

**NOTES**

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL REINFORCING STEEL CAST WITH THE CORED SLAB SECTIONS SHALL BE GRADE 60 AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE CORED SLABS.

RECESSES FOR TRANSVERSE STRANDS SHALL BE GROUTED AFTER THE TENSIONING OF THE STRANDS.

THE 2 1/2" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH GROUT.

THE 2" Ø BACKER ROD SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, AN INTERNAL HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. AT LEAST SIX WEEKS PRIOR TO CASTING CORED SLABS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND COMMENT, DETAILED DRAWINGS OF THE PROPOSED HOLD-DOWN SYSTEM. IN ADDITION TO STRUCTURAL DETAILS, LOCATION AND SPACING OF THE HOLD-DOWNS SHALL BE INDICATED.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE CORED SLAB UNIT SHALL BE DONE WHEN THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 PSI.

ALL REINFORCING STEEL IN CONCRETE CURB SHALL BE EPOXY COATED.

PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE CORED SLAB UNIT ENDS.

APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS.

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE CURB AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. A CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN CURB EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF CURB SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

FLAME CUTTING OF THE TRANSVERSE POST-TENSIONING STRAND IS NOT ALLOWED.

THE PERMITTED THREADED INSERTS ARE DETAILED AS AN OPTION FOR THE CONTRACTOR TO ATTACH FALSEWORK AND FORMWORK DURING CONSTRUCTION.

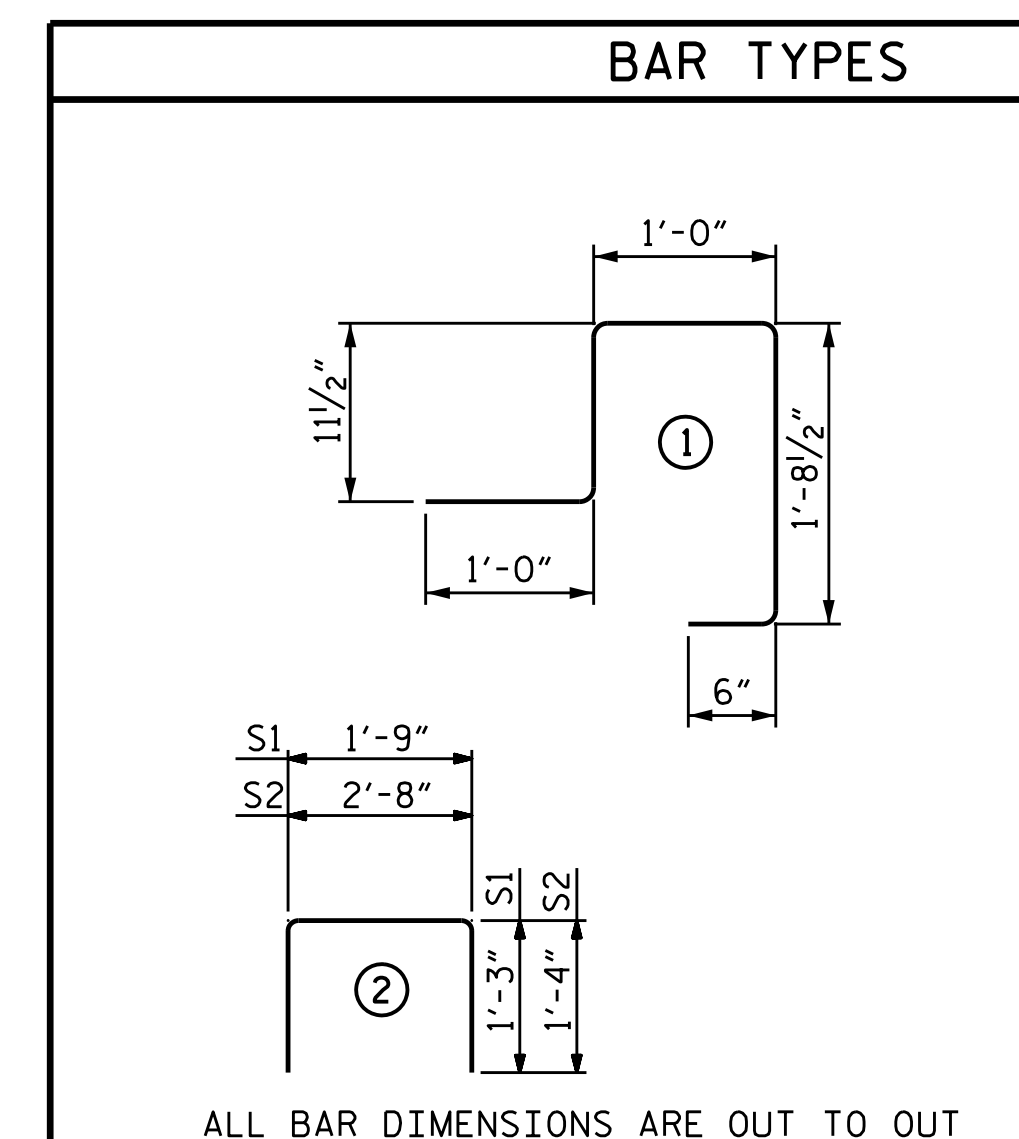
THE PERMITTED THREADED INSERTS IN THE EXTERIOR UNITS SHALL BE SIZED BY THE CONTRACTOR, SPACED AT 4'-0" CENTERS AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. STAINLESS STEEL THREADED INSERTS MAY BE USED AS AN ALTERNATE.

THE PERMITTED THREADED INSERTS SHALL BE GROUTED BY THE CONTRACTOR IMMEDIATELY FOLLOWING REMOVAL OF THE FALSEWORK.

THE COST OF THE PERMITTED THREADED INSERTS SHALL BE INCLUDED IN THE PRICE BID FOR THE PRECAST UNITS.

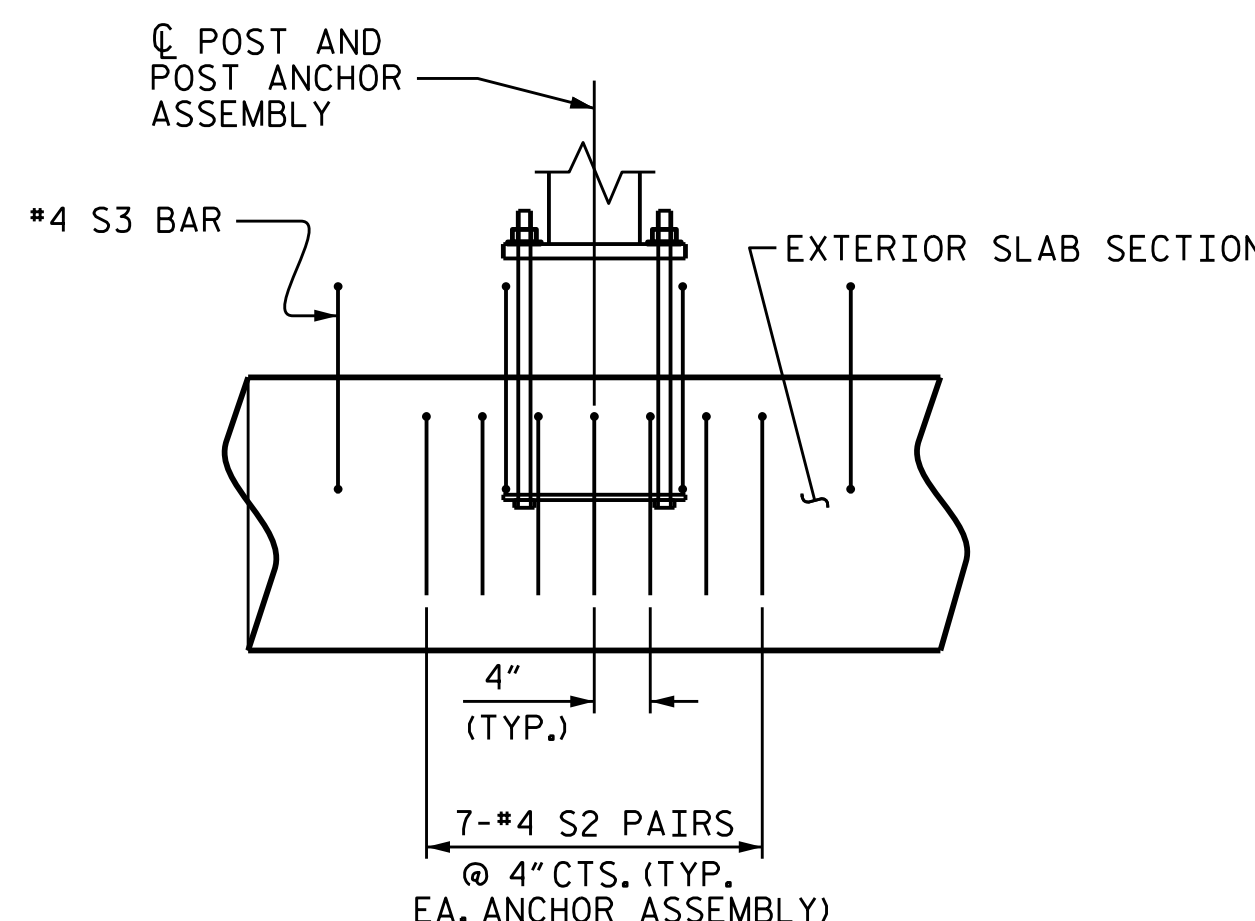
THE COST OF THE METAL RAIL ANCHOR ASSEMBLY CAST WITH THE CORED SLAB SECTIONS SHALL BE INCLUDED IN THE PRICE BID FOR THE PRECAST UNITS.

GRADE 270 STRANDS	
	0.6" Ø L.R.
AREA ( SQUARE INCHES )	0.217
ULTIMATE STRENGTH ( LBS. PER STRAND )	58,600
APPLIED PRESTRESS ( LBS. PER STRAND )	43,950



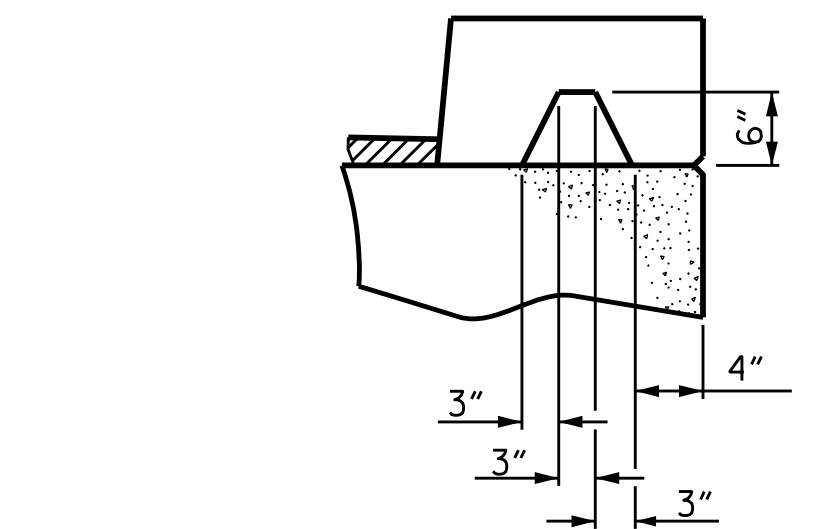
**BILL OF MATERIAL FOR ONE CORED SLAB SECTION**

TYPE I UNIT					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B1	4	#4	STR	18'-3"	49
S1	8	#5	2	4'-3"	35
S2	120	#4	2	5'-4"	428
* S3	38	#4	1	5'-2"	131
REINFORCING STEEL					LBS. 512
* EPOXY COATED REINFORCING STEEL					LBS. 131
5000 P.S.I. CONCRETE					CU. YDS. 6.3
0.6" Ø L.R. STRANDS					No. 9
TYPE II UNIT					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
B1	4	#4	STR	18'-3"	49
S1	8	#5	2	4'-3"	35
S2	74	#4	2	5'-4"	264
REINFORCING STEEL					LBS. 348
5000 P.S.I. CONCRETE					CU. YDS. 5.5
0.6" Ø L.R. STRANDS					No. 9

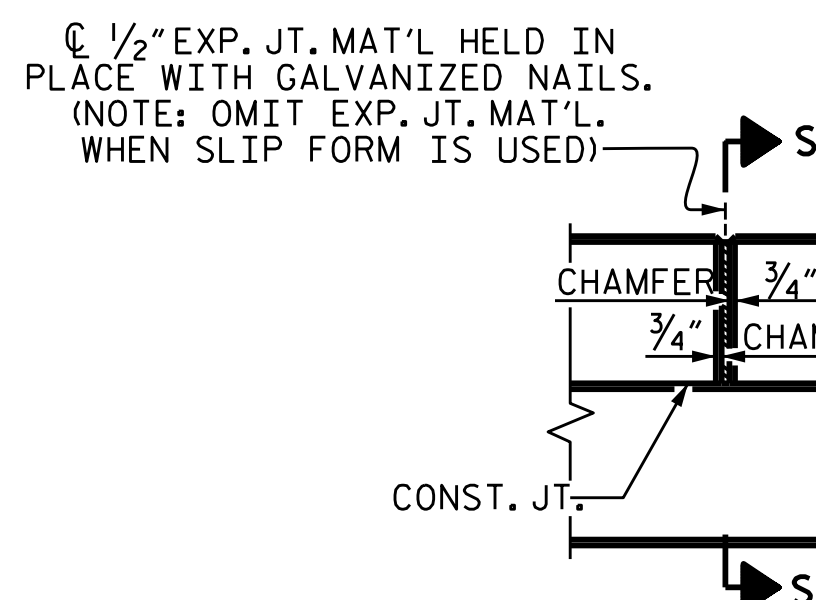


**SIDE VIEW AT POST LOCATION**  
(SHOWING ADDITIONAL S2 BARS AT EACH POST ASSEMBLY)

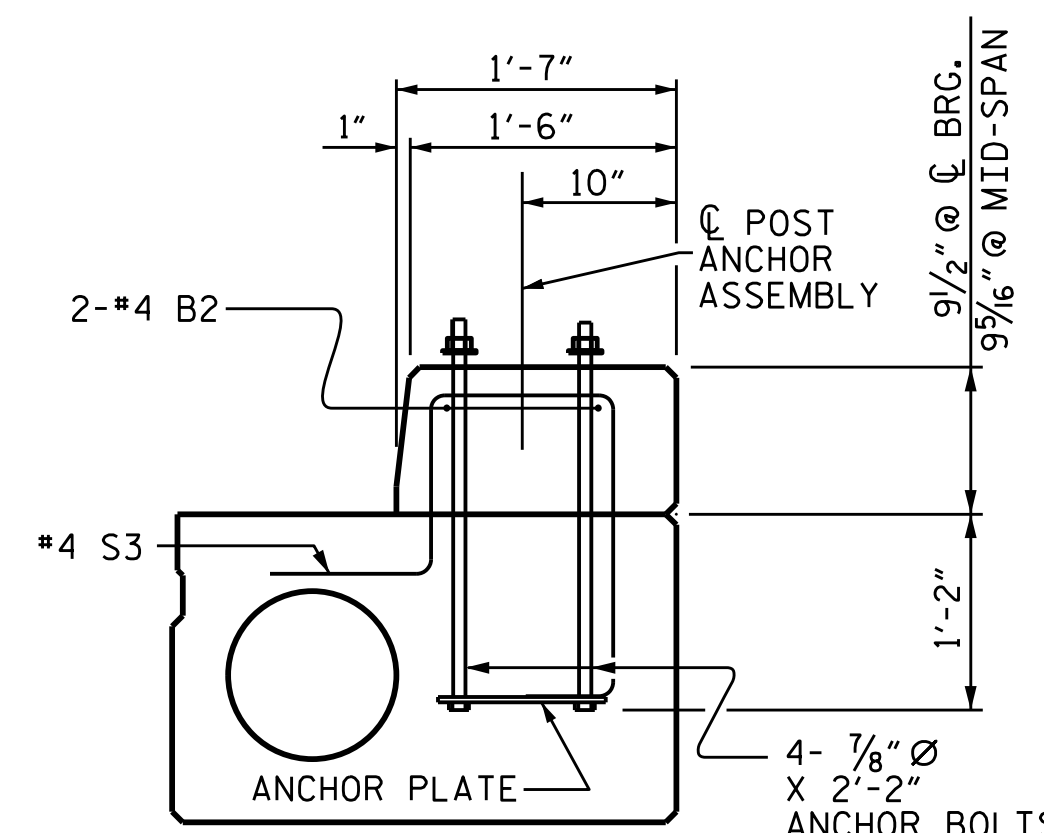
BILL OF MATERIAL FOR 2 CURBS & 4 END POSTS					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B2	8	#4	STR	17'-2"	92
* E1	40	#7	STR	2'-9"	225
* F1	32	#6	STR	3'-5"	164
* EPOXY COATED REINFORCING STEEL					LBS. 481
CLASS AA CONCRETE					CU.YDS. 5.1
TOTAL LIN. FT. OF 1'-7" x 9 1/2" CONCRETE CURB					70.00



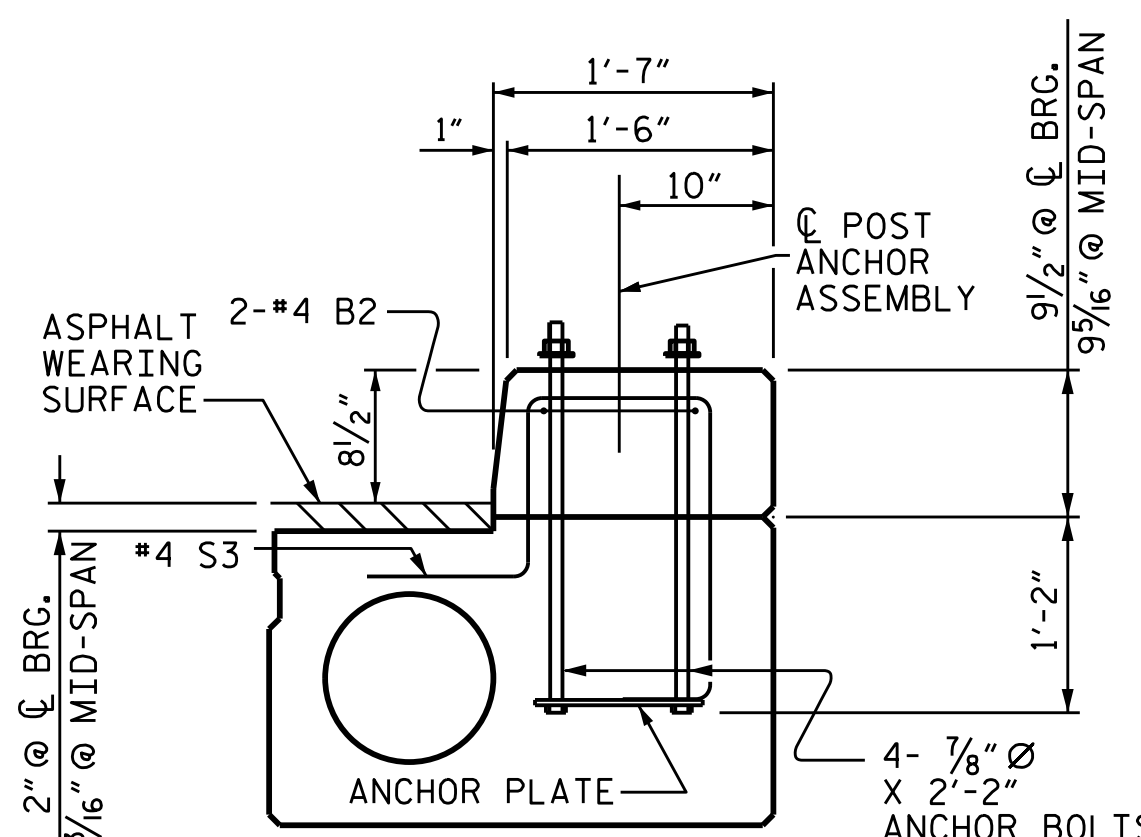
**SECTION S-S**  
AT DAM IN OPEN JOINT  
( THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED )



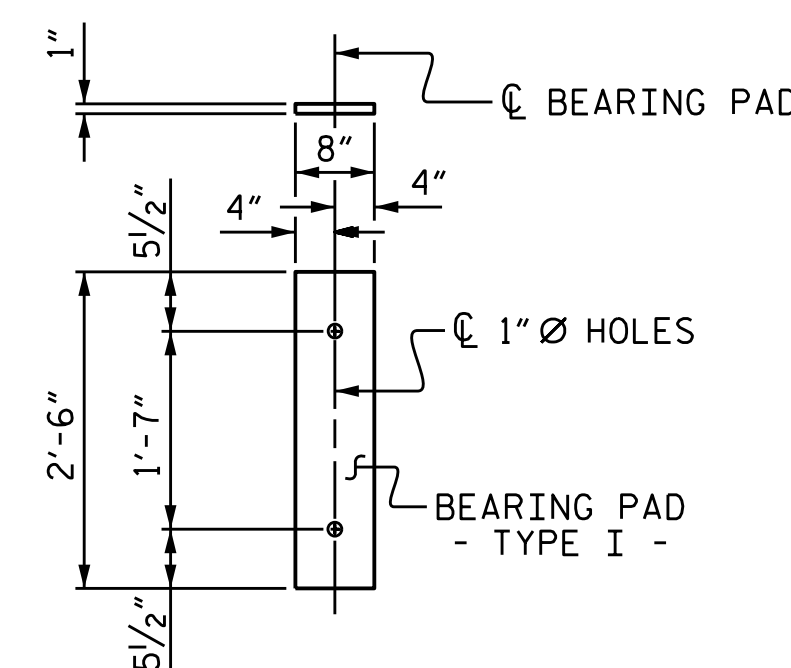
**ELEVATION AT EXPANSION JOINTS**



**ALASKA RAIL CURB SECTION**  
TEMPORARY



**ALASKA RAIL CURB SECTION**  
FINAL



**FIXED END**  
( TYPE I - 22 REQ'D )

**ELASTOMERIC BEARING DETAILS**

ELASTOMER IN BEARINGS SHALL BE 50 DUROMETER HARDNESS.

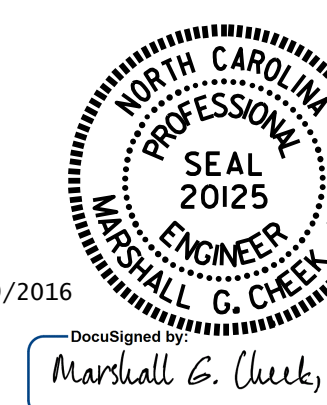
DEAD LOAD DEFLECTION AND CAMBER	
CAMBER ( SLAB ALONE IN PLACE )	0.6" Ø L.R. STRAND 1/4" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD**	1/16" ↓
FINAL CAMBER	3/16" ↓

\*\* INCLUDES FUTURE WEARING SURFACE

CORED SLABS REQUIRED			
TYPE	NUMBER	LENGTH	TOTAL LENGTH
TYPE I	2	35'-0"	70'-0"
TYPE II	9	35'-0"	315'-0"
TOTAL	11		385'-0"

DRAWN BY : W.J. HARRIS DATE : 2/2/16  
CHECKED BY : M.G. CHEEK DATE : 2/29/16  
DESIGN ENGINEER OF RECORD : S. T. CHAMPION DATE : 4/16

\*\*\*\*\*SYTIME\*\*\*\*\*  
\*\*\*\*\*SDGN\*\*\*\*\*  
\*\*\*\*\*USER\*\*\*\*\*



PROJECT NO. B-5118  
WATAUGA COUNTY  
STATION: 11+91.00 -L-

SHEET 3 OF 4

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

3'-0" X 1'-10"  
PRESTRESSED CONCRETE  
CORED SLAB UNIT

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS 20
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED