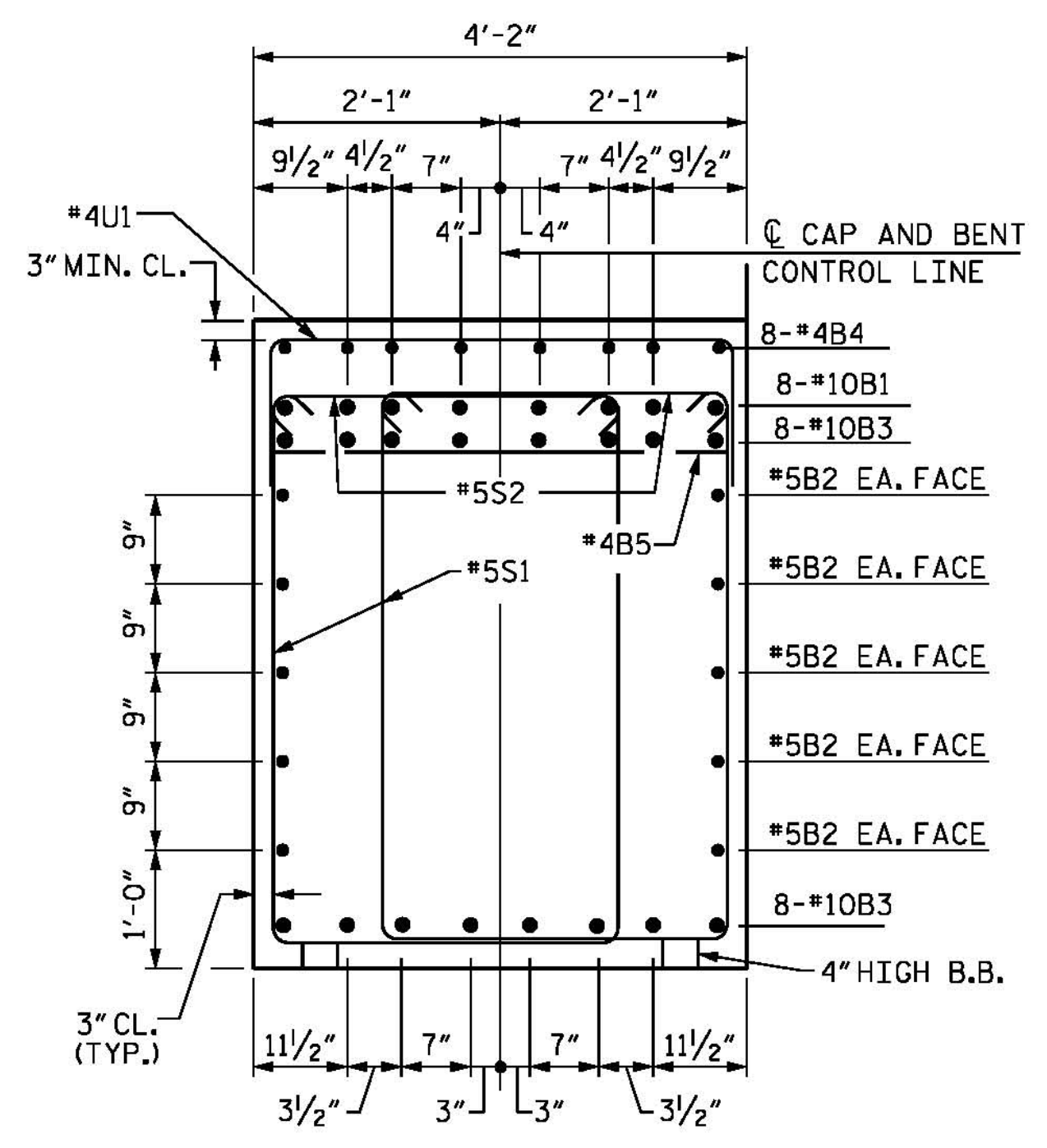
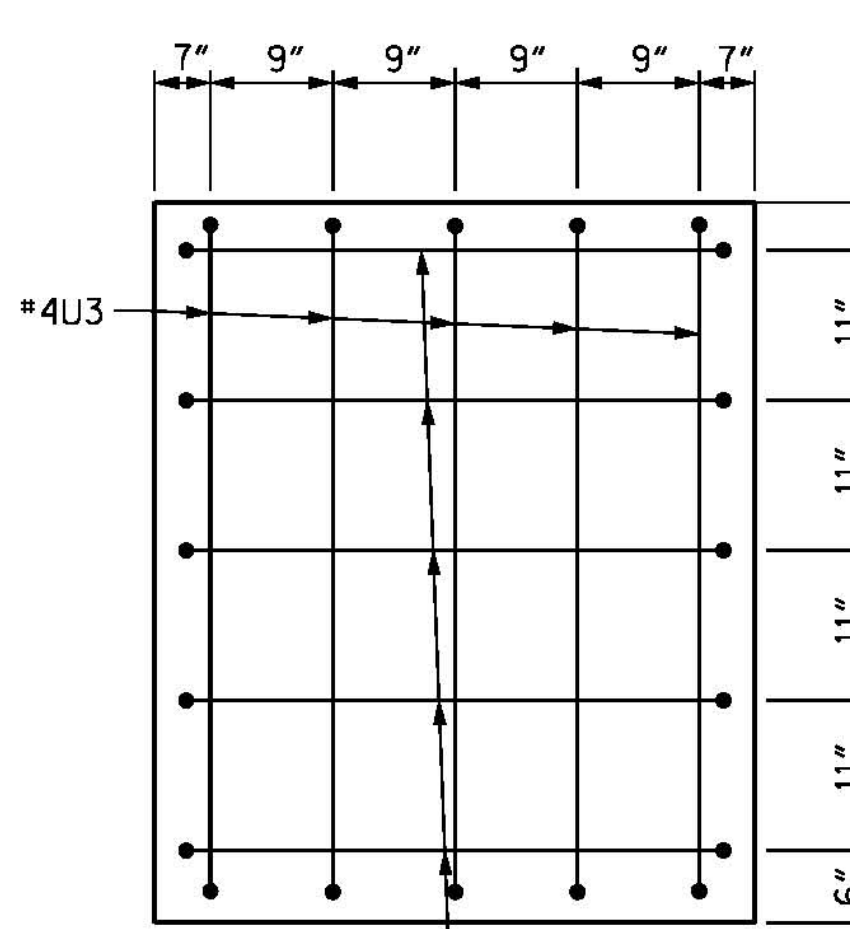


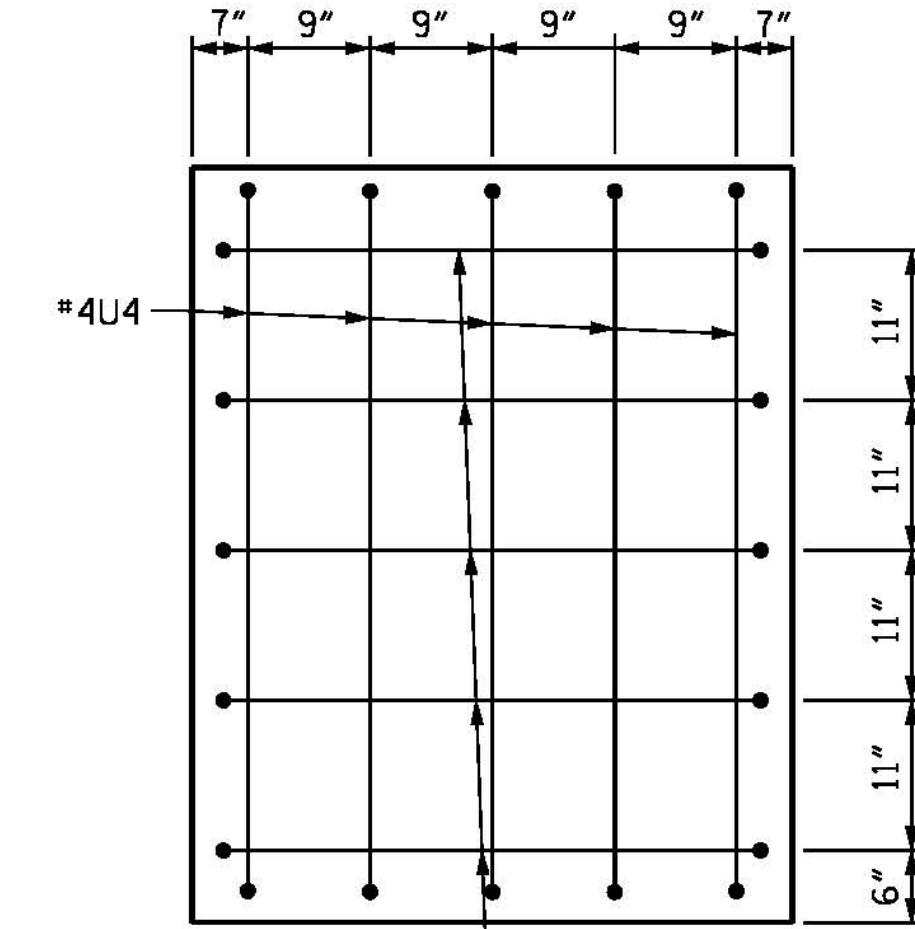
SECTION A-A



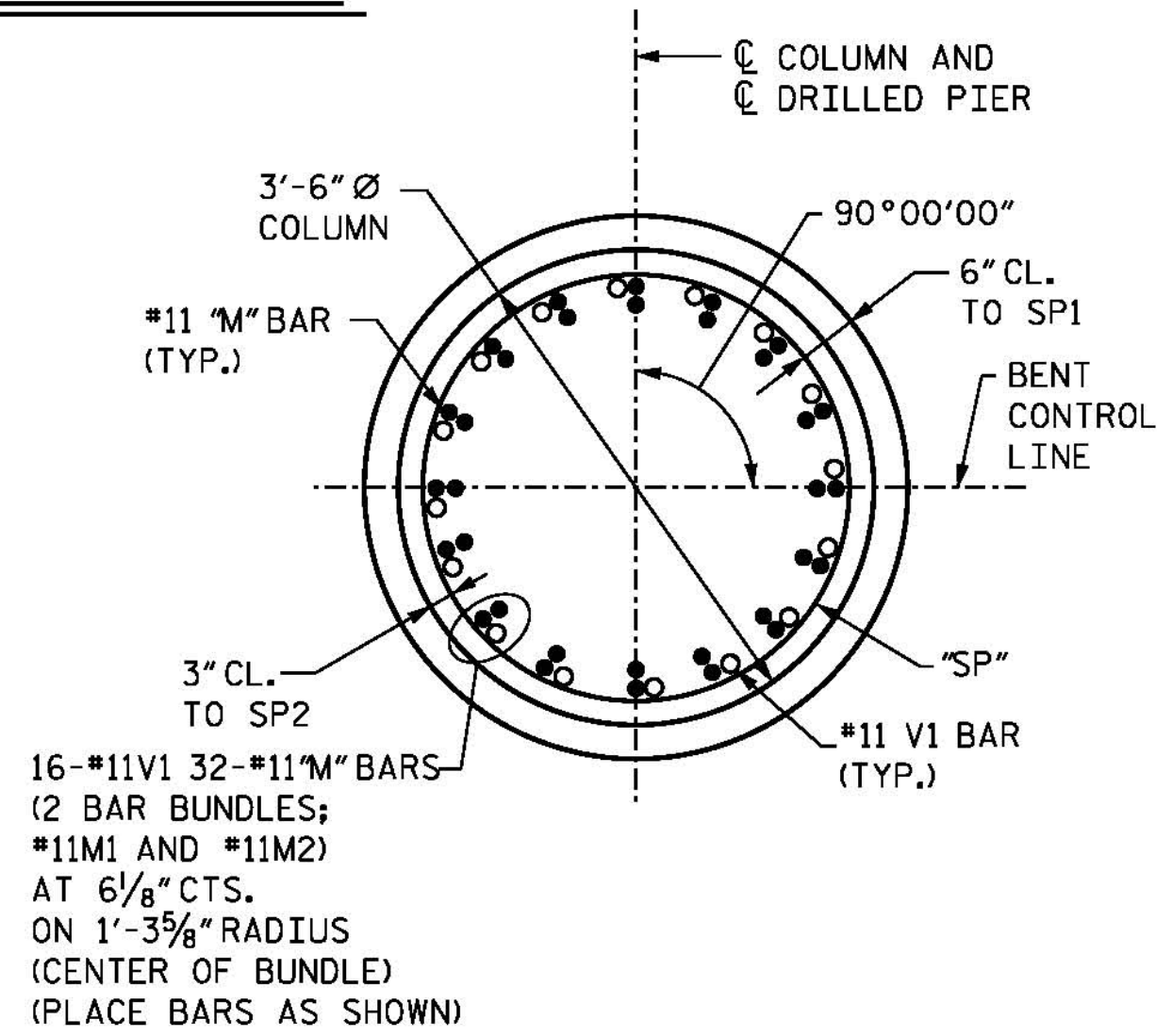
SECTION B-B



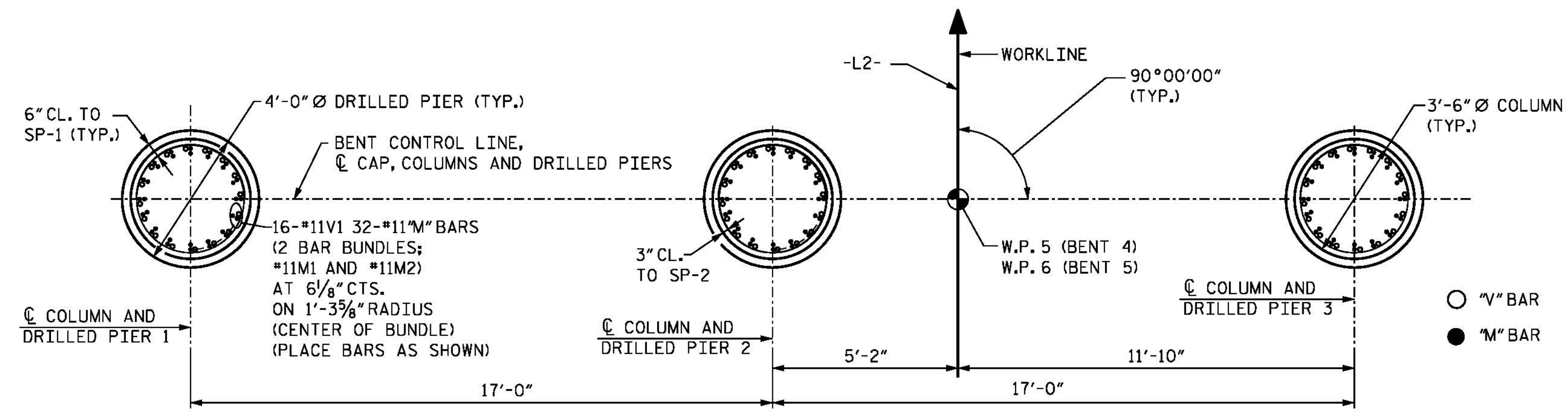
VIEW X-X



VIEW Y-Y

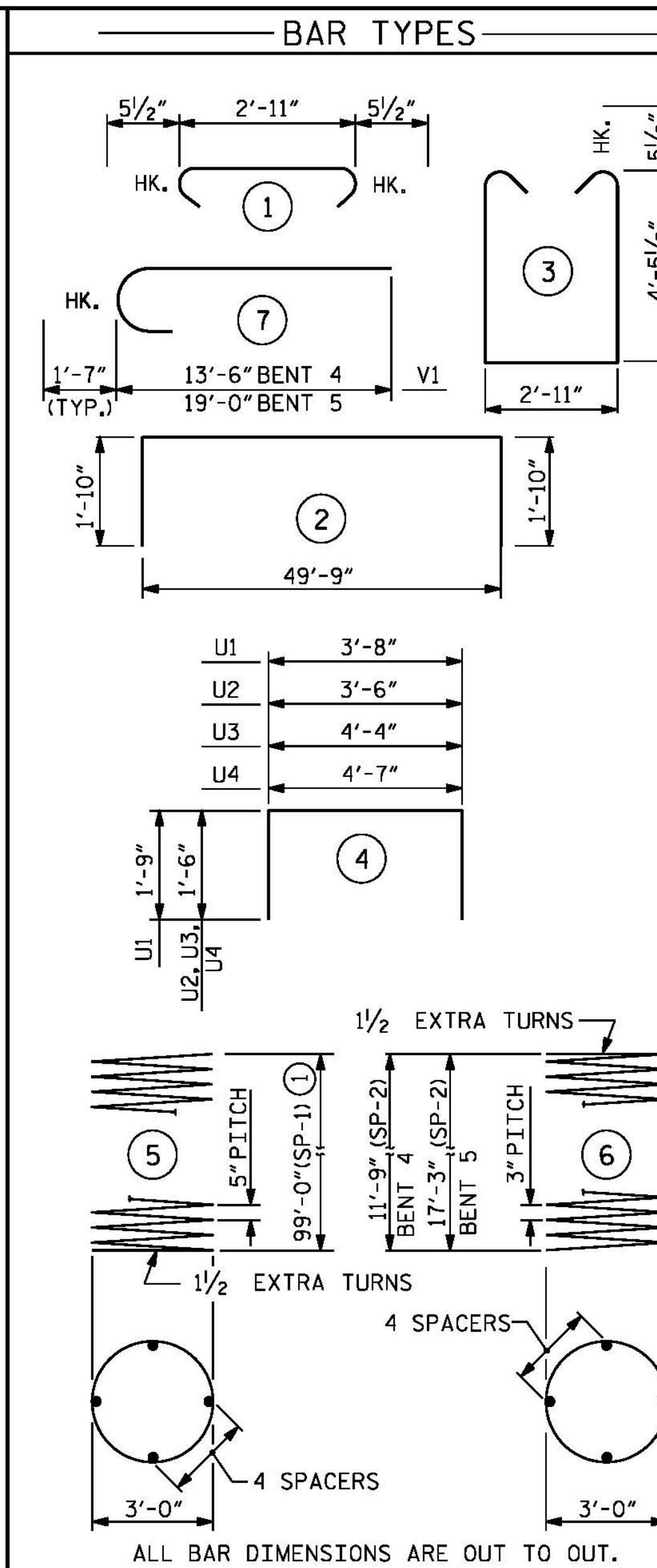


COLUMN AND DRILLED PIER DETAIL



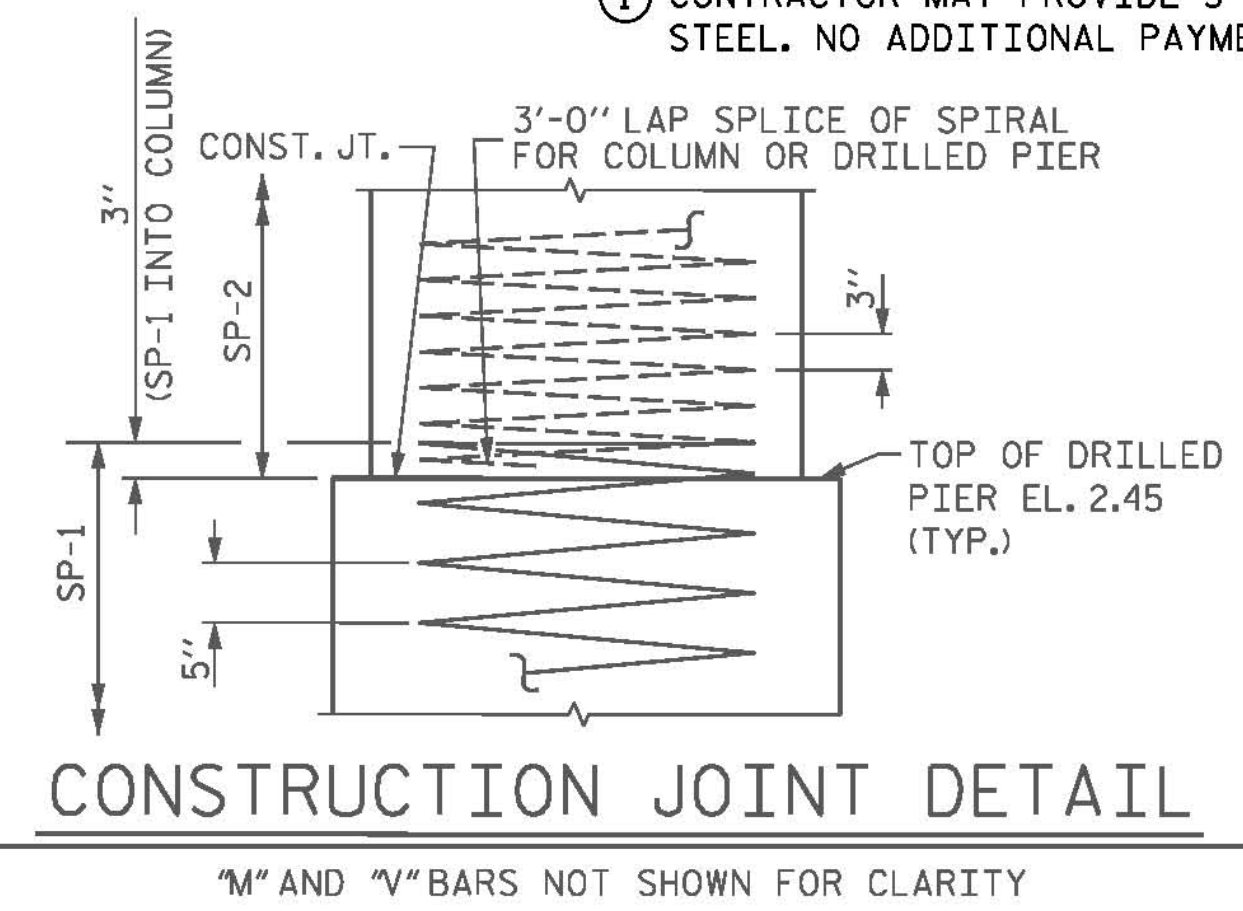
PLAN OF COLUMNS AND DRILLED PIERS

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



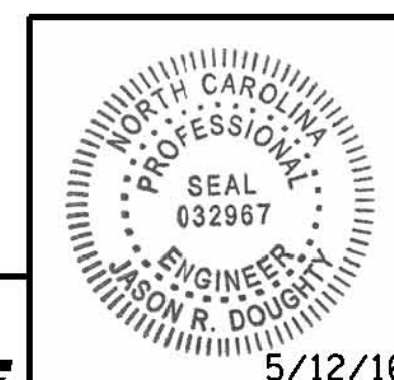
BILL OF MATERIAL BENT 4						BILL OF MATERIAL BENT 5					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#10	2	53'-5"	1839	B1	8	#10	2	53'-5"	1839
B2	10	#5	STR	49'-6"	516	B2	10	#5	STR	49'-6"	516
B3	16	#10	STR	49'-6"	3408	B3	16	#10	STR	49'-6"	3408
B4	16	#4	STR	20'-7"	220	B4	16	#4	STR	20'-7"	220
B5	13	#4	STR	3'-8"	32	B5	13	#4	STR	3'-8"	32
M1	96	#11	STR	25'-4"	12,921	M1	96	#11	STR	25'-4"	12,921
M2	192	#11	STR	55'-4"	56,445	M2	192	#11	STR	55'-4"	56,445
S1	164	#5	3	12'-9"	2181	S1	164	#5	3	12'-9"	2181
S2	164	#5	1	3'-10"	656	S2	164	#5	1	3'-10"	656
U1	62	#4	4	7'-2"	297	U1	62	#4	4	7'-2"	297
U2	10	#4	4	6'-6"	43	U2	10	#4	4	6'-6"	43
U3	5	#4	4	7'-4"	24	U3	5	#4	4	7'-4"	24
U4	5	#4	4	7'-7"	25	U4	5	#4	4	7'-7"	25
V1	48	#11	7	15'-1"	3847	V1	48	#11	7	20'-7"	5249
EPOXY COATED REINFORCING STEEL LBS. 82,454						EPOXY COATED REINFORCING STEEL LBS. 83,856					
SP1	3	*	5	2225'-0"	6962	SP1	3	*	5	2225'-0"	6962
SP2	3	**	6	456'-0"	914	SP2	3	**	6	660'-0"	1323
EPOXY COATED SPIRAL COLUMN REINFORCING STEEL LBS. 7876						EPOXY COATED SPIRAL COLUMN REINFORCING STEEL LBS. 8285					
CLASS "AA" CONCRETE BREAKDOWN						CLASS "AA" CONCRETE BREAKDOWN					
POUR #2 - COLUMNS 12.2 C.Y.						POUR #2 - COLUMNS 18.1 C.Y.					
POUR #3 - CAP 40.8 C.Y.						POUR #3 - CAP 40.8 C.Y.					
CLASS "AA" CONCRETE 53.0 C.Y.						CLASS "AA" CONCRETE 58.9 C.Y.					
DRILLED PIER QUANTITIES						DRILLED PIER QUANTITIES					
POUR #1 - DRILLED PIER CONCRETE 138.9 C.Y.						POUR #1 - DRILLED PIER CONCRETE 138.9 C.Y.					
4'-0" Ø DRILLED PIERS 298.3 L.F.						4'-0" Ø DRILLED PIERS 298.3 L.F.					
PERMANENT STEEL CASING FOR 4'-0" Ø DRILLED PIERS 76.4 L.F.						PERMANENT STEEL CASING FOR 4'-0" Ø DRILLED PIERS 53.4 L.F.					
SPT TESTING 1 EA.						SPT TESTING 1 EA.					
SID INSPECTIONS 1 EA.						SID INSPECTIONS 1 EA.					
CSL TUBES 1212 L.F.						CSL TUBES 1212 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.



CONSTRUCTION JOINT DETAIL

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
 00F1C8B448274F7...
 5/12/16

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 BENTS 4 AND 5
 SECTIONS AND DETAILS

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

SHEET NO.
S-159
 TOTAL SHEETS
 278

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/10/2016 400_311_B4929_SMJ_IB4-52.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