Pierre Bypass

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Post-Construction Accident Prediction Summary
Pierre Bypass- 20 MNT
Alternative P-3

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Pierre/Fort Pierre Bypass																			
		SD	STANLEY	US-83		New Crossing	FLASHING LIGHTS	2555	11	6.88	49	1	1	2	0.095	5	0	0.055	0.029
		SD	STANLEY	HWY 1806		New Crossing	PASSIVE	205	11	6.88	49	1	1	2	0.060	5	0	0.039	0.028
		SD	STANLEY	USCOE Acess Road		New Crossing	PASSIVE	100	11	6.88	49	1	2	2	0.025	5	0	0.018	0.013

Post-Construction Accident Prediction Summary
Pierre Bypass- 50 MNT
Alternative P-3

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Pierre/Fort Pierre Bypass																			
		SD	STANLEY	US-83		New Crossing	FLASHING LIGHTS	2555	21	13.13	49	1	1	2	0.133	5	0	0.069	0.037
		SD	STANLEY	HWY 1806		New Crossing	PASSIVE	205	21	13.13	49	1	1	2	0.086	5	0	0.051	0.037
		SD	STANLEY	USCOE Acess Road		New Crossing	PASSIVE	100	21	13.13	49	1	2	2	0.036	5	0	0.025	0.018

Post-Construction Accident Prediction Summary
Pierre Bypass- 100 MNT
Alternative P-3

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Pierre/Fort Pierre Bypass																			
		SD	STANLEY	US-83		New Crossing	FLASHING LIGHTS	2555	37	23.13	49	1	1	2	0.178	5	0	0.083	0.044
		SD	STANLEY	HWY 1806		New Crossing	PASSIVE	205	37	23.13	49	1	1	2	0.117	5	0	0.064	0.046
		SD	STANLEY	USCOE Acess Road		New Crossing	PASSIVE	100	37	23.13	49	1	2	2	0.049	5	0	0.033	0.024

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Brookings (Rail-Co) Bypass

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Pre-Construction Accident Prediction Summary
Brookings Bypass-20 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Brookings Existing Alignment																		
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A												
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A												
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A												
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A												
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A												
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A												
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A												
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	62	8	5	20	1	2	2	0.014	5	0	0.011	0.008
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	35	8	5	20	2	2	2	0.012	5	0	0.009	0.006
197440L	29650	SD	BROOKINGS		VOLGA	GATES	460	8	5	35	1	2	2	0.025	5	0	0.018	0.009
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	1787	8	5	35	1	1	2	0.069	5	0	0.043	0.023
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	2180	8	5	35	1	1	2	0.075	5	0	0.046	0.024
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	950	8	5	35	1	1	2	0.053	5	0	0.035	0.019
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	20	8	5	35	1	2	2	0.011	5	0	0.008	0.006
197493K	029870	SD	BROOKINGS	US-14	VOLGA	FLASHING LIGHTS	3650	8	5	35	1	1	2	0.093	5	0	0.054	0.029

Post-Construction Accident Prediction Summary
Brookings Bypass-20 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Brookings Existing Alignment																			
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A	PASSIVE	20	11	7	49	1	2	2	0.014	5	0	0.011	0.008
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A	PASSIVE	47	11	7	49	1	2	2	0.019	5	0	0.014	0.010
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A	PASSIVE	2800	11	7	49	1	1	2	0.159	5	0	0.078	0.056
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A	PASSIVE	55	11	7	49	1	2	2	0.020	5	0	0.015	0.011
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A	PASSIVE	76	11	7	49	1	2	2	0.023	5	0	0.017	0.012
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A	PASSIVE	540	11	7	49	1	2	2	0.047	5	0	0.032	0.023
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A	PASSIVE	5	11	7	49	1	2	2	0.008	5	0	0.007	0.005
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A	PASSIVE	2345	11	7	49	1	1	2	0.148	5	0	0.075	0.053
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A	PASSIVE	181	11	7	49	1	2	2	0.032	5	0	0.023	0.016
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A	PASSIVE	750	11	7	49	1	1	2	0.097	5	0	0.056	0.040
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	62	11	7	49	2	2	2	0.021	5	0	0.016	0.011
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	35	11	7	49	3	2	2	0.017	5	0	0.013	0.009
197440L	29650	SD	BROOKINGS		VOLGA	GATES	GATES	460	11	7	49	2	2	2	0.033	5	0	0.024	0.012
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	1787	11	7	49	1	1	2	0.082	5	0	0.049	0.026
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	2180	11	7	49	1	1	2	0.089	5	0	0.052	0.028
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	950	11	7	49	1	1	2	0.063	5	0	0.040	0.021
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	PASSIVE	20	11	7	49	1	2	2	0.014	5	0	0.011	0.008
197493K	029870	SD	BROOKINGS	HWY 14	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	3650	11	7	49	1	1	2	0.110	5	0	0.061	0.032

Pre/Post-Construction Accident Prediction Comparison
Brookings Bypass-20 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	NO. OBSERVED ACCIDENTS 1993-1997 N	Estimated Annual Accident Frequency		Category	Increase in Frequency	1/Freq	Trip Threshold	State Top 50
									Pre-Construction	Post-Construction					
Brookings Existing Alignment															
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A	PASSIVE	0	0.000	0.008	B	0.008	131	NO	NO
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A	PASSIVE	0	0.000	0.010	B	0.010	98	NO	NO
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A	PASSIVE	0	0.000	0.056	A	0.056	18	YES	YES
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A	PASSIVE	0	0.000	0.011	B	0.011	93	NO	NO
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A	PASSIVE	0	0.000	0.012	B	0.012	83	NO	NO
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A	PASSIVE	0	0.000	0.023	B	0.023	44	NO	NO
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A	PASSIVE	0	0.000	0.005	B	0.005	215	NO	NO
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A	PASSIVE	0	0.000	0.053	A	0.053	19	YES	YES
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A	PASSIVE	0	0.000	0.016	B	0.016	62	NO	NO
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A	PASSIVE	0	0.000	0.040	B	0.040	25	NO	NO
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	0	0.008	0.011	B	0.003	287	NO	NO
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	0	0.006	0.009	B	0.003	346	NO	NO
197440L	029620	SD	BROOKINGS		VOLGA	GATES	GATES	0	0.009	0.012	B	0.003	366	NO	NO
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.023	0.026	B	0.003	321	NO	NO
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.024	0.028	B	0.003	307	NO	NO
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.019	0.021	B	0.003	373	NO	NO
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	PASSIVE	0	0.006	0.008	B	0.002	560	NO	NO
197493K	029870	SD	BROOKINGS		VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.029	0.032	B	0.004	279	NO	NO
							Total	**0**	**0.124**	**0.381**		**0.257**	**4**	**Number of crossings**	
							Minimum		**0.000**	**0.005**		**0.002**	**560**	**in the County =**	**18**
							Maximum		**0.029**	**0.056**		**0.056**	**18**		

K-107

Pre-Construction Accident Prediction Summary
Brookings Bypass-50 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Brookings Existing Alignment																		
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A												
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A												
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A												
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A												
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A												
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A												
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A												
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	62	8	5	20	1	2	2	0.014	5	0	0.011	0.008
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	35	8	5	20	2	2	2	0.012	5	0	0.009	0.006
197440L	29650	SD	BROOKINGS		VOLGA	GATES	460	8	5	35	1	2	2	0.025	5	0	0.018	0.009
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	1787	8	5	35	1	1	2	0.069	5	0	0.043	0.023
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	2180	8	5	35	1	1	2	0.075	5	0	0.046	0.024
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	950	8	5	35	1	1	2	0.053	5	0	0.035	0.019
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	20	8	5	35	1	2	2	0.011	5	0	0.008	0.006
197493K	029870	SD	BROOKINGS	US-14	VOLGA	FLASHING LIGHTS	3650	8	5	35	1	1	2	0.093	5	0	0.054	0.029

Post-Construction Accident Prediction Summary
Brookings Bypass-50 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Brookings Existing Alignment																			
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A	PASSIVE	20	21	13	49	1	2	2	0.020	5	0	0.015	0.011
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A	PASSIVE	47	21	13	49	1	2	2	0.027	5	0	0.020	0.014
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A	PASSIVE	2800	21	13	49	1	1	2	0.225	5	0	0.095	0.068
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A	PASSIVE	55	21	13	49	1	2	2	0.029	5	0	0.021	0.015
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A	PASSIVE	76	21	13	49	1	2	2	0.033	5	0	0.023	0.017
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A	PASSIVE	540	21	13	49	1	2	2	0.068	5	0	0.043	0.030
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A	PASSIVE	5	21	13	49	1	2	2	0.012	5	0	0.009	0.007
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A	PASSIVE	2345	21	13	49	1	1	2	0.211	5	0	0.092	0.066
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A	PASSIVE	181	21	13	49	1	2	2	0.045	5	0	0.031	0.022
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A	PASSIVE	750	21	13	49	1	1	2	0.138	5	0	0.071	0.051
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	62	21	13	49	2	2	2	0.030	5	0	0.022	0.015
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	35	21	13	49	3	2	2	0.025	5	0	0.018	0.013
197440L	29650	SD	BROOKINGS		VOLGA	GATES	GATES	460	21	13	49	2	2	2	0.045	5	0	0.031	0.015
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	1787	21	13	49	1	1	2	0.115	5	0	0.063	0.033
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	2180	21	13	49	1	1	2	0.124	5	0	0.066	0.035
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	950	21	13	49	1	1	2	0.088	5	0	0.052	0.028
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	PASSIVE	20	21	13	49	1	2	2	0.020	5	0	0.015	0.011
197493K	029870	SD	BROOKINGS	HWY 14	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	3650	21	13	49	1	1	2	0.154	5	0	0.076	0.040

Pre/Post-Construction Accident Prediction Comparison
Brookings Bypass-50 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	NO. OBSERVED ACCIDENTS 1993-1997 N	Estimated Annual Accident Frequency		Category	Increase in Frequency	1/Freq	Trip Threshold	State Top 50
									Pre-Construction	Post-Construction					
Brookings Existing Alignment MP 289.3 to 292.4															
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A	PASSIVE	0	0.000	0.011	B	0.011	95	NO	NO
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A	PASSIVE	0	0.000	0.014	B	0.014	71	NO	NO
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A	PASSIVE	0	0.000	0.068	A	0.068	15	YES	YES
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A	PASSIVE	0	0.000	0.015	B	0.015	67	NO	NO
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A	PASSIVE	0	0.000	0.017	B	0.017	60	NO	NO
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A	PASSIVE	0	0.000	0.030	B	0.030	33	NO	NO
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A	PASSIVE	0	0.000	0.007	B	0.007	153	NO	NO
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A	PASSIVE	0	0.000	0.066	A	0.066	15	YES	YES
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A	PASSIVE	0	0.000	0.022	B	0.022	46	NO	NO
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A	PASSIVE	0	0.000	0.051	B	0.051	20	YES	NO
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	0	0.008	0.015	B	0.008	130	NO	NO
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	0	0.006	0.013	B	0.006	155	NO	NO
197440L	029620	SD	BROOKINGS		VOLGA	GATES	GATES	0	0.009	0.015	B	0.006	161	NO	NO
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.023	0.033	B	0.010	97	NO	NO
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.024	0.035	B	0.011	94	NO	NO
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.019	0.028	B	0.009	111	NO	NO
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	PASSIVE	0	0.006	0.011	B	0.005	210	NO	NO
197493K	029870	SD	BROOKINGS		VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.029	0.040	B	0.012	86	NO	NO
							Total	0	0.124	0.490		0.366	3	Number of crossings	
							Minimum		0.000	0.007		0.005	210	In the County =	18
							Maximum		0.029	0.068		0.068	15		

K-110

Pre-Construction Accident Prediction Summary
Brookings Bypass-100 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Brookings Existing Alignment																		
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A												
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A												
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A												
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A												
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A												
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A												
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A												
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A												
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	62	8	5	20	1	2	2	0.014	5	0	0.011	0.008
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	35	8	5	20	2	2	2	0.012	5	0	0.009	0.006
197440L	29650	SD	BROOKINGS		VOLGA	GATES	460	8	5	35	1	2	2	0.025	5	0	0.018	0.009
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	1787	8	5	35	1	1	2	0.069	5	0	0.043	0.023
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	2180	8	5	35	1	1	2	0.075	5	0	0.046	0.024
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	950	8	5	35	1	1	2	0.053	5	0	0.035	0.019
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	20	8	5	35	1	2	2	0.011	5	0	0.008	0.006
197493K	029870	SD	BROOKINGS	US-14	VOLGA	FLASHING LIGHTS	3650	8	5	35	1	1	2	0.093	5	0	0.054	0.029

Post-Construction Accident Prediction Summary
Brookings Bypass-100 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Brookings Existing Alignment																			
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A	PASSIVE	20	37	23	49	1	2	2	0.027	5	0	0.020	0.014
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A	PASSIVE	47	37	23	49	1	2	2	0.037	5	0	0.026	0.019
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A	PASSIVE	2800	37	23	49	1	1	2	0.307	5	0	0.110	0.079
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A	PASSIVE	55	37	23	49	1	2	2	0.040	5	0	0.027	0.020
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A	PASSIVE	76	37	23	49	1	2	2	0.045	5	0	0.030	0.022
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A	PASSIVE	540	37	23	49	1	2	2	0.092	5	0	0.054	0.039
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A	PASSIVE	5	37	23	49	1	2	2	0.016	5	0	0.012	0.009
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A	PASSIVE	2345	37	23	49	1	1	2	0.288	5	0	0.107	0.077
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A	PASSIVE	181	37	23	49	1	2	2	0.061	5	0	0.039	0.028
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A	PASSIVE	750	37	23	49	1	1	2	0.189	5	0	0.086	0.062
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	62	37	23	49	2	2	2	0.041	5	0	0.028	0.020
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	35	37	23	49	3	2	2	0.033	5	0	0.024	0.017
197440L	29650	SD	BROOKINGS		VOLGA	GATES	GATES	460	37	23	49	2	2	2	0.059	5	0	0.038	0.019
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	1787	37	23	49	1	1	2	0.154	5	0	0.076	0.040
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	2180	37	23	49	1	1	2	0.167	5	0	0.080	0.042
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	950	37	23	49	1	1	2	0.119	5	0	0.064	0.034
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	PASSIVE	20	37	23	49	1	2	2	0.027	5	0	0.020	0.014
197493K	029870	SD	BROOKINGS	HWY 14	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	3650	37	23	49	1	1	2	0.207	5	0	0.090	0.048

Pre/Post-Construction Accident Prediction Comparison
Brookings Bypass-100 MNT

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	NO. OBSERVED ACCIDENTS 1993-1997 N	Estimated Annual Accident Frequency		Category	Increase in Frequency	1/Freq	Trip Threshold	State Top 50
									Pre-Construction	Post-Construction					
Brookings Existing Alignment															
New Crossing		SD	BROOKINGS	475th Ave	Aurora	N/A	PASSIVE	0	0.000	0.014	B	0.014	71	NO	NO
New Crossing		SD	BROOKINGS	213th St	Brookings	N/A	PASSIVE	0	0.000	0.019	B	0.019	54	NO	NO
New Crossing		SD	BROOKINGS	US-14	Brookings	N/A	PASSIVE	0	0.000	0.079	A	0.079	13	YES	YES
New Crossing		SD	BROOKINGS	474th Ave	Brookings	N/A	PASSIVE	0	0.000	0.020	B	0.020	51	NO	NO
New Crossing		SD	BROOKINGS	211th St (CR 34)	Brookings	N/A	PASSIVE	0	0.000	0.022	B	0.022	46	NO	NO
New Crossing		SD	BROOKINGS	473rd Ave (Landfill Rd)	Brookings	N/A	PASSIVE	0	0.000	0.039	B	0.039	26	NO	NO
New Crossing		SD	BROOKINGS	472nd Ave	Brookings	N/A	PASSIVE	0	0.000	0.009	B	0.009	114	NO	NO
New Crossing		SD	BROOKINGS	471st Ave (CR 77)	Brookings	N/A	PASSIVE	0	0.000	0.077	A	0.077	13	YES	YES
New Crossing		SD	BROOKINGS	470th Ave	Brookings	N/A	PASSIVE	0	0.000	0.028	B	0.028	35	NO	NO
New Crossing		SD	BROOKINGS	CR 9	Brookings	N/A	PASSIVE	0	0.000	0.062	A	0.062	16	YES	YES
197485T	029350	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	0	0.008	0.020	B	0.013	80	NO	NO
197487G	029460	SD	BROOKINGS		BROOKINGS	PASSIVE	PASSIVE	0	0.006	0.017	B	0.011	95	NO	NO
197440L	029620	SD	BROOKINGS		VOLGA	GATES	GATES	0	0.009	0.019	B	0.010	101	NO	NO
197441T	029720	SD	BROOKINGS	HANSINA ST.	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.023	0.040	B	0.017	58	NO	NO
197442A	029730	SD	BROOKINGS	KASON ST	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.024	0.042	B	0.018	56	NO	NO
197443G	029740	SD	BROOKINGS	SAMARA AVE	VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.019	0.034	B	0.015	65	NO	NO
197445V	029840	SD	BROOKINGS		VOLGA	PASSIVE	PASSIVE	0	0.006	0.014	B	0.008	122	NO	NO
197493K	029870	SD	BROOKINGS		VOLGA	FLASHING LIGHTS	FLASHING LIGHTS	0	0.029	0.048	B	0.019	52	NO	NO
							Total	0	0.124	0.601		0.478	2	Number of crossings	
							Minimum		0.000	0.009		0.008	122	In the County =	18
							Maximum		0.029	0.079		0.079	13		

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Mankato Alternative M-2

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Post-Construction Accident Prediction Summary
Mankato Bypass- Alternative M-2
20 MNT

STATE	COUNTY	STREET	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Mankato Alternate M-2														
MN	BLUE EARTH	TH 332	PASSIVE	55	11	7	49	1	2	2	0.020	0	0.015	0.011
MN	BLUE EARTH	CSAH 27	FLASHING LIGHTS	970	11	7	49	1	1	2	0.064	0	0.041	0.021
MN	BLUE EARTH	TH 450	PASSIVE	55	11	7	49	1	2	2	0.020	0	0.015	0.011
MN	BLUE EARTH	TH 83	GATES	3200	11	7	49	1	1	2	0.051	0	0.034	0.017
MN	BLUE EARTH	TH 343	PASSIVE	55	11	7	49	1	2	2	0.020	0	0.015	0.011
MN	BLUE EARTH	CSAH 41	FLASHING LIGHTS	590	11	7	49	1	1	2	0.052	0	0.034	0.018
MN	BLUE EARTH	TH 194	PASSIVE	630	11	7	49	1	1	2	0.091	0	0.054	0.038
MN	BLUE EARTH	TH 22	GATES	5900	11	7	49	1	1	2	0.061	0	0.039	0.019
MN	BLUE EARTH	TH 447 (Pohl Rd)	PASSIVE	630	11	7	49	1	2	2	0.050	0	0.033	0.024
MN	BLUE EARTH	TH 167	FLASHING LIGHTS	630	11	7	49	1	2	2	0.053	0	0.035	0.019
MN	BLUE EARTH	CSAH 8	FLASHING LIGHTS	590	11	7	49	1	1	2	0.052	0	0.034	0.018
MN	BLUE EARTH	TH 190	PASSIVE	55	11	7	49	1	2	2	0.020	0	0.015	0.011
MN	BLUE EARTH	TH 174	GATES	1400	11	7	49	1	2	2	0.040	0	0.027	0.014
MN	BLUE EARTH	CR 69	PASSIVE	385	11	7	49	1	1	2	0.076	0	0.047	0.033

Post-Construction Accident Prediction Summary
Mankato Bypass-Alternative M-2
50 MNT

STATE	COUNTY	STREET	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Mankato Alternative M-2															
MN	BLUE EARTH	TH 332	PASSIVE	55	21	13	49	1	2	2	0.029	5	0	0.021	0.015
MN	BLUE EARTH	CSAH 27	FLASHING LIGHTS	970	21	13	49	1	1	2	0.089	5	0	0.053	0.028
MN	BLUE EARTH	TH 450	PASSIVE	55	21	13	49	1	2	2	0.029	5	0	0.021	0.015
MN	BLUE EARTH	TH 83	GATES	3200	21	13	49	1	1	2	0.069	5	0	0.043	0.021
MN	BLUE EARTH	TH 343	PASSIVE	55	21	13	49	1	2	2	0.029	5	0	0.021	0.015
MN	BLUE EARTH	CSAH 41	FLASHING LIGHTS	590	21	13	49	1	1	2	0.073	5	0	0.045	0.024
MN	BLUE EARTH	TH 194	PASSIVE	630	21	13	49	1	1	2	0.130	5	0	0.068	0.049
MN	BLUE EARTH	TH 22	GATES	5900	21	13	49	1	1	2	0.082	5	0	0.050	0.024
MN	BLUE EARTH	TH 447 (Pohl Rd)	PASSIVE	630	21	13	49	1	2	2	0.071	5	0	0.044	0.032
MN	BLUE EARTH	TH 167	FLASHING LIGHTS	630	21	13	49	1	2	2	0.075	5	0	0.000	0.000
MN	BLUE EARTH	CSAH 8	FLASHING LIGHTS	590	21	13	49	1	1	2	0.073	5	0	0.045	0.024
MN	BLUE EARTH	TH 190	PASSIVE	55	21	13	49	1	2	2	0.029	5	0	0.021	0.015
MN	BLUE EARTH	TH 174	GATES	1400	21	13	49	1	2	2	0.054	5	0	0.035	0.017
MN	BLUE EARTH	CR 69	PASSIVE	385	21	13	49	1	1	2	0.108	5	0	0.060	0.043

Post-Construction Accident Prediction Summary
Mankato Bypass-Alternative M-2
100 MNT

STATE	COUNTY	STREET	PROPOSED DEVICE	ADT c	TRNS PER DAY t	NO. THRU TRNS/DAY DAYLIGHT d	MAX. TT SPEED (MPH)	NO. MAIN TRKS	HWY PAVED YES=1 NO=2	NO. HWY LANES	HWY LANES FACTOR HL	BASIC FORMULA INITIAL (ACCIDENTS/YR) a	NO. YRS T	NO. OBSERVED ACCIDENTS 1993-1997 N	PREDICTED ACCIDENTS PER YR B	Estimated Annual Accident Frequency A
Mankato Alternative M-2																
MN	BLUE EARTH	TH 332	PASSIVE	55	37	23	49	1	2	2	1.000	0.040	5	0	0.027	0.020
MN	BLUE EARTH	CSAH 27	FLASHING LIGHTS	970	37	23	49	1	1	2	1.200	0.120	5	0	0.065	0.034
MN	BLUE EARTH	TH 450	PASSIVE	55	37	23	49	1	2	2	1.000	0.040	5	0	0.027	0.020
MN	BLUE EARTH	TH 83	GATES	3200	37	23	49	1	1	2	1.153	0.090	5	0	0.053	0.026
MN	BLUE EARTH	TH 343	PASSIVE	55	37	23	49	1	2	2	1.000	0.040	5	0	0.027	0.020
MN	BLUE EARTH	CSAH 41	FLASHING LIGHTS	590	37	23	49	1	1	2	1.200	0.098	5	0	0.056	0.030
MN	BLUE EARTH	TH 194	PASSIVE	630	37	23	49	1	1	2	1.000	0.177	5	0	0.083	0.059
MN	BLUE EARTH	TH 22	GATES	5900	37	23	49	1	1	2	1.153	0.107	5	0	0.060	0.030
MN	BLUE EARTH	TH 447 (Pohl Rd)	PASSIVE	630	37	23	49	1	2	2	1.000	0.097	5	0	0.056	0.040
MN	BLUE EARTH	TH 167	FLASHING LIGHTS	630	37	23	49	1	2	2	1.200	0.100	5	0	0.057	0.030
MN	BLUE EARTH	CSAH 8	FLASHING LIGHTS	590	37	23	49	1	1	2	1.200	0.098	5	0	0.056	0.030
MN	BLUE EARTH	TH 190	PASSIVE	55	37	23	49	1	2	2	1.000	0.040	5	0	0.027	0.020
MN	BLUE EARTH	TH 174	GATES	1400	37	23	49	1	2	2	1.153	0.070	5	0	0.044	0.022
MN	BLUE EARTH	CR 69	PASSIVE	385	37	23	49	1	1	2	1.000	0.147	5	0	0.074	0.053

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