

DEAD LOAD DEFLECTION & CAMBER TABLE FOR GIRDER 1

THIRTIETH POINTS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DEFLECTION DUE TO WEIGHT OF STEEL & SLAB *	0.000	0.100	0.199	0.296	0.391	0.484	0.571	0.654	0.729	0.796	0.856	0.906	0.947	0.977	0.997	1.006	1.003	0.988	0.961	0.924	0.877	0.820	0.753	0.679	0.597	0.508	0.414	0.315	0.213	0.109	0.000
DEFLECTION DUE TO WEIGHT OF RAIL	0.000	0.008	0.016	0.024	0.032	0.039	0.046	0.053	0.059	0.064	0.069	0.073	0.076	0.079	0.080	0.081	0.081	0.080	0.078	0.075	0.071	0.067	0.061	0.056	0.049	0.042	0.034	0.026	0.018	0.009	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.108	0.215	0.320	0.423	0.523	0.617	0.706	0.788	0.861	0.925	0.979	1.023	1.056	1.077	1.087	1.084	1.067	1.039	0.999	0.948	0.886	0.815	0.735	0.646	0.550	0.448	0.342	0.231	0.118	0.000
VERTICAL CURVE ORDINATE	0.000	0.173	0.350	0.530	0.705	0.869	1.019	1.157	1.282	1.392	1.488	1.569	1.635	1.686	1.720	1.738	1.740	1.725	1.693	1.645	1.579	1.496	1.396	1.279	1.145	0.995	0.828	0.644	0.445	0.230	0.000
SUPERELEVATION ORDINATE	0.000	-0.074	-0.142	-0.206	-0.264	-0.318	-0.366	-0.410	-0.448	-0.481	-0.510	-0.533	-0.551	-0.565	-0.573	-0.576	-0.574	-0.568	-0.556	-0.539	-0.517	-0.490	-0.458	-0.422	-0.380	-0.333	-0.281	-0.224	-0.162	-0.095	-0.022
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING	0.206	0.206	0.206	0.206	0.206	0.206	0.196	0.196	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.288	0.196	0.196	0.206	0.206	0.206	0.206
REQUIRED CAMBER	0"	4 ¹⁵ / ₁₆ "	7 ⁹ / ₁₆ "	10 ³ / ₁₆ "	12 ⁷ / ₈ "	15 ³ / ₈ "	17 ⁵ / ₈ "	19 ¹³ / ₁₆ "	22 ¹⁵ / ₁₆ "	24 ¹¹ / ₁₆ "	26 ⁵ / ₁₆ "	27 ⁵ / ₈ "	28 ³ / ₄ "	29 ⁹ / ₁₆ "	30 ¹ / ₈ "	30 ⁷ / ₁₆ "	30 ⁷ / ₁₆ "	30 ³ / ₁₆ "	29 ⁹ / ₁₆ "	28 ¹¹ / ₁₆ "	27 ⁹ / ₁₆ "	26 ¹ / ₈ "	24 ¹ / ₂ "	22 ⁹ / ₁₆ "	20 ³ / ₈ "	16 ⁷ / ₈ "	14 ⁵ / ₁₆ "	11 ⁵ / ₈ "	8 ⁵ / ₈ "	5 ¹ / ₂ "	0"

DEAD LOAD DEFLECTION & CAMBER TABLE FOR GIRDER 2

THIRTIETH POINTS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DEFLECTION DUE TO WEIGHT OF STEEL & SLAB *	0.000	0.087	0.172	0.255	0.336	0.414	0.487	0.556	0.617	0.673	0.722	0.762	0.794	0.816	0.830	0.835	0.830	0.816	0.793	0.761	0.719	0.670	0.613	0.550	0.483	0.409	0.332	0.251	0.169	0.086	0.000
DEFLECTION DUE TO WEIGHT OF RAIL	0.000	0.006	0.013	0.019	0.025	0.030	0.036	0.041	0.045	0.049	0.052	0.055	0.057	0.059	0.060	0.060	0.060	0.059	0.057	0.055	0.052	0.048	0.044	0.040	0.035	0.029	0.024	0.018	0.012	0.006	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.093	0.185	0.274	0.361	0.444	0.522	0.596	0.662	0.722	0.774	0.817	0.851	0.876	0.890	0.895	0.890	0.875	0.850	0.816	0.771	0.718	0.657	0.590	0.517	0.438	0.355	0.269	0.181	0.092	0.000
VERTICAL CURVE ORDINATE	0.000	0.185	0.375	0.568	0.760	0.939	1.105	1.256	1.393	1.515	1.621	1.711	1.784	1.840	1.878	1.899	1.901	1.885	1.850	1.797	1.725	1.634	1.524	1.396	1.249	1.085	0.902	0.702	0.485	0.251	0.000
SUPERELEVATION ORDINATE	0.000	-0.074	-0.143	-0.206	-0.265	-0.319	-0.368	-0.412	-0.451	-0.485	-0.515	-0.539	-0.558	-0.572	-0.581	-0.586	-0.585	-0.579	-0.569	-0.553	-0.533	-0.507	-0.477	-0.441	-0.401	-0.356	-0.305	-0.250	-0.190	-0.125	-0.055
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING	0.211	0.211	0.211	0.211	0.211	0.211	0.200	0.200	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.200	0.200	0.211	0.211	0.211	0.211
REQUIRED CAMBER	0"	5"	7 ¹ / ₂ "	10 ¹ / ₈ "	12 ³ / ₁₆ "	15 ¹ / ₁₆ "	17 ¹ / ₂ "	19 ¹¹ / ₁₆ "	22 ³ / ₄ "	24 ⁹ / ₁₆ "	26 ¹ / ₈ "	27 ³ / ₈ "	28 ⁷ / ₁₆ "	29 ¹ / ₄ "	29 ³ / ₄ "	30"	30"	29 ¹¹ / ₁₆ "	29 ¹ / ₈ "	28 ¹ / ₄ "	27 ¹ / ₁₆ "	25 ¹¹ / ₁₆ "	24"	22 ¹ / ₁₆ "	18 ¹³ / ₁₆ "	16 ⁷ / ₁₆ "	13 ¹⁵ / ₁₆ "	11 ³ / ₁₆ "	8 ¹ / ₄ "	5 ¹ / ₈ "	0"

DEAD LOAD DEFLECTION & CAMBER TABLE FOR GIRDER 3

THIRTIETH POINTS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
DEFLECTION DUE TO WEIGHT OF STEEL & SLAB *	0.000	0.074	0.146	0.216	0.283	0.348	0.408	0.465	0.515	0.560	0.600	0.632	0.658	0.676	0.685	0.688	0.682	0.669	0.649	0.621	0.587	0.546	0.499	0.448	0.392	0.332	0.269	0.204	0.137	0.070	0.000
DEFLECTION DUE TO WEIGHT OF RAIL	0.000	0.005	0.010	0.015	0.019	0.024	0.028	0.031	0.034	0.037	0.040	0.042	0.044	0.045	0.045	0.045	0.045	0.044	0.042	0.041	0.038	0.036	0.032	0.029	0.025	0.021	0.017	0.013	0.009	0.004	0.000
TOTAL DEAD LOAD DEFLECTION	0.000	0.079	0.156	0.231	0.303	0.371	0.436	0.496	0.549	0.598	0.639	0.674	0.701	0.720	0.731	0.733	0.727	0.713	0.691	0.662	0.625	0.581	0.532	0.477	0.417	0.353	0.286	0.217	0.146	0.074	0.000
VERTICAL CURVE ORDINATE	0.000	0.199	0.402	0.611	0.820	1.018	1.200	1.368	1.519	1.654	1.772	1.872	1.953	2.015	2.058	2.081	2.084	2.066	2.028	1.970	1.890	1.790	1.670	1.529	1.367	1.187	0.986	0.767	0.529	0.273	0.000
SUPERELEVATION ORDINATE	0.000	-0.074	-0.143	-0.207	-0.266	-0.321	-0.370	-0.415	-0.455	-0.490	-0.520	-0.545	-0.565	-0.580	-0.590	-0.596	-0.596	-0.592	-0.582	-0.568	-0.549	-0.525	-0.496	-0.462	-0.424	-0.380	-0.331	-0.278	-0.220	-0.157	-0.088
CAMBER DUE TO DISSIPATION RESULTING FROM HEAT CURVING	0.215	0.215	0.215	0.215	0.215	0.215	0.204	0.204	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.204	0.204	0.215	0.215	0.215	0.215
REQUIRED CAMBER	0"	5"	7 ⁹ / ₁₆ "	10 ³ / ₁₆ "	12 ⁷ / ₈ "	15 ³ / ₈ "	17 ⁵ / ₈ "	19 ¹³ / ₁₆ "	23"	24 ³ / ₄ "	26 ⁵ / ₁₆ "	27 ⁵ / ₈ "	28 ¹¹ / ₁₆ "	29 ⁷ / ₁₆ "	30"	30 ¹ / ₄ "	30 ³ / ₁₆ "	29 ⁷ / ₈ "	29 ¹ / ₄ "	28 ³ / ₈ "	27 ³ / ₁₆ "	25 ³ / ₄ "	24 ¹ / ₁₆ "	22 ¹ / ₈ "	19 ¹⁵ / ₁₆ "	16 ³ / ₈ "	13 ³ / ₄ "	11 ¹ / ₁₆ "	8 ¹ / ₁₆ "	4 ⁷ / ₈ "	0"

* INCLUDES ALL STRUCTURAL STEEL COMPONENTS, SLAB (SAND-LIGHTWEIGHT), BUILD-UP (SAND-LIGHTWEIGHT), & STAY-IN-PLACE METAL FORMS.

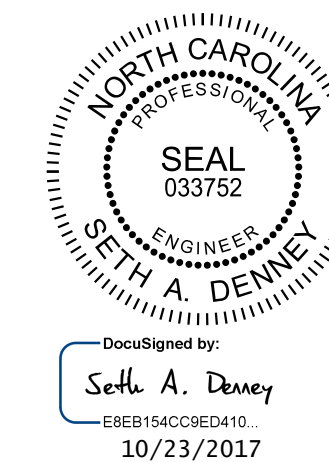
NOTES:

THIRTIETH POINTS SHOWN ARE MEASURED ALONG C GIRDER AND ARE GIVEN BETWEEN C BEARINGS.

ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT "REQUIRED CAMBER", WHICH IS GIVEN IN INCHES (FRACTION FORM).

DRAWN BY: D. D. LOWERY	DATE: 10/17
CHECKED BY: A. L. PHILLIPS	DATE: 10/17
DESIGN ENGINEER OF RECORD: S. A. DENNEY	DATE: 10/17

PROJECT NO. U-5806
CABARRUS COUNTY
 STATION: 15+75.56 -Y1-
27+06.95 -L-
 SHEET 1 OF 2



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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 DEAD LOAD
 DEFLECTIONS AND
 CAMBER**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			50

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

10/23/2017 K:\B01_Structures\Bridges\NC\011036388 - U-5806 - Final Design\Cad\Drawn\023_U-5806_B.Dwg