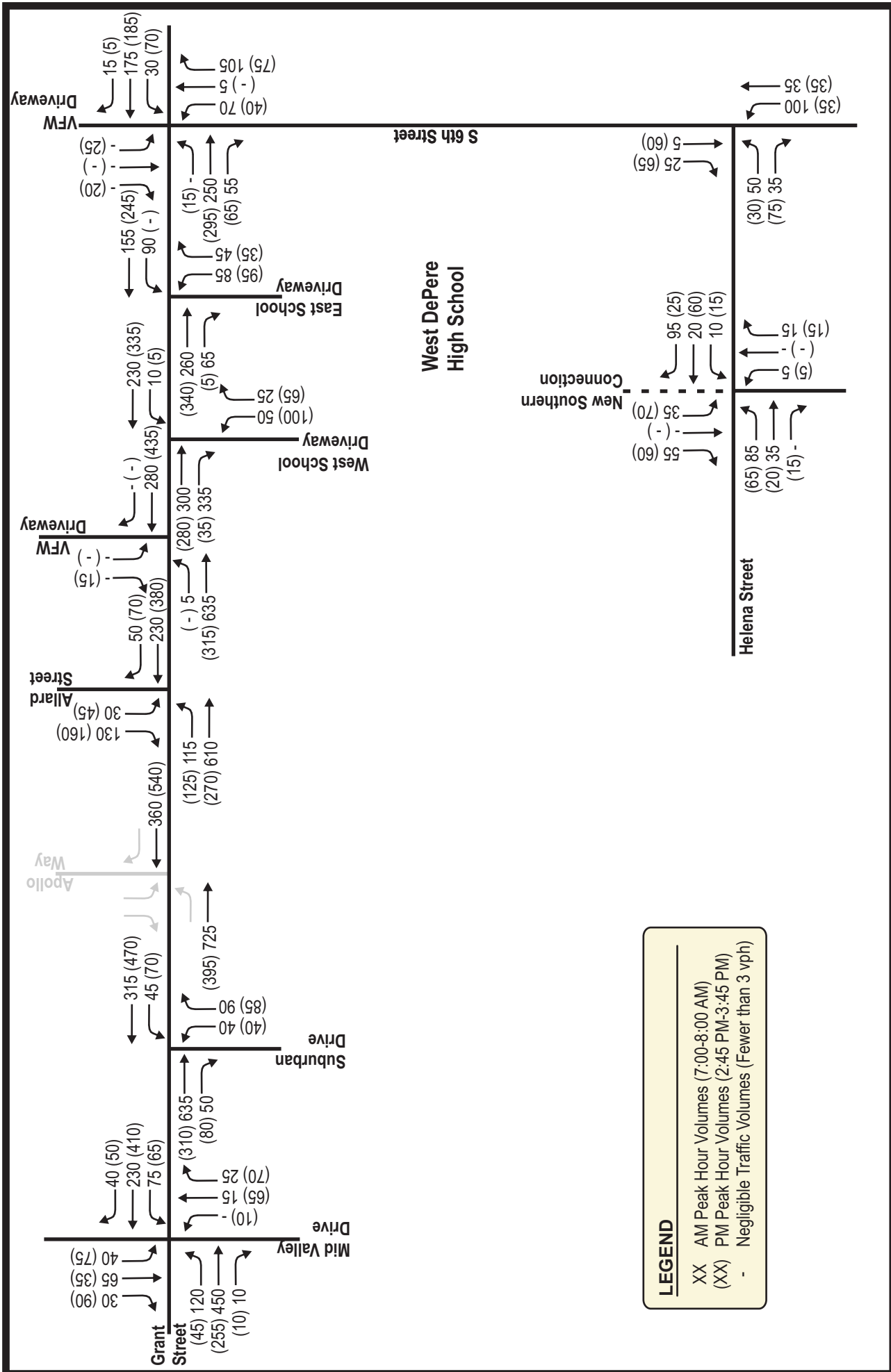
2279: 6-28-19

NOT TO SCALE



LEGEND

- XX AM Peak Hour Volumes (7:00-8:00 AM)
- (XX) PM Peak Hour Volumes (2:45 PM-3:45 PM)
- Negligible Traffic Volumes (Fewer than 3 vph)





PHASE I: ICE MEMORANDUM

To: [DOT ICE Review](#)

From: Don Lee, P.E.

Date: 4/17/2019

RE: TIA

Allard Street at Grant Street

City of De Pere, Brown County

Traffic Impact Analysis (TIA)

Project Description:

The West De Pere School District is expecting significant growth within the district into the foreseeable future. To plan for this growth; an expansion of the West De Pere High School, as well as modifications to the Westwood Elementary School and construction of a new West De Pere Intermediate School have been proposed. A TIA has been prepared to analyze the adjacent intersections along the Grant Street corridor including the referenced intersection. Under the existing traffic scenario, the minor street approaches at the Apollo Way intersection are expected to operate unacceptably and under the full build traffic volumes, the minor street approaches at both the Apollo Way and Allard Street intersections are expected to operate unacceptably which necessitates the need for a higher level of control at the intersection.

Grant Street (CTH HH) is a two-lane undivided east/west county highway with parking lanes on either side within the limits of the study area intersection. The posted speed limit along Grant Street is 25 miles per hour (mph). According to the WisDOT, the Year 2018 average annual daily traffic volumes (AADT's) on Grant Street were approximately 8,600-vpd east of Apollo Way and 6,200-vpd immediately west of the high school.

Allard Street is a two-lane undivided north/south local residential roadway that intersects Grant Avenue to provide a conventional three legged "T" intersection from the north. The posted speed limit on Allard Street is 25 mph within the limits of the study area. The WisDOT Year 2009 AADT's on Allard Street was approximately 1,800-vpd north of Grant Street. In addition, ADT volumes of 2,300-vpd were extrapolated from the 6.5 hours of peak hour turning movement counts taken as part of this study.

Apollo Way is a two-lane undivided north/south local residential roadway that intersects Grant Avenue to provide a conventional three legged "T" intersection from the north. It is located approximately 115 feet east of the Suburban Drive intersection, a three legged "T" intersection from the south. The posted speed limit on Apollo Way is 25 mph within the limits of the study area. The WisDOT Year 2009 AADT's on Apollo Way was approximately 2,500-vpd north of Grant Street. In addition, ADT volumes of 1,400-vpd were extrapolated from the 6.5 hours of peak hour turning movement counts taken as part of this study.

Alternatives:

See Phase I ICE Brainstorming Guide (attached).

Safety Considerations:

Crash history was not investigated at this intersection.



PHASE I: ICE MEMORANDUM

Operational Analysis:

Under the existing traffic scenario, the minor street approaches at the Apollo Way intersection are expected to operate unacceptably (LOS E) and under the full build traffic volumes, the minor street approaches at both the Apollo Way (LOS E/F) and Allard Street (LOS E/F) intersections are expected to operate unacceptably.

All movements at the intersection are expected to operate acceptably at LOS C or better under the full build traffic volumes under traffic signal control (Synchro outputs attached). Traffic signal control at the intersection is also expected to create gaps in the Grant Street traffic stream that should allow vehicles on the side roads at the adjacent street intersections to enter the Grant Street east/west traffic stream.

All movements at the intersection are expected to operate acceptably at LOS D or better under the full build traffic volumes under single lane roundabout control (HCS7 outputs attached).

Other Considerations:

Closing the existing access from Apollo Way to Grant Street is expected to allow the Suburban Drive intersection, located immediately to the west, to operate safer due to less conflicting movements within the limits of the existing two offset "T" intersections. With the Apollo Way access removed, the existing traffic utilizing this roadway to access Grant Street is expected to divert to the adjacent Allard Street intersection.

Existing roundabout control is located approximately 2,000-feet east of the Allard Street intersection.

Feasibility of Alternatives:

See Phase I ICE Brainstorming Guide (attached)

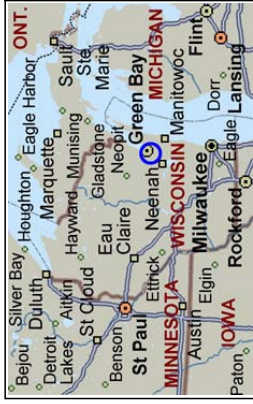
Conclusion:

Even though both traffic control options provide acceptable operations from a delay perspective, due to right-of-way impacts and costs under the roundabout alternative, the recommended control at this intersection is traffic signal control.

Attachments:

See attachment checklist attached.

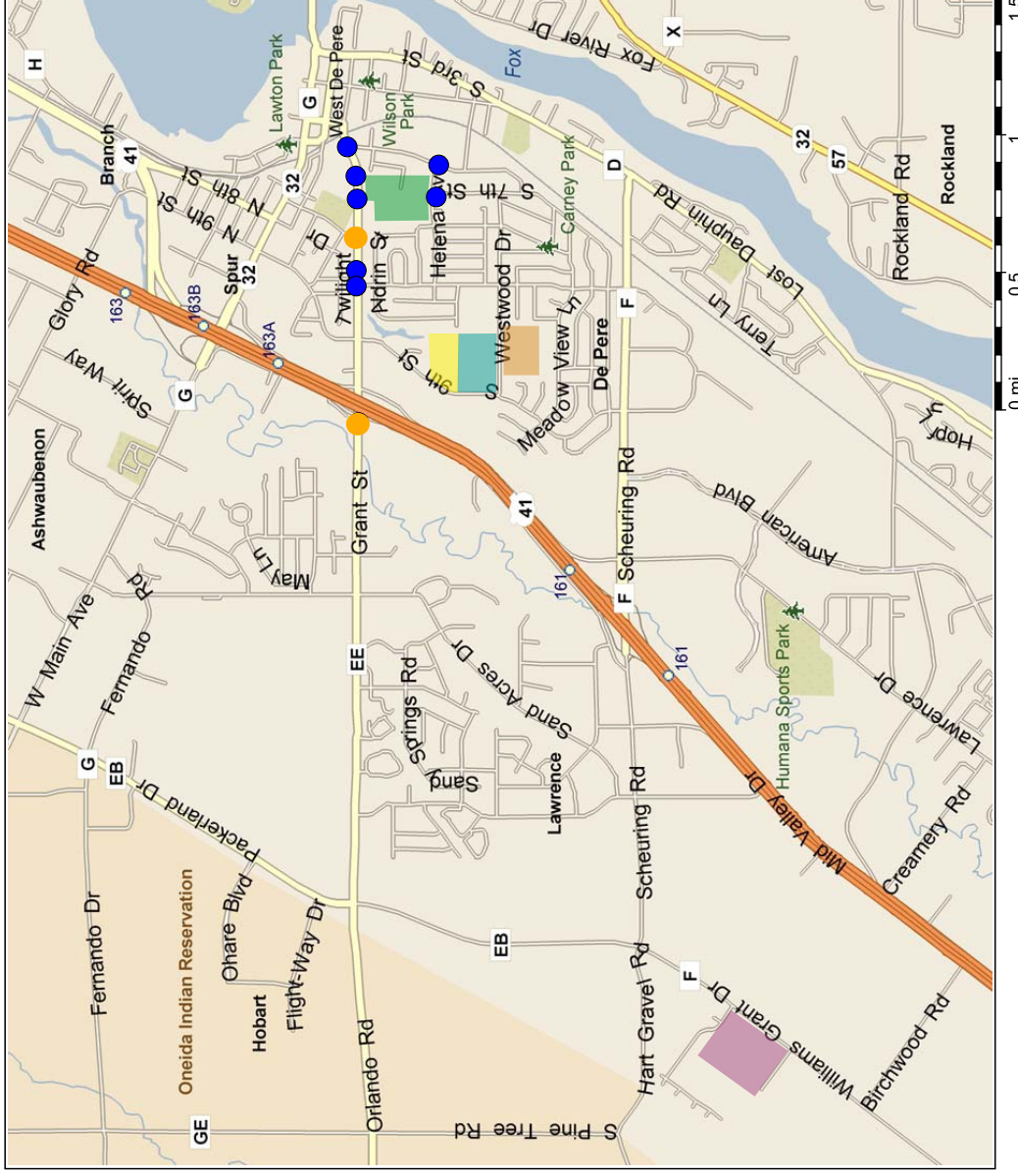
West De Pere, Wisconsin



● ICE Analysis Intersection

LEGEND

- Study Intersection
- Proposed Intermediate School
- West De Pere High School
- West De Pere Middle School
- Westwood Elementary School
- Hemlock Creek Elementary School



2279: 6-28-19



EXHIBIT 1-1 PROJECT OVERVIEW MAP

DEPERE, WISCONSIN

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ICE SUBMITTAL CHECKLIST						
Level of ICE (Check Applicable Box):		☒ Phase I: Scoping ICE	☐ Phase II: Alternative Selection ICE			
Documentation		Submittal Requirements		Submittal to Region		Submittal to BTO
Report		Phase I ICE	Phase II ICE	Included	N/A	Included N/A
Phase I: ICE Memorandum Required N/A ☒ ☐						
Project Description Project Location Map Required Aerial Photo of Intersection Optional						
Description of Alternatives Considered Phase I: ICE Brainstorming Guide Optional ^(a) N/A ☒ ☐ Phase II: ICE Worksheet N/A Required ☐ ☐						
Traffic Volume Data Turning Movement Counts (field count data) Optional Required ☐ ☐ Segment Traffic Forecasts Optional Required ☐ ☐ Intersection Traffic Forecasts Optional Required ☐ ☐						
Safety Considerations Crash Diagrams with summary of crashes per year and crash rates Optional Required ☐ ☐						
Additional Modes of Transportation Wisconsin Bike Map (bike rating) Optional Optional ☐ ☐ 5-Year Summary of OSOW and Long Truck Routes Optional Optional ☐ ☐						
Operational Analysis (as applicable) AWSC Warrants Optional Required ☐ ☐ Traffic Signal Warrants Optional Required ☐ ☐ Electronic Files for HCS, Sidra, & Synchro Optional Required ☐ Not Applicable						

ICE SUBMITTAL CHECKLIST

[illegible]

(a) Completion of the Phase 1: ICE Brainstorming Guide is optional, but highly recommended. If this guide is completed, the region shall submit it to BTO for review along with the Phase 1: ICE memorandum.

(b) Submit all Paramics or BTO for review as a separate process outside of the ICE process. BTO does not generally review the SimTraffic analyses, thus the DT 2291 form for SimTraffic models should be submitted along with the ICE report to ensure that all SimTraffic analyses referenced in the ICE report has gone through the Traffic Model Peer Review Process

Phase I: ICE Brainstorming Guide

Date: 4/17/2019

Intersection: Grant Street at Allard Street

Project ID: TIA

Reason for ICE: Expansion expected within local school district - operational issues expected at intersection under existing conditions and full build traffic conditions

Control: Stop Control

Major Road AADT: 8,600

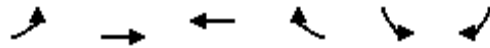
Minor Road AADT: 1,800

List of Alternatives:

[illegible]

Lanes, Volumes, Timings
400: Grant Street & Allard Street

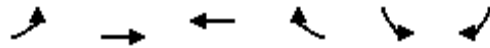
06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	115	560	200	50	20	130
Future Volume (vph)	115	560	200	50	20	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1810	1827	1553	1770	1583
Flt Permitted	0.578				0.950	
Satd. Flow (perm)	1045	1810	1827	1520	1764	1547
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				75		194
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Adj. Flow (vph)	172	836	299	75	30	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	836	299	75	30	194
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	45.0	45.0	45.0	45.0	15.0	15.0
Total Split (%)	75.0%	75.0%	75.0%	75.0%	25.0%	25.0%
Maximum Green (s)	40.0	40.0	40.0	40.0	10.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	33.2	33.2	33.2	33.2	10.3	10.3
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.21	0.21
v/c Ratio	0.24	0.67	0.24	0.07	0.08	0.40
Control Delay	5.5	10.0	4.9	1.3	20.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	10.0	4.9	1.3	20.2	7.2
LOS	A	B	A	A	C	A
Approach Delay		9.2	4.2		8.9	
Approach LOS		A	A		A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 46.1%

ICU Level of Service A

Analysis Period (min) 15

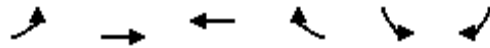
Splits and Phases: 400: Grant Street & Allard Street



Queues

400: Grant Street & Allard Street

06/28/2019

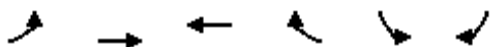


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	172	836	299	75	30	194
v/c Ratio	0.24	0.67	0.24	0.07	0.08	0.40
Control Delay	5.5	10.0	4.9	1.3	20.2	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	10.0	4.9	1.3	20.2	7.2
Queue Length 50th (ft)	20	151	35	0	7	0
Queue Length 95th (ft)	28	142	42	5	21	17
Internal Link Dist (ft)		610	640		617	
Turn Bay Length (ft)						
Base Capacity (vph)	868	1504	1518	1275	376	482
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.56	0.20	0.06	0.08	0.40
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

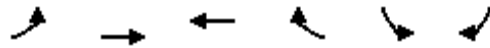
06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	560	200	50	20	130
Future Volume (veh/h)	115	560	200	50	20	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1826	1841	1841	1870	1870
Adj Flow Rate, veh/h	172	836	299	75	30	194
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	5	5	4	4	2	2
Cap, veh/h	638	1040	1048	869	371	331
Arrive On Green	0.57	0.57	0.57	0.57	0.21	0.21
Sat Flow, veh/h	984	1826	1841	1526	1781	1585
Grp Volume(v), veh/h	172	836	299	75	30	194
Grp Sat Flow(s),veh/h/ln	984	1826	1841	1526	1781	1585
Q Serve(g_s), s	4.9	16.4	3.8	1.0	0.6	5.0
Cycle Q Clear(g_c), s	8.7	16.4	3.8	1.0	0.6	5.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	638	1040	1048	869	371	331
V/C Ratio(X)	0.27	0.80	0.29	0.09	0.08	0.59
Avail Cap(c_a), veh/h	951	1621	1634	1355	395	352
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	7.2	7.7	5.0	4.4	14.4	16.1
Incr Delay (d2), s/veh	0.2	1.7	0.1	0.0	0.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.0	1.0	0.2	0.2	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	9.4	5.1	4.4	14.4	18.3
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		1008	374		224	
Approach Delay, s/veh		9.0	5.0		17.8	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				30.7	14.4	30.7
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				40.0	10.0	40.0
Max Q Clear Time (g_c+l1), s				18.4	7.0	5.8
Green Ext Time (p_c), s				7.3	0.2	2.3
Intersection Summary						
HCM 6th Ctrl Delay			9.3			
HCM 6th LOS			A			

Lanes, Volumes, Timings
400: Grant Street & Allard Street

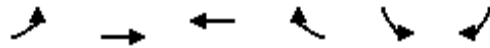
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	125	325	365	60	45	160
Future Volume (vph)	125	325	365	60	45	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1671	1759	1792	1524	1787	1599
Flt Permitted	0.487				0.950	
Satd. Flow (perm)	856	1759	1792	1489	1784	1564
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				72		193
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	3			3	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Adj. Flow (vph)	151	392	440	72	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	392	440	72	54	193
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Split (%)	65.0%	65.0%	65.0%	65.0%	35.0%	35.0%
Maximum Green (s)	34.0	34.0	34.0	34.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	20.8	20.8	20.8	20.8	10.1	10.1
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.28	0.28
v/c Ratio	0.31	0.39	0.43	0.08	0.11	0.34
Control Delay	8.8	8.0	8.3	2.1	11.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	8.0	8.3	2.1	11.8	4.7
LOS	A	A	A	A	B	A
Approach Delay		8.2	7.5		6.3	
Approach LOS		A	A		A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 52.5%

ICU Level of Service A

Analysis Period (min) 15

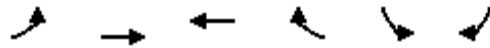
Splits and Phases: 400: Grant Street & Allard Street



Queues

400: Grant Street & Allard Street

06/28/2019

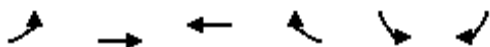


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	151	392	440	72	54	193
v/c Ratio	0.31	0.39	0.43	0.08	0.11	0.34
Control Delay	8.8	8.0	8.3	2.1	11.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	8.0	8.3	2.1	11.8	4.7
Queue Length 50th (ft)	18	49	57	0	7	0
Queue Length 95th (ft)	41	84	95	10	27	28
Internal Link Dist (ft)		610	640		617	
Turn Bay Length (ft)						
Base Capacity (vph)	796	1637	1668	1391	782	793
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.24	0.26	0.05	0.07	0.24
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	125	325	365	60	45	160
Future Volume (veh/h)	125	325	365	60	45	160
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	1781	1781	1811	1811	1885	1885
Adj Flow Rate, veh/h	151	392	440	72	54	193
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	8	8	6	6	1	1
Cap, veh/h	452	835	849	717	456	406
Arrive On Green	0.47	0.47	0.47	0.47	0.25	0.25
Sat Flow, veh/h	845	1781	1811	1530	1795	1598
Grp Volume(v), veh/h	151	392	440	72	54	193
Grp Sat Flow(s),veh/h/ln	845	1781	1811	1530	1795	1598
Q Serve(g_s), s	5.5	5.4	6.1	0.9	0.8	3.7
Cycle Q Clear(g_c), s	11.7	5.4	6.1	0.9	0.8	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	452	835	849	717	456	406
V/C Ratio(X)	0.33	0.47	0.52	0.10	0.12	0.48
Avail Cap(c_a), veh/h	852	1680	1708	1443	797	709
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	10.8	6.5	6.7	5.3	10.3	11.4
Incr Delay (d2), s/veh	0.4	0.4	0.5	0.1	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.2	1.7	0.2	0.3	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	6.9	7.2	5.4	10.5	12.3
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		543	512		247	
Approach Delay, s/veh		8.1	7.0		11.9	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				21.9	14.2	21.9
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				34.0	16.0	34.0
Max Q Clear Time (g_c+I1), s				13.7	5.7	8.1
Green Ext Time (p_c), s				3.2	0.6	3.3
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
HCM 6th LOS			A			

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	Exis
Time Analyzed	AM Peak Hour - Existing
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Allard
E/W Street Name	Grant Street
N/S Street Name	Allard Street
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.67
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0
Lane Assignment	LT				TR								LR			
Volume (V), veh/h	0	45	560		0		220	30					0	20		100
Percent Heavy Vehicles, %	4	4	4		5		5	5					2	2		2
Flow Rate (v_{pce}), pc/h	0	70	869		0		345	47					0	30		152
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1								1			
Pedestrians Crossing, p/h	0				0								0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000						4.2000	
Follow-Up Headway (s)		2.8000			2.8000						2.8000	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		939.00			392.00						182.00	
Entry Volume veh/h		902.88			373.33						178.43	
Circulating Flow (v_c), pc/h	30			70			969			345		
Exiting Flow (v_{ex}), pc/h	899			497			117			0		
Capacity (C_{pce}), pc/h		1256.06			1217.59						983.13	
Capacity (c), veh/h		1207.75			1159.61						963.85	
v/c Ratio (x)		0.75			0.32						0.19	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		14.9			6.2						5.5	
Lane LOS		B			A						A	
95% Queue, veh		7.4			1.4						0.7	
Approach Delay, s/veh	14.9			6.2						5.5		
Approach LOS	B			A						A		
Intersection Delay, s/veh LOS	11.5						B					

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	Exis
Time Analyzed	PM Peak Hour - Existing
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Allard
E/W Street Name	Grant Street
N/S Street Name	Allard Street
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.83
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0
Lane Assignment	LT				TR								LR			
Volume (V), veh/h	0	50	330		0		390	35					0	40		120
Percent Heavy Vehicles, %	6	6	6		8		8	8					2	2		2
Flow Rate (v_{pce}), pc/h	0	64	421		0		507	46					0	49		147
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1								1			
Pedestrians Crossing, p/h	0				0								0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000						4.2000	
Follow-Up Headway (s)		2.8000			2.8000						2.8000	

Flow Computations, Capacity and v/c Ratios

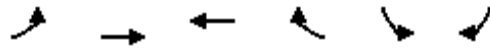
Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		485.00			553.00						196.00	
Entry Volume veh/h		457.55			512.04						192.16	
Circulating Flow (v_c), pc/h	49			64			534			507		
Exiting Flow (v_{ex}), pc/h	470			654			110			0		
Capacity (C_{pce}), pc/h		1237.64			1223.28						866.74	
Capacity (c), veh/h		1167.58			1132.67						849.74	
v/c Ratio (x)		0.39			0.45						0.23	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		7.0			8.0						6.6	
Lane LOS		A			A						A	
95% Queue, veh		1.9			2.4						0.9	
Approach Delay, s/veh	7.0			8.0						6.6		
Approach LOS	A			A						A		
Intersection Delay, s/veh LOS	7.4						A					

Lanes, Volumes, Timings
400: Grant Street & Allard Street

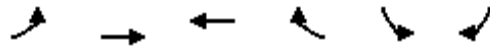
06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	115	610	230	50	30	130
Future Volume (vph)	115	610	230	50	30	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.98
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1810	1827	1553	1770	1583
Flt Permitted	0.555				0.950	
Satd. Flow (perm)	1004	1810	1827	1520	1764	1547
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				75		194
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	1			1	1	1
Confl. Bikes (#/hr)				1		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles (%)	5%	5%	4%	4%	2%	2%
Adj. Flow (vph)	172	910	343	75	45	194
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	910	343	75	45	194
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	45.0	45.0	45.0	45.0	15.0	15.0
Total Split (%)	75.0%	75.0%	75.0%	75.0%	25.0%	25.0%
Maximum Green (s)	40.0	40.0	40.0	40.0	10.0	10.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	36.0	36.0	36.0	36.0	10.3	10.3
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.20	0.20
v/c Ratio	0.24	0.72	0.27	0.07	0.13	0.42
Control Delay	5.4	10.9	4.8	1.2	21.5	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	10.9	4.8	1.2	21.5	7.5
LOS	A	B	A	A	C	A
Approach Delay		10.0	4.2		10.1	
Approach LOS		B	A		B	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.2

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 8.6

Intersection LOS: A

Intersection Capacity Utilization 48.8%

ICU Level of Service A

Analysis Period (min) 15

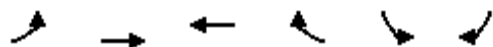
Splits and Phases: 400: Grant Street & Allard Street



Queues

400: Grant Street & Allard Street

06/28/2019

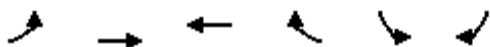


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	172	910	343	75	45	194
v/c Ratio	0.24	0.72	0.27	0.07	0.13	0.42
Control Delay	5.4	10.9	4.8	1.2	21.5	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	10.9	4.8	1.2	21.5	7.5
Queue Length 50th (ft)	20	179	41	0	12	0
Queue Length 95th (ft)	29	162	48	5	28	17
Internal Link Dist (ft)		610	640		617	
Turn Bay Length (ft)						
Base Capacity (vph)	797	1437	1451	1223	356	466
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.63	0.24	0.06	0.13	0.42
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

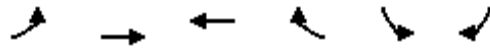
06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	610	230	50	30	130
Future Volume (veh/h)	115	610	230	50	30	130
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1826	1841	1841	1870	1870
Adj Flow Rate, veh/h	172	910	343	75	45	194
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	5	5	4	4	2	2
Cap, veh/h	625	1091	1100	912	351	313
Arrive On Green	0.60	0.60	0.60	0.60	0.20	0.20
Sat Flow, veh/h	945	1826	1841	1526	1781	1585
Grp Volume(v), veh/h	172	910	343	75	45	194
Grp Sat Flow(s),veh/h/ln	945	1826	1841	1526	1781	1585
Q Serve(g_s), s	5.4	19.5	4.5	1.0	1.0	5.5
Cycle Q Clear(g_c), s	9.9	19.5	4.5	1.0	1.0	5.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	625	1091	1100	912	351	313
V/C Ratio(X)	0.27	0.83	0.31	0.08	0.13	0.62
Avail Cap(c_a), veh/h	837	1499	1511	1253	366	325
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	7.3	7.9	4.8	4.1	16.1	17.9
Incr Delay (d2), s/veh	0.2	3.1	0.2	0.0	0.2	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.2	1.2	0.2	0.4	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.5	10.9	5.0	4.2	16.3	21.3
LnGrp LOS	A	B	A	A	B	C
Approach Vol, veh/h		1082	418		239	
Approach Delay, s/veh		10.4	4.9		20.3	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				34.1	14.6	34.1
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				40.0	10.0	40.0
Max Q Clear Time (g_c+l1), s				21.5	7.5	6.5
Green Ext Time (p_c), s				7.6	0.2	2.6
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

Lanes, Volumes, Timings
400: Grant Street & Allard Street

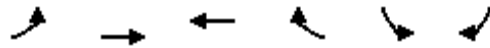
06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	125	270	380	70	45	160
Future Volume (vph)	125	270	380	70	45	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00			0.98	1.00	0.99
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1671	1759	1792	1524	1787	1599
Flt Permitted	0.472				0.950	
Satd. Flow (perm)	829	1759	1792	1489	1784	1578
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				84		193
Link Speed (mph)		35	25		25	
Link Distance (ft)		690	720		697	
Travel Time (s)		13.4	19.6		19.0	
Confl. Peds. (#/hr)	3			3	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	8%	8%	6%	6%	1%	1%
Adj. Flow (vph)	151	325	458	84	54	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	325	458	84	54	193
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6

Lanes, Volumes, Timings
400: Grant Street & Allard Street

06/28/2019



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	10.0	10.0
Minimum Split (s)	20.0	20.0	20.0	20.0	15.0	15.0
Total Split (s)	39.0	39.0	39.0	39.0	21.0	21.0
Total Split (%)	65.0%	65.0%	65.0%	65.0%	35.0%	35.0%
Maximum Green (s)	34.0	34.0	34.0	34.0	16.0	16.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Act Effect Green (s)	21.2	21.2	21.2	21.2	10.1	10.1
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.27	0.27
v/c Ratio	0.32	0.32	0.45	0.09	0.11	0.34
Control Delay	8.8	7.2	8.3	2.0	12.2	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	7.2	8.3	2.0	12.2	4.8
LOS	A	A	A	A	B	A
Approach Delay		7.7	7.4		6.4	
Approach LOS		A	A		A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.1

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 53.3%

ICU Level of Service A

Analysis Period (min) 15

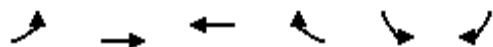
Splits and Phases: 400: Grant Street & Allard Street



Queues

400: Grant Street & Allard Street

06/28/2019

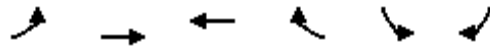


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	151	325	458	84	54	193
v/c Ratio	0.32	0.32	0.45	0.09	0.11	0.34
Control Delay	8.8	7.2	8.3	2.0	12.2	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	7.2	8.3	2.0	12.2	4.8
Queue Length 50th (ft)	18	39	60	0	7	0
Queue Length 95th (ft)	41	67	99	10	28	29
Internal Link Dist (ft)		610	640		617	
Turn Bay Length (ft)						
Base Capacity (vph)	764	1622	1652	1379	775	794
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.20	0.28	0.06	0.07	0.24
Intersection Summary						

HCM 6th Signalized Intersection Summary

400: Grant Street & Allard Street

06/28/2019



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	125	270	380	70	45	160
Future Volume (veh/h)	125	270	380	70	45	160
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	1781	1781	1811	1811	1885	1885
Adj Flow Rate, veh/h	151	325	458	84	54	193
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	8	8	6	6	1	1
Cap, veh/h	438	839	853	720	454	404
Arrive On Green	0.47	0.47	0.47	0.47	0.25	0.25
Sat Flow, veh/h	822	1781	1811	1530	1795	1598
Grp Volume(v), veh/h	151	325	458	84	54	193
Grp Sat Flow(s),veh/h/ln	822	1781	1811	1530	1795	1598
Q Serve(g_s), s	5.8	4.3	6.5	1.1	0.8	3.7
Cycle Q Clear(g_c), s	12.3	4.3	6.5	1.1	0.8	3.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	438	839	853	720	454	404
V/C Ratio(X)	0.34	0.39	0.54	0.12	0.12	0.48
Avail Cap(c_a), veh/h	823	1672	1700	1436	793	706
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	11.1	6.2	6.8	5.4	10.4	11.5
Incr Delay (d2), s/veh	0.5	0.3	0.5	0.1	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.9	1.8	0.2	0.3	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.6	6.5	7.3	5.4	10.5	12.4
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		476	542		247	
Approach Delay, s/veh		8.1	7.0		12.0	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.0	14.2	22.0
Change Period (Y+Rc), s				5.0	5.0	5.0
Max Green Setting (Gmax), s				34.0	16.0	34.0
Max Q Clear Time (g_c+I1), s				14.3	5.7	8.5
Green Ext Time (p_c), s				2.8	0.6	3.5
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
HCM 6th LOS			A			

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	FBld
Time Analyzed	AM Peak Hour - Full Build
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Allard
E/W Street Name	Grant Street
N/S Street Name	Allard Street
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.67
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0
Lane Assignment	LT				TR								LR			
Volume (V), veh/h	0	115	610		0		230	50					0	30		130
Percent Heavy Vehicles, %	4	4	4		5		5	5					2	2		2
Flow Rate (v_{pce}), pc/h	0	179	947		0		360	78					0	46		198
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1								1			
Pedestrians Crossing, p/h	0				0								0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000						4.2000	
Follow-Up Headway (s)		2.8000			2.8000						2.8000	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		1126.00			438.00						244.00	
Entry Volume veh/h		1082.69			417.14						239.22	
Circulating Flow (v_c), pc/h	46			179			1172			360		
Exiting Flow (v_{ex}), pc/h	993			558			257			0		
Capacity (C_{pce}), pc/h		1240.53			1118.62						971.72	
Capacity (c), veh/h		1192.81			1065.35						952.67	
v/c Ratio (x)		0.91			0.39						0.25	

Delay and Level of Service

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		27.6			7.5						6.3	
Lane LOS		D			A						A	
95% Queue, veh		14.4			1.9						1.0	
Approach Delay, s/veh	27.6			7.5						6.3		
Approach LOS	D			A						A		
Intersection Delay, s/veh LOS	19.8						C					

HCS7 Roundabouts Report

General Information

Analyst	TSC
Agency or Co.	TADI
Date Performed	4/17/2019
Analysis Year	FBld
Time Analyzed	PM Peak Hour - Full Build
Project Description	2279 De Pere High School

Site Information

Intersection	Grant St/Allard
E/W Street Name	Grant Street
N/S Street Name	Allard Street
Analysis Time Period (hrs)	0.25
Peak Hour Factor	0.83
Jurisdiction	

Volume Adjustments and Site Characteristics

Approach	EB				WB				NB				SB			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Number of Lanes (N)	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0
Lane Assignment	LT				TR								LR			
Volume (V), veh/h	0	125	270		0		380	70					0	45		160
Percent Heavy Vehicles, %	6	6	6		8		8	8					2	2		2
Flow Rate (v_{pce}), pc/h	0	160	345		0		494	91					0	55		197
Right-Turn Bypass	None				None				None				None			
Conflicting Lanes	1				1								1			
Pedestrians Crossing, p/h	0				0								0			

Critical and Follow-Up Headway Adjustment

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Critical Headway (s)		4.2000			4.2000						4.2000	
Follow-Up Headway (s)		2.8000			2.8000						2.8000	

Flow Computations, Capacity and v/c Ratios

Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Entry Flow (v_e), pc/h		505.00			585.00						252.00	
Entry Volume veh/h		476.42			541.67						247.06	
Circulating Flow (v_c), pc/h	55			160			560			494		
Exiting Flow (v_{ex}), pc/h	400			691			251			0		
Capacity (C_{pce}), pc/h		1231.87			1135.27						875.55	
Capacity (c), veh/h		1162.15			1051.18						858.38	
v/c Ratio (x)		0.41			0.52						0.29	

Delay and Level of Service

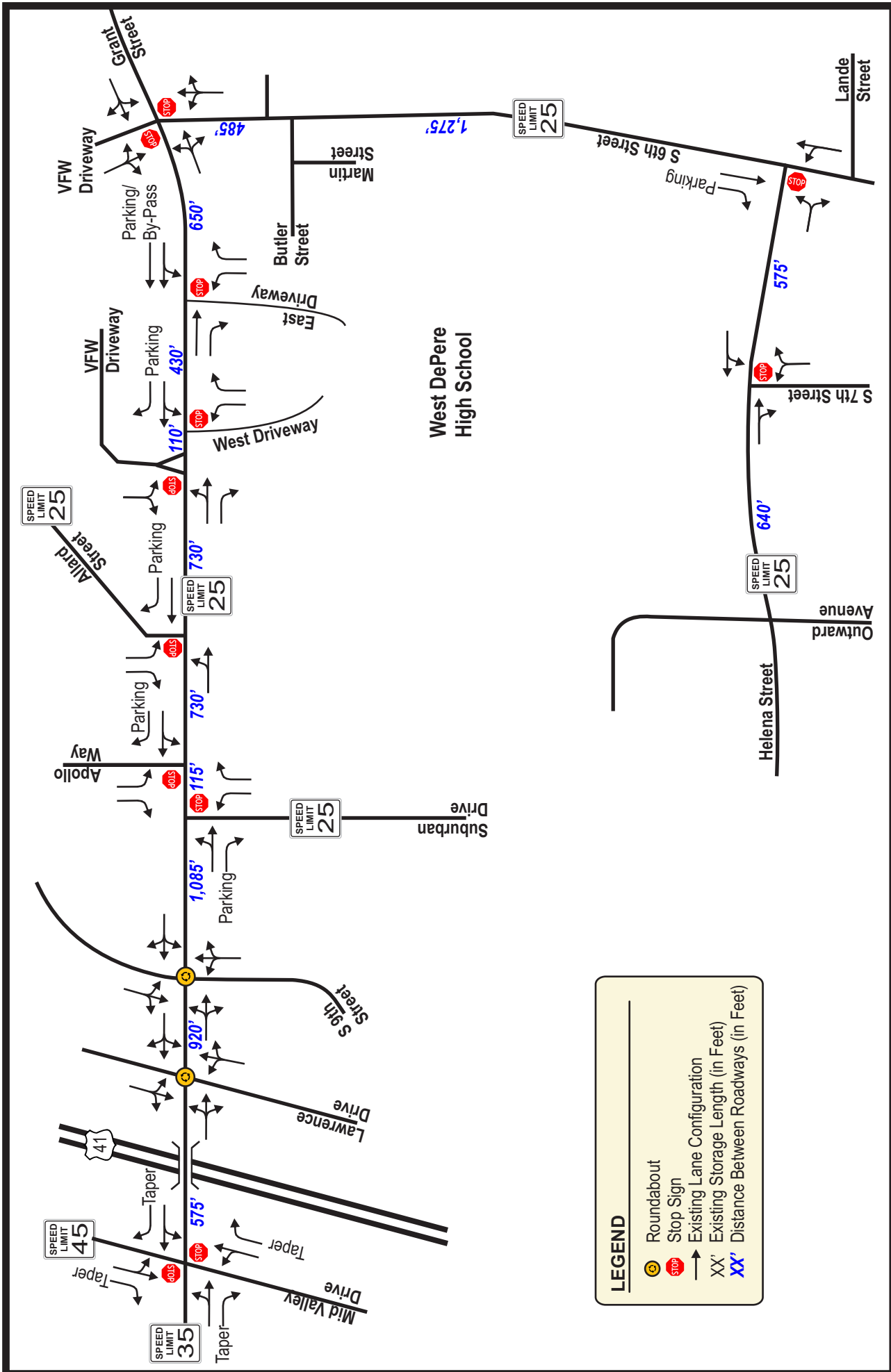
Approach	EB			WB			NB			SB		
Lane	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass	Left	Right	Bypass
Lane Control Delay (d), s/veh		7.3			9.6						7.3	
Lane LOS		A			A						A	
95% Queue, veh		2.0			3.0						1.2	
Approach Delay, s/veh	7.3			9.6						7.3		
Approach LOS	A			A						A		
Intersection Delay, s/veh LOS	8.3						A					



West De Pere High School
De Pere, WI
August 9, 2018

2279: 6-28-19

DEPERE, WISCONSIN





TADI
TRAFFIC ANALYSIS & DESIGN, INC.



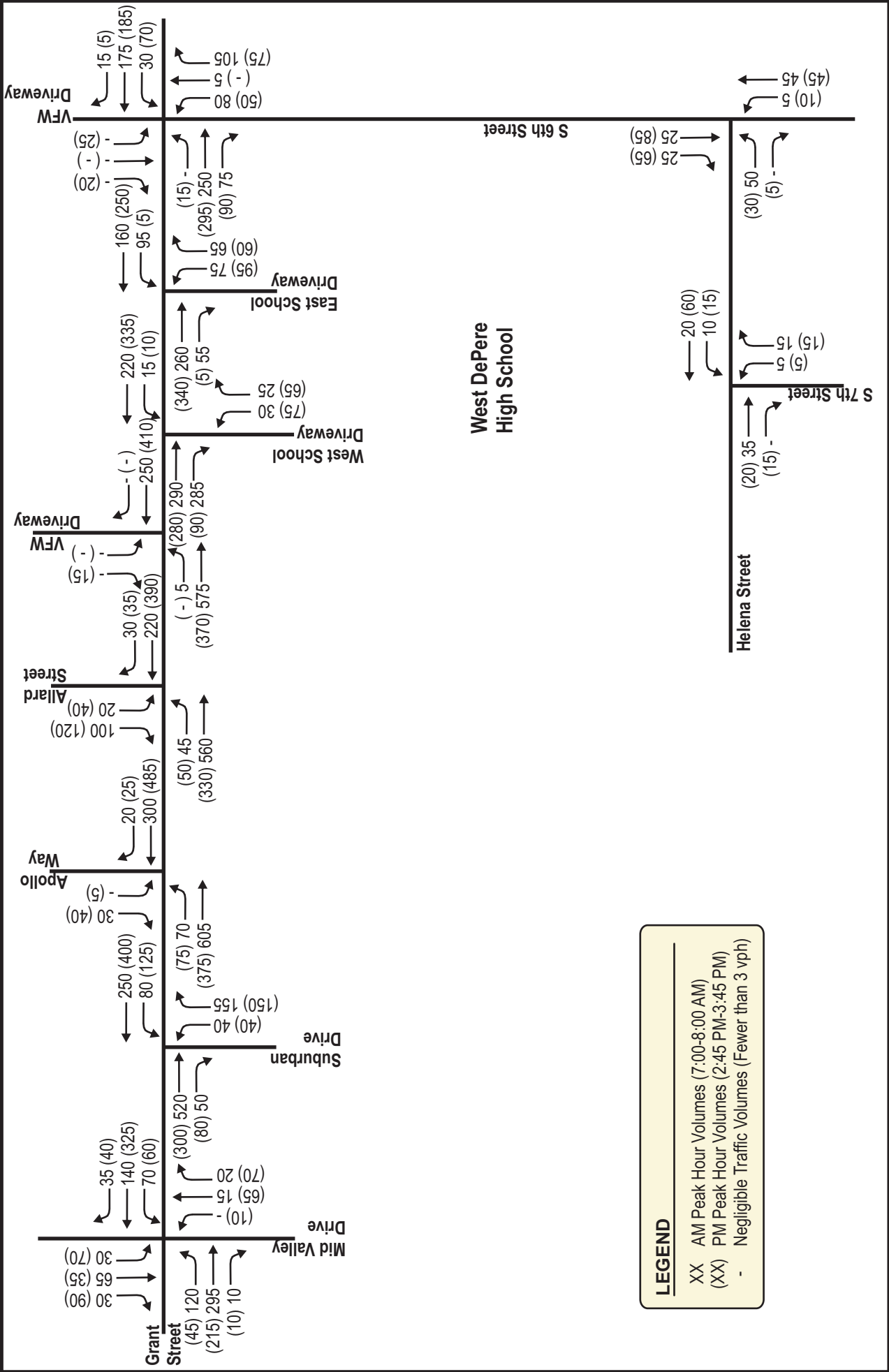
NOT TO SCALE

2279: 6-28-19

EXHIBIT 3-1

EXISTING TRANSPORTATION DETAIL

DEPERE, WISCONSIN



LEGEND

- XX AM Peak Hour Volumes (7:00-8:00 AM)
- (XX) PM Peak Hour Volumes (2:45 PM-3:45 PM)
- Negligible Traffic Volumes (Fewer than 3 vph)

