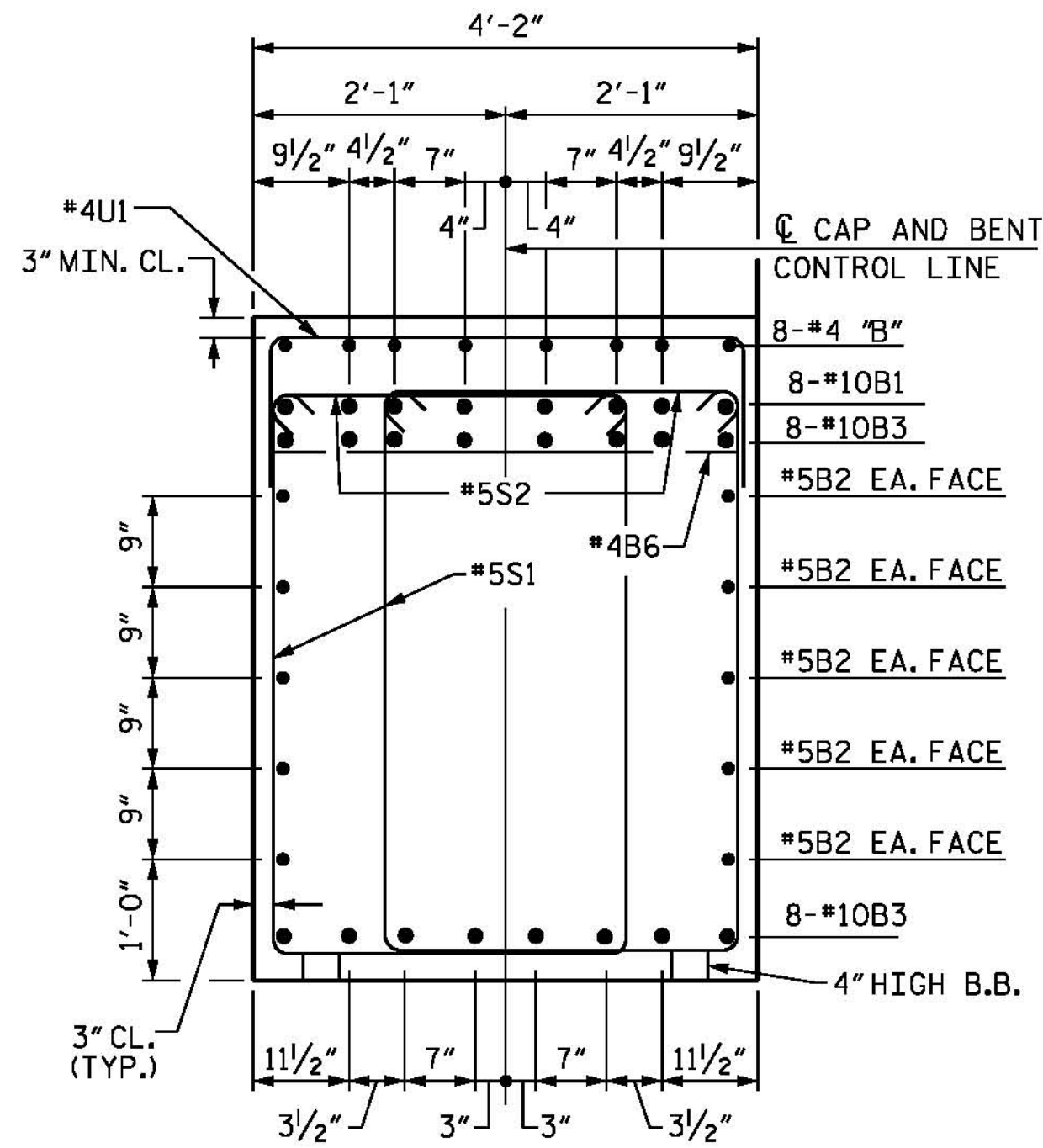
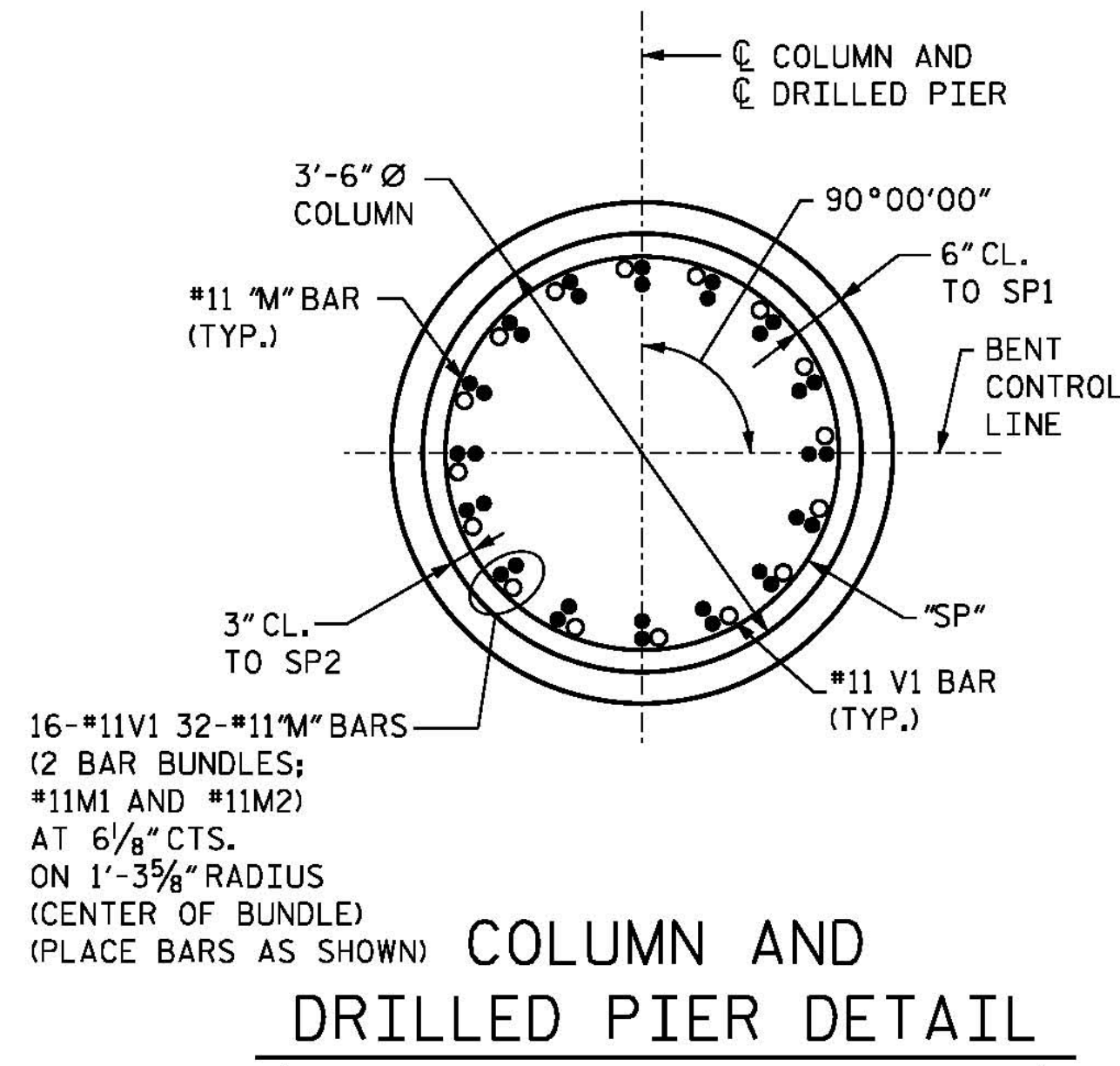


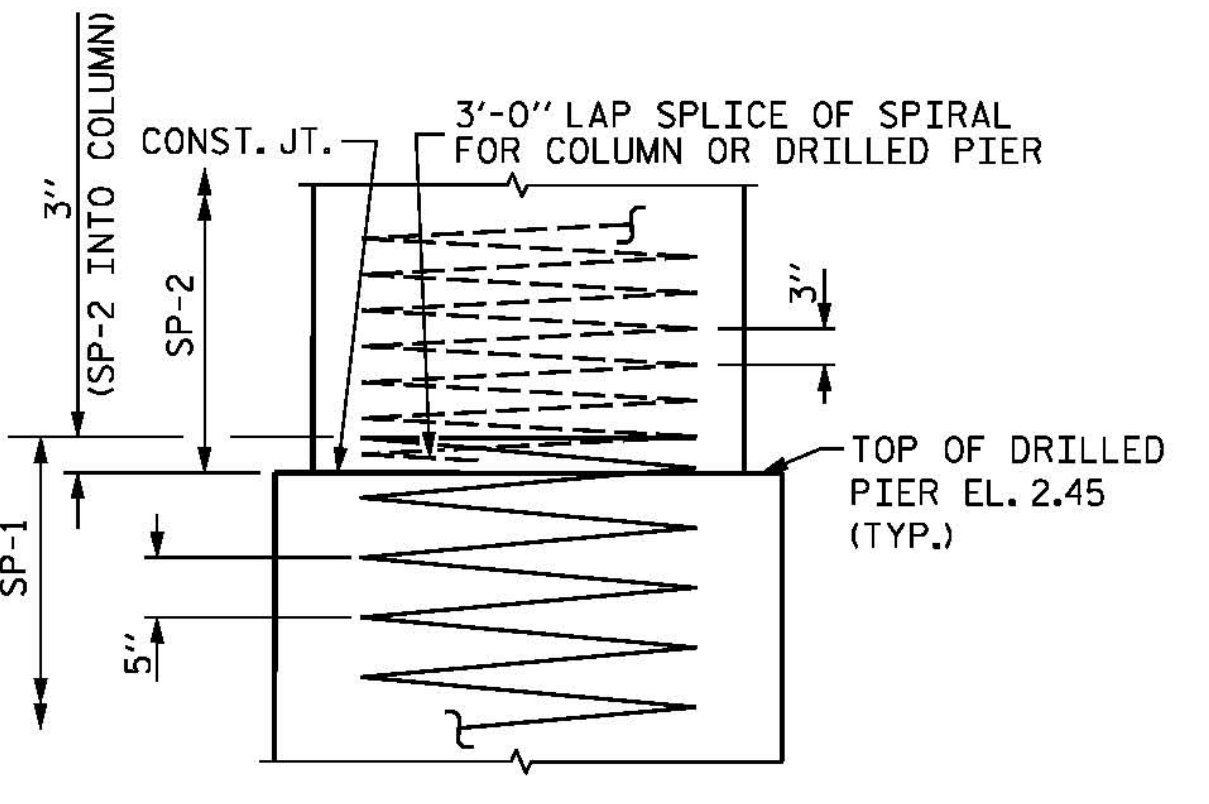
SECTION A-A



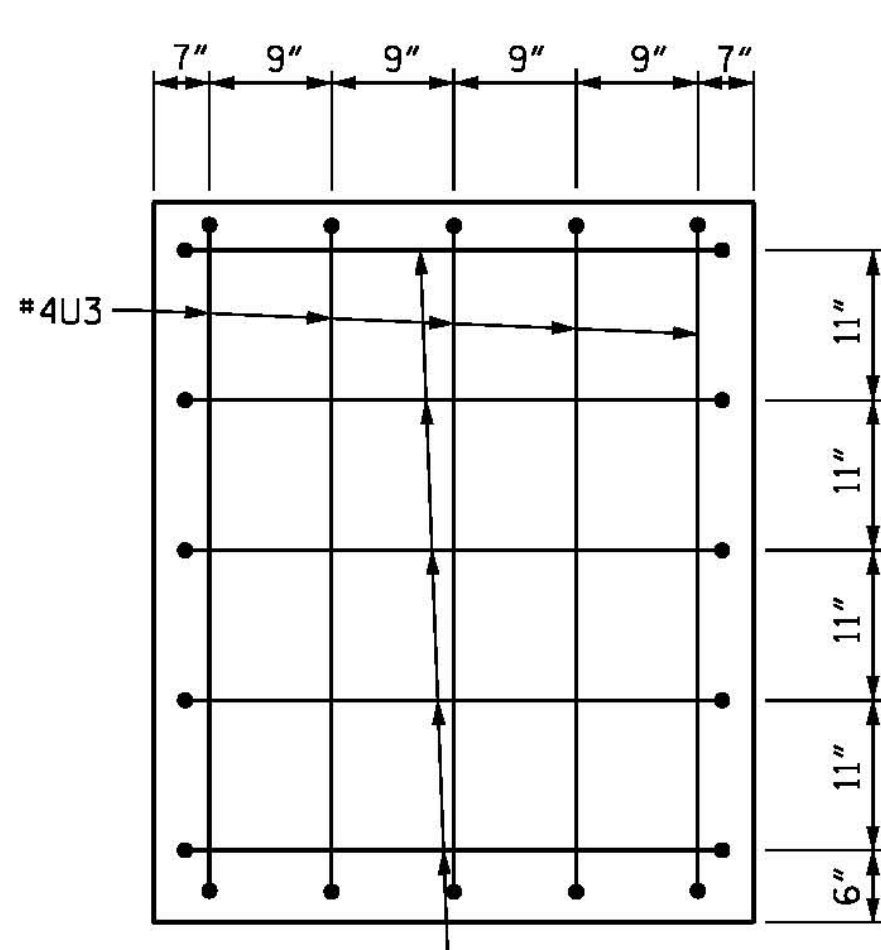
SECTION B-B



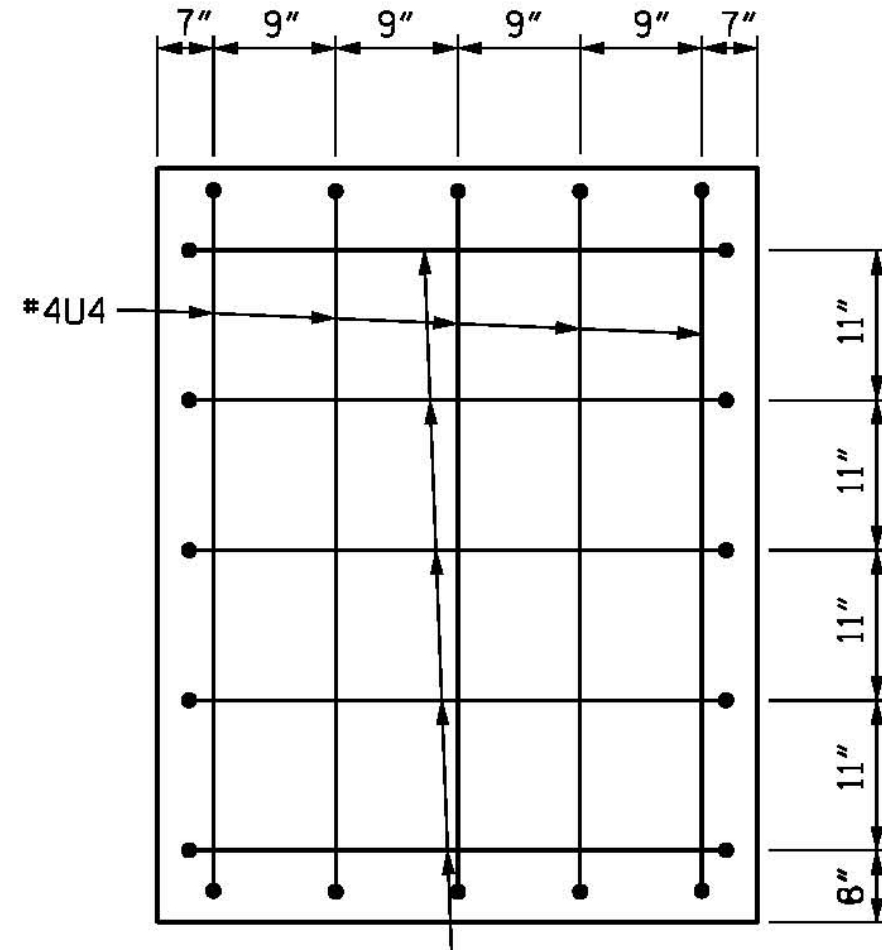
COLUMN AND DRILLED PIER DETAIL



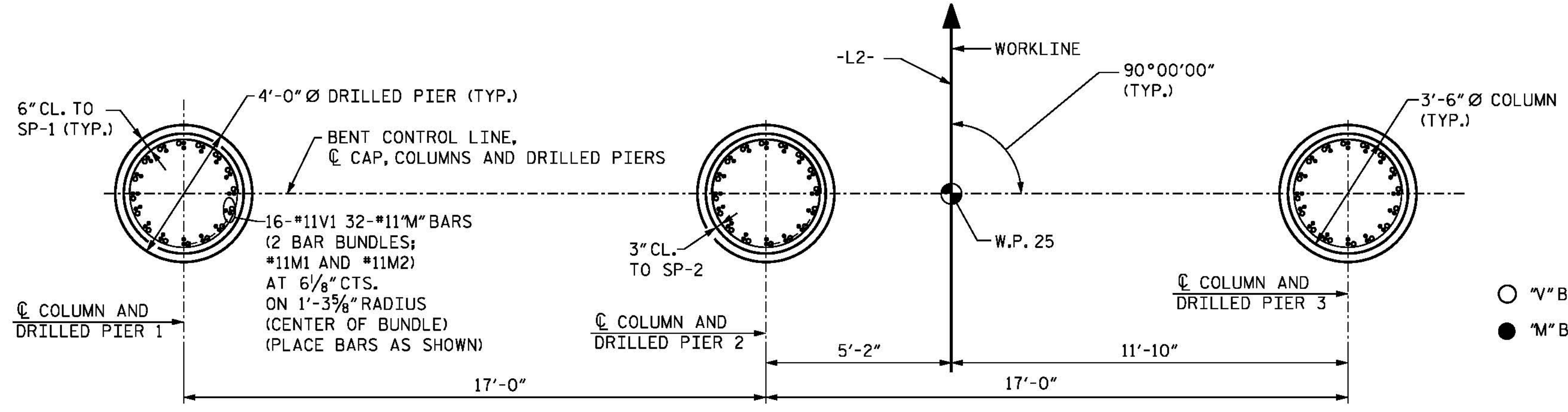
CONSTRUCTION JOINT DETAIL



VIEW X-X

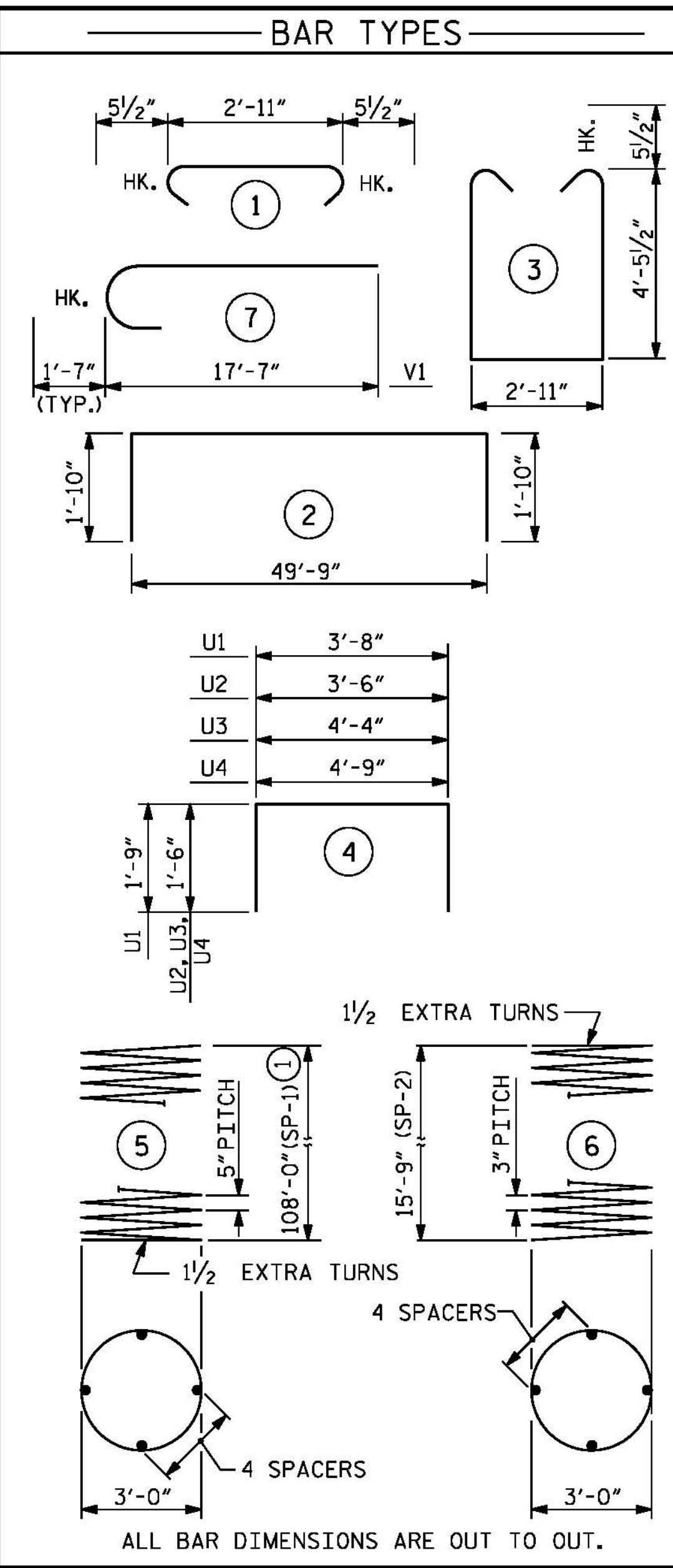


VIEW Y-Y



PLAN OF COLUMNS AND DRILLED PIERS

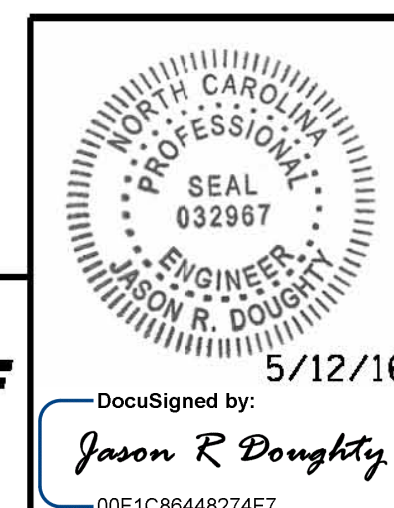
(REINFORCING STEEL ARE TYPICAL FOR EACH COLUMN AND DRILLED PIER)



BILL OF MATERIAL					
BENT 24					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#10		53'-5"	1839
B2	10	#5	STR	49'-6"	516
B3	16	#10	STR	49'-6"	3408
B4	8	#4	STR	10'-11"	58
B5	8	#4	STR	27'-2"	145
B6	13	#4	STR	3'-8"	32
M1	96	#11	STR	30'-0"	15,301
M2	192	#11	STR	60'-0"	61,206
S1	164	#5		12'-9"	2181
S2	164	#5		3'-10"	656
U1	62	#4		7'-2"	297
U2	10	#4		6'-6"	43
U3	5	#4		7'-4"	24
U4	5	#4		7'-9"	26
V1	48	#11		19'-2"	4888
EPOXY COATED REINFORCING STEEL				LBS.	90,620
SP1	3	*	5	2429'-0"	7600
SP2	3	**	6	605'-0"	1212
EPOXY COATED SPIRAL COLUMN REINFORCING STEEL				LBS.	8812
CLASS "AA" CONCRETE BREAKDOWN					
POUR #2 - COLUMNS					16.5 C.Y.
POUR #3 - CAP					41.6 C.Y.
CLASS "AA" CONCRETE					58.1 C.Y.
DRILLED PIER QUANTITIES					
POUR #1 - DRILLED PIER CONCRETE					
151.5 C.Y.					
4'-0" Ø DRILLED PIERS					
325.4 L.F.					
PERMANENT STEEL CASING FOR 4'-0" Ø DRILLED PIERS					
52.4 L.F.					
SPT TESTING					
3 EA.					
SID INSPECTIONS					
1 EA.					
CSL TUBES					
1320 L.F.					

** THE SP-2 EPOXY COATED SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR.
 * THE SP-1 EPOXY COATED SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR,
 (1) CONTRACTOR MAY PROVIDE 3'-0" MIN. SPLICE AT MID HEIGHT OF EPOXY COATED SPIRAL REINFORCING STEEL. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR SPLICES.

PROJECT NO. B-4929
PENDER COUNTY
 STATION: 38+13.81 -L2-
 SHEET 2 OF 2



PARSONS BRINCKERHOFF
 434 FAYETTEVILLE STREET
 SUITE 1500
 RALEIGH, NC 27601
 LICENSE NO. F-0165

DocuSigned by:
 Jason R Doughty
 00F1C86448274F7...
 5/12/16

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE BENT 24 SECTIONS AND DETAILS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

SHEET NO.
S-193
 TOTAL SHEETS
278

5/11/2016 400_379_B4929_SMU_IB242.dgn

DESIGNED BY: M. WAGNER DATE: JAN. 2016
 DRAWN BY: B. CALDWELL DATE: FEB. 2016
 CHECKED BY: J. SHERMAN DATE: MAR. 2016
 DESIGN ENGINEER OF RECORD: J. DOUGHTY DATE: MAY 2016