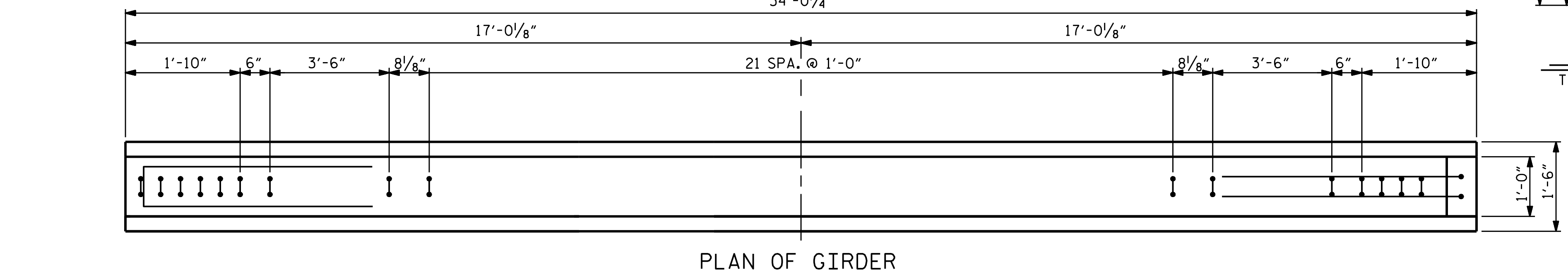
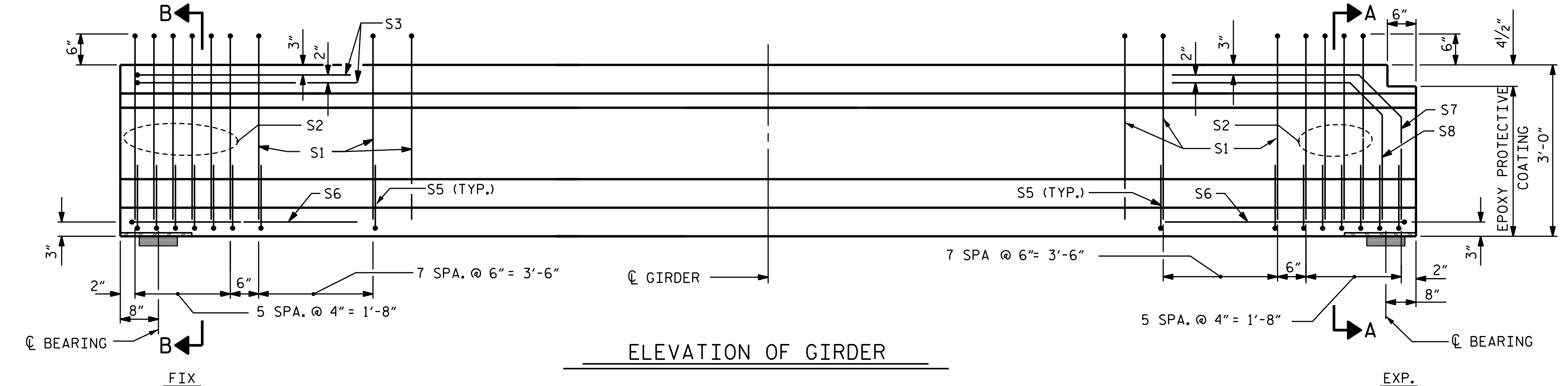


12-0.6" Ø LOW RELAXATION STRAND LAYOUT  
• FULLY BONDED STRANDS



PLAN OF GIRDER



ELEVATION OF GIRDER

**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.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES AS SHOWN.

EMBEDDED PLATE "B-1" SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ANCHOR STUDS SHALL CONFORM TO AASHTO M169 GRADES 1010 THROUGH 1020 OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

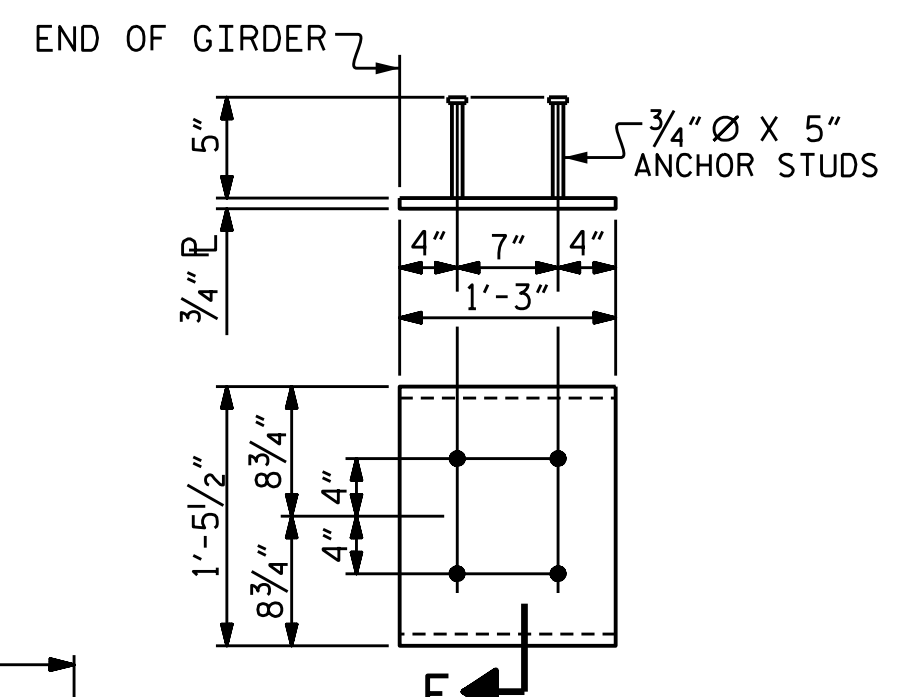
ALL PRESTRESSED STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

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

DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

THE TOP SURFACE OF THE GIRDER SHALL BE RAKED TO A DEPTH OF 1/4" EXCEPT IN THE AREA BETWEEN THE STIRRUP AND THE EDGE OF THE GIRDER.

ALL REINFORCING STEEL SHALL BE GRADE 60.

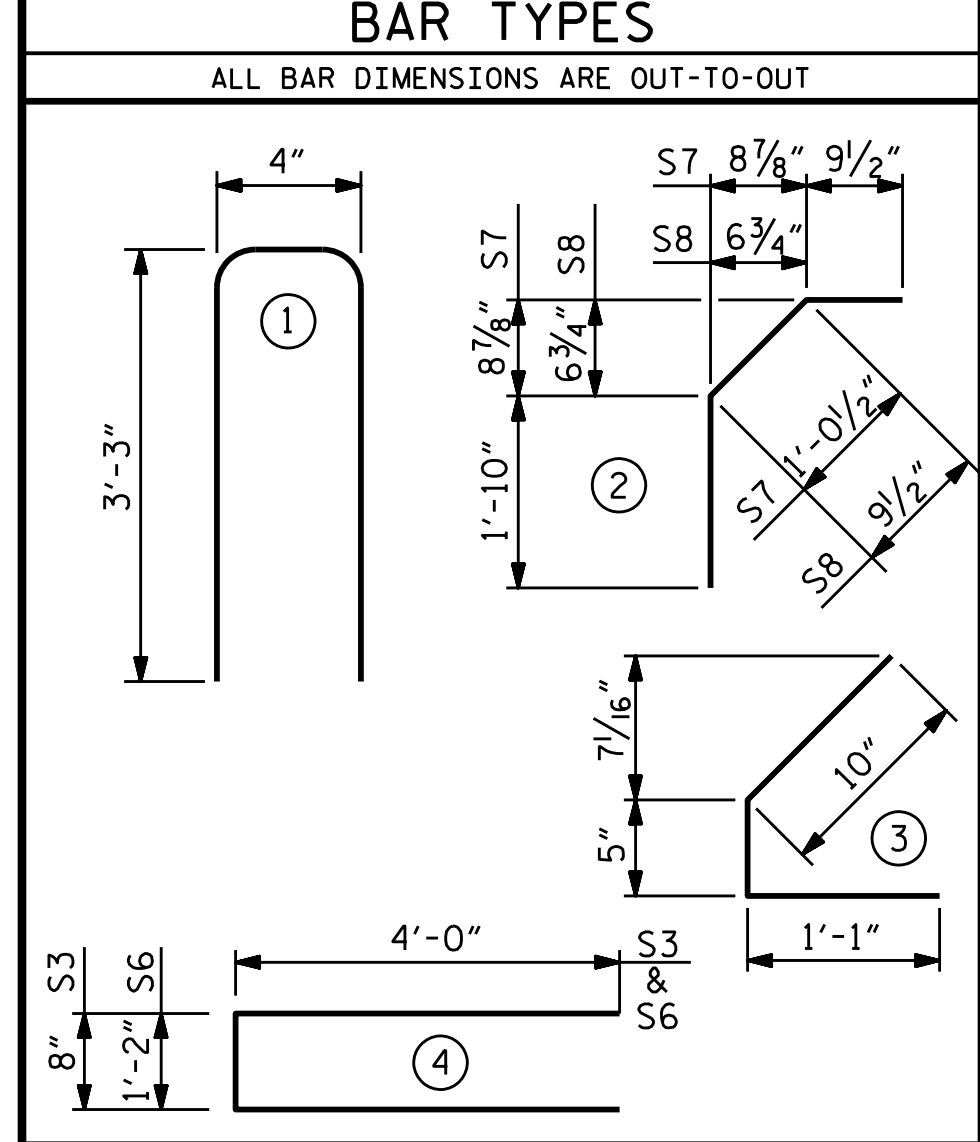


EMBEDDED PLATE "B-1" DETAILS  
TWO EMBEDDED PLATES "B-1" ARE REQUIRED FOR EACH GIRDER.

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

REINFORCING STEEL FOR ONE GIRDER					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S1	38	#4	1	6'-10"	173
S2	10	#5	1	6'-10"	71
S3	2	#4	4	8'-8"	12
S5	56	#4	3	2'-4"	87
S6	2	#4	4	9'-2"	12
S7	2	#5	2	3'-8"	8
S8	2	#5	2	3'-5"	7

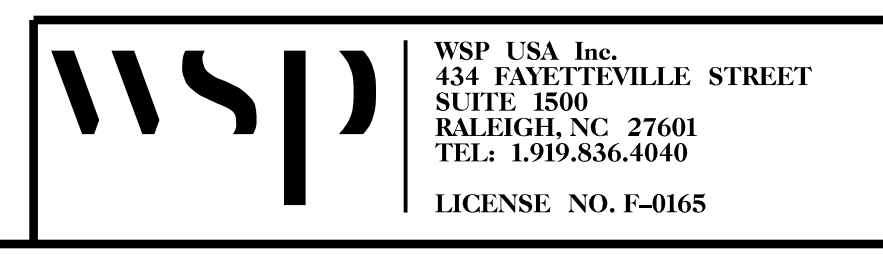
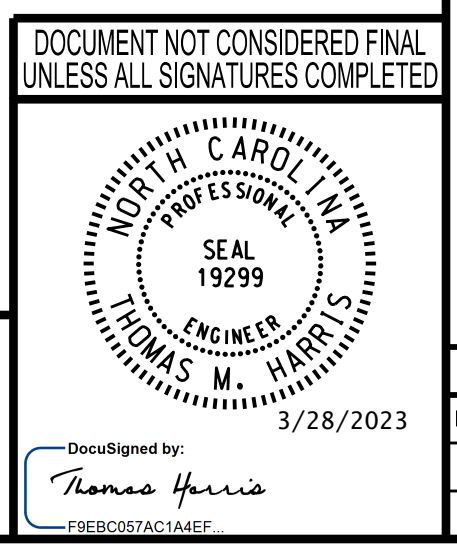


QUANTITIES FOR ONE GIRDER			
	REINFORCING STEEL LB.	5000 PSI CONCRETE C.Y.	0.6" Ø L. R. STRANDS No.
A1, A2	370	3.23	12

GIRDERS REQUIRED		
NUMBER	LENGTH	TOTAL LENGTH
2	34.0	68.0

PROJECT NO. U-4424  
EDGEcombe COUNTY  
 STATION: 66+24.84 -L-

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD  
 AASHTO TYPE II  
 PRESTRESSED CONCRETE GIRDER  
 SPAN A



REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO.	
S-15	TOTAL SHEETS 37

3/28/2023 J:\188771-06\_NCDOT\_NC\_111\U-4424\Structures\Dr-off-ring\DGNS\401\_031\_U4424\_SMU.G1\_015.dgn

DRAWN BY: JMB 12/87	REV. 1/15	MAA/TMG
CHECKED BY: ARB 12/87	REV. 2/15	MAA/TMG
	REV. 12/17	MAA/THC
DESIGNED BY: J. WHEATLEY	DATE: MAR 2023	
DRAWN BY: J. WHEATLEY	DATE: MAR 2023	
CHECKED BY: T. KIRSCHBAUM	DATE: MAR 2023	
DESIGN ENGINEER OF RECORD: T. HARRIS	DATE: MAR 2023	