

Rapid City Area  
Metropolitan Planning Organization

**2017 TRAFFIC VOLUME COUNTS  
REPORT**



*In cooperation with:*

City of Rapid City  
Engineering Services Division  
Public Works Department

**January 2018**

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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 2014 – 2017.

## **DATA & METHODOLOGY**

The Traffic Volume Counts Report presents the most recent four 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 four 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 four SDDOT permanent count stations are included in this report:

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

ROAD	LIMITS	2014 SEASONALLY ADJUSTED COUNT	2015 SEASONALLY ADJUSTED COUNT	2016 SEASONALLY ADJUSTED COUNT	2017 SEASONALLY ADJUSTED COUNT	% CHANGE 2016/2017
1ST ST	OMAHA TO MAIN	660	672	859	516	-40%
2ND ST	MAIN TO OMAHA	1,145	1,156	681	790	16%
3RD ST	MAIN TO OMAHA	2,061	2,026	2,092	2,153	3%
5TH ST	CATRON TO PARKIEW	9,514	9,277	10,211	11,063	8%
5TH ST	PARKVIEW TO MINNESOTA	9,839	10,450	10,938	9,938	-9%
5TH ST	MINNESOTA TO TEXAS	13,755	14,714	14,938	14,099	-6%
5TH ST	TEXAS TO 3RD	16,835	15,839	17,115	15,843	-7%
5TH ST	3RD TO FAIRMONT	17,690	16,764	19,004	18,529	-2%
5TH ST	FAIRMONT TO ST PATRICK	18,377	22,276	20,294	20,989	3%
5TH ST	ST. PATRICK TO ST. CLOUD	18,506	22,884	22,237	19,646	-12%
5TH ST	ST. CLOUD TO COLUMBUS	18,354	21,752	18,398	19,136	4%
5TH ST	COLUMBUS TO ST. JOSEPH	20,871	21,545	21,452	21,846	2%
5TH ST	ST JOSEPH TO MAIN	20,938	19,923	18,604	19,984	7%
5TH ST	MAIN TO OMAHA	20,211	18,049	17,432	18,365	5%
5TH ST	OMAHA TO NEW YORK	18,003	19,334	18,601	18,448	-1%
5TH ST	NEW YORK TO NORTH	16,881	17,818	18,898	18,312	-3%
32ND ST	JACKSON TO CANYON LAKE	5,184	4,598	7,835	4,084	-48%
44TH ST	RAIDER TO MAIN	3,746	4,005	4,159	3,643	-12%
225TH ST	N ELLSWORTH TO BRIGGS	3,795	3,726	3,248	3,106	-4%
ANAMOSA ST	WEST BLVD N. TO HAINES	3,901	3,784	5,332	4,549	-15%
ANAMOSA ST	HAINES TO MAPLE	8,224	8,687	8,320	7,821	-6%
ANAMOSA (E) ST	MAPLE TO LACROSSE	10,394	11,010	10,001	9,010	-10%
ANAMOSA (E) ST	LACROSSE TO E. NORTH	5,468	5,976	4,974	4,927	-1%
CAMBELL ST	CATRON TO MINNESOTA	15,041	17,026	17,249	16,657	-3%
CAMBELL ST	MINNESOTA TO FAIRMONT	17,324	19,284	19,458	16,608	-15%
CAMBELL ST	FAIRMONT TO ST PATRICK	21,303	22,178	22,616	22,621	0%
CAMBELL ST	ST PATRICK TO OMAHA	21,230	21,737	22,560	21,944	-3%
CAMBELL (E) ST	OMAHA TO E. NORTH ST	23,278	24,175	24,541	24,747	1%
CANYON LAKE DR	JACKSON TO CLIFTON	8,865	9,892	6,846	6,353	-7%
CANYON LAKE DR	CLIFTON TO SOO SAN	8,813	9,828	6,758	6,226	-8%
CANYON LAKE DR	SOO SAN TO SHERIDAN LAKE	14,282	15,163	12,396	10,712	-14%
CANYON LAKE DR	SHERIDAN LAKE TO MTVIEW	12,756	13,861	12,672	11,687	-8%
CATHEDRAL DR	MT RUSHMORE TO TOWER	14,218	10,207	12,855	12,961	1%
CATHEDRAL DR	TOWER TO 5TH	15,079	10,207	13,121	13,102	0%
CATRON BLVD	SHERIDAN LAKE TO US-16	13,378	12,921	13,297	6,076	-54%
CATRON BLVD	US-16 TO 5TH	14,722	16,593	15,309	16,478	8%
CATRON (E) BLVD	5TH TO SD-79	16,425	17,644	17,673	19,038	8%
COUNTRY RD	HAINES TO W NIKE	1,646	1,650	1,565	2,303	47%
CREEK (N) DR	ANAMOSA TO EGLIN ST	3,777	3,479	4,514	4,805	6%
DEADWOOD AVE	OMAHA TO LIEN	17,609	16,914	18,238	18,569	2%
DEADWOOD AVE	CEMENT PLANT TO LIEN	16,292	16,449	17,540	17,523	0%
DEADWOOD AVE	LIEN TO N PLAZA	13,374	11,764	13,206	13,860	5%
DEADWOOD AVE	N PLAZA TO I-90	15,582	15,154	15,611	15,811	1%
DEADWOOD AVE	I-90 TO CITY LIMIT	3,504	3,567	3,499	3,713	6%
DISK DR	HAINES TO MAPLE	4,969	5,860	5,914	6,080	3%

ROAD	LIMITS	2014 SEASONALLY ADJUSTED COUNT	2015 SEASONALLY ADJUSTED COUNT	2016 SEASONALLY ADJUSTED COUNT	2017 SEASONALLY ADJUSTED COUNT	% CHANGE 2016/2017
DISK (E) DR	MAPLE TO LACROSSE	6,273	7,345	6,802	7,285	7%
DYESS AVE	MALL TO SEGER	3,859	CONSTRUCTION	0	4,992	
E NORTH ST	MILWAUKEE TO LACROSSE	11,877	12,712	12,727	13,426	5%
E NORTH ST	LACROSSE TO CABBELL	13,383	14,205	15,196	15,258	0%
E NORTH ST	CABBELL TO ANAMOSA	20,103	21,143	23,360	23,074	-1%
E NORTH ST	ANAMOSA TO I-90	14,757	14,550	18,406	18,473	0%
EAST BLVD	KANSAS CITY TO ST JOSEPH	3,508	3,796	4,000	4,089	2%
EAST BLVD	ST JOSEPH TO MAIN	7,694	7,412	7,523	8,829	17%
EAST BLVD	MAIN TO OMAHA	10,522	10,119	10,098	11,659	15%
EAST BLVD	OMAHA TO E NORTH	12,310	12,443	12,546	13,390	7%
EGLIN ST	LACROSSE TO LUNA	6,070	6,919	6,478	7,192	11%
EGLIN ST	LUNA TO E. NORTH	11,443	12,098	10,186	10,820	6%
EGLIN ST	E.NORTH TO DYESS	6,047	5,434	5,356	6,581	23%
EGLIN ST	DYESS TO ELK VALE	4,186	5,086	4,394	5,428	24%
ELK VALE RD	SD-79 TO SD-44	16,868	18,426	19,411	20,136	4%
ELK VALE RD	SD-44 TO I-90	18,808	19,211	21,179	21,855	3%
ELK VALE RD	I-90 TO SEGER	6,825	7,149	4,509	3,490	-23%
FAIRMONT BLVD	5TH TO WISCONSIN	9,524	9,643	9,559	9,717	2%
FAIRMONT (E) BLVD	WISCONSIN TO ELM	9,316	9,586	9,294	9,471	2%
FAIRMONT(E) BLVD	ELM TO CABBELL	7,646	7,976	8,715	8,737	0%
HAINES AVE	NORTH TO ANAMOSA	21,195	21,550	20,435	19,671	-4%
HAINES AVE	ANAMOSA TO I-90	19,308	19,899	20,358	19,750	-3%
HAINES AVE	I-90 TO DISK	22,445	21,239	24,230	22,508	-7%
HAINES AVE	DISK TO MALL	15,784	16,848	16,726	17,731	6%
HAINES AVE	MALL TO COUNTRY	12,917	12,780	12,657	14,389	14%
HAINES AVE	COUNTRY TO COBALT	6,947	5,696	5,835	6,035	3%
HAINES AVE	COBALT TO CITY LIMIT	2,476	2,474	2,444	2,533	4%
HILLSVIEW DR	AUDUBON TO RAIDER	3,127	3,123	3,227	2,776	-14%
I-190	OMAHA TO SILVER	25,755	24,970	CONSTRUCTION	CONSTRUCTION	
I-190	SILVER TO I-90	23,163	22,886	CONSTRUCTION	CONSTRUCTION	
I-90	I-190 TO HAINES	34,857	38,599	36,571	38,615	6%
I-90	ELK VALE TO EAST CITY LIMIT	25,474	27,190	25,380	28,257	11%
JACKSON BLVD	CITY LIMIT TO CHAPEL LN	5,874	CONSTRUCTION	5,883	5,081	-14%
JACKSON BLVD	CHAPEL LN TO CANYON LAKE	9,100	CONSTRUCTION	8,248	8,166	-1%
JACKSON BLVD	CANYON LAKE TO 32ND	9,550	CONSTRUCTION	11,037	10,867	-2%
JACKSON BLVD	32ND TO SHERIDAN LAKE	10,154	11,049	13,387	12,168	-9%
JACKSON BLVD	SHERIDAN LK TO MT VIEW (S)	16,681	20,379	20,026	19,670	-2%
JACKSON BLVD	MT VIEW (N) TO MAIN (W)	14,837	17,591	17,386	16,429	-6%
LACROSSE (N) ST	OMAHA TO E NORTH	8,498	9,737	10,320	9,819	-5%
LACROSSE (N) ST	E NORTH TO ANAMOSA	17,128	18,337	18,702	17,885	-4%
LACROSSE (N) ST	ANAMOSA TO I-90	17,915	20,438	19,799	17,817	-10%
LACROSSE (N) ST	I-90 TO DISK	11,305	12,976	13,101	10,210	-22%
LACROSSE (N) ST	DISK TO MALL	5,898	6,313	7,528	CONSTRUCTION	
LIBERTY BLVD	N ELLSWORTH TO I-90	4,646	4,637	5,158	6,211	20%
MAIN (W) ST	BERRY PINE TO 44TH	2,222	2,120	2,045	2,080	2%

ROAD	LIMITS	2014 SEASONALLY ADJUSTED COUNT	2015 SEASONALLY ADJUSTED COUNT	2016 SEASONALLY ADJUSTED COUNT	2017 SEASONALLY ADJUSTED COUNT	% CHANGE 2016/2017
MAIN (W) ST	44TH TO SOO SAN	5,115	5,244	4,824	4,897	2%
MAIN (W) ST	SOO SAN TO STURGIS	11,225	10,856	12,100	10,171	-16%
MAIN (W) ST	STURGIS TO SHERIDAN LAKE	16,339	16,418	16,362	17,348	6%
MAIN (W) ST	SHERIDAN LAKE TO MTVIEW	20,328	20,341	19,111	20,249	6%
MAIN (W) ST	MTVIEW TO JACKSON	21,054	21,766	20,922	21,268	2%
MAIN (W) ST	JACKSON TO CROSS	36,947	33,638	32,542	39,187	20%
MAIN (W) ST	CROSS TO WEST STREET	32,798	32,934	32,483	31,656	-3%
MAIN ST	WEST BLVD TO MT RUSHMORE	14,669	13,615	12,883	13,127	2%
MAIN ST	MT RUSHMORE TO 5TH	11,087	11,404	10,619	11,220	6%
MAIN ST	5TH TO EAST BLVD	8,233	8,264	7,731	8,458	9%
MAIN ST	EAST BLVD TO STEELE	7,718	9,086	8,544	7,537	-12%
MALL DR	HAINES TO MAPLE	3,650	3,797	4,922	4,421	-10%
MALL DR	MAPLE TO LACROSSE	3,703	4,055	4,704	4,702	0%
MALL DR	LACROSSE TO E. NORTH	3,048	3,676	4,152	4,412	6%
MALL (E) DR	E NORTH TO DYESS	6,215	6,761	6,408	9,626	50%
MALL (E) DR	DYESS TO ELK VALE	4,662	4,871	4,740	5,770	22%
MAPLE (N) AVE	DISK (W) TO DISK (E)	2,477	2,261	2,174	2,514	16%
MINNESOTA (E) ST	5TH TO ELM	5,465	6,414	5,935	6,729	13%
MINNESOTA (E) ST	ELM TO CAMBELL	5,110	5,532	5,913	5,646	-5%
MOUNTAINVIEW RD	JACKSON TO CANYON LAKE	8,549	9,355	9,212	8,642	-6%
MOUNTAINVIEW RD	CANYON LAKE TO MAIN	17,002	19,551	16,255	16,175	0%
MOUNTAINVIEW RD	MAIN TO OMAHA	18,851	20,245	17,866	15,878	-11%
MT RUSHMORE RD	CATHEDRAL TO ST PATRICK	23,760	15,764	17,357	16,616	-4%
MT RUSHMORE RD	ST PATRICK TO ST JOSEPH	23,464	17,842	15,810	15,093	-5%
MT RUSHMORE RD	ST JOSEPH TO MAIN	18,217	15,466	13,417	12,879	-4%
MT RUSHMORE RD	MAIN TO OMAHA	14,931	12,544	11,869	11,498	-3%
MT RUSHMORE RD	OMAHA TO NORTH	6,889	8,078	8,072	7,549	-6%
N ELLSWORTH RD	US-14/16 TO LIBERTY	6,546	6,486	5,965	6,181	4%
NEMO RD	WESTBERRY TRAIL TO BERRY PINE	3,731	3,961	3,742	3,885	4%
OMAHA (W) ST	DEADWOOD TO MTVIEW	23,453	23,890	23,691	21,064	-11%
OMAHA (W) ST	MTVIEW TO WEST BLVD	33,072	27,801	29,970	27,025	-10%
OMAHA ST	WEST BLVD TO MT RUSHMORE	30,366	29,788	31,813	30,564	-4%
OMAHA ST	MT RUSHMORE TO 5TH	29,174	27,676	29,177	28,464	-2%
OMAHA ST	5TH TO EAST BLVD	25,792	24,583	25,035	26,246	5%
OMAHA ST	EAST BLVD TO LACROSSE	21,846	20,017	20,216	20,666	2%
OMAHA (E) ST	LACROSSE TO CAMBELL	19,977	19,361	14,734	19,185	30%
RADAR HILL RD	MULE DEER TO US-14/16	4,604	4,618	4,957	4,949	0%
SD-44 (E)	CAMBELL TO ST PATRICK	17,211	16,757	16,952	17,171	1%
SD-44 (E)	ST PATRICK TO TWILIGHT	22,819	23,384	24,805	24,598	-1%
SD-44 (E)	TWILIGHT TO JOLLY	17,528	16,477	17,556	19,570	11%
SD-44 (E)	JOLLY TO RESERVOIR	14,139	14,817	15,728	15,014	-5%
SD-44 (E)	RESERVOIR TO AIRPORT	6,931	6,867	7,196	7,328	2%
SD-79	CITY LIMIT TO ELK VALE	13,938	12,803	14,618	14,184	-3%
SEGER DR	LACROSSE TO DYESS	2,465	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	

ROAD	LIMITS	2014 SEASONALLY ADJUSTED COUNT	2015 SEASONALLY ADJUSTED COUNT	2016 SEASONALLY ADJUSTED COUNT	2017 SEASONALLY ADJUSTED COUNT	% CHANGE 2016/2017
SHERIDAN LAKE RD	DUNSMORE TO S WILDWOOD	7,362	8,064	8,861	8,603	-3%
SHERIDAN LAKE RD	S WILDWOOD TO CATRON	8,161	8,872	8,417	8,450	0%
SHERIDAN LAKE RD	CATRON TO CORRAL	14,047	16,106	16,551	16,235	-2%
SHERIDAN LAKE RD	CORRAL TO FLORMANN	13,076	16,399	15,127	15,126	0%
SHERIDAN LAKE RD	FLORMANN TO JACKSON	14,147	17,230	15,249	16,149	6%
SHERIDAN LAKE RD	JACKSON TO CANYON LAKE	10,575	9,662	9,189	9,212	0%
SHERIDAN LAKE RD	CANYON LAKE TO W MAIN	9,285	10,182	9,100	8,201	-10%
SOO SAN DR	CANYON LAKE TO RANGE	6,303	6,879	8,183	5,920	-28%
SOUTH CANYON RD	BERRY PINE TO 44TH	6,651	6,814	6,426	6,312	-2%
SOUTH CANYON RD	W MAIN TO 44TH	1,128	1,144	1,096	964	-12%
ST JOSEPH (W) ST	WEST ST TO WEST BLVD	16,566	16,542	16,223	15,411	-5%
ST JOSEPH ST	WEST BLVD TO MT RUSHMORE	13,741	13,115	12,043	12,876	7%
ST JOSEPH ST	MT RUSHMORE TO 5TH	11,519	11,497	9,629	11,778	22%
ST JOSEPH ST	5TH TO EAST BLVD	9,832	8,984	7,951	8,895	12%
ST JOSEPH ST	EAST BLVD TO STEELE	7,897	9,239	7,862	7,285	-7%
ST JOSEPH (E) ST	STEELE TO ST PATRICK	12,081	14,567	12,808	11,279	-12%
ST JOSEPH (E) ST	ST PATRICK TO CAMBELL	6,666	7,854	7,372	6,667	-10%
ST PATRICK ST	WEST BLVD TO MT RUSHMORE	2,959	3,502	5,991	3,203	-47%
ST PATRICK ST	MT RUSHMORE TO 5TH	7,099	8,496	7,996	5,835	-27%
ST PATRICK ST	5TH TO ELM	11,694	11,424	10,986	9,848	-10%
ST PATRICK (E) ST	ELM TO ST JOSEPH	13,767	14,434	14,485	12,607	-13%
ST PATRICK (E) ST	ST JOSEPH TO CAMBELL	14,431	12,583	14,313	13,138	-8%
ST PATRICK (E) ST	CAMBELL TO CREEK	15,742	15,635	15,292	14,290	-7%
ST PATRICK (E) ST	CREEK TO SD-44	9,518	10,967	9,502	9,610	1%
STURGIS RD	MAIN TO W CHICAGO	11,318	10,875	12,642	11,432	-10%
STURGIS RD	W CHICAGO TO ST MARTINS	9,547	8,869	10,860	10,992	1%
TWILIGHT DR	SD-44 TO JOLLY LN	6,729	6,572	6,159	5,843	-5%
TWILIGHT DR	JOLLY LN TO RESERVOIR	6,734	8,526	7,724	7,561	-2%
US-14/16	I-90 TO WESTGATE	14,208	14,444	14,227	14,644	3%
US-14/16	S ELLSWORTH TO OAK	1,864	1,863	1,853	1,929	4%
US-16	CITY LIMIT TO CATRON	16,685	20,405	19,181	19,565	2%
US-16	CATRON TO CATHEDRAL	13,370	9,900	11,213	12,171	9%
W CHICAGO ST	44TH TO STURGIS	11,458	12,125	11,934	11,512	-4%
W CHICAGO ST	STURGIS TO DEADWOOD	16,126	18,458	15,880	17,069	7%
WEST BLVD	FLORMANN TO ST PATRICK	1,350	1,304	1,951	1,976	1%
WEST BLVD	ST PATRICK TO ST CLOUD	5,762	6,489	10,942	6,582	-40%
WEST BLVD	ST CLOUD TO ST JOSEPH	8,194	8,886	11,701	8,500	-27%
WEST BLVD	ST. JOSEPH TO MAIN	12,673	12,411	14,907	14,385	-4%
WEST BLVD	MAIN ST TO OMAHA ST	14,614	14,838	14,590	13,509	-7%
WEST GATE RD	US-14/16 TO BLUEBIRD	3,530	3588	3,372	3,709	10%