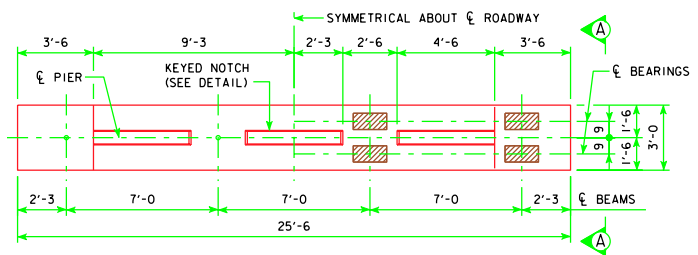
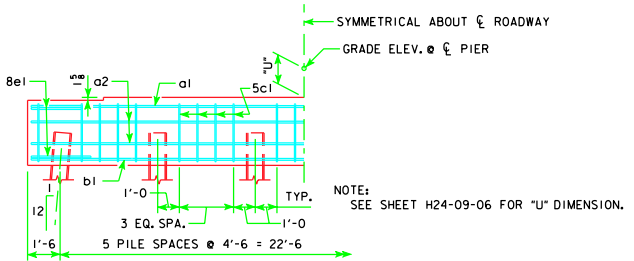


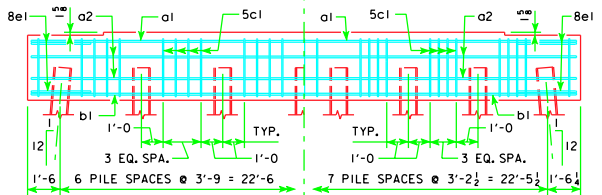
REVISED 01-10 - SHEET WAS REVISED TO MEET LRFD SPECIFICATIONS. PILE ORIENTATION DETAIL ADDED.



TYPICAL PLAN

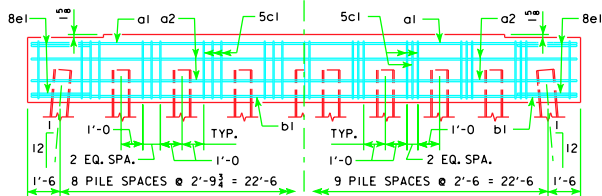


6 PILE BENT



7 PILE BENT

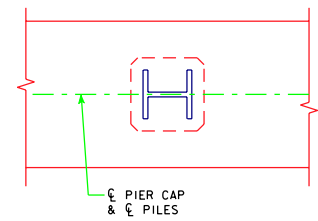
8 PILE BENT



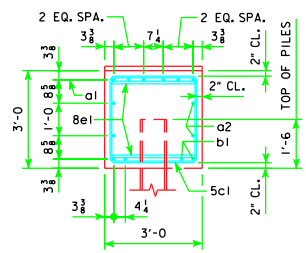
9 PILE BENT

10 PILE BENT

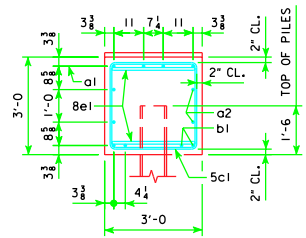
PILE BENT NOTES:
THESE PIER BENTS ARE DESIGNED FOR USE IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.
FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.



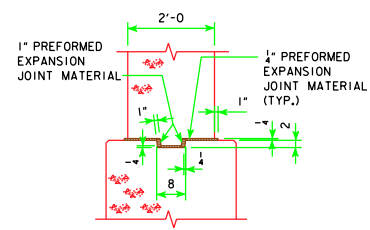
PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES



VIEW A-A FOR 6, 7, 8 & 9 PILE BENTS



VIEW A-A FOR 10 PILE BENT

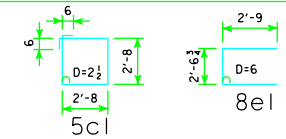


KEYED NOTCH DETAIL

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	6 PILE BENT	7 PILE BENT	8 PILE BENT	9 PILE BENT	10 PILE BENT
a1	25'-2		6	9	513	6	9
a2	25'-2		4	8	269	4	8
b1	25'-2		4	8	269	4	8
5c1	11'-8		22	5	268	26	5
8e1	8'-1		4	8	86	4	8
REINFORCING STEEL (L.B.)			1405	1453	1502	1453	1319
STRUCTURAL CONCRETE (CY)			8.8	8.8	8.4	8.4	8.3

BENT BAR DETAILS



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

P-ABUTMENT BEARING	FRICTION BEARING PILING				FRICTION OR POINT BEARING PILING			
	PIOL TYPE 1 OR 2				PIOL TYPE 3			
	NUMBER OF TRESTLE PILES	DES. PILE BRG. (TONS)	LRFD DES. BRG. (KIPS)		NUMBER OF TRESTLE PILES	DES. PILE BRG. (TONS)	LRFD DES. BRG. (KIPS)	
138'-10	9	14	32	94	6	HP10x57	49	141
151'-4	10	16	36	106	7	HP12x53	42	121
163'-10	9	16	34	99	7	HP10x57	44	127
176'-4	9	16	37	106	7	HP10x57	47	137
188'-10	10	16	34	100	8	HP12x53	41	119
201'-4	10	16	36	104	7	HP10x57	49	143
213'-10	10	16	36	104	8	HP12x53	43	125
226'-4	10	16	36	104	8	HP10x57	45	130
243'-0	10	16	36	104	8	HP12x53	45	130

1. CONCRETE QUANTITIES SHOWN HAVE HAD THE VOLUME OF EMBEDDED PILES DEDUCTED FOR TYPES 1 AND 2 BASED ON 0.8 FT³ PER FOOT OF EMBEDMENT. THE CONCRETE QUANTITIES FOR TYPE 3 PILES DO NOT REQUIRE REDUCTION FOR PILE EMBEDMENT.
2. SEE STANDARD PIOL FOR "K" DIMENSION.
3. FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.
4. 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.

LATEST REVISION DATE

01-10

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation

Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

DECEMBER, 2006

PILE BENT PIERS

0° SKEW

H24-42-06