

PIER CAP PLAN

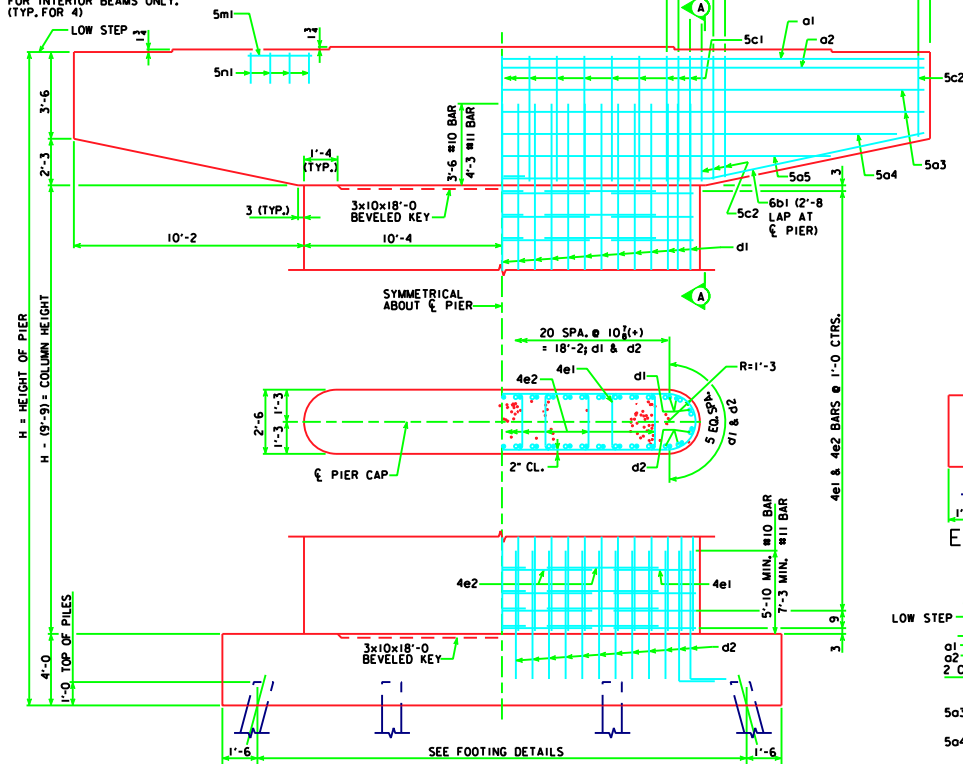
NOTE:
ANCHOR BOLTS REQUIRED FOR
FIXED PIER BEARINGS ONLY.
FOR BOLT AND BEARING SIZES,
SEE RS40-67-04 OR RS40-68-04.

160'-0, 180'-0, 200'-0 & 220'-0 SPANS 6 SPA @ 1'-5" = 8'-6" 14-5c2 6
240'-0 & 260'-0 SPANS 8 SPA @ 1'-0" = 8'-6" 18-5c2 6
280'-0 & 300'-0 SPANS 10 SPA @ 10 3/4" = 8'-6" 22-5c2 6

1 SPA @ 6'-4-5c1 (ALL SPANS) 6
1 SPA @ 6'-4-5c2 (ALL SPANS) 6

12 SPA @ 1'-6" = 18'-0" 26-5c1 (ALL SPANS) 6

NOTE: 5n1 & 5m1 REQUIRED
FOR INTERIOR BEAMS ONLY.
(TYP. FOR 4)



PIER ELEVATION

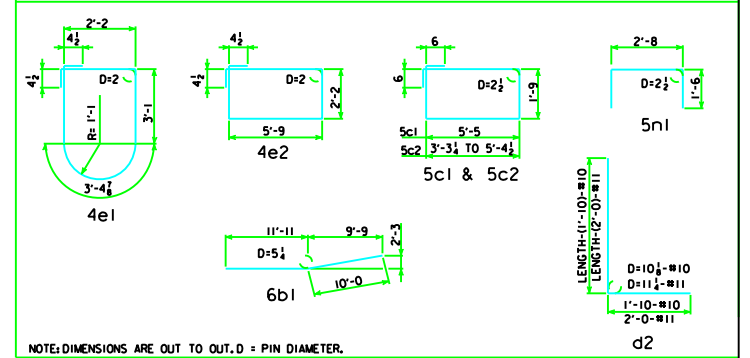
STEP NOTE:
THE HEIGHT OF THE STEPS ON THE BRIDGE SEAT IS
EQUAL TO THE DIFFERENCE IN ELEVATIONS OF THE
TOP OF SLAB AT ADJACENT BEAMS ALONG PIER.

ONE CAP																											
REINFORCING STEEL	C-C ABUT. BEARINGS			160'-0			180'-0			200'-0			220'-0			240'-0			260'-0			280'-0			300'-0		
	BAR	LENGTH	SHAPE	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
	a1	40'-8		6	8	651	6	8	651	6	9	830	6	9	830	6	9	830	6	10	1050	6	10	1050	6	10	1050
	a2	40'-8		6	7	499	6	8	651	6	8	651	6	9	830	6	9	830	6	9	830	6	10	1050	6	10	1050
	a3	40'-8		4	5	170	4	5	170	4	5	170	4	5	170	4	5	170	4	5	170	4	5	170	4	5	170
	a4	38'-9		2	5	81	2	5	81	2	5	81	2	5	81	2	5	81	2	5	81	2	5	81	2	5	81
	a5	30'-1		2	5	63	2	5	63	2	5	63	2	5	63	2	5	63	2	5	63	2	5	63	2	5	63
	b1	21'-11		8	6	263	8	6	263	8	6	263	8	6	263	8	6	263	8	6	263	8	6	263	8	6	263
	c1	15'-4		34	5	544	34	5	544	34	5	544	34	5	544	34	5	544	34	5	544	34	5	544	34	5	544
	c2	VARIES		36	5	504	36	5	504	36	5	504	36	5	504	36	5	504	36	5	504	36	5	504	36	5	504
n1	5'-8	16		5	95	16	5	95	16	5	95	16	5	95	16	5	95	16	5	95	16	5	95	16	5	95	
m1	2'-10	16		5	47	16	5	47	16	5	47	16	5	47	16	5	47	16	5	47	16	5	47	16	5	47	
TOTAL LB.				2917			3069			3248			3427			3538			3758			4083			4083		
STRUCTURAL CONCRETE (C.Y.)				24.5			24.5			24.5			24.5			24.5			24.5			24.5			24.5		

ONE COLUMN

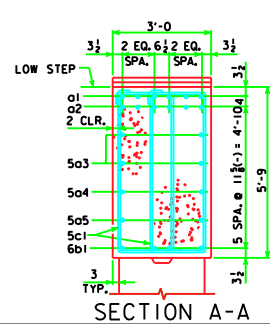
		STRUCTURAL CONCRETE		REINFORCING STEEL												TOTAL WEIGHT				
H IN FEET	COLUMN HEIGHT	C.Y.		d1 BAR		d2 BAR		4e1 BAR		4e2 BAR								LB.		
				NO.	SIZE	LENGTH	WEIGHT	NO.	SIZE	LENGTH	WEIGHT	NO.	SIZE	LENGTH	WEIGHT	NO.	SIZE	LENGTH	WEIGHT	
16	6'-3	11.7	-	-	-	-	-	50	10	14'-6	3120	14	4	12'-6	117	28	4	16'-7	310	3547
19	9'-3	17.2	-	-	-	-	-	50	10	17'-6	3765	20	4	12'-6	167	40	4	16'-7	443	4375
22	12'-3	22.8	50	10	15'-9	3389	50	10	10'-7	2277	26	4	12'-6	217	52	4	16'-7	576	6459	
25	15'-3	28.4	50	10	18'-9	4034	50	10	10'-7	2277	32	4	12'-6	267	64	4	16'-7	709	7287	
28	18'-3	34.0	50	11	22'-6	5977	50	11	12'-2	3232	38	4	12'-6	317	76	4	16'-7	842	10,368	
31	21'-3	39.6	50	11	25'-6	6774	50	11	12'-2	3232	44	4	12'-6	367	88	4	16'-7	975	11,348	
34	24'-3	45.2	50	11	28'-6	7571	50	11	12'-2	3232	50	4	12'-6	418	100	4	16'-7	1108	12,329	
37	27'-3	50.8	50	11	31'-6	8368	50	11	12'-2	3232	56	4	12'-6	468	112	4	16'-7	1241	13,309	
40	30'-3	56.4	50	11	34'-6	9165	50	11	12'-2	3232	62	4	12'-6	518	124	4	16'-7	1374	14,289	

BENT BAR DETAILS



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

END ELEVATION



03-07 LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER <i>Thomas C. M. D. D.</i>	Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES	
		FEBRUARY, 2004	
		T PIER 0° SKEW CAP & COLUMN DETAILS	RS40-05-04