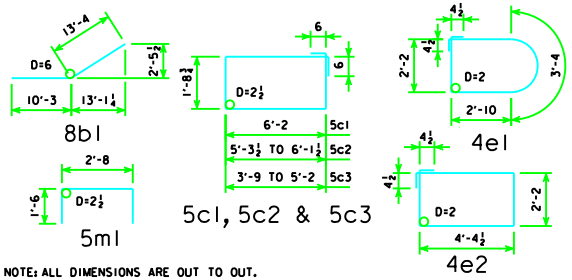
BENT BAR DETAILS



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

CAP

REINFORCING STEEL	℄ - ℄ ABUT. BEARINGS		138'-10			151'-4			163'-10			176'-4			188'-10			201'-4			213'-10			226'-4			243'-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	NO.	SIZE	WEIGHT
a1	44'-8		8	9	1215	8	9	1215	8	9	1215	8	9	1215	8	9	1215	8	10	1538	8	10	1538	8	10	1538	8	11	1899
a2	44'-8		8	8	954	8	8	954	8	9	1215	8	9	1215	8	9	1215	8	9	1215	8	10	1538	8	10	1538	8	10	1538
6a3	44'-8		8	6	537	8	6	537	8	6	537	8	6	537	8	6	537	8	6	537	8	6	537	8	6	537	8	6	537
6a4	VARIES		4	6	199	4	6	199	4	6	199	4	6	199	4	6	199	4	6	199	4	6	199	4	6	199	4	6	199
8b1	23'-7		8	8	504	8	8	504	8	8	504	8	8	504	8	8	504	8	8	504	8	8	504	8	8	504	8	8	504
5c1	16'-10		28	5	492	28	5	492	28	5	492	28	5	492	28	5	492	28	5	492	28	5	492	28	5	492	28	5	492
5c2	VARIES		20	5	331	20	5	331	20	5	331	28	5	464	28	5	464	28	5	464	28	5	464	40	5	662	40	5	662
5c3	VARIES		24	5	335	24	5	335	24	5	335	24	5	335	24	5	335	24	5	335	24	5	335	28	5	391	28	5	391
5m1	5'-8		12	5	71	12	5	71	12	5	71	12	5	71	12	5	71	12	5	71	12	5	71	12	5	71	12	5	71
	2'-8		12	5	33	12	5	33	12	5	33	12	5	33	12	5	33	12	5	33	12	5	33	12	5	33	12	5	33
TOTAL (LB.)			4671			4671			4932			5065			5065			5388			5711			5965			6326		
STRUCTURAL CONCRETE (CY)			29.9			29.9			29.9			29.9			29.9			29.9			29.9			29.9			29.9		

COLUMN

H IN FEET	COLUMN HEIGHT	STRUCTURAL CONCRETE (CY)	REINFORCING STEEL: a1 BAR				4e1 BAR				4e2 BAR				TOTAL WEIGHT (LB.)
			NO.	SIZE	LENGTH	WEIGHT	NO.	SIZE	LENGTH	WEIGHT	NO.	SIZE	LENGTH	WEIGHT	
16	6'-0	9.7	46	9	8'-9	1369	14	4	11'-11	111	28	4	13'-10	259	1739
17	7'-0	11.3	46	9	9'-9	1525	16	4	11'-11	127	32	4	13'-10	296	1948
18	8'-0	12.9	46	9	10'-9	1681	18	4	11'-11	143	36	4	13'-10	333	2157
19	9'-0	14.6	46	9	11'-9	1838	20	4	11'-11	159	40	4	13'-10	370	2367
20	10'-0	16.2	46	9	12'-9	1994	22	4	11'-11	175	44	4	13'-10	407	2576
21	11'-0	17.8	46	9	13'-9	2151	24	4	11'-11	191	48	4	13'-10	444	2786
22	12'-0	19.4	46	9	14'-9	2307	26	4	11'-11	207	52	4	13'-10	481	2995
23	13'-0	21.0	46	9	15'-9	2463	28	4	11'-11	223	56	4	13'-10	517	3203
24	14'-0	22.6	46	9	16'-9	2620	30	4	11'-11	239	60	4	13'-10	554	3413
25	14'-6	23.4	46	9	17'-3	2698	30	4	11'-11	239	60	4	13'-10	554	3491
26	15'-6	25.1	46	9	18'-3	2854	32	4	11'-11	255	64	4	13'-10	591	3700
27	16'-6	26.7	46	9	19'-3	3011	34	4	11'-11	271	68	4	13'-10	628	3910
28	17'-6	28.3	46	9	20'-3	3167	36	4	11'-11	287	72	4	13'-10	665	4119
29	18'-6	29.9	46	9	21'-3	3324	38	4	11'-11	302	76	4	13'-10	702	4328
30	19'-6	31.5	46	9	22'-3	3480	40	4	11'-11	318	80	4	13'-10	739	4537
31	20'-6	33.1	46	9	23'-3	3636	42	4	11'-11	334	84	4	13'-10	776	4746
32	21'-6	34.8	46	9	24'-3	3793	44	4	11'-11	350	88	4	13'-10	813	4956
33	22'-6	36.4	46	9	25'-3	3949	46	4	11'-11	366	92	4	13'-10	850	5165
34	23'-6	38.0	46	9	26'-3	4106	48	4	11'-11	382	96	4	13'-10	887	5375
35	24'-6	39.6	46	9	27'-3	4262	50	4	11'-11	398	100	4	13'-10	924	5584
36	25'-6	41.2	46	9	28'-3	4418	52	4	11'-11	414	104	4	13'-10	961	5793
37	26'-6	42.9	46	9	29'-3	4575	54	4	11'-11	430	108	4	13'-10	998	6003
38	27'-6	44.5	46	9	30'-3	4731	56	4	11'-11	446	112	4	13'-10	1035	6212
39	28'-6	46.1	46	9	31'-3	4888	58	4	11'-11	462	116	4	13'-10	1072	6422
40	29'-6	47.7	46	9	32'-3	5044	60	4	11'-11	478	120	4	13'-10	1109	6631

PIER NOTES:

SEE "TEE PIER NOTES" ON H44-01-07 FOR NOTES REGARDING APPLICATION OF THESE PIER STANDARDS.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ELIMINATE 2x8 BEVELED KEYWAY ON TOP OF CAP FOR EXPANSION PIERS.

SEE SHEET H44-09-07 FOR "U" DIMENSION.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

HL93 SUPERSTRUCTURE MARCH, 2007 HS25 SUBSTRUCTURE

TEE PIER CAP AND COLUMN
0° SKEW

H44-45-07