

1/14/2020 10:06:20 AM G:\Projects\2017\I-5711\Structures\Drawings\Final\401-I5711-SMJ_DL_000177.dgn

DEAD LOAD DEFLECTION TABLE FOR GIRDERS												
SPAN B & C												
0.6" Ø LOW RELAXATION GIRDER 6												
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.020	.038	.052	.061	.064	.061	.052	.038	.020	0
*DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.013	.038	.063	.082	.088	.082	.063	.038	.013	0
DEFLECTION DUE TO WEIGHT OF RAIL AND SIDEWALK	↓	0	.001	.004	.006	.008	.009	.008	.006	.004	.001	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.034	.080	.121	.151	.161	.151	.121	.080	.034	0
VERTICAL CURVE ORDINATE	↑	0	.025	.044	.057	.065	.068	.065	.057	.044	.025	0
REQUIRED CAMBER	↑	0	1 1/16"	1 1/2"	2 1/8"	2 9/16"	2 3/4"	2 9/16"	2 1/8"	1 1/2"	1 1/16"	0
SPAN B & C												
0.6" Ø LOW RELAXATION GIRDER 7												
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.020	.038	.052	.061	.064	.061	.052	.038	.020	0
*DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.016	.048	.080	.104	.112	.104	.080	.048	.016	0
DEFLECTION DUE TO WEIGHT OF RAIL AND SIDEWALK	↓	0	.002	.007	.013	.016	.018	.016	.013	.007	.002	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.038	.093	.145	.181	.194	.181	.145	.093	.038	0
VERTICAL CURVE ORDINATE	↑	0	.025	.044	.057	.065	.068	.065	.057	.044	.025	0
REQUIRED CAMBER	↑	0	3/4"	1 5/8"	2 1/16"	2 15/16"	3 1/8"	2 15/16"	2 1/16"	1 5/8"	3/4"	0
SPAN B & C												
0.6" Ø LOW RELAXATION GIRDER 8												
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.020	.038	.052	.061	.064	.061	.052	.038	.020	0
*DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.016	.049	.083	.108	.117	.108	.083	.049	.016	0
DEFLECTION DUE TO WEIGHT OF RAIL AND SIDEWALK	↓	0	.004	.013	.021	.027	.030	.027	.021	.013	.004	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.040	.100	.156	.196	.211	.196	.156	.100	.040	0
VERTICAL CURVE ORDINATE	↑	0	.025	.044	.057	.065	.068	.065	.057	.044	.025	0
REQUIRED CAMBER	↑	0	3/4"	1 3/4"	2 9/16"	3 1/8"	3 3/8"	3 1/8"	2 9/16"	1 3/4"	3/4"	0
SPAN B & C												
0.6" Ø LOW RELAXATION GIRDER 9												
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.020	.038	.052	.061	.064	.061	.052	.038	.020	0
*DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.016	.048	.081	.105	.113	.105	.081	.048	.016	0
DEFLECTION DUE TO WEIGHT OF RAIL AND SIDEWALK	↓	0	.006	.017	.029	.038	.041	.038	.029	.017	.006	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.042	.103	.162	.204	.218	.204	.162	.103	.042	0
VERTICAL CURVE ORDINATE	↑	0	.025	.044	.057	.065	.068	.065	.057	.044	.025	0
REQUIRED CAMBER	↑	0	13/16"	1 3/4"	2 5/8"	3 1/4"	3 7/16"	3 1/4"	2 5/8"	1 3/4"	13/16"	0
SPAN B & C												
0.6" Ø LOW RELAXATION GIRDER 10												
TENTH POINTS	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.020	.038	.052	.061	.064	.061	.052	.038	.020	0
*DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.015	.044	.074	.097	.105	.097	.074	.044	.015	0
DEFLECTION DUE TO WEIGHT OF RAIL AND SIDEWALK	↓	0	.007	.022	.037	.048	.052	.048	.037	.022	.007	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.042	.104	.163	.206	.221	.206	.163	.104	.042	0
VERTICAL CURVE ORDINATE	↑	0	.025	.044	.057	.065	.068	.065	.057	.044	.025	0
REQUIRED CAMBER	↑	0	13/16"	1 3/4"	2 5/8"	3 1/4"	3 7/16"	3 1/4"	2 5/8"	1 3/4"	13/16"	0

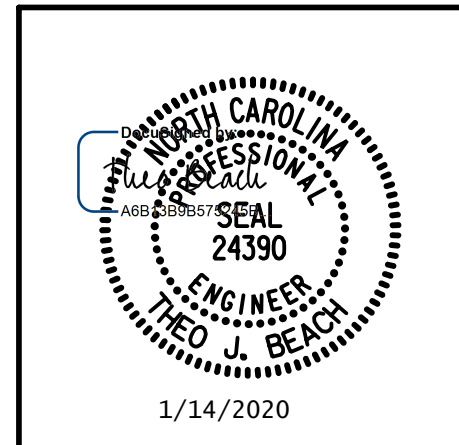
* INCLUDES SLAB, BUILDUPS AND STAY-IN-PLACE FORMS. ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT "REQUIRED CAMBER", WHICH IS GIVEN IN INCHES (FRACTION FORM).

PROJECT NO. I-5711
ALAMANCE COUNTY
 STATION: STA. 27+02.26 -L-

SHEET 3 OF 4

DRAWN BY: S.D. COOPER DATE: 1-20
 CHECKED BY: T. BEACH DATE: 1-20
 DESIGN ENGINEER OF RECORD: T. BEACH DATE: 1-20

PLANS PREPARED BY:
SE & A
 SIMPSON ENGINEERS & ASSOCIATES
 5640 Dillard Drive
 Suite 200
 Cary, NC 27518
 (919) 852-0468
 (919) 852-0538 (Fax)
 www.simpsonengr.com
 LICENSURE NO. C-2521



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
DEAD LOAD DEFLECTION AND GIRDER CAMBER (SPANS B & C)
 (RIGHT WIDENING)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-26
1			3			TOTAL SHEETS
2			4			89

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED