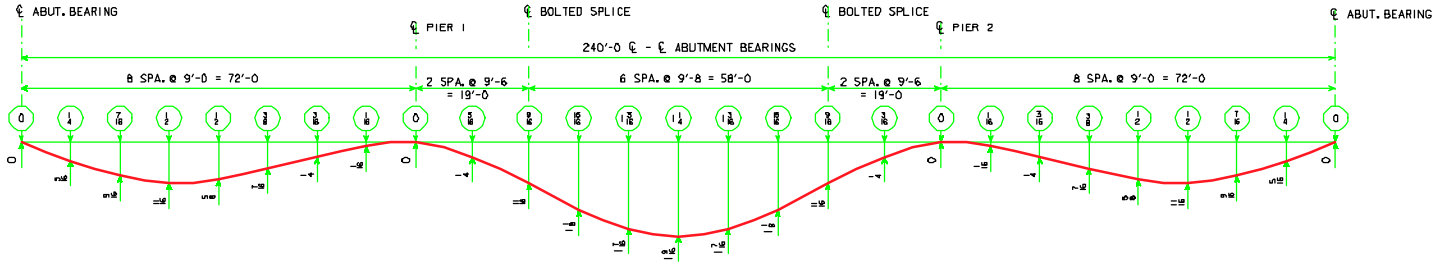

DEAD LOAD DEFLECTION DIAGRAM

NOTES:

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

MOMENT AND REACTION TABLE

MOMENT - foot-kips | 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*	304	297	380	372	662	647	24	23	86	84
D.L. NO. 2		0.29	0.29	107	104	150	141	184	194	8	8	27	27
LIVE LOAD +IMPACT HS20-44	LANE TRUCK	MOMENT	MOMENT	746	697	870	797	-	-	59	49	-	-
		1.35	1.27										
		REACTION	REACTION	-	-	-	-	511	506	-	-	73	69
		1.65	1.05										
TOTAL		-	-	-	-	-	-	1357	1347	91	80	186	180

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

LATEST REVISION DATE

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
240'-0 BRIDGE

RS40-BD5-04