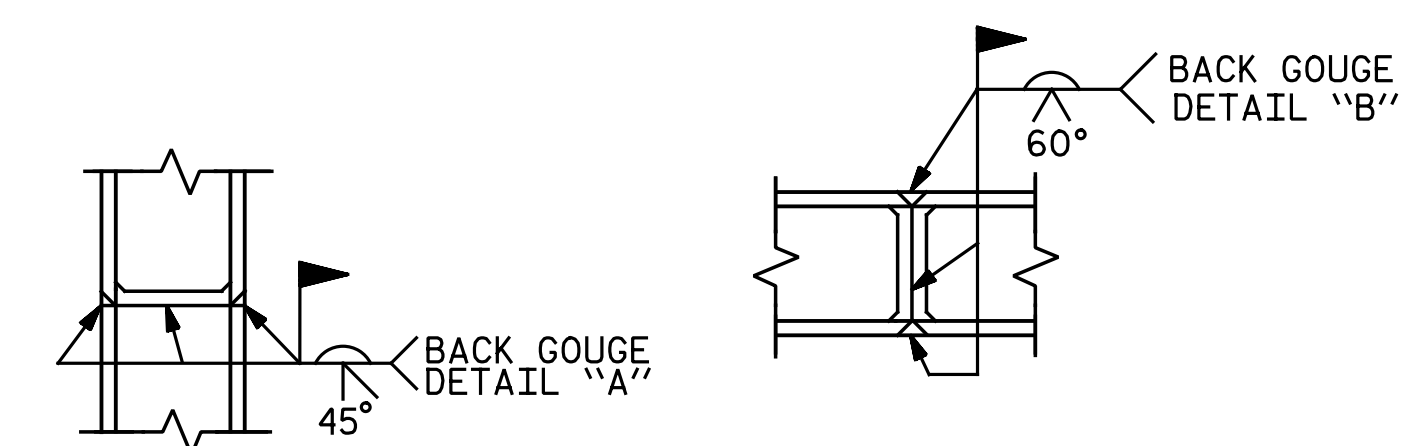
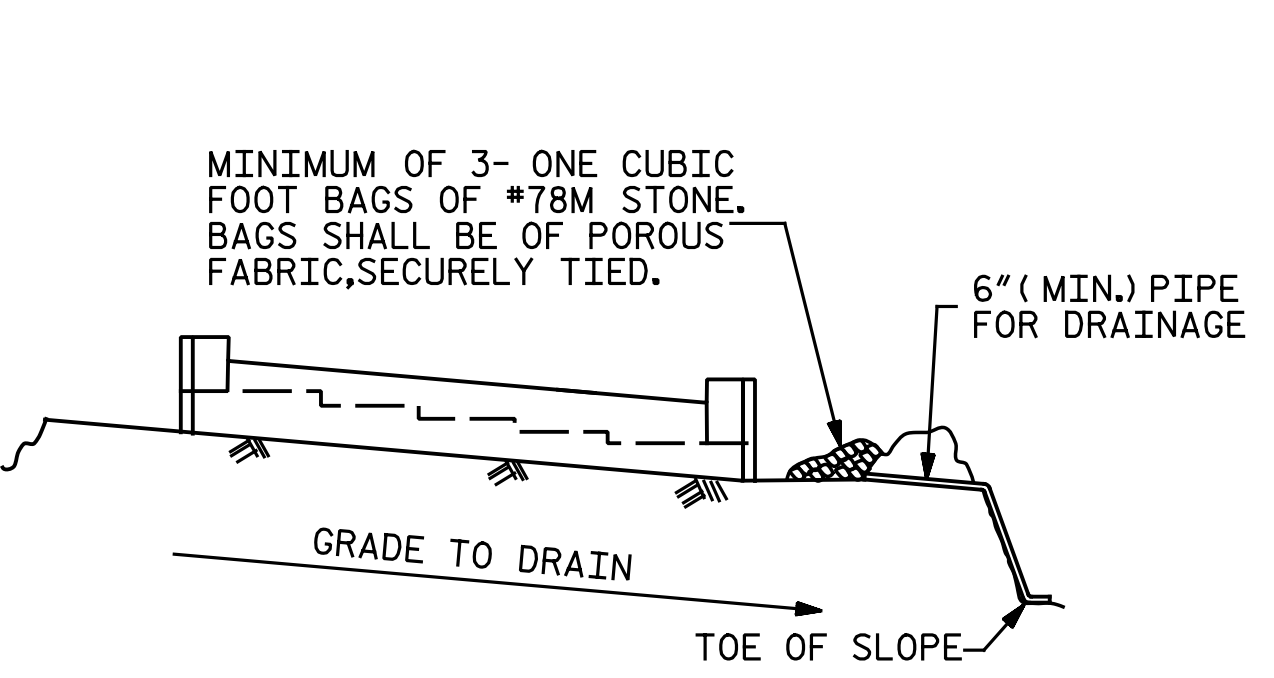


SECTION A-A

SECTION B-B



PILE SPlice DETAILS

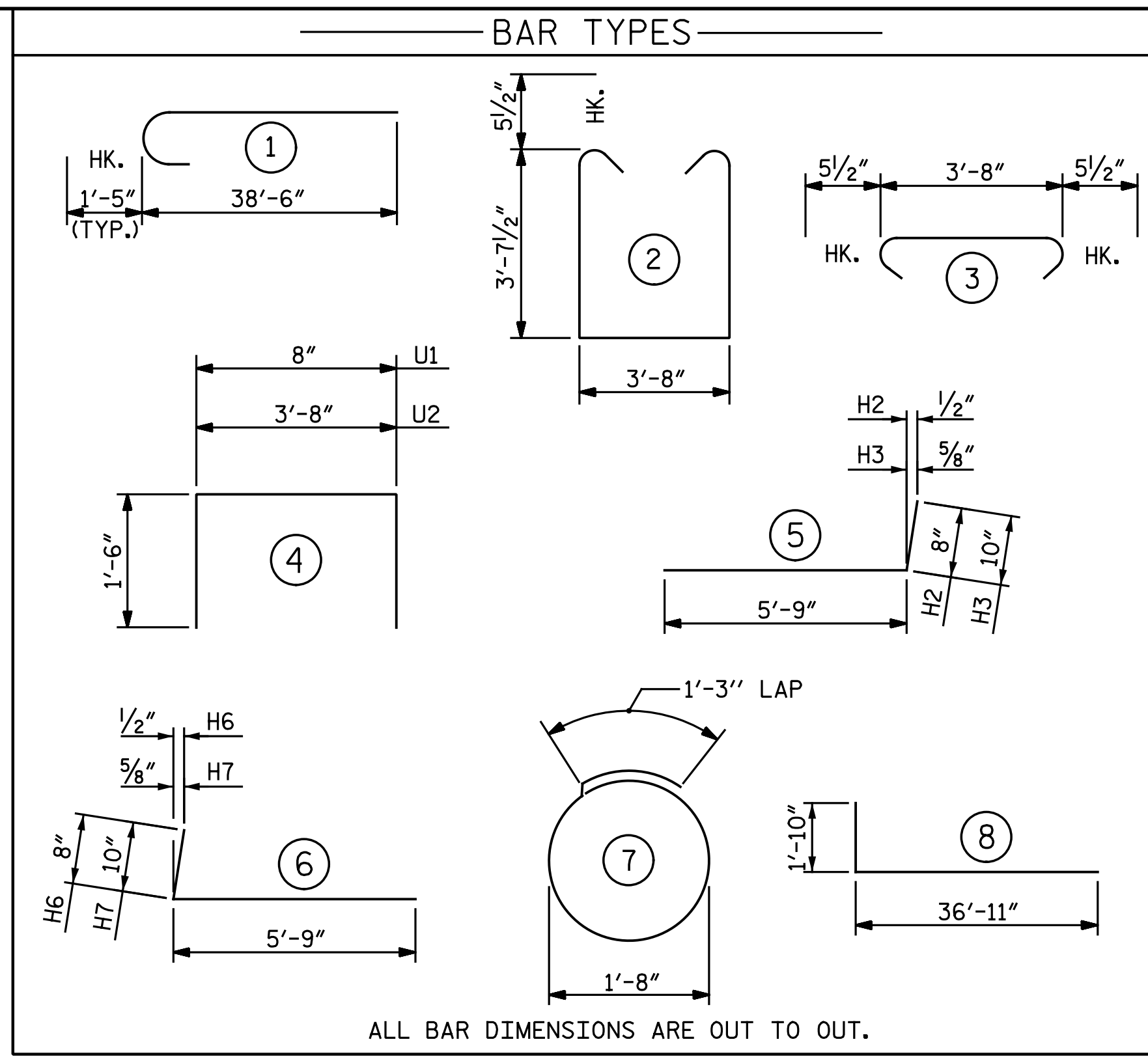


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

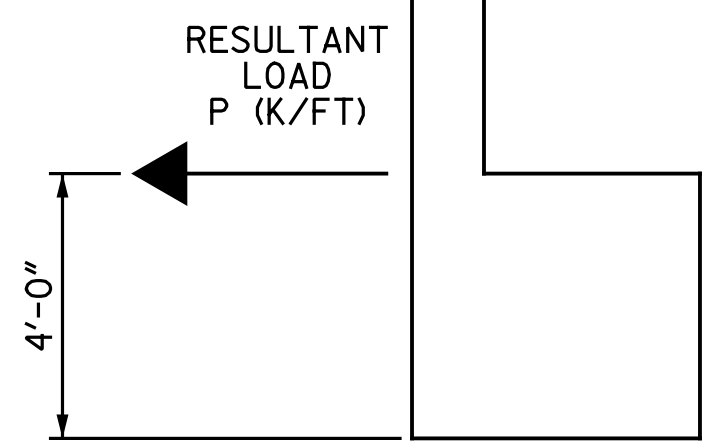
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR 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



ALL BAR DIMENSIONS ARE OUT TO OUT.



MSE REINFORCING STRAP LOAD DETAIL

LOAD CASE	RESULTANT LOAD, P (K/FT)
THERMAL CONTRACTION	4.89
LIVE LOAD BRAKING	0.72

MSE REINFORCING STRAP NOTES

MSE REINFORCING STRAPS SHALL BE ATTACHED TO THE END BENT CAP AND/OR BACKWALL. FOR DESIGN CRITERIA AND DETAIL, SEE MSE WALL SHEETS AND SPECIAL PROVISIONS.

PLANS, WORKING DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR REVIEW AND APPROVAL. SEE SPECIAL PROVISIONS.

PLANS SUBMITTED FOR REVIEW SHALL INCLUDE THE FOLLOWING: PLAN VIEW, ELEVATION VIEW, TYPICAL SECTIONS AND STRAP DETAILS.

THE MSE REINFORCING STRAPS SHALL BE DESIGNED TO CARRY THE LOADS FROM THE BRIDGE SUPERSTRUCTURE AS PRESENTED IN THE TABLE ABOVE. IN ADDITION, THE MSE REINFORCING STRAPS SHALL ALSO BE DESIGNED TO CARRY LOADS FROM SOIL PRESSURE AS OUTLINED IN THE SPECIAL PROVISIONS.

THE LOADS PRESENTED IN THE TABLE ABOVE ARE SERVICE LEVEL LOADS (NO LOAD FACTORS HAVE BEEN APPLIED). THE MSE REINFORCING STRAP DESIGNER SHALL USE THESE LOADS IN ALL APPLICABLE LOAD COMBINATIONS AS APPROPRIATE, IN COMBINATION WITH SOIL PRESSURE LOADS.

A MINIMUM OF TWO ROWS OF MSE REINFORCING STRAPS IS REQUIRED.

BILL OF MATERIAL

END BENT 1					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	12	#10	8	38' - 9"	2,001
B2	12	#10	STR	36' - 11"	1,906
B3	12	#5	STR	34' - 6"	432
B4	12	#10	1	39' - 11"	2,061
B5	6	#4	STR	13' - 3"	53
B6	24	#4	STR	6' - 8"	107
B7	6	#4	STR	3' - 5"	14
B8	17	#4	STR	3' - 8"	42
B9	12	#4	STR	23' - 7"	189
H1	4	#5	STR	2' - 7"	11
H2	14	#4	5	6' - 5"	60
H3	14	#5	5	6' - 7"	96
H4	1	#5	STR	4' - 10"	5
H5	1	#4	STR	4' - 10"	3
H6	16	#4	6	6' - 5"	69
H7	16	#5	6	6' - 7"	110
K1	6	#4	STR	21' - 9"	87
K2	48	#4	STR	23' - 8"	759
S1	103	#5	2	11' - 10"	1,271
S2	103	#5	3	4' - 7"	492
S3	80	#4	7	6' - 6"	347
U1	127	#4	4	3' - 8"	311
U2	32	#4	4	6' - 8"	143
V1	230	#5	STR	13' - 2"	3,159
V2	24	#5	STR	12' - 4"	309
V3	6	#5	STR	13' - 1"	82
V4	6	#4	STR	13' - 4"	53
V5	6	#5	STR	14' - 3"	89
V6	8	#5	STR	14' - 11"	124
V7	8	#4	STR	14' - 11"	80
REINFORCING STEEL				LBS.	14,465
CLASS A CONCRETE				CU. YDS.	
POUR 1 - CAP & LOWER CHEEK WALLS					44.6
POUR 2 - BACKWALL & UPPER CHEEK WALLS					27.0
TOTAL					71.6
HP 12 x 53 STEEL PILES					
NO. 20				L.F.	1100

NOTES:

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR PIPE INSERTS.

BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.

THE TOP SURFACE AREAS OF THE END BENT CAPS SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.

THE TOP SURFACE OF THE CAP EXCEPT THE BRIDGE SEAT BUILD-UPS SHALL BE SLOPED TRANSVERSELY FROM THE FILL FACE TO THE BACK FACE AT THE RATE OF 2%.

THE CONCRETE IN THE SHADED AREA OF THE CHEEK WALL SHALL BE POURED AFTER THE BARRIER RAIL (PARAPET AND END POST) ARE CAST IF SLIP FORMING IS USED.

FOR PIPE INSERT DETAILS, SEE "DISC BEARING DETAILS" SHEET.

PROJECT NO. U-2524D
GUILFORD COUNTY
 STATION: 495+22.00 -LREV-

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE END BENT 1 DETAILS LEFT LANES																			
	Michael Baker Engineering 8000 Regency Parkway, Suite 600 Cary, North Carolina 27518 NC License No.: F-1084	REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>BY:</th> <th>DATE:</th> <th>NO.</th> <th>BY:</th> <th>DATE:</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>	NO.	BY:	DATE:	NO.	BY:	DATE:	1			3			2			4			SHEET NO. S3-24 TOTAL SHEETS 35
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DRAWN BY: M. D. MAYHEW DATE: 3-7-16
 CHECKED BY: A. M. HOUSTON DATE: 3-23-16