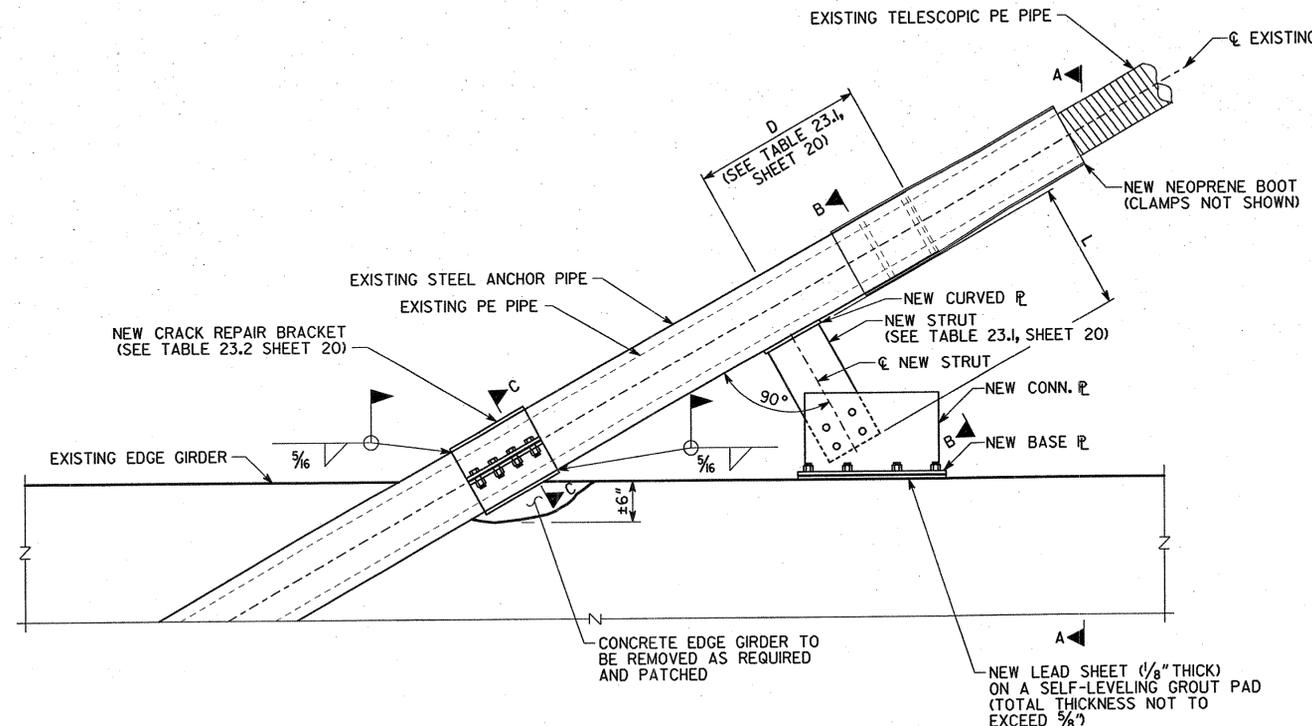


STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GEORGIA	CSNHS-M002-00 (373)	19	26

SUGGESTED SEQUENCE
REPAIR ① - STEEL ANCHOR PIPE CRACK REPAIR

WORK ON THIS REPAIR ITEM SHALL COMMENCE ONLY AFTER WORK IN REPAIR ③ HAS BEEN COMPLETED FOR THE REPAIR LOCATION. CARE SHALL BE TAKEN NOT TO DAMAGE ANY PORTION OF THE STAY CABLE, ANCHORAGE SYSTEM, AND EDGE GIRDER PRESTRESSING STEEL DURING THIS OPERATION. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE STEEL ANCHOR PIPE DURING THIS REPAIR OPERATION.

- IF REQUIRED, REMOVE AND DISPOSE OF THE TEMPORARY CLAMP FROM THE STEEL ANCHOR PIPE.
- CLEAN THE STEEL ANCHOR PIPE IN THE LOCATION OF THE CRACK.
- REMOVE CONCRETE FROM THE EDGE GIRDER TO EXPOSE THE CRACK LIMITS AND TO ALLOW FOR INSTALLATION OF THE CRACK REPAIR BRACKET.
- LOCATE THE CRACK TIP BY USE OF MAG PARTICLE TESTING OR AN APPROVED NDT METHOD.
- DRILL A 1 INCH DIAMETER HOLE CENTERED ON THE CRACK ENDS.
- PERFORM MAG PARTICLE TESTING OR AN APPROVED NDT METHOD TO VERIFY THAT THE CRACK ENDS WERE ARRESTED.
- PROTECT THE PE PIPE WITH INSULATION BLANKETS AS REQUIRED TO SHIELD THE PE PIPE FROM THE STEEL ANCHOR PIPE WELDING OPERATION. THE INSULATING BLANKETS SHALL EXTEND AS FAR TO THE BOTTOM AS POSSIBLE OR A MINIMUM OF 24 INCHES BELOW THE WELD LOCATION AND SHALL EXTEND A MINIMUM OF 12 INCHES ABOVE THE WELD LOCATION.
- INSTALL THE CRACK REPAIR BRACKET.
- TIGHTEN THE CRACK REPAIR BRACKET BOLTS.
- WELD THE CRACK REPAIR BRACKET TO THE STEEL ANCHOR PIPE.
- PATCH EXCAVATED EDGE GIRDER CONCRETE.
- IF THIS REPAIR LOCATION IS ALSO A REPAIR ② LOCATION THEN PROCEED WITH REPAIR ② PRIOR TO INSTALLATION OF THE STRUT ONLY AFTER THE CRACK REPAIR BRACKET IS WELDED TO THE STEEL ANCHOR PIPE. NOTE THAT THE DIMENSIONS FOR THE STRUT AND CONNECTIONS SHOULD BE VERIFIED AFTER REPAIR ② IS COMPLETE.
- MARK THE LOCATIONS FOR THE ANCHOR BOLTS IN THE CONCRETE EDGE GIRDER.
- DRILL HOLES IN THE CONCRETE EDGE GIRDER AT THE ANCHOR BOLT LOCATIONS. THE CONTRACTOR SHALL EXERCISE EXTREME CARE DURING DRILLING OPERATIONS TO AVOID DAMAGE TO ANY PRESTRESSING STEEL AND THE PORTION OF THE STEEL ANCHOR PIPE EMBEDDED IN THE EDGE GIRDER. DUE TO THE AMOUNT OF PRESTRESSING STEEL AND MILD STEEL WITHIN THE VICINITY OF THE REPAIR, IT IS SUGGESTED THAT THE BASE PLATE BE MANUFACTURED AFTER THE BOLT LOCATIONS HAVE BEEN DRILLED TO ENSURE ADEQUATE BASE PLATE DIMENSIONS AND ANCHOR BOLT SPACING.
- SET THE BASE PLATE ON THE EDGE GIRDER ON TOP OF A LEAD SHEET CUT TO FIT UNDER THE BASE PLATE AND A SELF-LEVELING GROUT PAD.
- INSTALL THE ANCHOR BOLTS IN THE EDGE GIRDER.
- INSTALL THE STRUT ATTACHMENT TO THE STEEL ANCHOR PIPE AND BASE PLATE. NOTE THAT THE STRUT SHALL BE INSTALLED PERPENDICULAR TO THE STEEL ANCHOR PIPE.
- WELD THE CURVED PLATE TO THE STEEL ANCHOR PIPE.
- WELD THE STRUT TO THE CURVED PLATE.
- WELD THE CONNECTION PLATES TO THE BASE PLATE.
- INSTALL AND TIGHTEN THE BOLTS THROUGH THE STRUT AND CONNECTION PLATES. IT IS SUGGESTED THAT THE CONNECTION PLATE HOLES BE FIELD DRILLED AFTER THE STRUT LOCATION IS DETERMINED.
- REMOVE INSULATING BLANKETS.
- PAINT EXISTING STRUCTURAL STEEL AFFECTED BY THE REPAIR WORK AND ANY DAMAGED PORTION OF THE SHOP APPLIED PAINT ON THE NEW STRUCTURAL STEEL TO THE SATISFACTION OF THE ENGINEER.

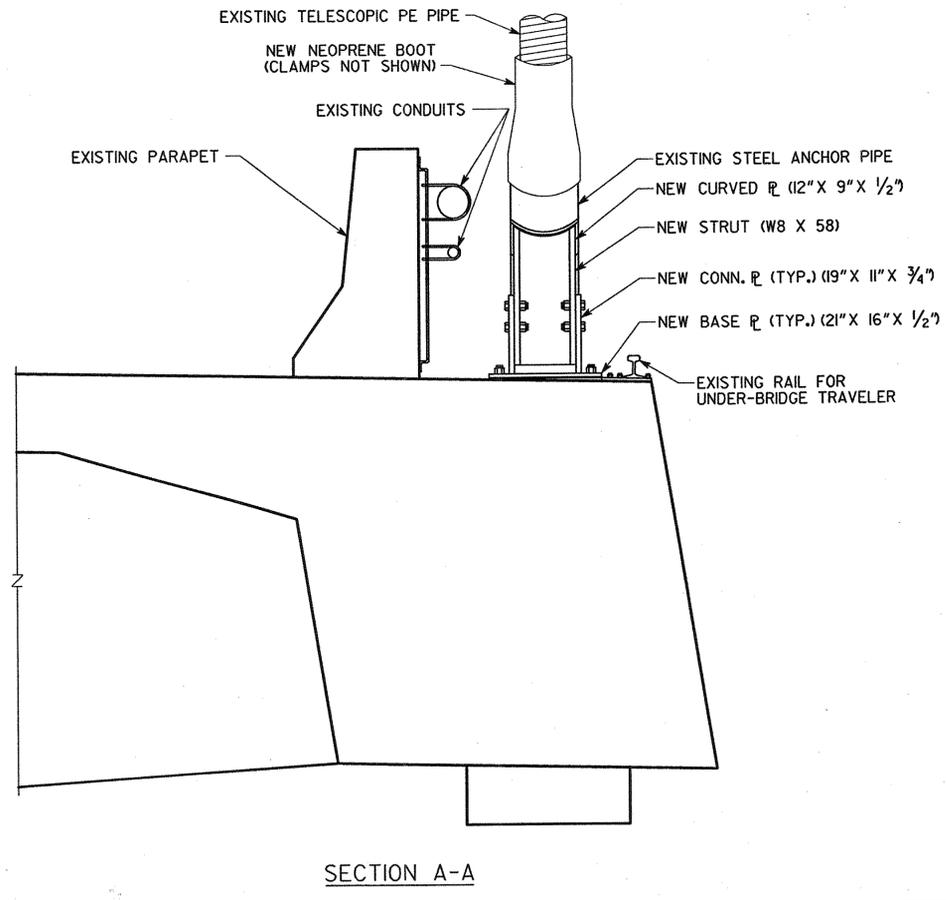


STEEL ANCHOR PIPE CRACK REPAIR DETAIL
 (CABLE SE 6 SHOWN, OTHERS SIMILAR)

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

NOTES

- FOR GENERAL NOTES SEE SHEET NO. 7.
- ANY REMOVAL AND PATCHING OF THE CONCRETE EDGE GIRDER TO FIT THE CRACK BRACKET AND BASE PLATE SHALL BE CONSIDERED INCIDENTAL TO THE REPAIRS. SEE SPECIAL PROVISIONS.
- STRUCTURAL STEEL FOR THE CRACK REPAIR SHALL CONFORM TO AASHTO M270 GRADE 50.



SECTION A-A

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GEORGIA DEPARTMENT OF TRANSPORTATION OPERATIONS DIVISION-OFFICE OF MAINTENANCE	
STEEL ANCHOR PIPE CRACK REPAIR 1 OF 2 TALMADGE MEMORIAL BRIDGE RETROFIT CHATHAM COUNTY CSNHS-M002-00 (373)	
NO SCALE	MARCH 2006
DESIGNED K.J.B. DRAWN R.B.H.	CHECKED T.S. DESIGN GROUP MAINTENANCE
REVIEWED	APPROVED

BRIDGE SHEET
19 OF 26

DATE	
BY	
REVISIONS	