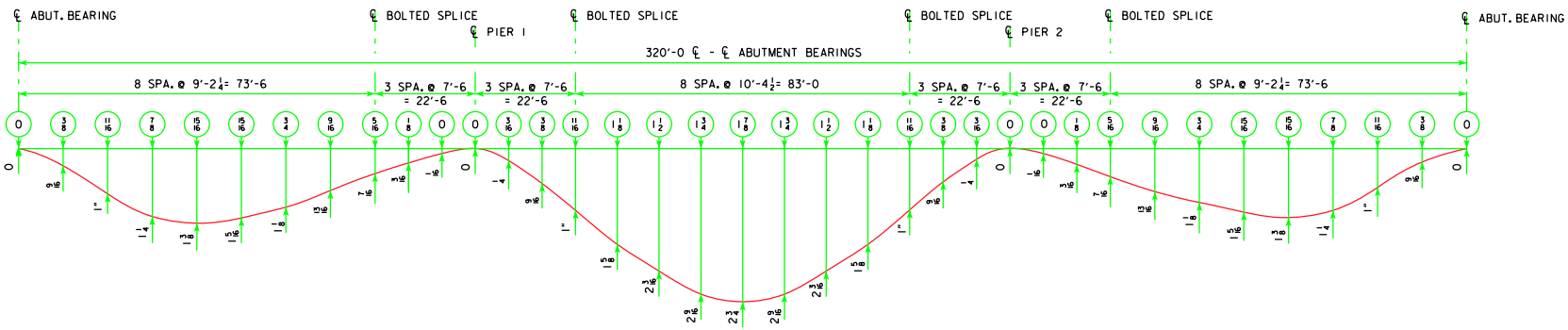

DEAD LOAD DEFLECTION DIAGRAM

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
DC1		0.74*	0.72*	565	531	680	639	1406	1321	35	33	132	124
DC2		0.14	0.14	87	86	115	114	175	176	5	5	18	18
DW		0.15	0.15	91	90	120	119	183	184	5	5	18	18
LIVE LOAD +IMPACT HL-93	DISTRIBUTION FACTOR	MOMENT	MOMENT	1302	1500	1511	1869	1260	1488	87	77	163	143
		0.591	0.681										
		REACTION	REACTION	-	-	-	-	-	-	-	-	-	-
		0.772	0.681										
TOTAL				-	-	-	-	3024	3169	132	120	331	303

* 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

JUNE, 2010

BEAM DEFLECTIONS
320'-0 BRIDGE

RS40-069-10