

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 SHALL BE GRADE 60.

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.

AT ENDS OF GIRDERS TO BE EMBEDDED IN CONCRETE DIAPHRAGMS OR END WALLS, PRESTRESSING STRANDS MAY EXTEND A MAXIMUM OF 2" BEYOND THE GIRDER ENDS. OTHERWISE, PRESTRESSING 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 7500 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, EXCLUDING THE OUTSIDE 4", SHALL BE RAKED TO A DEPTH OF 1/4".

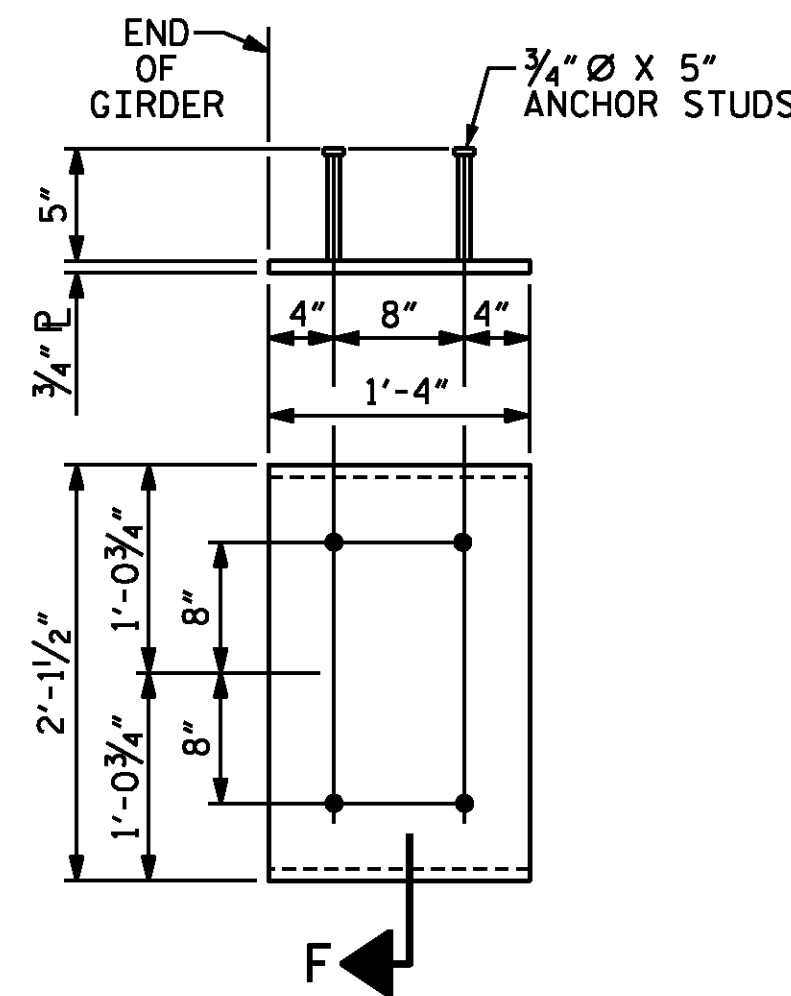
WHEN DRAPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 6" OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF DRAPED STRANDS SHALL BE LOCATED WITHIN 1/2" OF THE THEORETICAL LOCATION SHOWN.

THE CONTRACTOR HAS THE OPTION TO PROVIDE, AT NO ADDITIONAL COST TO THE DEPARTMENT, 2 ADDITIONAL STRANDS AT THE TOP OF THE GIRDER TO FACILITATE TYING OF THE REINFORCING STEEL. THESE STRANDS SHALL BE PULLED TO A LOAD OF 4500 lbs.

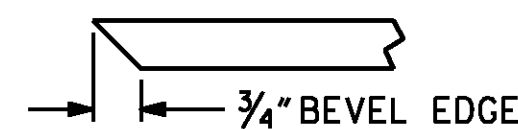
GIRDER CAMBER PREDICTED USING REFINED METHOD FOR CAMBER, PER NCDOT POLICY MEMO (8-28-14)

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																						
SPAN A																						
0.6" Ø LOW RELAXATION	GIRDER A1 & A4																					
TWENTIETH POINTS	CL BRG.	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	CL BRG.	
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.045	0.090	0.130	0.170	0.202	0.233	0.253	0.273	0.280	0.287	0.280	0.273	0.253	0.233	0.202	0.170	0.130	0.090	0.045	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.037	0.073	0.109	0.144	0.171	0.199	0.217	0.234	0.240	0.246	0.240	0.234	0.217	0.199	0.171	0.144	0.109	0.073	0.037	0
FINAL CAMBER	↑	0	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	7/16"	7/16"	1/2"	1/2"	1/2"	7/16"	7/16"	7/16"	3/8"	5/16"	1/4"	3/16"	1/8"	0

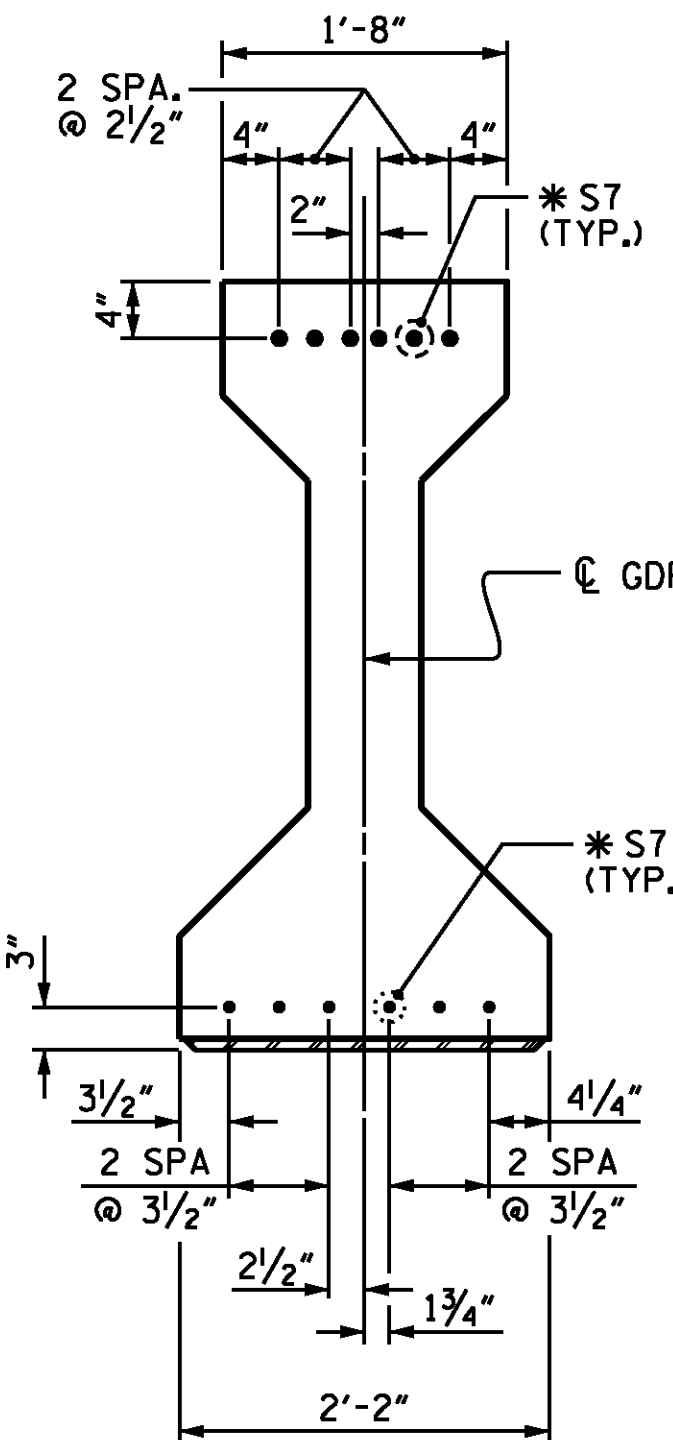
DEAD LOAD DEFLECTION TABLE FOR GIRDERS																						
SPAN A																						
0.6" Ø LOW RELAXATION	GIRDER A2 & A3																					
TWENTIETH POINTS	CL BRG.	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	CL BRG.	
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.045	0.090	0.130	0.170	0.202	0.233	0.253	0.273	0.280	0.287	0.280	0.273	0.253	0.233	0.202	0.170	0.130	0.090	0.045	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.037	0.075	0.111	0.146	0.174	0.203	0.221	0.239	0.245	0.251	0.245	0.239	0.221	0.203	0.175	0.146	0.111	0.075	0.037	0
FINAL CAMBER	↑	0	1/16"	3/16"	1/4"	5/16"	5/16"	3/8"	3/8"	7/16"	7/16"	7/16"	7/16"	7/16"	3/8"	3/8"	5/16"	5/16"	1/4"	3/16"	1/16"	0



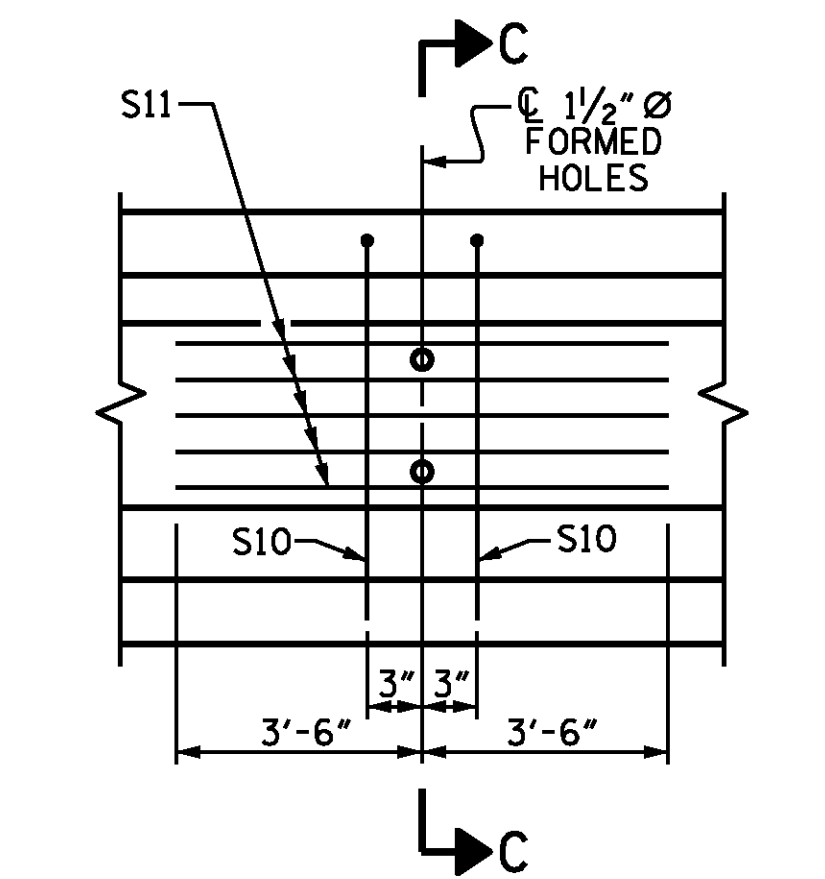
**EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER**  
(2 REQ'D PER GIRDER)



**SECTION "F"**  
(SEE NOTES)



**DETAIL "A"**  
(FOR AASHTO TYPE IV GIRDERS)

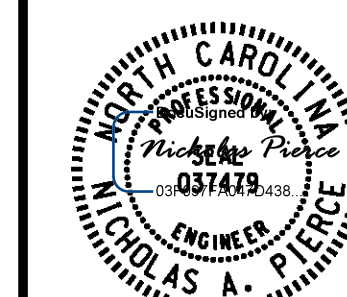


**PARTIAL ELEVATION**  
SHOWING INTERMEDIATE DIAPHRAGM REINFORCING STEEL FOR GIRDER Nos. 1-4

PROJECT NO. B-4616  
ROBESON COUNTY  
STATION: 31+55.47 -L-

SHEET 2 OF 3

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
PRESTRESSED CONCRETE GIRDER  
CONTINUOUS FOR LIVE LOAD  
DETAILS



8/2/2016

DESIGNED BY: C.J. HOWARD DATE: 04/2016  
DRAWN BY: M.J. OSTRISHKO DATE: 04/2016  
CHECKED BY: J.D. BORUTA DATE: 05/2016  
DESIGN ENGINEER OF RECORD: N.A. PIERCE DATE: 06/2016

DRAWN BY: ELR 11/91 REV. 10/1/11 MAA/GM  
CHECKED BY: GRP 11/91 REV. 1/15 MAA/TMG  
REV. 2/15 MAA/TMG

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					25

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**