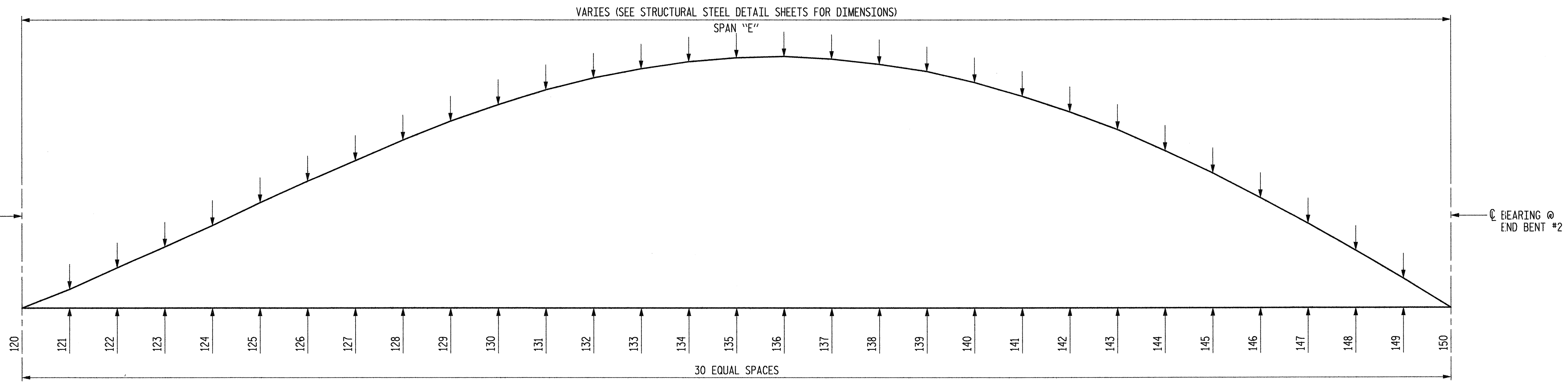


## DEAD LOAD DEFLECTION AND CAMBER

GIRDER	THIRTIETH POINTS	SPAN "E"																															
		120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	
1	DEFLECTION DUE TO WT. OF STEEL	0	.006	.011	.017	.023	.030	.037	.044	.050	.056	.062	.067	.071	.075	.077	.079	.080	.080	.079	.077	.074	.070	.065	.060	.053	.046	.037	.029	.020	.010	0	
	DEFLECTION DUE TO WT. OF SLAB	0	.010	.025	.040	.055	.074	.091	.107	.125	.141	.156	.170	.182	.191	.199	.205	.208	.208	.206	.202	.195	.185	.173	.157	.140	.121	.099	.076	.052	.027	0	
	DEFLECTION DUE TO WT. OF RAIL	0	.001	.002	.003	.005	.006	.008	.009	.011	.013	.014	.015	.016	.017	.018	.018	.018	.018	.018	.018	.017	.016	.015	.014	.012	.011	.009	.007	.004	.002	0	
	TOTAL DEAD LOAD DEFLECTION	0	.017	.038	.060	.083	.110	.136	.160	.186	.210	.232	.252	.269	.283	.294	.302	.306	.306	.303	.297	.286	.271	.253	.231	.205	.178	.145	.112	.076	.039	0	
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
	VERTICAL CURVE ORDINATE	0	.012	.024	.034	.044	.052	.059	.066	.071	.076	.079	.082	.083	.083	.083	.081	.079	.075	.070	.065	.059	.053	.047	.041	.035	.029	.024	.018	.012	.006	0	
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
REQUIRED CAMBER	0	29	62	94	127	162	195	226	257	286	311	334	352	366	377	383	385	381	373	362	345	324	300	272	240	207	169	130	88	45	0		
2	DEFLECTION DUE TO WT. OF STEEL	0	.006	.010	.016	.022	.029	.035	.042	.048	.054	.059	.064	.068	.071	.074	.076	.077	.077	.076	.074	.071	.067	.063	.057	.051	.044	.036	.027	.019	.010	0	
	DEFLECTION DUE TO WT. OF SLAB	0	.010	.024	.038	.053	.071	.087	.104	.121	.136	.150	.164	.175	.184	.192	.198	.200	.201	.199	.195	.188	.179	.167	.152	.136	.117	.096	.074	.050	.026	0	
	DEFLECTION DUE TO WT. OF RAIL	0	.001	.002	.003	.005	.006	.008	.009	.011	.012	.013	.014	.015	.016	.017	.017	.018	.018	.018	.017	.017	.016	.015	.013	.012	.010	.008	.006	.004	.002	0	
	TOTAL DEAD LOAD DEFLECTION	0	.017	.036	.057	.080	.106	.130	.155	.180	.202	.222	.242	.258	.271	.283	.291	.295	.296	.293	.286	.276	.262	.245	.222	.199	.171	.140	.107	.073	.038	0	
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
	VERTICAL CURVE ORDINATE	0	.012	.024	.034	.044	.052	.059	.066	.071	.076	.079	.082	.083	.083	.083	.081	.079	.075	.070	.065	.059	.053	.047	.041	.035	.029	.024	.018	.012	.006	0	
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
REQUIRED CAMBER	0	29	60	91	124	158	189	221	251	278	301	324	341	354	366	372	374	371	363	351	335	315	292	263	234	200	164	125	85	44	0		
3	DEFLECTION DUE TO WT. OF STEEL	0	.005	.010	.015	.021	.028	.034	.040	.046	.051	.056	.061	.065	.068	.071	.072	.073	.073	.072	.071	.068	.064	.060	.055	.049	.042	.034	.026	.018	.009	0	
	DEFLECTION DUE TO WT. OF SLAB	0	.009	.023	.036	.051	.068	.083	.099	.116	.130	.144	.157	.168	.177	.184	.189	.192	.193	.191	.187	.180	.171	.160	.146	.130	.112	.092	.071	.048	.025	0	
	DEFLECTION DUE TO WT. OF RAIL	0	.001	.002	.003	.004	.006	.007	.009	.010	.012	.013	.014	.015	.016	.016	.017	.017	.017	.017	.017	.016	.016	.015	.014	.013	.011	.010	.008	.006	.004	.002	0
	TOTAL DEAD LOAD DEFLECTION	0	.015	.035	.054	.076	.102	.124	.148	.172	.193	.213	.232	.248	.261	.271	.278	.282	.283	.280	.274	.264	.250	.234	.214	.190	.164	.134	.103	.070	.036	0	
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
	VERTICAL CURVE ORDINATE	0	.012	.024	.034	.044	.052	.059	.066	.071	.076	.079	.082	.083	.083	.083	.081	.079	.075	.070	.065	.059	.053	.047	.041	.035	.029	.024	.018	.012	.006	0	
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
REQUIRED CAMBER	0	27	59	88	120	154	183	214	243	269	292	314	331	344	354	359	361	358	350	339	323	303	281	255	225	193	158	121	82	42	0		
4	DEFLECTION DUE TO WT. OF STEEL	0	.005	.009	.015	.020	.026	.032	.038	.044	.049	.054	.058	.062	.065	.067	.069	.070	.070	.069	.067	.065	.061	.057	.052	.046	.040	.033	.025	.017	.009	0	
	DEFLECTION DUE TO WT. OF SLAB	0	.009	.022	.034	.048	.064	.079	.094	.110	.123	.136	.149	.159	.167	.175	.179	.182	.182	.181	.177	.170	.162	.151	.138	.123	.106	.087	.067	.046	.023	0	
	DEFLECTION DUE TO WT. OF RAIL	0	.001	.002	.003	.004	.006	.007	.008	.010	.011	.012	.013	.014	.015	.016	.016	.016	.016	.016	.016	.016	.015	.015	.014	.012	.011	.009	.008	.006	.004	.002	0
	TOTAL DEAD LOAD DEFLECTION	0	.015	.033	.052	.072	.096	.118	.140	.164	.183	.202	.220	.235	.247	.258	.264	.268	.268	.266	.260	.250	.238	.222	.202	.180	.155	.128	.098	.067	.034	0	
	CAMBER DISSIPATION	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
	VERTICAL CURVE ORDINATE	0	.012	.024	.034	.044	.052	.059	.066	.071	.076	.079	.082	.083	.083	.083	.081	.079	.075	.070	.065	.059	.053	.047	.041	.035	.029	.024	.018	.012	.006	0	
	SUPERELEVATION ORDINATE	0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0	
REQUIRED CAMBER	0	27	57	86	116	148	177	206	235	259	281	302	318	330	341	345	347	343	336	325	309	291	269	243	215	184	152	116	79	40	0		



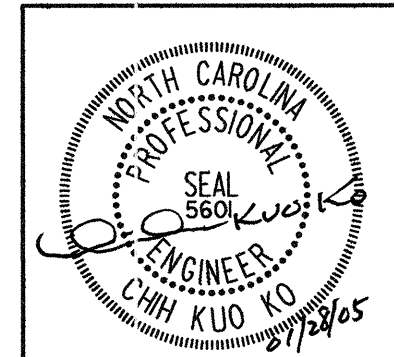
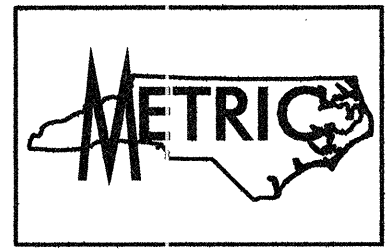
### SCHEMATIC OF CAMBER ORDINATES - SPAN "E"

FOR CAMBER VALUES AT THIRTIETH POINTS, SEE TABLES.  
SLOPE FOR ZERO CAMBER LINE VARIES.

- NOTES:
- VALUES GIVEN IN TABLE ARE AT THIRTIETH POINTS BETWEEN © BEARINGS.
  - DEFLECTION AND ORDINATE VALUES ARE GIVEN IN METERS (DECIMAL FORM).
  - REQUIRED CAMBER VALUES GIVEN IN MILLIMETERS.

PROJECT NO. R-2552AA  
WAKE-JOHNSTON COUNTY  
 STATION: 28+31.359 -I1Y1-

SHEET 5 OF 5



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

### SUPERSTRUCTURE CAMBER AND DEAD LOAD DEFLECTIONS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			5-110
2			4			429

Plans prepared by:  
**KO & ASSOCIATES, P.C.**  
 Consulting Engineers  
 1011 SCHAUH DR., SUITE #202  
 RALEIGH, N.C. 27606  
 For Division of Highways

DWG. NO. 27

PLT: 01/27/2005  
 FILE NAME: r:\v2552aa.dwg  
 DRAWN BY: B.E. LANNING DATE: JAN. 2005  
 CHECKED BY: A.K. ORR DATE: JAN. 2005