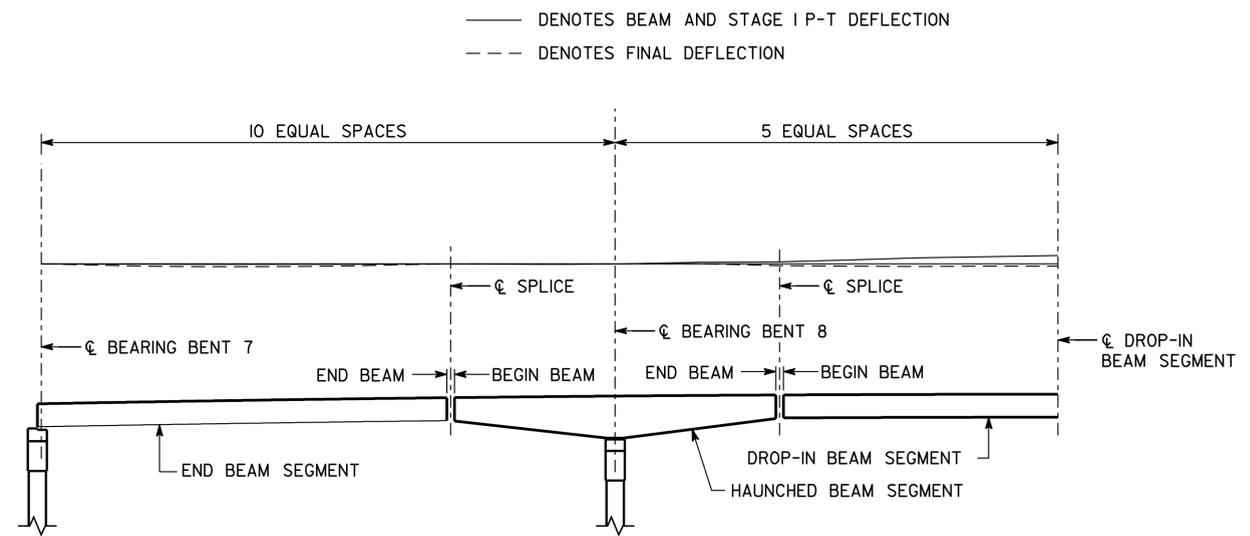


RELEASED FOR CONSTRUCTION 10-05-2010

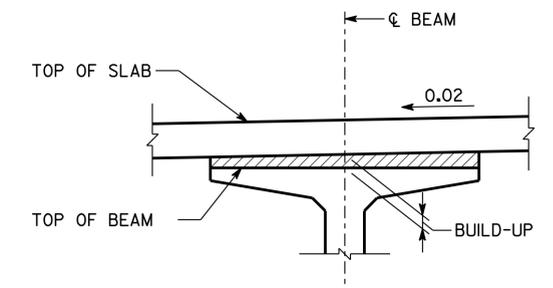


**CAMBER DIAGRAM**

NOTE:  
DATA FOR END BEAM SEGMENTS, HAUNCHED BEAM SEGMENTS AND DROP-IN BEAM SEGMENTS IS SYMMETRICAL ABOUT CL DROP-IN BEAM SEGMENT.

**NOTES:**

- ITEMS A, B, C, AND D ARE INTENDED TO ASSIST THE CONTRACTOR AND ENGINEER TO TROUBLE-SHOOT ANY DEFLECTION PROBLEMS THAT MAY OCCUR DURING CONSTRUCTION.
- THE BEAM BUILD-UPS ARE USED FOR QUANTITIES AND PEDESTAL SETTINGS, AND THEY ARE NOT INTENDED TO BE USED AS A GRADE SETTING TOOL.  
  
PRIOR TO CASTING THE DECK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, THE CALCULATIONS USED FOR DETERMINING THE BUILD-UP.
- THE CONTRACTOR SHALL CAST THE DECK OF SPANS 7-9 WITHIN 30 DAYS OF DETERMINING THE REQUIRED BUILD-UPS. THE WORK TO BE DONE WITHIN THE 30 DAYS DOES NOT INCLUDE STAGE 2 POST-TENSIONING OR CASTING THE FINAL 7'-0" OF DECK AT EACH END OF SPANS 7-9.



**DETAIL SHOWING BUILD-UP OVER BEAM**

BEAM CAMBER AND DEFLECTION FOR END BEAM SEGMENTS											
TENTH POINTS		CL BRG	0.1	0.2	0.3	0.4	0.5	0.6	0.7	END BEAM	CL SPLICE
A	DEFLECTION DUE TO BEAM CAMBER AND FIRST STAGE P-T	0.000	0.008	0.156	0.189	0.196	0.176	0.130	0.058	0.057	0.062
B	DEFLECTION DUE TO DECK PLACEMENT	0.000	-0.025	-0.045	-0.054	-0.051	-0.039	-0.020	-0.002	-0.002	-0.002
C	DEFLECTION DUE TO SECOND STAGE P-T	0.000	0.027	0.047	0.059	0.061	0.054	0.040	0.024	0.024	0.023
D	DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD	0.000	-0.017	-0.031	-0.040	-0.043	-0.040	-0.032	-0.022	-0.022	-0.021
E	FINAL DEFLECTION	0.000	0.078	0.128	0.155	0.163	0.151	0.118	0.057	0.057	0.062
F	VERTICAL CURVE ORDINATE	0.000	0.080	0.133	0.161	0.162	0.136	0.084	0.007	0.007	0.000
BU	REQUIRED BUILD-UP	3"	3"	3 1/16"	3 1/16"	3"	2 15/16"	2 5/8"	2 3/8"	2 3/8"	2 1/4"

ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT 'BUILD-UP REQUIRED', WHICH IS GIVEN IN INCHES.

BEAM CAMBER AND DEFLECTION FOR HAUNCHED BEAM SEGMENTS											
TENTH POINTS		CL SPLICE	BEGIN BEAM	0.8	0.9	CL BRG	0.1	0.2	END BEAM	CL SPLICE	
A	DEFLECTION DUE TO BEAM CAMBER AND FIRST STAGE P-T	0.062	0.060	0.034	0.013	0.000	-0.003	0.018	0.018	0.018	
B	DEFLECTION DUE TO DECK PLACEMENT	-0.002	-0.001	0.008	0.009	0.000	-0.031	-0.081	-0.081	-0.083	
C	DEFLECTION DUE TO SECOND STAGE P-T	0.023	0.022	0.010	0.001	0.000	0.011	0.037	0.037	0.038	
D	DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD	-0.021	-0.020	-0.012	-0.004	0.000	-0.001	-0.004	-0.004	-0.004	
E	FINAL DEFLECTION	0.062	0.061	0.039	0.018	0.000	-0.023	-0.031	-0.031	-0.031	
F	VERTICAL CURVE ORDINATE	0.000	0.009	0.064	0.102	0.114	0.086	0.009	0.009	0.000	
BU	REQUIRED BUILD-UP	2 1/4"	2 3/8"	3 3/16"	4"	4 3/8"	4 5/16"	3 1/2"	3 1/2"	3 3/8"	

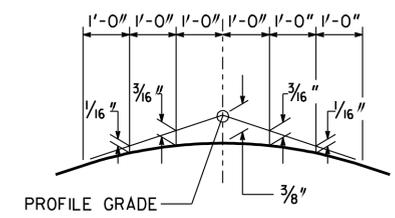
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT 'BUILD-UP REQUIRED', WHICH IS GIVEN IN INCHES.

BEAM CAMBER AND DEFLECTION FOR DROP-IN BEAM SEGMENTS						
TENTH POINTS		CL SPLICE	BEGIN BEAM	0.3	0.4	0.5
A	DEFLECTION DUE TO BEAM CAMBER AND FIRST STAGE P-T	0.018	0.019	0.043	0.100	0.117
B	DEFLECTION DUE TO DECK PLACEMENT	-0.083	-0.086	-0.140	-0.187	-0.205
C	DEFLECTION DUE TO SECOND STAGE P-T	0.038	0.040	0.070	0.095	0.104
D	DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD	-0.004	-0.005	-0.019	-0.029	-0.033
E	FINAL DEFLECTION	-0.031	-0.032	-0.047	-0.021	-0.016
F	VERTICAL CURVE ORDINATE	0.000	0.010	0.136	0.216	0.240
BU	REQUIRED BUILD-UP	3 3/8"	3 1/2"	5 3/16"	5 13/16"	6 1/16"

ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT 'BUILD-UP REQUIRED', WHICH IS GIVEN IN INCHES.

**NOTE:**

DATA FOR END BEAM SEGMENTS, HAUNCHED BEAM SEGMENTS AND DROP-IN BEAM SEGMENTS IS SYMMETRICAL ABOUT CL DROP-IN BEAM SEGMENT.



**CROWN DETAIL**

2.0% CROSS SLOPE

DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE. MAINTAIN A CONSTANT SLAB THICKNESS OF 7 1/2"

"D" = 10.50" SPANS 7 & 9  
"D" = 11.875" SPAN 8

BRIDGE NO. 1

THE LPA GROUP  
  
 THE LPA GROUP INCORPORATED  
 TRANSPORTATION CONSULTANTS  
 3585 ENGINEERING DRIVE  
 NORCROSS, GEORGIA 30092  
 (770) 263-9118

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
 PRECONSTRUCTION DIVISION-OFFICE OF BRIDGE DESIGN

DEAD LOAD DEFLECTIONS (MAIN SPANS)  
 SR 204 SPUR (DIAMOND CAUSEWAY)  
 OVER SKIDAWAY NARROWS  
 CHATHAM COUNTY CSSTP-0008-00(65)

SCALE: AS SHOWN  
 OCTOBER 2010

DRAWING NO.  
35-29  
 BRIDGE SHEET  
29 OF 48

DESIGNED: SAD	CHECKED: DGH	REVIEWED: WMD / WEI
DRAWN: JNA / MDM	DESIGN GROUP: DGH	APPROVED: PVL