



SOUTH FACE OF PILE 4



LEFT SIDE OF PILE 3



NORTH FACE OF PILE 1

NOTES

WORK DEFINED IN THIS DRAWING SHALL BE PERFORMED IN ACCORDANCE WITH - AND PAID FOR UNDER - 'STEEL PILE REPAIRS' AS REFERENCED IN THE PROJECT SPECIAL PROVISIONS.

IMAGES ARE TAKEN FROM SPECIAL INSPECTION REPORT DATED 11/02/2023. PRIOR TO BEGINNING ANY REPAIR WORK, FIELD VERIFY EXISTING CONDITIONS. IF EXISTING CONDITIONS VARY SIGNIFICANTLY FROM IMAGES SHOWN, NOTIFY THE ENGINEER IN WRITING PRIOR TO ORDERING MATERIALS OR BEGINNING REPAIR WORK.

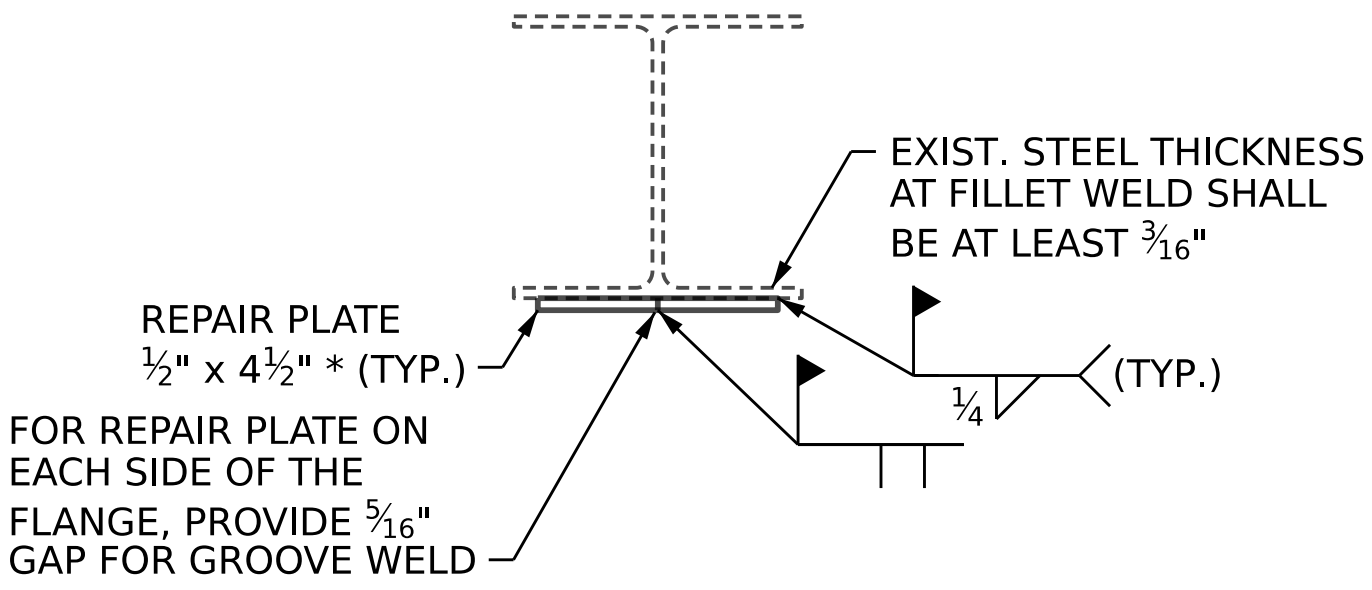
* LOSSES IN EXCESS OF 33% TO ANY PILE FLANGE OR WEB SHALL BE DEFINED AS "SIGNIFICANT", PROMPTING REQUIREMENT OF WELDED STEEL PILE REPAIR MATERIAL AS SHOWN. MATERIAL SHALL BE INSTALLED AT DIMENSIONS SHOWN, SUBJECT TO ASSOCIATED LIMITS. RESULTING TOTAL CROSS-SECTIONAL AREA OF ANY REPAIRED FLANGE (OR WEB) SHALL EQUAL OR EXCEED THE AS-FABRICATED PLATE AREA PER ORIGINAL PILE DESIGNATION DIMENSIONS.

SURFACE PREPARATION FOR WELDING AND/OR PAINTING: REMOVE RUST, PAINT, AND OTHER CONTAMINANTS DOWN TO BARE STEEL TO SSPC-SP3 STANDARDS. VACUUM-ASSISTED HAND POWER TOOLS SHALL BE USED FOR CAPTURE AND CONTAINMENT OF CONTAMINANTS. SAND BLASTING SHALL NOT BE PERMITTED OVER WATER.

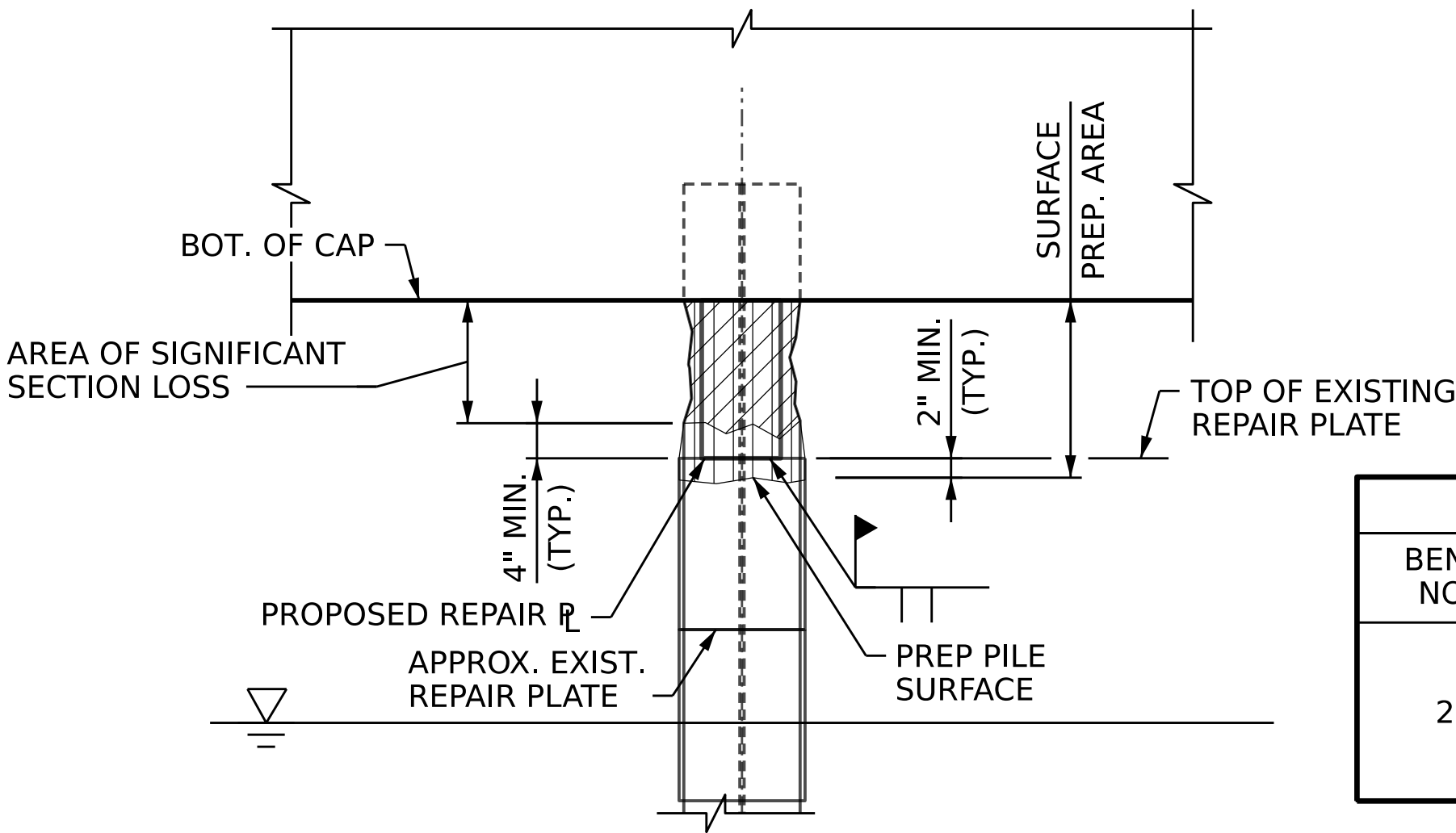
SEE SHEET S1-08 AND S1-10 FOR DETAILS OF THE FRP ENCASEMENT REPAIR DETAILS ON BENT 2.

WELDED PLATE REPAIR PROCEDURE NOTES:

1. REMOVE LOOSE RUST AND MARINE GROWTH FROM THE EXISTING STEEL PILE TO OBTAIN A CLEAN, SOUND SURFACE PRIOR TO PERFORMING STEEL REPAIRS AND PILE JACKETING, USING APPROVED MECHANICAL MEANS OR HIGH-PRESSURE WATER BLASTING. IF ADDITIONAL SECTION LOSS GREATER THAN 33% IS FOUND TO ANY PILE FLANGE OR WEB, NOTIFY THE ENGINEER.
2. TACK WELD NEW REPAIR PLATE INTO THE PROPER LOCATION. ENSURE REPAIR PLATE EXTENDS A MINIMUM OF 4" ONTO THE PILE FLANGE WITH ACCEPTABLE SECTION BEYOND THE DETERIORATED SECTION OF THE PILE FLANGE.
3. WELD NEW REPAIR PLATES. IF A NEW PLATE IS IN CONTACT WITH AN EXISTING REPAIR PLATE, BUTT WELD THE INTERFACE BETWEEN THE TWO PLATES.

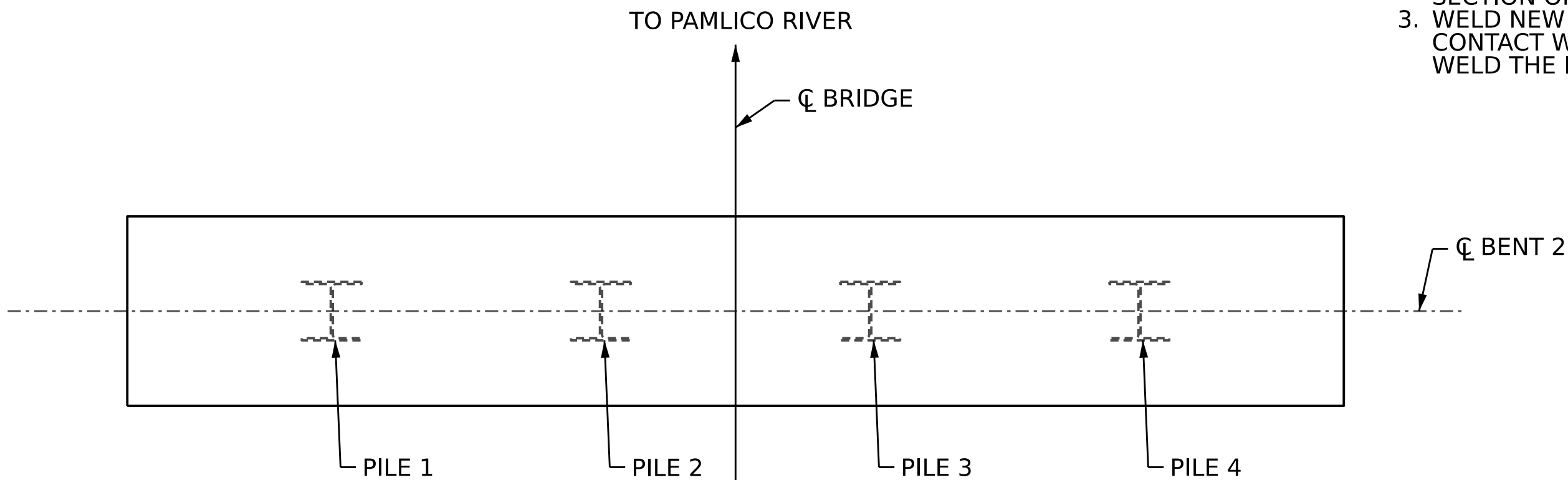


PLAN - REPAIR PLATE



ELEVATION - REPAIR PLATE

HP12x53 STEEL PILE REPAIR DETAILS



PLAN OF BENT 2

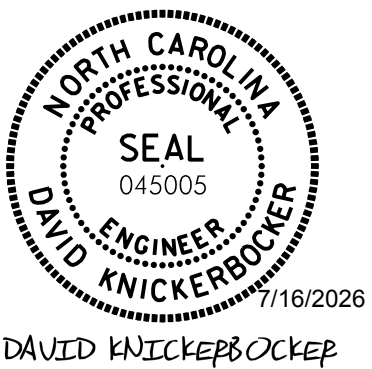
ESTIMATED STEEL PILE REPAIR QUANTITIES				QUANTITY (LBS.)
BENT NO.	PILE NO.	REPAIR TYPE	DETERIORATION LOCATION	
2	1	WELDED PLATE REPAIR	ABOVE & BELOW EXISTING REPAIR PLATE, AT WATERLINE	87
	2	WELDED PLATE REPAIR	ABOVE & BELOW EXISTING REPAIR PLATE	87
	3	WELDED PLATE REPAIR	ABOVE & BELOW EXISTING REPAIR PLATE, AT WATERLINE	72
	4	WELDED PLATE REPAIR	ABOVE & BELOW EXISTING REPAIR PLATE	72

PROJECT NO. **15BPR.164**
BEAUFORT COUNTY
TERMINAL: **AURORA**

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**BENT 2
STEEL PILE
REPAIR DETAILS**

REVISIONS						SHEET NO. S1-06
NO.	BY:	DATE:	NO.	BY:	DATE:	
1	--	--	3	--	--	TOTAL SHEETS 34
2	--	--	4	--	--	



DAVID KNICKERBOCKER

HDR HDR Engineering, Inc. of the Carolinas
555 Fayetteville St., Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

DES BY: B. BINOWSKI DATE : 11/2025 DWG BY: B. PETERSON DATE : 11/2025
DES CHK: D. KNICKERBOCKER DATE : 11/2025 CHK BY: D. KNICKERBOCKER DATE : 11/2025