DEAD LOAD DEFLECTION TABLE FOR GIRDERS - SPAN A

0.6"Ø LOW RELAXATION	GIRDERS 1 & 9																					
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.015	0.030	0.044	0.057	0.069	0.078	0.086	0.092	0.095	0.097	0.095	0.092	0.086	0.078	0.069	0.057	0.044	0.030	0.015	0.0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.005	0.009	0.014	0.019	0.022	0.026	0.029	0.031	0.032	0.032	0.032	0.031	0.029	0.026	0.022	0.019	0.014	0.009	0.005	0.0
FINAL CAMBER ↑	0.0	1/8"	1/4"	3/8"	7/16"	9/16"	5/8"	11/16"	3/4"	3/4"	3/4"	3/4"	3/4"	11/16"	5/8"	9/16"	7/16"	3/8"	1/4"	1/8"	0.0
0.6"Ø LOW RELAXATION	GIRDERS 2 - 8																					
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.015	0.030	0.044	0.057	0.069	0.078	0.086	0.092	0.095	0.097	0.095	0.092	0.086	0.078	0.069	0.057	0.044	0.030	0.015	0.0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.005	0.011	0.016	0.022	0.026	0.031	0.033	0.036	0.037	0.038	0.037	0.036	0.033	0.031	0.026	0.022	0.016	0.011	0.005	0.0
FINAL CAMBER ↑	0.0	1/8"	1/4"	5/16"	7/16"	1/2"	9/16"	5/8"	11/16"	11/16"	11/16"	11/16"	11/16"	5/8"	9/16"	1/2"	7/16"	5/16"	1/4"	1/8"	0.0

DEAD LOAD DEFLECTION TABLE FOR GIRDERS - SPAN B

0.6"Ø LOW RELAXATION	GIRDERS 1 & 9																					
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.019	0.038	0.056	0.072	0.087	0.099	0.109	0.116	0.120	0.122	0.120	0.116	0.109	0.099	0.087	0.072	0.056	0.038	0.019	0.0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.010	0.019	0.029	0.038	0.046	0.053	0.058	0.063	0.065	0.066	0.065	0.063	0.058	0.053	0.046	0.038	0.029	0.019	0.010	0.0
FINAL CAMBER ↑	0.0	1/8"	1/4"	5/16"	3/8"	1/2"	9/16"	5/8"	5/8"	11/16"	11/16"	11/16"	5/8"	5/8"	9/16"	1/2"	3/8"	5/16"	1/4"	1/8"	0.0
0.6"Ø LOW RELAXATION	GIRDERS 2 - 8																					
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.019	0.038	0.056	0.072	0.087	0.099	0.109	0.116	0.120	0.122	0.120	0.116	0.109	0.099	0.087	0.072	0.056	0.038	0.019	0.0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.011	0.022	0.034	0.045	0.054	0.063	0.068	0.074	0.076	0.078	0.076	0.074	0.068	0.063	0.054	0.045	0.034	0.022	0.011	0.0
FINAL CAMBER ↑	0.0	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	1/2"	9/16"	9/16"	9/16"	1/2"	1/2"	7/16"	3/8"	5/16"	1/4"	3/16"	1/8"	0.0

DEAD LOAD DEFLECTION TABLE FOR GIRDERS - SPAN C

0.6"Ø LOW RELAXATION	GIRDERS 1 & 9																					
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.015	0.029	0.043	0.055	0.066	0.075	0.083	0.088	0.091	0.092	0.091	0.088	0.083	0.075	0.066	0.055	0.043	0.029	0.015	0.0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.004	0.008	0.012	0.017	0.020	0.023	0.025	0.028	0.028	0.029	0.028	0.028	0.025	0.023	0.020	0.017	0.012	0.008	0.004	0.0
FINAL CAMBER ↑	0.0	1/8"	1/4"	3/8"	7/16"	9/16"	5/8"	11/16"	3/4"	3/4"	3/4"	3/4"	3/4"	11/16"	5/8"	9/16"	7/16"	3/8"	1/4"	1/8"	0.0
0.6"Ø LOW RELAXATION	GIRDERS 2 - 8																					
TWENTIETH POINTS	0	.05	.1	.15	.2	.25	.3	.35	.4	.45	.5	.55	.6	.65	.7	.75	.8	.85	.9	.95	1.0
CAMBER (GIRDER ALONE IN PLACE) ↑	0.0	0.015	0.029	0.043	0.055	0.066	0.075	0.083	0.088	0.091	0.092	0.091	0.088	0.083	0.075	0.066	0.055	0.043	0.029	0.015	0.0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L. ↓	0.0	0.005	0.010	0.014	0.019	0.023	0.027	0.030	0.032	0.033	0.034	0.033	0.032	0.030	0.027	0.023	0.019	0.014	0.010	0.005	0.0
FINAL CAMBER ↑	0.0	1/8"	1/4"	5/16"	7/16"	1/2"	9/16"	5/8"	11/16"	11/16"	11/16"	11/16"	11/16"	5/8"	9/16"	1/2"	7/16"	5/16"	1/4"	1/8"	0.0

✳ INCLUDES FUTURE WEARING SURFACE.

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

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.

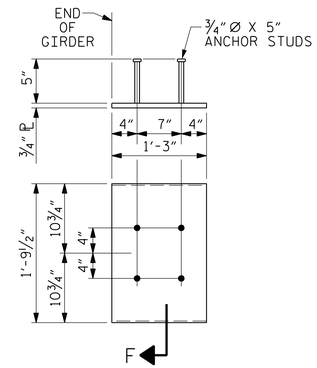
ANCHOR STUDS SHALL CONFORM TO AASHTO M169 GRADES 1010 THROUGH 1020 OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

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.

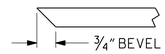
DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

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



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

(2 REQ'D PER GIRDER)



SECTION "F"

(SEE NOTES)

PROJECT NO. U-5839

HAYWOOD COUNTY

STATION: 24+64.13 -L- POC

SHEET 5 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

PRESTRESSED CONCRETE GIRDER DETAILS

PLANS PREPARED BY:

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

DocuSigned by:
BEB2398D9220470...

NORTH CAROLINA PROFESSIONAL SEAL 14114 ENGINEER ROBERT C. LARSON
5/18/2023

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-26
1			3			TOTAL SHEETS
2			4			63

DRAWN BY : W. B. ALLEN DATE : 9/19
CHECKED BY : Z. H. BROWN DATE : 1/20
DESIGN ENGINEER OF RECORD: R. C. LARSON DATE : 4/23

DocuSigned by:
BEB2398D9220470...

5/17/2023 7:40:01 PM R:\Structures\3 span Bridge over RR\26 U5839_SMU_05_43084.dgn