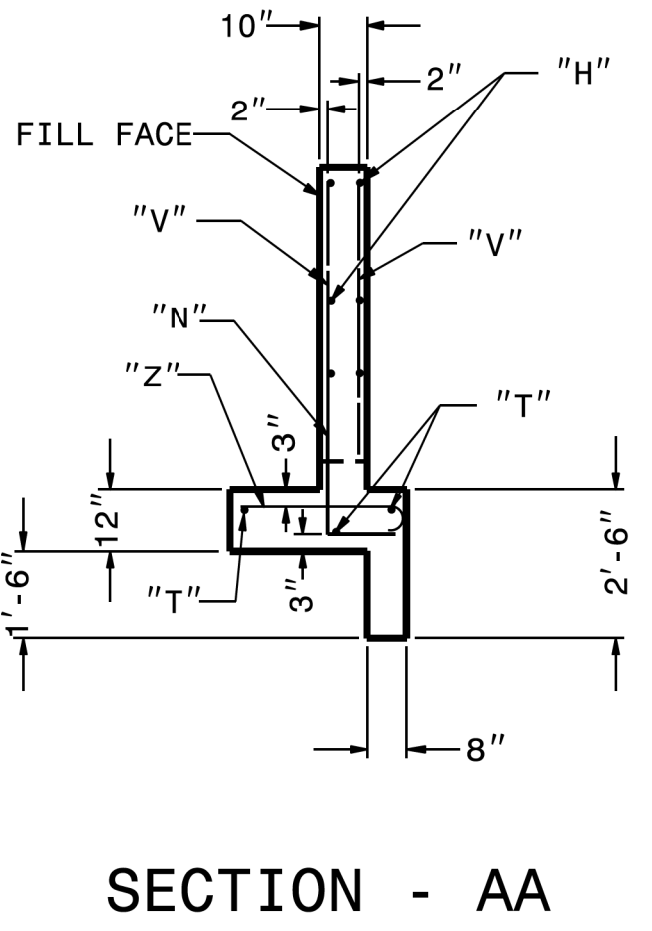
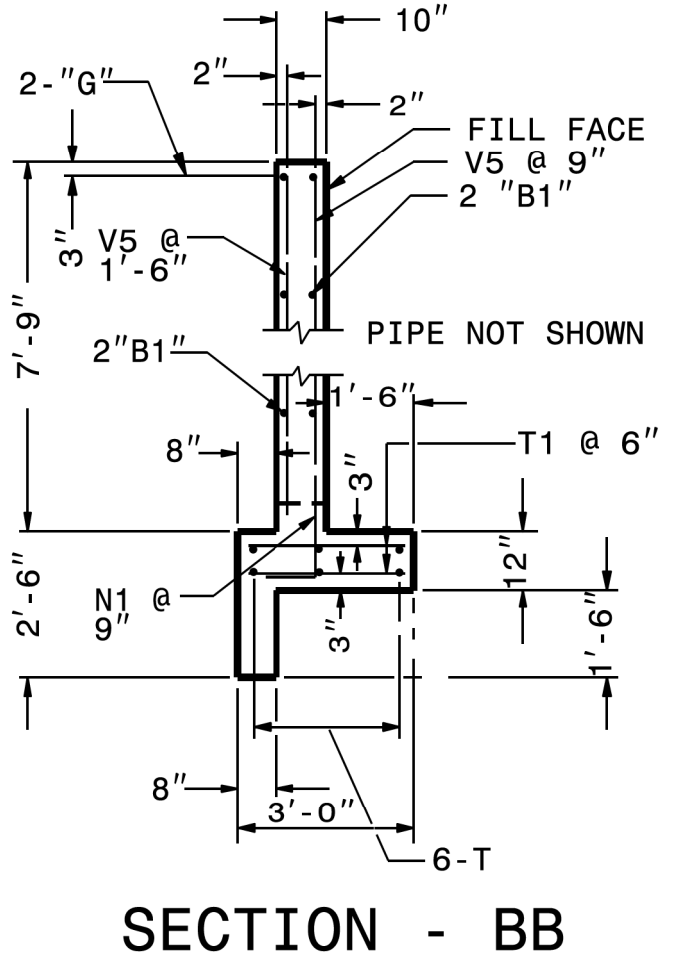
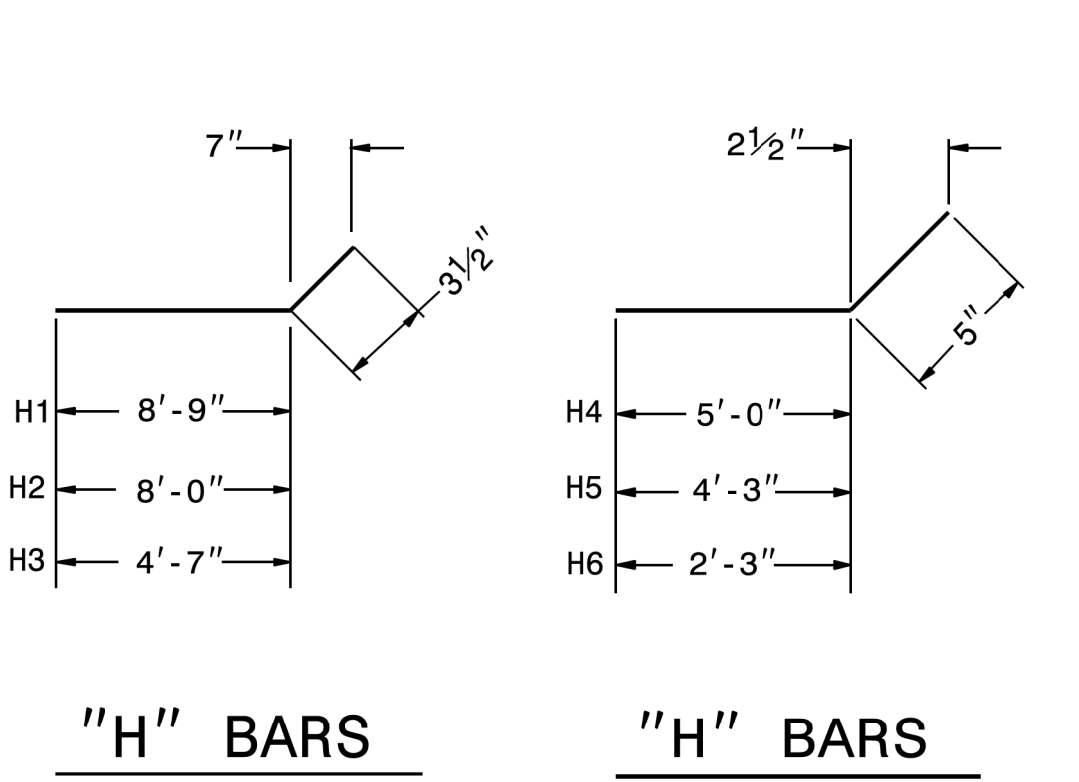
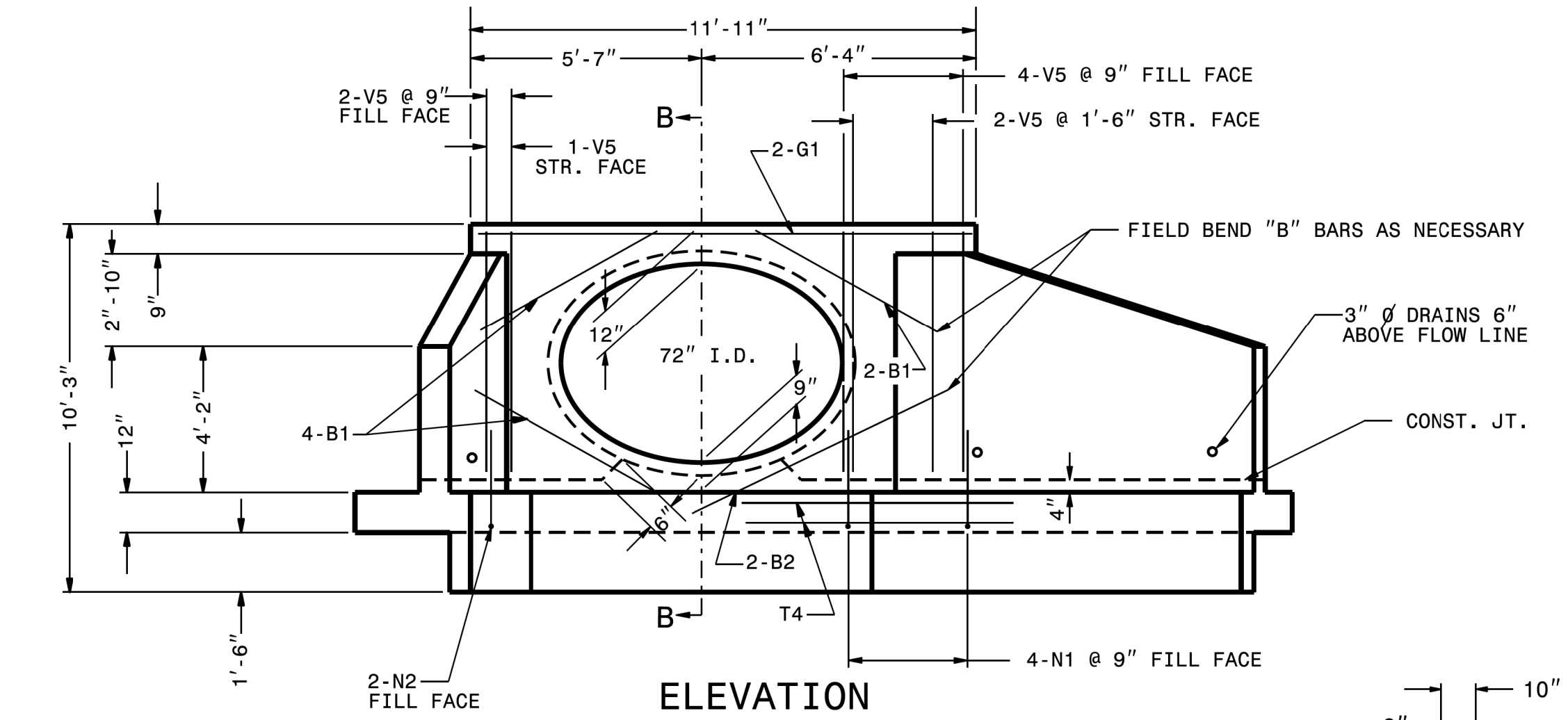
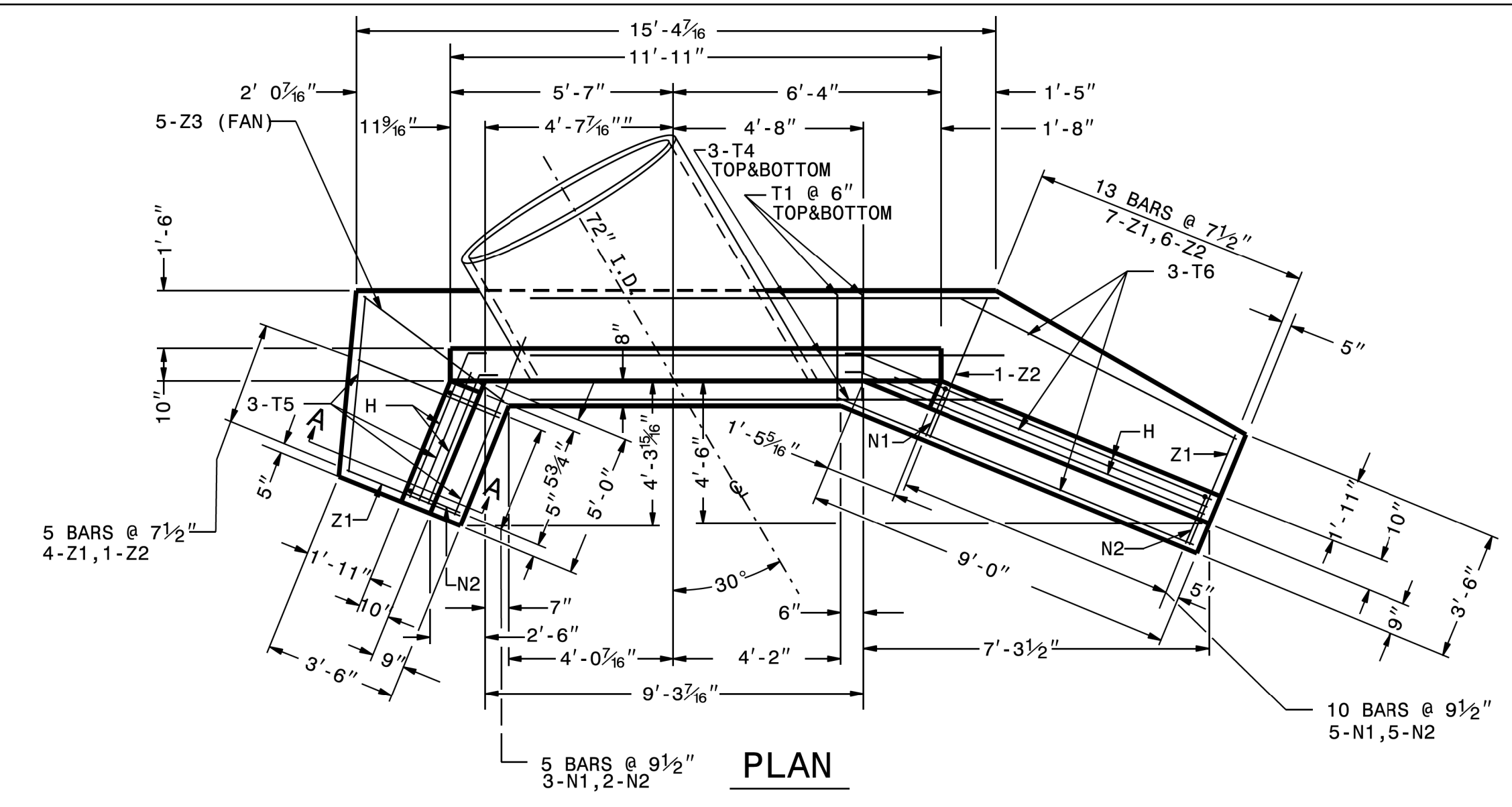


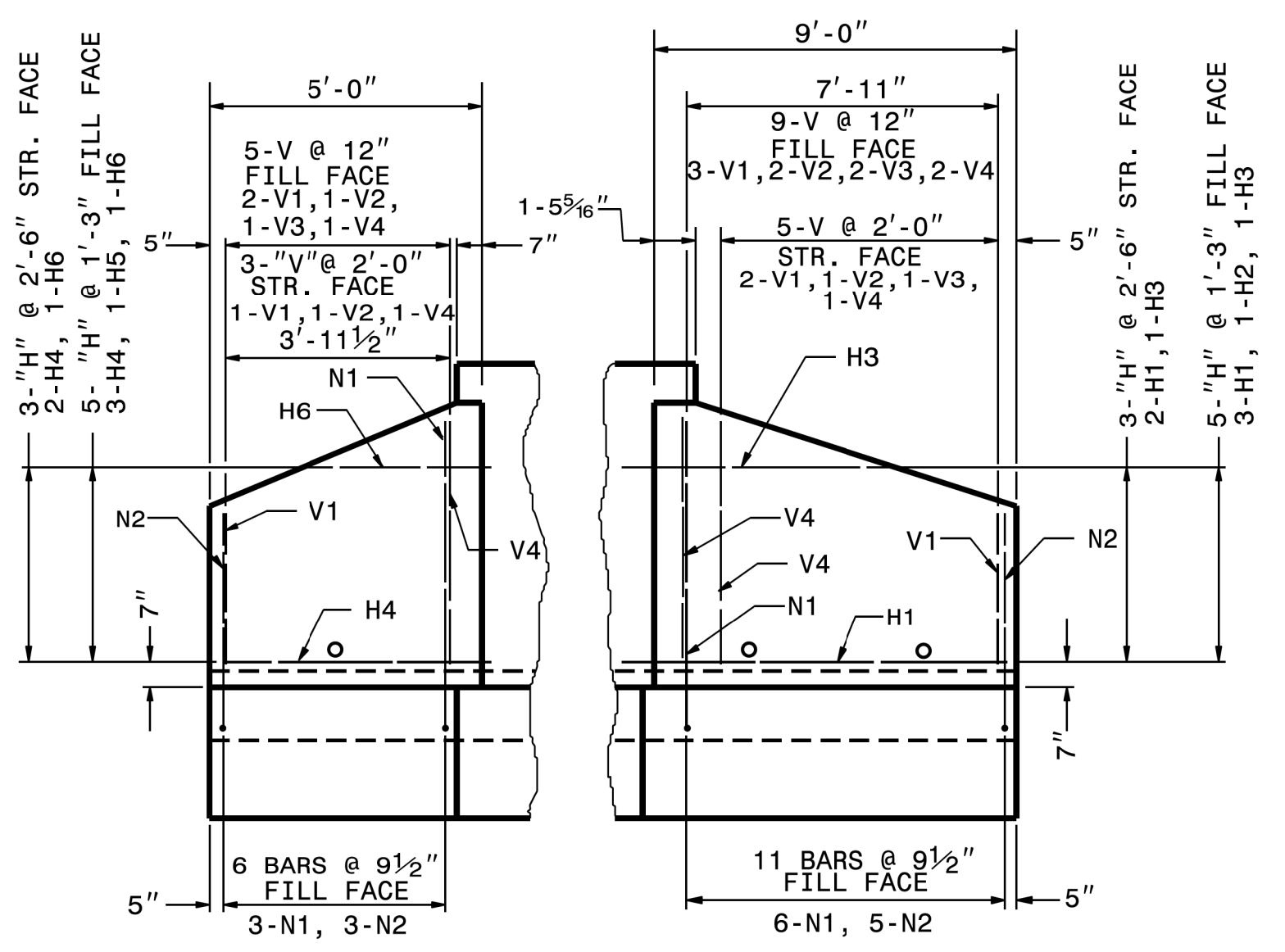
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR  
**REINFORCED CONCRETE ENDWALL**  
FOR SINGLE 72" PIPE 60° OR 120° SKEW

SHEET 1 OF 1  
**838D41**



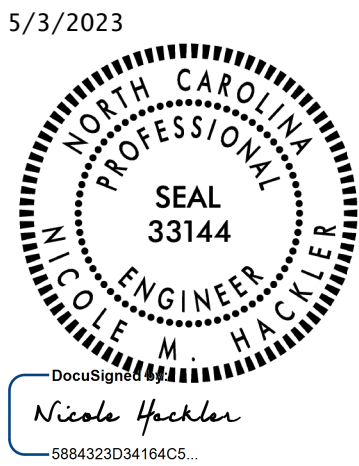
**NOTES:**  
 ALL CONCRETE TO BE CLASS "A".  
 ALL REINFORCING STEEL TO BE ASTMA615-GRADE 60.  
 ALL REINFORCING STEEL TO BE DEFORMED BARS. WHERE SPLICING OF REINFORCEMENT IS NECESSARY, BARS ARE TO BE LAPPED 45 DIAMETERS. ALL DIMENSIONS RELATIVE TO REINFORCEMENT ARE TO CENTERS OF BARS.  
 THE FOOTING, CURTAIN WALL AND 4" OF WALL ARE TO BE POURED IN ONE OPERATION ALLOWING NO TIME FOR INITIAL SET TO TAKE PLACE BETWEEN THEM. THE REMAINING WALL SHALL THEN BE POURED IN ONE OPERATION.  
 ALL EXPOSED CORNERS ARE TO BE CHAMFERED 1".  
 3" DIAMETER DRAINS TO BE PLACED IN WALL AS SHOWN AND BE 6" ABOVE NORMAL FLOW LINE.  
 ALL MATERIAL AND WORKMANSHIP AS PER N.C. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.



**WING ELEVATION**

BILL OF MATERIAL FOR ENDWALL			
REIN. STEEL	1 - PIPE		
BAR	SIZE	LENGTH	NO. WEIGHT
Z1	#4	3'-6"	11 26
Z2	#5	4'-1"	7 30
Z3	#5	4'-4"	2 9
N1	#5	3'-11"	15 61
N2	#4	3'-5"	8 18
V1	#4	3'-8"	8 20
V2	#4	4'-9"	5 16
V3	#4	5'-6"	4 15
V4	#4	6'-3"	5 21
V5	#4	7'-1"	9 43
H1	#4	9'-1"	5 31
H2	#4	8'-4"	1 6
H3	#4	4'-11"	2 7
H4	#4	5'-5"	5 18
H5	#4	4'-8"	1 3
H6	#4	2'-8"	2 4
G1	#7	11'-5"	2 47
T1	#4	2'-6"	48 80
T4	#4	15'-0"	6 60
T5	#4	5'-6"	3 11
T6	#4	8'-8"	3 17
B1	#4	6'-6"	6 26
B2	#4	8'-0"	2 11
REIN. STEEL LBS.			580
CONC/C.M. CU. YDS.			8.2
CONC/R.C. CU. YDS.			7.8

DRAWING NOT TO SCALE



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS & DEVELOPMENT UNIT  
STANDARDS AND SPECIAL DESIGN  
Office 919-707-6950 FAX 919-250-4119

**DETAIL OF REINFORCED CONCRETE ENDWALL FOR SINGLE 72" DIAMETER PIPE - 60° SKEW**

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 MODIFIED BY: rbritt DATE: 06-23-10  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: details/rbritt/english/hydro/72endwall1\_60sk.dgn

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR  
**REINFORCED CONCRETE ENDWALL**  
FOR SINGLE 72" PIPE 60° OR 120° SKEW

SHEET 1 OF 1  
**838D41**

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