



DEAD LOAD DEFLECTION DIAGRAM

- NOTES:
 1. ENCIRCLED NUMBERS INDICATE ANTICIPATED DEFLECTION DUE TO CONCRETE ONLY.
 2. DEFLECTIONS ARE IN INCHES.

MOMENT - foot-kips			MOMENT AND REACTION TABLE						REACTION - kips				
LOAD NAME	LOAD - k/ft		POSITIVE MOMENT				NEGATIVE MOMENT		REACTION				
			0.4 PT. END SPAN		0.5 PT. CENTER SPAN		PIER	PIER	ABUTMENT	ABUTMENT	PIER	PIER	
	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	
D.L. NO. 1	0.74*	0.72*	125	122	156	152	274	267	15	14	53	52	
D.L. NO. 2	0.29	0.29	48	47	68	65	80	84	5	5	18	18	
LIVE LOAD + IMPACT HS20-44 DISTRIBUTION FACTOR	TRUCK	MOMENT	MOMENT										
		1.35	1.27	450	420	507	470	-	-	55	46	64	55
	LANE	REACTION	REACTION	-	-	-	-	271	264	-	-	-	-
		1.65	1.05										
TOTAL	-	-	-	-	-	-	625	615	75	65	135	125	

* LOAD VALUES DO NOT INCLUDE GIRDER WEIGHT.
 MOMENT AND REACTION VALUES DO INCLUDE GIRDER WEIGHT.
 MOMENTS AND REACTIONS SHOWN ARE UNFACTORED.

03-07 LATEST REVISION DATE	<i>James E. M. Smith</i> APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES FEBRUARY, 2004	
		BEAM DEFLECTIONS 160'-0" BRIDGE	RS40-46-04