

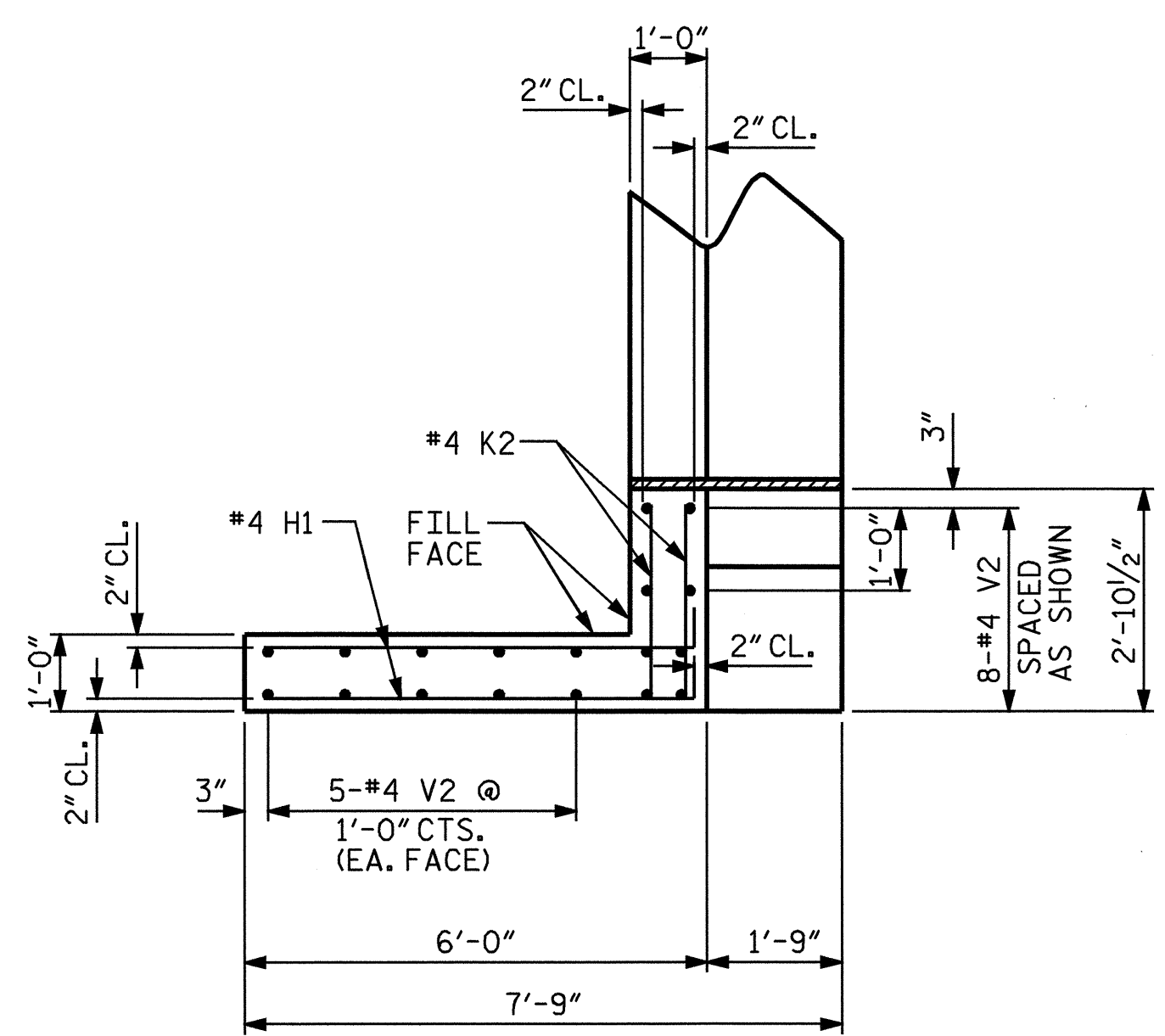
MINIMUM OF 3- ONE CUBIC FOOT BAGS OF #78M STONE. BAGS SHALL BE OF POROUS FABRIC, SECURELY TIED.

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.

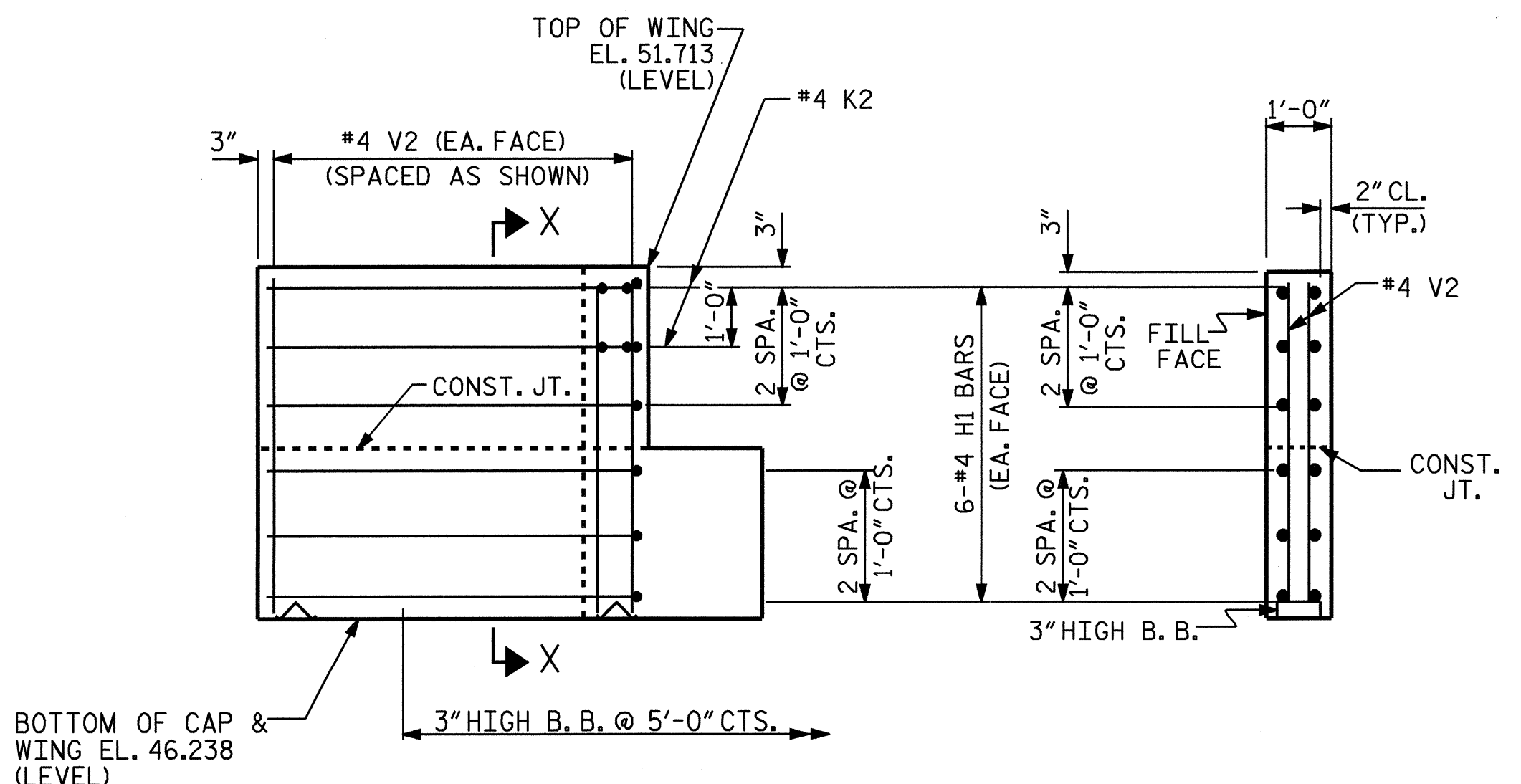
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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



**PLAN OF WING**  
(TYP. BOTH WINGS)

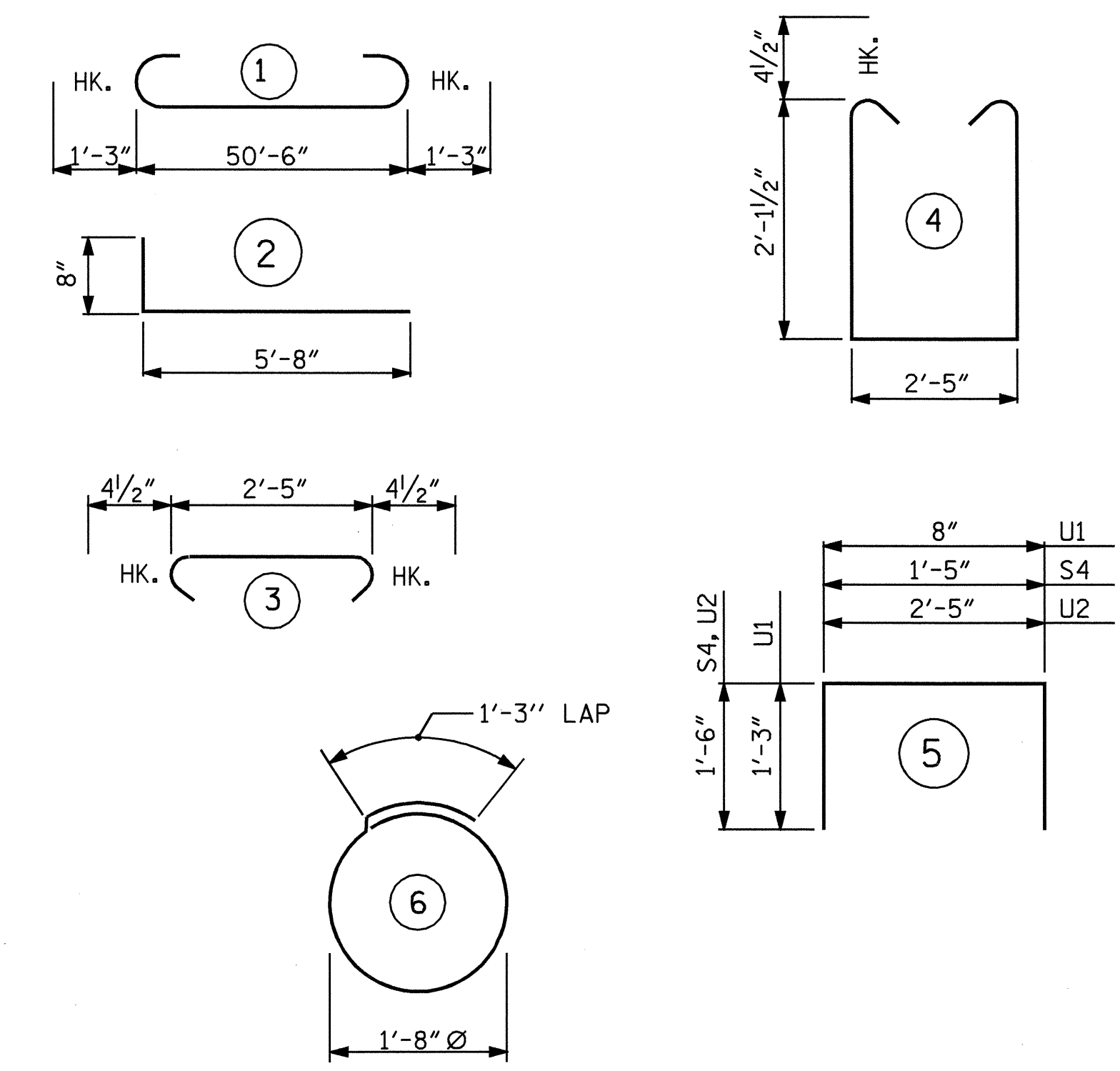


**ELEVATION**  
(TYP. BOTH WINGS)

**SECTION X-X**  
(TYP. BOTH WINGS)

DRAWN BY : R. G. EMERSON DATE : 01/05  
CHECKED BY : B. N. GRADY DATE : 02/05

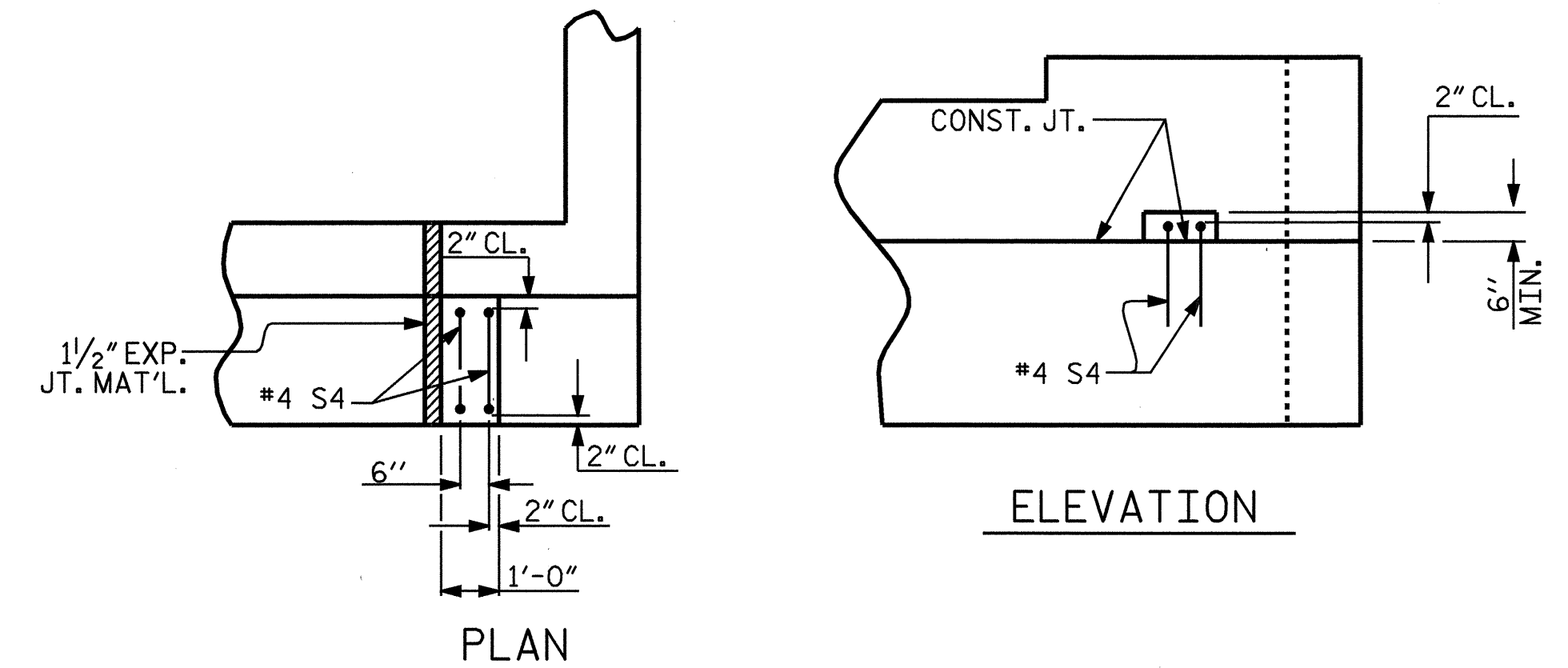
**BAR TYPES**



ALL BAR DIMENSIONS ARE OUT TO OUT.

**BILL OF MATERIAL**

END BENT No. 2					
BAR No.	SIZE	TYPE	LENGTH	WEIGHT	
B1	8	9	1	53'-0"	1442
B2	16	4	STR	26'-7"	284
B3	4	4	STR	24'-9"	66
B4	13	4	STR	2'-5"	21
D1	30	8	STR	2'-3"	180
H1	24	4	2	6'-4"	102
K1	8	4	STR	26'-8"	143
K2	8	4	STR	2'-6"	13
S1	47	4	4	7'-5"	233
S2	47	4	3	3'-2"	99
S3	20	4	6	6'-6"	87
S4	4	4	5	4'-5"	12
U1	46	4	5	3'-2"	97
U2	17	4	5	5'-5"	62
V1	92	4	STR	3'-8"	225
V2	36	4	STR	5'-1"	122
REINFORCING STEEL			LBS.	3188	
CLASS A CONCRETE BREAKDOWN :					
POUR #1 (CAP & LOWER WINGS)				15.4	C. Y.
POUR #2 (UPPER WINGS & BACKWALL)				4.4	C. Y.
POUR #3 (LATERAL GUIDES)				0.1	C. Y.
TOTAL				19.9	C. Y.
HP 12 X 53 STEEL PILES					
No. 10					LIN. FT. = 350.0



**LATERAL GUIDE DETAILS**  
(RIGHT LATERAL GUIDE SHOWN, LEFT END SIMILAR)

PROJECT NO. B-1303  
NORTHAMPTON COUNTY  
STATION: 18+81.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

SUBSTRUCTURE  
END BENT No. 2

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-16
1			3			TOTAL SHEETS
2			4			20

