

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.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES INDICATED IN ELEVATION VIEW.

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

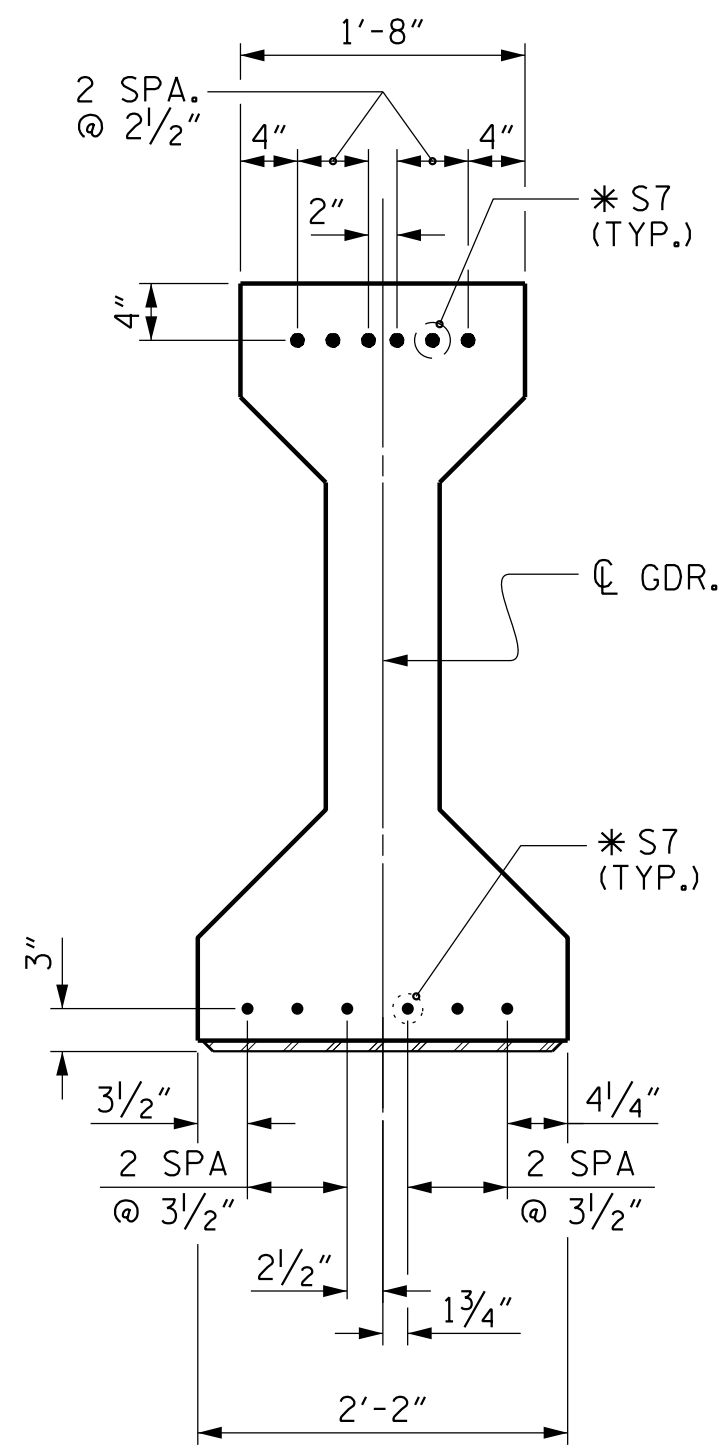
ANCHOR STUDS SHALL CONFORM TO AASHTO M169 GRADES 1010 THROUGH 1020 OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

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 5000 PSI.

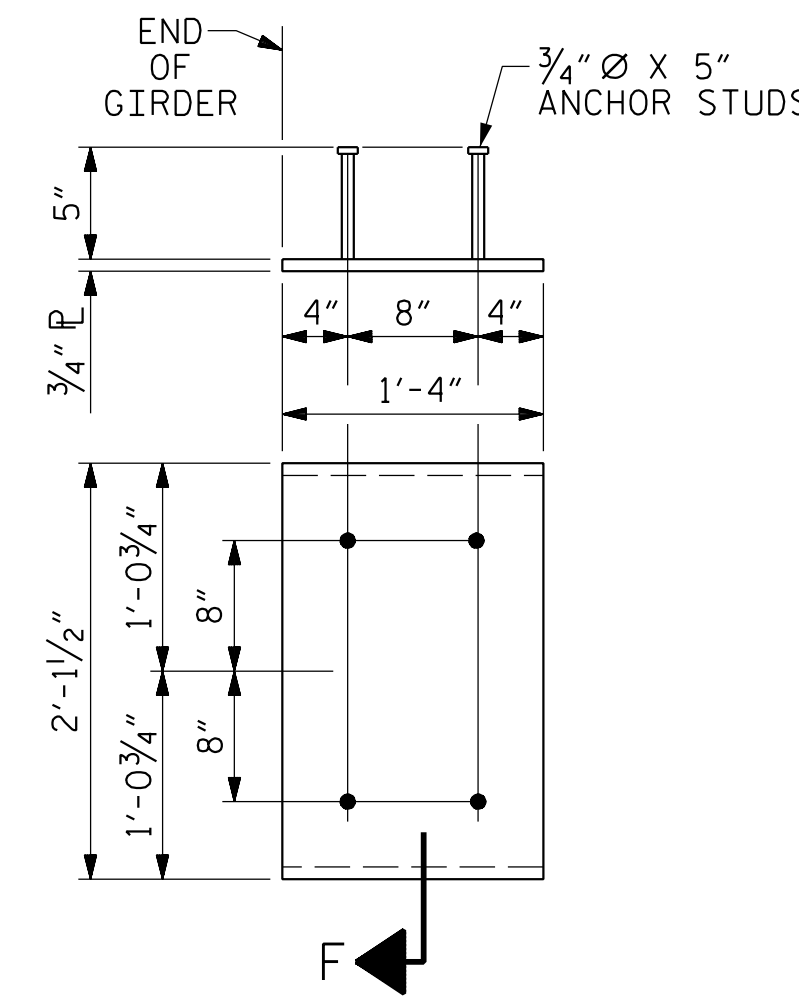
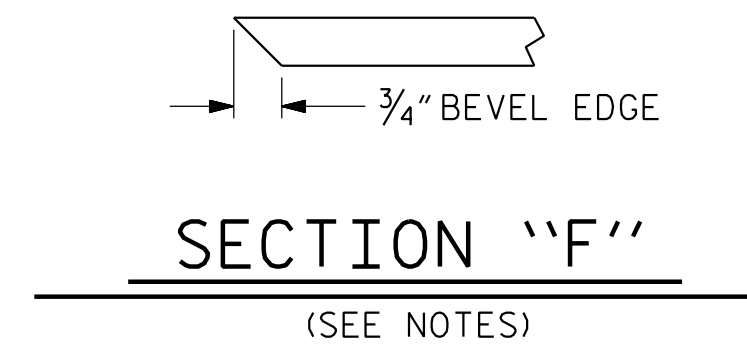
DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

THE TOP SURFACE OF THE GIRDER, EXCLUDING THE OUTSIDE 4" AND THE LINK SLAB REGION AS SHOWN ON SHEET 1 OF 3, SHALL BE RAKED TO A DEPTH OF 1/4".



DETAIL "A"

(FOR AASHTO TYPE IV GIRDERS)



EMBEDDED PLATE "B-1" DETAILS FOR AASHTO TYPE IV GIRDER

(2 REQ'D PER GIRDER)

DEAD LOAD DEFLECTION TABLE FOR GIRDERS - SPANS A & B

0.6" Ø LOW RELAXATION	GIRDERS 1 & 5																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.024	0.048	0.070	0.091	0.109	0.124	0.136	0.145	0.151	0.153	0.151	0.145	0.136	0.124	0.109	0.091	0.070	0.048	0.024	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.014	0.029	0.043	0.057	0.068	0.079	0.086	0.093	0.095	0.098	0.095	0.093	0.086	0.079	0.068	0.057	0.043	0.029	0.014	0.0
FINAL CAMBER ↑	0.0	1/8"	1/4"	5/16"	7/16"	1/2"	9/16"	5/8"	7/8"	11/16"	11/16"	11/16"	5/8"	5/8"	9/16"	1/2"	7/16"	5/16"	1/4"	1/8"	0.0
0.6" Ø LOW RELAXATION	GIRDERS 2 & 4																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.024	0.048	0.070	0.091	0.109	0.124	0.136	0.145	0.151	0.153	0.151	0.145	0.136	0.124	0.109	0.091	0.070	0.048	0.024	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.016	0.033	0.049	0.065	0.078	0.090	0.098	0.106	0.109	0.112	0.109	0.106	0.098	0.090	0.078	0.065	0.049	0.033	0.016	0.0
FINAL CAMBER ↑	0.0	1/16"	3/16"	1/4"	5/16"	3/8"	3/8"	7/16"	7/16"	1/2"	1/2"	1/2"	7/16"	7/16"	3/8"	3/8"	5/16"	1/4"	3/16"	1/16"	0.0
0.6" Ø LOW RELAXATION	GIRDER 3																				
	TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.024	0.048	0.070	0.091	0.109	0.124	0.136	0.145	0.151	0.153	0.151	0.145	0.136	0.124	0.109	0.091	0.070	0.048	0.024	0.0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.017	0.033	0.050	0.066	0.079	0.092	0.100	0.108	0.111	0.114	0.111	0.108	0.100	0.092	0.079	0.066	0.050	0.033	0.017	0.0
FINAL CAMBER ↑	0.0	1/16"	3/16"	1/4"	5/16"	3/8"	3/8"	7/16"	7/16"	1/2"	1/2"	1/2"	7/16"	7/16"	3/8"	3/8"	5/16"	1/4"	3/16"	1/16"	0.0

* INCLUDES FUTURE WEARING SURFACE.

ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER", WHICH IS GIVEN IN INCHES (FRACTION FORM).

PROJECT NO. I-5987A
ROBESON COUNTY
 STATION: 41+19.02 -Y1A- POT

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 PRESTRESSED CONCRETE GIRDER
 DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-14
1			3			TOTAL SHEETS
2			4			31

PLANS PREPARED BY:

NV5

NV5 ENGINEERS & CONSULTANTS, INC.
 3300 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 P: 919.851.1912 www.nv5.com
 NC License # F-1333

DESIGNED BY:
 L. Kevin Austin
 PROFESSIONAL ENGINEER
 727832050008
 L. KEVIN AUSTIN
 5/10/2022

DRAWN BY: W. B. ALLEN DATE: 3/21
 CHECKED BY: G. F. WILSON DATE: 9/21
 DESIGN ENGINEER OF RECORD: L. K. AUSTIN DATE: 12/21

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