

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 B																						
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	.001	.003	.006	.010	.015	.019	.024	.028	.032	.035	.037	.037	.035	.031	.027	.021	.015	.008	0	
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.002	.008	.017	.027	.039	.052	.065	.076	.086	.094	.099	.100	.099	.093	.084	.072	.057	.039	.020	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.001	.003	.006	.010	.014	.018	.022	.026	.029	.031	.033	.033	.032	.031	.028	.024	.019	.013	.007	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.004	.014	.029	.047	.068	.089	.111	.130	.147	.160	.169	.170	.168	.159	.143	.123	.097	.067	.035	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.039	.049	.057	.064	.069	.073	.075	.076	.075	.073	.069	.064	.057	.049	.039	.027	.014	0
REQUIRED CAMBER	↑	0	3/16"	1/2"	13/16"	1 1/8"	1 1/2"	1 13/16"	2 3/16"	2 7/16"	2 11/16"	2 13/16"	2 15/16"	2 15/16"	2 7/8"	2 11/16"	2 3/8"	2 1/16"	1 5/8"	1 1/8"	9/16"	0
SPAN B																						
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	.001	.003	.006	.010	.015	.019	.024	.028	.032	.035	.037	.037	.037	.035	.031	.027	.021	.015	.008	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.002	.008	.017	.027	.039	.052	.065	.076	.087	.094	.099	.101	.099	.093	.084	.072	.057	.039	.020	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.001	.003	.005	.008	.012	.015	.019	.022	.025	.027	.028	.028	.028	.026	.023	.020	.016	.011	.006	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.004	.014	.028	.045	.066	.086	.108	.126	.144	.156	.164	.166	.164	.154	.138	.119	.094	.065	.034	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.039	.048	.057	.064	.069	.073	.075	.076	.075	.073	.069	.064	.057	.048	.039	.027	.014	0
REQUIRED CAMBER	↑	0	3/16"	1/2"	13/16"	1 1/8"	1 1/2"	1 13/16"	2 1/8"	2 3/8"	2 5/8"	2 13/16"	2 7/8"	2 7/8"	2 13/16"	2 5/8"	2 5/16"	2"	1 5/8"	1 1/8"	9/16"	0
SPAN B																						
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	.001	.003	.006	.010	.015	.019	.024	.028	.032	.035	.037	.037	.037	.035	.031	.027	.021	.015	.008	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.002	.008	.017	.028	.039	.052	.065	.076	.087	.094	.099	.101	.099	.093	.084	.072	.057	.040	.020	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.001	.002	.004	.007	.010	.013	.016	.019	.022	.023	.025	.024	.023	.021	.018	.014	.010	.005	0	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.004	.013	.027	.045	.064	.084	.105	.123	.141	.152	.161	.163	.160	.151	.136	.117	.092	.065	.033	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.039	.048	.057	.064	.069	.073	.075	.076	.075	.073	.069	.064	.057	.048	.039	.027	.014	0
REQUIRED CAMBER	↑	0	3/16"	1/2"	13/16"	1 1/8"	1 1/16"	1 3/4"	2 1/16"	2 3/8"	2 9/16"	2 3/4"	2 13/16"	2 13/16"	2 3/4"	2 9/16"	2 5/16"	2"	1 9/16"	1 1/8"	9/16"	0
SPAN B																						
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	.001	.003	.006	.010	.015	.019	.024	.028	.032	.035	.037	.037	.037	.035	.031	.027	.021	.015	.008	0
* DEFLECTION DUE TO WEIGHT OF SLAB	↓	0	.002	.008	.017	.028	.039	.052	.065	.077	.087	.095	.099	.101	.099	.094	.085	.072	.057	.040	.020	0
DEFLECTION DUE TO WEIGHT OF RAIL & SIDEWALK	↓	0	.000	.002	.003	.005	.007	.009	.011	.013	.015	.016	.016	.017	.016	.015	.014	.012	.009	.006	.003	0
TOTAL DEAD LOAD DEFLECTION	↓	0	.003	.013	.026	.043	.061	.080	.100	.118	.134	.146	.152	.155	.152	.144	.130	.111	.087	.061	.031	0
VERTICAL CURVE ORDINATE	↑	0	.014	.027	.039	.048	.057	.064	.069	.073	.075	.076	.075	.073	.069	.064	.057	.048	.039	.027	.014	0
REQUIRED CAMBER	↑	0	3/16"	1/2"	3/4"	1 1/16"	1 1/16"	1 3/4"	2"	2 5/16"	2 1/2"	2 11/16"	2 3/4"	2 3/4"	2 5/8"	2 1/2"	2 1/4"	1 5/16"	1 1/2"	1 1/16"	9/16"	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 3 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:	S01-19
1			3			TOTAL SHEETS
2			4			S01-49