

DEAD LOAD DEFLECTION TABLE FOR GIRDERS

SPAN A																					
GIRDER 1																					
TWENTIETH POINTS	0.0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
CAMBER (GIRDER ALONE IN PLACE)	↑ 0	0.046	0.092	0.134	0.174	0.208	0.237	0.261	0.278	0.289	0.292	0.289	0.278	0.261	0.237	0.208	0.174	0.134	0.092	0.046	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓ 0	0.026	0.052	0.078	0.101	0.123	0.140	0.155	0.165	0.171	0.174	0.171	0.165	0.155	0.140	0.123	0.101	0.078	0.052	0.026	0
FINAL CAMBER	↑ 0	1/4"	1/2"	11/16"	7/8"	1"	13/16"	1 1/4"	1 3/8"	1 7/16"	1 1/2"	1 1/2"	1 3/8"	1 1/4"	1 3/16"	1"	7/8"	11/16"	1/2"	1/4"	0

SPAN A																					
GIRDERS 2 - 7																					
TWENTIETH POINTS	0.0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
CAMBER (GIRDER ALONE IN PLACE)	↑ 0	0.046	0.092	0.134	0.174	0.208	0.237	0.261	0.278	0.289	0.292	0.289	0.278	0.261	0.237	0.208	0.174	0.134	0.092	0.046	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓ 0	0.029	0.058	0.086	0.113	0.136	0.156	0.172	0.184	0.191	0.193	0.191	0.184	0.172	0.156	0.136	0.113	0.086	0.058	0.029	0
FINAL CAMBER	↑ 0	3/16"	3/8"	9/16"	3/4"	7/8"	1"	1 1/16"	1 1/8"	1 3/16"	1 3/16"	1 3/16"	1 1/8"	1 1/16"	1"	7/8"	3/4"	9/16"	3/8"	3/16"	0

SPAN A																					
GIRDERS 8 - 10																					
TWENTIETH POINTS	0.0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
CAMBER (GIRDER ALONE IN PLACE)	↑ 0	0.046	0.092	0.134	0.174	0.208	0.237	0.261	0.278	0.289	0.292	0.289	0.278	0.261	0.237	0.208	0.174	0.134	0.092	0.046	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓ 0	0.031	0.062	0.093	0.121	0.146	0.168	0.185	0.197	0.205	0.208	0.205	0.197	0.185	0.168	0.146	0.121	0.093	0.062	0.031	0
FINAL CAMBER	↑ 0	3/16"	3/8"	1/2"	5/8"	3/4"	13/16"	1 5/16"	1"	1"	1"	1"	1"	1 5/16"	1 3/16"	3/4"	5/8"	1/2"	3/8"	3/16"	0

SPAN B																					
GIRDERS 1 - 8																					
TWENTIETH POINTS	0.0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
CAMBER (GIRDER ALONE IN PLACE)	↑ 0	0.027	0.054	0.079	0.102	0.122	0.140	0.153	0.163	0.170	0.172	0.170	0.163	0.153	0.140	0.122	0.102	0.079	0.054	0.027	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓ 0	0.013	0.027	0.040	0.052	0.063	0.072	0.080	0.085	0.088	0.089	0.088	0.085	0.080	0.072	0.063	0.052	0.040	0.027	0.013	0
FINAL CAMBER	↑ 0	3/16"	5/16"	7/16"	5/8"	11/16"	13/16"	7/8"	15/16"	1"	1"	1"	15/16"	7/8"	13/16"	11/16"	5/8"	7/16"	5/16"	3/16"	0

SPAN B																					
GIRDERS 9 AND 10																					
TWENTIETH POINTS	0.0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
CAMBER (GIRDER ALONE IN PLACE)	↑ 0	0.027	0.054	0.079	0.102	0.122	0.140	0.153	0.163	0.170	0.172	0.170	0.163	0.153	0.140	0.122	0.102	0.079	0.054	0.027	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	↓ 0	0.015	0.030	0.044	0.058	0.069	0.080	0.088	0.093	0.097	0.098	0.097	0.093	0.088	0.080	0.069	0.058	0.044	0.030	0.015	0
FINAL CAMBER	↑ 0	1/8"	5/16"	7/16"	9/16"	5/8"	3/4"	13/16"	13/16"	7/8"	7/8"	7/8"	13/16"	13/16"	3/4"	5/8"	9/16"	7/16"	5/16"	1/8"	0

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

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.

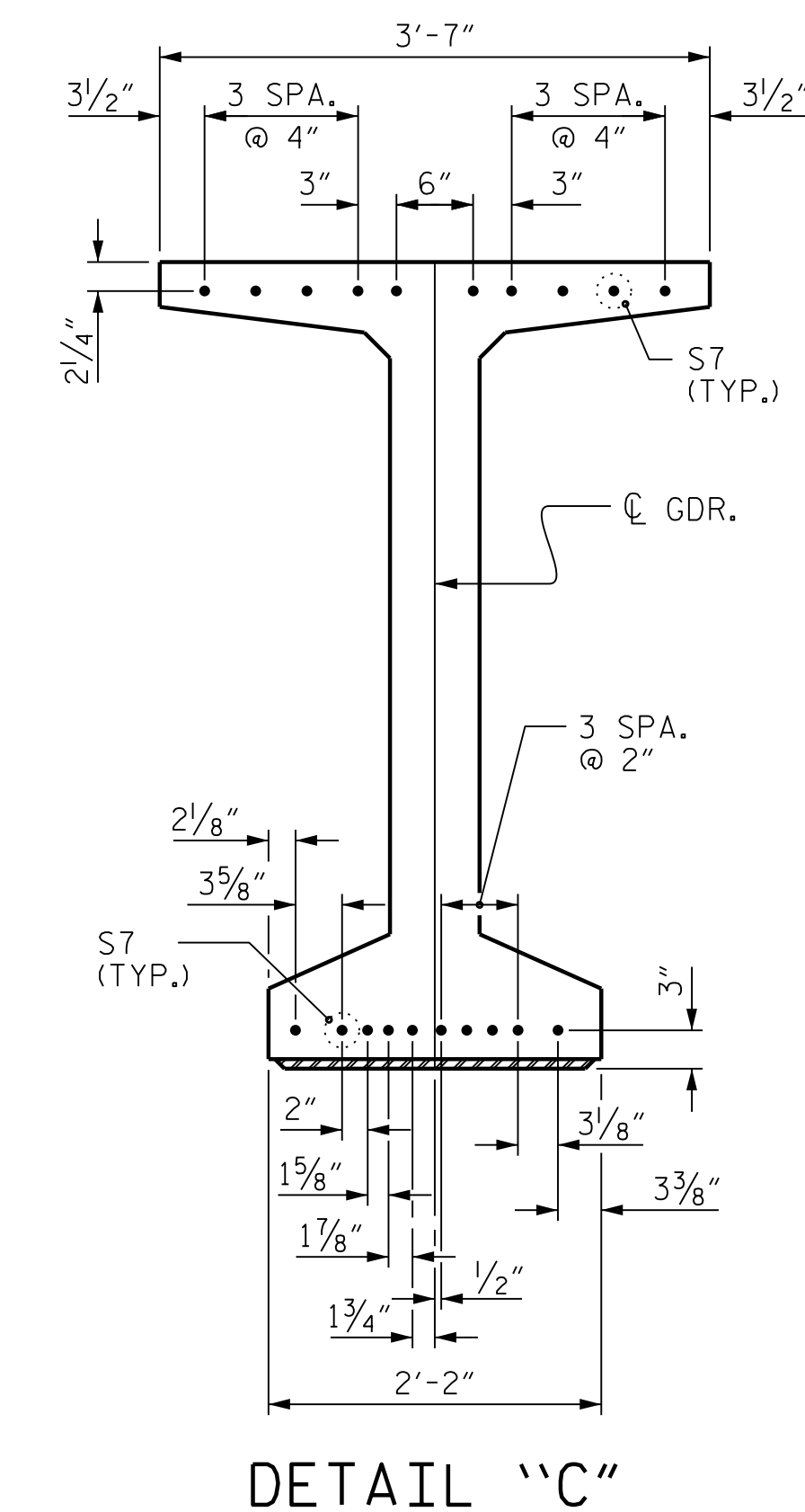
THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 6,800 PSI.

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".

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.

A 2" x 2" CHAMFER IS ALLOWED AT THE INTERSECTION OF THE WEB AND BOTTOM FLANGE.



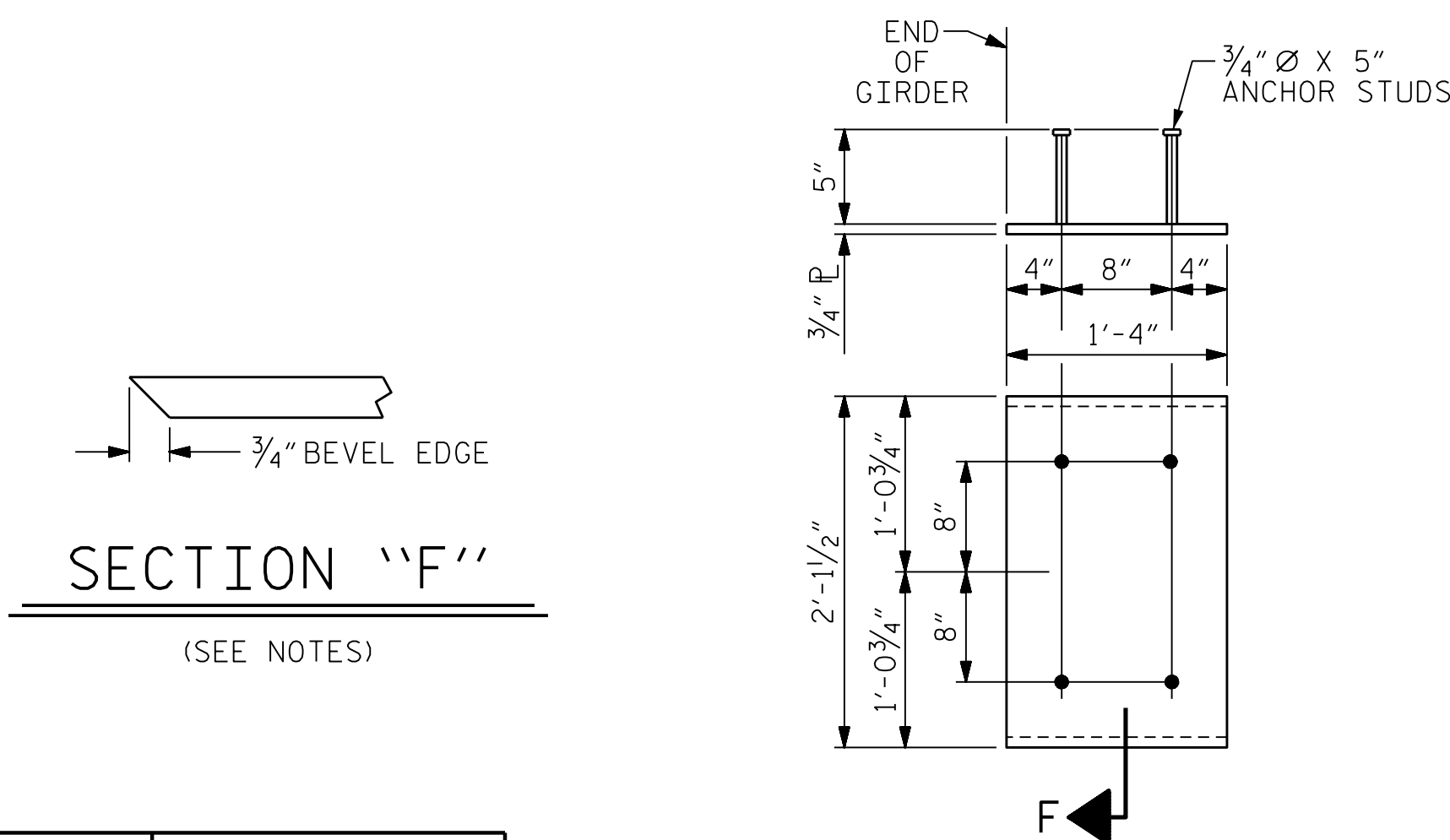
PROJECT NO. R-2233BB
RUTHERFORD COUNTY
 STATION: 26+65.52 -Y3-

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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S4-19
1			3			TOTAL SHEETS
2			4			45

MODJESKI and MASTERS
 Experience great bridges.
 333 FAYETTEVILLE STREET, SUITE 500
 RALEIGH, NC 27601
 NC LICENSE NO. C-2979

DocuSigned by:
Jason R. Doughty
 SF73FA2DEA874E8...



EMBEDDED PLATE "B-1" DETAILS
 FOR 72" MODIFIED BULB TEES
 (2 REQ'D PER GIRDER)

END BEVEL (ELEVATION VIEW)

DRAWN BY: ELR 11/91	REV. 1/15	MAA/TMG
CHECKED BY: GRP 11/91	REV. 2/15	MAA/TMG
	REV. 12/17	MAA/THC
DESIGNED BY: J. BORUTA	DATE: MAY 2019	
DRAWN BY: K. WHITE	DATE: MAY 2019	
CHECKED BY: B. LOFLIN	DATE: JULY 2019	
DESIGN ENGINEER		
OF RECORD: J. DOUGHTY	DATE: NOV 2019	