

PILE BENT NOTES:

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

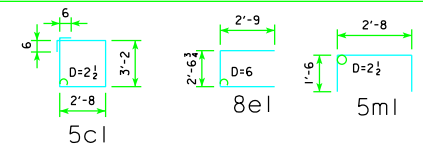
FOR DETAILS OF TRESTLE PILES, SEE STANDARD PIOL.

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			12 PILE BENT			13 PILE BENT		
BAR	LENGTH	SHAPE	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	40'-8"		8	9	1106	8	9	1106	8	9	1106	8	9	1106	8	9	1106	8	9	1106	8	9	1106
a2	40'-8"		4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434	4	8	434
b1	40'-8"		4	9	553	4	9	553	4	9	553	4	9	553	4	10	700	4	9	553	4	9	553
5c1	12'-8"		42	5	555	44	5	581	56	5	740	56	5	740	62	5	819	46	5	608	50	5	661
8e1	8'-1"		4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86
5m1	5'-8"		8	5	47	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47	8	5	47
5n1	2'-10"		8	5	24	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24	8	5	24
REINFORCING STEEL (L.B.)			2805			2831			2990			2990			3216			2858			2911		
STRUCTURAL CONCRETE (CY)			3																				
			16.8			16.8			16.8			16.8			16.8			16.8			16.8		

BENT BAR DETAILS

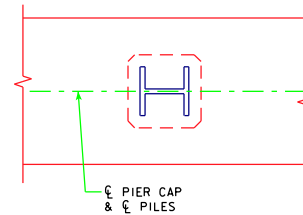


NOTE: ALL DIMENSIONS ARE OUT TO OUT. D=PIR DIAMETER.

FRICTION OR POINT BEARING PILING

ABUTMENT BEARING	PIOL TYPE 3			
	NUMBER OF TRESTLE PILES	PILE SIZE	① DES. PILE BRG. (TONS)	② LRFD DES. BRG. (KIPS)
160'-0"	7	HP14x73	60	173
	7	HP14x89	60	173
180'-0"	8	HP14x73	57	165
	7	HP14x89	65	189
200'-0"	8	HP14x73	62	178
	7	HP14x89	70	204
220'-0"	9	HP14x73	60	173
	7	HP14x89	77	223
240'-0"	10	HP14x73	59	171
	8	HP14x89	74	213
260'-0"	10	HP14x73	64	185
	9	HP14x89	71	205
280'-0"	11	HP14x73	62	180
	9	HP14x89	76	220
300'-0"	12	HP14x73	61	178
	10	HP14x89	73	213
320'-0"	13	HP14x73	60	175
	11	HP14x89	71	206
340'-0"	13	HP14x73	63	184
	11	HP14x89	75	217

- ① FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.
② FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.



PILE ORIENTATION DETAIL FOR
TYPE 3 TRESTLE BENT PILES

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

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER
Thomas L. McDaniel



Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES
ROLLED STEEL BEAM BRIDGES

JUNE, 2010

PILE BENT PIERS
HP14 PILES
0° SKEW

RS40-099-10