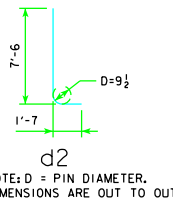
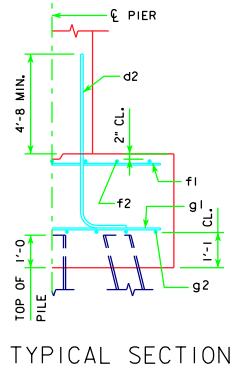
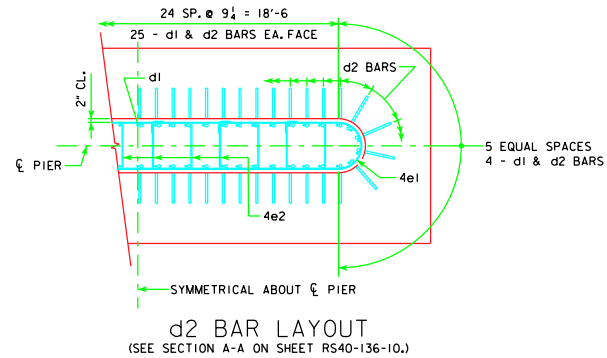


H IN FT.	℄ - ℄ ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	DES. BRG. (TONS)	
16 TO 18	160'-0"	10A	73	211
	180'-0"	11A	74	213
	200'-0"	12A	72	208
	220'-0"	13A	74	215
	240'-0"	14A	75	215
	260'-0"	14D	73	211
	280'-0"	15A	75	216
	300'-0"	16A	75	217
	320'-0"	16B	75	217
	340'-0"	17A	75	218
19 TO 21	160'-0"	10B	74	215
	180'-0"	11B	75	216
	200'-0"	12B	73	211
	220'-0"	13B	74	214
	240'-0"	14B	75	218
	260'-0"	14D	75	216
	280'-0"	16A	73	210
	300'-0"	16B	73	211
	320'-0"	17A	74	213
	340'-0"	18A	74	212
22 TO 24	160'-0"	11B	72	209
	180'-0"	12B	71	205
	200'-0"	12C	74	214
	220'-0"	13C	75	217
	240'-0"	14D	72	208
	260'-0"	15A	73	211
	280'-0"	16A	74	214
	300'-0"	16B	74	215
	320'-0"	17A	75	217
	340'-0"	18A	75	216
25 TO 27	160'-0"	11C	73	212
	180'-0"	12C	72	207
	200'-0"	12C	75	219
	220'-0"	14C	73	211
	240'-0"	14D	73	212
	260'-0"	15A	75	216
	280'-0"	16A	75	218
	300'-0"	16B	75	219
	320'-0"	18A	73	211
	340'-0"	18A	75	220
28 TO 30	160'-0"	11C	75	217
	180'-0"	12C	74	212
	200'-0"	13B	74	214
	220'-0"	14C	75	215
	240'-0"	14D	75	216
	260'-0"	15A	75	219
	280'-0"	16B	73	210
	300'-0"	17A	74	213
	320'-0"	18A	74	214
	340'-0"	19A	75	215
31 TO 33	160'-0"	12D	70	202
	180'-0"	12D	74	214
	200'-0"	13C	75	216
	220'-0"	14C	75	219
	240'-0"	14D	75	219
	260'-0"	16A	73	211
	280'-0"	16B	74	213
	300'-0"	17A	75	216
	320'-0"	18A	75	216
	340'-0"	19A	75	218
34 TO 36	160'-0"	12D	72	207
	180'-0"	12D	75	219
	200'-0"	13D	74	213
	220'-0"	14D	72	209
	240'-0"	15A	74	214
	260'-0"	16A	74	214
	280'-0"	16B	75	216
	300'-0"	17A	75	219
	320'-0"	18A	75	219
	340'-0"	19B	75	218

H IN FT.	℄ - ℄ ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	DES. BRG. (TONS)	
37 TO 40	160'-0"	12E	71	205
	180'-0"	12E	75	217
	200'-0"	13D	75	218
	220'-0"	14D	74	214
	240'-0"	15A	75	218
	260'-0"	16A	75	218
	280'-0"	16B	75	219
	300'-0"	18A	73	212
	320'-0"	19A	74	215
	340'-0"	20A	74	214

FOOTING SIZE	REINFORCING STEEL (ONE FOOTING)					TOTAL WEIGHT (LB.)	STRUCTURAL CONCRETE (CY)
	BAR	NO., SIZE & SPACING	LENGTH	WEIGHT (LB.)			
4' x 8' x 26'	d2	58 - #9 AS SHOWN	9'-1	1791		3299	30.8
	f1	26 - #5 @ 1'-0"	7'-8	208			
	f2	8 - #5 @ 1'-0"	25'-8	214			
	g1	26 - #6 @ 1'-0"	7'-8	299			
	g2	15 - #7 @ 0'-6"	25'-8	787			
	d2	58 - #9 AS SHOWN	9'-1	1791			
	f1	26 - #5 @ 1'-0"	8'-8	235			
	f2	9 - #5 @ 1'-0"	25'-8	241			
4' x 9' x 26'	g1	30 - #6 @ 0'-10 1/2"	8'-8	391		3445	34.7
	g2	15 - #7 @ 0'-7"	25'-8	787			
	d2	58 - #9 AS SHOWN	9'-1	1791			
	f1	26 - #5 @ 1'-0"	9'-8	262			
	f2	10 - #5 @ 1'-0"	25'-8	268			
	g1	29 - #7 @ 0'-10 1/2"	9'-8	573			
	g2	12 - #8 @ 0'-10"	25'-8	822			
	d2	58 - #9 AS SHOWN	9'-1	1791			
4' x 10' x 26'	f1	26 - #5 @ 1'-0"	10'-8	289		3716	38.5
	f2	11 - #5 @ 1'-0"	25'-8	294			
	g1	27 - #8 @ 0'-11 1/2"	10'-8	769			
	g2	12 - #8 @ 0'-11"	25'-8	822			
	d2	58 - #9 AS SHOWN	9'-1	1791			
	f1	28 - #5 @ 1'-0"	10'-8	312			
	f2	11 - #5 @ 1'-0"	27'-8	317			
	g1	34 - #8 @ 0'-10"	10'-8	968			
4' x 11' x 26'	g2	14 - #9 @ 0'-9 1/2"	27'-8	1317		4705	45.6
	d2	58 - #9 AS SHOWN	9'-1	1791			
	f1	28 - #5 @ 1'-0"	11'-8	341			
	f2	12 - #5 @ 1'-0"	27'-8	346			
	g1	33 - #9 @ 0'-10"	11'-8	1309			
	g2	15 - #9 @ 0'-9 1/2"	27'-8	1411			
	d2	58 - #9 AS SHOWN	9'-1	1791			
	f1	28 - #5 @ 1'-0"	12'-8	370			
4' x 12' x 28'	f2	13 - #5 @ 1'-0"	27'-8	375		5198	49.8
	g1	34 - #9 @ 0'-10"	12'-8	1464			
	g2	16 - #9 @ 0'-10"	27'-8	1505			
	d2	58 - #9 AS SHOWN	9'-1	1791			
	f1	28 - #5 @ 1'-0"	12'-8	370			
	f2	13 - #5 @ 1'-0"	27'-8	375			
	g1	34 - #9 @ 0'-10"	12'-8	1464			
	g2	16 - #9 @ 0'-10"	27'-8	1505			
4' x 13' x 28'	d2	58 - #9 AS SHOWN	9'-1	1791		5505	53.9
	f1	28 - #5 @ 1'-0"	12'-8	370			
	f2	13 - #5 @ 1'-0"	27'-8	375			
	g1	34 - #9 @ 0'-10"	12'-8	1464			
	g2	16 - #9 @ 0'-10"	27'-8	1505			
	d2	58 - #9 AS SHOWN	9'-1	1791			
	f1	28 - #5 @ 1'-0"	12'-8	370			
	f2	13 - #5 @ 1'-0"	27'-8	375			

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



FOOTING NOTES:

THESE FOOTINGS ARE DESIGNED AND DETAILED TO BE USED WITH THE CAP AND COLUMN DETAILS OF THE TEE PIERS AS SHOWN ON SHEET RS40-136-10.

BATTER PILES IN EXTERIOR ROWS 1:4 IN THE DIRECTION SHOWN.

STEEL PILING USED AS POINT BEARING SHALL HAVE A MINIMUM DISTANCE OF APPROXIMATELY 10 FEET FROM BOTTOM OF FOOTING TO TOP OF BEARING ROCK. THE PILE LAYOUTS ARE SUCH THAT THE DISTANCE CENTER TO CENTER OF ADJACENT PILING SHALL NOT EXCEED 8'-0".

LATEST REVISION DATE		Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES	
		JUNE, 2010	
 APPROVED BY BRIDGE ENGINEER		TEE PIER - 75 TON STEEL PILE FOOTINGS 20° SKEW - SHEET 1	
		RS40-141-10	