

ALLIANT ENGINEERING, INC.

733 S Marquette Ave #700, Minneapolis, MN 55402

80th St & Point Douglas Rd
 City: Cottage Grove
 data by: Alliant Engineering, Inc.
 TURN MOVEMENT COUNT

File Name : 80th St & Point Douglas Rd_2021
 Site Code : 304
 Start Date : 10/19/2021
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	Hardwood Ave Southbound					80th Street Westbound					Point Douglas Rd Northbound					80th Street Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
12:00 AM	1	0	6	0	7	3	8	0	0	11	3	0	1	0	4	0	10	3	0	13	35
12:15 AM	0	1	0	0	1	0	5	0	0	5	6	3	1	0	10	2	12	3	0	17	33
12:30 AM	2	0	3	0	5	0	6	0	0	6	3	0	1	0	4	0	5	2	0	7	22
12:45 AM	0	0	0	0	0	1	4	0	0	5	4	0	1	0	5	0	5	1	0	6	16
Total	3	1	9	0	13	4	23	0	0	27	16	3	4	0	23	2	32	9	0	43	106
01:00 AM	0	0	1	0	1	0	4	0	0	4	0	0	1	0	1	0	6	3	0	9	15
01:15 AM	0	0	1	0	1	1	1	0	0	2	2	0	2	0	4	0	7	1	0	8	15
01:30 AM	1	0	2	0	3	0	3	0	0	3	2	0	1	0	3	2	3	1	0	6	15
01:45 AM	0	0	0	0	0	0	2	0	1	3	2	0	2	0	4	1	4	1	0	6	13
Total	1	0	4	0	5	1	10	0	1	12	6	0	6	0	12	3	20	6	0	29	58
02:00 AM	0	2	4	0	6	0	1	0	0	1	1	0	0	0	1	0	6	1	0	7	15
02:15 AM	0	0	0	0	0	1	4	0	0	5	1	0	1	0	2	0	5	3	0	8	15
02:30 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	3	0	0	3	7
02:45 AM	0	1	0	0	1	1	2	1	0	4	4	1	0	0	5	0	3	2	0	5	15
Total	0	3	4	0	7	2	10	1	0	13	7	1	1	0	9	0	17	6	0	23	52
03:00 AM	0	0	1	0	1	0	1	1	0	2	1	0	0	0	1	2	4	0	0	6	10
03:15 AM	0	1	0	0	1	0	5	1	0	6	3	0	1	0	4	0	4	1	0	5	16
03:30 AM	0	1	0	0	1	1	9	0	0	10	2	0	0	0	2	2	1	1	0	4	17
03:45 AM	0	1	1	0	2	0	7	0	0	7	2	0	1	0	3	0	0	1	0	1	13
Total	0	3	2	0	5	1	22	2	0	25	8	0	2	0	10	4	9	3	0	16	56
04:00 AM	0	0	0	0	0	5	9	0	0	14	3	1	1	0	5	0	2	4	0	6	25
04:15 AM	0	1	0	0	1	5	16	0	0	21	5	0	1	0	6	0	1	5	0	6	34
04:30 AM	0	2	2	0	4	7	21	1	0	29	4	1	0	0	5	2	7	5	0	14	52
04:45 AM	0	1	1	0	2	4	26	1	0	31	8	0	0	0	8	3	3	4	0	10	51
Total	0	4	3	0	7	21	72	2	0	95	20	2	2	0	24	5	13	18	0	36	162
05:00 AM	0	0	3	0	3	5	24	0	0	29	17	1	1	0	19	3	1	8	0	12	63
05:15 AM	0	4	3	0	7	13	50	3	0	66	22	1	3	0	26	9	6	10	0	25	124
05:30 AM	0	2	1	0	3	9	55	1	0	65	40	1	5	0	46	3	7	18	0	28	142
05:45 AM	2	4	3	0	9	18	48	1	0	67	30	3	8	0	41	3	7	31	0	41	158
Total	2	10	10	0	22	45	177	5	0	227	109	6	17	0	132	18	21	67	0	106	487
06:00 AM	1	5	4	0	10	18	65	6	0	89	47	3	12	0	62	9	11	30	0	50	211
06:15 AM	0	7	11	0	18	28	81	3	0	112	63	2	8	0	73	7	16	30	0	53	256
06:30 AM	1	14	5	0	20	23	73	2	0	98	66	4	14	0	84	8	30	31	0	69	271
06:45 AM	3	7	10	0	20	25	113	6	0	144	58	7	15	0	80	11	39	30	0	80	324
Total	5	33	30	0	68	94	332	17	0	443	234	16	49	0	299	35	96	121	0	252	1062
07:00 AM	1	12	11	0	24	30	108	7	0	145	64	7	28	0	99	8	50	39	0	97	365
07:15 AM	3	21	17	0	41	35	99	5	0	139	69	11	19	0	99	11	77	52	0	140	419
07:30 AM	4	13	18	0	35	43	105	2	0	150	87	11	32	0	130	18	82	55	0	155	470
07:45 AM	8	17	25	0	50	67	117	7	1	192	73	10	40	1	124	13	79	50	1	143	509
Total	16	63	71	0	150	175	429	21	1	626	293	39	119	1	452	50	288	196	1	535	1763
08:00 AM	9	15	11	0	35	51	117	8	1	177	64	10	43	1	118	19	137	43	0	199	529
08:15 AM	8	16	14	0	38	44	146	11	1	202	66	12	38	0	116	14	123	48	0	185	541
08:30 AM	2	22	16	0	40	56	105	9	1	171	56	19	25	1	101	11	68	42	1	122	434
08:45 AM	4	15	15	1	35	35	71	1	0	107	66	12	30	0	108	19	57	55	0	131	381
Total	23	68	56	1	148	186	439	29	3	657	252	53	136	2	443	63	385	188	1	637	1885
09:00 AM	8	13	16	0	37	37	68	5	0	110	65	22	28	0	115	16	47	42	0	105	367

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 TURN MOVEMENT COUNT

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 Site Code : 304
 Start Date : 10/19/2021
 Page No : 2

Groups Printed- Cars - Trucks

Start Time	Hardwood Ave Southbound					80th Street Westbound					Point Douglas Rd Northbound					80th Street Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
09:15 AM	3	16	16	0	35	58	64	6	0	128	56	12	32	0	100	16	58	46	0	120	383
09:30 AM	4	11	19	0	34	39	64	2	0	105	73	13	31	0	117	14	48	61	0	123	379
09:45 AM	6	26	15	0	47	49	55	10	0	114	58	21	19	0	98	36	40	52	0	128	387
Total	21	66	66	0	153	183	251	23	0	457	252	68	110	0	430	82	193	201	0	476	1516
10:00 AM	7	23	15	0	45	30	62	9	0	101	75	24	30	0	129	27	42	34	0	103	378
10:15 AM	4	19	25	0	48	43	64	8	1	116	52	12	30	0	94	34	43	47	0	124	382
10:30 AM	5	27	23	0	55	35	66	5	0	106	68	18	23	0	109	24	48	43	1	116	386
10:45 AM	7	28	25	0	60	44	52	8	1	105	55	22	36	1	114	35	54	47	0	136	415
Total	23	97	88	0	208	152	244	30	2	428	250	76	119	1	446	120	187	171	1	479	1561
11:00 AM	8	23	29	0	60	43	50	18	1	112	66	20	38	0	124	48	39	57	0	144	440
11:15 AM	5	29	31	0	65	60	61	11	1	133	87	25	40	0	152	36	59	59	1	155	505
11:30 AM	13	40	32	0	85	61	69	14	2	146	79	29	49	0	157	48	51	60	0	159	547
11:45 AM	11	37	38	0	86	51	69	29	1	150	76	29	39	0	144	47	51	81	0	179	559
Total	37	129	130	0	296	215	249	72	5	541	308	103	166	0	577	179	200	257	1	637	2051
12:00 PM	12	37	34	0	83	62	54	18	0	134	84	30	51	0	165	58	61	68	1	188	570
12:15 PM	10	42	35	0	87	50	60	15	0	125	118	43	46	0	207	38	60	77	2	177	596
12:30 PM	11	27	43	0	81	57	68	12	1	138	91	30	69	1	191	36	49	57	0	142	552
12:45 PM	15	28	47	0	90	48	52	16	1	117	96	30	44	1	171	22	56	80	0	158	536
Total	48	134	159	0	341	217	234	61	2	514	389	133	210	2	734	154	226	282	3	665	2254
01:00 PM	22	42	35	1	100	48	40	16	0	104	95	25	50	0	170	50	56	63	1	170	544
01:15 PM	4	32	40	0	76	49	54	11	1	115	78	19	51	0	148	40	35	55	1	131	470
01:30 PM	15	37	38	0	90	44	60	15	0	119	91	33	33	0	157	41	48	50	0	139	505
01:45 PM	15	20	39	0	74	44	65	14	0	123	86	22	52	0	160	45	71	64	0	180	537
Total	56	131	152	1	340	185	219	56	1	461	350	99	186	0	635	176	210	232	2	620	2056
02:00 PM	13	20	33	2	68	36	59	13	2	110	80	20	36	2	138	34	69	55	3	161	477
02:15 PM	13	34	27	0	74	56	75	10	0	141	100	26	52	0	178	33	75	59	0	167	560
02:30 PM	12	28	45	1	86	55	92	12	0	159	77	32	44	1	154	34	75	69	0	178	577
02:45 PM	9	36	40	0	85	41	58	19	0	118	80	29	53	0	162	39	102	71	1	213	578
Total	47	118	145	3	313	188	284	54	2	528	337	107	185	3	632	140	321	254	4	719	2192
03:00 PM	16	31	38	0	85	49	87	13	5	154	80	34	48	2	164	41	105	66	1	213	616
03:15 PM	14	37	32	0	83	82	163	29	2	276	114	41	53	0	208	47	118	83	0	248	815
03:30 PM	15	27	31	0	73	56	128	15	0	199	98	35	52	3	188	55	115	85	4	259	719
03:45 PM	15	38	44	1	98	69	95	11	0	175	119	39	67	2	227	41	117	80	2	240	740
Total	60	133	145	1	339	256	473	68	7	804	411	149	220	7	787	184	455	314	7	960	2890
04:00 PM	16	21	51	2	90	52	101	21	3	177	92	31	68	0	191	39	118	74	5	236	694
04:15 PM	21	36	28	0	85	43	108	22	4	177	88	29	69	0	186	45	136	101	0	282	730
04:30 PM	18	32	43	0	93	52	121	20	4	197	115	28	70	0	213	57	138	77	2	274	777
04:45 PM	15	33	32	0	80	59	100	30	10	199	87	36	53	2	178	55	136	87	0	278	735
Total	70	122	154	2	348	206	430	93	21	750	382	124	260	2	768	196	528	339	7	1070	2936
05:00 PM	30	40	57	0	127	71	124	24	0	219	103	48	71	1	223	58	143	94	4	299	868
05:15 PM	28	40	66	1	135	67	112	24	6	209	106	27	72	0	205	52	168	92	0	312	861
05:30 PM	12	33	39	1	85	71	93	25	4	193	93	32	73	0	198	39	138	83	2	262	738
05:45 PM	20	40	36	0	96	63	97	28	2	190	110	41	65	0	216	49	139	85	0	273	775
Total	90	153	198	2	443	272	426	101	12	811	412	148	281	1	842	198	588	354	6	1146	3242
06:00 PM	23	36	41	0	100	63	102	15	3	183	111	37	58	0	206	27	108	72	6	213	702
06:15 PM	21	43	42	0	106	67	117	27	1	212	105	39	69	0	213	42	123	75	3	243	774
06:30 PM	23	29	40	0	92	62	90	17	1	170	109	35	51	0	195	46	94	67	0	207	664
06:45 PM	19	25	35	0	79	62	85	18	2	167	88	24	49	0	161	30	118	65	0	213	620
Total	86	133	158	0	377	254	394	77	7	732	413	135	227	0	775	145	443	279	9	876	2760

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 TURN MOVEMENT COUNT

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 Site Code : 304
 Start Date : 10/19/2021
 Page No : 3

Groups Printed- Cars - Trucks

Start Time	Hardwood Ave Southbound					80th Street Westbound					Point Douglas Rd Northbound					80th Street Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 PM	20	32	41	0	93	39	130	15	2	186	93	23	52	0	168	39	82	47	0	168	615
07:15 PM	21	18	34	0	73	52	63	13	2	130	82	31	39	0	152	44	75	57	0	176	531
07:30 PM	10	26	28	0	64	32	47	12	0	91	91	25	47	0	163	29	71	49	0	149	467
07:45 PM	13	18	32	1	64	38	49	13	0	100	65	24	43	0	132	15	60	46	1	122	418
Total	64	94	135	1	294	161	289	53	4	507	331	103	181	0	615	127	288	199	1	615	2031
08:00 PM	9	24	20	0	53	18	52	6	0	76	72	23	50	0	145	21	46	48	0	115	389
08:15 PM	7	7	24	0	38	21	59	8	0	88	52	14	29	0	95	22	45	24	0	91	312
08:30 PM	8	5	19	0	32	30	74	5	0	109	54	16	24	0	94	19	52	33	0	104	339
08:45 PM	4	10	20	0	34	20	47	10	0	77	43	7	37	0	87	18	23	28	0	69	267
Total	28	46	83	0	157	89	232	29	0	350	221	60	140	0	421	80	166	133	0	379	1307
09:00 PM	6	12	11	0	29	21	29	2	0	52	47	14	35	0	96	13	57	33	0	103	280
09:15 PM	2	3	16	0	21	15	25	3	0	43	42	11	26	0	79	17	62	27	0	106	249
09:30 PM	6	3	10	0	19	13	28	3	0	44	28	6	29	0	63	7	40	23	0	70	196
09:45 PM	3	5	11	0	19	8	23	4	0	35	32	7	17	0	56	5	40	24	0	69	179
Total	17	23	48	0	88	57	105	12	0	174	149	38	107	0	294	42	199	107	0	348	904
10:00 PM	9	5	10	0	24	13	33	0	2	48	24	5	13	0	42	5	37	19	0	61	175
10:15 PM	1	7	7	0	15	12	25	1	0	38	25	3	16	0	44	5	26	11	0	42	139
10:30 PM	2	3	3	0	8	5	10	1	2	18	16	5	6	0	27	1	37	21	0	59	112
10:45 PM	0	4	6	0	10	1	11	0	0	12	14	2	8	0	24	3	25	14	0	42	88
Total	12	19	26	0	57	31	79	2	4	116	79	15	43	0	137	14	125	65	0	204	514
11:00 PM	0	2	5	0	7	10	13	1	1	25	16	5	5	0	26	6	28	16	0	50	108
11:15 PM	0	4	2	0	6	7	9	0	0	16	15	4	12	0	31	1	17	10	0	28	81
11:30 PM	3	0	1	0	4	5	3	0	0	8	10	0	5	0	15	0	11	7	0	18	45
11:45 PM	0	0	1	0	1	4	9	0	0	13	9	0	5	0	14	0	10	5	0	15	43
Total	3	6	9	0	18	26	34	1	1	62	50	9	27	0	86	7	66	38	0	111	277
Grand Total	712	1589	1885	11	4197	3021	5457	809	73	9360	5279	1487	2798	19	9583	2024	5076	3839	43	10982	34122
Apprch %	17	37.9	44.9	0.3		32.3	58.3	8.6	0.8		55.1	15.5	29.2	0.2		18.4	46.2	35	0.4		
Total %	2.1	4.7	5.5	0	12.3	8.9	16	2.4	0.2	27.4	15.5	4.4	8.2	0.1	28.1	5.9	14.9	11.3	0.1	32.2	
Cars	703	1569	1849	7	4128	2992	5294	794	62	9142	5147	1475	2769	16	9407	1980	4958	3782	37	10757	33434
% Cars	98.7	98.7	98.1	63.6	98.4	99	97	98.1	84.9	97.7	97.5	99.2	99	84.2	98.2	97.8	97.7	98.5	86	98	98
Trucks	9	20	36	4	69	29	163	15	11	218	132	12	29	3	176	44	118	57	6	225	688
% Trucks	1.3	1.3	1.9	36.4	1.6	1	3	1.9	15.1	2.3	2.5	0.8	1	15.8	1.8	2.2	2.3	1.5	14	2	2

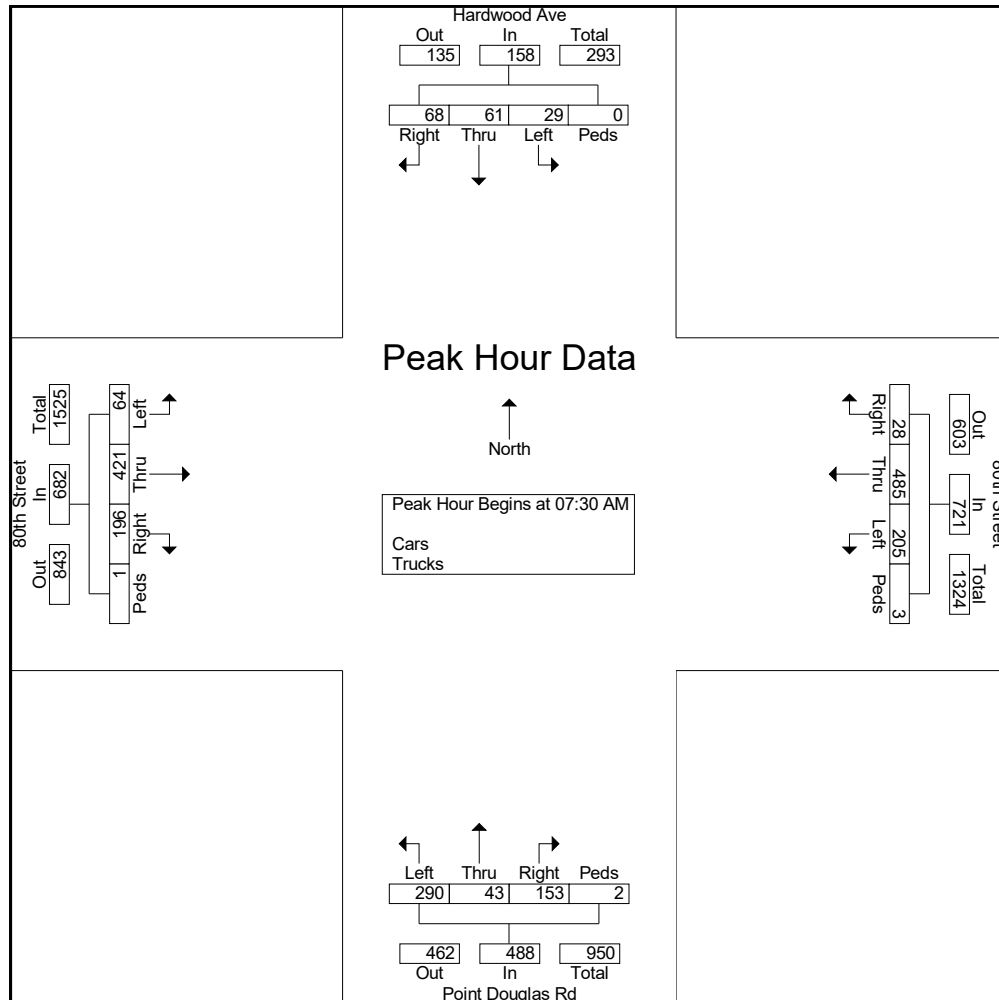
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Start Time	Hardwood Ave Southbound					80th Street Westbound					Point Douglas Rd Northbound					80th Street Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	4	13	18	0	35	43	105	2	0	150	87	11	32	0	130	18	82	55	0	155	470
07:45 AM	8	17	25	0	50	67	117	7	1	192	73	10	40	1	124	13	79	50	1	143	509
08:00 AM	9	15	11	0	35	51	117	8	1	177	64	10	43	1	118	19	137	43	0	199	529
08:15 AM	8	16	14	0	38	44	146	11	1	202	66	12	38	0	116	14	123	48	0	185	541
Total Volume	29	61	68	0	158	205	485	28	3	721	290	43	153	2	488	64	421	196	1	682	2049
% App. Total	18.4	38.6	43	0		28.4	67.3	3.9	0.4		59.4	8.8	31.4	0.4		9.4	61.7	28.7	0.1		
PHF	.806	.897	.680	.000	.790	.765	.830	.636	.750	.892	.833	.896	.890	.500	.938	.842	.768	.891	.250	.857	.947



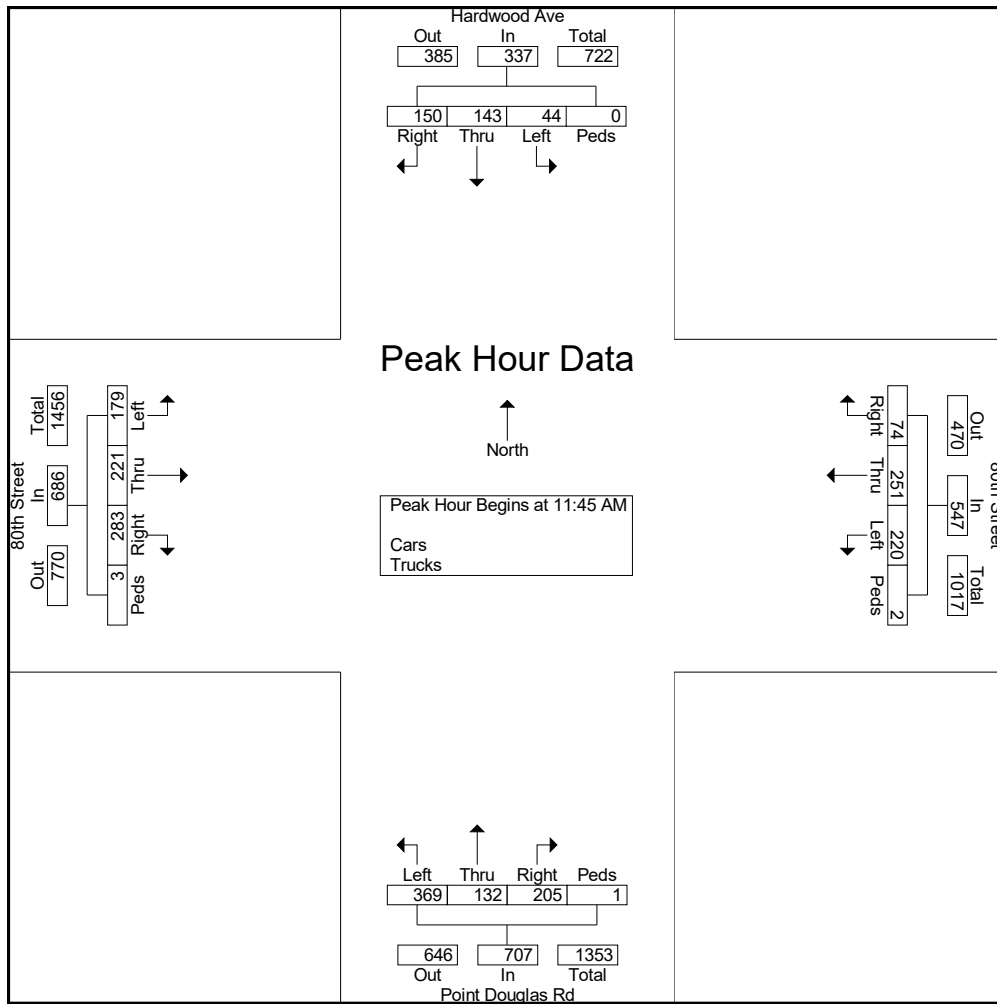
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Start Time	Hardwood Ave Southbound					80th Street Westbound					Point Douglas Rd Northbound					80th Street Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	11	37	38	0	86	51	69	29	1	150	76	29	39	0	144	47	51	81	0	179	559
12:00 PM	12	37	34	0	83	62	54	18	0	134	84	30	51	0	165	58	61	68	1	188	570
12:15 PM	10	42	35	0	87	50	60	15	0	125	118	43	46	0	207	38	60	77	2	177	596
12:30 PM	11	27	43	0	81	57	68	12	1	138	91	30	69	1	191	36	49	57	0	142	552
Total Volume	44	143	150	0	337	220	251	74	2	547	369	132	205	1	707	179	221	283	3	686	2277
% App. Total	13.1	42.4	44.5	0		40.2	45.9	13.5	0.4		52.2	18.7	29	0.1		26.1	32.2	41.3	0.4		
PHF	.917	.851	.872	.000	.968	.887	.909	.638	.500	.912	.782	.767	.743	.250	.854	.772	.906	.873	.375	.912	.955



ALLIANT ENGINEERING, INC.

733 S Marquette Ave #700, Minneapolis, MN 55402

80th St & Point Douglas Rd
 City: Cottage Grove
 data by: Alliant Engineering, Inc.
 TURN MOVEMENT COUNT

File Name : 80th St & Point Douglas Rd_2021
 Site Code : 304
 Start Date : 10/19/2021
 Page No : 6

Start Time	Hardwood Ave Southbound					80th Street Westbound					Point Douglas Rd Northbound					80th Street Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 02:00 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	30	40	57	0	127	71	124	24	0	219	103	48	71	1	223	58	143	94	4	299	868
05:15 PM	28	40	66	1	135	67	112	24	6	209	106	27	72	0	205	52	168	92	0	312	861
05:30 PM	12	33	39	1	85	71	93	25	4	193	93	32	73	0	198	39	138	83	2	262	738
05:45 PM	20	40	36	0	96	63	97	28	2	190	110	41	65	0	216	49	139	85	0	273	775
Total Volume	90	153	198	2	443	272	426	101	12	811	412	148	281	1	842	198	588	354	6	1146	3242
% App. Total	20.3	34.5	44.7	0.5		33.5	52.5	12.5	1.5		48.9	17.6	33.4	0.1		17.3	51.3	30.9	0.5		
PHF	.750	.956	.750	.500	.820	.958	.859	.902	.500	.926	.936	.771	.962	.250	.944	.853	.875	.941	.375	.918	.934

