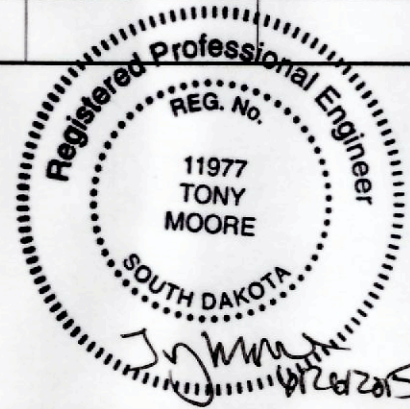


LINE NUMBER	START STRUCTURE NUMBER	END STRUCTURE NUMBER	SECTION DISTANCE (FT)	RULING SPAN (FT)	WIRE TYPE	VOLTAGE (KV)	NUMBER OF PHASES	WIRES PER PHASE	AS-BUILT NESC 250B TENSION	MAX. RATED OPERATING TEMP. (°F)	DISPLAY WEATHER CASE	DISPLAY CONDITION	DISPLAY COLOR
966	0966-OTP-BSS-SUB1	0966-001-DE	297	278	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-001-DE	0966-009-DE	8165	1019	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-009-DE	0966-022-DE	13470	1045	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-022-DE	0966-026-DE	3909	978	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-026-DE	0966-044-TRAMP	19710	1095	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-044-TRAMP	0966-052-DE	8812	1101	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-052-DE	0966-057-DE	4643	928	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-057-DE	0966-074-FDE	18356	1080	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-074-FDE	0966-092-TRAMP	19473	1082	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-092-TRAMP	0966-109-FDE	18095	1064	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-109-FDE	0966-125-DE	16951	1059	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-125-DE	0966-139-DE	14511	1037	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-139-DE	0966-148-DE	9258	1028	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-148-DE	0966-157-FDE	9116	1014	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-157-FDE	0966-159-DE	2033	1015	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-159-DE	0966-160-DE	991	988	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-160-DE	0966-161-DE	877	871	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-161-DE	0966-172-DE	11116	1012	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-172-DE	0966-178-DE	5816	970	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-178-DE	0966-183-DE	4712	942	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-183-DE	0966-186-DE	2812	940	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-186-DE	0966-191-DE	4744	946	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-191-DE	0966-194-DE	2706	902	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-194-DE	0966-199-DE	5339	1071	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-199-DE	0966-202-DE	2697	899	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-202-DE	0966-216-FDE	14377	1027	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-216-FDE	0966-230-DE	14729	1053	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-230-DE	0966-245-DE	15576	1039	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-245-DE	0966-252-DE	7417	1061	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-252-DE	0966-263-DE	11612	1056	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-263-DE	0966-281-FDE	18851	1047	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-281-FDE	0966-295-DE	14405	1029	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-295-DE	0966-298-DE	2899	969	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-298-DE	0966-318-FDE	19976	1001	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-318-FDE	0966-321-DE	2738	924	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-321-DE	0966-322-DE	898	892	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-322-DE	0966-324-DE	1775	887	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-324-DE	0966-325-DE	880	877	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-325-DE	0966-326-DE	932	928	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-326-DE	0966-331-DE	4931	988	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-331-DE	0966-336-DE	5062	1014	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-336-DE	0966-341-DE	5065	1014	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-341-DE	0966-346-DE	4724	946	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-346-DE	0966-349-FDE	2894	961	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-349-FDE	0966-367-DE	17302	962	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-367-DE	0966-370-DE	1828	622	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-370-DE	0966-371-DE	214	228	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE
966	0966-371-DE	0966-BOK-SUB1	265	272	OPT-GW AC-47/56/638 - 48 FIBERS	0	1	1		0	-20° F	INITIAL RS	ORANGE

NOTES:
1. WIRE TENSIONS SHOWN INDICATE THE TOTAL LOAD WITH THE WIRE IN INITIAL CONDITION UNDER NESC HEAVY LOAD CONDITIONS (0.5" RADIAL ICE THICKNESS, 4 LB/FT^2 HORIZONTAL WIND PRESSURE, 0°F WIRE TEMPERATURE, ADDITIVE CONSTANT = 0.3 LB/FT).
2. WIRE TENSION SHOWN IS FOR THE HIGHEST TENSION WIRE OF EACH SET.
3. FOR BUNDLED CONDUCTORS, WIRE TENSIONS SHOWN ARE FOR A SINGLE SUBCONDUCTOR.
4. SECTION LENGTH DISPLAYED AS STATION DISTANCE.
5. VERTICAL BUNDLE WIRE CONFIGURATION USED.

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LINE 0966 PLAN AND PROFILE - SECTIONS TABLE BIG STONE SOUTH TO BROOKINGS COUNTY		345kV	
	NH-263189-4	SCALE NONE	REV 0

LINE NUMBER	START STRUCTURE NUMBER	END STRUCTURE NUMBER	SECTION DISTANCE (FT)	RULING SPAN (FT)	WIRE TYPE	VOLTAGE (KV)	NUMBER OF PHASES	WIRES PER PHASE	AS-BUILT NESC 250B TENSION	MAX. RATED OPERATING TEMP. (°F)	DISPLAY WEATHER CASE	DISPLAY CONDITION	DISPLAY COLOR	
966	0966-OTP-BSS-SUB1	0966-001-DE	297	301	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-001-DE	0966-009-DE	8165	1018	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-009-DE	0966-022-DE	13470	1045	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-022-DE	0966-026-DE	3909	976	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-026-DE	0966-044-TRAMP	19710	1095	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-044-TRAMP	0966-052-DE	8812	1100	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-052-DE	0966-057-DE	4643	927	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-057-DE	0966-092-TRAMP	37830	1081	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-092-TRAMP	0966-125-DE	35046	1062	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-125-DE	0966-139-DE	14511	1037	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-139-DE	0966-148-DE	9258	1028	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-148-DE	0966-159-DE	11149	1013	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-159-DE	0966-160-DE	991	989	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-160-DE	0966-161-DE	877	872	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-161-DE	0966-172-DE	11116	1011	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-172-DE	0966-178-DE	5816	968	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-178-DE	0966-183-DE	4712	941	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-183-DE	0966-186-DE	2812	940	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-186-DE	0966-191-DE	4744	948	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-191-DE	0966-194-DE	2706	900	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-194-DE	0966-199-DE	5339	1067	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-199-DE	0966-202-DE	2697	897	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-202-DE	0966-230-DE	29106	1040	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-230-DE	0966-245-DE	15576	1040	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-245-DE	0966-252-DE	7417	1060	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-252-DE	0966-263-DE	11612	1055	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-263-DE	0966-295-DE	33256	1039	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-295-DE	0966-298-DE	2899	968	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-298-DE	0966-321-DE	22714	993	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-321-DE	0966-322-DE	898	892	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-322-DE	0966-324-DE	1775	887	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-324-DE	0966-325-DE	880	878	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-325-DE	0966-326-DE	932	929	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-326-DE	0966-331-DE	4931	986	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-331-DE	0966-336-DE	5062	1013	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-336-DE	0966-341-DE	5065	1014	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-341-DE	0966-346-DE	4724	944	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-346-DE	0966-367-DE	20197	964	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-367-DE	0966-370-DE	1828	619	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-370-DE	0966-371-DE	214	209	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
966	0966-371-DE	0966-BOK-SUB1	265	263	556.5 KCMIL 26/7 ACSR/T2	345	3	2		212	212° F	MAX SAG RS	LIGHT GREEN	
NOTES: 1. WIRE TENSIONS SHOWN INDICATE THE TOTAL LOAD WITH THE WIRE IN INITIAL CONDITION UNDER NESC HEAVY LOAD CONDITIONS (0.5" RADIAL ICE THICKNESS, 4 LB/FT*2 HORIZONTAL WIND PRESSURE, 0°F WIRE TEMPERATURE, ADDITIVE CONSTANT = 0.3 LB/FT). 2. WIRE TENSION SHOWN IS FOR THE HIGHEST TENSION WIRE OF EACH SET. 3. FOR BUNDLED CONDUCTORS, WIRE TENSIONS SHOWN ARE FOR A SINGLE SUBCONDUCTOR. 4. SECTION LENGTH DISPLAYED AS STATION DISTANCE. 5. VERTICAL BUNDLE WIRE CONFIGURATION USED.										THIS MAP/DOCUMENT IS A TOOL TO ASSIST EMPLOYEES IN THE PERFORMANCE OF THEIR JOBS. YOUR PERSONAL SAFETY IS PROVIDED FOR BY USING SAFETY PRACTICES, PROCEDURES AND EQUIPMENT AS DESCRIBED IN THE SAFETY TRAINING PROGRAMS, MANUALS AND SPARS. INTERNAL INFORMATION: DO NOT COPY OR DISTRIBUTE WITHOUT EXPRESS WRITTEN CONSENT FROM XCEL ENERGY				
SOUTH DAKOTA PERMIT COPY 6/26/2015										LINE 0966 PLAN AND PROFILE - SECTIONS TABLE BIG STONE SOUTH TO BROOKINGS COUNTY				345kV
Xcel Energy										NH-263189-5		SCALE NONE	REV 0	