

0.6" Ø LOW RELAXATION STRAND LAYOUT

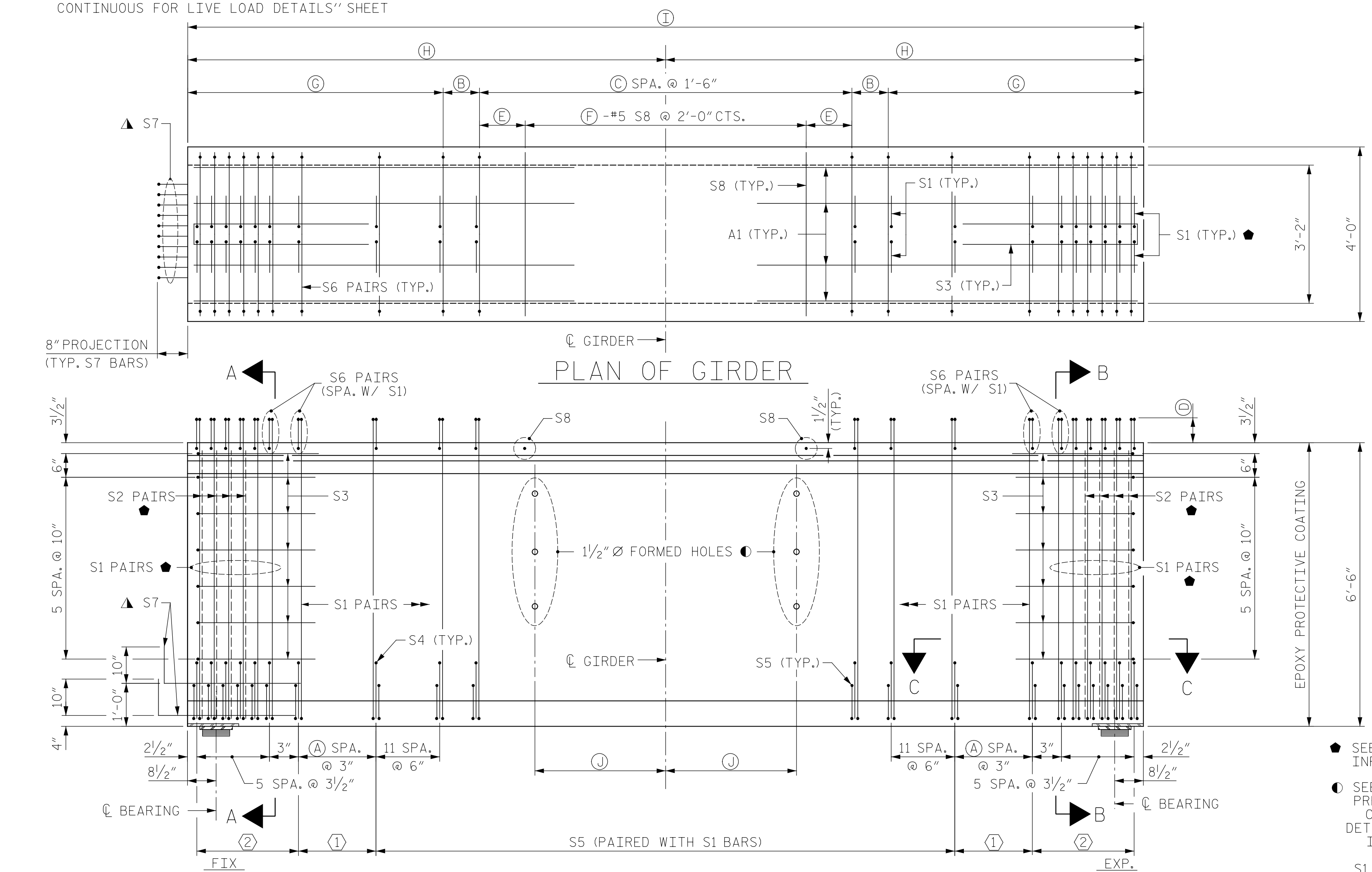
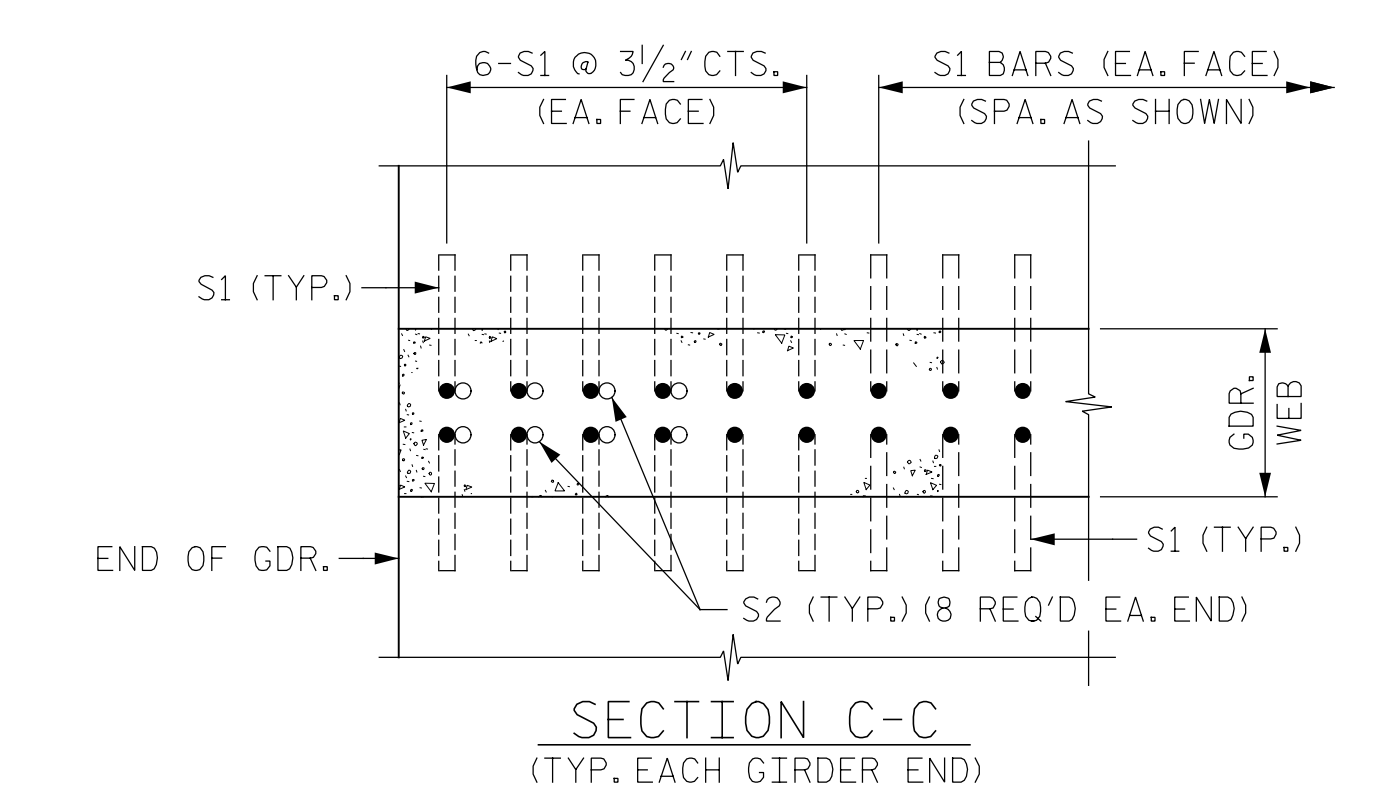
BAR TYPES		0.6" Ø L. R. GRADE 270 STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)		
0.217	58,600	43,950		
REINFORCING STEEL FOR ONE GDR				
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	8	6	STR 28' - 0"	336
S1	354	5	1	7' - 9"
S2	16	5	STR 6' - 0"	100
S3	14	4	5	8' - 5"
S4	40	3	2	3' - 2"
S5	298	3	3	4' - 3"
S6	354	5	4	4' - 9"
▲ S7	10	5	STR 3' - 8"	38
S8	65	5	STR 3' - 8"	249
S9	8	5	6	12' - 6"
S10	16	4	STR 8' - 0"	86
QUANTITIES FOR ONE GIRDER				
GDR EXG	REINFORCING STEEL	9000 PSI CONCRETE	0.6" Ø L.R. STRANDS	
	LB.	C.Y.	No.	
	6,131	45.0	72	
GIRDERS REQUIRED				
NUMBER	LENGTH	TOTAL LENGTH		
9	158'-8"	1,428'-0"		

▲ FOR S7 BARS, SEE "DETAIL C" ON "78" FLORIDA I-BEAM (FIB) PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS" SHEET

▲ NOTE: S7 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

DEBONDING LEGEND	
●	FULLY BONDED STRANDS
▲	STRANDS DEBONDED FOR 4'-0" FROM END OF GIRDER
■	STRANDS DEBONDED FOR 6'-0" FROM END OF GIRDER
◻	STRANDS DEBONDED FOR 8'-0" FROM END OF GIRDER
◻	STRANDS DEBONDED FOR 14'-0" FROM END OF GIRDER

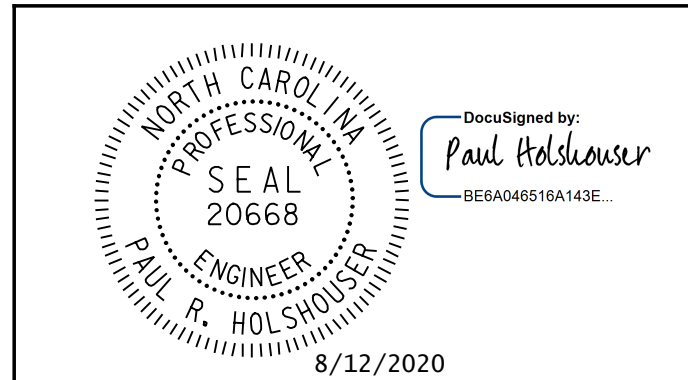
TABLE OF VARIABLES										
SPAN	A	B	C	D	E	F	G	H	I	J
E	27	8"	86	7 1/2"	6"	65	14'-2"	79'-4"	158'-8"	26'-2 1/2"



● SEE "SECTION C-C" FOR MORE INFORMATION & DETAILS
 ○ SEE "78" FLORIDA I-BEAM (FIB) PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS" SHEET FOR ADDITIONAL INFORMATION AND DETAILS.

S1 & S6 BARS MAY BE SHIFTED AS FOUND NECESSARY TO CLEAR 1 1/2" Ø HOLES IN GIRDER WEB

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT NO. 48793.3.1
 BLADEN COUNTY
 STATION: 118+81.78 -L-
 SHEET 5 OF 8

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 78" FLORIDA I-BEAM (FIB)
 SPAN E
 CONTINUOUS FOR LIVE LOAD
 PRESTRESSED CONCRETE GIRDER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-32
1			3			TOTAL SHEETS
2			4			107

DRAWN BY: B. J. MANTEI DATE: 7/16/20
 CHECKED BY: N. REZAEI DATE: 7/16/20
 DESIGN E.O.R.: P. R. HOLSHOUSER DATE: 7-23-20

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