

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.

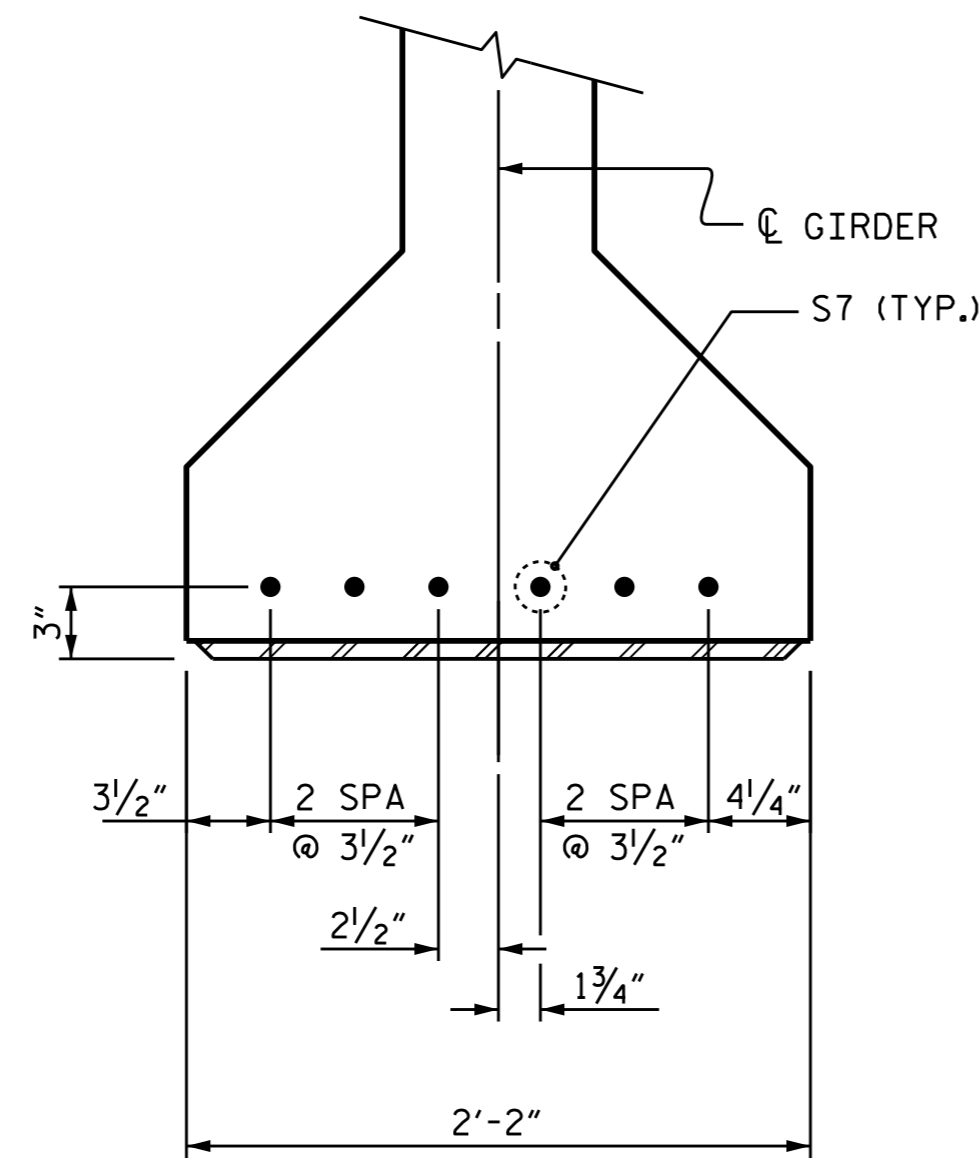
THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 5800 PSI.

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

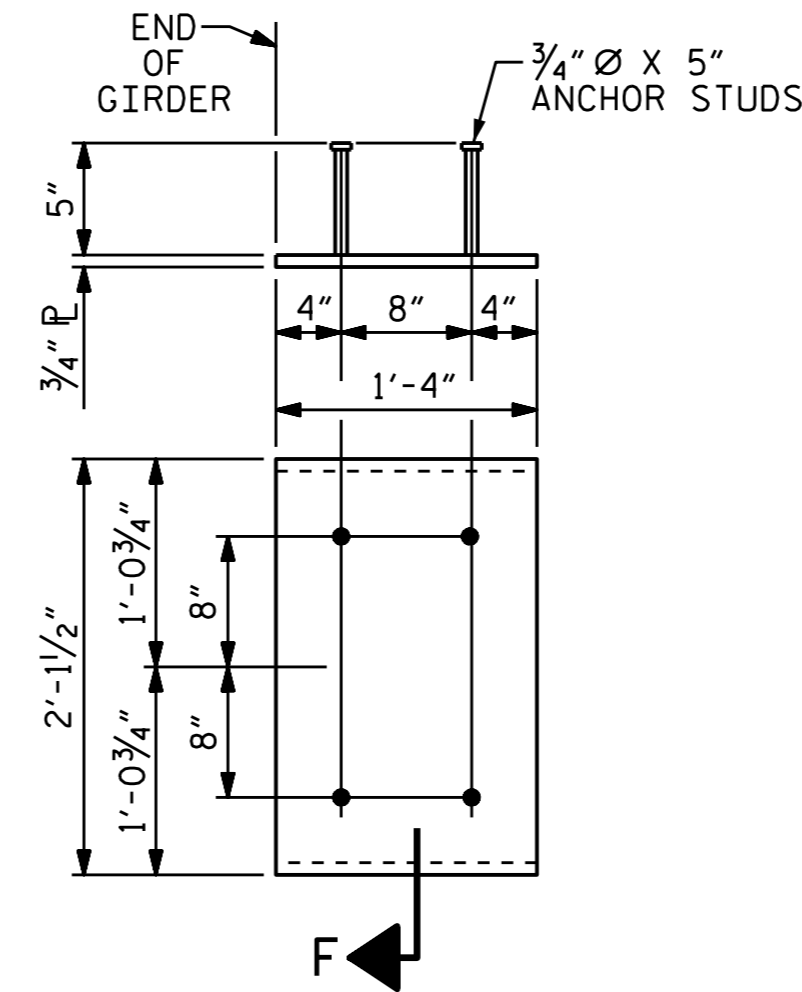
THE TOP SURFACE OF THE GIRDER, EXCLUDING THE OUTSIDE 4", SHALL BE RAKED TO A DEPTH OF 1/4".

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.

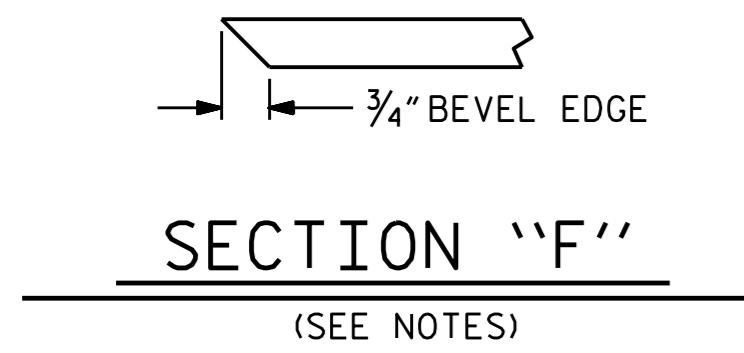


DETAIL "A"



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

(2 REQ'D PER GIRDER)



SECTION "F"  
(SEE NOTES)

DEAD LOAD DEFLECTION TABLE

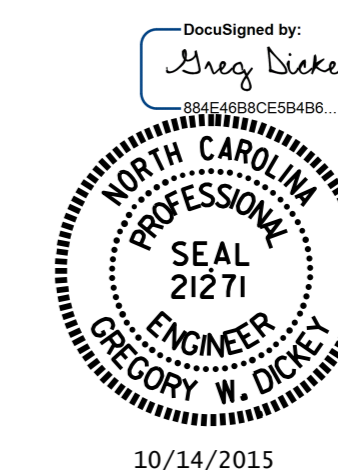
SPANS A, B & C

	GIRDERS 1 & 19											GIRDERS 2, 3, 17 & 18										GIRDERS 4 & 16											
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.033	0.062	0.085	0.100	0.105	0.100	0.085	0.062	0.033	0	0	0.037	0.070	0.096	0.112	0.118	0.112	0.096	0.070	0.037	0	0	0.030	0.056	0.077	0.090	0.095	0.090	0.077	0.056	0.030	0
FINAL CAMBER ↑	0	3/8"	9/16"	11/16"	3/4"	13/16"	3/4"	11/16"	9/16"	3/8"	0	0	5/16"	1/2"	9/16"	5/8"	5/8"	5/8"	9/16"	1/2"	5/16"	0	0	3/8"	5/8"	13/16"	7/8"	15/16"	7/8"	13/16"	5/8"	3/8"	0
	GIRDER 5											GIRDERS 6, 7 & 8										GIRDER 9											
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.030	0.057	0.078	0.091	0.095	0.091	0.078	0.057	0.030	0	0	0.039	0.074	0.102	0.119	0.125	0.119	0.102	0.074	0.039	0	0	0.030	0.057	0.078	0.092	0.096	0.092	0.078	0.057	0.030	0
FINAL CAMBER ↑	0	3/8"	5/8"	13/16"	7/8"	15/16"	7/8"	13/16"	5/8"	3/8"	0	0	1/4"	7/16"	1/2"	9/16"	9/16"	9/16"	1/2"	7/16"	1/4"	0	0	3/8"	5/8"	13/16"	7/8"	7/8"	7/8"	13/16"	5/8"	3/8"	0
	GIRDER 10											GIRDERS 11, 12, 13 & 14										GIRDER 15											
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0
CAMBER (GIRDER ALONE IN PLACE) ↑	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0	0	0.062	0.110	0.144	0.164	0.171	0.164	0.144	0.110	0.062	0
* DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0	0.027	0.051	0.069	0.081	0.085	0.081	0.069	0.051	0.027	0	0	0.035	0.066	0.090	0.105	0.111	0.105	0.090	0.066	0.035	0	0	0.028	0.052	0.072	0.084	0.088	0.084	0.072	0.052	0.028	0
FINAL CAMBER ↑	0	7/16"	11/16"	7/8"	1"	11/16"	1"	7/8"	11/16"	7/16"	0	0	5/16"	1/2"	5/8"	11/16"	3/4"	11/16"	5/8"	1/2"	5/16"	0	0	7/16"	11/16"	7/8"	15/16"	1"	15/16"	7/8"	11/16"	7/16"	0

\* INCLUDES FUTURE WEARING SURFACE  
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM) EXCEPT CAMBER, WHICH IS GIVEN IN INCHES (FRACTION FORM).

PROJECT NO. I-3318BB  
JOHNSTON COUNTY  
STATION: 24+68.00 -L-

SHEET 3 OF 4



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

ASSEMBLED BY : D. G ELY	DATE : 4/20/15
CHECKED BY : B. N. BARODAWALA	DATE : 5/15
DESIGN ENGINEER OF RECORD : M. L. RORIE	DATE : 8/15
DRAWN BY : ELR 11/91	REV. 10/11/11 MAA/GM
CHECKED BY : GRP 11/91	REV. 1/15 MAA/TMG
	REV. 2/15 MAA/TMG

REVISIONS						SHEET NO. S-31
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 78
2			4			