

Rapid City Area  
Metropolitan Planning Organization

# 2014 TRAFFIC VOLUME COUNTS REPORT



*In cooperation with:*

City of Rapid City  
Engineering Services Division  
Public Works Department

**January 2015**

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## **INTRODUCTION/PURPOSE**

Traffic volume studies are conducted to obtain accurate information about the number and movement of vehicles within or through an area or at selected points within an area. Current and historical volume counts provide vital information that is used in operational evaluations, traffic modeling and in the selection and design of road network improvements. The general public and the business community also use this report to make more informed decisions. The Traffic Volume Counts Report is designated in the Rapid City Area Metropolitan Planning Organization's (MPO) Operations Plan as one of the transportation products to be presented to the MPO's three transportation process committees. This report is an informational document and as such does not require any formal approval process. Traffic volume information is presented for the years 2011 – 2013.

## **DATA & METHODOLOGY**

The Traffic Volume Counts Report presents the most recent three years of data collected by the City's Engineering Services Division - Public Works Department and the South Dakota Department of Transportation (SDDOT). Note that the identification of regular counting sites is a dynamic process and not every location may have associated with it three years of history. Volume information is also provided for all counts that were conducted in conjunction with other engineering studies.

- All volumes presented in this document are counts conducted over a 24 hour period that have been adjusted to account for seasonal variations. Seasonal adjustment factors for each year are developed using data from the South Dakota Department of Transportation's permanent count stations.
- Data provided by the City's Engineering Services Division - Public Works Department has been collected using portable traffic counters while the data provided by the SDDOT has been collected at permanent counting stations. The permanent stations count traffic volumes daily and provide a basis for determining the variation of traffic volumes throughout the year.
- In accordance with accepted traffic engineering protocol, volume counts were only conducted on Tuesdays, Wednesdays, or Thursdays. Mondays and Fridays do not generally represent typical weekdays due to the influence of higher numbers of people being absent from the workplace and a higher percentage of recreational travel.
- Volumes have not been factored to account for vehicles with more than two axles, i.e. trucks, certain recreational vehicles, vehicle/trailer combinations, etc. The actual vehicular volumes are generally lower than the published counts and can be determined if the percentage of vehicles with more than two axles is known. The correction factor is given by the formula  **$1.0 - 0.5 * \text{percentage of truck traffic}$** .

## ***COMPARISON OF ANNUAL VOLUMES***

The count summary includes the percent change between successive year's counts. A weighted average percent change is also calculated taking into consideration all of the counts. Extreme caution should be exercised when interpreting annual changes in volumes for the following reasons:

- Traffic volumes will vary on a particular section of roadway depending on the month the count was conducted or the day of the week of the count. Additionally, there is an inherent variability in traffic volumes due to factors that are not easily explained or quantified.
- Construction projects, on or adjacent to a section of road, can significantly alter traffic volumes.
- Traffic count reliability is directly related to the amount of data collected. The more counts taken at a particular location, the higher the accuracy of conclusions drawn from the data. A single volume provides a "snapshot" of traffic that traveled that roadway on that specific day. Trend analyses should most accurately be limited to using permanent count station data.

## ***PERMANENT COUNT STATIONS***

Data from the following five SDDOT permanent count stations are included in this report:

- 5th Street, north of St. Cloud Street
- Anamosa Street, east of Haines Avenue
- West Main Street, east of Jackson Boulevard
- I-90, east of the Elk Vale Road interchange
- I-90, east of I-190

ROAD	LIMITS	2012 SEASONALLY ADJUSTED COUNT	2013 SEASONALLY ADJUSTED COUNT	% CHANGE 2012/2013	2014 SEASONALLY ADJUSTED COUNT	% CHANGE 2013/2014
1ST ST	OMAHA TO MAIN	1,019	713	-30%	660	-8%
2ND ST	MAIN TO OMAHA	888	968	9%	1,145	18%
3RD ST	MAIN TO OMAHA	2,970	2,109	-29%	2,061	-2%
5TH ST	CATRON TO PARKIEW	6,472	7,732	19%	9,514	23%
5TH ST	PARKVIEW TO MINNESOTA	7,196	9,173	27%	9,839	7%
5TH ST	MINNESOTA TO TEXAS	11,514	12,692	10%	13,755	8%
5TH ST	TEXAS TO 3RD	15,620	19,636	26%	16,835	-14%
5TH ST	3RD TO FAIRMONT	17,365	19,548	13%	17,690	-10%
5TH ST	FAIRMONT TO ST PATRICK	19,065	18,209	-4%	18,377	1%
5TH ST	ST. PATRICK TO ST. CLOUD	19,448	17,264	-11%	18,506	7%
5TH ST	ST. CLOUD TO COLUMBUS	18,928	17,074	-10%	18,354	7%
5TH ST	COLUMBUS TO ST. JOSEPH	21,193	20,762	-2%	20,871	1%
5TH ST	ST JOSEPH TO MAIN	19,609	16,598	-15%	20,938	26%
5TH ST	MAIN TO OMAHA	19,558	17,085	-13%	20,211	18%
5TH ST	OMAHA TO NEW YORK	20,195	17,905	-11%	18,003	1%
5TH ST	NEW YORK TO NORTH	19,694	17,014	-14%	16,881	-1%
32ND ST	JACKSON TO CANYON LAKE	5,644	6,196	10%	5,184	-16%
44TH ST	RAIDER TO MAIN	4,583	4,168	-9%	3,746	-10%
225TH ST	N ELLSWORTH TO BRIGGS	1,564	1,684	8%	3,795	125%
ANAMOSA ST	WEST BLVD N. TO HAINES	5,378	5,424	1%	3,901	-28%
ANAMOSA ST	HAINES TO MAPLE	7,384	7,488	1%	8,224	10%
ANAMOSA (E) ST	MAPLE TO LACROSSE	10,360	10,047	-3%	10,394	3%
ANAMOSA (E) ST	LACROSSE TO E. NORTH	2,472	4,096	66%	5,468	34%
CAMBELL ST	CATRON TO MINNESOTA	14,549	12,447	-14%	15,041	21%
CAMBELL ST	MINNESOTA TO FAIRMONT	18,572	17,372	-6%	17,324	0%
CAMBELL ST	FAIRMONT TO ST PATRICK	23,386	17,190	-26%	21,303	24%
CAMBELL ST	ST PATRICK TO OMAHA	22,157	20,576	-7%	21,230	3%
CAMBELL (E) ST	OMAHA TO E. NORTH ST	22,717	22,411	-1%	23,278	4%
CANYON LAKE DR	JACKSON TO CLIFTON	6,099	8,511	40%	8,865	4%
CANYON LAKE DR	CLIFTON TO SOO SAN	7,671	8,633	13%	8,813	2%
CANYON LAKE DR	SOO SAN TO SHERIDAN LAKE	10,187	14,977	47%	14,282	-5%
CANYON LAKE DR	SHERIDAN LAKE TO MTVIEW	10,949	16,368	49%	12,756	-22%
CATHEDRAL DR	MT RUSHMORE TO TOWER	14,566	14,171	-3%	14,218	0%
CATHEDRAL DR	TOWER TO 5TH	15,872	15,650	-1%	15,079	-4%
CATRON BLVD	SHERIDAN LAKE TO US-16	11,019	11,904	8%	13,378	12%
CATRON BLVD	US-16 TO 5TH	10,590	14,343	35%	14,722	3%
CATRON (E) BLVD	5TH TO SD-79	10,481	15,614	49%	16,425	5%
COUNTRY RD	HAINES TO W NIKE	1,537	1,508	-2%	1,646	9%
CREEK (N) DR	ANAMOSA TO EGLIN ST	4,398	4,180	-5%	3,777	-10%
DEADWOOD AVE	OMAHA TO LIEN	17,058	17,474	2%	17,609	1%
DEADWOOD AVE	CEMENT PLANT TO LIEN	17,168	16,783	-2%	16,292	-3%
DEADWOOD AVE	LIEN TO N PLAZA	13,023	12,705	-2%	13,374	5%
DEADWOOD AVE	N PLAZA TO I-90	15,084	15,317	2%	15,582	2%
DEADWOOD AVE	I-90 TO CITY LIMIT	3,658	3,092	-15%	3,504	13%
DISK DR	HAINES TO MAPLE	6,662	6,453	-3%	4,969	-23%
DISK (E) DR	MAPLE TO LACROSSE	6,489	7,193	11%	6,273	-13%
DYESS AVE	MALL TO SEGER	3,865	3,414	-12%	3,859	13%
E NORTH ST	MILWAUKEE TO LACROSSE	11,794	13,838	17%	11,877	-14%
E NORTH ST	LACROSSE TO CAMBELL	13,072	14,537	11%	13,383	-8%
E NORTH ST	CAMBELL TO ANAMOSA	17,993	20,011	11%	20,103	0%
E NORTH ST	ANAMOSA TO I-90	16,820	16,183	-4%	14,757	-9%
EAST BLVD	KANSAS CITY TO ST JOSEPH	4,604	3,550	-23%	3,508	-1%

ROAD	LIMITS	2012 SEASONALLY ADJUSTED COUNT	2013 SEASONALLY ADJUSTED COUNT	% CHANGE 2012/2013	2014 SEASONALLY ADJUSTED COUNT	% CHANGE 2013/2014
EAST BLVD	ST JOSEPH TO MAIN	8,847	7,332	-17%	7,694	5%
EAST BLVD	MAIN TO OMAHA	11,161	9,800	-12%	10,522	7%
EAST BLVD	OMAHA TO E NORTH	13,805	13,124	-5%	12,310	-6%
EGLIN ST	LACROSSE TO LUNA	9,639	7,772	-19%	6,070	-22%
EGLIN ST	LUNA TO E. NORTH	11,355	11,801	4%	11,443	-3%
EGLIN ST	E.NORTH TO DYESS	4,413	5,716	30%	6,047	6%
EGLIN ST	DYESS TO ELK VALE	4,298	4,345	1%	4,186	-4%
ELK VALE RD	SD-79 TO SD-44	12,978	15,758	21%	16,868	7%
ELK VALE RD	SD-44 TO I-90	14,366	17,465	22%	18,808	8%
ELK VALE RD	I-90 TO SEGER	2,551	5,557	118%	6,825	23%
FAIRMONT BLVD	5TH TO WISCONSIN	12,647	12,734	1%	9,524	-25%
FAIRMONT (E) BLVD	WISCONSIN TO ELM	9,883	9,732	-2%	9,316	-4%
FAIRMONT(E) BLVD	ELM TO CAMBELL	8,340	7,978	-4%	7,646	-4%
HAINES AVE	NORTH TO ANAMOSA	21,207	19,140	-10%	21,195	11%
HAINES AVE	ANAMOSA TO I-90	19,541	18,981	-3%	19,308	2%
HAINES AVE	I-90 TO DISK	26,792	22,767	-15%	22,445	-1%
HAINES AVE	DISK TO MALL	18,126	17,159	-5%	15,784	-8%
HAINES AVE	MALL TO COUNTRY	12,309	13,285	8%	12,917	-3%
HAINES AVE	COUNTRY TO COBALT	5,448	5,745	5%	6,947	21%
HAINES AVE	COBALT TO CITY LIMIT	2,184	2,548	17%	2,476	-3%
HILLSVIEW DR	ST PATRICK TO RAIDER	3,896	3,685	-5%	3,127	-15%
I-190	OMAHA TO SILVER	24,075	24,075	0%	25,755	7%
I-190	SILVER TO I-90	21,347	20,693	-3%	23,163	12%
I-90	I-190 TO HAINES	35,880	32,256	-10%	34,857	8%
I-90	ELK VALE TO EAST CITY LIMIT	24,648	22,782	-8%	25,474	12%
JACKSON BLVD	CITY LIMIT TO CHAPEL LN	5,140	4,829	-6%	5,874	22%
JACKSON BLVD	CHAPEL LN TO CANYON LAKE	8,538	8,289	-3%	9,100	10%
JACKSON BLVD	CANYON LAKE TO 32ND	13,296	8,741	-34%	9,550	9%
JACKSON BLVD	32ND TO SHERIDAN LAKE	15,226	CONSTRUCTION		10,154	
JACKSON BLVD	SHERIDAN LK TO MT VIEW (S)	26,629	CONSTRUCTION		16,681	
JACKSON BLVD	MT VIEW (N) TO MAIN (W)	18,755	CONSTRUCTION		14,837	
LACROSSE (N) ST	OMAHA TO E NORTH	13,179	10,112	-23%	8,498	-16%
LACROSSE (N) ST	E NORTH TO ANAMOSA	22,298	18,994	-15%	17,128	-10%
LACROSSE (N) ST	ANAMOSA TO I-90	20,477	19,507	-5%	17,915	-8%
LACROSSE (N) ST	I-90 TO DISK	10,825	11,869	10%	11,305	-5%
LACROSSE (N) ST	DISK TO MALL	5,065	6,145	21%	5,898	-4%
LIBERTY BLVD	N ELLSWORTH TO I-90	2,760	2,867	4%	4,646	62%
MAIN (W) ST	BERRY PINE TO 44TH	2,377	2,422	2%	2,222	-8%
MAIN (W) ST	44TH TO SOO SAN	5,629	5,157	-8%	5,115	-1%
MAIN (W) ST	SOO SAN TO STURGIS	12,085	12,036	0%	11,225	-7%
MAIN (W) ST	STURGIS TO SHERIDAN LAKE	16,551	16,690	1%	16,339	-2%
MAIN (W) ST	SHERIDAN LAKE TO MTVIEW	21,837	22,995	5%	20,328	-12%
MAIN (W) ST	MTVIEW TO JACKSON	21,534	24,464	14%	21,054	-14%
MAIN (W) ST	JACKSON TO CROSS	35,908	33,306	-7%	36,947	11%
MAIN (W) ST	CROSS TO WEST STREET	36,457	32,584	-11%	32,798	1%
MAIN ST	WEST BLVD TO MT RUSHMORE	16,121	14,279	-11%	14,669	3%
MAIN ST	MT RUSHMORE TO 5TH	12,370	11,272	-9%	11,087	-2%
MAIN ST	5TH TO EAST BLVD	10,171	8,738	-14%	8,233	-6%
MAIN ST	EAST BLVD TO STEELE	9,798	8,050	-18%	7,718	-4%
MALL DR	HAINES TO MAPLE	1,812	3,438	90%	3,650	6%
MALL DR	MAPLE TO LACROSSE	3,259	3,571	10%	3,703	4%
MALL DR	LACROSSE TO E. NORTH	1,847	3,038	65%	3,048	0%
MALL (E) DR	E NORTH TO DYESS	5,671	6,222	10%	6,215	0%

ROAD	LIMITS	2012 SEASONALLY ADJUSTED COUNT	2013 SEASONALLY ADJUSTED COUNT	% CHANGE 2012/2013	2014 SEASONALLY ADJUSTED COUNT	% CHANGE 2013/2014
MALL (E) DR	DYESS TO ELK VALE	4,067	4,956	22%	4,662	-6%
MAPLE (N) AVE	DISK (W) TO DISK (E)	2,185	2,695	23%	2,477	-8%
MINNESOTA (E) ST	5TH TO ELM	5,293	5,405	2%	5,465	1%
MINNESOTA (E) ST	ELM TO CABELL	5,198	6,255	20%	5,110	-18%
MOUNTAINVIEW RD	JACKSON TO CANYON LAKE	10,476	7,293	-30%	8,549	17%
MOUNTAINVIEW RD	CANYON LAKE TO MAIN	18,054	16,668	-8%	17,002	2%
MOUNTAINVIEW RD	MAIN TO OMAHA	20,372	19,389	-5%	18,851	-3%
MT RUSHMORE RD	CATHEDRAL TO ST PATRICK	23,740	22,913	-3%	23,760	4%
MT RUSHMORE RD	ST PATRICK TO ST JOSEPH	24,568	23,505	-4%	23,464	0%
MT RUSHMORE RD	ST JOSEPH TO MAIN	18,580	17,790	-4%	18,217	2%
MT RUSHMORE RD	MAIN TO OMAHA	15,463	13,629	-12%	14,931	10%
MT RUSHMORE RD	OMAHA TO NORTH	9,381	6,885	-27%	6,889	0%
N ELLSWORTH RD	US-14/16 TO LIBERTY	6,716	6,866	2%	6,546	-5%
NEMO RD	WESTBERRY TRAILS TO BERRY PINE	4,113	4,046	-2%	3,731	-8%
OMAHA (W) ST	DEADWOOD TO MTVIEW	23,317	23,494	1%	23,453	0%
OMAHA (W) ST	MTVIEW TO WEST BLVD	32,643	29,340	-10%	33,072	13%
OMAHA ST	WEST BLVD TO MT RUSHMORE	29,024	30,524	5%	30,366	-1%
OMAHA ST	MT RUSHMORE TO 5TH	29,681	31,146	5%	29,174	-6%
OMAHA ST	5TH TO EAST BLVD	26,746	27,444	3%	25,792	-6%
OMAHA ST	EAST BLVD TO LACROSSE	22,521	22,765	1%	21,846	-4%
OMAHA (E) ST	LACROSSE TO CABELL	22,382	20,580	-8%	19,977	-3%
RADAR HILL RD	MULE DEER TO US-14/16	3,496	3,686	5%	4,604	25%
SD-44 (E)	CABELL TO ST PATRICK	17,803	15,961	-10%	17,211	8%
SD-44 (E)	ST PATRICK TO TWILIGHT	24,232	23,006	-5%	22,819	-1%
SD-44 (E)	TWILIGHT TO JOLLY	16,711	17,337	4%	17,528	1%
SD-44 (E)	JOLLY TO RESERVOIR	15,005	14,961	0%	14,139	-5%
SD-44 (E)	RESERVOIR TO AIRPORT	6,300	6,986	11%	6,931	-1%
SD-79	CITY LIMIT TO ELK VALE	12,793	11,438	-11%	13,938	22%
SEGER DR	LACROSSE TO DYESS	2,676	2,545	-5%	2,465	-3%
SHERIDAN LAKE RD	DUNSMORE TO S WILDWOOD	7,896	8,632	9%	7,362	-15%
SHERIDAN LAKE RD	S WILDWOOD TO CATRON	8,003	8,581	7%	8,161	-5%
SHERIDAN LAKE RD	CATRON TO CORRAL	13,650	15,105	11%	14,047	-7%
SHERIDAN LAKE RD	CORRAL TO FLORMANN	13,267	13,894	5%	13,076	-6%
SHERIDAN LAKE RD	FLORMANN TO JACKSON	17,493	15,663	-10%	14,147	-10%
SHERIDAN LAKE RD	JACKSON TO CANYON LAKE	10,120	11,574	14%	10,575	-9%
SHERIDAN LAKE RD	CANYON LAKE TO W MAIN	9,472	11,763	24%	9,285	-21%
SOO SAN DR	CANYON LAKE TO RANGE	7,096	6,312	-11%	6,303	0%
SOUTH CANYON RD	BERRY PINE TO 44TH	6,997	7,049	1%	6,651	-6%
SOUTH CANYON RD	W MAIN TO 44TH	1,329	1,300	-2%	1,128	-13%
ST JOSEPH (W) ST	WEST ST TO WEST BLVD	17,890	16,427	-8%	16,566	1%
ST JOSEPH ST	WEST BLVD TO MT RUSHMORE	16,556	12,962	-22%	13,741	6%
ST JOSEPH ST	MT RUSHMORE TO 5TH	12,485	10,226	-18%	11,519	13%
ST JOSEPH ST	5TH TO EAST BLVD	11,328	9,129	-19%	9,832	8%
ST JOSEPH ST	EAST BLVD TO STEELE	9,924	6,982	-30%	7,897	13%
ST JOSEPH (E ) ST	STEELE TO ST PATRICK	15,138	11,257	-26%	12,081	7%
ST JOSEPH (E) ST	ST PATRICK TO CABELL	8,113	6,295	-22%	6,666	6%
ST PATRICK ST	WEST BLVD TO MT RUSHMORE	3,818	1,799	-53%	2,959	64%
ST PATRICK ST	MT RUSHMORE TO 5TH	8,402	7,468	-11%	7,099	-5%
ST PATRICK ST	5TH TO ELM	13,472	11,526	-14%	11,694	1%
ST PATRICK (E) ST	ELM TO ST JOSEPH	15,874	13,892	-12%	13,767	-1%
ST PATRICK (E) ST	ST JOSEPH TO CABELL	16,134	14,780	-8%	14,431	-2%
ST PATRICK (E) ST	CABELL TO CREEK	15,704	15,559	-1%	15,742	1%
ST PATRICK (E) ST	CREEK TO SD-44	13,295	9,566	-28%	9,518	-1%

ROAD	LIMITS	2012 SEASONALLY ADJUSTED COUNT	2013 SEASONALLY ADJUSTED COUNT	% CHANGE 2012/2013	2014 SEASONALLY ADJUSTED COUNT	% CHANGE 2013/2014
STURGIS RD	MAIN TO W CHICAGO	11,482	11,646	1%	11,318	-3%
STURGIS RD	W CHICAGO TO ST MARTINS	11,136	10,746	-4%	9,547	-11%
TWILIGHT DR	SD-44 TO JOLLY LN	7,919	7,918	0%	6,729	-15%
TWILIGHT DR	JOLLY LN TO RESERVOIR	8,591	7,619	-11%	6,734	-12%
US-14/16	I-90 TO WESTGATE	14,536	14,524	0%	14,208	-2%
US-14/16	S ELLSWORTH TO OAK	1,840	2,139	16%	1,864	-13%
US-16	CITY LIMIT TO CATRON	14,669	14,879	1%	16,685	12%
US-16	CATRON TO CATHEDRAL	12,919	12,352	-4%	13,370	8%
W CHICAGO ST	44TH TO STURGIS	11,345	11,247	-1%	11,458	2%
W CHICAGO ST	STURGIS TO DEADWOOD	16,741	16,404	-2%	16,126	-2%
WEST BLVD	FLORMANN TO ST PATRICK	1,485	1,554	5%	1,350	-13%
WEST BLVD	ST PATRICK TO ST CLOUD	5,986	5,971	0%	5,762	-3%
WEST BLVD	ST CLOUD TO ST JOSEPH	9,511	9,090	-4%	8,194	-10%
WEST BLVD	ST. JOSEPH TO MAIN	14,036	12,004	-14%	12,673	6%
WEST BLVD	MAIN ST TO OMAHA ST	15,471	13,762	-11%	14,614	6%
WEST GATE RD	US-14/16 TO BLUEBIRD	3,404	3,508	3%	3,530	1%