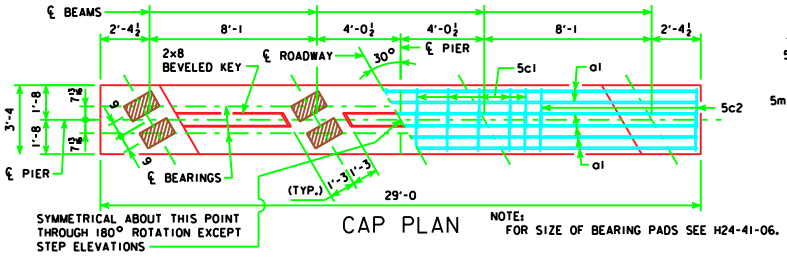
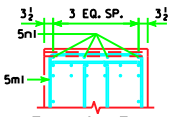


CAP PLAN

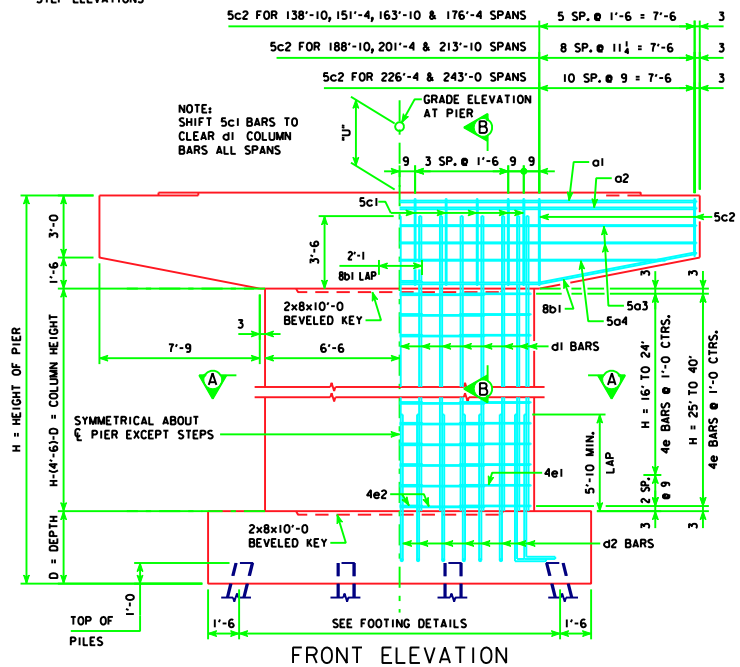
NOTE: FOR SIZE OF BEARING PADS SEE H24-41-06.



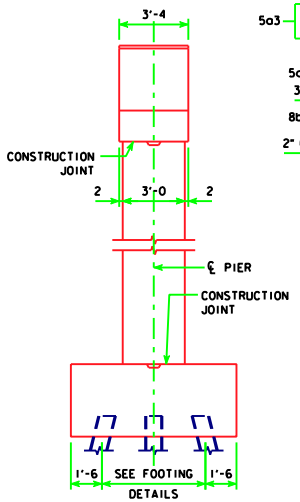
5m1 & 5n1 BAR LAYOUT

CAP

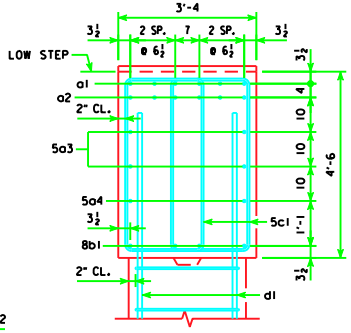
REINFORCING STEEL			℄ - ℄ ABUT. BEARINGS			138'-10			151'-4			163'-10			176'-4			188'-10			201'-4			213'-10			226'-4			243'-0		
BAR	LENGTH	SHAPE	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	28'-8		6	7	352	6	8	459	6	8	459	6	8	459	6	8	459	6	9	585	6	9	585	6	9	585	6	9	585	6	9	585
a2	28'-8		6	7	352	6	7	352	6	7	352	6	7	352	6	8	459	6	8	459	6	8	459	6	8	459	6	8	459	6	9	585
5a3	28'-8		4	5	120	4	5	120	4	5	120	4	5	120	4	5	120	4	5	120	4	5	120	4	5	120	4	5	120	4	5	120
5a4	25'-8		2	5	54	2	5	54	2	5	54	2	5	54	2	5	54	2	5	54	2	5	54	2	5	54	2	5	54	2	5	54
8b1	15'-6		8	8	331	8	8	331	8	8	331	8	8	331	8	8	331	8	8	331	8	8	331	8	8	331	8	8	331	8	8	331
5c1	13'-2		20	5	275	20	5	275	20	5	275	20	5	275	20	5	275	20	5	275	20	5	275	20	5	275	20	5	275	20	5	275
5c2	VARIES		24	5	292	24	5	292	24	5	292	24	5	292	24	5	292	36	5	438	36	5	438	36	5	438	44	5	535	44	5	535
① TOTAL (LB.)					1776			1883			1883			1883			2136			2262			2262			2359			2485		
STRUCTURAL CONCRETE (CY)					15.1			15.1			15.1			15.1			15.1			15.1			15.1			15.1			15.1		



FRONT ELEVATION



END ELEVATION

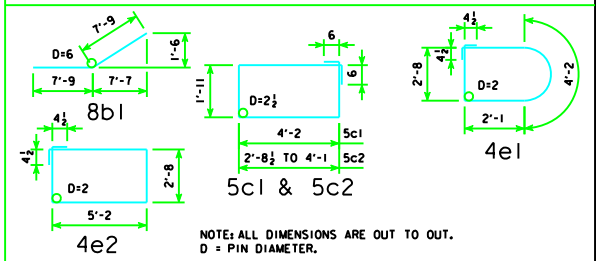


SECTION B-B

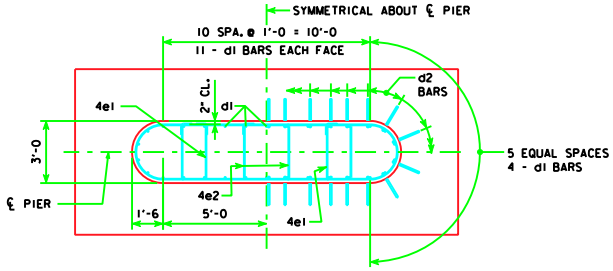
COLUMN

H IN FEET	COLUMN HEIGHT	STRUCTURAL CONCRETE (CY)	REINFORCING STEEL: d1 BAR				4e1 BAR				4e2 BAR				TOTAL WEIGHT (LB.)
			NO.	SIZE	LENGTH	WEIGHT	NO.	SIZE	LENGTH	WEIGHT	NO.	SIZE	LENGTH	WEIGHT	
16	8'-0	11.0	30	10	11'-6	1485	18	4	11'-9	141	18	4	16'-5	197	1823
17	9'-0	12.4	30	10	12'-6	1614	20	4	11'-9	157	20	4	16'-5	219	1990
18	10'-0	13.7	30	10	13'-6	1743	22	4	11'-9	173	22	4	16'-5	241	2157
19	11'-0	15.1	30	10	14'-6	1872	24	4	11'-9	188	24	4	16'-5	263	2323
20	12'-0	16.5	30	10	15'-6	2001	26	4	11'-9	204	26	4	16'-5	285	2490
21	13'-0	17.8	30	10	16'-6	2130	28	4	11'-9	220	28	4	16'-5	307	2657
22	14'-0	19.2	30	10	17'-6	2259	30	4	11'-9	235	30	4	16'-5	329	2823
23	15'-0	20.6	30	10	18'-6	2388	32	4	11'-9	251	32	4	16'-5	351	2990
24	16'-0	22.0	30	10	19'-6	2517	34	4	11'-9	267	34	4	16'-5	373	3157
25	16'-6	22.7	30	10	20'-0	2582	34	4	11'-9	267	34	4	16'-5	373	3222
26	17'-6	24.0	30	10	21'-0	2711	36	4	11'-9	283	36	4	16'-5	395	3389
27	18'-6	25.4	30	10	22'-0	2840	38	4	11'-9	298	38	4	16'-5	417	3555
28	19'-6	26.8	30	10	23'-0	2969	40	4	11'-9	314	40	4	16'-5	439	3722
29	20'-6	28.1	30	10	24'-0	3098	42	4	11'-9	330	42	4	16'-5	461	3889
30	21'-6	29.5	30	10	25'-0	3227	44	4	11'-9	345	44	4	16'-5	483	4055
31	22'-6	30.9	30	10	26'-0	3356	46	4	11'-9	361	46	4	16'-5	504	4221
32	23'-6	32.3	30	10	27'-0	3485	48	4	11'-9	377	48	4	16'-5	526	4388
33	24'-6	33.6	30	10	28'-0	3615	50	4	11'-9	392	50	4	16'-5	548	4555
34	25'-6	35.0	30	10	29'-0	3744	52	4	11'-9	408	52	4	16'-5	570	4722
35	26'-6	36.4	30	10	30'-0	3873	54	4	11'-9	424	54	4	16'-5	592	4889
36	27'-6	37.8	30	10	31'-0	4002	56	4	11'-9	440	56	4	16'-5	614	5056
37	28'-6	39.1	30	10	32'-0	4131	58	4	11'-9	455	58	4	16'-5	636	5222
38	29'-6	40.5	30	10	33'-0	4260	60	4	11'-9	471	60	4	16'-5	658	5389
39	30'-6	41.9	30	10	34'-0	4389	62	4	11'-9	487	62	4	16'-5	680	5556
40	31'-6	43.2	30	10	35'-0	4518	64	4	11'-9	502	64	4	16'-5	702	5722

BENT BAR DETAILS



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



SECTION A-A

① SEE SHEET H24-24-06 FOR STEP REINFORCING STEEL QUANTITY AND DETAILS.

PIER NOTES:

SEE "TEE PIER NOTES" ON H24-01-06 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 H24-22-06 FOR "U" DIMENSION.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE

TEE PIER CAP AND COLUMN
30° SKEW

H24-56-06