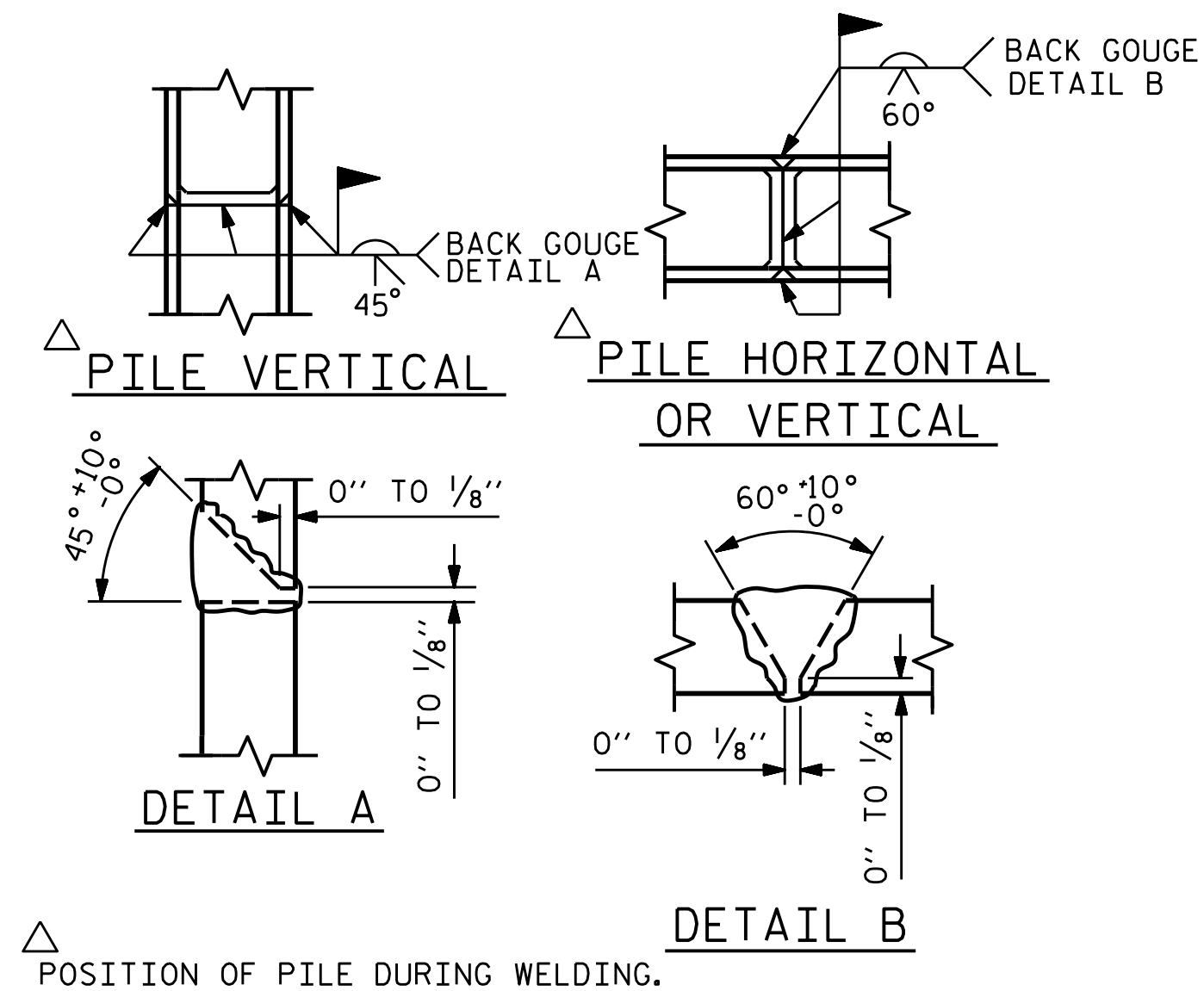
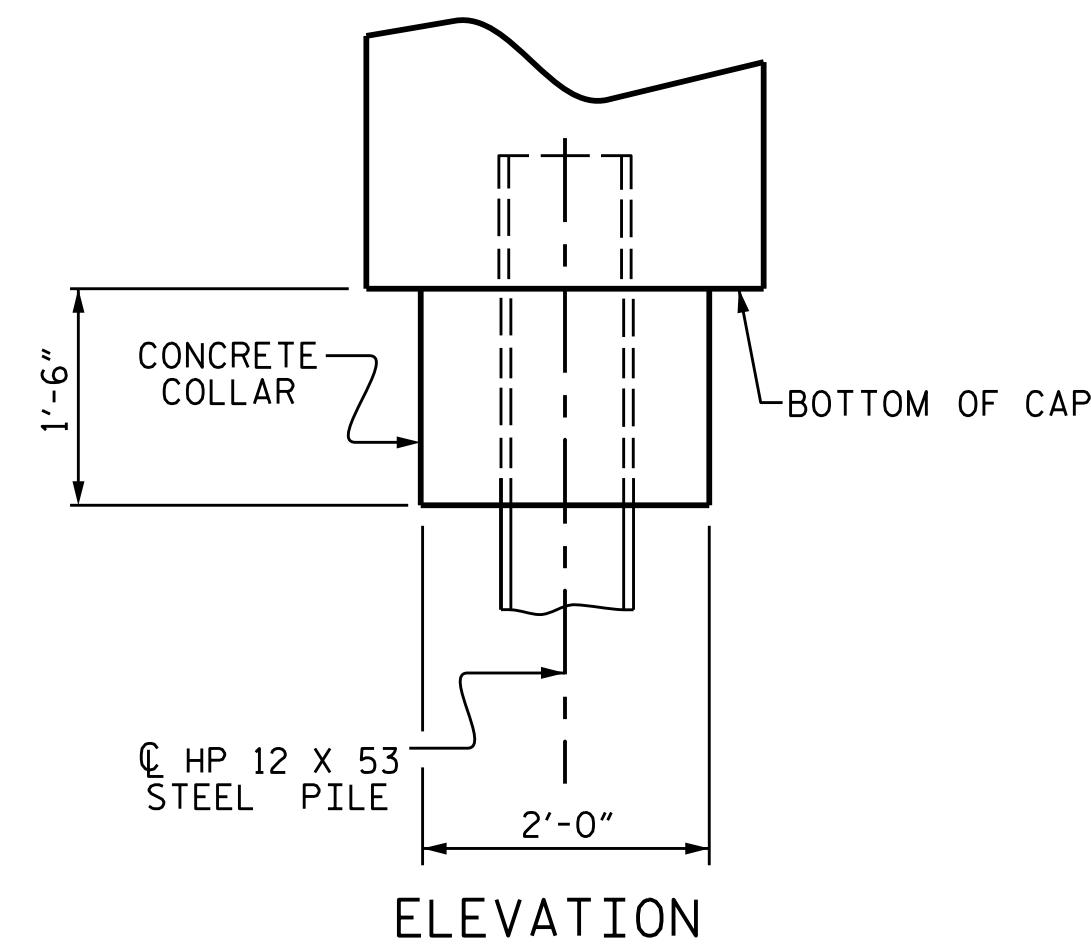
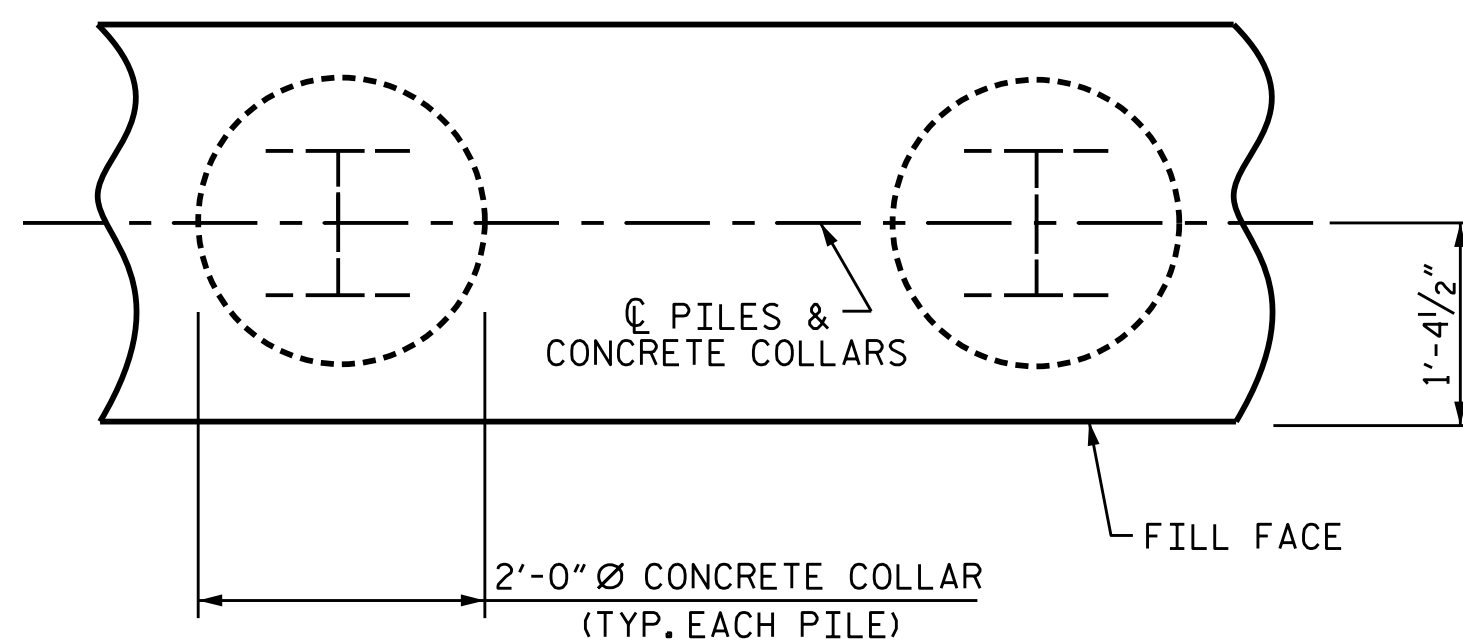
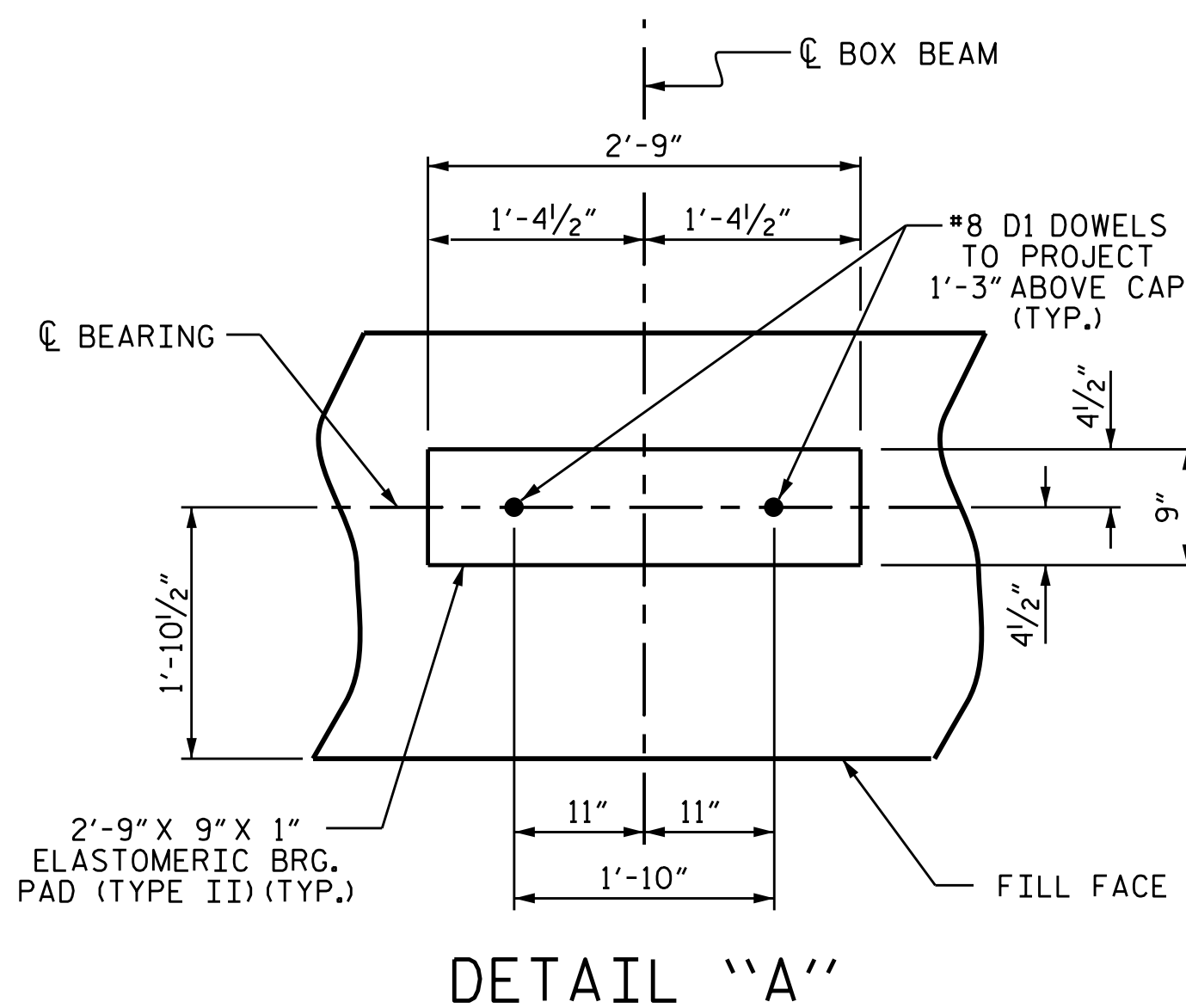


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

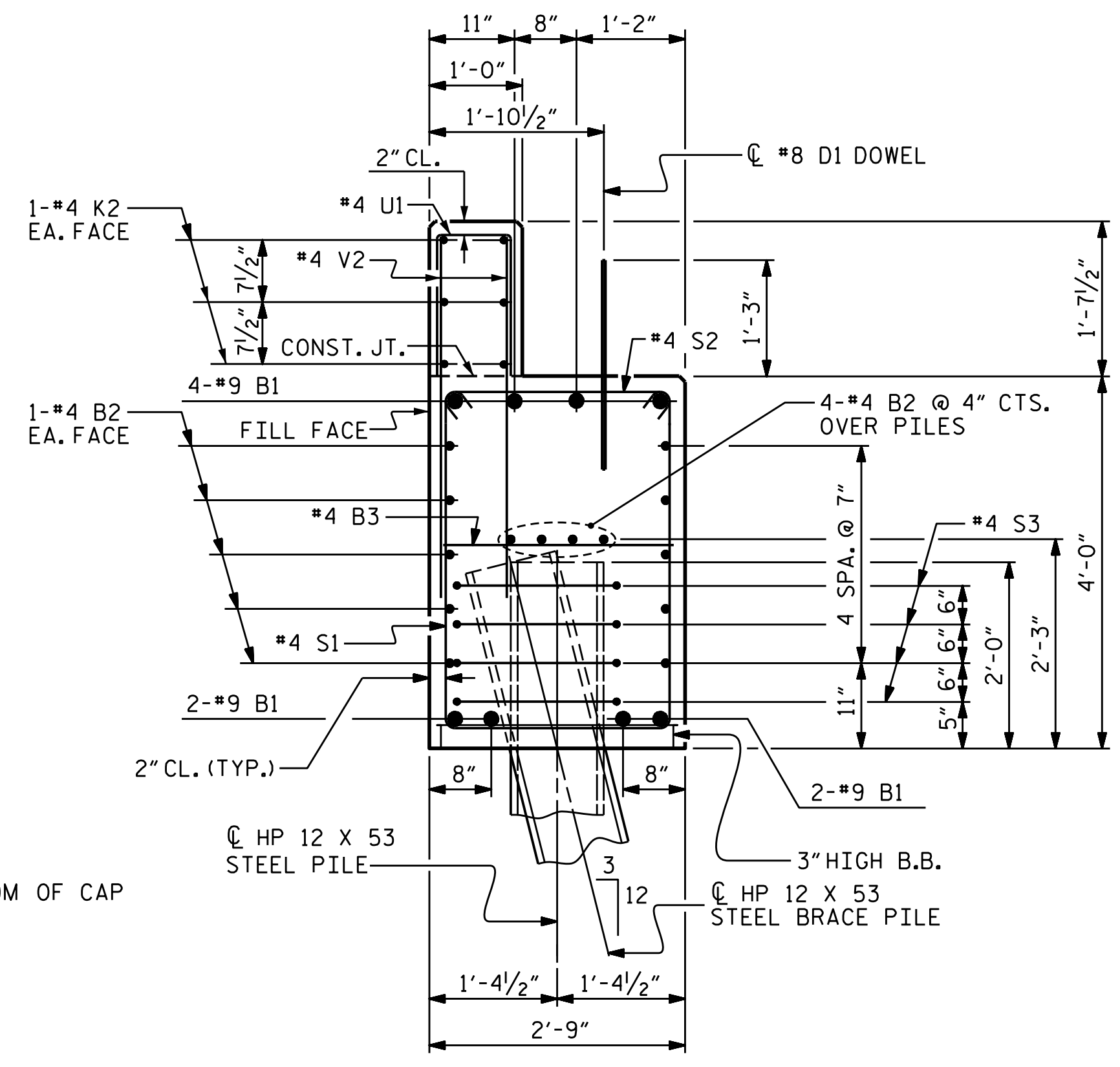
### TEMPORARY DRAINAGE AT END BENT



### PILE SPLICE DETAILS

BAR TYPES					BILL OF MATERIAL FOR ONE END BENT				
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	#9	1	38'-0"	1034	D1	#8	STR	2'-3"	120
B2	#4	STR	19'-1"	357	H1	#5	2	11'-4"	567
B3	#4	STR	2'-5"	15	K1	#4	STR	2'-11"	23
					K2	#4	STR	19'-1"	153
					S1	#4	3	10'-5"	320
					S2	#4	4	3'-2"	97
					S3	#4	5	6'-6"	87
					U1	#4	6	3'-7"	72
					V1	#4	STR	7'-2"	287
					V2	#4	STR	5'-3"	210
REINFORCING STEEL (FOR ONE END BENT)					3342 LBS.				
CLASS A CONCRETE BREAKDOWN (FOR ONE END BENT)									
POUR #1 CAP, LOWER PART OF WINGS & COLLARS					18.5 C.Y.				
POUR #2 BACKWALL & UPPER PART OF WINGS					5.2 C.Y.				
TOTAL CLASS A CONCRETE					23.8 C.Y.				

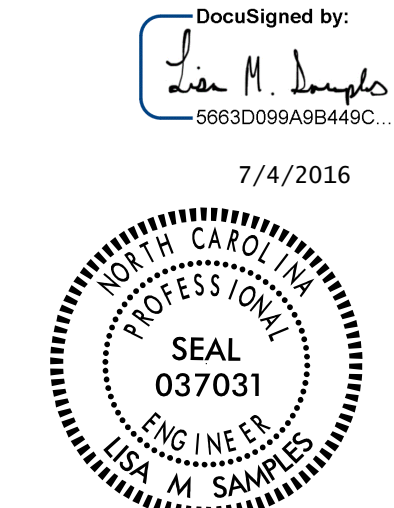
END BENT No. 1  
HP 12 X 53 STEEL PILES  
NO: 5 LIN. FT. = 150



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

PROJECT NO. B-5398  
BURKE COUNTY  
STATION: 16+45.00 -L-  
SHEET 3 OF 3

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
SUBSTRUCTURE  
END BENT No. 1  
DETAILS



ASSEMBLED BY : J.M. KEPICH	DATE : 02/16
CHECKED BY : L.M. SAMPLES	DATE : 04/16
DRAWN BY : WJH 12/11	REV. 4/15
CHECKED BY : AAC 12/11	MAA/TMG
DESIGN ENGINEER OF RECORD : L.M. SAMPLES DATE : 05/16	

ms consultants, inc.  
920 Main Campus Drive  
Suite 430  
Raleigh, NC 27606  
NC License Number : C-3239

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

TOTAL SHEETS 24