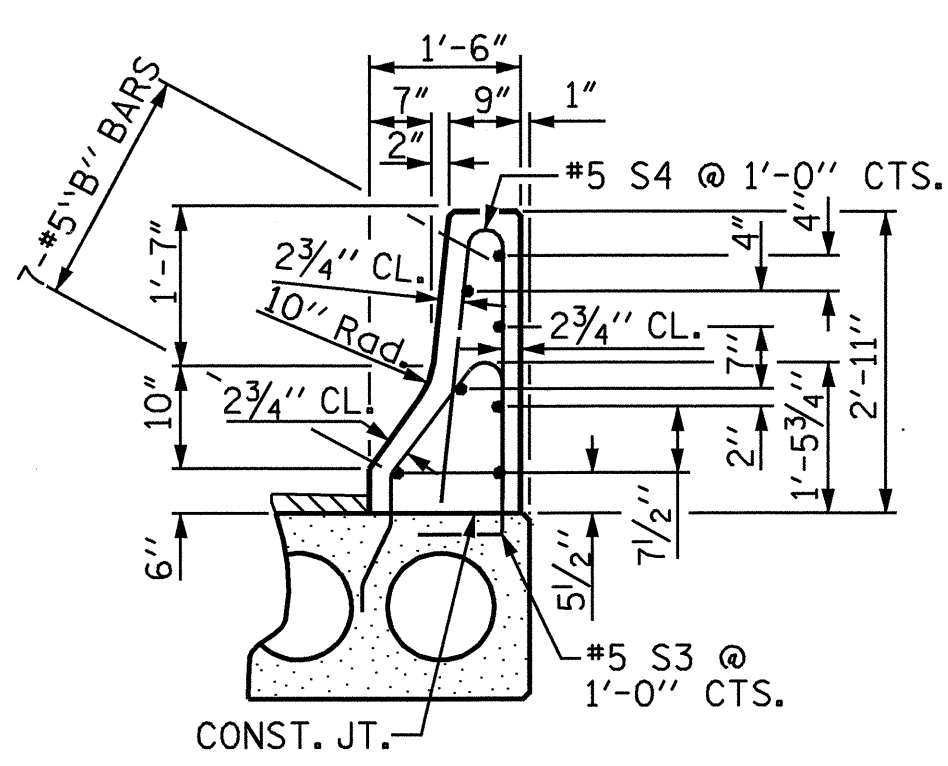
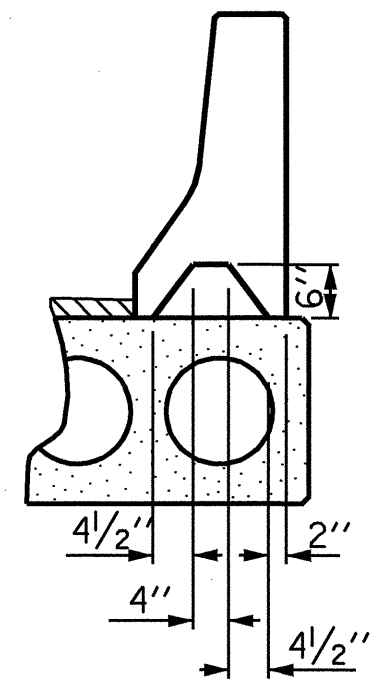


**PLAN**

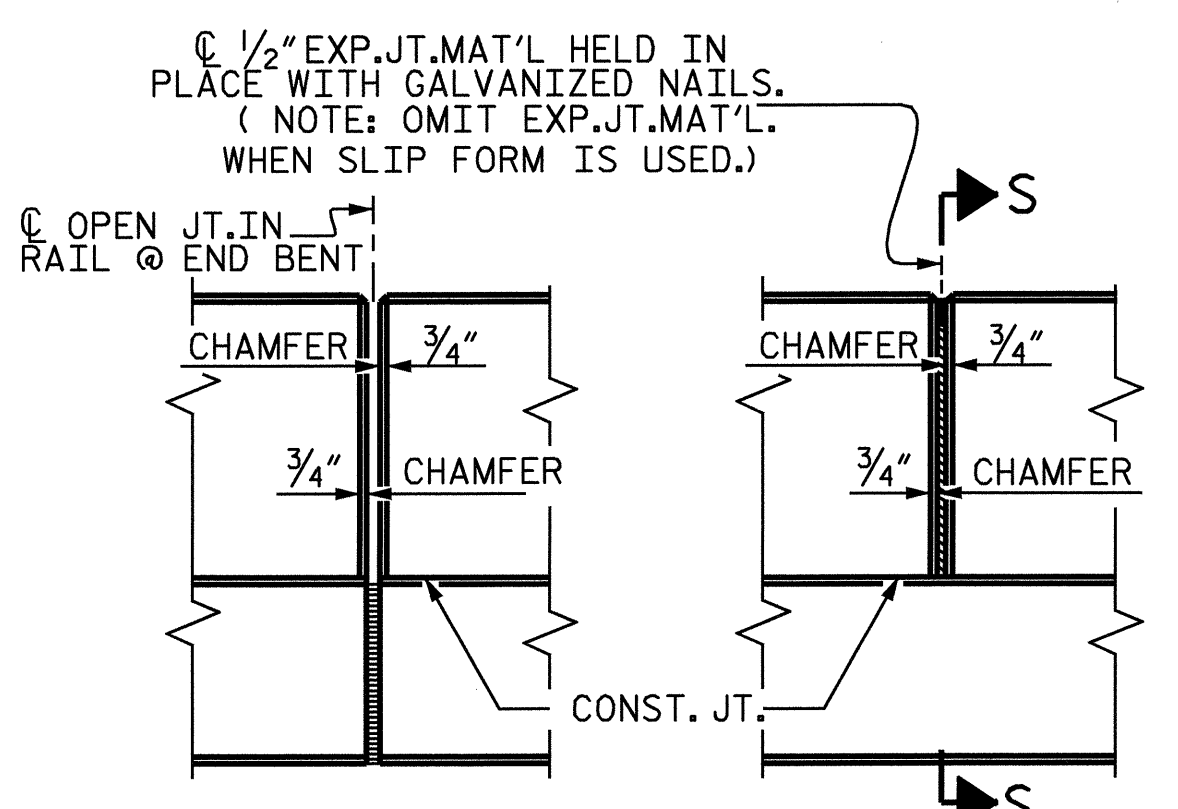


**SECTION THRU RAIL**

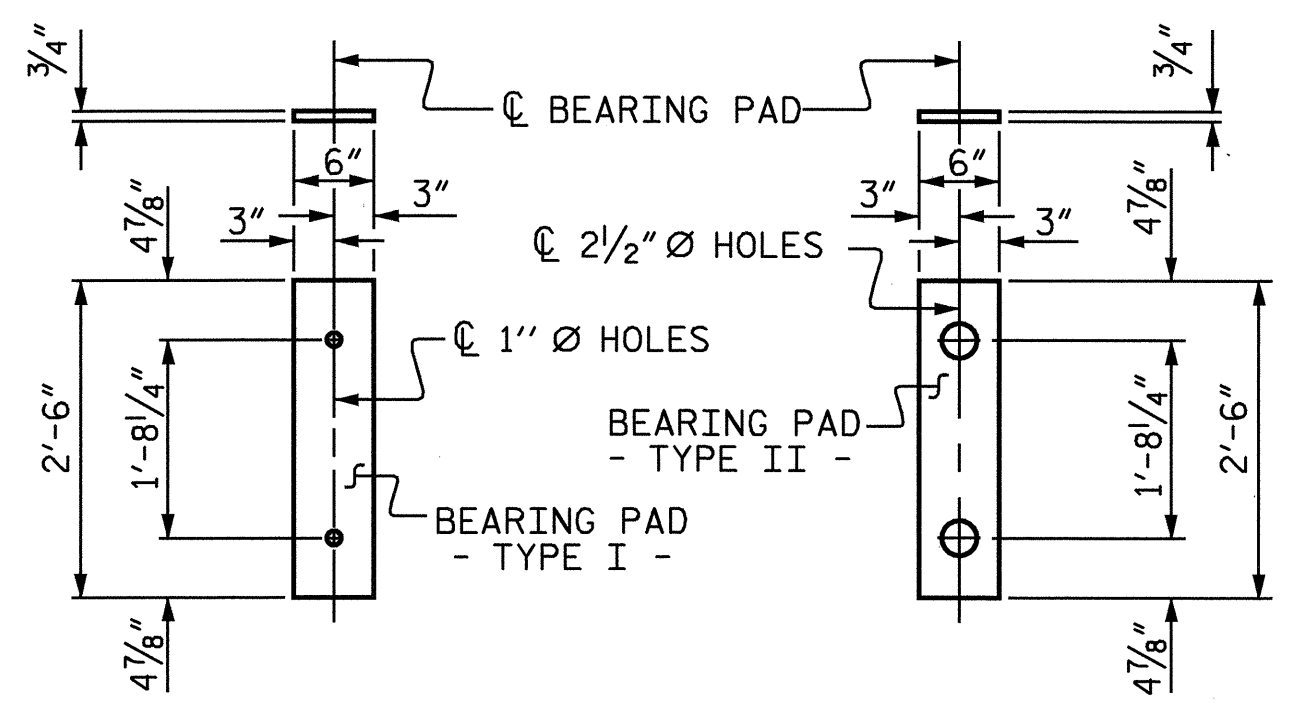


**SECTION S-S**

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

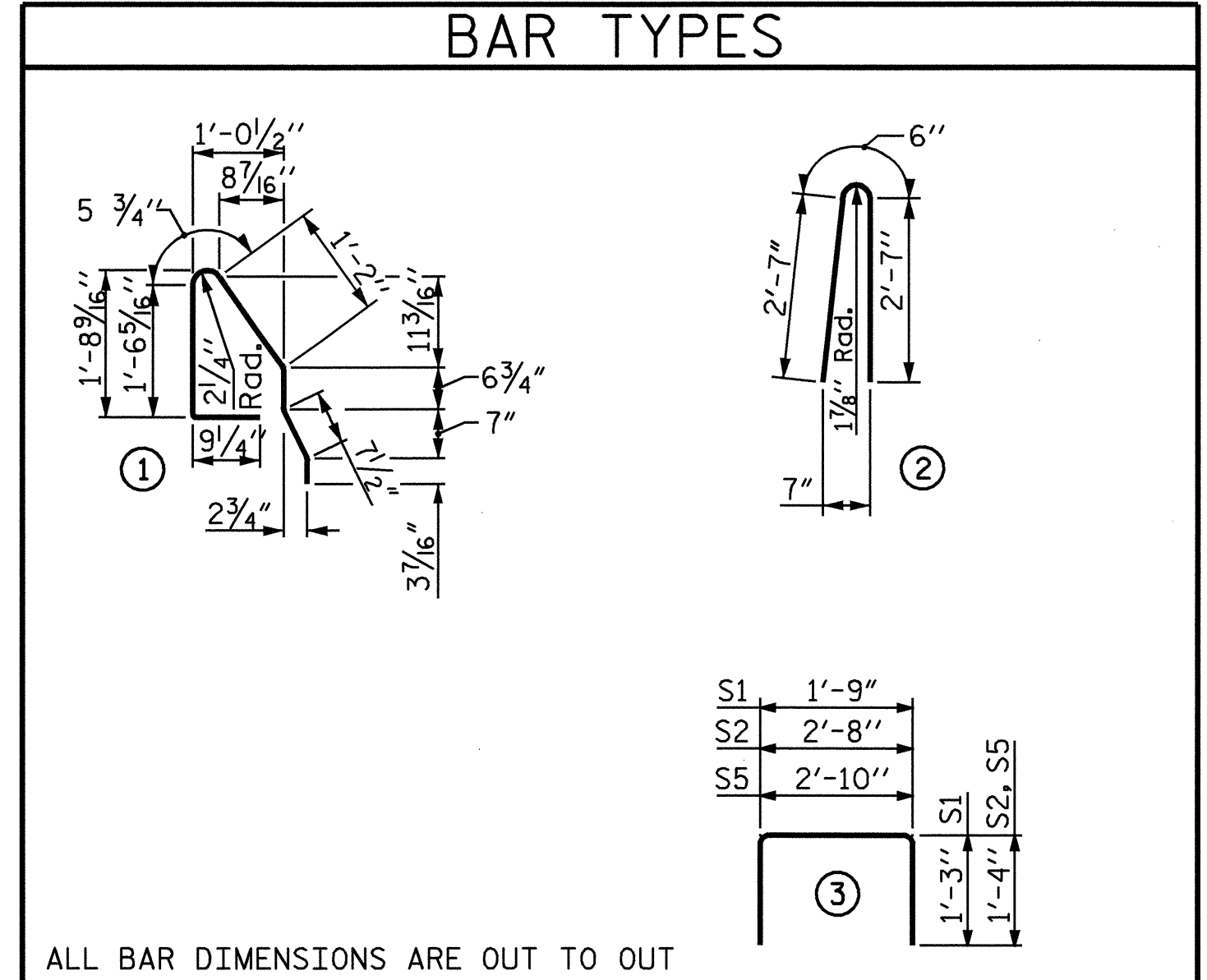


**ELEVATION AT EXPANSION JOINTS  
BARRIER RAIL DETAILS**



**FIXED END (TYPE I - 11 REQ'D)      EXPANSION END (TYPE II - 11 REQ'D)**

**ELASTOMERIC BEARING DETAILS**



ALL BAR DIMENSIONS ARE OUT TO OUT

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

BAR	No.	SIZE	TYPE	EXTERIOR UNIT		INTERIOR UNIT	
				LENGTH	WEIGHT	LENGTH	WEIGHT
B1	4	# 4	STR	27'-0"	72	27'-0"	72
S1	8	# 4	3	4'-3"	23	4'-3"	23
S2	108	# 4	3	5'-4"	385	5'-4"	385
*S3	54	# 5	1	5'-5"	305		
S5	4	# 4	3	5'-6"	15	5'-6"	15
REINFORCING STEEL				LBS.	495	LBS.	495
*EPOXY COATED REINFORCING STEEL				LBS.	305		
5,000 P.S.I. CONCRETE				CU. YDS.	7.5	CU. YDS.	7.4
1/2" Ø L.R. STRANDS				No.	21		21

**DEAD LOAD DEFLECTION AND CAMBER**

3'-0" x 1'-9" 1/2" Ø L.R. STRAND	
CAMBER (SLAB ALONE IN PLACE)	1 13/16"
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD**	5/16"
FINAL CAMBER	1 1/2"

\*\* INCLUDES FUTURE WEARING SURFACE

**BILL OF MATERIAL FOR CONCRETE BARRIER RAIL**

SPAN A					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
*B2	56	# 5	STR	15'-1"	881
*S4	108	# 5	2	5'-8"	638
*EPOXY COATED REINFORCING STEEL				LBS.	1519
CLASS AA CONCRETE				CU. YDS.	12.0
TOTAL LIN. FT. OF CONCRETE BARRIER RAIL					105.13

**CORED SLABS REQUIRED**

	NUMBER	LENGTH	TOTAL LENGTH
EXTERIOR C.S.	2	52'-7 1/4"	105'-2 1/2"
INTERIOR C.S.	9	52'-7 1/4"	473'-5 1/4"
TOTAL	11	52'-7 1/4"	578'-7 3/4"

**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 1/2" Ø DOWEL HOLES AT EXPANSION ENDS OF SLAB SECTIONS SHALL BE FILLED WITH JOINT SEALER MATERIAL TO 1/2" ABOVE THE TOP OF DOWELS AND THEN FILLED WITH GROUT.

THE JOINT SEALER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF TYPE B LOW MODULUS SILICONE SEALANT. THE 2" Ø BACKER ROD SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. THE 12" WIDE BOND BREAKING TAPE SHALL BE CENTERED OVER THE JOINT AND CONFORM TO THE REQUIREMENTS OF TYPE N BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, A POSITIVE HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. THIS SYSTEM SHALL BE DESIGNED TO BE LEFT IN PLACE UNTIL THE CONCRETE HAS REACHED RELEASE STRENGTH. AT LEAST THREE 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 BARRIER RAILS 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. FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

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

FOR ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.  
FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

**GRADE 270 STRANDS**

	1/2" Ø L.R.
AREA (SQUARE INCHES)	0.153
ULTIMATE STRENGTH (LBS. PER STRAND)	41,300
APPLIED PRESTRESS (LBS. PER STRAND)	30,980

**SPLICE CHART**

B1	1'-9"
B2	3'-5"

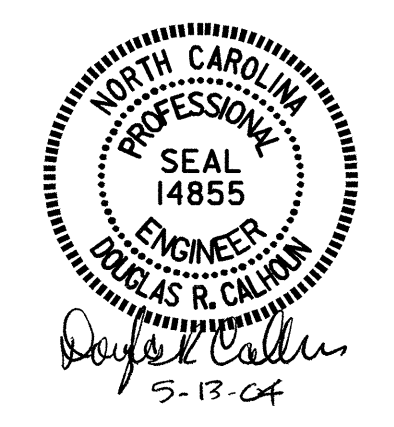
PROJECT NO. B-3614  
BUNCOMBE COUNTY  
STATION: 14+24.50 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
**STANDARD  
3'-0" X 1'-9"  
PRESTRESSED  
CONCRETE CORED  
SLAB UNIT**

OCTOBER 1981

REVISIONS						SHEET NO. S-7
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 17
2			4			



ASSEMBLED BY: A.L.MEADOWS DATE: 10/21/02  
CHECKED BY: T.A.HARRIS DATE: 6/17/03  
DRAWN BY: WJH 4/89  
CHECKED BY: FCJ 5/89  
REV. 8/16/99 RWW/LES  
REV. 10/17/00 RWW/LES  
REV. 7/10/01R RWW/LES