



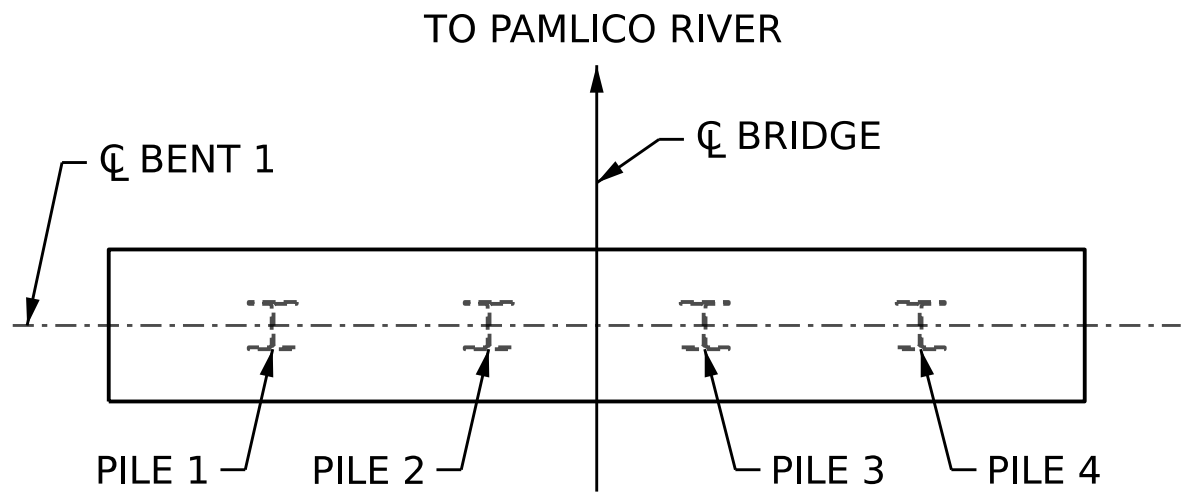
IMAGE OF PILE 4

(OTHER PILES SIMILAR)



IMAGE OF PILE 3

(OTHER PILES SIMILAR)



PLAN OF BENT 1

ESTIMATED STEEL PILE REPAIR QUANTITIES				
BENT NO.	PILE NO.	REPAIR TYPE	DETERIORATION LOCATION	QUANTITY (LBS.)
1	1	WELDED PLATE REPAIR	FULL HEIGHT OF EXPOSED PILE	67
	2	WELDED PLATE REPAIR	FULL HEIGHT OF EXPOSED PILE	82
	3	WELDED PLATE REPAIR	FULL HEIGHT OF EXPOSED PILE	67
	4	WELDED PLATE REPAIR	FULL HEIGHT OF EXPOSED PILE	82

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.

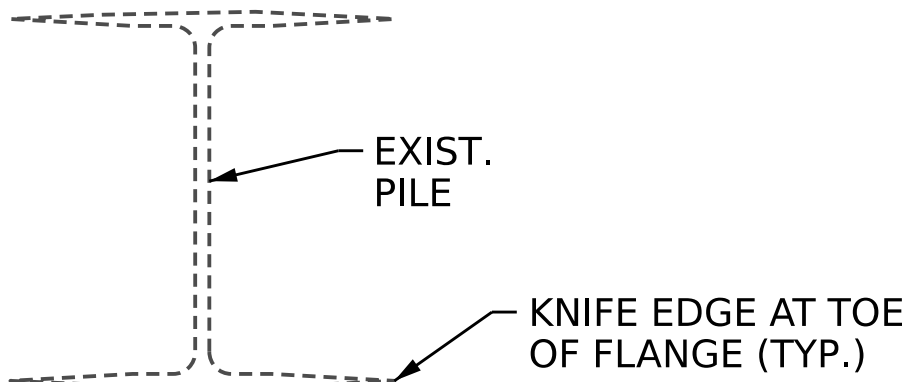
IMAGES ARE TAKEN FROM SPECIAL INSPECTION REPORT DATED 11/02/2023. PRIOR TO BEGINNING ANY REPAIR WORK, FIELD VERIFY EXISTING CONDITIONS. IF EXISTING CONDITIONS VARY SIGNIFICANTLY FROM IMAGES SHOWN, NOTIFY THE ENGINEER IN WRITING PRIOR TO ORDERING MATERIALS OR BEGINNING REPAIR WORK.

* 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 FLANGE (OR WEB) AREA PER ORIGINAL PILE DESIGNATION DIMENSIONS.

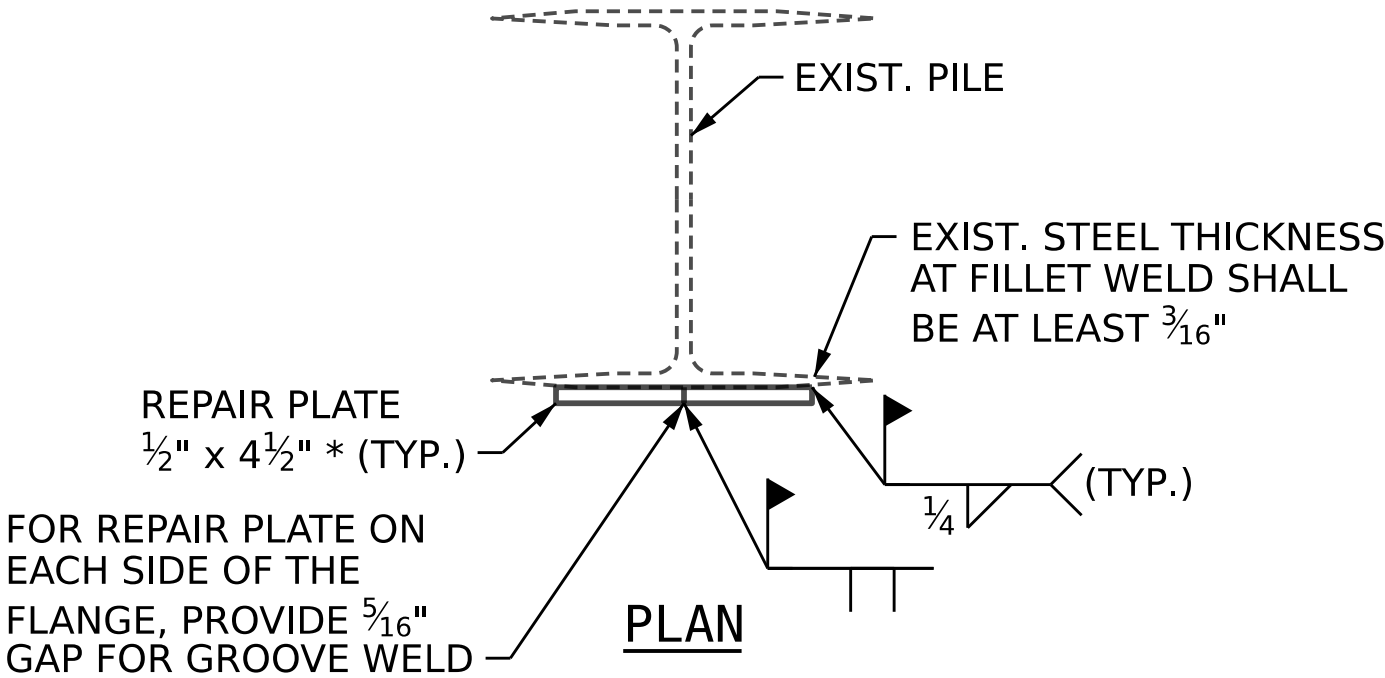
SURFACE PREPARATION FOR WELDING AND/OR PAINTING: REMOVE RUST, PAINT, AND OTHER CONTAMINANTS DOWN TO BARE STEEL TO SSPC-SP3 STANDARDS. VACUUM-ASSISTED HAND POWER TOOLS SHALL BE USED FOR CAPTURE AND CONTAINMENT OF CONTAMINANTS. SAND BLASTING SHALL NOT BE PERMITTED OVER WATER.

WELDED PLATE REPAIR PROCEDURE NOTES:

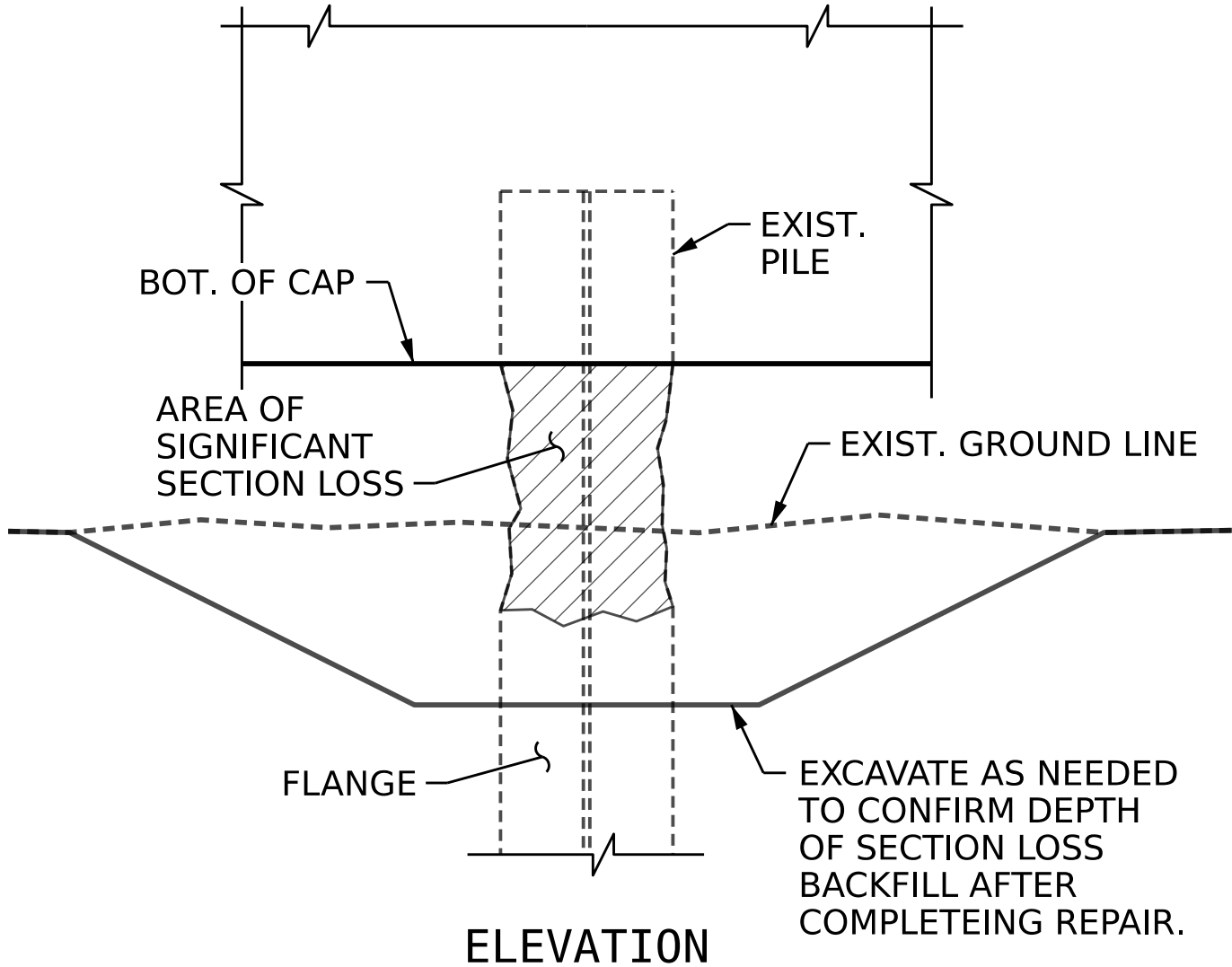
1. REMOVE LOOSE RUST AND MARINE GROWTH FROM THE EXISTING STEEL PILE TO OBTAIN A CLEAN, SOUND SURFACE PRIOR TO PERFORMING STEEL REPAIRS AND PILE JACKETING, USING APPROVED MECHANICAL MEANS OR HIGH-PRESSURE WATER BLASTING. IF ADDITIONAL SECTION LOSS GREATER THAN 33% IS FOUND ON ANY PILE FLANGE OR WEB, NOTIFY 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.
4. PAINT THE EXPOSED STEEL AND CONNECTION COMPONENTS IN THE REPAIR AREA IN A 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
5. BACKFILL AREA EXCAVATED AROUND THE PILE TO RESTORE THE EXISTING GROUND LINE.



PLAN

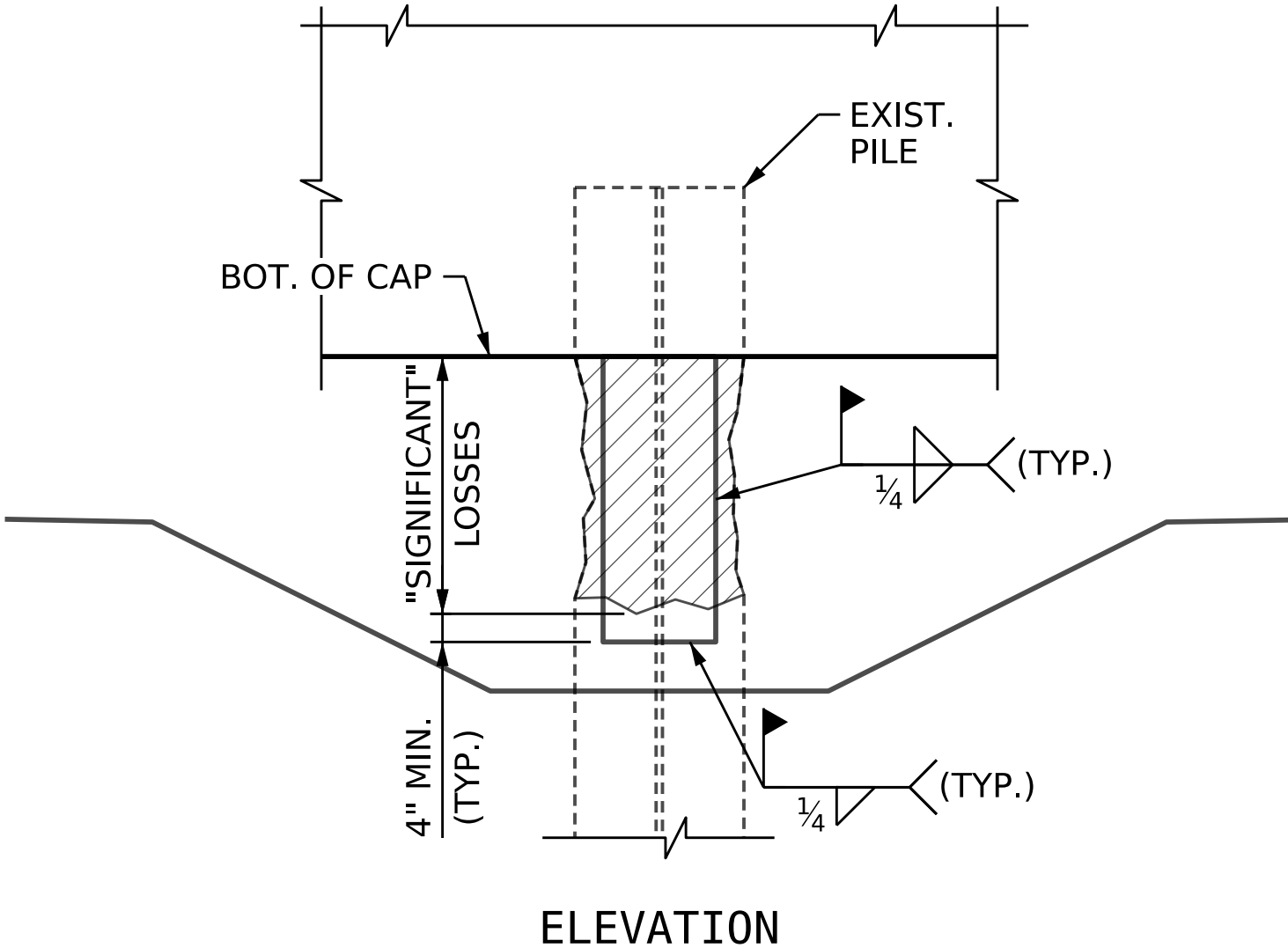


PLAN



ELEVATION

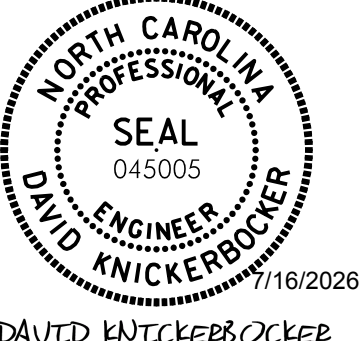
EXISTING CONDITION



ELEVATION

PILE REPAIR DETAIL

HP12x53 STEEL PILE REPAIR DETAILS



DAVID KNICKERBOCKER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
BENT 1 STEEL PILE REPAIR DETAILS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1	--	--	3	--	--
2	--	--	4	--	--
SHEET NO. S1-05					TOTAL SHEETS 34