



# AUTOMATIC TRAFFIC RECORDERS

**2004 - 2014**

**Prepared by**

**OFFICE OF SYSTEMS PLANNING**

**In Cooperation With**

**UNITED STATES DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION**

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**JANUARY 2015**

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## **INTRODUCTION**

This report contains graphic comparisons of daily and monthly traffic collected on Iowa's highway system at 166 Permanent Continuous Automatic Traffic Recorder locations. Twenty (20) stations are located on the Rural Interstate system, six (6) are on the Municipal Interstate system, seventy-nine (79) are on the Rural Primary system, twenty-two (22) are on the Municipal Primary system, twenty-six (26) are on the Rural Secondary system and thirteen (13) are on the Municipal Street system. The map on page 26 shows the general location of count sites. Specific descriptions of locations, along with an eleven year summary of AADT's for each station, start on page 19. Sites without an AADT for 2014 were not used not in the calculations or graphs.

The report compares travel trends from 1980 to present. Traffic is shown for rural, municipal and statewide travel.

Factors for estimating Design Hour Volumes from Annual Average Daily Traffic are shown by highway system. The values are developed from the straight-line relationships between Design Hour Volume and Annual Average Daily Traffic for the period of 2005 - 2014.

Information from the permanent traffic recorders indicates a 0.5% increase in statewide travel from 2013 to 2014. The estimated vehicle miles of travel for 2014 is 31.69 billion. Final 2014 traffic figures will be published near June 2015, when all traffic data collected during 2014 has been processed.

More travel occurs on Friday than any other day of the week on all road systems. Sunday is the lowest travel day on all systems except Rural Interstate. This is typical of other years.

## **TRAFFIC VOLUME VARIATIONS**

**ON**

## **IOWA ROAD SYSTEMS**

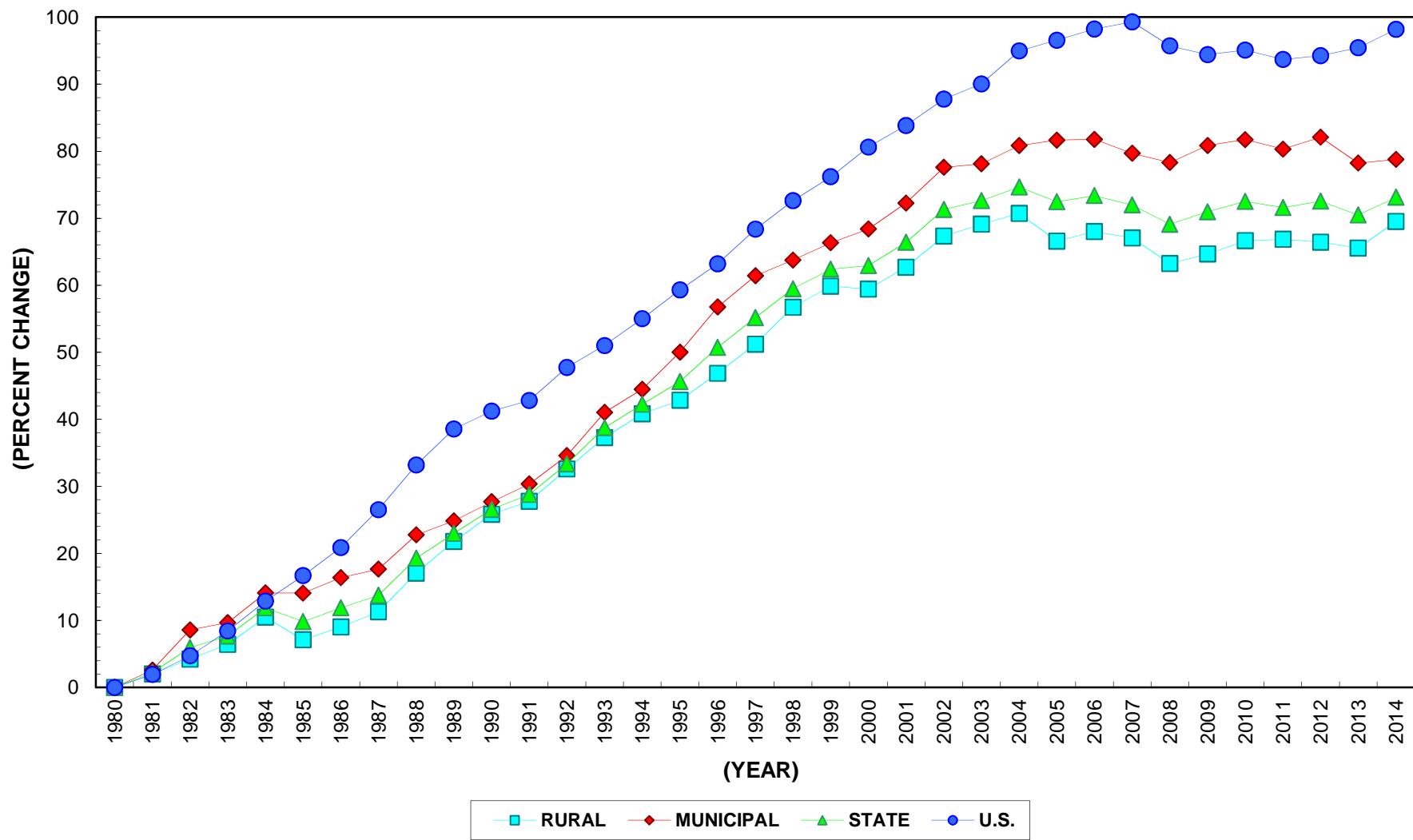
**2014 COMPARED TO 2013**

RURAL INTERSTATE	+ 2.4 %
RURAL PRIMARY	+ 2.0 %
RURAL SECONDARY	- 0.1 %
<b>RURAL TOTAL</b>	<b>+ 1.5 %</b>
MUNICIPAL INTERSTATE	+ 2.0 %
MUNICIPAL PRIMARY	- 0.1 %
MUNICIPAL STREETS	- 2.7 %
<b>MUNICIPAL TOTAL</b>	<b>- 1.0 %</b>
<b>STATE TOTAL</b>	<b>+ 0.5 %</b>

Data collected at continuous automatic traffic recorder locations (see pages 19 – 25) were utilized to compute the above percentages. The rural, municipal and state totals were weighted based on estimated vehicle miles of travel.

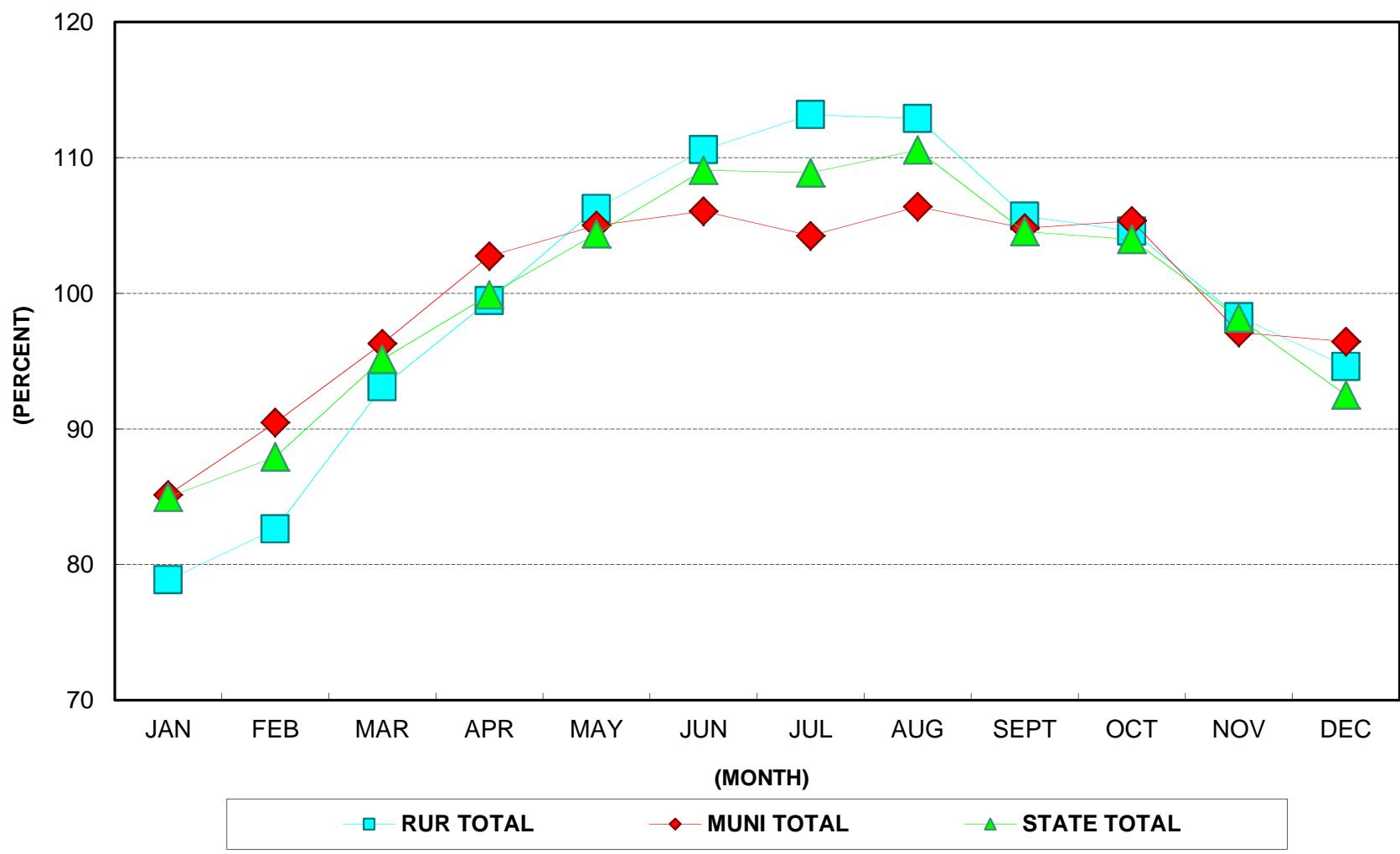
## PERCENT CHANGE IN TRAFFIC

BASE YEAR 1980



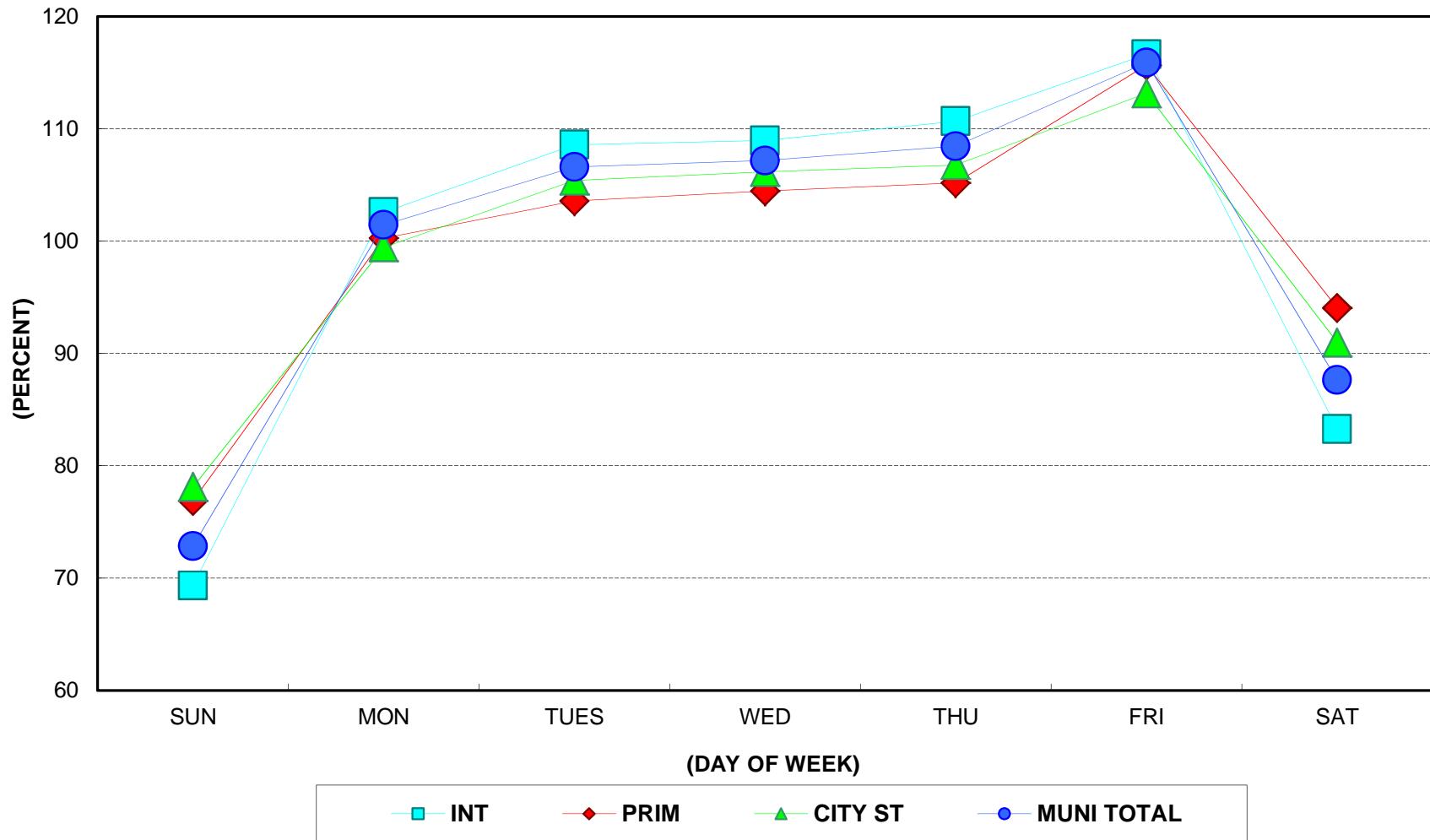
## 2014 MONTHLY TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



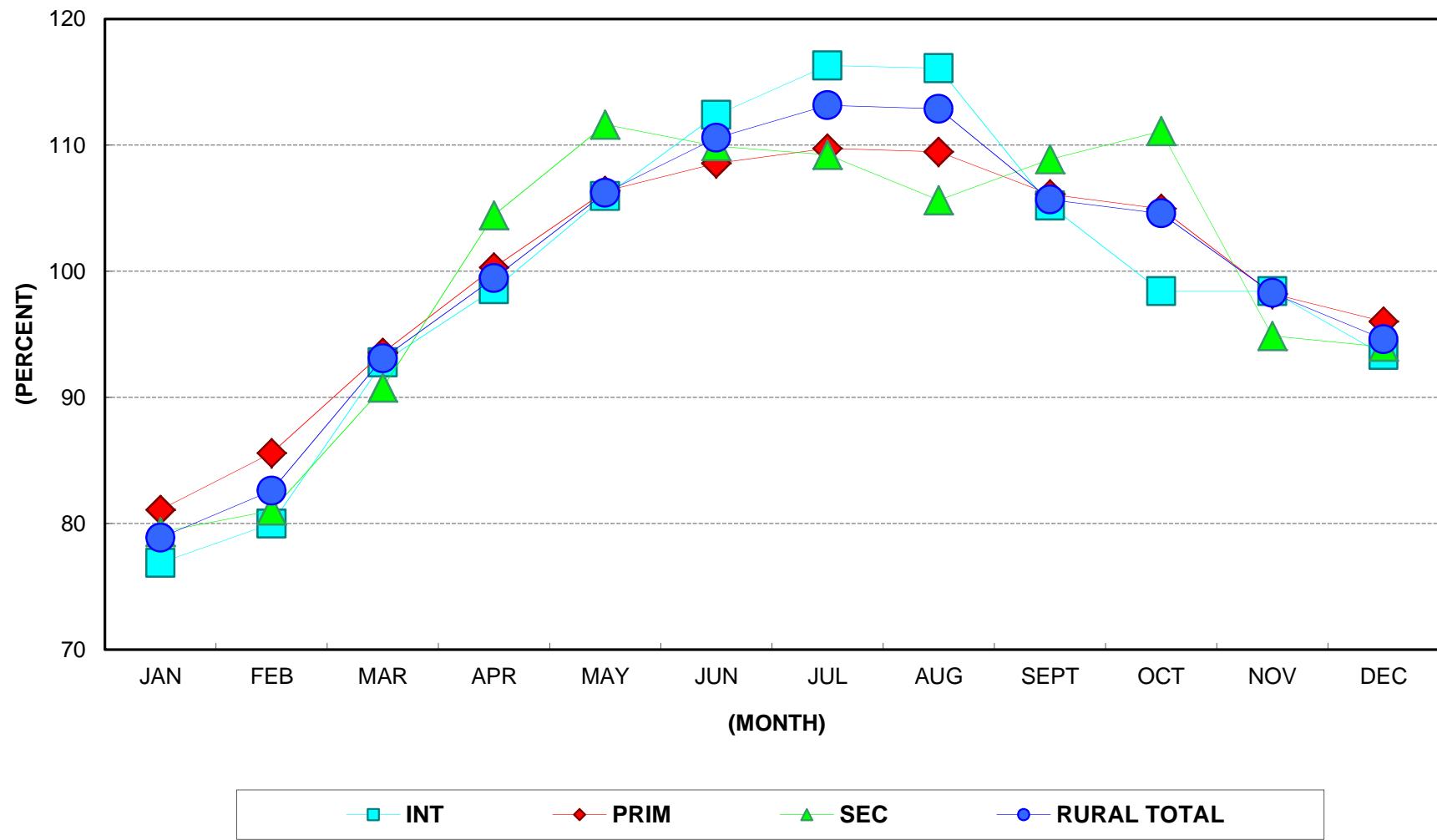
## 2014 MUNICIPAL DAY OF WEEK TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



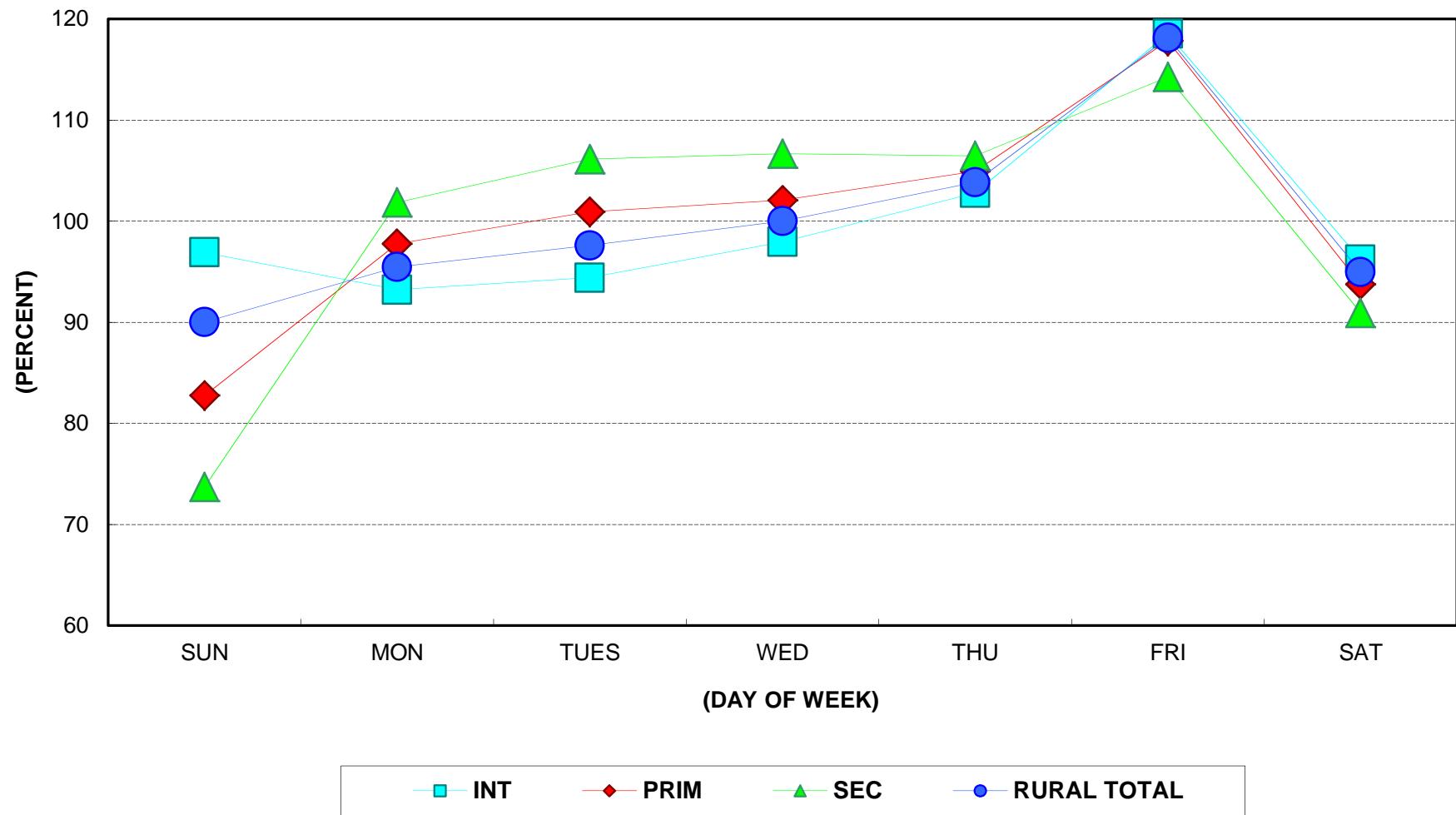
## 2014 RURAL MONTHLY TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



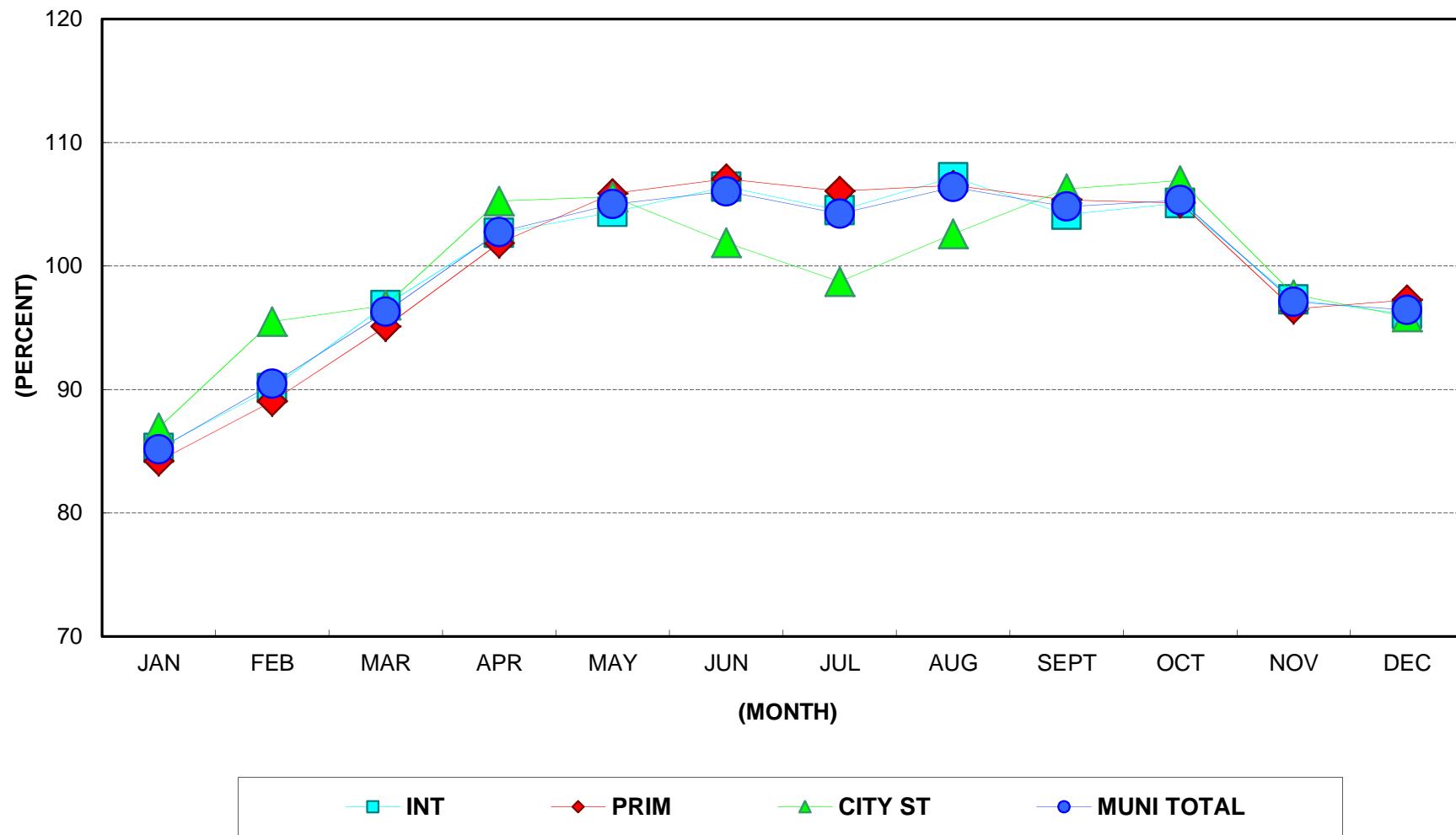
# 2014 RURAL DAY OF WEEK TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



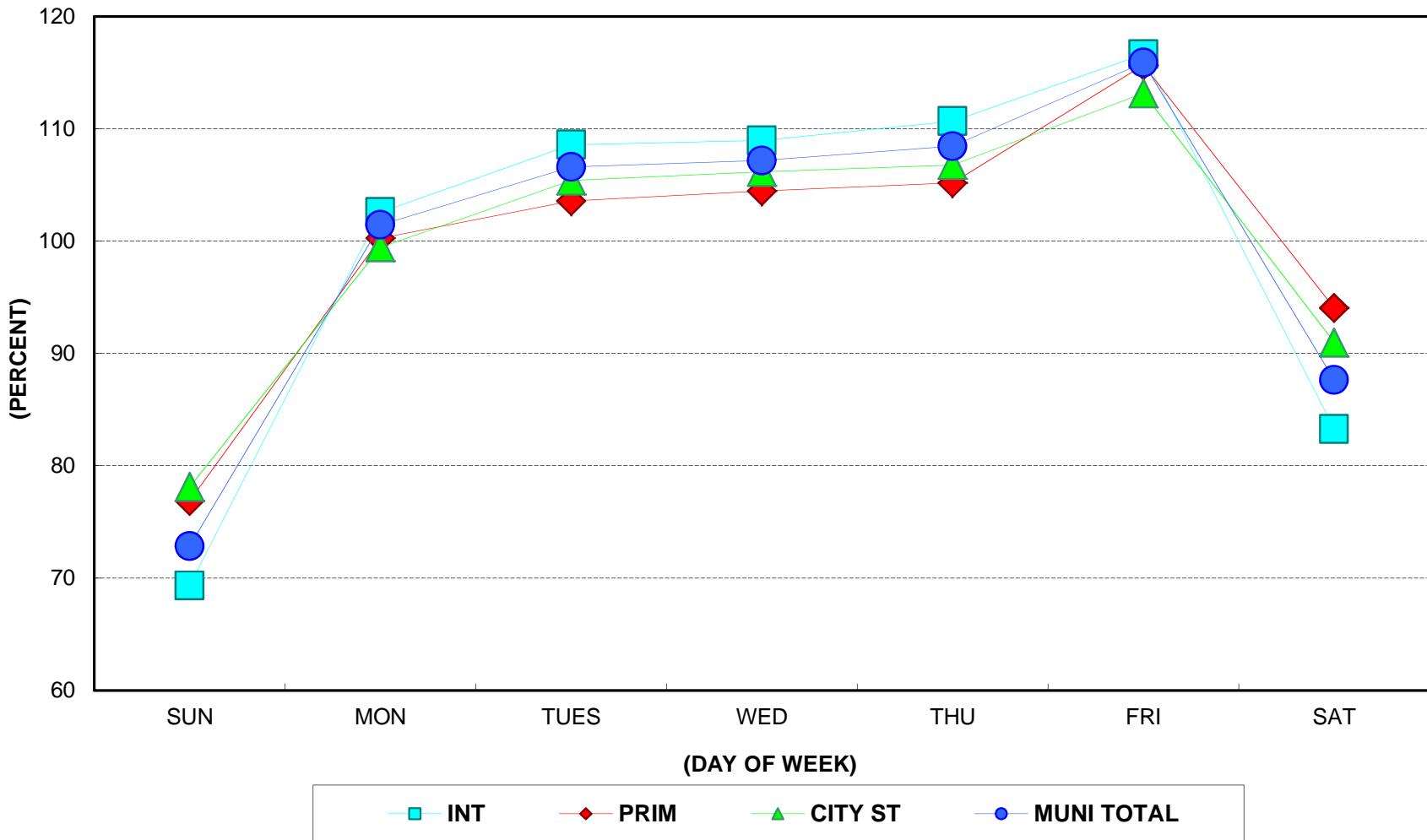
# 2014 MUNICIPAL MONTHLY TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC

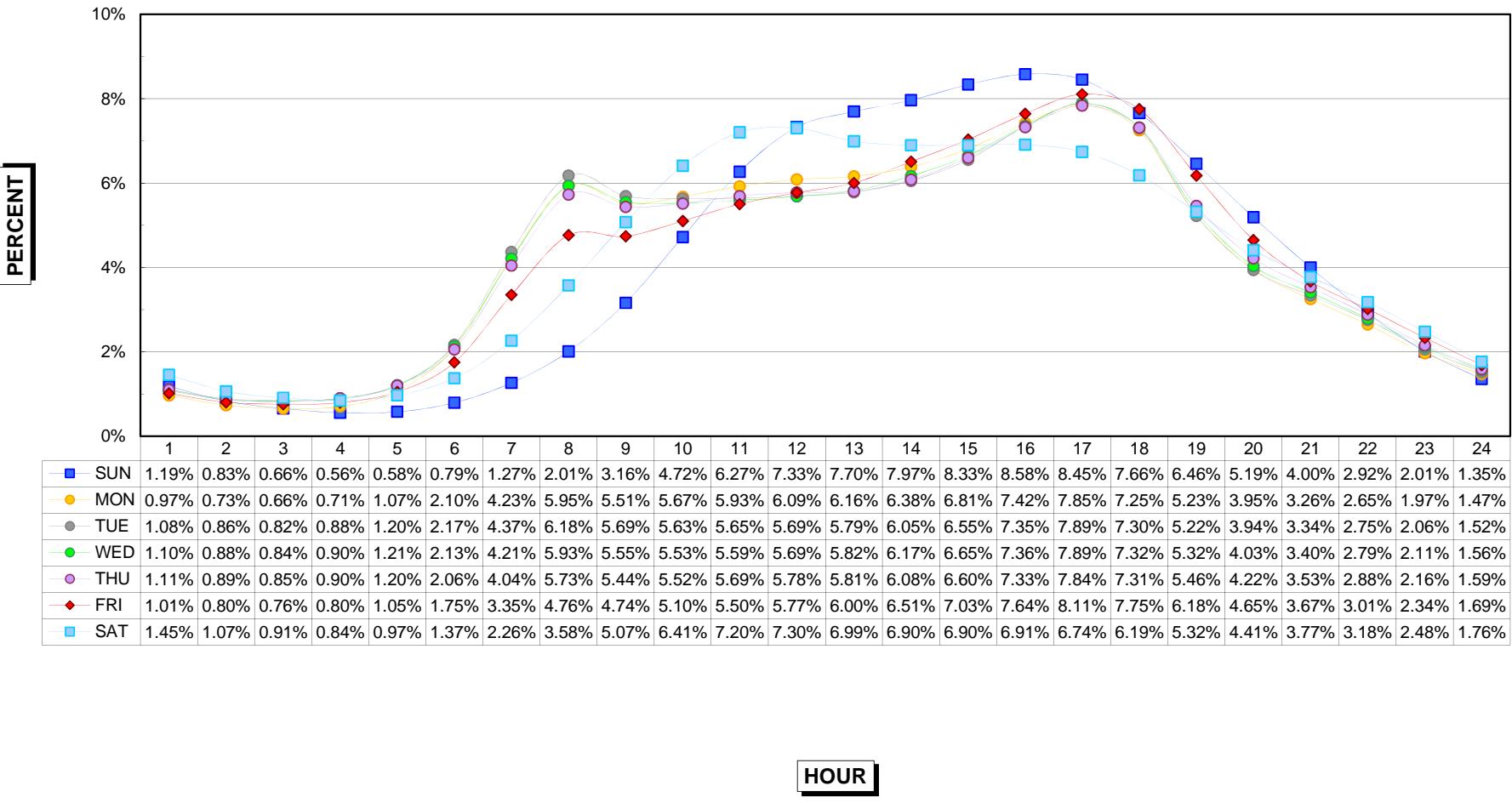


## 2014 MUNICIPAL DAY OF WEEK TRAFFIC

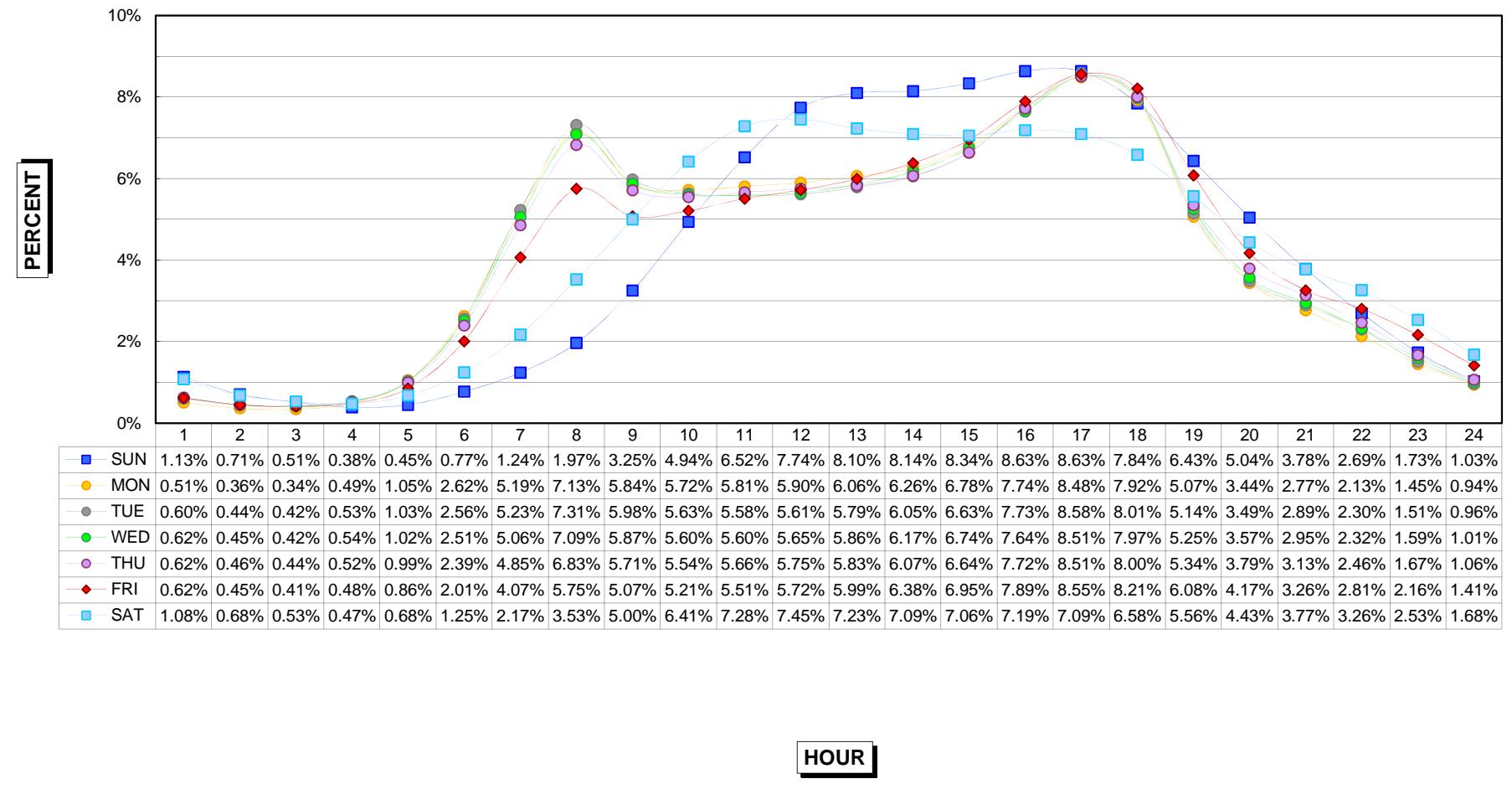
AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



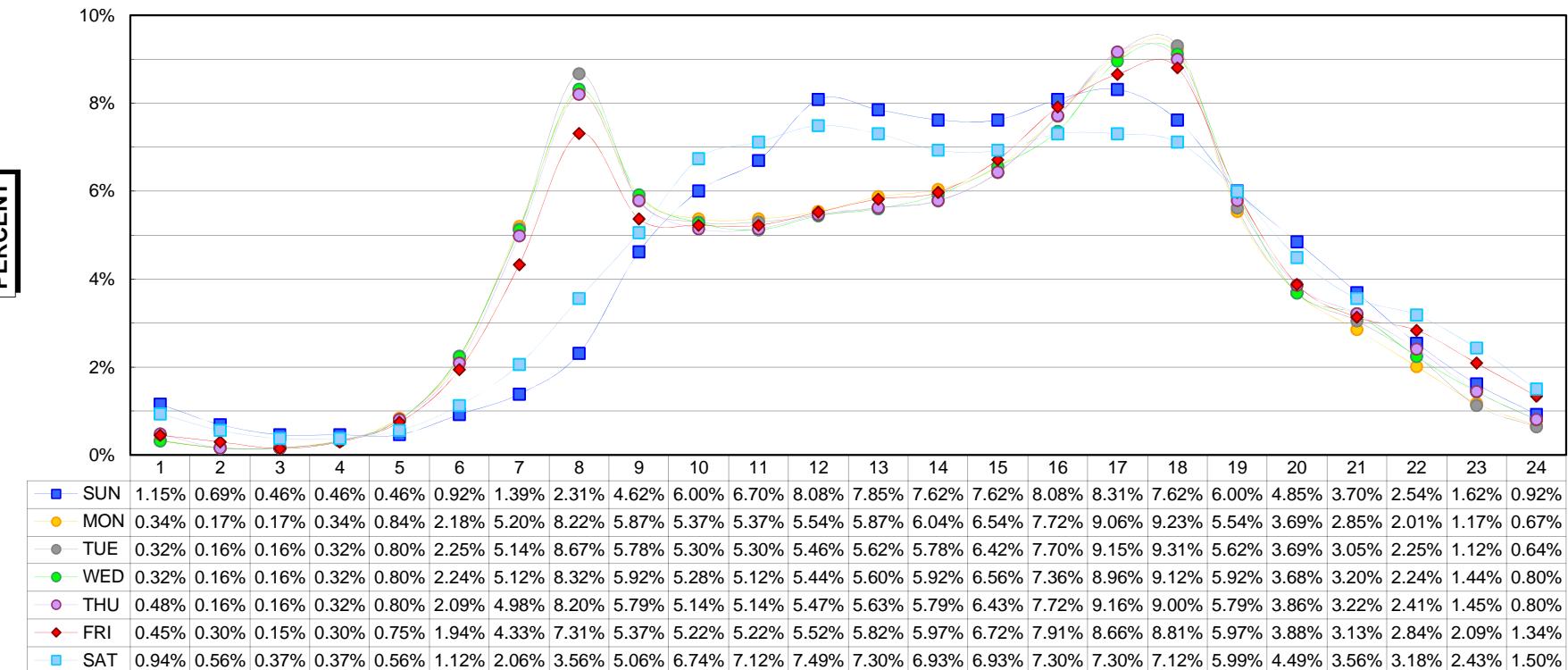
## HOURLY DISTRIBUTION OF DAILY TRAFFIC 2014 RURAL INTERSTATE



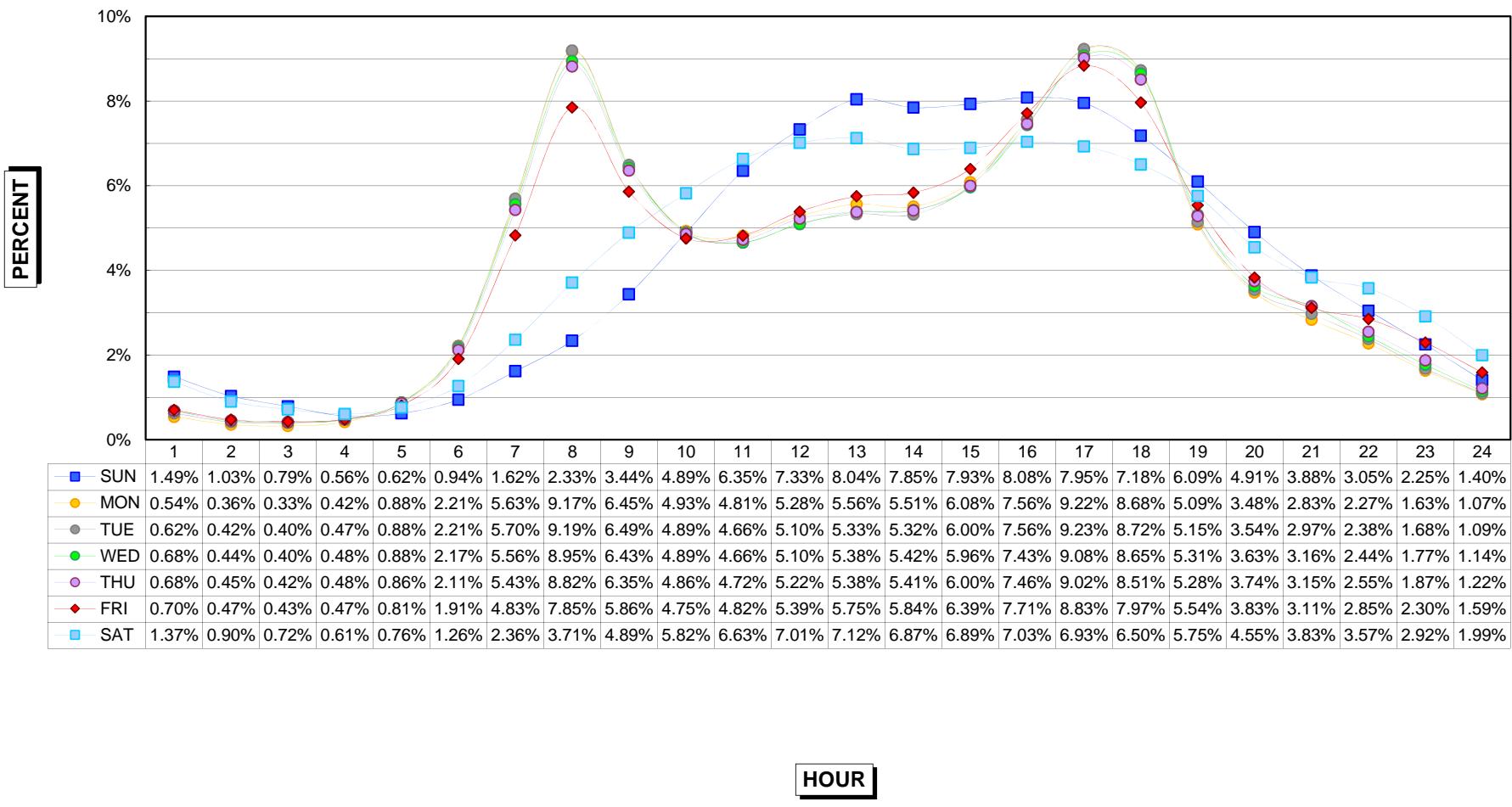
## HOURLY DISTRIBUTION OF DAILY TRAFFIC 2014 RURAL PRIMARY



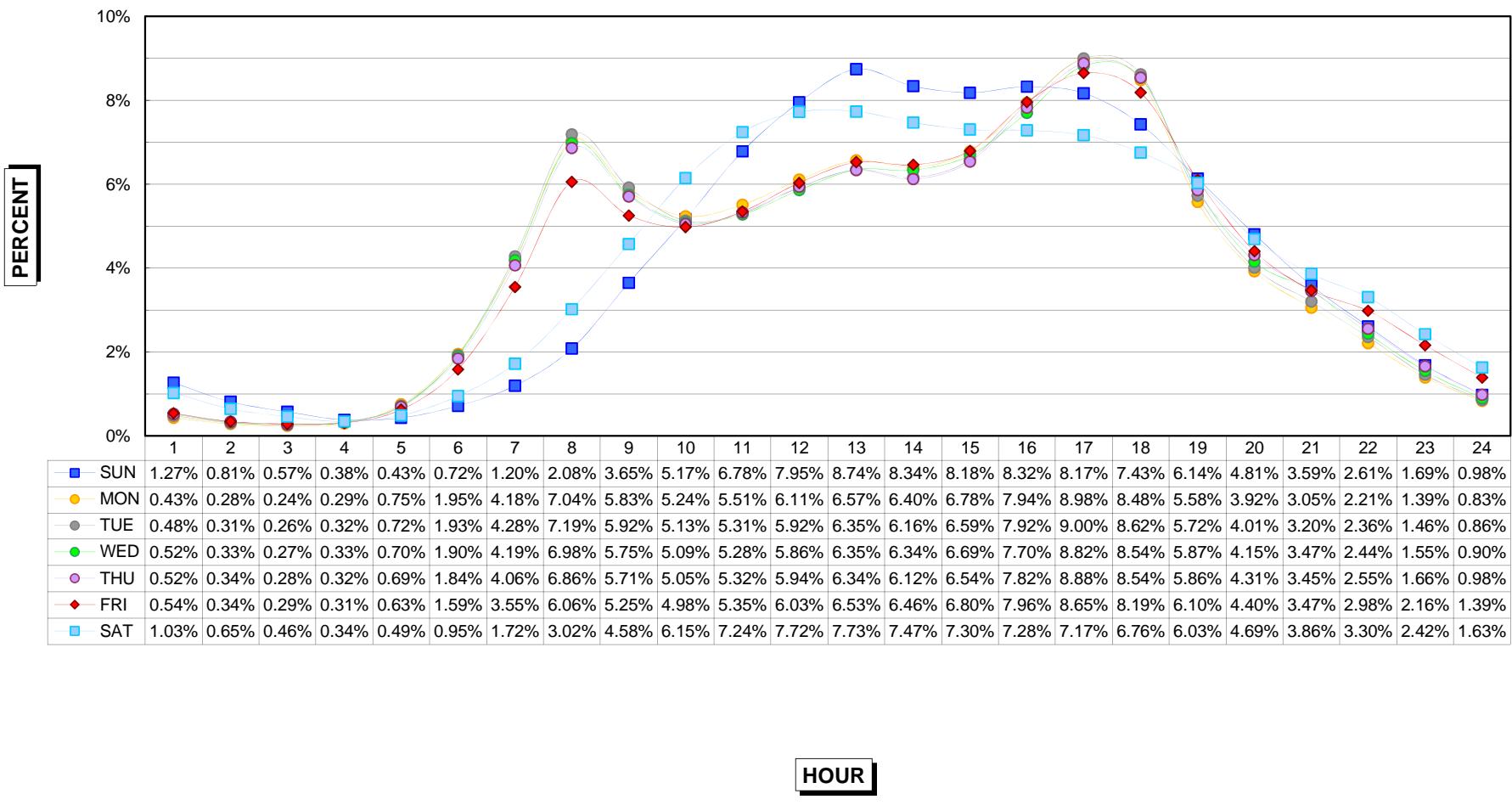
## HOURLY DISTRIBUTION OF DAILY TRAFFIC 2014 RURAL SECONDARY



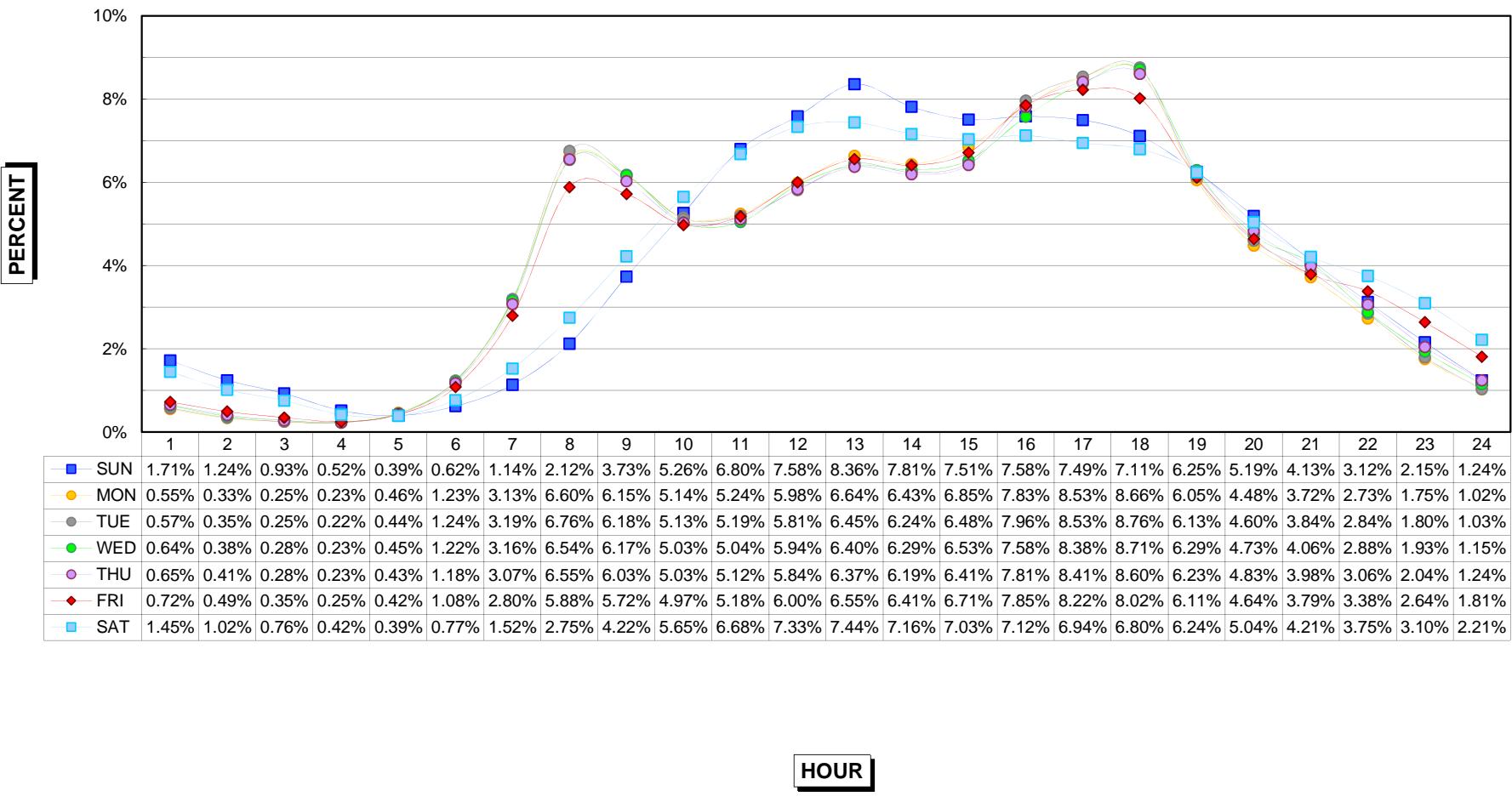
## HOURLY DISTRIBUTION OF DAILY TRAFFIC 2014 MUNICIPAL INTERSTATE



## HOURLY DISTRIBUTION OF DAILY TRAFFIC 2014 MUNICIPAL PRIMARY



## HOURLY DISTRIBUTION OF DAILY TRAFFIC 2014 MUNICIPAL STREETS



## SUMMARY OF ANALYSIS

### Analysis of the Thirtieth Highest Hour at the Permanent Continuous Automatic Traffic Recorder Stations 2005 - 2014

Permanent automatic traffic recorder data is collected on a continuing basis in Iowa to facilitate the expansion of the short-time manual and portable recorder traffic counts to Annual Average Daily Traffic and to make possible a means of estimating design hour volumes from the Annual Average Daily Traffic. A record of the 50 highest hourly volumes at each rural automatic recorder station has been kept since 1949 and at each urban station since 1959, making possible the fitting of first degree curves to desired design hours periodically as the data has been accumulated.

From permanent automatic traffic recorder data a straight-line relationship between the design hour volume and the Annual Average Daily Traffic can be expressed mathematically as:

$$Y = a + bx$$

Where  $Y$  = nth high hour volume (design hour)

$x$  = Annual Average Daily Traffic

$a$  = A constant of minimum relationship

$b$  = The slope relationship which can be expressed as a percentage of the Annual Average Daily Traffic

The constant "a" and the relationship "b" have been recomputed for the 30th highest hour as the data for each succeeding year has become available. Table 1 shows the 30th high hour results computed from data collected over a ten-year period, 2005 through 2014.

Table 1

#### Calculations of Design Hour Volumes (30th high hour) From Annual Average Daily Traffic

	PRIMARY		INTERSTATE		SECONDARY		CITY STREET	
	"a" Constant	"b" %AADT	"a" Constant	"b" %AADT	"a" Constant	"b" %AADT	"a" Constant	"b" %AADT
Rural	<b>11.48</b>	<b>10.83</b>	<b>360.65</b>	<b>9.72</b>	<b>5.06</b>	<b>12.23</b>	-	-
Municipal	<b>46.63</b>	<b>10.11</b>	<b>136.72</b>	<b>10.26</b>	-	-	<b>55.06</b>	<b>9.94</b>

**ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2004 TO 2014**  
**RURAL INTERSTATE**

STATION	ROUTE	LOCATION
100	I 29	3.0 MI N OF S JCT I 680 HONEY CREEK
102	I 29	4.0 MI S OF US 34 PACIFIC JCT
103	I 80	5.0 MI E OF IA 146 GRINNELL
104	I 35	3.0 MI N OF IA 175 JEWELL
105	I 29	3.8 MI S OF IA 175 ONAWA
106	I 35	1.5 MI N OF IA 2 LEON
109	I 35	3.0 MI N OF CO B20 HANLONTOWN
110	I 80	1.5 MI W OF CO M16 SHELBY
111	I 80	2.0 MI E OF IA 149 WILLIAMSBURG
113	I 380	3.75 MI NW OF IA 150 BRANDON
115	I 80	2.0 MI E OF US 71 ATLANTIC
116	I 80	0.8 MI W OF 74TH ST WAUKEE
117	I 80	1.75 MI E OF E JCT I 35/80/235 ALTOONA
119	I 80	1.5 MI E OF MIDDLE RD LECLAIRE
120	I 80	2.5 MI E OF CO RD X40 TIPTON
121	I 35	2.0 MI N OF CO RD R75 DOWS
122	I 35	1.0 MI N OF IA 92 CUMMING
123	I 80	4.8 MI E OF E JCT US 65 MITCHELLVILLE
124	I 680	6.4 MI W OF I 80 BEEBEETOWN
125	I 380	6.0 MI N OF I 80 NORTH LIBERTY

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
21319	20959	21484	21033	20246	20170	20593	NONE	19730	19907	20696
12101	12151	12495	12300	11793	11761	11868	NONE	12008	12337	13563
26726	26325	26940	26853	26118	26234	26569	26045	26046	26235	26523
20269	20200	20629	20598	20147	20509	NONE	21248	21437	21726	21775
12171	12015	12283	12418	12096	12512	12791	NONE	12587	12667	13150
13233	12982	13290	13227	12705	12715	12786	12783	12699	NONE	NONE
17556	17373	18466	18611	17794	18757	19118	19192	19254	19184	19324
22496	22208	22670	22752	21727	22189	22950	NONE	NONE	23070	23517
31258	30939	31347	31325	29718	29950	NONE	NONE	NONE	30642	31210
14156	14308	14695	14976	14648	15084	15665	15796	15905	15937	16186
19324	19282	19480	19697	19267	19067	19879	19661	19740	19821	20113
33870	33880	35190	34897	33977	34437	35427	35272	35527	NONE	NONE
69050	70547	70362	68589	67650	69757	72678	73105	74017	74863	75290
29201	28264	28926	28639	27436	27398	NONE	29604	29978	29000	30825
32318	32239	32583	32755	31284	31386	32327	NONE	31963	32640	33523
13800	14112	13858	13376	13822	NONE	14291	14270	14195	14506	
			21255	21339	21205	21105	21087	21044	NONE	
					35329	35061	35253	34996	NONE	
					6196	NONE	5947	5913	6039	
					NONE	48518	49835	51703		

**2014 EXPANSION FACTORS**  
**RURAL INTERSTATE**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>SEASONAL</b>	1.247	1.207	1.034	0.994	0.923	0.868	0.854	0.867	0.957	0.975	1.015	1.107
<b>Sunday</b>	1.149	1.069	1.036	0.999	1.027	0.974	0.929	0.971	0.976	0.949	0.987	1.044
<b>Monday</b>	1.046	1.047	1.119	1.055	1.055	1.085	1.072	1.088	1.050	1.092	1.154	1.077
<b>Tuesday</b>	1.021	1.053	1.088	1.090	1.102	1.114	1.099	1.121	1.114	1.123	1.073	1.066
<b>Wednesday</b>	1.011	0.992	1.022	1.058	1.069	1.055	1.059	1.069	1.085	1.076	0.935	1.030
<b>Thursday</b>	0.958	0.984	0.951	0.976	0.989	0.978	0.989	0.996	1.007	0.994	1.024	1.036
<b>Friday</b>	0.851	0.835	0.817	0.828	0.817	0.837	0.883	0.835	0.832	0.815	0.874	0.846
<b>Saturday</b>	1.029	1.087	1.057	1.072	1.020	1.031	1.031	1.001	1.015	1.047	1.026	0.964

**ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2004 TO 2014**  
**MUNICIPAL INTERSTATE**

STATION	ROUTE	LOCATION	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
701	I 380	BTWN WILSON AND 33RD CEDAR RAPIDS	64289	64150	64968	64650	63791	65296	66377	66597	66619	66629	67456
703	I 380	AT J AVE S OF COLDSTREAM CEDAR RAPIDS	82356	81384	82503	82450	80922	80465	84299	82907	82911	82286	83915
704	I 29/80	0.6 MI W OF IA 192 COUNCIL BLUFFS	75623	77569	79350	79516	76838	75586	75988	NONE	75521	NONE	NONE
705	I 74	0.6 MI S OF US 6 BETTENDORF	47671	48031	49099	48849	48427	47738	NONE	45756	47653	49404	49577
707	I 29	AT SOUTH DAKOTA BORDER SIOUX CITY					28070	27931	28175				SITE REMOVED JANUARY 2010
708	I 280	0.3 MI S OF IA 22 DAVENPORT								NONE	19943	NONE	NONE
709	I 35	N OF ORALABOR ROAD ANKENY								NONE	59603	57945	60027
710	I 235	E. INNERLEG OF 35TH ST WEST DES MOINES								NONE	NONE	NONE	NONE
711	I 235	S OF GUTHRIE AVENUE DES MOINES								66548	64950	NONE	NONE
712	I 235	E OF SECOND AVENUE DES MOINES								NONE	NONE	NONE	NONE
713	I 35/80	E OF MERLE HAY ROAD DES MOINES								NONE	NONE		SITE REMOVED MARCH 2012
714	I 235	0.4 MI N OF EUCLID AVENUE DES MOINES										NONE	65417

**2014 EXPANSION FACTORS**  
**MUNICIPAL INTERSTATE**

SEASONAL	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	1.125	1.059	1.011	0.961	0.960	0.935	0.959	0.937	0.964	0.955	1.011	1.074
Sunday	1.571	1.454	1.458	1.437	1.396	1.397	1.379	1.403	1.383	1.399	1.438	1.445
Monday	0.979	0.980	0.978	0.959	1.054	0.964	0.935	0.964	1.034	0.969	0.956	0.948
Tuesday	0.929	0.935	0.954	0.935	0.932	0.937	0.913	0.934	0.935	0.951	0.907	0.941
Wednesday	0.929	0.915	0.919	0.934	0.918	0.924	0.927	0.926	0.923	0.934	0.890	0.937
Thursday	0.885	0.902	0.892	0.904	0.901	0.904	0.916	0.908	0.899	0.909	0.981	0.942
Friday	0.845	0.855	0.845	0.862	0.845	0.867	0.898	0.862	0.849	0.854	0.869	0.856
Saturday	1.156	1.195	1.191	1.188	1.156	1.208	1.230	1.215	1.171	1.183	1.176	1.129

**ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2004 TO 2014  
RURAL PRIMARY**

STATION	ROUTE	LOCATION
201	US 65	2.7 MI N OF IA 3 HAMPTON
202	US 71	2.0 MI N OF IA 44 HAMLIN
204	US 75	1.3 MI N OF CO C60 HINTON
205	US 218	2.7 MI S OF IA 78 SWEDESBURG
206	US 30	AT BOONE/STORY CO LINE NAPIER
207	US 18	2.2 MI E OF US 169 ALGONA
208	US 6	3.0 MI E OF CO V66 MARENKO
209	US 67	1.5 MI S OF CO F45 PRINCETON
210	US 18	4.2 MI E OF IA 60 SHELDON
212	IA 92	0.6 MI W OF CO V45 SIGOURNEY
213	US 30	1.8 MI E OF US 65 COLO
214	US 61	3.8 MI N OF US 34 BURLINGTON
216	US 34/169	2.5 MI E OF W JCT US 169 AFTON
217	US 18	2.5 MI E OF I 35 CLEAR LAKE
218	IA 44	0.2 MI W OF US 169 ADEL
219	US 34	1.0 MI W OF I 35 OSCEOLA
220	US 52	1.0 MI NW OF US 18 POSTVILLE
221	IA 9	2.5 MI W OF CO N52 ARMSTRONG
222	IA 3	0.1 MI W OF CO P66 HUMBOLDT
223	IA 48	4.0 MI S OF IA 92 GRISWOLD
224	US 59	0.5 MI S OF CO F16 DEFIANCE
226	US 18	3.8 MI E OF CO W14 WEST UNION
228	IA 117	2.5 MI S OF US 65 MINGO
229	IA 78	1.2 MI W OF CO X23 WINFIELD
230	US 169	3.5 MI S OF SJCT IA 92 WINTERSET
231	IA 148	9.3 MI N OF IA 92 ANITA
233	IA 110	1.5 MI S OF CO C65 SCHALLER
234	IA 12	2.5 MI N OF CO K18 ACRON
235	IA 143	3.4 MI S OF IA 10 MARCUS
236	IA 196	3.0 MI S OF US 20 SAC CITY
238	IA 149	2.1 MI N OF IA 78 MARTINSBURG
240	IA 2	3.0 MI E OF US 275 SIDNEY
241	IA 13	5.0 MI S OF US 20 RYAN
242	US 61	3.8 MI N OF CO F41 ELDRIDGE
243	US 30	0.3 MI E OF CO Z24 DEWITT
244	IA 1	0.8 MI S OF CO F67 KALONA
245	US 20	1.5 MI E OF CO V62 JESUP
246	IA 141	1.0 MI E OF WILLIS AVE PERRY
247	US 20	3.0 MI E OF E JCT IA 17 WEBSTER CITY
248	IA 21	2.8 MI N OF US 6 BELLE PLAINE
249	US 218	0.5 MI N OF HILLS INTERCHANGE HILLS
250	US 65	1.5 MI N OF IA 163 PLEASANT HILL
252	US 18/63	0.5 MI S OF CO B54 NEW HAMPTON
253	US 218	3.5 MI S OF CO T64 CHARLES CITY
254	IA 60	4.1 MI N OF IA 9 SIBLEY
255	US 20	1.0 MI E OF US 65 IOWA FALLS
256	US 18	3.3 MI E OF I 35 MASON CITY
257	US 20	3.6 MI W OF W JCT US 59 HOLSTEIN
258	US 30	0.6 MI E OF CO V66 BLAIRSTOWN
259	US 30	3.5 MI E OF IA 1 LISBON
260	US 71	0.6 MI S OF CO J64 BRADDYVILLE
261	US 169	2.3 MI N OF CO D14 FORT DODGE
262	US 63	1.6 MI S OF IA 2 BLOODFIELD
263	US 52	0.3 MI E OF CO X47 GARNAVULLO
264	IA 27	3.0 MI S OF CO W62 ARGYLE
265	US 61	1.0 MI N OF CO E17 MAQUOKETA
266	IA 2	0.8 MI W OF US 63 WEST GROVE
267	US 34	3.0 MI W OF US 59 EMERSON
268	US 30	4.0 MI SW OF CO M14 DOW CITY
269	US 30	3.6 MI E OF IA 144 GRAND JUNCTION
270	US 71	3.1 MI S OF IA 3 STORM LAKE
271	US 18	4.3 MI E OF IA 4 EMMETSBURG
272	US 71	5.2 MI S OF W JCT US 6 ATLANTIC
273	US 34	3.6 MI E OF CO RD S56 RUSSELL
274	IA 163	2.6 MI NW OF CO RD G28 PELLA
275	US 20	0.5 MI W OF CENTER AVE EPWORTH
276	US 63	1.5 MI N OF IA 9 LIME SPRINGS
277	US 34	1.1 MI E OF IA 16 AGENCY
278	IA 141	0.5 MI N OF IA 44 GRIMES
279	IA 13	1.5 MI N OF CO RD C64 DUNDEE
280	IA 2	2.0 MI W OF I 35 LEON
281	US 151	4.4 MI S OF IA 38 MONTICELLO
282	US 52	9.5 MI S OF IA 62 BELLEVUE
283	US 61/218	0.8 MI S OF N JCT US 61/218 KEOKUK
284	IA 9	1.0 MI W OF 6TH STREET LANSING
285	US 20	1.3 MI E OF IA 4 ROCKWELL CITY

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
2959	2886	2831	2808	2777	2824	<b>NONE</b>	2786	2814	2832	2879
3544	3504	3450	3473	3375	3393	3537	<b>NONE</b>	3505	<b>NONE</b>	<b>NONE</b>
11718	12095	12296	12264	12302	12671	12918	<b>NONE</b>	12953	12985	13148
10174	10375	10831	11292	11063	11484	11812	11809	11768	11798	12074
12366	12760	12793	12929	13039	13356	13578	<b>NONE</b>	13930	14076	14583
3381	3332	3306	3449	3226	3326	3377	3402	3444	3460	3361
3466	3344	3256	3157	3113	3153	3256	<b>NONE</b>	3202	<b>NONE</b>	3181
4433	4471	4424	4372	4181	4132	<b>NONE</b>	4264	4286	4207	4087
3939	4066	4061	4066	4053	4120	4213	4109	4207	4178	4077
2792	2753	2731	2684	2554	2602	2632	2570	<b>NONE</b>	2445	2501
5332	5074	5105	5058	4908	5047	<b>NONE</b>	5719	5872	6248	
7183	7097	7050	6985	6814	6635	6520	6592	6612	6690	
3835	3654	3696	3671	3537	3665	3870	3864	3845	3701	3661
14876	15140	14373	14364	14173	14489	<b>NONE</b>	13763	13740	13508	13582
3707	3646	3645	3444	3396	3406	3457	3476	3559	3458	3561
4762	4724	4724	4702	4575	4624	4711	4725	4792	4674	4589
1746	1757	1715	1658	1578	1609	1676	1616	1614	<b>NONE</b>	1516
1768	1703	1678	1690	1592	1631	<b>NONE</b>	<b>NONE</b>	1657	<b>NONE</b>	1613
2183	1989	1956	1919	1844	1793	1917	2004	<b>NONE</b>	1732	<b>NONE</b>
1209	1238	1248	1221	1171	1164	1190	1199	1225	1218	1212
2635	2644	2613	2561	2507	2590	2638	<b>NONE</b>	2656	2623	2642
2358	2292	2357	2339	2197	2291	2269	<b>NONE</b>	<b>NONE</b>	2501	2425
948	967	993	966	979	993	951	<b>NONE</b>	<b>NONE</b>	847	
733	757	785	742	738	748	750	761	<b>NONE</b>	765	781
1795	1701	1726	1610	1588	1651	1686	1657	1677	1631	<b>NONE</b>
776	756	782	761	755	763	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	818
1337	1318	1260	1294	1298	1306	<b>NONE</b>	<b>NONE</b>	1331	1293	1322
1469	1465	1435	1415	1304	1277	1342	<b>NONE</b>	1287	1224	1248
795	826	825	802	765	746	785	<b>NONE</b>	<b>NONE</b>	889	894
1094	1037	1060	1082	1131	1169	<b>NONE</b>	1133	1150	1186	
1216	1158	1153	1132	1071	1102	1180	1164	<b>NONE</b>	1196	1154
1936	1857	1879	1949	1914	1772	1899	<b>NONE</b>	1872	1862	1948
4694	4408	4460	4280	4034	4069	4270	4142	4184	4205	4226
16459	16082	16108	16214	15940	16374	16748	16530	16678	16651	16718
9413	9488	9414	9448	9408	9678	9841	9704	<b>NONE</b>	<b>NONE</b>	
5969	5956	5858	5624	5765	5694	5566	5493	5535	5473	<b>NONE</b>
10392	10194	10345	10571	10532	10789	11025	11052	<b>NONE</b>	9964	10566
9940	9806	9676	9448	9315	9478	9556	9256	9581	9239	9332
7827	7958	7888	7945	7858	7834	<b>NONE</b>	<b>NONE</b>	8211	8828	
1318	1270	1246	1193	1120	1135	1148	1159	1163	1145	1108
16852	16973	18313	19527	18686	19548	19804	19698	19594	19810	20472
23923	25288	25274	24416	23942	24223	24789	24953	25083	25034	25599
	4803	4780	4831	4797	4909	5091	5099	5175	5225	
	8316	8436	8649	8542	8643	<b>NONE</b>	9123	9218	9044	9074
				3296	3378	<b>NONE</b>	3268	3484		
	7531	7926	8057	8148	8335	8548	8497	8608	8730	8859
	7066	7290	7507	7342	7612	7878	7911	8029	7975	7901
			2781	2881	2926	2954	<b>NONE</b>	3022	<b>NONE</b>	
			6424	5940	<b>NONE</b>	<b>NONE</b>		6553	6630	6876
				5427	5610	5753	5739	5812	5584	5598
				2182	2240	2301	2377	<b>NONE</b>	2404	2346
				5783	5360	5389	<b>NONE</b>	<b>NONE</b>	5604	5679
				2247	2217	2288	2318	2253	2225	2255
				2395	2225	2267	<b>NONE</b>	<b>NONE</b>	2382	2400
				4532	4764	5079	5402	5651	5797	5891
				7349	7053	7236	7475	7444	7537	<b>NONE</b>
				1560	1546	1535	1596	1550	1557	1599
				4176	4168	4380	4476	<b>NONE</b>	4421	4225
				2997	2977	3022	<b>NONE</b>	<b>NONE</b>	2995	3028
				4137	4320	4359	4343	4384	4196	4272
					2441	2594	<b>NONE</b>	2685	2833	3010
					3111	3218	3386	3233	3347	3283
					2112	2228	<b>NONE</b>	2330	2253	2294
					2109	2073	2070	2116	2047	2123
					9872	10331	10795	10858	11056	11215
						12096	12376	12573	12661	12652
						2870	2961	2920	2903	3016
						7804	7792	7883	8047	8085
						20594	20395	20906	21762	21702
						2311	2344	2305	2349	2358
										2361
								1303	<b>NONE</b>	1262
								10635	10625	10807
								1299	1232	1274
								842	842	799
								8047	8085	8380
								7810	7666	8009
								2163	<b>NONE</b>	2010
									1939	1970
										5444

**2014 EXPANSION FACTORS  
RURAL PRIMARY**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec


</tbl\_r

**ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2004 TO 2014**  
**MUNICIPAL PRIMARY**

STATION	ROUTE	LOCATION	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
802	US 71	W OF MEMPHIS AVE SPIRIT LAKE	12408	12408	12102	11721	11530	11961	11827	11701	11723	11777	12076
803	IA 12	ON VIADUCT E OF COURT ST SIOUX CITY	25631	25518	23924	23112	22228	NONE	NONE	22563	NONE	20642	NONE
804	IA 4	N OF 4TH AVE NW POCAHONTAS	3012	3052	3082	3012	2950	2868	2965	3246	3290	3091	3094
805	IA 148	S OF 11TH ST CORNING	3223	3098	3202	3046	2852	2867	2811	2797	2802	2637	2711
806	US 6	E OF SHASTA WINDSOR HEIGHTS	22129	22989	21425	19954	19072	19481	NONE	NONE	18681	19223	18151
808	US 71	S OF BIRCH ST AUDUBON	4992	4858	4750	4701	4655	4769	NONE	NONE	4675	4601	4567
809	IA 14	N OF WOODLAND ST MARSHALLTOWN	6540	6484	6268	6304	6164	6119	6228	6000	5836	5746	5641
810	IA 92	W OF N ST INDIANOLA	11725	11582	11203	10858	10837	11024	11061	11036	11047	10985	11251
811	IA 192	S OF AVE N COUNCIL BLUFFS	9442	9474	9047	8858	9139	9057	8718	NONE	6004	5949	6208
812	IA 122	W OF VIRGINIA AVE MASON CITY	13052	12706	12014	12035	11825	12186	11450	11754	11469	10842	10768
813	US 6	E OF PINE ST DAVENPORT	21888	22078	21648	22022	21686	21312	21935	21137	22050	20189	19925
815	IA 922	BTWN WILEY BLVD & WESTDALE CDR RPDS	9027	9006	9474	9565	9551	10812	10940	10658	NONE	NONE	NONE
816	US 34	W OF US 61 WEST BURLINGTON	13085	12814	13878	13666	13097	13168	13671	13076	13173	12909	NONE
819	IA 9	EAST OF 14TH ST OSAGE	5546	5536	5391	5374	5264	5237	5262	NONE	5207	5200	5244
820	IA 17	N OF NW 11TH ST EAGLE GROVE	2902	2997	2867	2818	2739	2722	2832	2898	2810	2891	NONE
821	IA 4	S OF EDGEWOOD AVE E JEFFERSON	4343	4211	4166	4102	4074	4154	4138	3995	NONE	3832	3923
823	US 6	BETWEEN SYCAMORE & 1ST AVE IOWA CITY	21858	21726	21526	21187	20946	20652	20543	20148	NONE	NONE	NONE
824	US 69	BETWEEN 15TH AND 16TH ST AMES	19737	20080	19804	19440	17551	17318	18148	17567	NONE	17619	17298
826	US 65	1.5 MI NE OF I-80 BONDURANT	11824	12737	12397	12052	11761	12272	12608	12446	NONE	12817	12625
827	US 61/151	W OF MISSISSIPPI R DUBUQUE	19188	19238	19396	20588	20031	20744	21554	21609	21611	21381	21990
828	IA 150	S OF 12TH ST OELWEIN	6555	6505	6654	6298	6295	6461	6550	6490	6354	6305	6196
829	US 59	S OF 5TH AVE SHENANDOAH	9964	10054	10053	9698	9121	8694	8819	SITE REMOVED JUNE 2011			
830	IA 23	S OF IA 92 OSKALOOSA	3279	3204	3159	3073	2951	2871	2866	2808	2794	2742	NONE
831	IA 5	W OF FLUER DRIVE DES MOINES						NONE	23086	22771	22572	23262	

**2014 EXPANSION FACTORS**  
**MUNICIPAL PRIMARY**

SEASONAL	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	1.151	1.100	1.031	0.977	0.944	0.934	0.953	0.953	0.955	0.966	1.024	1.071
Sunday	1.535	1.437	1.433	1.393	1.318	1.333	1.290	1.319	1.299	1.319	1.409	1.425
Monday	0.983	0.962	0.993	0.970	1.052	0.978	0.962	0.978	1.041	0.988	0.959	0.941
Tuesday	0.946	0.945	0.962	0.960	0.957	0.965	0.949	0.967	0.967	0.974	0.929	0.956
Wednesday	0.947	0.921	0.932	0.959	0.953	0.951	0.953	0.955	0.958	0.958	0.909	0.946
Thursday	0.909	0.938	0.913	0.939	0.950	0.935	0.948	0.944	0.936	0.942	0.996	0.977
Friday	0.837	0.861	0.850	0.862	0.857	0.869	0.898	0.864	0.850	0.859	0.870	0.854
Saturday	1.106	1.148	1.119	1.082	1.045	1.111	1.121	1.112	1.074	1.087	1.110	1.088

## ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2004 TO 2014

### SECONDARY

#### PAVED

STATION	ROUTE	LOCATION
300	CO P14	2.7 MI N OF CO E33 CHURDAN
301	CO S14	0.8 MI S OF CO E29 NEVADA
302	CO M55	0.2 MI N OF IA 141 MANILLA
303	CO K45	2.25 MI S OF IA 175 ONAWA
304	CO V45	3.5 MI N OF IA 92 SIGOURNEY
306	CO E53	1.75 MI E OF IA 25 SCRANTON
307	CO R38	2.2 MI N OF CO C54 CLARION
308	CO N32	1.6 MI N OF IA 9 ESTHERVILLE
309	CO K52	1.5 MI S OF US 18 HULL
310	CO Y52	1.5 MI S OF US 30 GRAND MOUND
311	CO W12	3.5 MI S OF US 30 WATKINS
312	CO E26	2.7 MI W OF CO RD R38 BOONE
313	CO D42	0.2 MI E OF IA 13 MANCHESTER
314	CO 105	1.3 MI E OF CO S56 NORTHWOOD
315	CO RD	5.5 MI E OF US 63 DRAKESVILLE
316	CO D36	2.8 MI E OF CO N57 ROCKWELL CITY

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
303	296	303	250	237	247	239	234	268	237	241
1001	979	1008	989	975	973	958	988	988	965	967
845	824	830	783	739	736	739	777	798	787	793
1005	1025	1029	1059	1106	1152	NONE	NONE	NONE	1162	1155
643	640	645	634	617	636	665	652	NONE	646	631
575	579	570	515	520	544	NONE	NONE	524	497	507
1341	1292	1361	1293	1255	1240	1278	NONE	1339	1379	NONE
361	370	341	330	357	NONE	344	NONE	323	NONE	NONE
999	974	1017	987	1001	1063	NONE	1149	1178	1228	1249
529	529	534	504	479	501	NONE	502	498	NONE	NONE
864	835	852	853	804	825	NONE	804	799	773	744
1406	1336	1370	1327	1213	1269	1395	NONE	1525	NONE	1481
707	715	719	698	679	691	702	630	612	623	679
667	675	766	771	775	778	800	767	744	737	731
712	722	733	720	656	676	675	665	682	666	665
3152	3099	3138	3111	3087	3155	3292	1201	1157	1014	974

Note: Station 316 was previously station 211.

Co Rd D36 was US 20 until Dec. 2010 when the US 20 4-lane was extended from Moorland to IA 4.

#### GRAVEL

STATION	ROUTE	LOCATION
400	CO B30	0.5 MI E OF CO L48 PRIMGHAR
401	LOC RD	1.75 MI N OF CO E36 CLUTIER
402	LOC RD	0.75 MI E OF CO V18 CLUTIER
403	CO H47	5.0 MI SE OF US 34 ALBIA
405	LOC RD	2.5 MI N OF US 18 NEW HAMPTON
406	LOC RD	2.0 MI E OF US 169 LORIMOR
407	CO H23	2.0 MI E OF US 169 LORIMOR

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
28	26	29	27	21	23	21	23	18	22	22
52	32	33	35	31	30	36	36	39	34	35
51	42	50	50	41	47	51	55	54	47	48
115	109	111	102	88	98	89	92	104	100	NONE
56	47	55	55	46	48	46	48	51	49	57
76	71	67	70	57	63	62	57	NONE	70	68
75	81	77	76	68	70	75	66	76	77	75

### 2014 EXPANSION FACTORS SECONDARY

SEASONAL	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sunday	1.461	1.334	1.334	1.359	1.297	1.349	1.322	1.350	1.293	1.307	1.370	1.353
Monday	0.988	0.965	1.005	0.987	1.041	0.975	0.954	0.961	1.030	0.966	0.975	0.958
Tuesday	0.960	0.948	0.991	0.938	0.940	0.954	0.853	0.937	0.936	0.959	0.955	0.960
Wednesday	0.951	0.929	0.953	0.968	0.932	0.923	0.936	0.956	0.946	0.977	0.941	0.956
Thursday	0.933	0.961	0.922	0.960	0.993	0.930	0.920	0.945	0.942	0.980	0.982	0.985
Friday	0.864	0.888	0.878	0.891	0.888	0.898	0.930	0.892	0.893	0.903	0.878	0.894
Saturday	1.073	1.124	1.084	1.045	1.040	1.150	1.129	1.123	1.105	1.044	1.051	1.037

**ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2004 TO 2014**  
**MUNICIPAL STREETS**

STATION	ROUTE	LOCATION
900	LAKE ST	N OF 3RD ST in STORM LAKE
901	2ND AVE N	E OF 15TH ST in FORT DODGE
902	LOCUST ST	E OF SPRING ST in DAVENPORT
903	JEFFERSON	NE OF E 5TH ST in OTTUMWA
904	JOHNSON	W OF JANICE DR in CEDAR RAPIDS
905	N'WESTERN	N OF 20TH ST in AMES
906	DUBUQUE	S OF DAVENPORT ST in IOWA CITY
907	COLLEGE	S OF 23RD ST in CEDAR FALLS
908	LINDWOOD	S OF 35TH ST in SIOUX CITY
909	HAMILTON	N OF CLIFTON AVE in SIOUX CITY
910	GRANDVIEW	SE OF PLYMOUTH CT in DUBUQUE
911	HUMBOLDT	S OF 4TH ST in BODE
912	ELM ST	N OF LUCAS ST in CRESTON
** 913	WASHINGTON	E OF HARRISON ST in MOUNT PLEASANT

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
3046	2911	2818	2872	2756	2848	2811	NONE	2610	2587	2556
6795	6780	6695	6760	6775	6665	6728	6620	6444	6024	NONE
22382	22369	21934	21750	21300	20726	20521	NONE	NONE	20336	19630
6901	6549	6627	6456	6272	6006	5694	NONE	5699	5628	NONE
10381	10360	10086	9947	10000	9818	9613	9391	9258	9057	8931
2652	2460	2348	2304	2202	2264	NONE	2193	NONE	2211	2178
15615	15177	15448	15230	14688	14411	14245	13859	13518	NONE	12861
8440	7947	7862	7444	NONE	NONE	NONE	7974	NONE	NONE	7410
1129	1056	1026	1008	969	977	954	976	960	NONE	NONE
14789	14529	14547	14314	13854	14159	14586	14388	14584	NONE	13719
9402	9094	8836	8779	8596	8871	8946	8917	8833	8411	7983
773	796	796	786	776	770	767	739	NONE	684	695
4422	4126	3938	3710	3798	3807	3782	3802	3735	3550	NONE
13728	12834	11283	10632	10540	10161					SITE REMOVED SEPTEMBER 2010

Note: Station 913 was previously station 801.  
Washington Street was US 34 until Nov. 2005 when the US 34 bypass opened.

**2014 EXPANSION FACTORS**  
**MUNICIPAL STREETS**

SEASONAL	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	1.138	1.073	1.037	0.967	0.930	0.953	0.990	0.977	0.953	0.956	1.042	1.083
Sunday	1.423	1.351	1.352	1.343	1.312	1.321	1.313	1.319	1.218	1.336	1.351	1.361
Monday	0.991	0.978	0.984	0.973	1.040	0.972	0.961	0.970	1.056	0.979	0.960	0.946
Tuesday	0.939	0.941	0.956	0.950	0.943	0.959	0.949	0.954	0.963	0.963	0.918	0.959
Wednesday	0.946	0.922	0.928	0.946	0.945	0.959	0.948	0.949	0.941	0.938	0.906	0.947
Thursday	0.913	0.940	0.923	0.938	0.942	0.940	0.942	0.936	0.926	0.933	1.002	0.967
Friday	0.859	0.884	0.878	0.884	0.870	0.885	0.897	0.879	0.877	0.874	0.895	0.872
Saturday	1.131	1.150	1.141	1.112	1.076	1.098	1.121	1.140	1.117	1.127	1.124	1.099

## ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2004 TO 2014

### RECREATIONAL

#### PRIMARY

STATION	ROUTE	LOCATION
500	US 71	0.1 MI S OF CO RD B14 FOSTORIA
501	IA 5	3.8 MI S OF US 34 MORAVIA
503	IA 415	0.5 MI W OF NW POLK CITY RD POLK CITY

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
8497	8263	8343	8346	7877	8067	8213	8250	NONE	NONE	8284
3650	3644	3765	3745	3692	3922	3910	3801	3772	3711	3582
5541	5789	5870	5162	5293	6076	NONE	6130	6445	6697	NONE

#### SECONDARY

STATION	ROUTE	LOCATION
600	CO F25	0.1 MI W OF CO P18 SPRINGBROOK
602	ENTRANCE	GEORGE WYTH S. P. WATERLOO
603	ENTRANCE	3.3 MI N OF IA 25 GREEN VALLEY S. P.

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
210	204	209	226	205	216	207	199	188	181	176
826	822	777	799	643	731	766	759	850	NONE	748
348	339	352	339	273	175	NONE	NONE	262	283	279

### 2014 EXPANSION FACTORS RECREATIONAL

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>SEASONAL</b>	1.733	1.758	1.247	0.951	0.724	0.751	0.681	0.786	0.861	1.097	1.591	1.911
<b>Sunday</b>	1.122	1.052	1.007	0.909	0.911	0.936	0.920	0.892	0.900	0.957	1.132	1.111
<b>Monday</b>	1.090	1.082	1.246	1.155	1.051	1.178	1.250	1.226	1.112	1.128	1.078	1.021
<b>Tuesday</b>	1.065	1.034	1.080	1.168	1.212	1.200	1.220	1.218	1.316	1.097	1.036	1.049
<b>Wednesday</b>	1.053	0.975	1.061	1.215	1.204	1.106	1.071	1.186	1.256	1.088	0.990	1.011
<b>Thursday</b>	1.050	1.041	1.006	1.158	1.234	1.071	1.003	1.129	1.174	1.089	1.038	1.009
<b>Friday</b>	0.936	0.989	0.923	0.917	0.925	0.854	0.901	0.894	0.909	0.959	0.940	0.963
<b>Saturday</b>	0.860	0.971	0.903	0.793	0.789	0.869	0.860	0.798	0.784	0.848	0.892	0.921

# AUTOMATIC TRAFFIC RECORDER LOCATIONS

JANUARY 1, 2015

