



NORTH FACE OF PILE 3



SOUTH SIDE OF PILE 6



LEFT FACE OF P1-P4 BRACING

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..

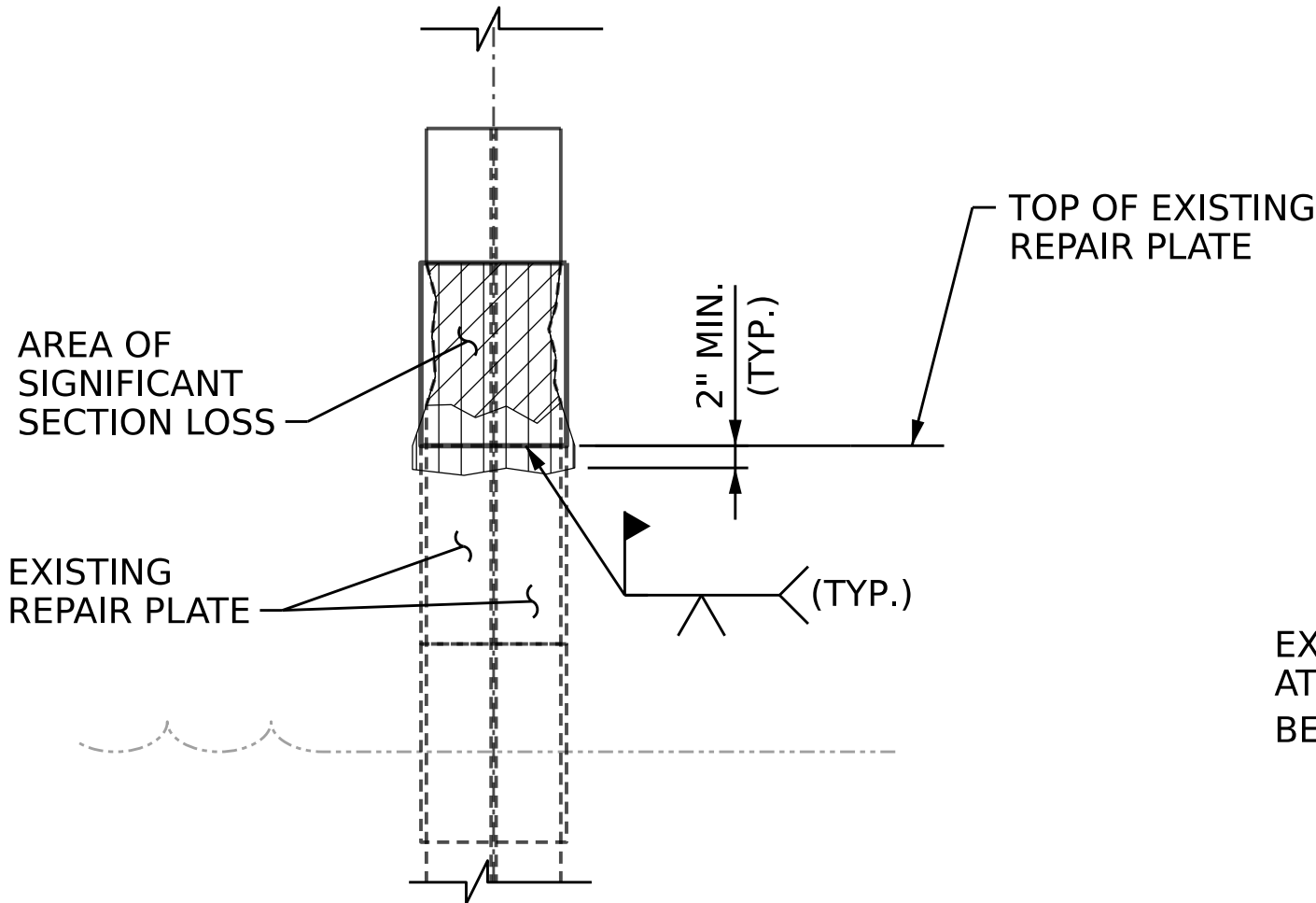
* LOSSES IN EXCESS OF 33% TO THE PILE FLANGES (OR WEBS) SHALL BE DEFINED AS "SIGNIFICANT", PROMPTING REQUIREMENT OF WELDED STEEL PILE REPAIR MATERIAL AS SHOWN. MATERIAL SHALL BE INSTALLED AT DIMENSIONS SHOWN, SUBJECT TO ASSOCIATED LIMITS. RESULTING TOTAL CROSS-SECTIONAL AREA OF ANY REPAIRED FLANGE (OR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

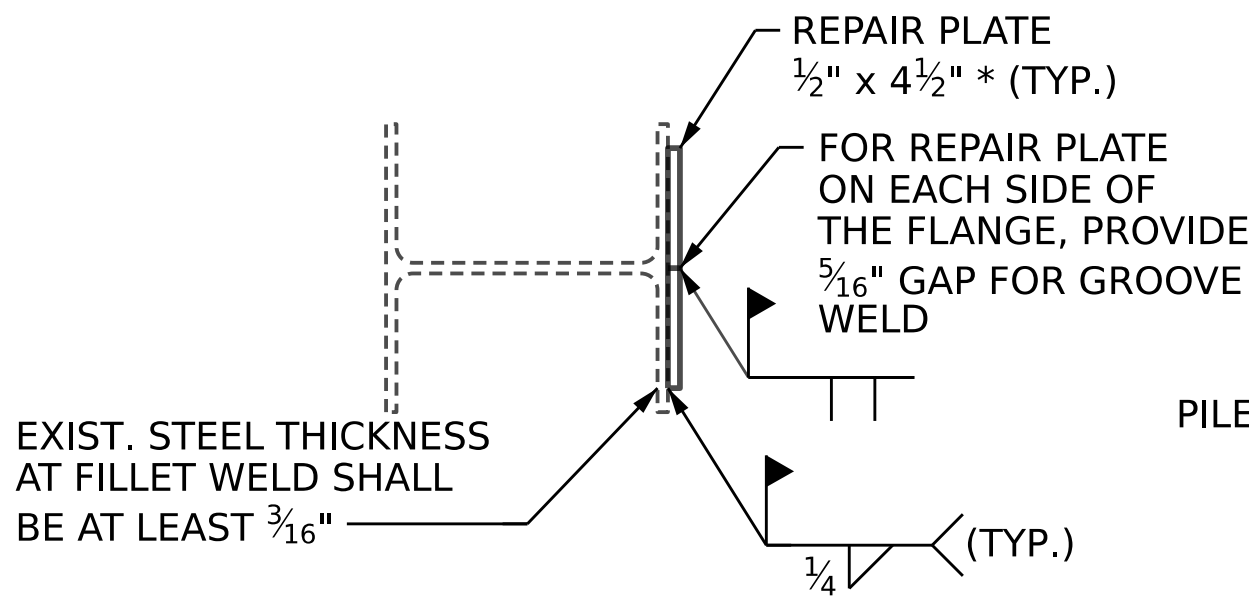
SEE SHEET S1-09 AND S1-10 FOR DETAILS OF THE FRP ENCASEMENT REPAIR DETAILS ON LIFT BENT.

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 THE PILE FLANGES, NOTIFY THE ENGINEER.
2. TACK WELD NEW REPAIR PLATE INTO THE PROPER LOCATION. ENSURE REPAIR PLATE EXTENDS A MINIMUM OF 4" INCHES 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.
4. FOR ANY REPAIRS NOT ENCAPSULATED BY PILE JACKET, PAINT THE EXPOSED STEEL AND CONNECTION COMPONENTS IN THE REPAIR AREA IN ACCORDANCE WITH SECTION 442-12 OF THE STANDARD SPECIFICATIONS, USING PAINT SYSTEM 4 FROM NCDOT'S STRUCTURAL STEEL SHOP COATINGS PROGRAM DOCUMENT, WITH TOPCOAT COLOR MATCHED TO THE EXISTING TOPCOAT COLOR.

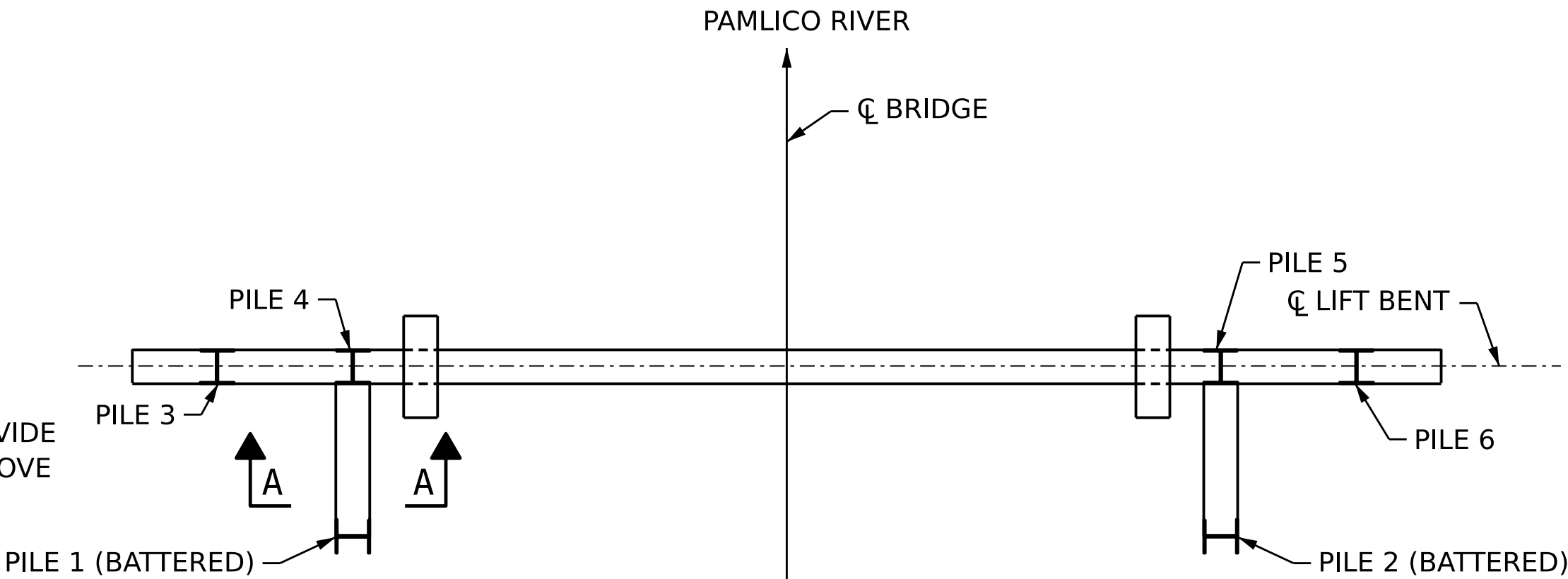


ELEVATION - VIEW



SECTION A-A

HP12x53 STEEL PILE REPAIR DETAILS



PLAN OF LIFT BENT

ESTIMATED STEEL PILE REPAIR QUANTITIES				
BENT NO.	PILE NO.	REPAIR TYPE	DETERIORATION LOCATION	QUANTITY (LBS.)
LIFT BENT	2	WELDED PLATE REPAIR	AT SW FLANGE WATERLINE	26
	3	WELDED PLATE REPAIR	BETWEEN BRACING & WATER LINE	87
	4	WELDED PLATE REPAIR	AT SW FLANGE WATERLINE	72
	5	WELDED PLATE REPAIR	AT SE FLANGE WATERLINE	57
	6	WELDED PLATE REPAIR	BETWEEN BRACING & WATERLINE	41
	P1-P3	WELDED PLATE REPAIR	HORIZONTAL BRACING MEMBER REPAIR	87

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

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**LIFT BENT
STEEL PILE
REPAIR DETAILS**

REVISIONS						SHEET NO. S1-07
NO.	BY:	DATE:	NO.	BY:	DATE:	
1	--	--	3	--	--	TOTAL SHEETS 34
2	--	--	4	--	--	



DAVID KNICKERBOCKER

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

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DES CHK: D. KNICKERBOCKER DATE : 11/2025 CHK BY: D. KNICKERBOCKER DATE : 11/2025