

## Loop Detector Turning Movement Count Information

Intersection: **45th St & 15th Ave S**

Month Counts

Dates: **2/1/2009**

to **2/28/2009**

Note: Cells values represent the average of the dates above.

Start Time	EB Approach		WB Approach		NB Approach			SB Approach			Int. Total	Int. Hr. Total *
	EB Thru	EB Total	WB Thru	WB Total	NB Left	NB Thru	NB Total	SB Left	SB Thru	SB Total		
12:00 AM	2	2	2	2	1	29	30	1	36	37	71	228
12:15 AM	1	1	2	2	1	23	24	1	30	30	57	198
12:30 AM	1	1	1	1	1	22	22	0	29	29	54	180
12:45 AM	1	1	1	1	1	16	16	1	27	27	46	163
1:00 AM	1	1	1	1	1	16	16	1	22	23	41	156
1:15 AM	0	0	1	1	1	15	15	0	22	22	39	162
1:30 AM	1	1	1	1	1	13	14	0	21	21	37	159
1:45 AM	0	0	1	1	1	13	13	1	23	24	39	151
2:00 AM	1	1	2	2	1	14	15	0	29	30	47	135
2:15 AM	1	1	1	1	1	12	13	1	21	22	36	109
2:30 AM	0	0	0	0	1	10	11	1	16	17	29	95
2:45 AM	0	0	0	0	0	10	11	0	12	12	23	84
3:00 AM	0	0	0	0	0	9	9	0	11	12	21	84
3:15 AM	0	0	0	0	0	10	10	0	12	12	22	82
3:30 AM	0	0	0	0	0	7	7	0	11	11	18	79
3:45 AM	0	0	0	0	0	13	13	0	10	10	23	86
4:00 AM	0	0	0	0	0	8	8	0	10	10	19	96
4:15 AM	0	0	0	0	0	8	8	1	10	10	19	106
4:30 AM	0	0	0	0	0	10	10	2	12	14	25	119
4:45 AM	0	0	1	1	1	16	16	2	13	15	33	147
5:00 AM	0	0	1	1	1	15	16	1	11	11	29	202
5:15 AM	0	0	1	1	1	18	19	0	11	11	32	253
5:30 AM	0	0	1	1	1	31	32	1	19	20	53	305
5:45 AM	2	2	3	3	2	55	57	3	24	27	88	363
6:00 AM	1	1	4	4	1	50	51	2	21	23	80	454
6:15 AM	1	1	3	3	1	49	50	1	29	30	84	544
6:30 AM	2	2	3	3	2	73	75	2	30	32	111	683
6:45 AM	3	3	7	7	3	105	109	7	54	61	179	867
7:00 AM	3	3	6	6	5	101	106	3	52	55	170	1091
7:15 AM	5	5	8	8	4	131	134	3	72	75	223	1221
7:30 AM	8	8	10	10	7	175	182	5	89	95	295	1269
7:45 AM	11	11	15	15	13	231	243	10	123	134	403	1224
8:00 AM	6	6	8	8	9	173	182	6	98	104	300	1114
8:15 AM	5	5	8	8	8	138	147	6	106	111	271	1066
8:30 AM	7	7	9	9	8	125	133	5	96	101	250	1045
8:45 AM	9	9	12	12	10	140	150	9	113	121	293	1065
9:00 AM	8	8	9	9	11	123	134	5	96	101	252	1079
9:15 AM	7	7	9	9	9	121	130	6	98	104	250	1137
9:30 AM	8	8	10	10	11	130	142	5	105	111	270	1217
9:45 AM	10	10	11	11	13	148	161	7	118	125	307	1310
10:00 AM	10	10	14	14	14	143	156	6	124	130	310	1400
10:15 AM	12	12	15	15	18	151	169	7	128	135	330	1493
10:30 AM	12	12	18	18	17	165	182	7	144	151	363	1610
10:45 AM	15	15	19	19	21	182	203	9	151	160	397	1737
11:00 AM	15	15	20	20	21	167	188	9	171	180	403	1892
11:15 AM	18	18	20	20	23	190	213	10	185	195	447	2058
11:30 AM	25	25	26	26	27	200	226	14	199	213	490	2190
11:45 AM	25	25	29	29	30	223	253	14	231	245	552	2282
12:00 PM	26	26	31	31	33	237	270	15	227	242	569	2362
12:15 PM	27	27	32	32	34	239	273	16	231	247	579	2374
12:30 PM	29	29	35	35	33	245	278	14	227	240	582	2376
12:45 PM	31	31	37	37	37	259	296	15	253	268	632	2341
1:00 PM	27	27	32	32	33	241	274	14	234	248	581	2278
1:15 PM	26	26	36	36	31	235	266	14	240	254	581	2254
1:30 PM	27	27	33	33	31	222	254	11	222	233	547	2235
1:45 PM	26	26	34	34	29	227	256	14	240	253	569	2230
2:00 PM	25	25	34	34	29	224	253	13	232	245	557	2220
2:15 PM	26	26	33	33	31	216	247	13	243	256	562	2211
2:30 PM	26	26	35	35	30	213	243	12	226	238	542	2225
2:45 PM	25	25	33	33	30	214	243	14	244	258	559	2258
3:00 PM	27	27	35	35	31	209	239	14	234	248	548	2305
3:15 PM	25	25	33	33	32	222	255	13	251	264	576	2352
3:30 PM	27	27	34	34	33	217	250	13	251	264	575	2388
3:45 PM	29	29	35	35	34	224	258	14	271	285	606	2462
4:00 PM	31	31	37	37	32	221	253	12	262	274	595	2534
4:15 PM	30	30	39	39	35	222	257	16	270	286	612	2594
4:30 PM	39	39	42	42	36	221	257	20	290	310	649	2644
4:45 PM	34	34	40	40	38	237	275	16	313	329	678	2583
5:00 PM	34	34	41	41	40	233	274	15	292	307	655	2472
5:15 PM	31	31	40	40	35	228	263	15	313	327	662	2356
5:30 PM	28	28	35	35	31	212	243	13	270	283	588	2226
5:45 PM	23	23	33	33	31	210	240	12	259	270	567	2125
6:00 PM	24	24	33	33	28	209	237	10	234	245	539	2036
6:15 PM	23	23	30	30	29	200	229	9	240	249	532	1941
6:30 PM	22	22	29	29	25	186	211	10	215	225	487	1824
6:45 PM	21	21	26	26	24	182	206	10	215	225	478	1709
7:00 PM	17	17	26	26	23	168	191	8	202	210	444	1583
7:15 PM	16	16	25	25	19	156	175	8	191	199	415	1480
7:30 PM	17	17	21	21	20	142	161	6	166	173	372	1376
7:45 PM	14	14	21	21	17	133	150	6	161	167	352	1284
8:00 PM	13	13	19	19	15	125	139	7	162	169	341	1200
8:15 PM	14	14	19	19	14	113	127	6	146	152	311	1121
8:30 PM	11	11	18	18	13	106	119	5	126	131	280	1066
8:45 PM	10	10	16	16	10	105	115	4	123	127	268	1010
9:00 PM	11	11	19	19	10	103	113	4	116	119	262	947
9:15 PM	9	9	13	13	9	100	110	3	121	124	256	859
9:30 PM	7	7	11	11	8	94	101	3	101	104	224	756
9:45 PM	6	6	9	9	7	88	94	3	92	96	205	664
10:00 PM	5	5	7	7	6	71	77	3	83	85	174	581
10:15 PM	4	4	5	5	5	62	67	3	75	78	153	514
10:30 PM	4	4	5	5	4	54	57	2	64	66	132	457
10:45 PM	3	3	4	4	3	48	51	1	62	63	122	409
11:00 PM	2	2	5	5	3	41	44	2	55	56	107	365
11:15 PM	2	2	3	3	3	38	41	1	49	51	96	329
11:30 PM	2	2	3	3	2	32	35	1	43	44	84	290
11:45 PM	2	2	3	3	2	31	32	1	40	41	78	260
<b>TOTALS</b>	<b>1175</b>	<b>1175</b>	<b>1532</b>	<b>1532</b>	<b>1391</b>	<b>11842</b>	<b>13223</b>	<b>629</b>	<b>12252</b>	<b>12877</b>	<b>28814</b>	

\* Intersection hour count total equals the current time period and the following three time periods.

## Loop Detector Turning Movement Count Information

Intersection: **45th St & 15th Ave S**

Weekday Counts

Dates: **2/1/2009**

to **2/28/2009**

Note: Cells values represent the average of the dates above.

Start Time	EB Approach		WB Approach		NB Approach			SB Approach			Int. Total	Int. Hr. Total *
	EB Thru	EB Total	WB Thru	WB Total	NB Left	NB Thru	NB Total	SB Left	SB Thru	SB Total		
12:00 AM	1	1	2	2	1	22	23	1	29	30	57	182
12:15 AM	1	1	1	1	1	18	19	1	24	25	46	157
12:30 AM	1	1	1	1	1	17	17	0	22	22	41	141
12:45 AM	0	0	1	1	0	13	13	1	23	24	38	127
1:00 AM	1	1	1	1	1	12	13	0	18	18	32	117
1:15 AM	0	0	1	1	1	11	11	0	17	18	30	118
1:30 AM	1	1	1	1	1	10	11	0	15	15	27	112
1:45 AM	1	1	1	1	0	9	10	0	16	17	28	108
2:00 AM	1	1	2	2	1	11	11	0	18	19	33	97
2:15 AM	1	1	1	1	1	8	8	0	14	14	24	80
2:30 AM	1	1	0	0	0	7	8	2	12	14	23	74
2:45 AM	0	0	0	0	0	8	8	0	8	9	17	66
3:00 AM	0	0	0	0	0	7	7	0	9	9	16	71
3:15 AM	0	0	0	0	0	8	8	0	10	10	18	72
3:30 AM	0	0	0	0	0	5	5	0	10	10	15	73
3:45 AM	0	0	0	0	0	13	13	0	9	9	22	83
4:00 AM	0	0	0	0	0	8	8	0	9	9	17	97
4:15 AM	0	0	0	0	0	8	9	0	9	10	19	113
4:30 AM	0	0	0	0	0	10	10	3	12	15	25	132
4:45 AM	0	0	1	1	1	18	19	2	14	16	36	170
5:00 AM	0	0	2	2	1	17	18	1	12	13	33	241
5:15 AM	0	0	2	2	2	22	23	0	13	13	38	305
5:30 AM	0	0	1	1	1	39	40	1	20	22	63	370
5:45 AM	2	2	4	4	2	69	71	3	27	30	107	447
6:00 AM	1	1	5	5	1	62	63	3	25	28	97	567
6:15 AM	1	1	4	4	2	61	63	1	34	35	103	686
6:30 AM	2	2	4	4	2	93	96	3	36	38	140	873
6:45 AM	3	3	8	8	4	136	140	9	66	75	227	1116
7:00 AM	4	4	7	7	6	131	137	4	65	69	216	1411
7:15 AM	7	7	11	11	5	173	178	4	90	94	290	1578
7:30 AM	11	11	14	14	9	231	240	7	112	119	383	1627
7:45 AM	15	15	19	19	16	301	317	14	158	171	522	1544
8:00 AM	8	8	10	10	12	223	235	8	122	130	383	1355
8:15 AM	6	6	10	10	10	174	183	8	131	139	339	1255
8:30 AM	9	9	10	10	9	150	159	7	115	122	300	1193
8:45 AM	11	11	14	14	11	156	167	11	129	140	333	1181
9:00 AM	10	10	10	10	12	137	149	6	108	114	283	1169
9:15 AM	8	8	10	10	10	134	144	8	107	115	277	1204
9:30 AM	9	9	11	11	12	139	151	6	112	118	288	1264
9:45 AM	10	10	12	12	14	153	167	7	125	132	321	1340
10:00 AM	10	10	15	15	13	147	160	7	127	134	318	1409
10:15 AM	13	13	15	15	18	154	172	8	129	136	337	1486
10:30 AM	12	12	18	18	17	162	179	8	148	155	364	1593
10:45 AM	15	15	20	20	18	178	196	10	150	160	390	1714
11:00 AM	14	14	19	19	20	161	181	9	171	180	395	1857
11:15 AM	20	20	21	21	22	182	204	11	187	199	444	2018
11:30 AM	27	27	25	25	26	192	217	16	200	216	485	2134
11:45 AM	26	26	30	30	27	207	234	14	230	244	533	2207
12:00 PM	28	28	32	32	30	220	250	16	230	245	556	2277
12:15 PM	28	28	34	34	31	225	255	17	226	243	560	2267
12:30 PM	30	30	34	34	29	228	257	14	222	236	558	2247
12:45 PM	31	31	36	36	34	242	276	16	245	260	603	2189
1:00 PM	25	25	30	30	28	224	253	14	225	239	546	2110
1:15 PM	23	23	32	32	28	218	246	13	226	240	540	2073
1:30 PM	24	24	29	29	27	206	233	11	201	213	500	2037
1:45 PM	22	22	30	30	25	208	233	14	226	239	524	2025
2:00 PM	22	22	29	29	25	204	230	12	216	229	509	2011
2:15 PM	22	22	26	26	25	191	216	12	227	239	504	2006
2:30 PM	22	22	28	28	24	192	216	11	212	223	488	2035
2:45 PM	21	21	28	28	25	194	218	13	229	242	510	2096
3:00 PM	22	22	30	30	26	193	219	14	219	233	504	2170
3:15 PM	21	21	27	27	28	207	235	12	238	251	533	2241
3:30 PM	23	23	30	30	30	205	235	14	248	261	549	2305
3:45 PM	27	27	31	31	31	213	244	15	267	282	584	2421
4:00 PM	28	28	34	34	30	216	247	13	254	267	575	2533
4:15 PM	29	29	36	36	33	216	250	16	267	283	597	2639
4:30 PM	42	42	41	41	36	218	254	24	304	328	665	2744
4:45 PM	34	34	38	38	38	236	274	19	331	349	696	2689
5:00 PM	35	35	42	42	42	239	280	17	306	323	681	2574
5:15 PM	32	32	40	40	37	235	272	17	342	359	702	2443
5:30 PM	29	29	35	35	31	216	247	15	284	299	610	2282
5:45 PM	23	23	35	35	32	213	245	13	266	279	581	2165
6:00 PM	25	25	34	34	29	214	243	11	238	249	550	2072
6:15 PM	23	23	31	31	30	203	233	10	244	254	541	1969
6:30 PM	22	22	31	31	26	189	214	10	216	226	493	1851
6:45 PM	22	22	27	27	25	186	211	11	217	228	488	1737
7:00 PM	19	19	26	26	24	168	191	9	203	212	447	1615
7:15 PM	17	17	26	26	19	160	179	9	192	201	423	1525
7:30 PM	18	18	23	23	21	141	163	7	169	176	379	1418
7:45 PM	16	16	21	21	18	137	155	6	168	174	366	1328
8:00 PM	14	14	23	23	15	125	141	7	172	180	357	1241
8:15 PM	14	14	20	20	13	112	126	6	150	156	316	1156
8:30 PM	12	12	20	20	13	106	119	5	133	138	289	1100
8:45 PM	10	10	17	17	11	109	120	4	128	132	279	1030
9:00 PM	12	12	21	21	10	107	117	4	118	122	272	952
9:15 PM	9	9	14	14	9	101	111	4	123	126	260	848
9:30 PM	6	6	12	12	8	90	98	4	99	103	219	736
9:45 PM	5	5	10	10	7	83	90	3	93	96	201	645
10:00 PM	5	5	7	7	6	67	74	2	81	83	168	565
10:15 PM	4	4	5	5	4	60	65	2	73	75	148	502
10:30 PM	4	4	5	5	3	51	55	2	62	64	128	447
10:45 PM	3	3	4	4	3	48	51	1	61	62	121	403
11:00 PM	2	2	6	6	3	40	43	2	53	54	105	357
11:15 PM	1	1	3	3	3	36	39	1	49	50	93	309
11:30 PM	2	2	3	3	3	32	35	1	43	44	84	262
11:45 PM	2	2	3	3	2	30	31	1	38	40	75	219
<b>TOTALS</b>	<b>1173</b>	<b>1173</b>	<b>1523</b>	<b>1523</b>	<b>1341</b>	<b>11961</b>	<b>13304</b>	<b>678</b>	<b>12381</b>	<b>13061</b>	<b>29050</b>	

\* Intersection hour count total equals the current time period and the following three time periods.

## Loop Detector Turning Movement Count Information

Intersection: **45th St & 15th Ave S**

Weekend Counts

Dates: **2/1/2009**

to **2/28/2009**

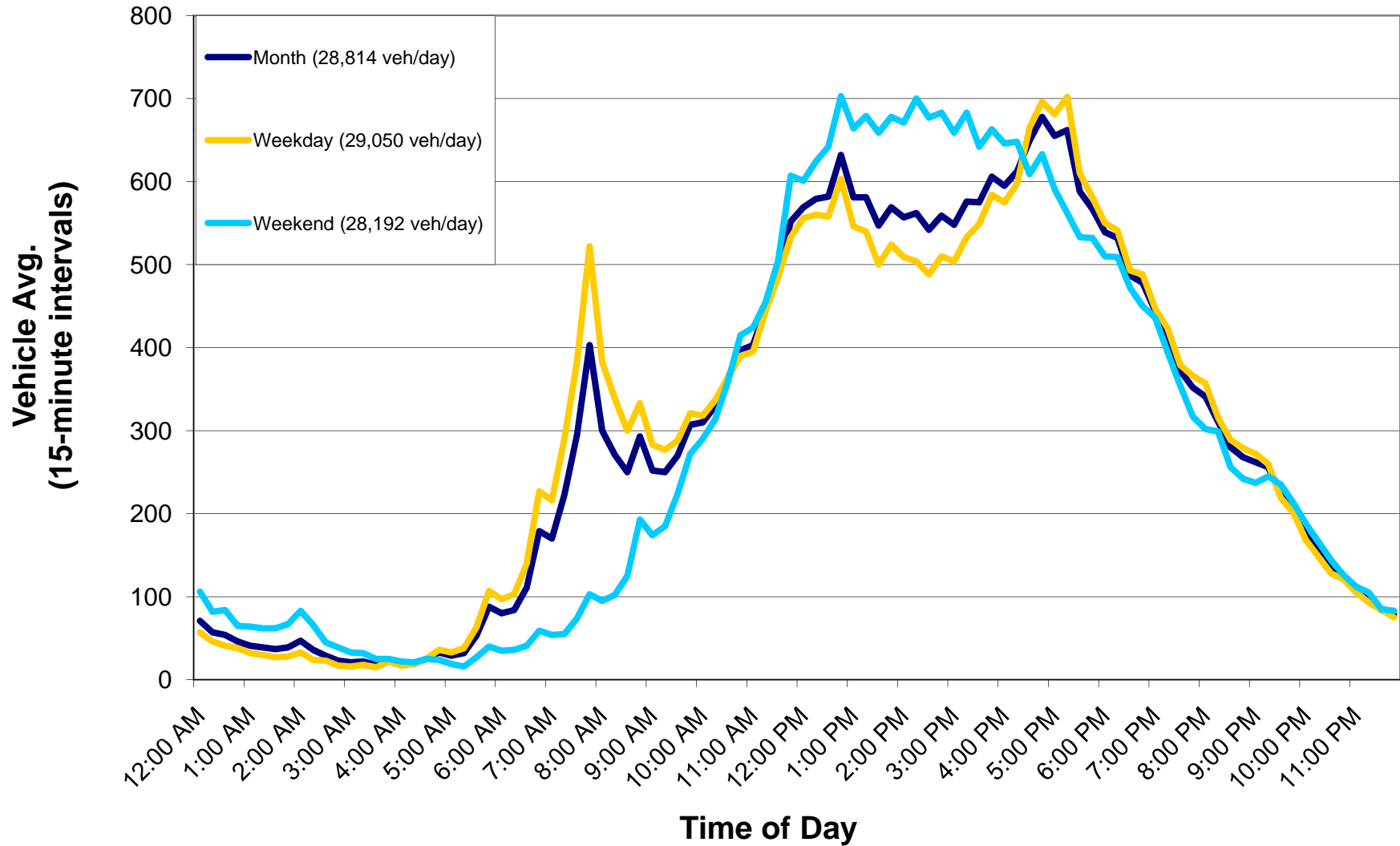
Note: Cells values represent the average of the dates above.

Start Time	EB Approach		WB Approach		NB Approach			SB Approach			Int. Total	Int. Hr. Total
	EB Thru	EB Total	WB Thru	WB Total	NB Left	NB Thru	NB Total	SB Left	SB Thru	SB Total		
12:00 AM	3	3	3	3	1	46	47	1	52	53	106	337
12:15 AM	1	1	2	2	1	35	36	1	42	43	82	295
12:30 AM	1	1	3	3	1	34	35	0	45	45	84	275
12:45 AM	1	1	2	2	2	24	25	1	36	36	65	253
1:00 AM	1	1	1	1	1	25	26	1	35	36	64	255
1:15 AM	0	0	2	2	1	25	25	1	34	35	62	274
1:30 AM	2	2	2	2	0	22	22	1	35	36	62	278
1:45 AM	0	0	2	2	1	22	22	1	41	42	67	261
2:00 AM	1	1	2	2	1	24	24	1	56	57	83	233
2:15 AM	1	1	2	2	1	23	24	1	39	40	66	183
2:30 AM	0	0	1	1	1	17	18	1	25	26	45	149
2:45 AM	0	0	1	1	0	16	16	1	22	22	39	129
3:00 AM	1	1	1	1	1	14	15	1	17	17	33	115
3:15 AM	1	1	1	1	0	14	14	0	17	17	32	104
3:30 AM	0	0	1	1	0	11	11	0	13	13	25	93
3:45 AM	0	0	0	0	0	12	12	0	13	13	25	93
4:00 AM	0	0	1	1	0	9	9	0	12	12	22	92
4:15 AM	0	0	1	1	1	7	8	1	12	12	21	89
4:30 AM	0	0	0	0	1	10	10	2	12	14	25	84
4:45 AM	1	1	0	0	0	10	10	2	11	12	24	86
5:00 AM	1	1	1	1	1	9	10	0	8	8	19	102
5:15 AM	0	0	0	0	0	8	8	0	7	7	16	118
5:30 AM	0	0	0	0	1	11	12	1	15	15	27	138
5:45 AM	1	1	1	1	1	21	22	1	16	17	40	152
6:00 AM	1	1	2	2	1	21	21	0	11	11	35	171
6:15 AM	1	1	0	0	1	18	20	1	15	16	36	190
6:30 AM	1	1	2	2	1	23	24	0	15	15	41	209
6:45 AM	2	2	3	3	1	29	30	2	22	24	59	242
7:00 AM	1	1	2	2	2	27	29	1	22	22	54	286
7:15 AM	2	2	1	1	0	24	24	1	27	28	55	327
7:30 AM	1	1	1	1	2	36	38	1	33	34	74	374
7:45 AM	2	2	2	2	3	55	59	2	36	40	103	425
8:00 AM	2	2	2	2	4	47	50	1	39	41	95	515
8:15 AM	2	2	3	3	5	50	55	1	41	42	102	594
8:30 AM	3	3	6	6	6	60	67	1	49	50	125	677
8:45 AM	4	4	8	8	7	98	106	4	71	75	193	776
9:00 AM	5	5	4	4	9	89	98	2	66	68	174	855
9:15 AM	5	5	6	6	7	89	97	3	75	78	185	971
9:30 AM	5	5	9	9	10	109	118	3	89	92	224	1100
9:45 AM	10	10	10	10	12	135	146	5	101	107	272	1235
10:00 AM	10	10	12	12	14	132	146	6	117	122	290	1378
10:15 AM	10	10	13	13	17	143	160	6	125	131	314	1512
10:30 AM	12	12	18	18	18	172	190	5	135	140	359	1653
10:45 AM	14	14	19	19	27	194	221	7	154	161	415	1799
11:00 AM	18	18	21	21	23	183	206	8	171	179	424	1991
11:15 AM	15	15	19	19	25	211	236	8	177	185	455	2168
11:30 AM	20	20	28	28	30	223	252	10	194	204	505	2337
11:45 AM	23	23	28	28	37	270	308	13	236	248	607	2474
12:00 PM	21	21	28	28	41	278	319	12	221	232	601	2570
12:15 PM	26	26	27	27	41	273	314	14	243	257	624	2633
12:30 PM	28	28	37	37	42	285	327	13	237	250	642	2688
12:45 PM	34	34	39	39	44	301	345	14	272	285	703	2705
1:00 PM	31	31	38	38	44	280	325	14	257	270	664	2680
1:15 PM	33	33	46	46	38	275	313	15	272	286	679	2687
1:30 PM	33	33	41	41	41	261	302	11	271	282	659	2708
1:45 PM	35	35	46	46	40	272	312	13	273	286	678	2726
2:00 PM	33	33	46	46	38	270	309	15	269	284	671	2731
2:15 PM	35	35	49	49	45	275	320	13	283	296	700	2719
2:30 PM	38	38	53	53	44	265	309	14	263	277	677	2702
2:45 PM	37	37	44	44	42	263	305	15	281	297	683	2667
3:00 PM	37	37	47	47	42	248	290	14	271	285	659	2647
3:15 PM	34	34	47	47	44	259	303	15	284	299	683	2634
3:30 PM	37	37	45	45	42	246	288	13	259	272	642	2599
3:45 PM	35	35	44	44	41	251	292	13	279	292	663	2566
4:00 PM	37	37	46	46	37	233	270	11	281	292	646	2536
4:15 PM	34	34	47	47	40	235	275	17	276	293	648	2481
4:30 PM	32	32	47	47	34	229	263	10	257	267	609	2395
4:45 PM	32	32	45	45	37	240	277	11	268	279	633	2319
5:00 PM	29	29	38	38	38	220	258	10	256	267	591	2218
5:15 PM	31	31	40	40	32	211	243	8	241	249	562	2137
5:30 PM	25	25	35	35	30	200	230	9	234	243	533	2084
5:45 PM	24	24	29	29	29	200	230	9	241	249	532	2023
6:00 PM	22	22	32	32	26	196	222	7	227	234	510	1941
6:15 PM	23	23	28	28	26	194	220	8	230	238	509	1867
6:30 PM	22	22	25	25	22	180	202	9	214	222	472	1752
6:45 PM	17	17	23	23	21	172	193	8	209	217	450	1634
7:00 PM	15	15	24	24	22	170	192	7	198	204	436	1501
7:15 PM	14	14	21	21	19	148	167	5	188	193	394	1367
7:30 PM	14	14	16	16	17	142	158	5	161	166	354	1272
7:45 PM	11	11	19	19	14	124	139	5	145	149	317	1174
8:00 PM	12	12	12	12	14	122	136	5	137	142	302	1099
8:15 PM	13	13	15	15	15	115	129	5	137	141	299	1034
8:30 PM	9	9	13	13	12	108	120	5	110	114	256	980
8:45 PM	10	10	13	13	8	96	103	3	112	115	242	959
9:00 PM	9	9	13	13	11	91	102	3	109	112	237	930
9:15 PM	9	9	10	10	9	99	107	3	116	119	245	881
9:30 PM	9	9	8	8	7	104	111	3	104	107	235	802
9:45 PM	7	7	6	6	7	99	106	4	90	94	213	711
10:00 PM	4	4	9	9	6	79	85	3	87	91	188	624
10:15 PM	5	5	5	5	5	67	72	3	81	84	166	548
10:30 PM	4	4	4	4	5	60	64	1	70	71	144	487
10:45 PM	4	4	4	4	3	49	53	1	65	66	126	428
11:00 PM	2	2	3	3	2	44	46	1	60	61	112	385
11:15 PM	3	3	3	3	4	42	47	1	51	53	105	379
11:30 PM	2	2	3	3	2	33	35	1	44	45	85	356
11:45 PM	2	2	3	3	1	34	35	1	42	44	83	355
<b>TOTALS</b>	<b>1198</b>	<b>1198</b>	<b>1565</b>	<b>1565</b>	<b>1503</b>	<b>11525</b>	<b>13025</b>	<b>510</b>	<b>11914</b>	<b>12412</b>	<b>28192</b>	

\* Intersection hour count total equals the current time period and the following three time periods.

# 45th St. & 15th Ave. S. Intersection Volume Comparison

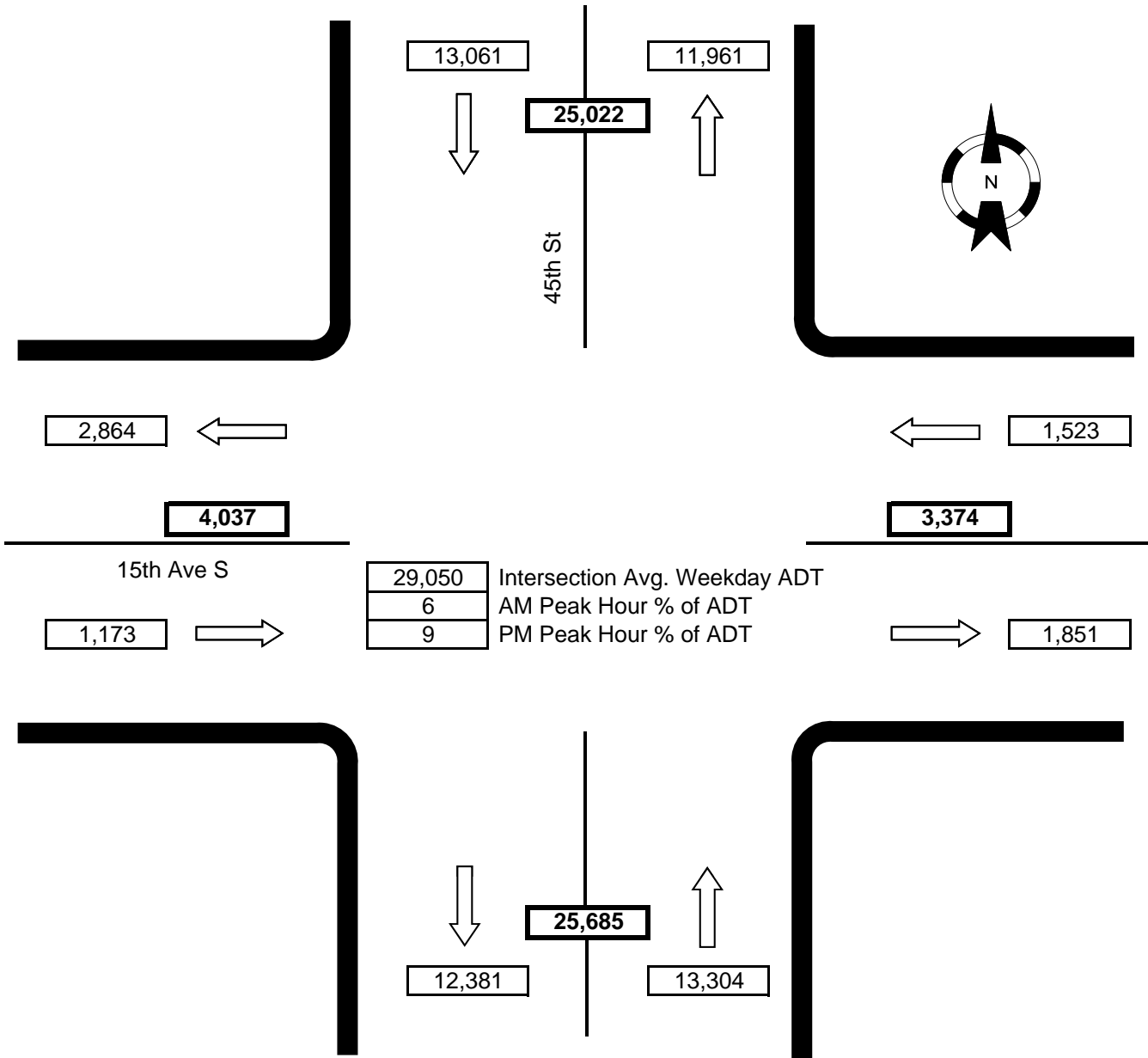
February 2009



## Average Daily Traffic (Approach and Roadway)

**Intersection Name:** 45th St & 15th Ave S

**Date:** February 2009



Notes: WB left-turn and right-turn movement not recorded.  
 EB left-turn and right-turn movement not recorded.  
 NB right-turn movement not recorded.  
 SB right-turn movement included in SB thru movement.