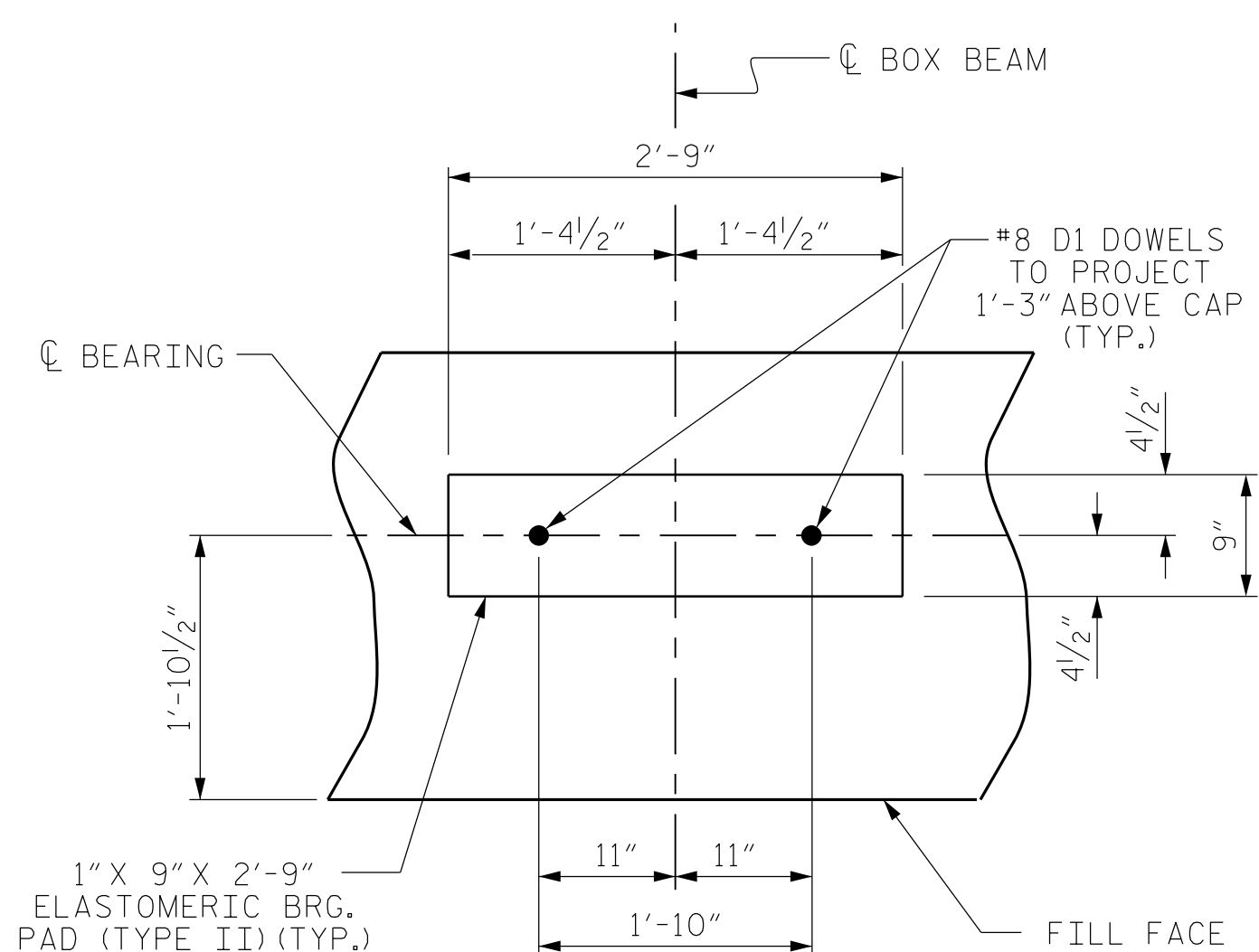


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

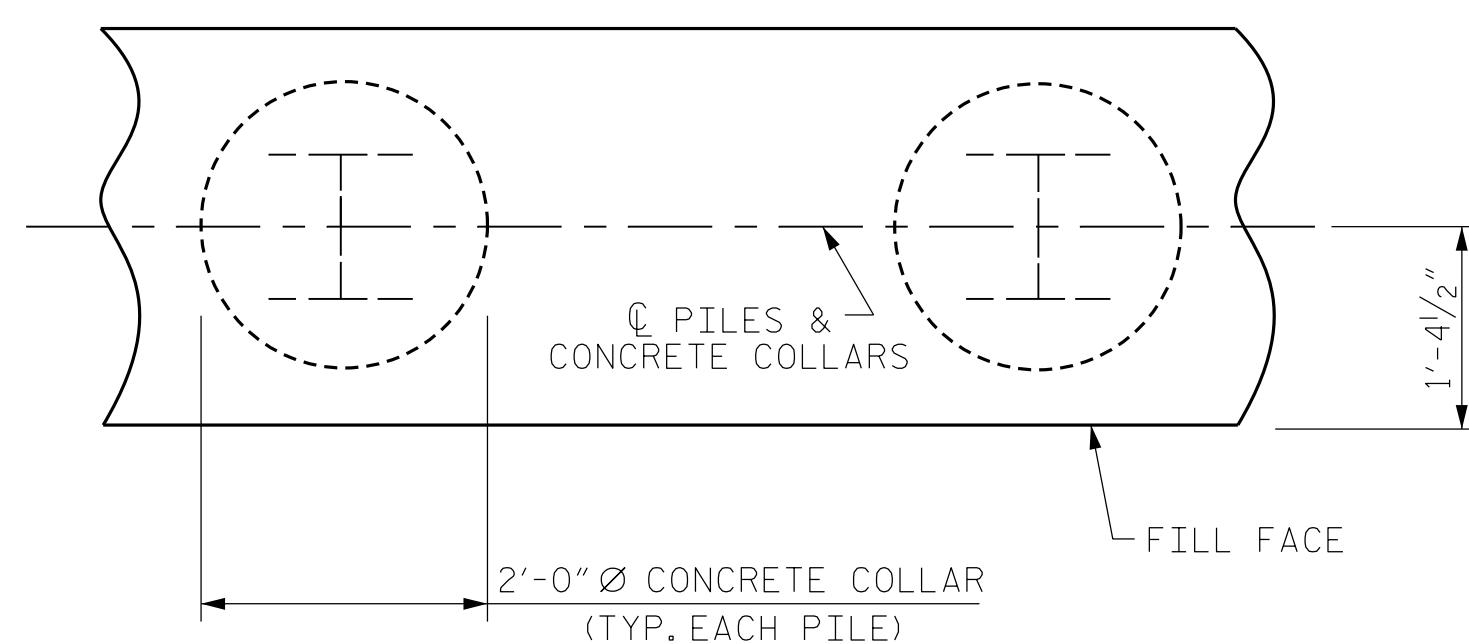
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

### TEMPORARY DRAINAGE AT END BENT



### DETAIL "A"

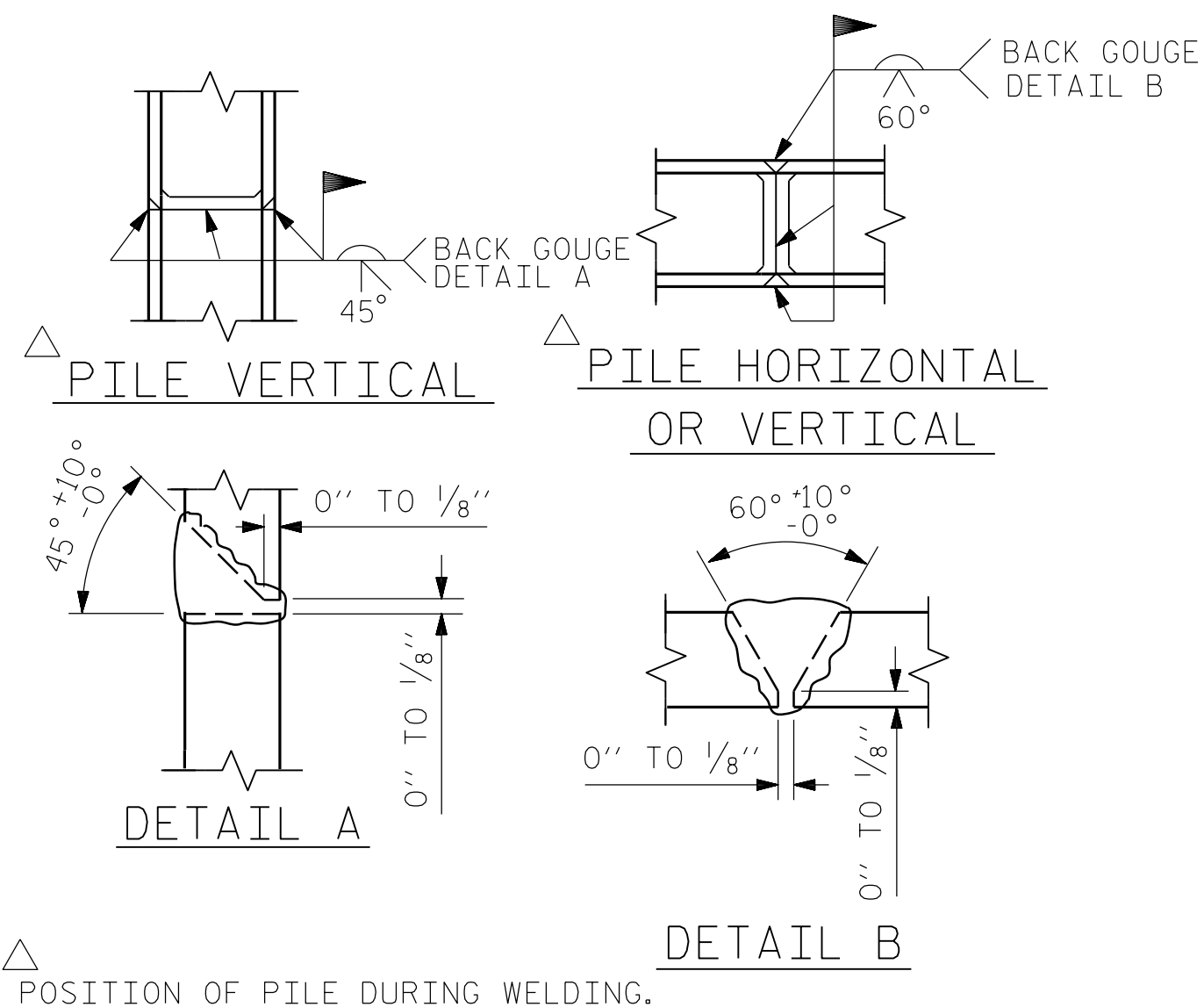
(END BENT No. 1 SHOWN, END BENT No. 2 SIMILAR BY ROTATION)



### PLAN

### CORROSION PROTECTION FOR STEEL PILES DETAIL

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

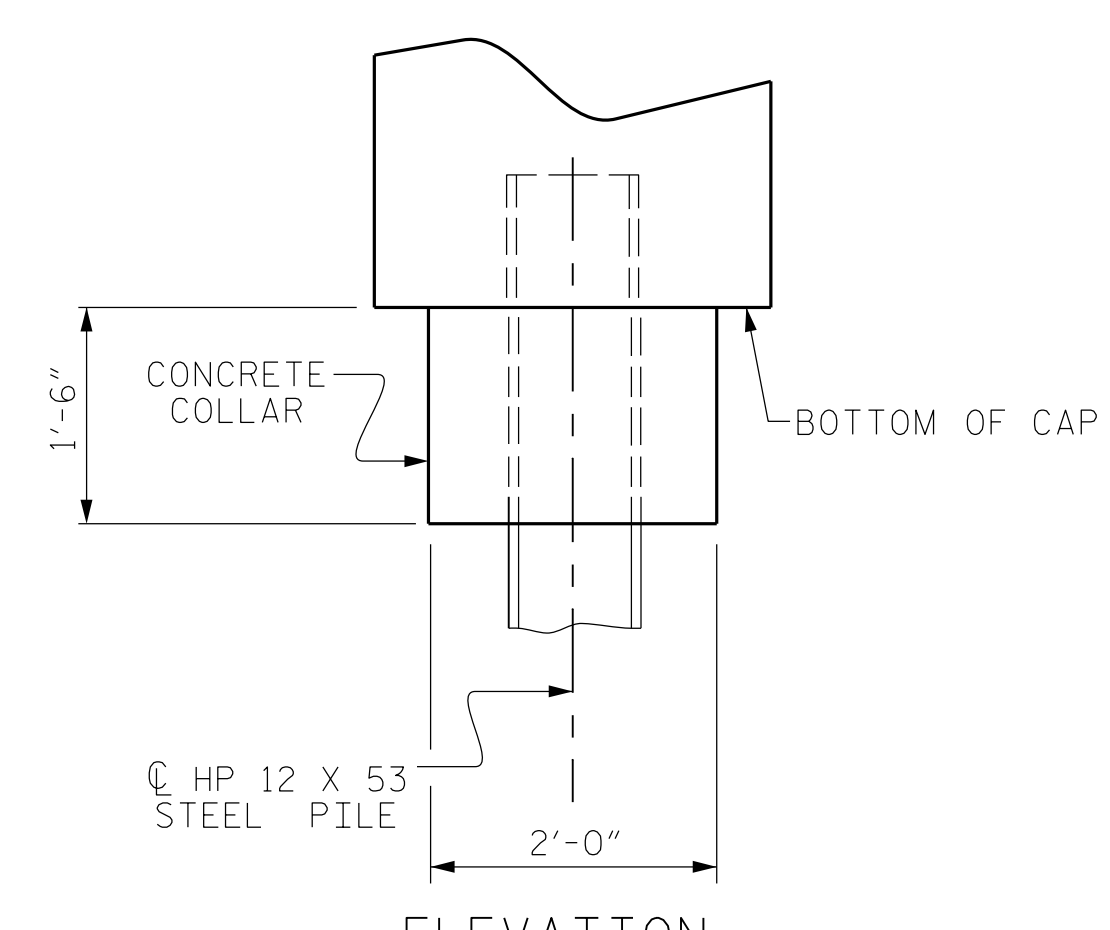


### PILE SPLICE DETAILS

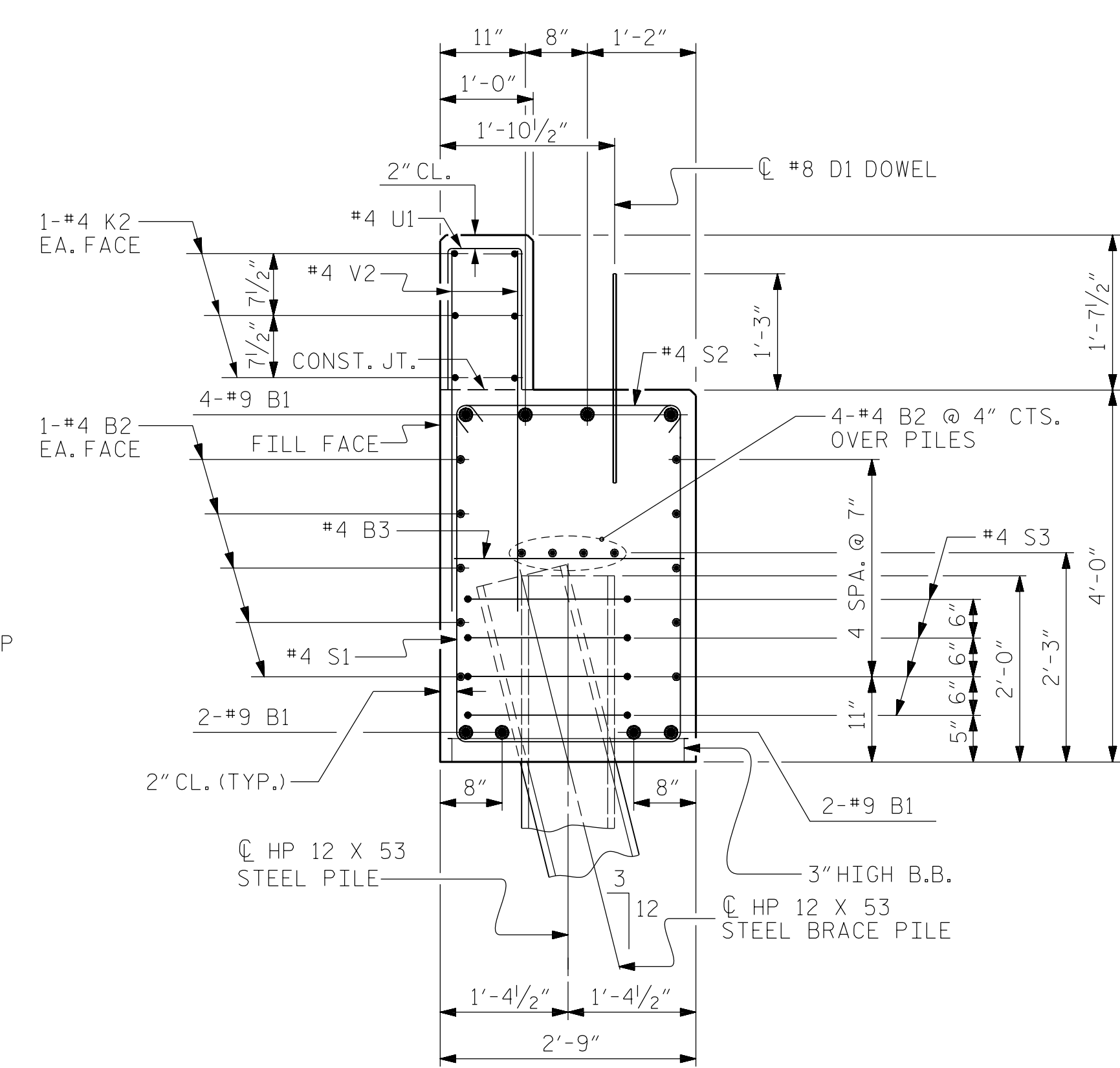
BAR TYPES		BILL OF MATERIAL FOR ONE END BENT				
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	8	#9	1	41'-0"	1115	
B2	28	#4	STR	20'-7"	385	
B3	10	#4	STR	2'-5"	16	
D1	22	#8	STR	2'-3"	132	
H1	48	#5	2	11'-4"	567	
K1	12	#4	STR	2'-11"	23	
K2	12	#4	STR	20'-7"	165	
S1	50	#4	3	10'-5"	348	
S2	28	#4	4	3'-2"	106	
S3	50	#4	5	6'-6"	122	
U1	33	#4	6	3'-7"	79	
V1	60	#4	STR	7'-2"	287	
V2	66	#4	STR	5'-3"	231	
REINFORCING STEEL (FOR ONE END BENT)					3576 LBS.	
CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)						
POUR #1 CAP, LOWER PART OF WINGS & COLLARS					20.1 C.Y.	
POUR #2 BACKWALL & UPPER PART OF WINGS					5.4 C.Y.	
TOTAL CLASS A CONCRETE					25.6 C.Y.	

ALL BAR DIMENSIONS ARE OUT TO OUT.

END BENT No. 1	END BENT No. 2
HP 12 X 53 STEEL PILES	HP 12 X 53 STEEL PILES
NO: 7	NO: 7
LIN. FT. = 595	LIN. FT. = 630
PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES	PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES
NO: 7	NO: 7
PILE REDRIVES	PILE REDRIVES
NO: 4	NO: 4



### ELEVATION



### SECTION A-A

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

PROJECT NO. BR-0119  
PITT COUNTY  
STATION: 13+34.00 -L-

SHEET 4 OF 4



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

SUBSTRUCTURE

END BENT No. 1 & 2  
DETAILS

DESIGN ENGINEER OF RECORD: JACOB H. DUKE	DATE: 12/2019
ASSEMBLED BY: FIDEL L. FLORES	12/2019
CHECKED BY: DIEGO A. AGUIRRE	12/2019
DRAWN BY: WJH 12/11	REV. 4/17
CHECKED BY: AAC 12/11	MAA/THC

1/8/2020  
BR-0119-SMJ.E04.730190.dgn  
okhalofalla

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED

301 FAYETTEVILLE ST., SUITE 1500  
RALEIGH, NC 27601 (919) 882-7839  
NC FIRM LICENSE: C-1506

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-13
1			3			TOTAL SHEETS 15
2			4			

STD. NO. EB\_33\_90S4\_33BB