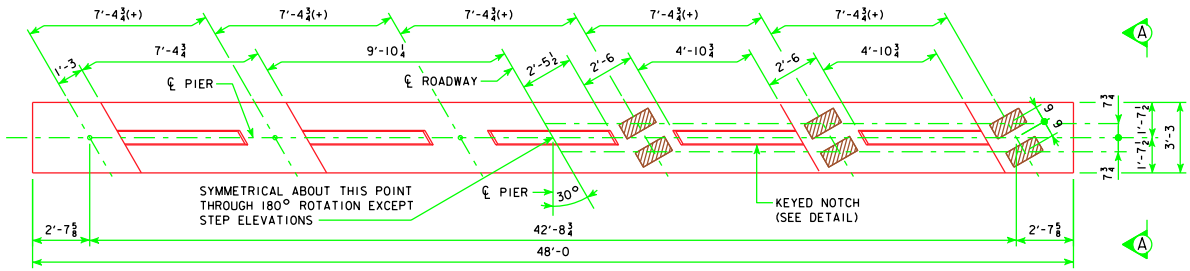
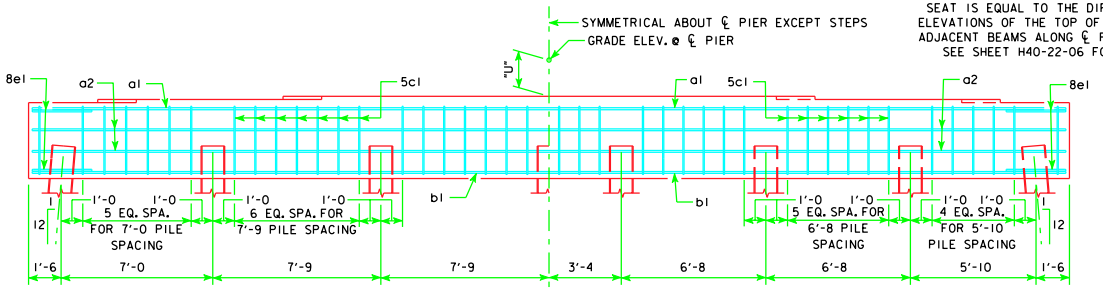


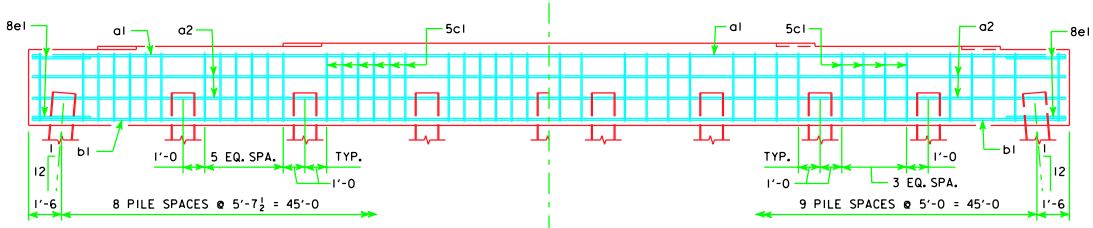
TYPICAL PLAN

NOTE:
THE HEIGHT OF THE STEPS ON THE BRIDGE SEAT IS EQUAL TO THE DIFFERENCE IN ELEVATIONS OF THE TOP OF SLAB AT ADJACENT BEAMS ALONG ℄ PIER.
SEE SHEET H40-22-06 FOR "U" DIMENSION.



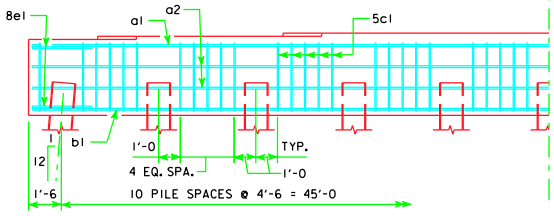
7 PILE BENT

8 PILE BENT

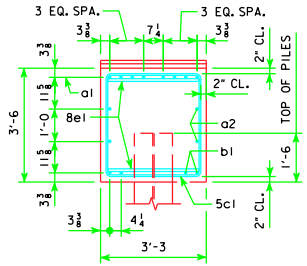


9 PILE BENT

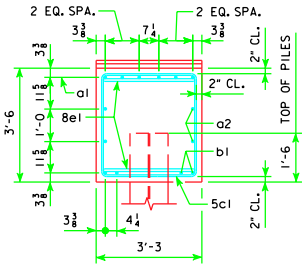
10 PILE BENT



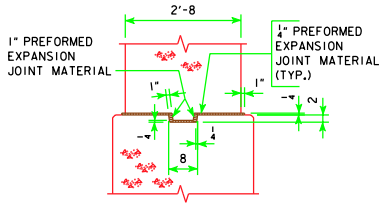
11 PILE BENT



VIEW A-A
FOR 7, 8 & 9 PILE BENTS



VIEW A-A
FOR 10 & 11 PILE BENTS



KEYED NOTCH DETAIL

PILE BENT NOTES:

THESE PIER BENTS ARE DESIGNED FOR USE IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.

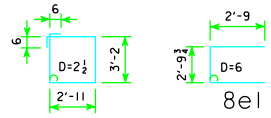
FOR DETAILS OF TRESTLE PILES, SEE STANDARD PIOL.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

			7 PILE BENT			8 PILE BENT			9 PILE BENT			10 PILE BENT			11 PILE BENT		
BAR	LENGTH	SHAPE	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	47'-8		8	9	1297	8	9	1297	8	9	1297	6	9	972	6	9	972
a2	47'-8		4	8	509	4	8	509	4	8	509	4	8	509	4	8	509
b1	47'-8		4	10	820	4	10	820	4	9	648	4	9	648	4	9	648
5c1	13'-2		42	5	577	42	5	577	50	5	687	38	5	522	52	5	714
8e1	8'-4		4	8	89	4	8	89	4	8	89	4	8	89	4	8	89
(1) REINFORCING STEEL (LB.)			3292			3292			3230			2740			2932		
STRUCTURAL CONCRETE (CY)		PILE TYPE 3	21.5			21.5			21.5			21.5			21.5		

BENT BAR DETAILS



5c1

8e1

NOTE: ALL DIMENSIONS ARE OUT TO OUT. D=PIN DIAMETER.

FRICTION OR POINT BEARING PILING

℄-℄ ABUTMENT BEARING	PIOL TYPE 3			
	NUMBER OF TRESTLE PILES	PILE SIZE	(2) DES. PILE BRG. (TONS)	(3) LRFD DES. BRG. (KIPS)
138'-10	7	HP14x73	61	177
	7	HP14x89	61	177
151'-4	8	HP14x73	56	162
	7	HP14x89	64	186
163'-10	8	HP14x73	60	175
	7	HP14x89	69	200
176'-4	8	HP14x73	63	183
	7	HP14x89	72	209
188'-10	9	HP14x73	59	170
	7	HP14x89	75	218
201'-4	10	HP14x73	58	170
	8	HP14x89	73	212
213'-10	10	HP14x73	61	178
	8	HP14x89	77	222
226'-4	11	HP14x73	59	170
	9	HP14x89	72	208
243'-0	11	HP14x73	62	179
	9	HP14x89	75	219

(1) SEE SHEET H40-24-06 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.

(2) FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

(3) FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.

NOTE: FRICTION BEARING INCLUDES SIDE FRICTION AND END BEARING IN SOIL. POINT BEARING INCLUDES SIDE FRICTION AND POINT BEARING IN ROCK.

01-10
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
AUGUST, 2009

PILE BENT PIERS
HP14 PILES
30° SKEW

H40-53-06

REVISED 01-10 - ADDED FRICTION & POINT BEARING DESCRIPTION NOTE.