



BS-SUB-A  
sta=-0.00  
SUB BAY  
59' STL  
1, INDECS-38EHS  
1, INDECS-DNO3826  
3, 230POLYSUSPSS-477RT2  
3, TTAPS-477RT2  
1, OPSPLICE-3826-3

1A  
sta=242.92  
SDE-0060-230-21  
70' H3 (STEEL)  
2, INDECS-38EHS  
2, INDECS-DNO3826  
6, TDECD-477RT2  
3, TCPCSS-477RT2H  
1, TASS810HA25E  
1, 510IWOATNT  
S POLE: SET 9FT - 0IN  
M POLE: SET 9FT - 6IN  
N POLE: SET 9FT - 9IN  
SOUTH POLE LEADS:  
(1) 50'-NW, 35'-E, 22'-SE  
(2) 35'-NW (6' SPREAD)  
MID POLE LEADS:  
(1) 24'-E  
(2) 35'-NW (6' SPREAD)  
NORTH POLE LEADS:  
(1) 50'-NW, 35'-E, 22'-SE  
(2) 35'-NW (6' SPREAD)  
(1) 33'-BISECTOR

2A  
sta=621.00  
SHT-230-18  
80' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
NE POLE: SET 10FT - 0IN  
SW POLE: SET 10FT - 0IN

3A  
sta=995.41  
SDE-0060-230-21  
65' H3 (STEEL)  
2, INDECS-38EHS  
2, INDECS-DNO3826  
6, TDECD-477RT2  
3, TCPCSS-477RT2H  
W POLE: SET 8FT - 9IN  
M POLE: SET 8FT - 9IN  
E POLE: SET 8FT - 6IN  
WEST POLE LEADS:  
(1) 55'-N  
(2) 43'-N (6' SPREAD)  
(1) 39'-SE  
(2) 30'-SE (6' SPREAD)  
MID POLE LEADS:  
(2) 46'-N (6' SPREAD)  
(2) 32'-SE (6' SPREAD)  
EAST POLE LEADS:  
(1) 55'-N  
(2) 43'-N (6' SPREAD)  
(1) 39'-SE  
(2) 30'-SE (6' SPREAD)

4A  
sta=1593.00  
SHT-230-18  
80' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
W POLE: SET 10FT - 0IN  
E POLE: SET 10FT - 0IN

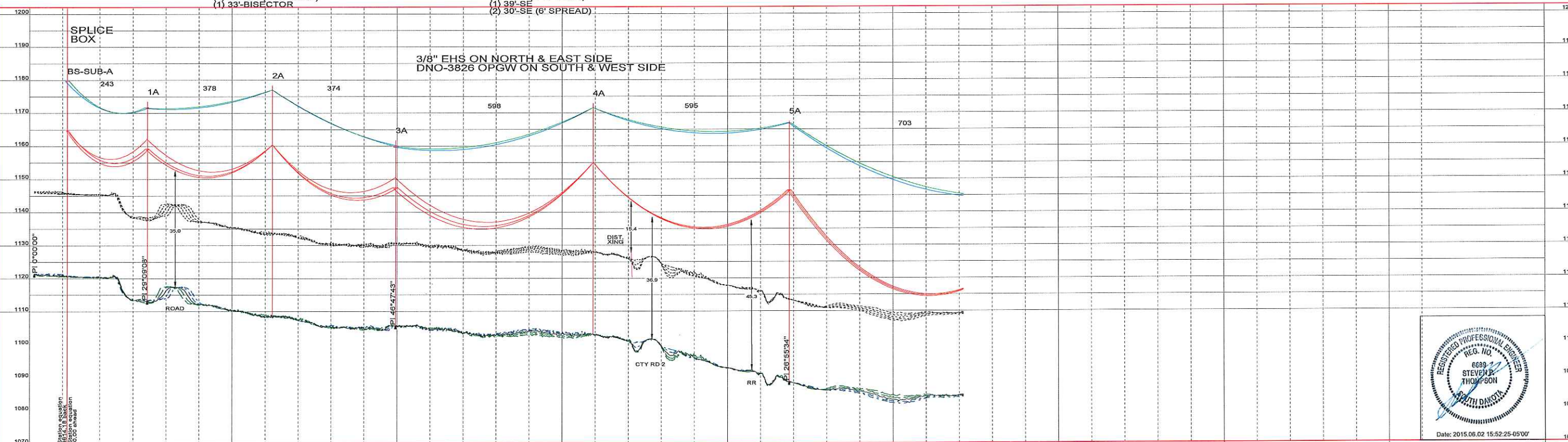
5A  
sta=2186.57  
offset adjust=-8.00  
SMA-230-20  
90' H2 (STEEL)  
1, TNCS-38EHS  
3, TCSCGS-477RT2  
W POLE: SET 11FT - 0IN  
M POLE: SET 11FT - 0IN  
E POLE: SET 11FT - 0IN  
WEST POLE LEADS:  
(2) 45'-BI (6' SPREAD)  
MID POLE LEADS:  
(2) 45'-BI (6' SPREAD)  
EAST POLE LEADS:  
36' & 42'-BISECTOR

SHIELD WIRE	
3/8" EHS STEEL	
STR #	DESIGN TENSION (R.S.)
BS SUB A-1A	1503# @ 254' R.S.
1A-3A	3326# @ 383' R.S.
3A-14A	4291# @ 646' R.S.
14A-BSS SUB A	2232# @ 290' R.S.

SHIELD WIRE	
AFL DNO-3826	
STR #	DESIGN TENSION (R.S.)
BS SUB A-1A	1504# @ 232' R.S.
1A-3A	3937# @ 370' R.S.
3A-14A	5020# @ 646' R.S.
14A-BSS SUB A	2692# @ 299' R.S.

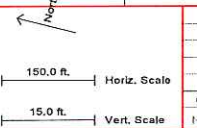
230KV CONDUCTOR	
T2-477 24/7 ACSR "T2-FLICKER"	
STR #	DESIGN TENSION (R.S.)
BS SUB A-1A	4511# @ 243' R.S.
1A-3A	10557# @ 376' R.S.
3A-14A	12255# @ 648' R.S.
14A-BSS SUB A	5969# @ 294' R.S.

NOTE:  
ALL TENSIONS @ NESCH HVY, 0°F, 5" ICE, 4psf WIND 25' CLEARANCE LINE SHOWN  
ALL PHASE CONDUCTORS DISPLAYED @ 212°F, FINAL  
SHIELD WIRE DISPLAYED @ -20°F, INITIAL



SHIELD WIRE 3/8" EHS STEEL & DNO-3826 OPGW	TENSION @ NESCH, SEE TABLE	#, R.S. SEE TABLE	PLOTTING TEMP., -20
CONDUCTOR T2-FLICKER ACSR	VOLTAGE	230KV	TENSION @ NESCH, SEE TABLE
CONDUCTOR	VOLTAGE	230KV	TENSION @ NESCH, SEE TABLE
CONDUCTOR	VOLTAGE	230KV	TENSION @ NESCH, SEE TABLE
CONDUCTOR	VOLTAGE	230KV	TENSION @ NESCH, SEE TABLE
CONDUCTOR	VOLTAGE	230KV	TENSION @ NESCH, SEE TABLE

SURVEYED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
PLOTTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROFILLED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



NO.	DATE	REVISION	BY
0	04-30-2015	ORIGINAL ISSUE FOR CONSTRUCTION	UE/PJ UER-ST OTR-DJ



BIG STONE SOUTH TRANSMISSION LINE 230KV  
PLAN AND PROFILE  
BIG STONE SOUTH 230KV ROUTE "A"  
BIG STONE SUB A - STR#5A  
SCALE: AS NOTED  
BSS-A-PP-01





6A  
sta=2888.00  
SHT-230-18  
75' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
W POLE: SET 10FT - 3IN  
E POLE: SET 10FT - 9IN

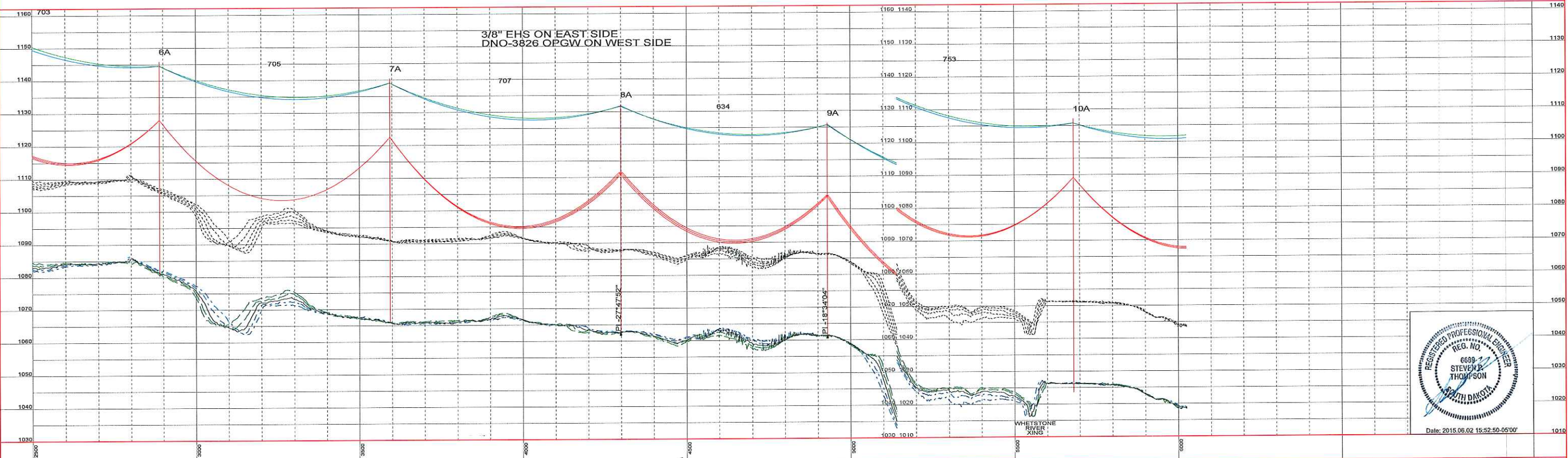
7A  
sta=3593.00  
SHT-230-18  
85' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
2, ADD EXTRA BEARING PLATE  
W POLE: SET 10FT - 6IN  
E POLE: SET 10FT - 6IN

8A  
sta=4298.31  
offset adjust=8.00  
S3MA-230-20  
80' H2 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
W POLE: SET 10FT - 6IN  
M POLE: SET 10FT - 3IN  
E POLE: SET 10FT - 9IN  
WEST POLE LEADS:  
36' & 42'-BISECTOR  
MID POLE LEADS:  
(2) 45'-BI (6' SPREAD)  
EAST POLE LEADS:  
(2) 45'-BI (6' SPREAD)

9A  
sta=4929.33  
offset adjust=7.25  
S3MA-230-20  
75' H2 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
W POLE: SET 9FT - 6IN  
M POLE: SET 10FT - 0IN  
E POLE: SET 10FT - 0IN  
WEST POLE LEADS:  
36' & 42'-BISECTOR  
MID POLE LEADS:  
(2) 45'-BI (6' SPREAD)  
EAST POLE LEADS:  
(2) 45'-BI (6' SPREAD)

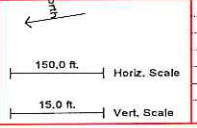
10A  
sta=5681.00  
SHT-230-18  
95' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
2, ADD EXTRA BEARING PLATE  
W POLE: SET 14FT - 0IN  
E POLE: SET 14FT - 3IN

NOTE:  
ALL TENSIONS @ NESC HVY, 0°F, .5" ICE, 4psf WIND  
ALL PHASE CONDUCTORS DISPLAYED @ 212°F, FINAL  
SHIELD WIRE DISPLAYED @ -20°F, INITIAL  
25' CLEARANCE LINE SHOWN



SHIELD WIRE 3/8" EHS STEEL & DNO-3826 OPGW	TENSION @ NESC H. SEE TABLE	#, R.S. SEE TABLE	PLOTTING TEMP. -20
CONDUCTOR T2-FLICKER ACSR	VOLTAGE 230KV	TENSION @ NESC H. SEE TABLE	PLOTTING TEMP. 212
CONDUCTOR	VOLTAGE	TENSION @ NESC H. #, R.S.	PLOTTING TEMP.
CONDUCTOR	VOLTAGE	TENSION @ NESC H. #, R.S.	PLOTTING TEMP.
CONDUCTOR	VOLTAGE	TENSION @ NESC H. #, R.S.	PLOTTING TEMP.
CONDUCTOR	VOLTAGE	TENSION @ NESC H. #, R.S.	PLOTTING TEMP.

SURVEYED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PLOTTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROFILED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



0	04-30-2015	ORIGINAL ISSUE FOR CONSTRUCTION	UEI-PJ	UEI-ST	OTF-DJ
NO.	DATE	REVISION	BY	CHK	DAPPV



BIG STONE SOUTH TRANSMISSION LINE 230KV  
 PLAN AND PROFILE  
 BIG STONE SOUTH 230KV ROUTE "A"  
 STR#6A - STR#10A  
 SCALE: AS NOTED  
 BSS-A-PP-02





10A  
sta=5681.00  
SHT-230-18  
95' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
2, ADD EXTRA BEARING PLATE  
W POLE: SET 14FT - 0IN  
E POLE: SET 14FT - 3IN

11A  
sta=6411.23  
offset adjust=-7.50  
S3NA-230-20  
75' H2 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
W POLE: SET 9FT - 6IN  
M POLE: SET 10FT - 6IN  
E POLE: SET 11FT - 6IN  
WEST POLE LEADS:  
(2) 45'-BI (6' SPREAD)  
MID POLE LEADS:  
(2) 45'-BI (6' SPREAD)  
EAST POLE LEADS:  
36' & 42'-BISECTOR

12A  
sta=6896.00  
SHT-230-18  
75' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
W POLE: SET 12FT - 9IN  
E POLE: SET 12FT - 3IN

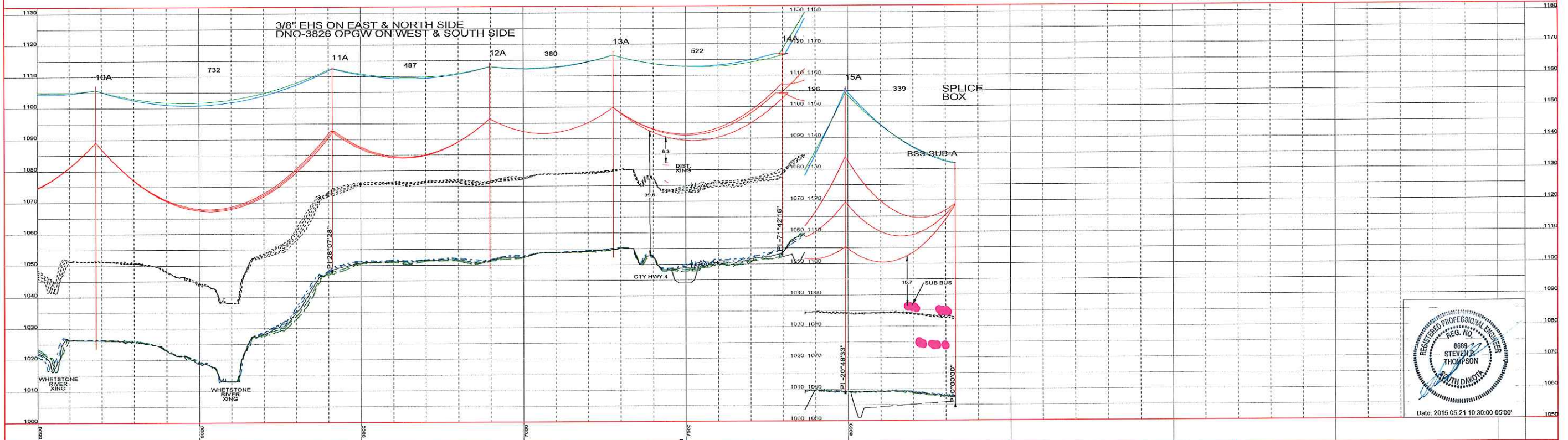
13A  
sta=7276.00  
SHT-230-18  
75' H1 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
W POLE: SET 12FT - 0IN  
E POLE: SET 12FT - 3IN

14A  
sta=7797.52  
SDE-6090-230-28FUT  
75' H3 (STEEL)  
2, INDECS-38EHS  
2, INDECS-DNO3826  
6, TDEEDA-477RT2  
SW POLE: SET 10FT - 0IN  
M POLE: SET 10FT - 0IN  
NE POLE: SET 11FT - 3IN  
SOUTHWEST POLE LEADS:  
(1) 60'-NW&SW  
(2) 47'-NW&SW (6' SPREAD)  
MID POLE LEADS:  
(2) 50'-NW&SW (6' SPREAD)  
NORTHEAST POLE LEADS:  
(1) 40'-NW&SW  
(2) 47'-NW&SW (6' SPREAD)

15A  
sta=7991.14  
offset adjust=10.50  
S1AC-230  
110' H2 (STEEL)  
1, TNCS-38EHS  
1, TNCS-DNO3826  
3, TCSCGS-477RT2  
4, SDAMP-3826  
POLE: SET 13FT - 0IN  
LEADS: 39' & 45'-BISECTOR

BSS-SUB-A  
sta=8328.17  
SUB BAY  
74' STL  
1, INDECS-38EHS  
1, INDECS-DNO3826  
3, 230POLYSUSPSS-477RT2  
3, TTAPS-477RT2  
1, OPSPLICE-3826-2

NOTE:  
ALL TENSIONS @ NESC HVY, 0°F, .5" ICE, 4psf WIND  
ALL PHASE CONDUCTORS DISPLAYED @ 212°F, FINAL  
SHIELD WIRE DISPLAYED @ -20°F, INITIAL  
25' CLEARANCE LINE SHOWN



CONDUCTOR	TENSION @ NESC H.	#, R.S.	SEE TABLE	PLOTTING TEMP.
SHIELD WIRE 3/8" EHS STEEL & DNO-3826 OPGW	SEE TABLE	#, R.S.	SEE TABLE	-20
CONDUCTOR T2-FLICKER ACSR	SEE TABLE	#, R.S.	SEE TABLE	212
CONDUCTOR	VOLTAGE	230KV		
CONDUCTOR	VOLTAGE			
CONDUCTOR	VOLTAGE			
CONDUCTOR	VOLTAGE			

SURVEYED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PLOTTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROFILED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

NO.	DATE	REVISION	BY	CHKD	APPV
1	09-21-2015	REVISED STR #10A ORIENTATION & CURVING	UES-ST	UES-PJ	OTF-DJ
0	04-30-2015	ORIGINAL ISSUE FOR CONSTRUCTION	UES-PJ	UES-ST	OTF-DJ



BIG STONE SOUTH TRANSMISSION LINE 230KV  
 PLAN AND PROFILE  
 BIG STONE SOUTH 230KV ROUTE "A"  
 STR#10A - BIG STONE SOUTH SUB A  
 SCALE: AS NOTED  
 BSS-A-PP-03