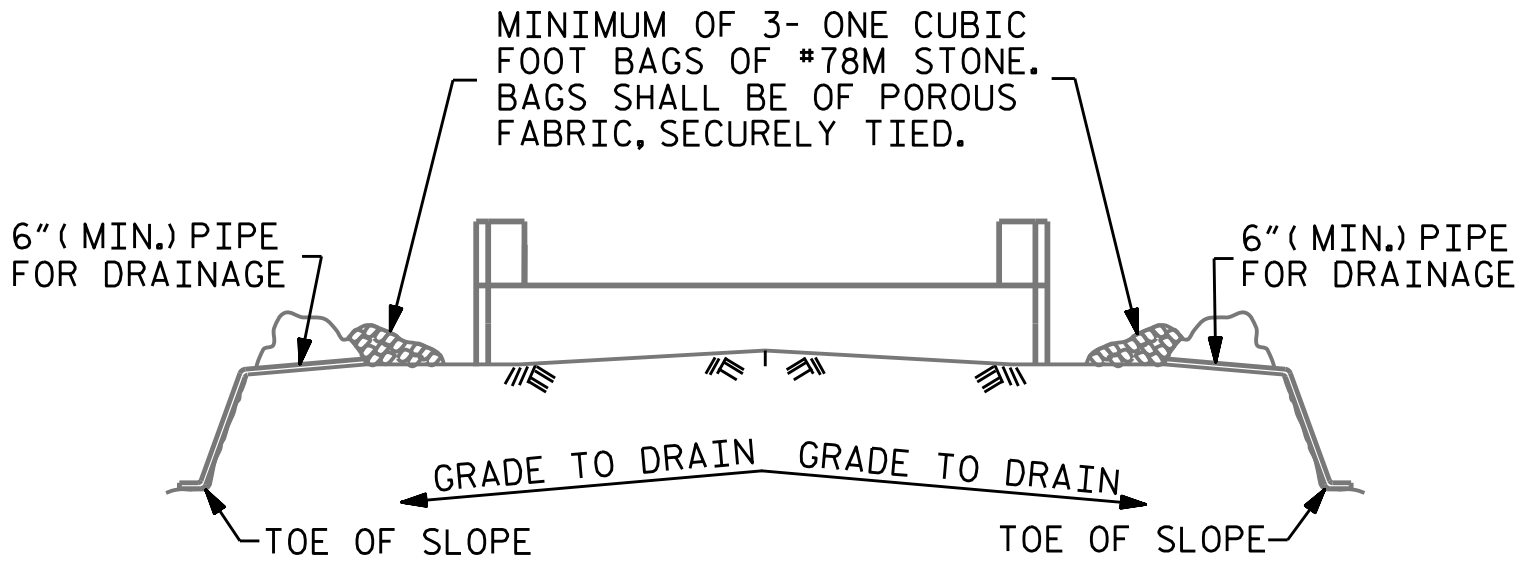


8/26/21

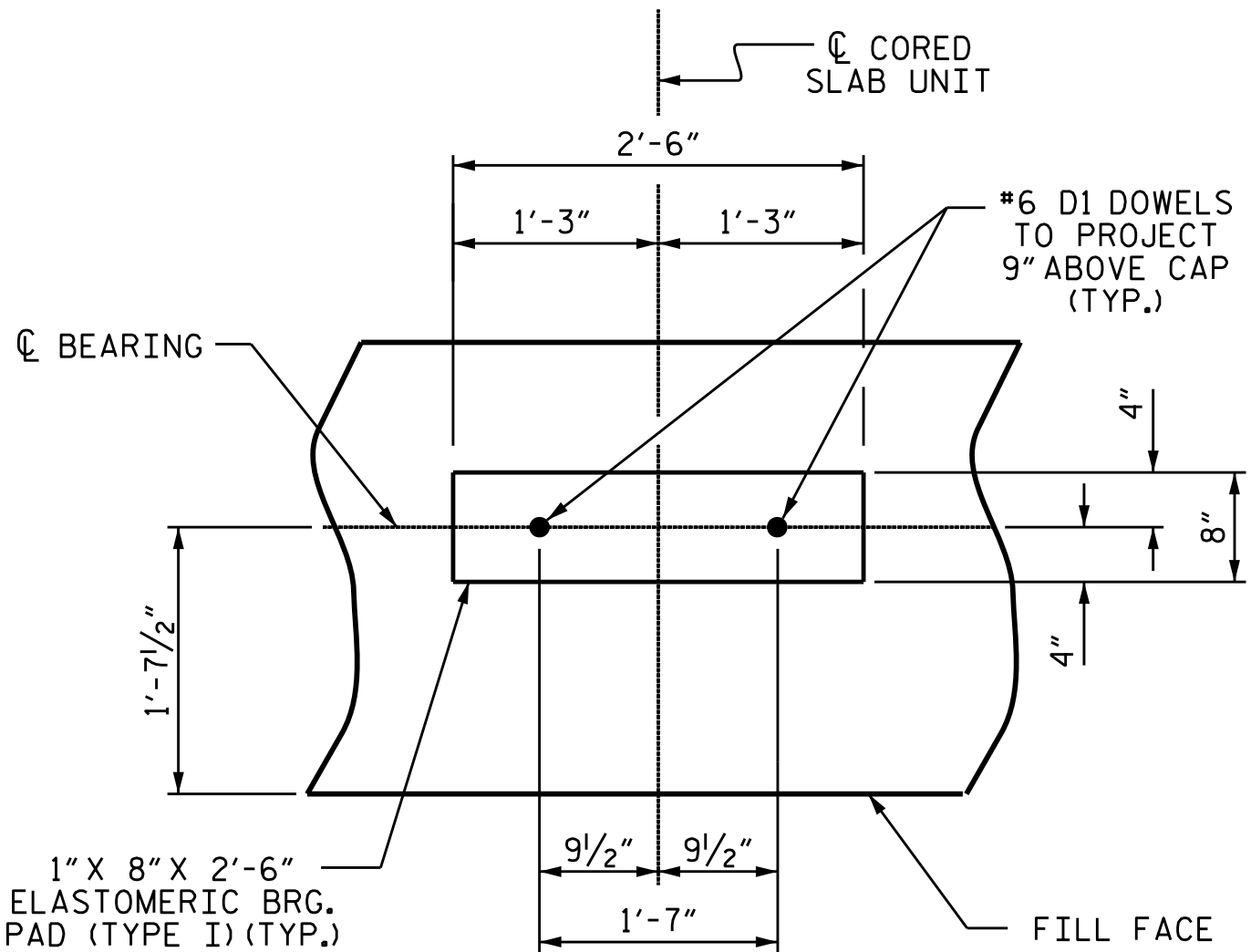


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.

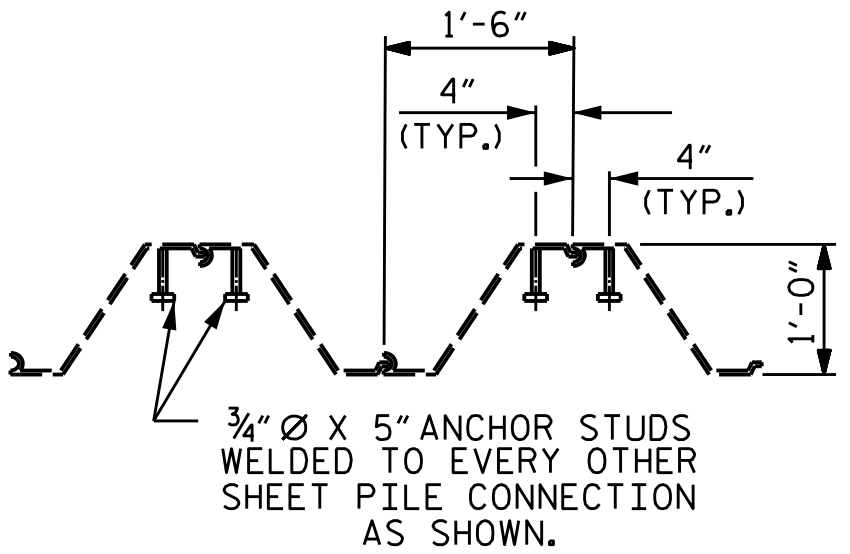
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



DETAIL "A"

(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)



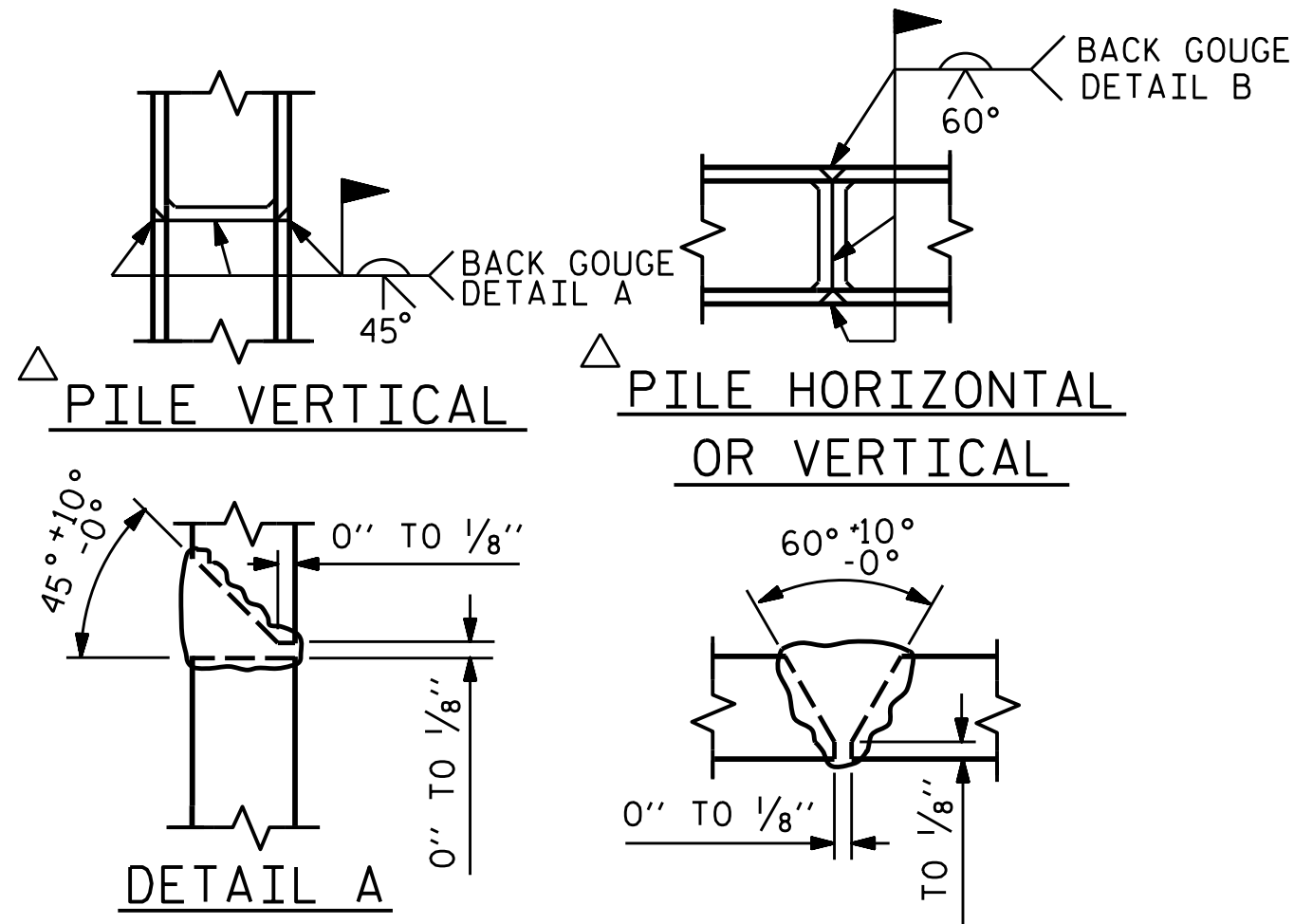
ANCHOR STUD DETAIL



VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

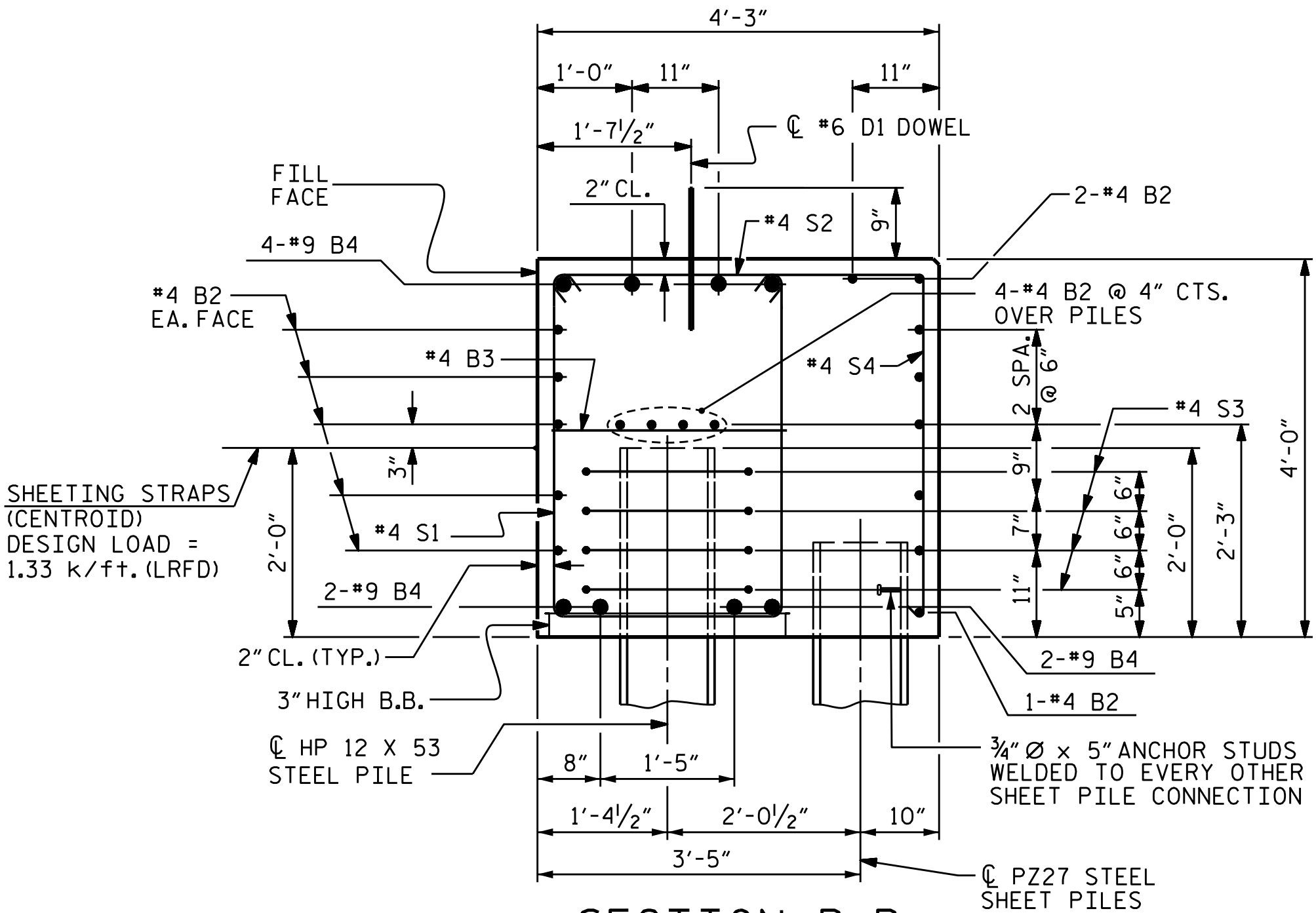
DRAWN BY : E.C. PHELPS DATE : 10/2024
CHECKED BY : W.K. FISCHER DATE : 11/2024
DESIGN ENGINEER OF RECORD: W.K. FISCHER DATE : 12/2024

1/21/2025
c:\bms\vhb-pw-01\d0193294\401.031.BP14R030.SMU.EB04.S1-17.430046.dgn
chontigman



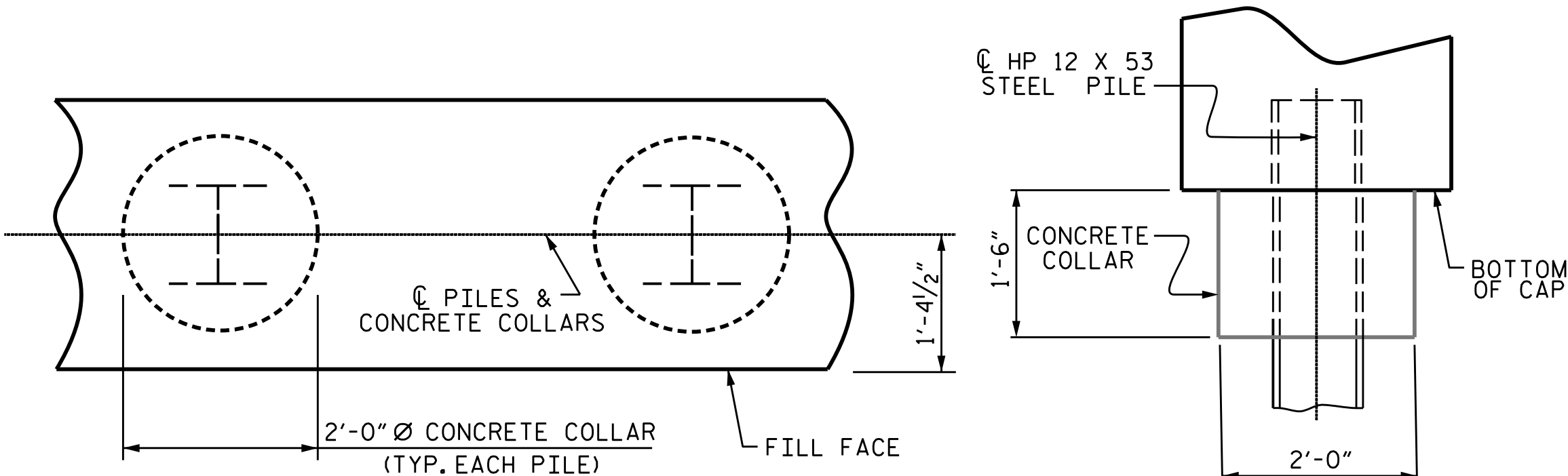
POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS



SECTION B-B

(CONCRETE COLLAR NOT SHOWN FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL.")



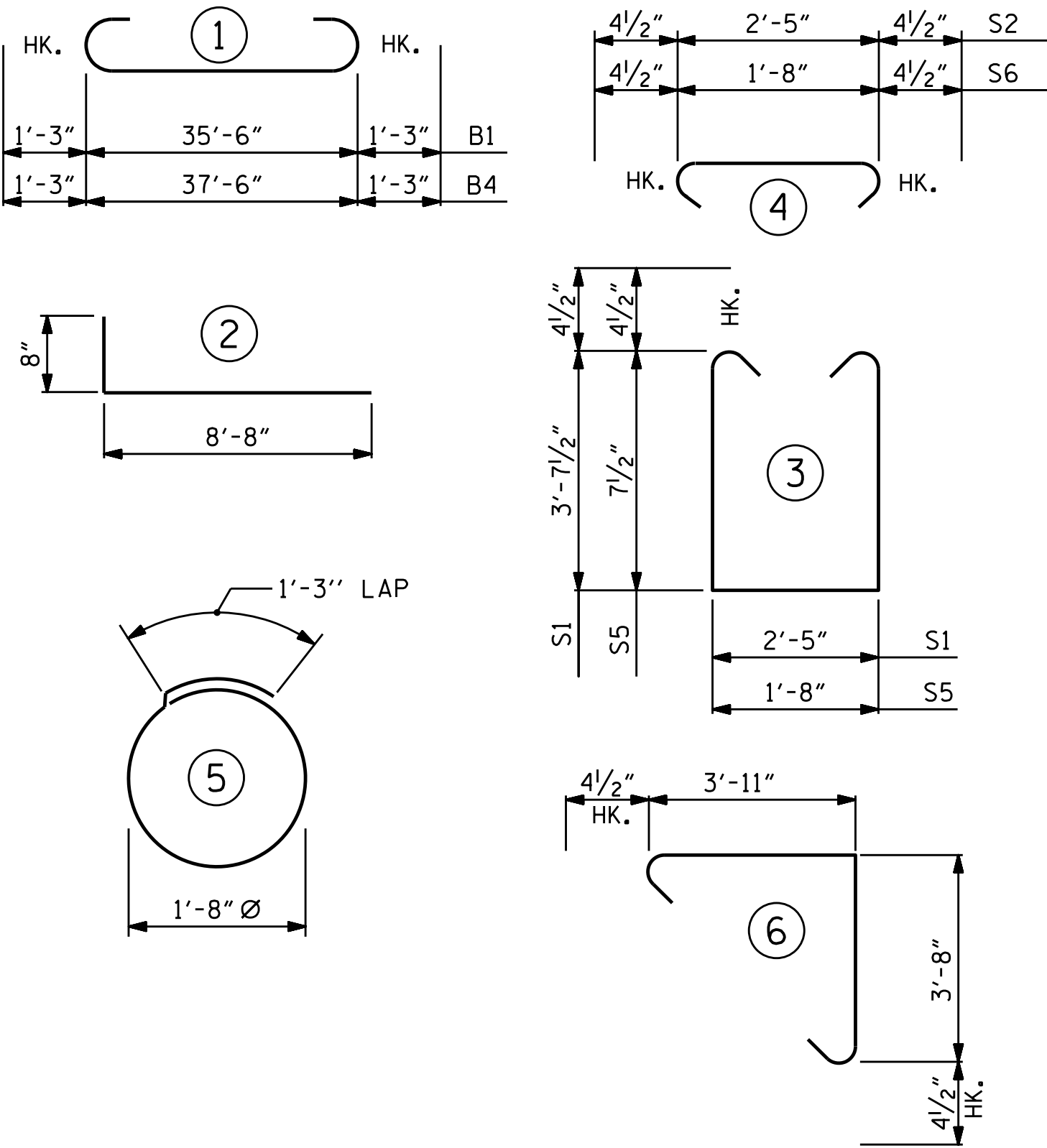
PLAN

ELEVATION

CORROSION PROTECTION FOR STEEL PILES DETAIL

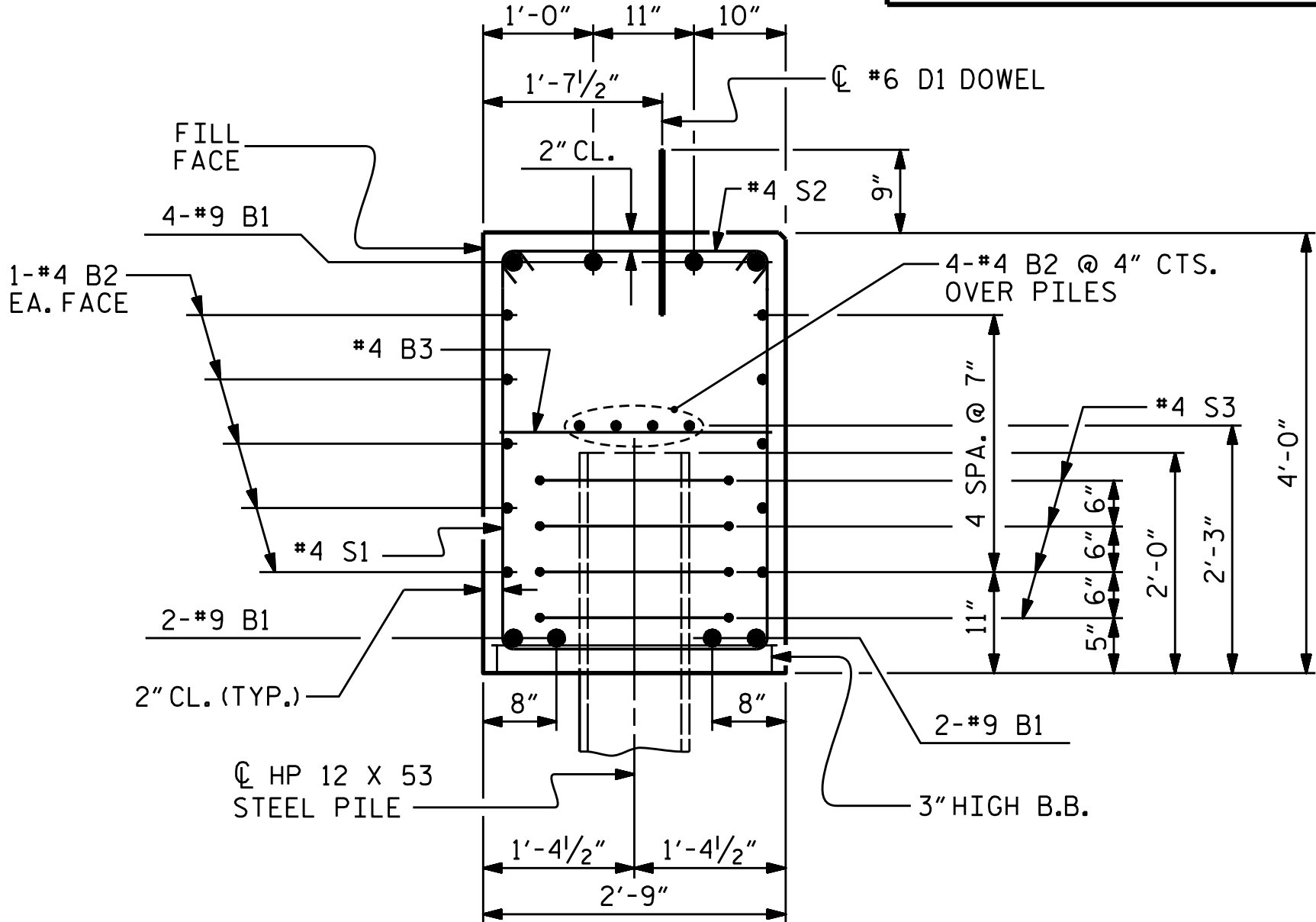
(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)

BAR TYPES



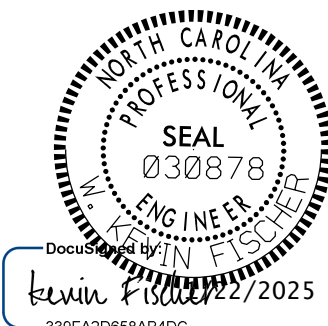
ALL BAR DIMENSIONS ARE OUT TO OUT.

18" GALVANIZED STEEL SHEET PILES
No. PZ27 = 38
TOTAL = 38 SQ. FT. = 2042



SECTION A-A

(CONCRETE COLLAR NOT SHOWN FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL.")



BILL OF MATERIAL

END BENT 1

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B2	34	#4	STR	19'-1"	433
B3	9	#4	STR	2'-5"	15
B4	8	#9	1	40'-0"	1088

D1	20	#6	STR	1'-6"	45
H2	4	#6	STR	8'-8"	52
H3	8	#4	STR	8'-8"	46

K1	12	#4	STR	3'-11"	31
S1	46	#4	3	10'-5"	320
S2	46	#4	4	3'-2"	97
S3	20	#4	5	6'-6"	87
S4	38	#4	6	8'-4"	212
S5	16	#4	3	3'-8"	39
S6	16	#4	4	2'-5"	26

V2	28	#4	STR	6'-5"	120
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REINFORCING STEEL (FOR ONE END BENT) 2611 LBS.

CLASS A CONCRETE BREAKDOWN
POUR #1 CAP & COLLARS 24.8 C.Y.
POUR #2 BACKWALL & COPING 2.1 C.Y.
TOTAL CLASS A CONCRETE 26.9 C.Y.

END BENT 2

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#9	1	38'-0"	1034
B2	28	#4	STR	19'-1"	357
B3	9	#4	STR	2'-5"	15

D1	20	#6	STR	1'-6"	45
H1	40	#4	2	9'-4"	249
K1	16	#4	STR	2'-11"	31

S1	46	#4	3	10'-5"	320
S2	46	#4	4	3'-2"	97
S3	20	#4	5	6'-6"	87

REINFORCING STEEL (FOR ONE END BENT) 2449 LBS.

CLASS A CONCRETE BREAKDOWN
POUR #1 CAP, LOWER PART OF WINGS & COLLARS 17.9 C.Y.
POUR #2 UPPER PART OF WINGS 2.1 C.Y.
TOTAL CLASS A CONCRETE 20.0 C.Y.

PROJECT NO. **DF18314.2044188**

HAYWOOD COUNTY

STATION: **12+67.00 -L-**

SHEET 5 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE

END BENT No. 1 & 2
DETAILS

REVISIONS				SHEET NO.
NO.	BY:	DATE:	NO.	
1			3	S-17
2			4	TOTAL SHEETS 21

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

STD. NO. EB_30_90SA