

2/10/2017 9:09:03 AM G:\Projects\2014\U-3109A\Structures\Site 1-Bridge 434 (NBL)\Drawings\Final\401_U3109A_SMU_DL.dgn

DEAD LOAD DEFLECTION TABLE FOR GIRDERS																						
SPAN A																						
GIRDER 1																						
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.007	.014	.020	.025	.029	.033	.034	.035	.034	.033	.030	.026	.022	.018	.013	.009	.005	.003	.001	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.019	.037	.053	.067	.079	.087	.092	.094	.092	.087	.080	.070	.059	.047	.035	.024	.014	.007	.002	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.006	.012	.017	.022	.026	.029	.030	.031	.031	.029	.027	.024	.020	.016	.012	.008	.005	.002	.001	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.032	.063	.090	.114	.134	.149	.156	.160	.157	.149	.137	.120	.101	.081	.060	.041	.024	.012	.004	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.038	.048	.056	.062	.068	.071	.074	.074	.074	.071	.068	.062	.056	.048	.038	.027	.014	0
REQUIRED CAMBER	↑	0	3/16"	1/16"	19/16"	115/16"	21/4"	29/16"	211/16"	23/4"	23/4"	211/16"	29/16"	29/16"	2"	111/16"	13/8"	1/16"	3/4"	7/16"	3/16"	0
SPAN A																						
GIRDER 2																						
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.007	.014	.020	.025	.029	.033	.034	.035	.034	.033	.030	.026	.022	.018	.013	.009	.005	.003	.001	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.019	.037	.053	.068	.079	.087	.092	.094	.092	.087	.080	.070	.059	.047	.035	.024	.014	.007	.002	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.005	.010	.015	.019	.022	.024	.026	.026	.026	.025	.023	.020	.017	.014	.010	.007	.004	.002	.001	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.031	.061	.088	.112	.130	.144	.152	.155	.152	.145	.133	.116	.098	.079	.058	.040	.023	.012	.004	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.038	.048	.056	.062	.068	.071	.074	.074	.074	.071	.068	.062	.056	.048	.038	.027	.014	0
REQUIRED CAMBER	↑	0	3/16"	1/16"	1/2"	115/16"	21/4"	21/2"	25/8"	211/16"	211/16"	25/8"	21/2"	21/4"	2"	111/16"	13/8"	1/16"	3/4"	7/16"	3/16"	0
SPAN A																						
GIRDER 3																						
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.007	.014	.020	.025	.029	.033	.034	.035	.034	.033	.030	.026	.022	.018	.013	.009	.005	.003	.001	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.019	.037	.053	.068	.079	.087	.092	.094	.092	.087	.080	.070	.059	.047	.035	.024	.014	.007	.002	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.005	.009	.013	.017	.019	.021	.023	.023	.023	.022	.020	.018	.015	.012	.009	.006	.004	.002	.000	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.031	.060	.086	.110	.127	.141	.149	.152	.149	.142	.130	.114	.096	.077	.057	.039	.023	.012	.003	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.038	.048	.056	.062	.068	.071	.074	.074	.074	.071	.068	.062	.056	.048	.038	.027	.014	0
REQUIRED CAMBER	↑	0	3/16"	1/16"	1/2"	17/8"	23/16"	217/16"	25/8"	211/16"	211/16"	29/16"	27/16"	21/4"	115/16"	111/16"	13/8"	1/16"	3/4"	7/16"	3/16"	0
SPAN A																						
GIRDER 4																						
TWENTIETH POINTS	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0	
DEFLECTION DUE TO WEIGHT OF GIRDER	↓	0	.007	.014	.020	.025	.029	.033	.034	.035	.034	.033	.030	.026	.022	.018	.013	.009	.005	.003	.001	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.019	.037	.054	.068	.079	.088	.092	.094	.092	.088	.080	.070	.059	.047	.035	.024	.014	.007	.002	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.003	.006	.009	.011	.013	.014	.015	.016	.015	.015	.013	.012	.010	.008	.006	.004	.003	.001	.000	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.029	.057	.083	.104	.121	.135	.141	.145	.141	.136	.123	.108	.091	.073	.054	.037	.022	.011	.003	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.038	.048	.056	.062	.068	.071	.074	.074	.074	.071	.068	.062	.056	.048	.038	.027	.014	0
REQUIRED CAMBER	↑	0	1/2"	1"	17/16"	113/16"	21/8"	23/8"	21/2"	29/16"	29/16"	21/2"	23/8"	21/8"	115/16"	15/8"	15/16"	1"	3/4"	7/16"	3/16"	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).

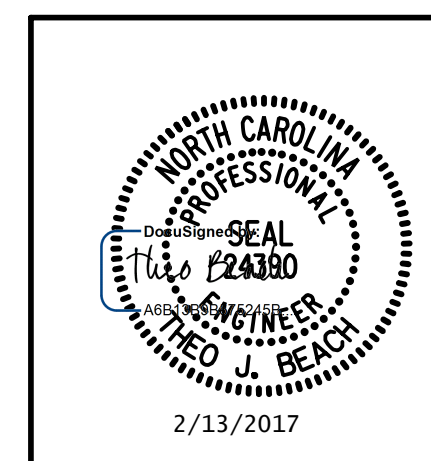
PROJECT NO. U-3109A
ALAMANCE COUNTY
STATION: 26+54.73 -NBL-

SHEET 1 OF 4

DRAWN BY: S. D. COOPER DATE: 5-15
CHECKED BY: B.S. COX DATE: 5-15
DESIGN ENGINEER OF RECORD: T.J. BEACH DATE: 5-15

PLANS PREPARED BY:

SE & A
SIMPSON ENGINEERS & ASSOCIATES
5640 Dillard Drive
Suite 200
Cary, NC 27518
(919) 852-0468
(919) 852-0598 (Fax)
www.simpsonengr.com
LICENSURE NO. C-2521



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE

DEAD LOAD DEFLECTION
AND GIRDER CAMBER

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S01-17
2			4			TOTAL SHEETS S01-49