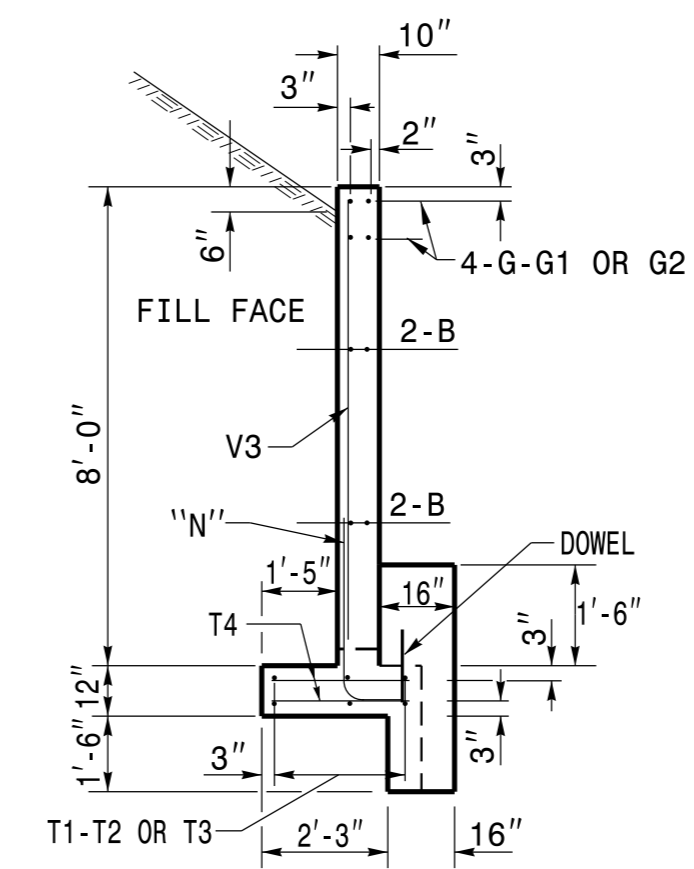


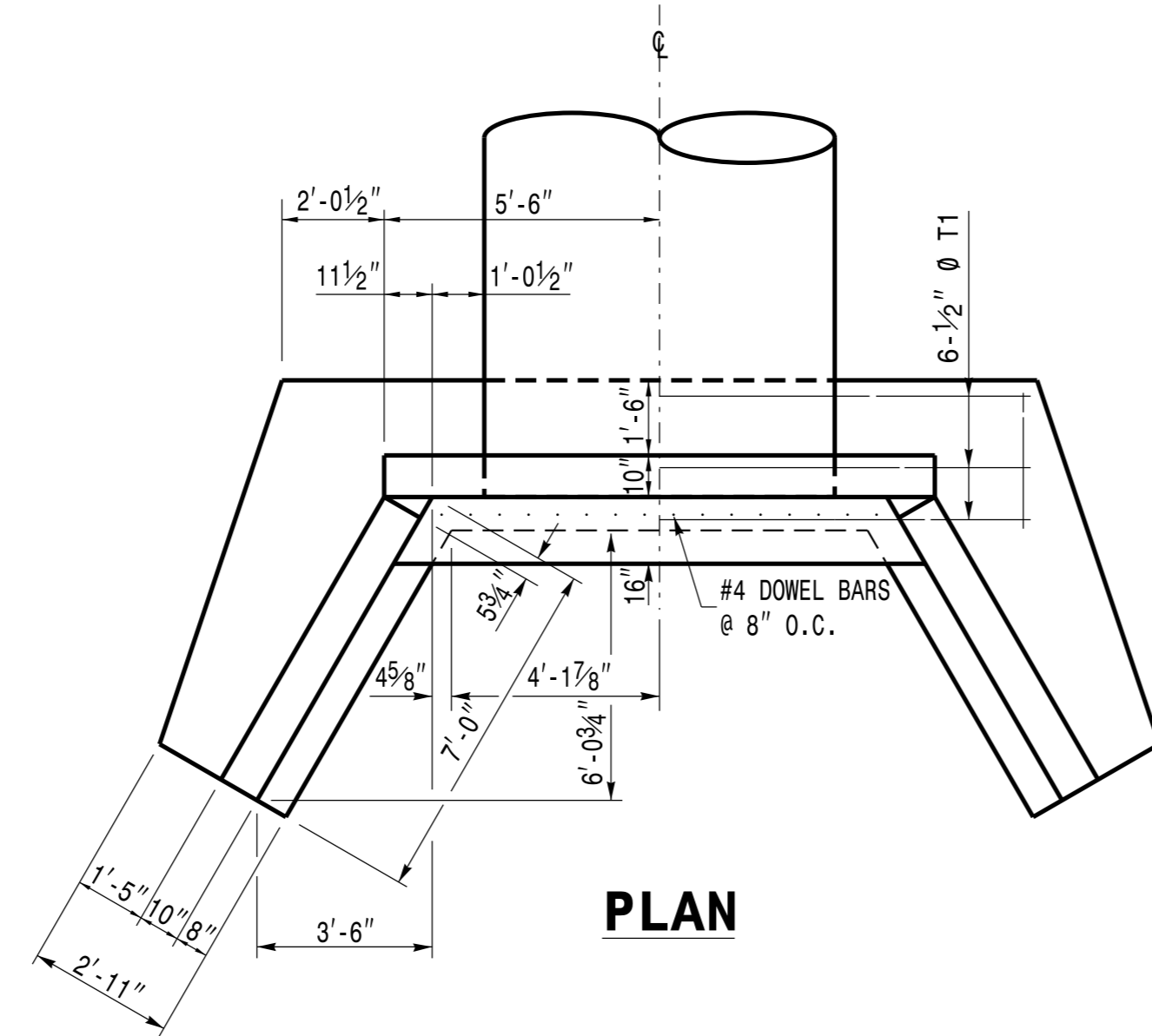
**END ELEVATION**



**SECTION A-A**

**NOTES:**

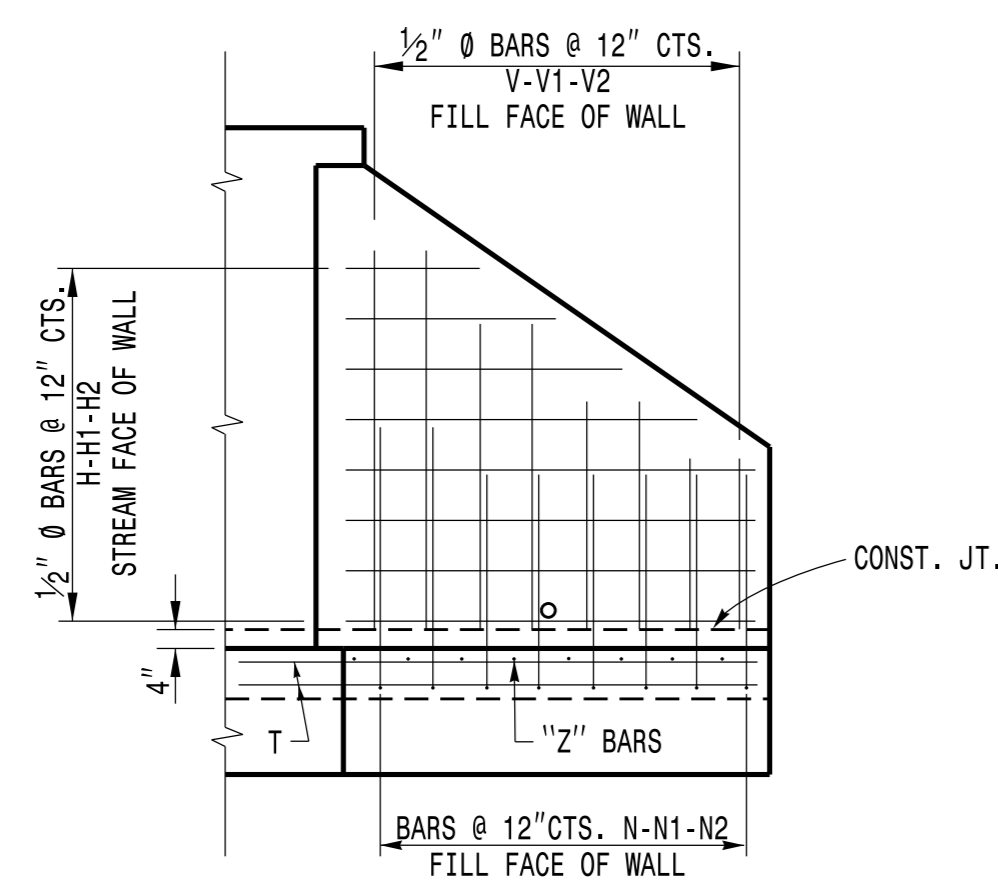
- ALL CONCRETE TO BE CLASS "A".
- ALL REINFORCING STEEL SHALL BE ASTM A615-GRADE 60.
- ALL REINFORCING STEEL SHALL BE DEFORMED BARS. WHERE SPLICING OF REINFORCEMENT IS NECESSARY, BARS ARE TO BE LAPPED 45 DIAMETERS. ALL DIMENSIONS RELATIVE TO REINFORCEMENT ARE TO CENTERS OF BARS.
- THE FOOTING, CURTAIN 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 SHALL 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.



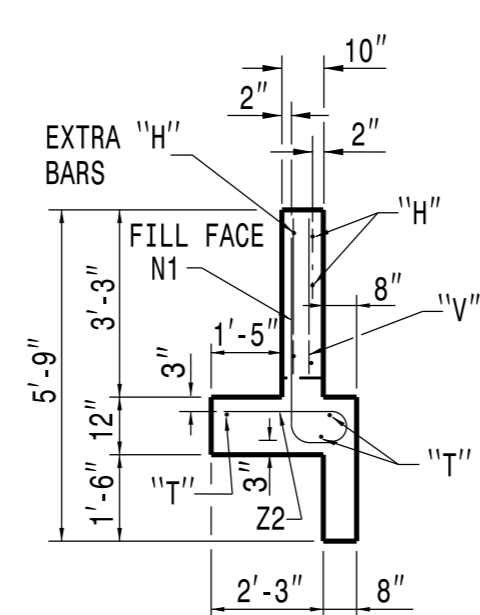
**PLAN**

**BILL OF MATERIAL FOR ONE ENDWALL**

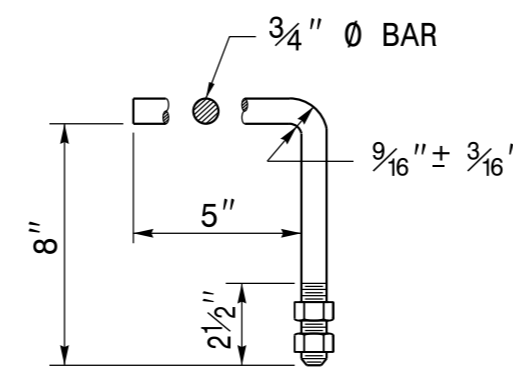
REINFORCING STEEL		1 PIPE					
BAR	SIZE	LENGTH	NO.	WEIGHT			
B	#4	6'-0"	8	32	-	-	-
G	#5	10'-9"	4	45	-	-	-
H	#4	9'-0"	10	60	-	-	-
H1	#4	7'-0"	6	28	-	-	-
H2	#4	3'-9"	4	10	-	-	-
N	#5	4'-6"	10	47	-	-	-
N1	#4	4'-1"	10	27	-	-	-
T	#4	6'-6"	6	26	-	-	-
T1	#4	15'-0"	6	60	-	-	-
T4	#4	2'-9"	4	7	-	-	-
V	#4	5'-9"	6	23	-	-	-
V1	#4	4'-6"	6	18	-	-	-
V2	#4	2'-9"	8	15	-	-	-
V3	#4	7'-6"	6	30	-	-	-
Z	#5	4'-9"	4	20	-	-	-
Z1	#4	4'-3"	4	11	-	-	-
Z2	#4	3'-6"	6	14	-	-	-
DOWEL	#4	1'-0"	13	9	-	-	-
TOTAL REINF. STEEL (lbs.)				473			
CLASS "A" CONC. (cu. yds.)				9.1			



**ELEVATION OF WING SHOWING REINFORCEMENT**

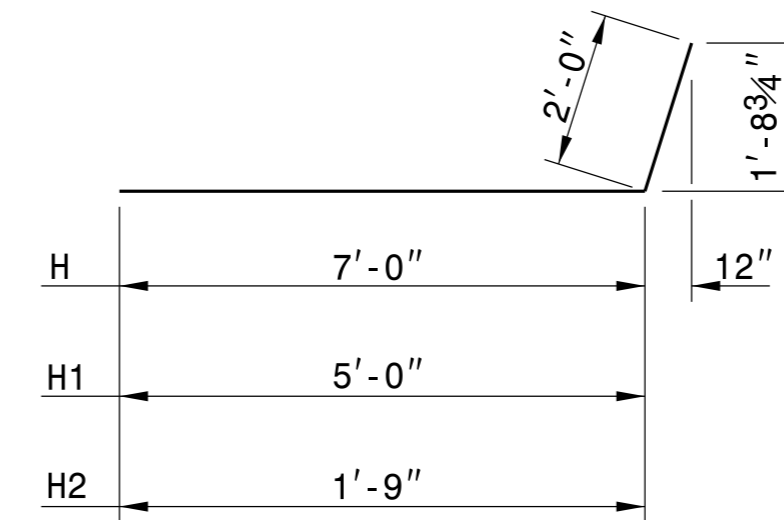


**END OF WING**

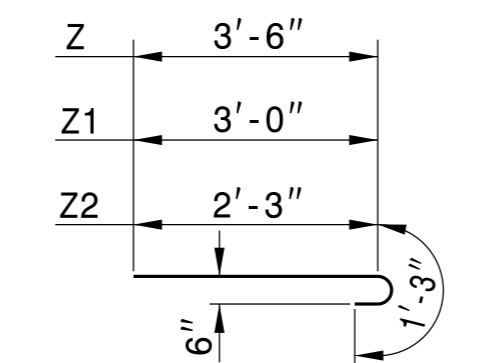


**HOOK BOLT**

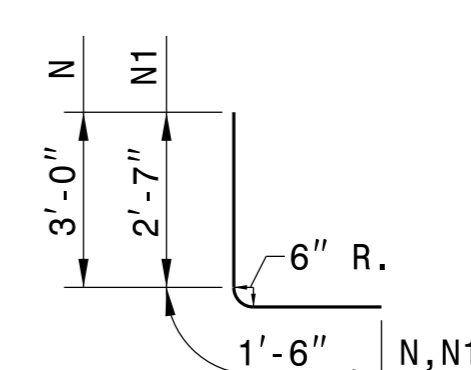
HOOK BOLTS (ANCHORS SHALL BE CONSTRUCTED AT 2'-0" CTS. ALONG THE CIRCUMFERENCE OF THE 7'-0" CSPA. THE HOOK BOLTS SHALL BE EMBEDDED IN THE CONCRETE ENDWALL 8" IN DEPTH. THE GALVANIZED 3/4" DIA. HOOK BOLTS MUST MEET ASTM A-307 OR ASTM A-836. BOTH BOLTS AND NUTS MUST BE IN ACCORDANCE WITH ASTM A-153 FOR GALVANIZING.



**BARS H-H1-H2**



**BARS Z-Z1-Z2**



**BARS N-N1**

9/1/2016



DocuSigned by:  
J. S. Howerton  
022966  
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 84" DIAMETER PIPE WITH CONC. SILL**

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
MODIFIED BY: K.A. KEMPF DATE: 6-2017  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
FILE SPEC.: details/kkempf/english/R2915C\_838039\_84endwall.dgn

\$\$\$\$\$C:\TIME\$\$\$\$\$  
\$\$\$\$\$C:\USER\$\$\$\$\$  
\$\$\$\$\$C:\USER\$\$\$\$\$