Pierre Existing Rail Line

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Pre-Construction Accident Prediction Summary
South Dakota 20 MNT
Alternative P-2

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
Pierre/Fort Pierre Existing Alignment MP 447.90 to 485.90																		
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	80	4	2.5	30	1	1	2	0.021	5	0	0.016	0.011
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	30	4	2.5	30	1	1	2	0.015	5	0	0.011	0.008
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	213	4	2.5	30	1	1	2	0.031	5	0	0.022	0.016
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	2131	4	2.5	30	2	1	2	0.072	5	0	0.045	0.032
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	7005	4	2.5	30	2	1	2	0.111	5	1	0.151	0.108
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	1560	4	2.5	30	2	1	2	0.064	5	0	0.041	0.029
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	19755	4	2.5	30	2	1	4	0.227	5	0	0.095	0.050
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	1935	4	2.5	30	1	1	2	0.069	5	0	0.043	0.031
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	7015	4	2.5	30	1	1	2	0.085	5	0	0.051	0.027
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	6365	4	2.5	30	1	1	2	0.082	5	0	0.049	0.026
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	4360	4	2.5	30	1	1	2	0.070	5	0	0.044	0.023
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	3500	4	2.5	30	1	1	2	0.064	5	0	0.041	0.022
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	50	4	2.5	30	1	2	2	0.010	5	0	0.008	0.005
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN R	FORT PIERRE	PASSIVE	750	4	2.5	30	2	2	2	0.027	5	1	0.075	0.054
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	211	4	2.5	30	2	2	2	0.017	5	0	0.013	0.009
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	756	4	2.5	30	1	1	2	0.049	5	0	0.033	0.023
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	3136	4	2.5	30	1	1	2	0.083	5	0	0.050	0.036
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	695	4	2.5	30	1	2	2	0.026	5	0	0.019	0.014
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	385	4	2.5	30	1	2	2	0.021	5	0	0.015	0.011

Post-Construction Accident Prediction Summary
South Dakota 20 MNT
Alternative P-2

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 Existing Alignment MP 447.90 to 485.90																			
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	PASSIVE	80	11	6.88	49	2	1	2	0.043	5	0	0.029	0.021
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	PASSIVE	30	11	6.88	49	2	1	2	0.030	5	0	0.021	0.015
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	PASSIVE	213	11	6.88	40	2	1	2	0.057	5	0	0.037	0.027
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	PASSIVE	2131	11	6.88	40	3	1	2	0.134	5	0	0.070	0.050
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	PASSIVE	7005	11	6.88	40	3	1	2	0.208	5	1	0.203	0.146
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	PASSIVE	1560	11	6.88	40	2	1	2	0.119	5	0	0.065	0.046
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	19755	11	6.88	40	2	1	4	0.383	5	0	0.121	0.064
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	PASSIVE	1935	11	6.88	40	1	1	2	0.129	5	0	0.068	0.049
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	7015	11	6.88	40	1	1	2	0.143	5	0	0.073	0.039
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	6365	11	6.88	40	1	1	2	0.138	5	0	0.071	0.038
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	4360	11	6.875	40	1	1	2	0.118	5	0	0.064	0.034
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	3500	11	6.88	40	1	1	2	0.108	5	0	0.060	0.032
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	PASSIVE	50	11	6.88	40	1	2	2	0.018	5	0	0.014	0.010
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN R	FORT PIERRE	PASSIVE	PASSIVE	750	11	6.88	40	2	2	2	0.050	5	1	0.100	0.072
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	PASSIVE	211	11	6.88	40	2	2	2	0.031	5	0	0.022	0.016
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	PASSIVE	756	11	6.88	40	1	1	2	0.091	5	0	0.053	0.038
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	PASSIVE	3136	11	6.88	40	1	1	2	0.154	5	0	0.076	0.055
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	PASSIVE	695	11	6.88	40	1	2	2	0.049	5	0	0.033	0.023
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	PASSIVE	385	11	6.88	49	1	2	2	0.042	5	0	0.029	0.021

Pre/Post-Construction Accident Prediction Comparison
South Dakota 20 MNT
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FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	NO. HWY LANES	NO. OBSERVED ACCIDENTS 1993-1997 N	Estimated Annual Accident Frequency		Category	Change in Frequency	1/Freq	Trip Threshold	State Top 50
											Pre-Construction	Post-Construction					
Hughes County																	
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	PASSIVE	80	2	0	0.011	0.021	B	0.010	104	NO	NO
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	PASSIVE	30	2	0	0.008	0.015	B	0.007	140	NO	NO
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	PASSIVE	213	2	0	0.016	0.027	B	0.011	91	NO	NO
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	PASSIVE	2131	2	0	0.032	0.050	B	0.018	56	NO	NO
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	PASSIVE	7005	2	1	0.108	0.146	A	0.037	27	YES	YES
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	PASSIVE	1560	2	0	0.029	0.046	B	0.017	59	NO	NO
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	19755	4	0	0.050	0.064	A	0.014	73	YES	YES
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	PASSIVE	1935	2	0	0.031	0.049	B	0.018	57	NO	NO
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	7015	2	0	0.027	0.039	B	0.012	85	NO	NO
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	6365	2	0	0.026	0.038	B	0.012	86	NO	NO
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	4360	2	0	0.023	0.034	B	0.011	92	NO	NO
							Total			1	0.361	0.527		0.166	6	Number of crossings	
							Minimum				0.008	0.015		0.007	140		11
							Maximum				0.108	0.146		0.037	27		
Stanley County																	
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	3500	2	0	0.022	0.032	B	0.010	96	NO	NO
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	PASSIVE	50	2	0	0.005	0.010	B	0.004	229	NO	NO
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN RD	FORT PIERRE	PASSIVE	PASSIVE	750	2	1	0.054	0.072	A	0.018	56	YES	YES
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	PASSIVE	211	2	0	0.009	0.016	B	0.007	145	NO	NO
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	PASSIVE	756	2	0	0.023	0.038	B	0.015	67	NO	NO
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	PASSIVE	3136	2	0	0.036	0.055	A	0.019	53	YES	YES
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	PASSIVE	695	2	0	0.014	0.023	B	0.010	102	NO	NO
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	PASSIVE	385	2	0	0.011	0.021	B	0.009	106	NO	NO
							Total			1	0.173	0.266		0.093	11	Number of crossings	
							Minimum				0.005	0.010		0.004	229		8
							Maximum				0.054	0.072		0.019	53		

Pre-Construction Accident Prediction Summary
South Dakota 50 MNT
Alternative P-2

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
Pierre/Fort Pierre Existing Alignment MP 447.90 to 485.90																		
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	80	4	2.5	30	1	1	2	0.021	5	0	0.016	0.011
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	30	4	2.5	30	1	1	2	0.015	5	0	0.011	0.008
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	213	4	2.5	30	1	1	2	0.031	5	0	0.022	0.016
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	2131	4	2.5	30	2	1	2	0.072	5	0	0.045	0.032
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	7005	4	2.5	30	2	1	2	0.111	5	1	0.151	0.108
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	1560	4	2.5	30	2	1	2	0.064	5	0	0.041	0.029
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	19755	4	2.5	30	2	1	4	0.227	5	0	0.095	0.050
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	1935	4	2.5	30	1	1	2	0.069	5	0	0.043	0.031
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	7015	4	2.5	30	1	1	2	0.085	5	0	0.051	0.027
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	6365	4	2.5	30	1	1	2	0.082	5	0	0.049	0.026
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	4360	4	2.5	30	1	1	2	0.070	5	0	0.044	0.023
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	3500	4	2.5	30	1	1	2	0.064	5	0	0.041	0.022
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	50	4	2.5	30	1	2	2	0.010	5	0	0.008	0.005
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN R0	FORT PIERRE	PASSIVE	750	4	2.5	30	2	2	2	0.027	5	1	0.075	0.054
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	211	4	2.5	30	2	2	2	0.017	5	0	0.013	0.009
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	756	4	2.5	30	1	1	2	0.049	5	0	0.033	0.023
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	3136	4	2.5	30	1	1	2	0.083	5	0	0.050	0.036
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	695	4	2.5	30	1	2	2	0.026	5	0	0.019	0.014
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	385	4	2.5	30	1	2	2	0.021	5	0	0.015	0.011

Post-Construction Accident Prediction Summary
South Dakota 50 MNT
Alternative P-2

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 Existing Alignment MP 447.90 to 485.90																			
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	PASSIVE	80	21	13.13	49	2	1	2	0.060	5	0	0.039	0.028
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	PASSIVE	30	21	13.13	49	2	1	2	0.042	5	0	0.029	0.021
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	PASSIVE	213	21	13.13	40	2	1	2	0.081	5	0	0.049	0.035
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	PASSIVE	2131	21	13.13	40	3	1	2	0.190	5	0	0.086	0.062
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	PASSIVE	7005	21	13.13	40	3	1	2	0.295	5	1	0.235	0.168
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	PASSIVE	1560	21	13.13	40	2	1	2	0.169	5	0	0.081	0.058
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	19755	21	13.13	40	2	1	4	0.536	5	0	0.136	0.072
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	PASSIVE	1935	21	13.13	40	1	1	2	0.183	5	0	0.085	0.061
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	7015	21	13.13	40	1	1	2	0.201	5	0	0.089	0.047
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	6365	21	13.13	40	1	1	2	0.193	5	0	0.087	0.046
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	4360	21	13.125	40	1	1	2	0.165	5	0	0.080	0.042
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	3500	21	13.13	40	1	1	2	0.151	5	0	0.075	0.040
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	PASSIVE	50	21	13.13	40	1	2	2	0.026	5	0	0.019	0.014
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN R	FORT PIERRE	PASSIVE	PASSIVE	750	21	13.13	40	2	2	2	0.071	5	1	0.120	0.086
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	PASSIVE	211	21	13.13	40	2	2	2	0.044	5	0	0.030	0.022
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	PASSIVE	756	21	13.13	40	1	1	2	0.130	5	0	0.068	0.049
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	PASSIVE	3136	21	13.13	40	1	1	2	0.219	5	0	0.093	0.067
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	PASSIVE	695	21	13.13	40	1	2	2	0.069	5	0	0.043	0.031
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	PASSIVE	385	21	13.13	49	1	2	2	0.060	5	0	0.038	0.028

Pre/Post-Construction Accident Prediction Comparison
South Dakota 50 MNT
Alternative P-2

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	NO. HWY LANES	NO. OBSERVED ACCIDENTS 1993-1997 N	Estimated Annual Accident Frequency Pre-Construction	Estimated Annual Accident Frequency Post-Construction	Category	Change in Frequency	1/Freq	Trip Threshold	State Top 50
Hughes County																	
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	PASSIVE	80	2	0	0.011	0.028	B	0.017	60	NO	NO
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	PASSIVE	30	2	0	0.008	0.021	B	0.013	79	NO	NO
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	PASSIVE	213	2	0	0.016	0.035	B	0.019	51	NO	NO
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	PASSIVE	2131	2	0	0.032	0.062	A	0.030	33	YES	YES
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	PASSIVE	7005	2	1	0.108	0.168	A	0.060	17	YES	YES
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	PASSIVE	1560	2	0	0.029	0.058	A	0.029	35	YES	YES
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	19755	4	0	0.050	0.072	A	0.022	46	YES	YES
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	PASSIVE	1935	2	0	0.031	0.061	A	0.030	34	YES	YES
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	7015	2	0	0.027	0.047	B	0.020	49	NO	NO
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	6365	2	0	0.026	0.046	B	0.020	50	NO	NO
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	4360	2	0	0.023	0.042	B	0.019	53	NO	NO
							Total			1	0.361	0.640		0.278	4	Number of crossings	
							Minimum				0.008	0.021		0.013	79		11
							Maximum				0.108	0.168		0.060	17		
Stanley County																	
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	3500	2	0	0.022	0.040	B	0.018	55	NO	NO
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	PASSIVE	50	2	0	0.005	0.014	B	0.008	123	NO	NO
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN RD	FORT PIERRE	PASSIVE	PASSIVE	750	2	1	0.054	0.086	A	0.032	31	YES	YES
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	PASSIVE	211	2	0	0.009	0.022	B	0.013	79	NO	NO
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	PASSIVE	756	2	0	0.023	0.049	B	0.025	39	NO	NO
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	PASSIVE	3136	2	0	0.036	0.067	A	0.031	32	YES	YES
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	PASSIVE	695	2	0	0.014	0.031	B	0.017	57	NO	NO
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	PASSIVE	385	2	0	0.011	0.028	B	0.016	61	NO	NO
							Total			1	0.173	0.335		0.162	6	Number of crossings	
							Minimum				0.005	0.014		0.008	123		8
							Maximum				0.054	0.086		0.032	31		

Pre-Construction Accident Prediction Summary
South Dakota 100 MNT
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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
Pierre/Fort Pierre Existing Alignment MP 447.90 to 485.90																		
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	80	4	2.5	30	1	1	2	0.021	5	0	0.016	0.011
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	30	4	2.5	30	1	1	2	0.015	5	0	0.011	0.008
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	213	4	2.5	30	1	1	2	0.031	5	0	0.022	0.016
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	2131	4	2.5	30	2	1	2	0.072	5	0	0.045	0.032
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	7005	4	2.5	30	2	1	2	0.111	5	1	0.151	0.108
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	1560	4	2.5	30	2	1	2	0.064	5	0	0.041	0.029
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	19755	4	2.5	30	2	1	4	0.227	5	0	0.095	0.050
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	1935	4	2.5	30	1	1	2	0.069	5	0	0.043	0.031
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	7015	4	2.5	30	1	1	2	0.085	5	0	0.051	0.027
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	6365	4	2.5	30	1	1	2	0.082	5	0	0.049	0.026
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	4360	4	2.5	30	1	1	2	0.070	5	0	0.044	0.023
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	3500	4	2.5	30	1	1	2	0.064	5	0	0.041	0.022
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	50	4	2.5	30	1	2	2	0.010	5	0	0.008	0.005
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN RI	FORT PIERRE	PASSIVE	750	4	2.5	30	2	2	2	0.027	5	1	0.075	0.054
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	211	4	2.5	30	2	2	2	0.017	5	0	0.013	0.009
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	756	4	2.5	30	1	1	2	0.049	5	0	0.033	0.023
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	3136	4	2.5	30	1	1	2	0.083	5	0	0.050	0.036
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	695	4	2.5	30	1	2	2	0.026	5	0	0.019	0.014
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	385	4	2.5	30	1	2	2	0.021	5	0	0.015	0.011

Post-Construction Accident Prediction Summary
South Dakota 100 MNT
Alternative P-2

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 Existing Alignment MP 447.90 to 485.90																			
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	PASSIVE	80	37	23.13	49	2	1	2	0.082	5	0	0.050	0.035
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	PASSIVE	30	37	23.13	49	2	1	2	0.057	5	0	0.037	0.027
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	PASSIVE	213	37	23.13	40	2	1	2	0.110	5	0	0.061	0.044
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	PASSIVE	2131	37	23.13	40	3	1	2	0.259	5	0	0.102	0.073
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	PASSIVE	7005	37	23.13	40	3	1	2	0.402	5	1	0.262	0.188
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	PASSIVE	1560	37	23.13	40	2	1	2	0.231	5	0	0.096	0.069
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	19755	37	23.13	40	2	1	4	0.721	5	0	0.149	0.079
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	PASSIVE	1935	37	23.13	40	1	1	2	0.250	5	0	0.100	0.072
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	7015	37	23.13	40	1	1	2	0.270	5	0	0.104	0.055
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	6365	37	23.13	40	1	1	2	0.260	5	0	0.102	0.054
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	4360	37	23.125	40	1	1	2	0.222	5	0	0.094	0.050
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	3500	37	23.13	40	1	1	2	0.203	5	0	0.090	0.047
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	PASSIVE	50	37	23.13	40	1	2	2	0.036	5	0	0.025	0.018
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN R	FORT PIERRE	PASSIVE	PASSIVE	750	37	23.13	40	2	2	2	0.097	5	1	0.141	0.101
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	PASSIVE	211	37	23.13	40	2	2	2	0.061	5	0	0.039	0.028
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	PASSIVE	756	37	23.13	40	1	1	2	0.177	5	0	0.083	0.059
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	PASSIVE	3136	37	23.13	40	1	1	2	0.299	5	0	0.109	0.078
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	PASSIVE	695	37	23.13	40	1	2	2	0.094	5	0	0.055	0.039
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	PASSIVE	385	37	23.13	49	1	2	2	0.081	5	0	0.049	0.035

Pre/Post-Construction Accident Prediction Comparison
South Dakota 100 MNT
Alternative P-2

FRA ID	MILEPOST	STATE	COUNTY	STREET	CITY	EXISTING DEVICE	PROPOSED DEVICE	ADT c	NO. HWY LANES	NO. OBSERVED ACCIDENTS 1993-1997 N	Estimated Annual Accident Frequency		Category	Change in Frequency	1/Freq	Trip Threshold	State Top 50
											Pre-Construction	Post-Construction					
Hughes County																	
189839P	47790	SD	HUGHES	FARM ISLAND RD	PIERRE	PASSIVE	PASSIVE	80	2	0	0.011	0.035	B	0.024	41	NO	NO
189840J	47840	SD	HUGHES	UPS RD	PIERRE	PASSIVE	PASSIVE	30	2	0	0.008	0.027	B	0.019	53	NO	NO
189841R	47890	SD	HUGHES	RECREATIONAL/ GOLF	PIERRE	PASSIVE	PASSIVE	213	2	0	0.016	0.044	B	0.028	35	NO	NO
189842X	47950	SD	HUGHES	LOWELL RD	PIERRE	PASSIVE	PASSIVE	2131	2	0	0.032	0.073	A	0.041	24	YES	YES
189844L	48050	SD	HUGHES	HARRISON	PIERRE	PASSIVE	PASSIVE	7005	2	1	0.108	0.188	A	0.079	13	YES	YES
189845T	48070	SD	HUGHES	MONROE	PIERRE	PASSIVE	PASSIVE	1560	2	0	0.029	0.069	A	0.040	25	YES	YES
189846A	48110	SD	HUGHES	HWY 14/ 34	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	19755	4	0	0.050	0.079	A	0.028	35	YES	YES
189847G	48140	SD	HUGHES	REE ST	PIERRE	PASSIVE	PASSIVE	1935	2	0	0.031	0.072	A	0.041	25	YES	YES
189848N	48160	SD	HUGHES	HIGHLAND AVE	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	7015	2	0	0.027	0.055	A	0.028	36	YES	YES
189850P	48190	SD	HUGHES	CENTRAL ST	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	6365	2	0	0.026	0.054	A	0.028	36	YES	YES
189851W	48220	SD	HUGHES	POPLAR	PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	4360	2	0	0.023	0.050	B	0.027	37	NO	NO
							Total			1	0.361	0.744		0.383	3	Number of crossings	
							Minimum				0.008	0.027		0.019	53		11
							Maximum				0.108	0.188		0.079	13		
Stanley County																	
189856F	48350	SD	STANLEY	HWY 14/ 34	FORT PIERRE	FLASHING LIGHTS	FLASHING LIGHTS	3500	2	0	0.022	0.047	B	0.026	39	NO	NO
189857M	48370	SD	STANLEY	STANLEY RD	FORT PIERRE	PASSIVE	PASSIVE	50	2	0	0.005	0.018	B	0.012	81	NO	NO
189858U	048410	SD	STANLEY	7TH AVE/SALEBARN RD	FORT PIERRE	PASSIVE	PASSIVE	750	2	1	0.054	0.101	A	0.047	21	YES	YES
189859B	48430	SD	STANLEY	FIFTH AVE	FORT PIERRE	PASSIVE	PASSIVE	211	2	0	0.009	0.028	B	0.019	53	NO	NO
189860V	48450	SD	STANLEY	SECOND AVE	FORT PIERRE	PASSIVE	PASSIVE	756	2	0	0.023	0.059	A	0.036	28	YES	YES
189861C	048460	SD	STANLEY	MAIN AVE	FORT PIERRE	PASSIVE	PASSIVE	3136	2	0	0.036	0.078	A	0.042	24	YES	YES
189862J	48490	SD	STANLEY	PARK	FORT PIERRE	PASSIVE	PASSIVE	695	2	0	0.014	0.039	B	0.026	39	NO	NO
189864X	48590	SD	STANLEY	BAD RIVER RD	FORT PIERRE	PASSIVE	PASSIVE	385	2	0	0.011	0.035	B	0.024	42	NO	NO
							Total			1	0.173	0.405		0.232	4	Number of crossings	
							Minimum				0.005	0.018		0.012	81		8
							Maximum				0.054	0.101		0.047	21		

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