



CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701


Public Works Department Engineering Services Division

300 Sixth Street

Telephone: (605) 394-4154 FAX: (605) 355-3083

Web: www.rcgov.org

MEMORANDUM

TO: Robert Ellis PE/PTOE, Public Works Director
FROM: Dale Tech PE/LS, City Engineer 
SUBJECT: Range Road/Soo San Drive intersection
DATE: November 4, 2009

The installation of a signal or an all way stop at the above referenced intersection has been discussed for a number of years. Data collected at the intersection has consistently shown that neither a signal nor an all way stop is warranted. Due to the construction project located at 44th Street and West Main Street a temporary all way stop was placed at this intersection to improve the operation of the detour route for the construction project. The Public Works Department has received many requests to change the temporary all way stop to permanent once the detour route is finished. Traffic Engineering has been monitoring the traffic volumes at this intersection and has observed that the traffic volumes have not increased to a level that warrant the installation of a signal or all way stop. The latest volume warrant analysis for an all way stop (attached) shows that an all way stop is not currently warranted.



**MULTI-WAY STOP
VOLUME WARRANT**

09/23/09

HOUR BEGINNING	RANGE RD MINOR ROAD VOLUMES			REQUIRED FOR WARRANT	SOO SAN DR MAJOR ROAD VOLUMES			REQUIRED FOR WARRANT	WARRANT MET?
	EB	TOTAL			SB	NB	TOTAL		
0000	4	4		200	14	10	24	300	NO
0100	1	1		200	11	5	16	300	NO
0200	1	1		200	8	5	13	300	NO
0300	1	1		200	3	1	4	300	NO
0400	6	6		200	4	5	9	300	NO
0500	21	21		200	22	31	53	300	NO
0600	50	50		200	118	140	258	300	NO
0700	157	157		200	426	380	806	300	NO
0800	113	113		200	255	192	447	300	NO
0900	64	64		200	177	170	347	300	NO
1000	75	75		200	180	178	358	300	NO
1100	134	134		200	316	278	594	300	NO
1200	108	108		200	346	257	603	300	NO
1300	118	118		200	248	180	428	300	NO
1400	115	115		200	290	264	554	300	NO
1500	251	251		200	415	355	770	300	YES
1600	105	105		200	388	353	741	300	NO
1700	73	73		200	549	342	891	300	NO
1800	61	61		200	316	228	544	300	NO
1900	83	83		200	193	138	331	300	NO
2000	68	68		200	139	80	219	300	NO
2100	36	36		200	131	60	191	300	NO
2200	79	79		200	73	31	104	300	NO
2300	18	18		200	27	13	40	300	NO
TOTAL	1742	0			4649	3696			

HOURS
WARRANT MET 1
WARRANT MET? NO

**MULTI-WAY STOP
80% VOLUME**

09/23/09

HOUR BEGINNING	RANGE RD MINOR ROAD VOLUMES			SOO SAN DR MAJOR ROAD VOLUMES			REQUIRED FOR WARRANT	WARRANT MET?
	EB	TOTAL	REQUIRED FOR WARRANT	SB	NB	TOTAL		
0000	4	4	160	14	10	24	240	NO
0100	1	1	160	11	5	16	240	NO
0200	1	1	160	8	5	13	240	NO
0300	1	1	160	3	1	4	240	NO
0400	6	6	160	4	5	9	240	NO
0500	21	21	160	22	31	53	240	NO
0600	50	50	160	118	140	258	240	NO
0700	157	157	160	426	380	806	240	NO
0800	113	113	160	255	192	447	240	NO
0900	64	64	160	177	170	347	240	NO
1000	75	75	160	180	178	358	240	NO
1100	134	134	160	316	278	594	240	NO
1200	108	108	160	346	257	603	240	NO
1300	118	118	160	248	180	428	240	NO
1400	115	115	160	290	264	554	240	NO
1500	251	251	160	415	355	770	240	YES
1600	105	105	160	388	353	741	240	NO
1700	73	73	160	549	342	891	240	NO
1800	61	61	160	316	228	544	240	NO
1900	83	83	160	193	138	331	240	NO
2000	68	68	160	139	80	219	240	NO
2100	36	36	160	131	60	191	240	NO
2200	79	79	160	73	31	104	240	NO
2300	18	18	160	27	13	40	240	NO
TOTAL	1742			4649	3696			
# HOURS WARRANT MET	1							
WARRANT MET?	NO							