DEAD LOAD DEFLECTION TABLE FOR GIRDERS

SPAN A

0.6"Ø LOW RELAXATION		GIRDER A1																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.006	0.012	0.018	0.023	0.028	0.032	0.035	0.037	0.039	0.039	0.039	0.037	0.035	0.032	0.028	0.023	0.018	0.012	0.006	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.002	0.004	0.006	0.009	0.010	0.012	0.013	0.014	0.015	0.015	0.015	0.014	0.013	0.012	0.011	0.009	0.07	0.005	0.002	0
FINAL CAMBER	↑	0	1/16"	1/8"	1/8"	3/16"	3/16"	1/4"	1/4"	1/4"	5/16"	5/16"	5/16"	1/4"	1/4"	1/4"	3/16"	3/16"	1/8"	1/16"	1/16"	0
0.6"Ø LOW RELAXATION		GIRDER A2																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.006	0.013	0.018	0.024	0.029	0.033	0.036	0.038	0.040	0.040	0.040	0.038	0.036	0.033	0.029	0.024	0.018	0.013	0.006	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.003	0.006	0.009	0.011	0.013	0.016	0.017	0.019	0.019	0.020	0.019	0.019	0.017	0.016	0.014	0.012	0.009	0.006	0.003	0
FINAL CAMBER	↑	0	1/16"	1/16"	1/8"	1/8"	3/16"	3/16"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	3/16"	3/16"	1/8"	1/8"	1/16"	1/16"	0
0.6"Ø LOW RELAXATION		GIRDER A3																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.006	0.013	0.019	0.024	0.029	0.033	0.036	0.039	0.040	0.041	0.040	0.039	0.036	0.033	0.029	0.024	0.019	0.013	0.006	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.003	0.006	0.009	0.012	0.014	0.017	0.018	0.020	0.020	0.021	0.020	0.020	0.018	0.017	0.014	0.012	0.009	0.006	0.003	0
FINAL CAMBER	↑	0	1/16"	1/16"	1/8"	1/8"	3/16"	3/16"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	3/16"	3/16"	3/16"	1/8"	1/8"	1/16"	1/16"	0
0.6"Ø LOW RELAXATION		GIRDER A4																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.007	0.013	0.019	0.024	0.030	0.034	0.037	0.040	0.041	0.042	0.041	0.040	0.037	0.034	0.030	0.025	0.019	0.013	0.007	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.003	0.006	0.009	0.012	0.014	0.016	0.018	0.019	0.020	0.020	0.020	0.019	0.018	0.016	0.014	0.012	0.009	0.006	0.003	0
FINAL CAMBER	↑	0	1/16"	1/16"	1/8"	1/8"	3/16"	3/16"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	3/16"	3/16"	3/16"	1/8"	1/16"	1/16"	0

✳ INCLUDES FUTURE WEARING SURFACE IN SUPERIMPOSED DEAD LOAD.
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT " FINAL CAMBER ", WHICH IS GIVEN IN INCHES (FRACTION FORM).

DEAD LOAD DEFLECTION TABLE FOR GIRDERS

SPAN B

0.6"Ø LOW RELAXATION		GIRDER B1																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.032	0.062	0.091	0.117	0.142	0.161	0.177	0.189	0.196	0.198	0.196	0.189	0.177	0.161	0.142	0.118	0.091	0.062	0.032	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.014	0.028	0.041	0.054	0.065	0.075	0.082	0.088	0.091	0.093	0.091	0.089	0.083	0.076	0.066	0.056	0.043	0.030	0.015	0
FINAL CAMBER	↑	0	3/16"	3/8"	1/2"	5/8"	13/16"	7/8"	1"	1"	1 1/16"	1 1/16"	1 1/16"	1"	1"	7/8"	3/4"	5/8"	1/2"	5/16"	3/16"	0
0.6"Ø LOW RELAXATION		GIRDER B2																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.032	0.062	0.091	0.117	0.142	0.161	0.177	0.189	0.196	0.198	0.196	0.189	0.177	0.161	0.142	0.118	0.091	0.062	0.032	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.018	0.037	0.054	0.072	0.086	0.100	0.108	0.117	0.120	0.123	0.121	0.118	0.109	0.100	0.087	0.073	0.056	0.038	0.019	0
FINAL CAMBER	↑	0	1/8"	1/4"	3/8"	7/16"	9/16"	5/8"	11/16"	11/16"	3/4"	3/4"	3/4"	11/16"	11/16"	5/8"	9/16"	7/16"	3/8"	1/4"	1/8"	0
0.6"Ø LOW RELAXATION		GIRDER B3																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.032	0.063	0.093	0.119	0.144	0.164	0.181	0.193	0.200	0.202	0.200	0.193	0.181	0.164	0.144	0.120	0.093	0.063	0.032	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.020	0.039	0.058	0.077	0.091	0.106	0.115	0.125	0.128	0.131	0.128	0.125	0.116	0.106	0.092	0.077	0.058	0.040	0.020	0
FINAL CAMBER	↑	0	1/8"	1/4"	3/8"	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"	3/8"	1/4"	1/8"	0
0.6"Ø LOW RELAXATION		GIRDER B4																					
TWENTIETH POINTS		0	.050	.100	.150	.200	.250	.300	.350	.400	.450	.500	.550	.600	.650	.700	.750	.800	.850	.900	.950	0
CAMBER (GIRDER ALONE IN PLACE)	↑	0	0.033	0.065	0.095	0.121	0.147	0.167	0.184	0.196	0.203	0.206	0.203	0.196	0.184	0.167	0.147	0.122	0.095	0.065	0.033	0
✳ DEFLECTION DUE TO SUPERIMPOSED D.L.	↓	0	0.019	0.039	0.057	0.076	0.091	0.105	0.114	0.124	0.127	0.130	0.127	0.124	0.114	0.105	0.090	0.076	0.057	0.038	0.019	0
FINAL CAMBER	↑	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"	1/2"	3/8"	1/4"	1/8"	0

✳ INCLUDES FUTURE WEARING SURFACE IN SUPERIMPOSED DEAD LOAD.
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT " FINAL CAMBER ", WHICH IS GIVEN IN INCHES (FRACTION FORM).

DRAWN BY : J. R. MCROY DATE : 11/22
CHECKED BY : G. DICKEY DATE : 11/22
DESIGN ENGINEER OF RECORD: G. DICKEY DATE : 11/14/22

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.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES.

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.

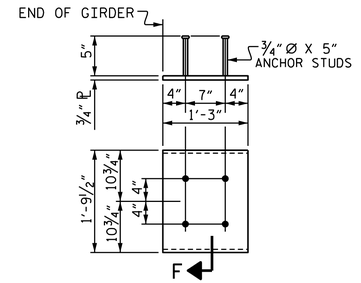
ALL PRESTRESSED STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

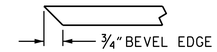
THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 4000 PSI FOR SPAN A AND 6000 PSI FOR SPAN B.

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 SHALL BE RAKED TO A DEPTH OF 1/4" EXCEPT IN THE AREA BETWEEN THE STIRRUP AND THE EDGE OF THE GIRDER.

ALL REINFORCING STEEL SHALL BE GRADE 60.





SECTION "F"
(SEE NOTES)

EMBEDDED PLATE "B-1" DETAILS
TWO EMBEDDED PLATES "B-1" ARE REQUIRED FOR EACH GIRDER.

Prepared in the Office of:
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NORTH CAROLINA PROFESSIONAL SEAL 21271 ENGINEER GREGORY W. DICKEY

Docusigned by: Greg Dickey 11/17/2022

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PROJECT NO. B-5989
MADISON COUNTY
STATION: 16+18.00 -L-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DEAD LOAD DEFLECTION TABLE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-15
1			3			TOTAL SHEETS
2			4			35