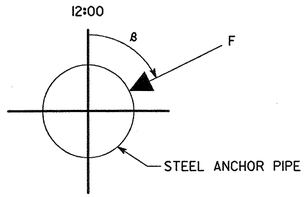
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GEORGIA	CSNHS-M002-00 (373)	17	26

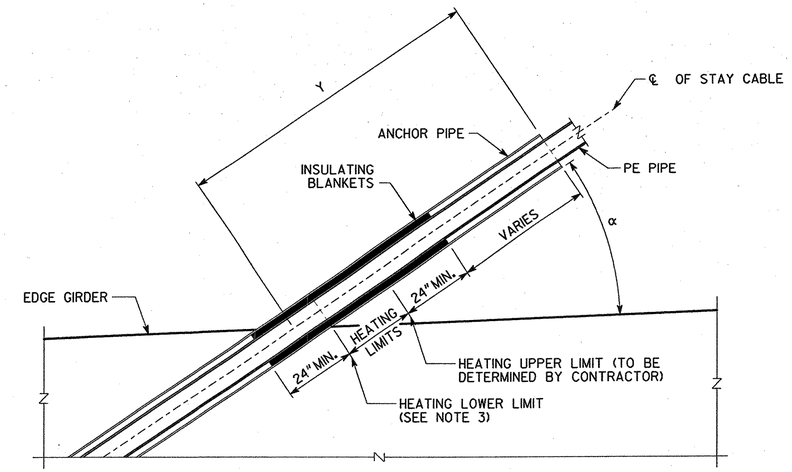
TABLE 21 - STEEL ANCHOR PIPES TO BE HEAT STRAIGHTENED - REPAIR 2

LOCATION(A) DECK LEVEL	ANCHOR PIPE NOMINAL INSIDE DIAMETER(B) (IN)	ANCHOR PIPE NOMINAL OUTSIDE DIAMETER(B) (IN)	P.E. PIPE NOMINAL OUTSIDE DIAMETER (IN)	DIMENSION Y(B) (FT)	ANGLE α(B) (DEG)	MAXIMUM RESTRAINING FORCE, F(C,D) (POUNDS)	APPROXIMATE ANCHOR PIPE MOVEMENT(B) (IN)	APPROXIMATE DIRECTION OF RESTRAINING FORCE, β(B,C) (DEG)
SE1	13.12	14.00	10.75	6.94	25.80	15,000	0.4	180
SE5	11.00	11.75	8.63	6.45	27.88	9,000	0.3	127
SE11	7.98	8.63	5.56	4.98	37.77	5,000	0.3	90
SE30	8.94	9.63	6.63	6.53	27.45	5,000	0.2	18
SE34	11.00	11.75	8.63	7.81	22.68	7,000	1.2	6
SE35	11.00	11.75	8.63	8.15	21.71	7,000	0.4	352
SW1	13.12	14.00	10.75	6.94	25.80	15,000	0.4	351
SW2	13.12	14.00	10.75	6.91	25.80	15,000	0.7	15
SW6	8.94	9.63	6.63	6.18	29.19	5,000	0.2	158
SW7	7.98	8.63	5.56	5.81	31.10	4,000	0.7	22
SW8	7.98	8.63	5.56	5.68	31.99	4,000	0.3	13
SW9	7.98	8.63	5.56	5.43	33.69	4,000	0.5	33
SW10	7.98	8.63	5.56	5.20	35.56	5,000	0.3	34
SW19	7.98	8.63	5.56	3.13	74.62	8,000	0.3	198
NE38	11.00	11.75	8.63	8.15	21.71	7,000	0.4	275
NE39	11.00	11.75	8.63	7.81	22.68	7,000	0.8	336
NE41	8.94	9.63	6.63	7.18	24.88	5,000	0.4	330
NE43	8.94	9.63	6.63	6.53	27.45	5,000	0.6	336
NE44	7.98	8.63	5.56	6.13	29.00	4,000	0.2	248
NE51	7.98	8.63	5.56	4.28	49.98	6,000	0.3	252
NE63	7.98	8.63	5.56	5.20	35.56	5,000	0.4	42
NE64	7.98	8.63	5.56	5.43	33.69	4,000	0.2	23
NE65	7.98	8.63	5.56	5.68	31.99	4,000	0.3	117
NE66	7.98	8.63	5.56	5.81	31.10	4,000	0.2	56
NE67	8.94	9.63	6.63	6.18	29.19	5,000	0.3	30
NE71	13.12	14.00	10.75	6.91	25.80	15,000	0.8	344
NE72	13.12	14.00	10.75	6.94	25.80	15,000	1.14	9
NW37	11.00	11.75	8.63	8.45	20.92	7,000	0.4	355
NW38	11.00	11.75	8.63	8.15	21.71	7,000	1.1	45
NW39	11.00	11.75	8.63	7.81	22.68	7,000	1.2	24
NW42	8.94	9.63	6.63	6.83	26.14	5,000	0.5	36
NW43	8.94	9.63	6.63	6.53	27.45	5,000	0.5	38
NW44	7.98	8.63	5.56	6.13	29.00	4,000	0.2	108
NW70	13.12	14.00	10.75	6.98	25.76	15,000	0.5	4
NW71	13.12	14.00	10.75	6.91	25.80	15,000	0.3	354
NW72	13.12	14.00	10.75	6.94	25.80	15,000	0.2	16

(A) DECK LEVEL ANCOR PIPE
(B) DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR
(C) ANGLE MEASURED CLOCKWISE FROM 12:00 POSITION (SEE SKETCH BELOW)



(D) SEE NOTE 4



SECTION THROUGH EDGE GIRDER

NOTES

1. FOR GENERAL NOTES, SEE SHEET NO. 7.
2. FOR SUGGESTED SEQUENCE AND ADDITIONAL NOTES, SEE SHEET 18.
3. HEATING SHALL NOT EXTEND BELOW THE PLANE PERPEDICULAR TO THE LONGITUDINAL AXIS OF THE ANCHOR PIPE INTERSECTING THE TOP OF THE EDGE GIRDER.
4. MAXIMUM RESTRAINING FORCE IS BASED ON A MOMENT ARM EQUAL TO THE DISTANCE BETWEEN THE HEATING LOWER LIMIT AND EXTERIOR END OF THE ANCHOR PIPE. THE MAXIMUM STRESS IN THE ANCHOR PIPE DUE TO THE APPLIED RESTRAINING LOAD AND DEAD LOAD SHALL NOT EXCEED ONE-HALF THE YIELD STRESS OF THE ANCHOR PIPE (17.5 KSI FOR ASTM A-53 GRADE B STEEL PIPE).

REPAIR LEGEND

REPAIR	DESCRIPTION
1	STEEL ANCHOR PIPE CRACK REPAIR
2	HEAT STRAIGHTENING OF STEEL ANCHOR PIPE
3	REMOVAL OF EXISTING PROTECTIVE BOOTS, STEEL KEEPER RINGS AND WASHERS
4	INSTALLATION OF NEW WASHERS AND STEEL KEEPER RINGS
5	PROTECTIVE BOOT RETROFIT
6	MISCELLANEOUS CONCRETE REPAIRS
7	TIE-DOWN BOOT REPAIR
8	MISCELLANEOUS ELECTRICAL REPAIRS
9	CABLE STAY PROTECTIVE TAPE REPAIR

BRIDGE SHEET 17 OF 26

REVISIONS | BY | DATE

Lichtenstein
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GEORGIA
DEPARTMENT OF TRANSPORTATION
OPERATIONS DIVISION-OFFICE OF MAINTENANCE

HEAT STRAIGHT. OF ANCHOR PIPES 1 OF 2
TALMADGE MEMORIAL BRIDGE RETROFIT
CHATHAM COUNTY CSNHS-M002-00 (373)

NO SCALE | MARCH 2006

DESIGNED K.J.B. | CHECKED T.S. | REVIEWED
DRAWN R.B.H. | DESIGN GROUP MAINTENANCE | APPROVED

2189HEATSTRAIGHT1.DGN