

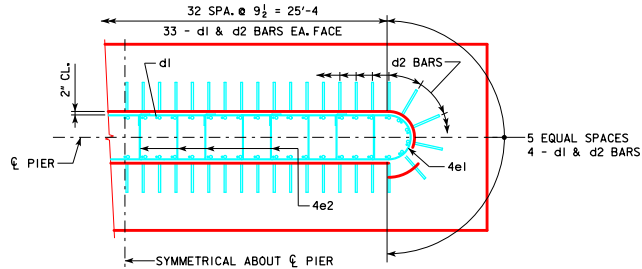
REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.
REVISED 10-2016 - CHANGED VERTICAL CLEARANCE OF REBAR "f2" TO TOP OF PIER FOOTING TO 3" WAS 2".

H IN FT.	C - C ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	① LRFD P _u , STRENGTH I, DES. LOAD (KIPS)	
16 TO 18	160'-0	12A	197	4' x 7' x 32'
	180'-0	12A	210	
	200'-0	12B	212	
	220'-0	13A	217	
	240'-0	14A	214	
	260'-0	15A	218	
	280'-0	16A	219	
	300'-0	16C	218	
	320'-0	18A	210	
	340'-0	18A	219	
19 TO 21	160'-0	12A	204	4' x 7' x 32'
	180'-0	12A	218	
	200'-0	12B	218	
	220'-0	14A	205	
	240'-0	15A	211	
	260'-0	16A	210	
	280'-0	17A	215	
	300'-0	17B	214	
	320'-0	18A	215	
	340'-0	19A	217	
22 TO 24	160'-0	12A	211	4' x 7' x 32'
	180'-0	12B	213	
	200'-0	13A	214	
	220'-0	14A	212	
	240'-0	15B	214	
	260'-0	16A	215	
	280'-0	17B	208	
	300'-0	17B	219	
	320'-0	18A	220	
	340'-0	20A	214	
25 TO 27	160'-0	12B	206	4' x 8' x 32'
	180'-0	12B	219	
	200'-0	14A	203	
	220'-0	14B	214	
	240'-0	15C	218	
	260'-0	16B	218	
	280'-0	17B	212	
	300'-0	18A	213	
	320'-0	19A	217	
	340'-0	20B	217	
28 TO 30	160'-0	12B	212	4' x 8' x 32'
	180'-0	13A	214	
	200'-0	14B	205	
	220'-0	14B	219	
	240'-0	16B	210	
	260'-0	16C	211	
	280'-0	17B	216	
	300'-0	18A	217	
	320'-0	19B	219	
	340'-0	20C	219	
31 TO 33	160'-0	12C	215	4' x 9' x 32'
	180'-0	13B	217	
	200'-0	14B	212	
	220'-0	15C	213	
	240'-0	16B	215	
	260'-0	16C	215	
	280'-0	17C	219	
	300'-0	18B	220	
	320'-0	20C	213	
	340'-0	21A	215	
34 TO 36	160'-0	13B	211	4' x 9' x 32'
	180'-0	14B	208	
	200'-0	14C	214	
	220'-0	15C	219	
	240'-0	16C	208	
	260'-0	17B	212	
	280'-0	18B	212	
	300'-0	19B	216	
	320'-0	20C	217	
	340'-0	21A	219	

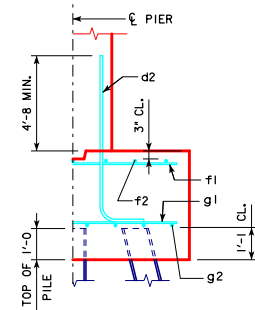
H IN FT.	C - C ABUT. BRG.	PILING (HP10x57)		FOOTING SIZE
		NO. & LAYOUT	① LRFD P _u , STRENGTH I, DES. LOAD (KIPS)	
37 TO 40	160'-0	13C	215	4' x 10' x 32'
	180'-0	14C	211	
	200'-0	15C	214	
	220'-0	15D	217	
	240'-0	16C	216	
	260'-0	17C	216	
	280'-0	18B	219	
	300'-0	19C	219	
	320'-0	20D	211	
	340'-0	21B	211	

FOOTING SIZE	REINFORCING STEEL (ONE FOOTING)			TOTAL WEIGHT (L.B.)	STRUCTURAL CONCRETE (CY)	
	BAR NO., SIZE & SPACING	LENGTH	WEIGHT (L.B.)			
4' x 7' x 32'	d2	74 - #9 AS SHOWN	9'-1	2285	3487	33.2
	f1	32 - #5 @ 1'-0	6'-8	223		
	f2	7 - #5 @ 1'-0	31'-8	231		
	g1	32 - #6 @ 1'-0	6'-8	320		
	g2	9 - #6 @ 0'-9 1/2	31'-8	428		
	d2	74 - #9 AS SHOWN	9'-1	2285		
f1	32 - #5 @ 1'-0	7'-8	256			
f2	8 - #5 @ 1'-0	31'-8	264			
g1	32 - #6 @ 1'-0	7'-8	368			
g2	13 - #6 @ 0'-7 1/2	31'-8	618			
d2	74 - #9 AS SHOWN	9'-1	2285	3984	42.7	
f1	32 - #5 @ 1'-0	8'-8	289			
f2	9 - #5 @ 1'-0	31'-8	297			
g1	38 - #6 @ 0'-10	8'-8	495			
g2	13 - #6 @ 0'-8 1/2	31'-8	618			
d2	74 - #9 AS SHOWN	9'-1	2285			4267
f1	32 - #5 @ 1'-0	9'-8	323			
f2	10 - #5 @ 1'-0	31'-8	330			
g1	36 - #7 @ 0'-10 1/2	9'-8	711			
g2	13 - #6 @ 0'-9 1/2	31'-8	618			
d2	74 - #9 AS SHOWN	9'-1	2285	4813	52.1	
f1	32 - #5 @ 1'-0	10'-8	356			
f2	11 - #5 @ 1'-0	31'-8	363			
g1	34 - #8 @ 0'-11	10'-8	968			
g2	13 - #7 @ 0'-10 1/2	31'-8	841			
d2	74 - #9 AS SHOWN	9'-1	2285			5180
f1	32 - #5 @ 1'-0	11'-8	389			
f2	12 - #5 @ 1'-0	31'-8	396			
g1	32 - #9 @ 1'-0	11'-8	1269			
g2	13 - #7 @ 0'-11 1/2	31'-8	841			
d2	74 - #9 AS SHOWN	9'-1	2285	5871	66.4	
f1	32 - #5 @ 1'-0	13'-8	456			
f2	14 - #5 @ 1'-0	31'-8	462			
g1	39 - #9 @ 0'-9 1/2	13'-8	1812			
g2	18 - #6 @ 0'-9 1/2	31'-8	856			
d2	74 - #9 AS SHOWN	9'-1	2285			6875
f1	34 - #5 @ 1'-0	13'-8	485			
f2	14 - #5 @ 1'-0	33'-8	492			
g1	41 - #9 @ 0'-10	13'-8	1905			
g2	19 - #8 @ 0'-9	33'-8	1708			

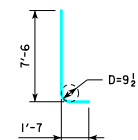
① NOTE: P_u, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.



d2 LAYOUT
(SEE SECTION A-A ON SHEET RS40-156-10.)



TYPICAL SECTION



d2
NOTE: D = PIN DIAMETER.
DIMENSIONS ARE OUT TO OUT.

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 RS40-156-10.
- 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.
- PIER PILES SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

10-2016 LATEST REVISION DATE <i>Thomas E. McQuinn</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES JUNE, 2010
	TEE PIER-HP10x57 SRL-2 STEEL PILE FOOTINGS

RS40-161-10
45° SKEW - SHEET 1