

ALLIANT ENGINEERING, INC.

733 S Marquette Ave #700, Minneapolis, MN 55402

MN 51 (Snelling Ave) & Har Mar Mall
 City: Roseville
 data by: Spack Solutions
 TURN MOVEMENT COUNT

File Name : MN 51 (Snelling Ave) & Har Mar Mall_2021
 Site Code : 1735342
 Start Date : 10/13/2021
 Page No : 1

Groups Printed- Cars - Trucks

Start Time	MN 51 (Snelling Ave) Southbound					Har Mar Mall Westbound					MN 51 (Snelling Ave) Northbound					Service Road Access 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	
06:00 AM	2	99	14	0	115	4	0	0	0	4	8	56	1	0	65	4	1	11	0	16	200
06:15 AM	2	127	7	0	136	1	0	3	0	4	9	74	2	0	85	8	1	9	0	18	243
06:30 AM	3	179	10	0	192	3	0	3	0	6	12	124	5	0	141	7	3	10	0	20	359
06:45 AM	3	244	13	0	260	3	0	2	0	5	6	138	6	0	150	11	1	19	0	31	446
Total	10	649	44	0	703	11	0	8	0	19	35	392	14	0	441	30	6	49	0	85	1248
07:00 AM	4	195	12	0	211	1	0	8	0	9	10	114	5	0	129	7	0	16	0	23	372
07:15 AM	6	242	14	0	262	2	0	8	0	10	16	183	8	0	207	15	1	17	0	33	512
07:30 AM	7	243	13	0	263	5	1	9	0	15	13	225	5	0	243	16	0	18	0	34	555
07:45 AM	11	264	12	0	287	5	1	3	0	9	14	207	10	0	231	13	4	15	0	32	559
Total	28	944	51	0	1023	13	2	28	0	43	53	729	28	0	810	51	5	66	0	122	1998
08:00 AM	9	212	17	0	238	2	2	8	0	12	16	223	2	0	241	14	0	21	0	35	526
08:15 AM	12	237	14	0	263	7	2	11	0	20	18	196	9	0	223	16	3	14	0	33	539
08:30 AM	4	206	17	0	227	5	0	10	0	15	11	188	10	0	209	18	0	17	0	35	486
08:45 AM	11	232	15	0	258	5	0	8	2	15	24	204	9	1	238	11	3	14	0	28	539
Total	36	887	63	0	986	19	4	37	2	62	69	811	30	1	911	59	6	66	0	131	2090
09:00 AM	9	170	19	3	201	8	1	8	0	17	15	140	17	0	172	23	1	17	0	41	431
09:15 AM	21	175	16	2	214	9	0	10	0	19	16	156	13	0	185	11	1	13	0	25	443
09:30 AM	20	178	17	0	215	7	3	15	0	25	17	158	21	0	196	15	7	14	0	36	472
09:45 AM	22	175	15	0	212	8	3	27	0	38	21	177	17	0	215	16	0	21	0	37	502
Total	72	698	67	5	842	32	7	60	0	99	69	631	68	0	768	65	9	65	0	139	1848
10:00 AM	19	179	30	1	229	12	3	18	1	34	16	126	25	0	167	16	1	22	0	39	469
10:15 AM	23	175	18	1	217	13	2	22	0	37	20	194	19	0	233	19	4	18	0	41	528
10:30 AM	31	148	18	0	197	17	4	36	1	58	11	180	20	0	211	17	5	13	0	35	501
10:45 AM	24	145	17	1	187	21	4	22	0	47	11	183	31	1	226	17	6	10	0	33	493
Total	97	647	83	3	830	63	13	98	2	176	58	683	95	1	837	69	16	63	0	148	1991
11:00 AM	28	149	26	0	203	11	5	30	0	46	22	185	31	0	238	16	2	21	0	39	526
11:15 AM	33	177	19	0	229	29	2	33	0	64	20	210	34	0	264	21	8	24	0	53	610
11:30 AM	34	189	27	1	251	32	4	41	0	77	41	195	41	0	277	23	8	26	0	57	662
11:45 AM	41	191	32	1	265	46	4	39	0	89	31	183	44	0	258	18	8	29	0	55	667
Total	136	706	104	2	948	118	15	143	0	276	114	773	150	0	1037	78	26	100	0	204	2465
12:00 PM	37	175	50	0	262	42	9	40	0	91	39	237	53	0	329	25	5	28	0	58	740
12:15 PM	35	177	41	2	255	43	7	51	0	101	32	233	36	0	301	29	9	32	0	70	727
12:30 PM	47	201	30	0	278	39	9	57	0	105	33	227	55	0	315	33	3	36	0	72	770
12:45 PM	49	184	36	1	270	32	6	57	0	95	29	194	36	0	259	34	10	32	0	76	700
Total	168	737	157	3	1065	156	31	205	0	392	133	891	180	0	1204	121	27	128	0	276	2937
01:00 PM	43	198	27	0	268	37	6	51	0	94	23	233	37	0	293	29	7	33	0	69	724
01:15 PM	47	193	18	2	260	34	14	53	0	101	31	226	39	0	296	23	4	29	0	56	713
01:30 PM	37	184	24	0	245	35	3	62	0	100	18	202	31	0	251	25	7	14	0	46	642
01:45 PM	28	224	26	1	279	27	12	45	0	84	26	299	47	3	375	26	10	21	0	57	795
Total	155	799	95	3	1052	133	35	211	0	379	98	960	154	3	1215	103	28	97	0	228	2874
02:00 PM	32	173	27	3	235	28	8	47	1	84	21	269	48	0	338	31	6	23	0	60	717
02:15 PM	35	195	26	0	256	40	11	48	0	99	20	252	28	0	300	31	5	22	0	58	713
02:30 PM	29	202	25	1	257	36	7	49	0	92	12	296	38	0	346	25	6	24	0	55	750
02:45 PM	22	191	27	0	240	16	4	40	0	60	21	288	29	0	338	18	4	19	0	41	679
Total	118	761	105	4	988	120	30	184	1	335	74	1105	143	0	1322	105	21	88	0	214	2859

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MN 51 (Snelling Ave) & Har Mar Mall
 City: Roseville
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 TURN MOVEMENT COUNT

File Name : MN 51 (Snelling Ave) & Har Mar Mall_2021
 Site Code : 1735342
 Start Date : 10/13/2021
 Page No : 2

Groups Printed- Cars - Trucks

Start Time	MN 51 (Snelling Ave) Southbound					Har Mar Mall Westbound					MN 51 (Snelling Ave) Northbound					Service Road Access 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	
03:00 PM	36	221	22	2	281	29	6	38	0	73	28	323	27	1	379	27	5	21	0	53	786
03:15 PM	37	255	22	0	314	39	8	34	0	81	22	345	41	0	408	22	3	20	0	45	848
03:30 PM	27	230	24	0	281	42	6	38	0	86	40	388	39	0	467	26	11	28	0	65	899
03:45 PM	26	256	31	0	313	18	9	37	0	64	11	392	41	0	444	26	7	27	0	60	881
Total	126	962	99	2	1189	128	29	147	0	304	101	1448	148	1	1698	101	26	96	0	223	3414
04:00 PM	35	229	27	0	291	34	5	40	0	79	14	364	36	0	414	29	6	23	0	58	842
04:15 PM	46	230	22	0	298	29	7	32	0	68	15	370	46	0	431	27	10	15	0	52	849
04:30 PM	40	226	21	2	289	34	10	25	0	69	20	403	44	0	467	18	3	14	0	35	860
04:45 PM	46	278	31	1	356	29	8	51	0	88	10	386	42	0	438	21	7	31	0	59	941
Total	167	963	101	3	1234	126	30	148	0	304	59	1523	168	0	1750	95	26	83	0	204	3492
05:00 PM	50	264	28	1	343	37	6	43	0	86	11	339	47	0	397	27	6	19	0	52	878
05:15 PM	59	256	24	0	339	40	10	55	0	105	26	324	49	0	399	30	5	24	0	59	902
05:30 PM	43	234	36	0	313	33	8	41	0	82	33	319	40	0	392	19	4	22	0	45	832
05:45 PM	34	231	29	1	295	43	7	52	0	102	18	297	60	0	375	26	3	21	0	50	822
Total	186	985	117	2	1290	153	31	191	0	375	88	1279	196	0	1563	102	18	86	0	206	3434
06:00 PM	57	196	34	1	288	35	7	49	0	91	23	249	42	0	314	21	12	23	0	56	749
06:15 PM	37	184	33	1	255	34	17	51	0	102	21	243	43	0	307	29	6	27	0	62	726
06:30 PM	39	164	28	1	232	29	7	48	0	84	22	207	35	0	264	34	8	26	0	68	648
06:45 PM	57	167	23	0	247	33	3	55	0	91	13	161	32	1	207	25	11	19	0	55	600
Total	190	711	118	3	1022	131	34	203	0	368	79	860	152	1	1092	109	37	95	0	241	2723
Grand Total	1489	10449	1204	30	13172	1203	261	1663	5	3132	1030	12085	1526	7	14648	1088	251	1082	0	2421	33373
Apprch %	11.3	79.3	9.1	0.2		38.4	8.3	53.1	0.2		7	82.5	10.4	0		44.9	10.4	44.7	0		
Total %	4.5	31.3	3.6	0.1	39.5	3.6	0.8	5	0	9.4	3.1	36.2	4.6	0	43.9	3.3	0.8	3.2	0	7.3	
Cars	1478	10004	1195	29	12706	1192	260	1637	4	3093	1021	11596	1509	6	14132	1081	251	1080	0	2412	32343
% Cars	99.3	95.7	99.3	96.7	96.5	99.1	99.6	98.4	80	98.8	99.1	96	98.9	85.7	96.5	99.4	100	99.8	0	99.6	96.9
Trucks	11	445	9	1	466	11	1	26	1	39	9	489	17	1	516	7	0	2	0	9	1030
% Trucks	0.7	4.3	0.7	3.3	3.5	0.9	0.4	1.6	20	1.2	0.9	4	1.1	14.3	3.5	0.6	0	0.2	0	0.4	3.1

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	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 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	7	243	13	0	263	5	1	9	0	15	13	225	5	0	243	16	0	18	0	34	555
07:45 AM	11	264	12	0	287	5	1	3	0	9	14	207	10	0	231	13	4	15	0	32	559
08:00 AM	9	212	17	0	238	2	2	8	0	12	16	223	2	0	241	14	0	21	0	35	526
08:15 AM	12	237	14	0	263	7	2	11	0	20	18	196	9	0	223	16	3	14	0	33	539
Total Volume	39	956	56	0	1051	19	6	31	0	56	61	851	26	0	938	59	7	68	0	134	2179
% App. Total	3.7	91	5.3	0		33.9	10.7	55.4	0		6.5	90.7	2.8	0		44	5.2	50.7	0		
PHF	.813	.905	.824	.000	.916	.679	.750	.705	.000	.700	.847	.946	.650	.000	.965	.922	.438	.810	.000	.957	.975

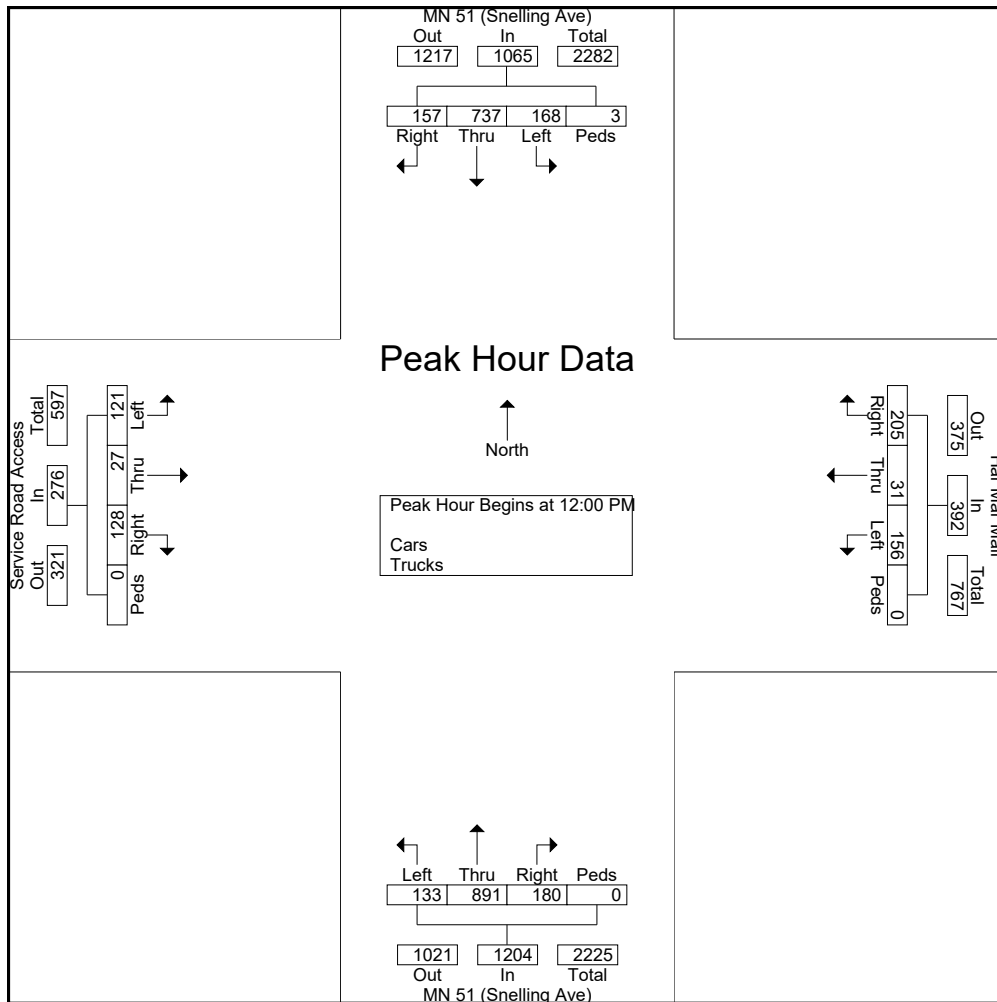
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Start Time	MN 51 (Snelling Ave) Southbound					Har Mar Mall Westbound					MN 51 (Snelling Ave) Northbound					Service Road Access Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	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 12:00 PM																					
12:00 PM	37	175	50	0	262	42	9	40	0	91	39	237	53	0	329	25	5	28	0	58	740
12:15 PM	35	177	41	2	255	43	7	51	0	101	32	233	36	0	301	29	9	32	0	70	727
12:30 PM	47	201	30	0	278	39	9	57	0	105	33	227	55	0	315	33	3	36	0	72	770
12:45 PM	49	184	36	1	270	32	6	57	0	95	29	194	36	0	259	34	10	32	0	76	700
Total Volume	168	737	157	3	1065	156	31	205	0	392	133	891	180	0	1204	121	27	128	0	276	2937
% App. Total	15.8	69.2	14.7	0.3		39.8	7.9	52.3	0		11	74	15	0		43.8	9.8	46.4	0		
PHF	.857	.917	.785	.375	.958	.907	.861	.899	.000	.933	.853	.940	.818	.000	.915	.890	.675	.889	.000	.908	.954



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 Page No : 5

Start Time	MN 51 (Snelling Ave) Southbound					Har Mar Mall Westbound					MN 51 (Snelling Ave) Northbound					Service Road Access 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 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	40	226	21	2	289	34	10	25	0	69	20	403	44	0	467	18	3	14	0	35	860
04:45 PM	46	278	31	1	356	29	8	51	0	88	10	386	42	0	438	21	7	31	0	59	941
05:00 PM	50	264	28	1	343	37	6	43	0	86	11	339	47	0	397	27	6	19	0	52	878
05:15 PM	59	256	24	0	339	40	10	55	0	105	26	324	49	0	399	30	5	24	0	59	902
Total Volume	195	1024	104	4	1327	140	34	174	0	348	67	1452	182	0	1701	96	21	88	0	205	3581
% App. Total	14.7	77.2	7.8	0.3		40.2	9.8	50	0		3.9	85.4	10.7	0		46.8	10.2	42.9	0		
PHF	.826	.921	.839	.500	.932	.875	.850	.791	.000	.829	.644	.901	.929	.000	.911	.800	.750	.710	.000	.869	.951

