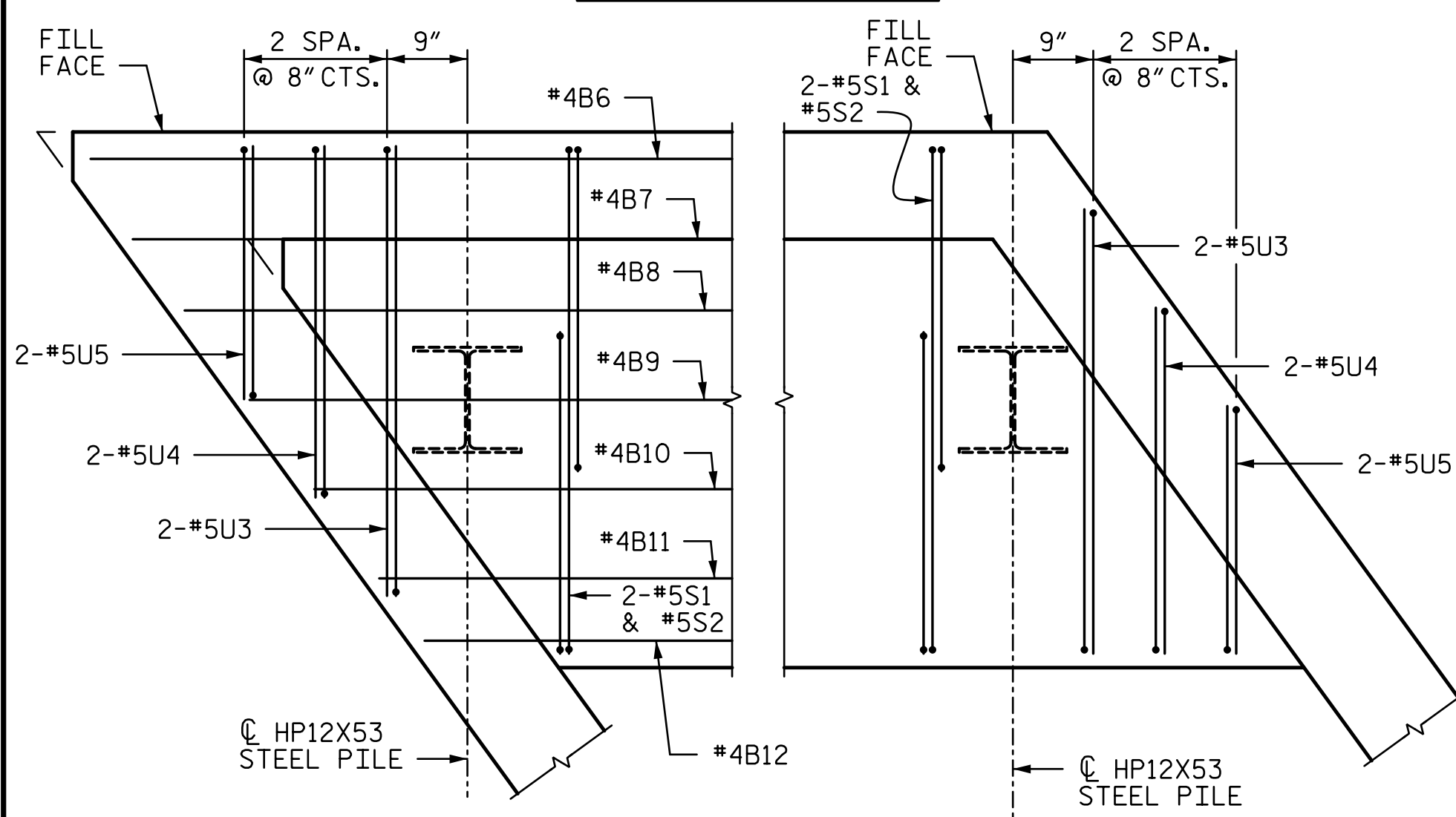


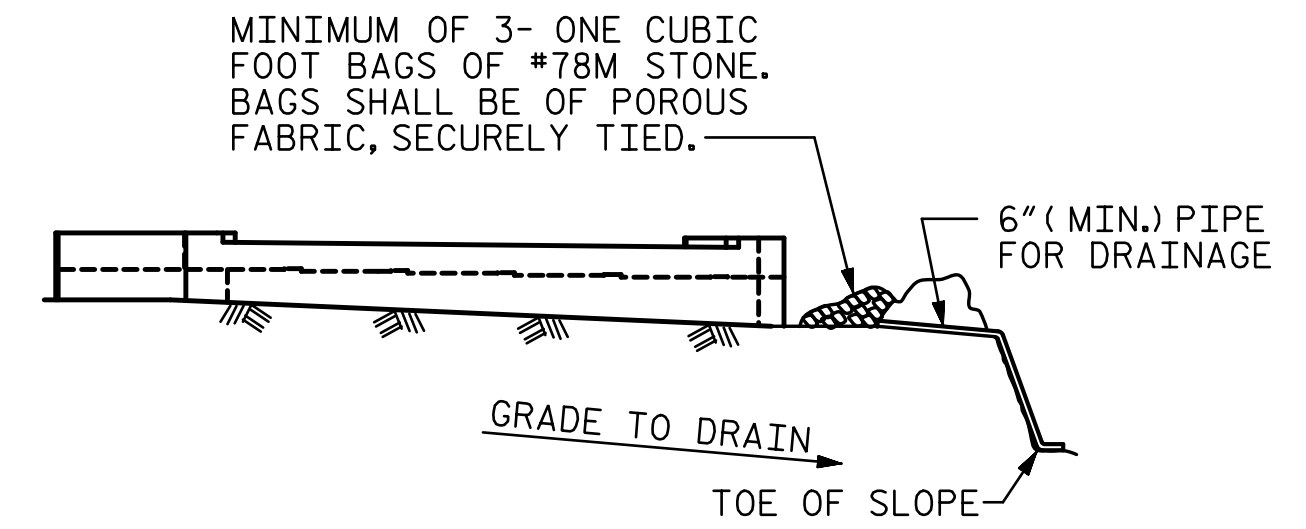
SECTION A-A



DETAIL "B"  
(BOT. "B" BARS, "V" BARS, & END REINFORCEMENT NOT SHOWN FOR CLARITY)

DETAIL "C"  
(B" BARS, "V" BARS, & END REINFORCEMENT NOT SHOWN FOR CLARITY)

- NOTES:**
- STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS AND PIPE INSERTS.
  - BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.
  - THE TOP SURFACE AREAS OF THE END BENT CAP SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THAT THE MEMBRANE CURING COMPOUND SHALL NOT BE USED.
  - THE TOP SURFACE OF THE CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE FILL FACE TO THE OUTSIDE FACE AT THE RATE OF 2%.
  - FOR ADDITIONAL NOTES, SEE "FOUNDATION LAYOUT" SHEET.
  - ABUTMENT RESTRAINTS (STRAPS) ARE REQUIRED ALONG THE CAP AS SHOWN. THE 16KIF LOAD PROVIDED IS A FACTORED LOAD. THE SPACING AND LENGTH OF STRAPS SHALL BE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN NORTH CAROLINA AND SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. ANY ADDITIONAL CONSTRUCTION LOADS THAT WILL APPLY LOAD TO THE STRAPS (INCLUDING BUT NOT LIMITED TO CRANE LOADS) SHALL BE INCLUDED IN THE STRAP DESIGN AND SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO PLACING CONSTRUCTION LOADS ON THE APPROACH FILL. ALL COSTS ASSOCIATED WITH THE DESIGN AND INSTALLATION, INCLUDING LABOR AND INCIDENTALS, OF THE STRAPS SHALL BE INCLUDED IN THE VARIOUS CONTRACT BID ITEMS. NO ADDITIONAL PAYMENT WILL BE MADE.

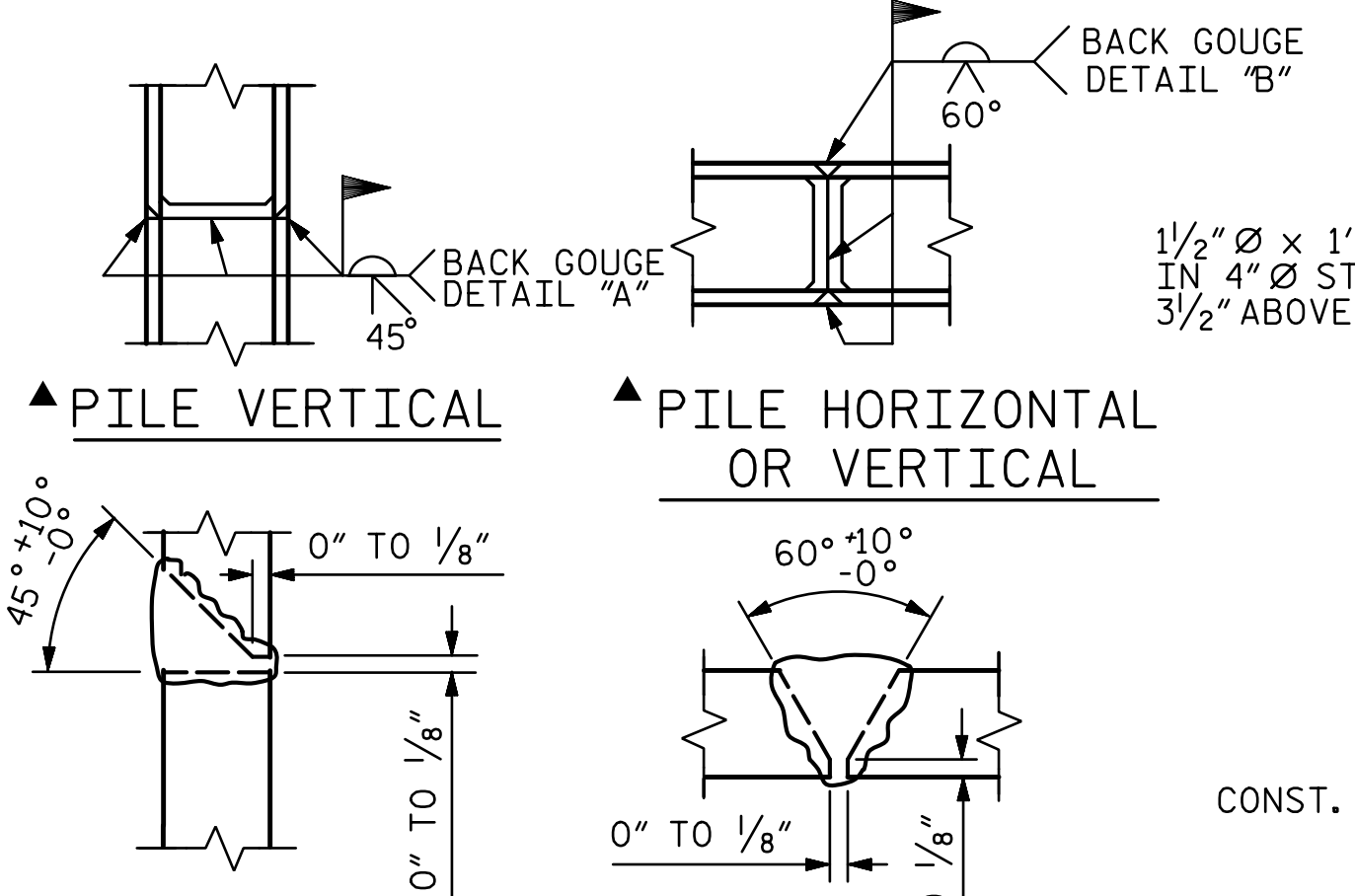


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

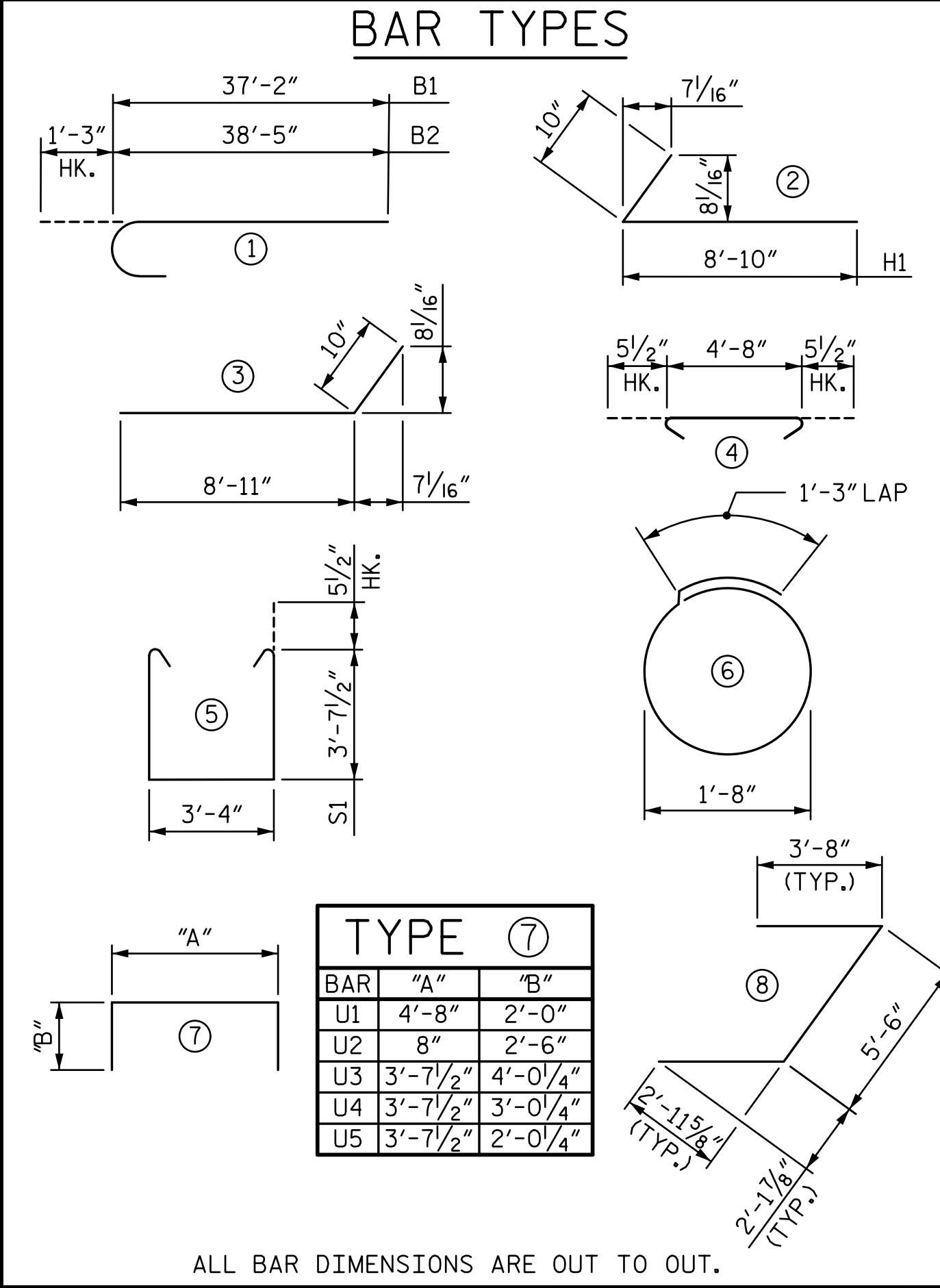
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR 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"      DETAIL "B"  
▲ POSITION OF PILE DURING WELDING.  
**PILE SPLICE DETAILS**

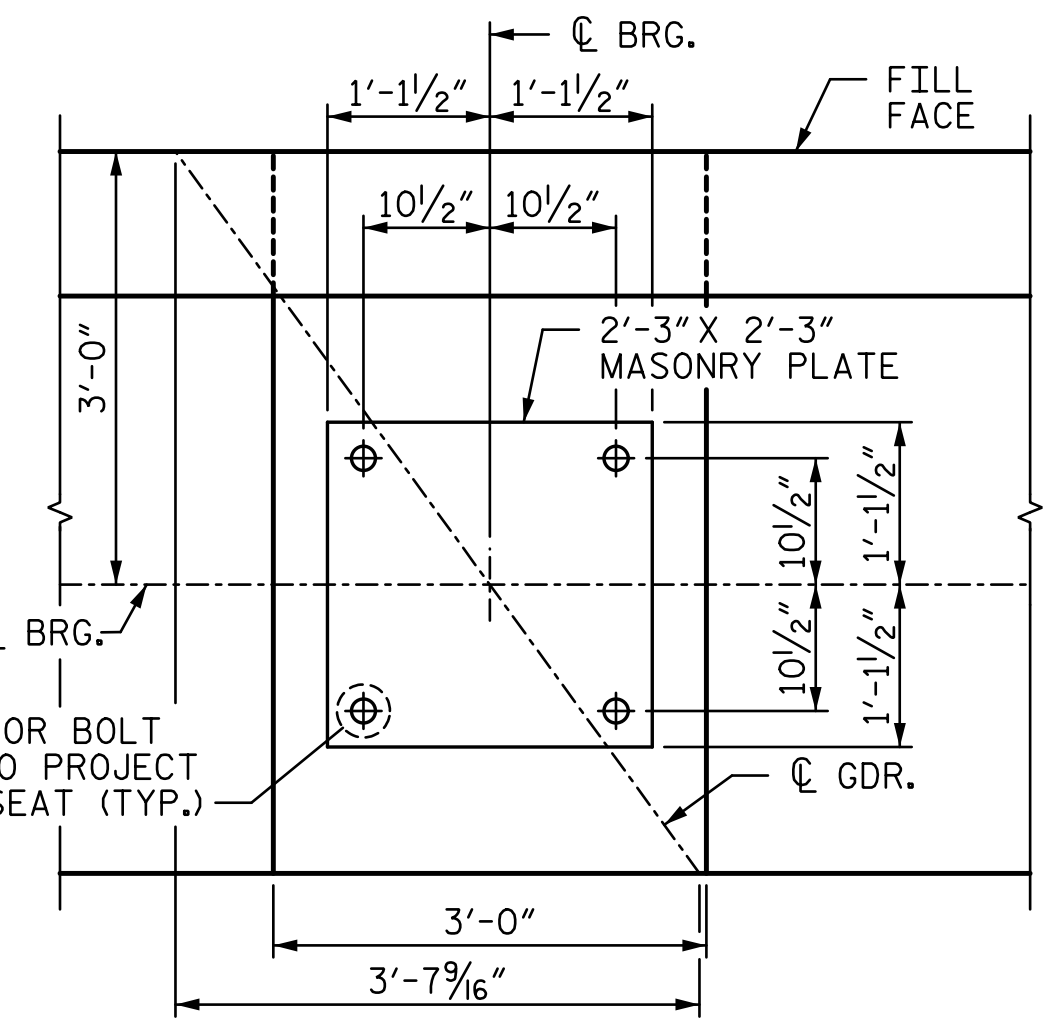


ALL BAR DIMENSIONS ARE OUT TO OUT.

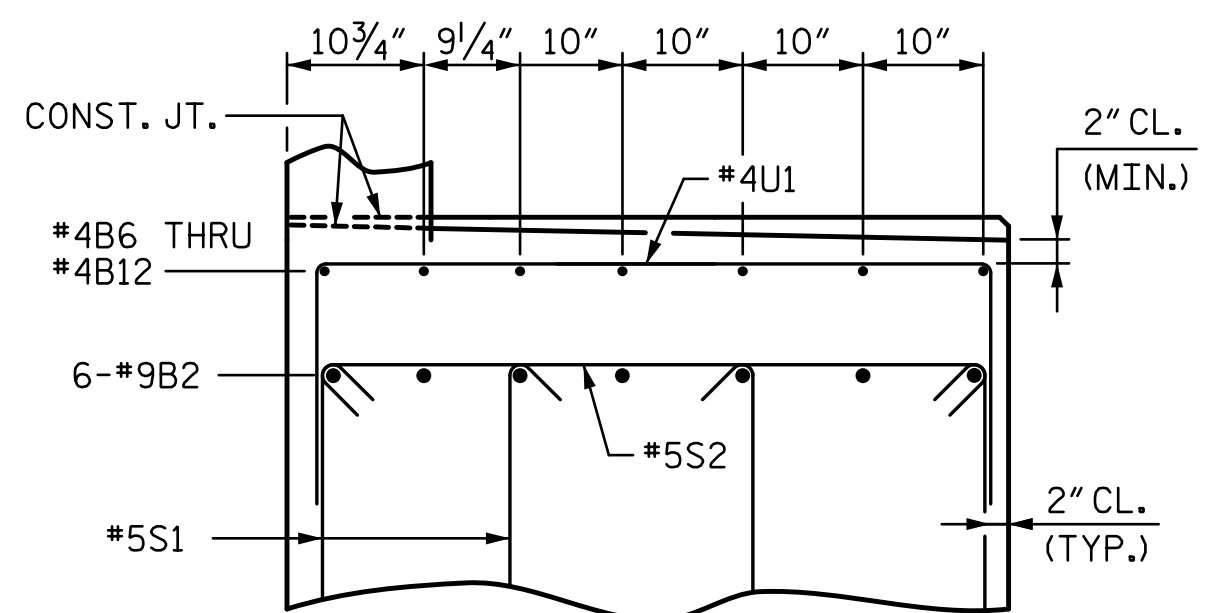
BILL OF REINFORCING					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	12	#9	①	38'-5"	1,567
B2	14	#9	①	39'-8"	1,888
B3	16	#5	①	35'-6"	592
B4	12	#4	①	24'-4"	195
B5	17	#4	STR	4'-8"	53
B6	1	#4	STR	24'-2"	16
B7	1	#4	STR	23'-9"	16
B8	1	#4	STR	23'-2"	15
B9	1	#4	STR	22'-7"	15
B10	1	#4	STR	22'-0"	15
B11	1	#4	STR	21'-4"	14
B12	1	#4	STR	21'-0"	14
H1	30	#5	②	9'-8"	303
H2	30	#5	③	9'-9"	305
K1	48	#4	STR	24'-4"	780
K2	4	#4	STR	3'-0"	8
K3	4	#4	STR	3'-3"	9
S1	120	#5	⑤	11'-6"	1439
S2	60	#5	④	5'-7"	349
S3	52	#4	⑥	6'-6"	226
U1	13	#4	⑦	8'-8"	75
U2	62	#4	⑦	5'-8"	235
U3	4	#5	⑦	11'-8"	49
U4	4	#5	⑦	9'-8"	40
U5	4	#5	⑦	7'-8"	32
U6	2	#9	⑧	12'-10"	87
V1	124	#5	STR	10'-10"	1401
V2	25	#5	STR	12'-7"	328
V3	25	#5	STR	12'-2"	317

**QUANTITIES**

	END BENT 2
REINFORCING STEEL	LBS. 10,383
CLASS A CONCRETE	
POUR 1 (CAP & LOWER WING)	: CU. YARDS 53.8
POUR 2 (BACKWALL & UPPER WING)	: CU. YARDS 25.7
TOTAL	: CU. YARDS 79.6
HP12x53 STEEL PILES	NO. 13
	LIN. FEET 685
PILE DRIVING EQUIP. SETUP FOR HP 12x53 STEEL PILES	EA. 13



DETAIL "A"



PARTIAL SECTION B-B  
(ANCHOR BOLTS NOT SHOWN FOR CLARITY)

PROJECT NO. **R-2707C**  
**CLEVELAND** COUNTY  
 STATION: **596+50.98 -L-**  
 SHEET 3 OF 3

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

SEAL  
 40317  
 ENGINEER  
 TONY R. LAWS, JR.  
 2/21/2017

STV 100 years  
 STV ENGINEERS, INC.  
 900 West Trade St., Suite 715  
 Charlotte, NC 28202  
 NC License Number F-5991

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

(SITE 6R)

TOTAL SHEETS 44

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DRAWN BY: **MBC** DATE: **10-16**  
 CHECKED BY: **TJT** DATE: **10-16**  
 DESIGN ENGINEER OF RECORD: **V. WU** DATE: **10-16**