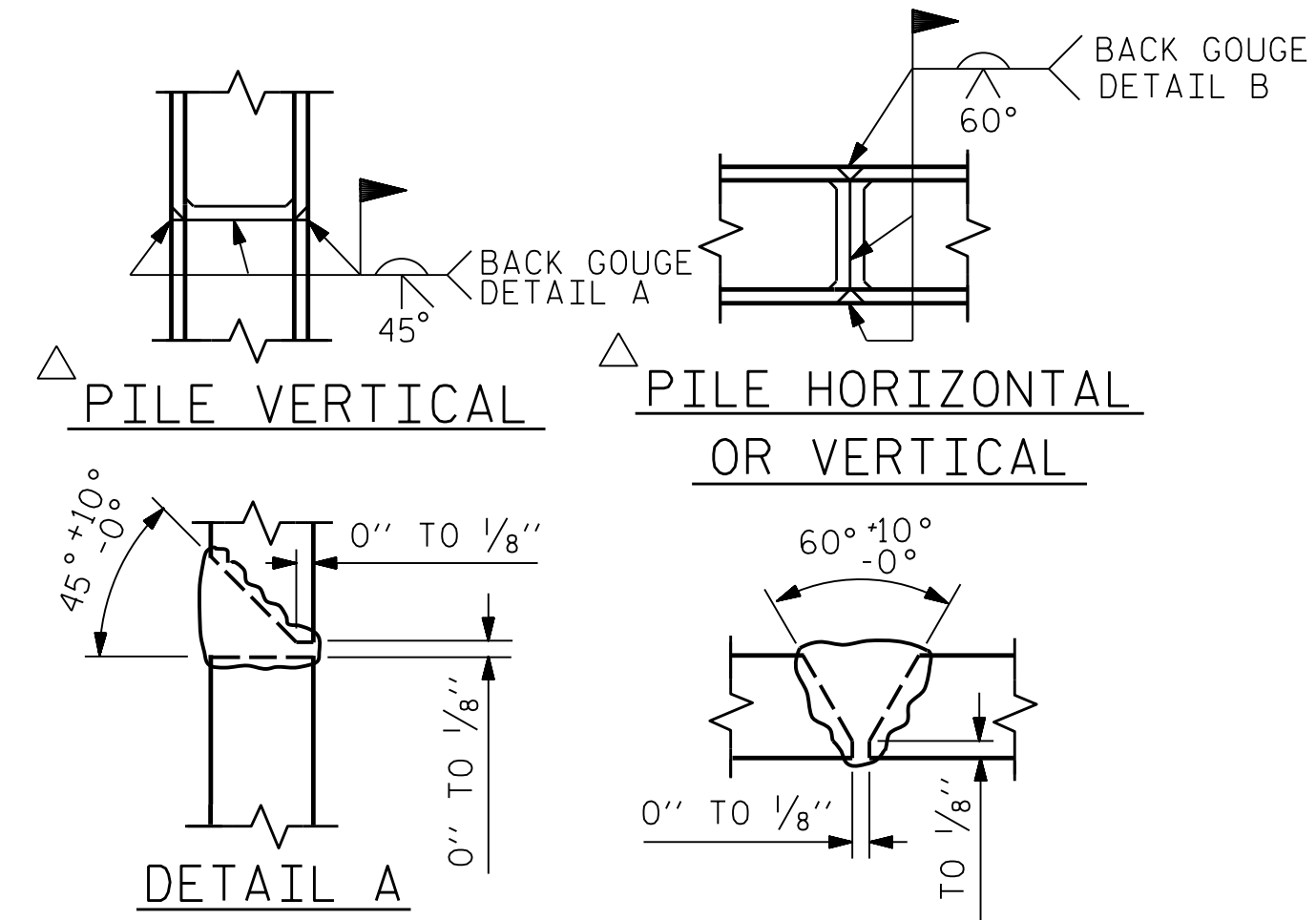


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

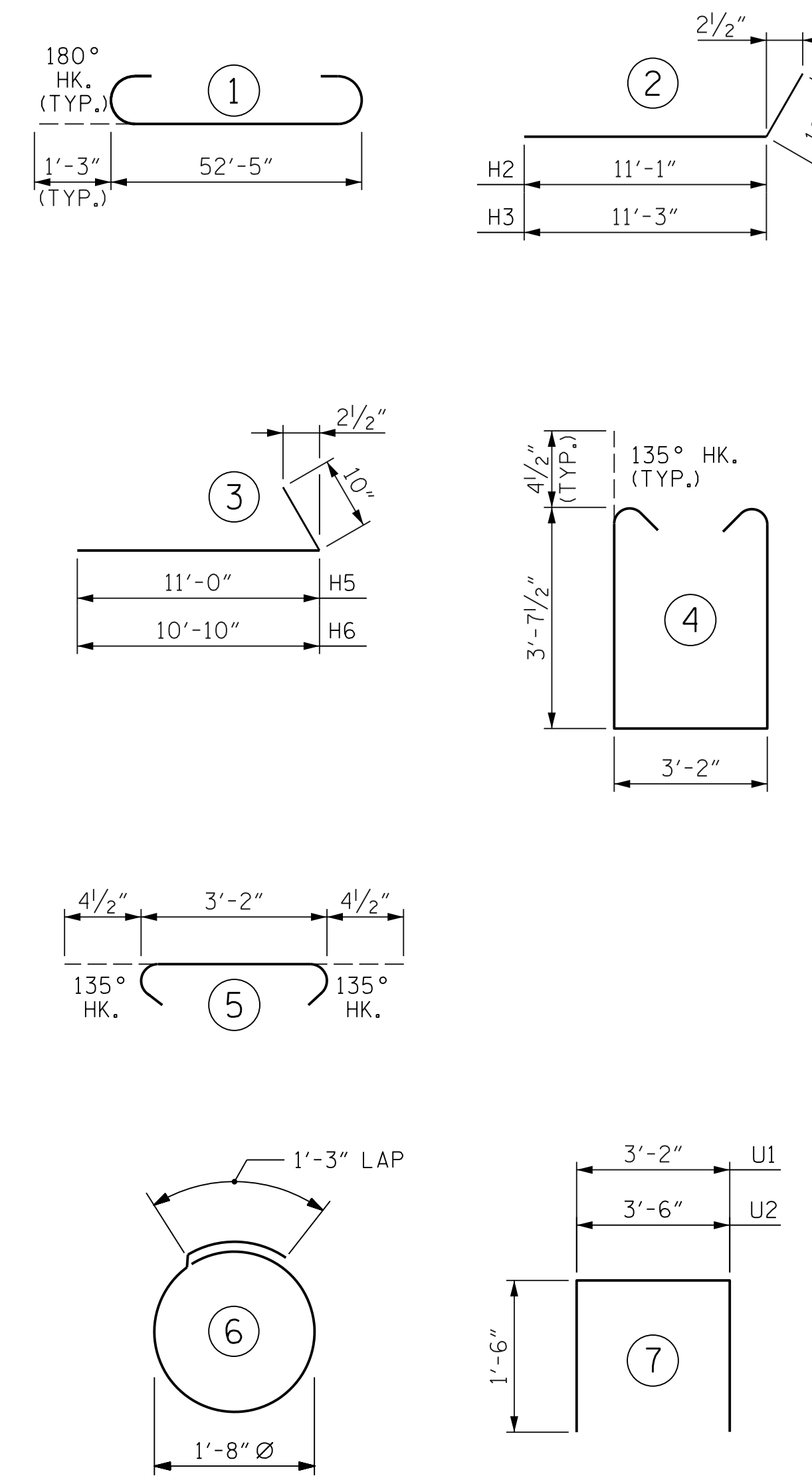
TEMPORARY DRAINAGE AT END BENT



POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

BAR TYPES



NOTE: ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

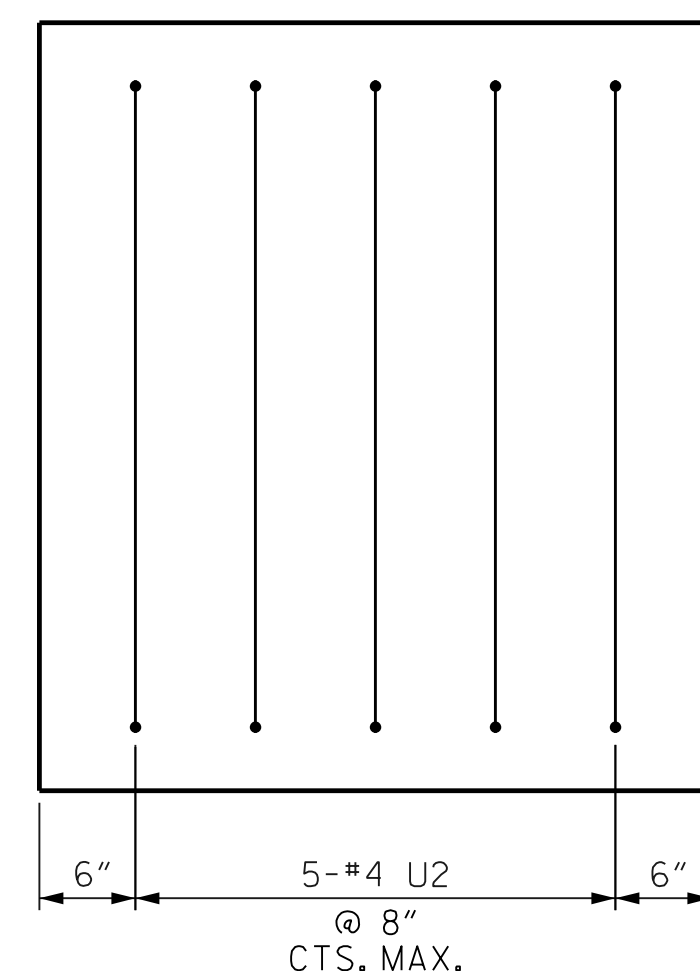
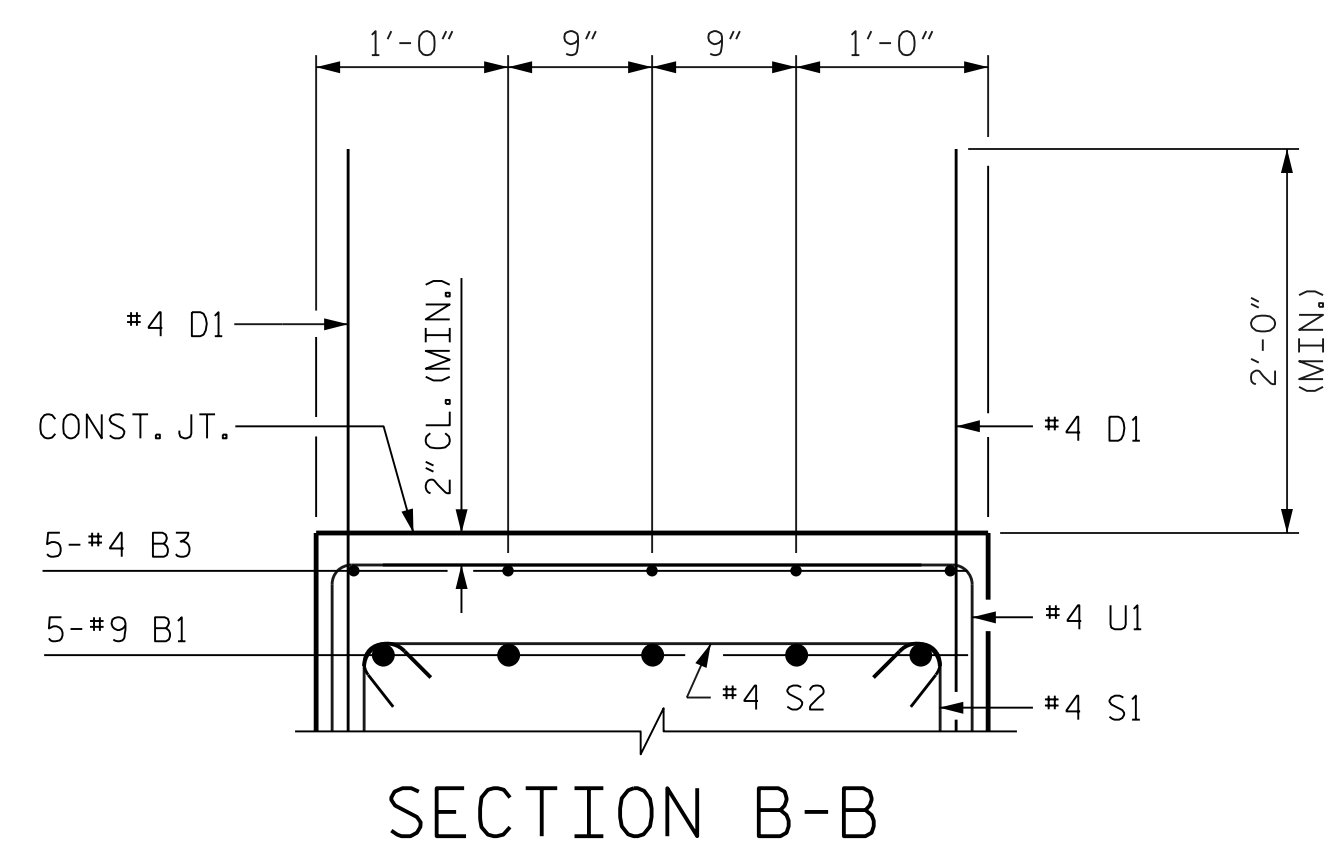
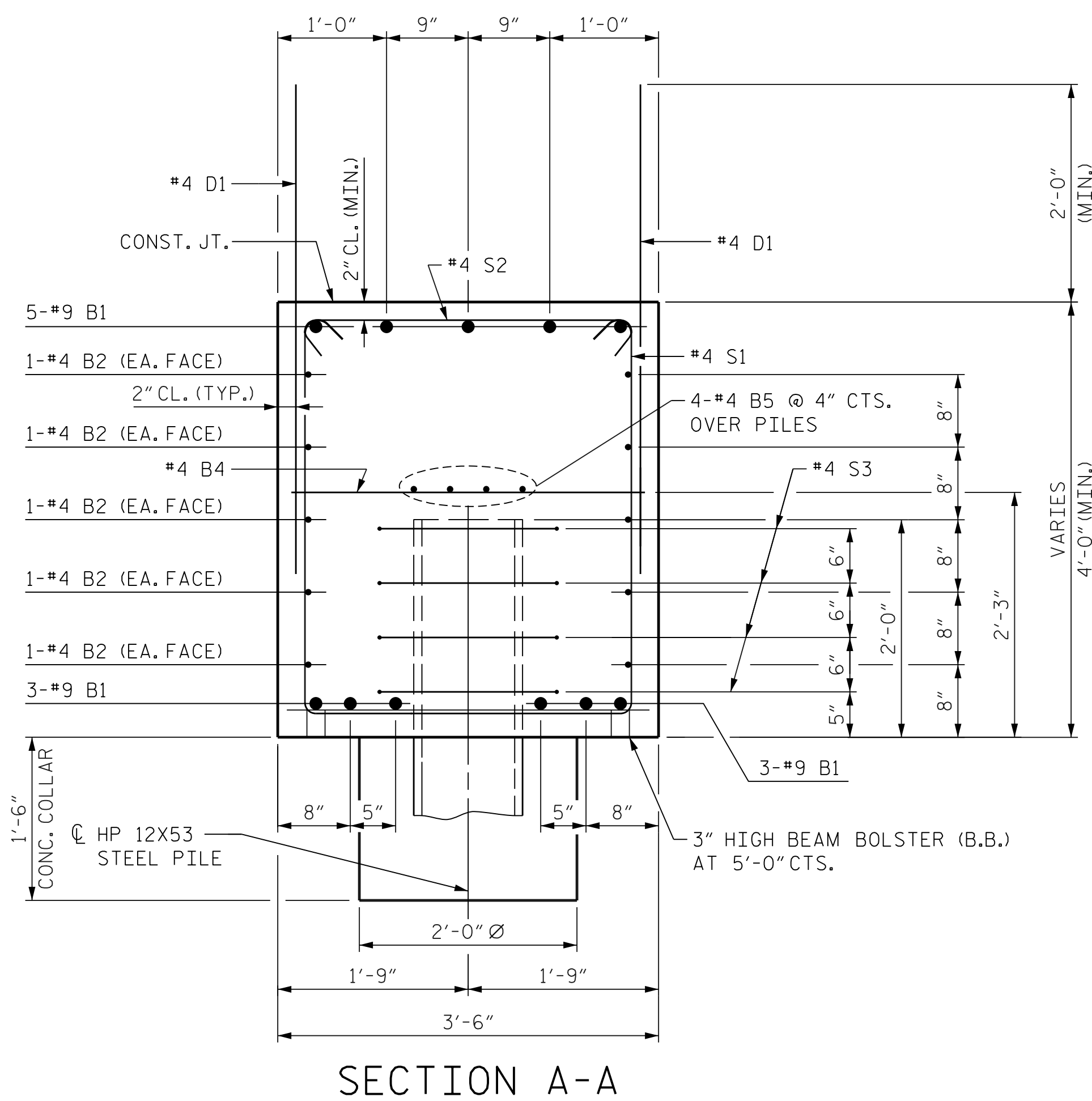
END BENT 1

BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	11	#9	1	54'-11"	2054
B2	20	#4	STR	27'-6"	368
B3	5	#4	STR	11'-8"	39
B4	13	#4	STR	3'-2"	28
B5	8	#4	STR	27'-6"	147
D1	88	#4	STR	4'-6"	265
H1	12	#5	STR	13'-8"	172
H2	6	#5	2	11'-11"	75
H3	6	#5	2	12'-1"	76
H4	12	#5	STR	13'-5"	168
H5	6	#5	3	11'-10"	75
H6	6	#5	3	11'-8"	74
H7	24	#4	STR	2'-7"	42
S1	71	#4	4	11'-2"	530
S2	71	#4	5	3'-11"	186
S3	24	#4	6	6'-6"	105
U1	19	#4	7	6'-2"	79
U2	10	#4	7	6'-6"	44
V1	60	#4	STR	6'-0"	241
V2	30	#4	STR	3'-9"	76
V3	30	#4	STR	3'-11"	79

REINFORCING STEEL 4,923 LBS.

CLASS A CONCRETE

POUR 1 (CAP, LOWER WINGS & COLLARS)	32.8 C.Y.
POUR 2 (UPPER WINGS)	4.3 C.Y.
TOTAL CONCRETE	37.1 C.Y.
HP 12 x 53 STEEL PILES	
NO.	6
L.F.	300
PILE EXCAVATION	
IN SOIL	L.F. 160
NOT IN SOIL	L.F. 70
PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES	EA. 6



PROJECT NO. B-5352

ROCKINGHAM COUNTY

STATION: P.O.T. 22+16.89 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
END BENT 1
MISCELLANEOUS DETAILS
AND BILL OF MATERIAL



DocuSigned by: Matthew Neiheisel 2/20/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
		3			S-27
		4			TOTAL SHEETS 37

DRAWN BY: D. H. CARTER DATE: FEB 2018
 CHECKED BY: M. T. NEIHEISEL DATE: FEB 2018
 DESIGN ENGINEER OF RECORD: M. T. NEIHEISEL DATE: FEB 2018

ICA Engineering, Inc.
555 Fayetteville St., Suite 900
Raleigh, NC 27601
NC License No: F-0258

PLOT DRIVER: NCDOT STRUCTURES DEFAULT PLOTTER.PHT PENTABLE: NCDOT STRUCTURES DEFAULT PEN.TBI
 USER: dcarter DATE: 2/19/2018 TIME: 1:44:47 PM
 FILE: ... \Structures\dgm\Final\CAD\1102