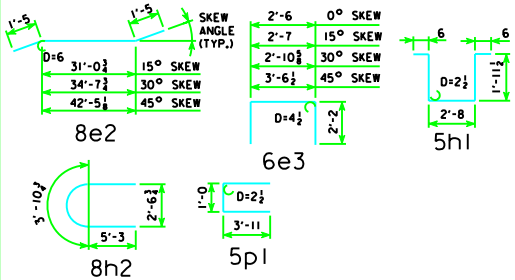
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 110' BRIDGE

LOCATION \ SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		8a1	39	24'-4	2534	39	24'-4	2534	39	24'-4	2534	39	24'-4	2534
SLAB LONGITUDINAL BOTTOM		9a2	39	35'-9	4741	39	35'-9	4741	39	35'-9	4741	39	35'-9	4741
SLAB LONGITUDINAL BOTTOM		8a3	39	32'-2	3350	39	32'-2	3350	39	32'-2	3350	39	32'-2	3350
SLAB LONGITUDINAL BOTTOM		9a4	40	31'-7	4296	40	31'-7	4296	40	31'-7	4296	40	31'-7	4296
SLAB LONGITUDINAL BOTTOM		8a5	20	39'-0	2083	20	39'-0	2083	20	39'-0	2083	20	39'-0	2083
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	40'-4	1098	8	40'-4	1098	8	40'-4	1098	8	40'-4	1098
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	4	39'-2	533	4	39'-2	533	4	39'-2	533	4	39'-2	533
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	23'-10	510	8	23'-10	510	8	23'-10	510	8	23'-10	510
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	23'-0	246	4	23'-0	246	4	23'-0	246	4	23'-0	246
SLAB LONGITUDINAL TOP		8b1	39	11'-4	1181	39	11'-4	1181	39	11'-4	1181	39	11'-4	1181
SLAB LONGITUDINAL TOP		10b2	39	26'-4	4420	39	26'-4	4420	39	26'-4	4420	39	26'-4	4420
SLAB LONGITUDINAL TOP		10b3	39	23'-7	3958	39	23'-7	3958	39	23'-7	3958	39	23'-7	3958
SLAB LONGITUDINAL TOP		7b4	39	20'-5	1628	39	20'-5	1628	39	20'-5	1628	39	20'-5	1628
SLAB LONGITUDINAL TOP		10b5	40	24'-6	4217	40	24'-6	4217	40	24'-6	4217	40	24'-6	4217
SLAB LONGITUDINAL TOP		6b6	20	28'-6	857	20	28'-6	857	20	28'-6	857	20	28'-6	857
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	26'-0	313	8	26'-0	313	8	26'-0	313	8	26'-0	313
SLAB LONGITUDINAL TOP, AT RAIL		10b9	8	25'-3	870	8	25'-3	870	8	25'-3	870	8	25'-3	870
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	21'-10	132	4	21'-10	132	4	21'-10	132	4	21'-10	132
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	29'-6	355	8	29'-6	355	8	29'-6	355	8	29'-6	355
SLAB LONGITUDINAL TOP, AT RAIL		10b12	8	17'-6	603	8	17'-6	603	8	17'-6	603	8	17'-6	603
SLAB TRANSVERSE, BOTTOM		6c1	107	32'-10	5277	107	34'-0	5465	96	32'-10	4735	84	32'-10	4143
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	107	32'-10	3665	107	34'-0	3795	96	32'-10	3288	84	32'-10	2877
SLAB TRANSVERSE ENDS, TOP		5d2	-	-	-	-	-	-	28	VARIES	555	52	VARIES	990
SLAB, TRANSVERSE AT ABUTMENT		8e1	20	32'-10	1754	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	20	33'-11	1812	20	37'-6	2003	20	45'-4	2421
SLAB, HAIRPINS, AT ABUTMENT		6e3	72	6'-10	739	72	6'-11	748	72	7'-3	785	72	7'-11	857
PIER CAP HOOPS		5h1	48	7'-7	380	48	7'-7	380	64	7'-7	507	64	7'-7	507
PIER CAP ENDS		8h2	4	14'-5	154	4	14'-5	154	4	14'-5	154	4	14'-5	154
PIER CAP, BOTTOM LONGITUDINAL		8h3	8	29'-10	638	8	30'-11	661	8	34'-5	736	8	42'-2	901
PIER CAP, TOP LONGITUDINAL		8h4	4	32'-10	351	4	34'-0	364	4	37'-11	405	4	46'-6	497
TOP OF SLAB, TRANSVERSE, AT RAIL		5j1	212	8'-6	1880	212	8'-6	1880	212	8'-6	1880	210	8'-6	1862
WING, VERTICAL		5m1-4	32	SHOWN	117	32	SHOWN	117	32	SHOWN	117	32	SHOWN	117
WING, HORIZONTAL		5n1	24	6'-8	167	24	6'-8	167	24	6'-8	167	24	6'-8	167
PAVING SUPPORT, TRANSVERSE		5p1	30	8'-10	277	32	8'-10	295	34	8'-10	314	42	8'-10	387
PAVING SUPPORT LONGITUDINAL		5p3	6	30'-2	189	6	31'-3	196	6	34'-10	218	6	42'-7	267
SUB TOTAL - LBS.					53,513			53,959			54,589			55,498
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					6654			6654			6654			6654
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					6606			6606			6606			6606
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			60,167			60,613			61,243			62,152
		WITH OPEN RAIL			60,119			60,565			61,195			62,104
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			58,644			59,054			59,441			60,093
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			58,596			59,006			59,393			60,045

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 110' BRIDGE

ITEM		SKEW	WITH MONOLITHIC PIER CAP 0°	15°	30°	45°	WITH NON-MONOLITHIC PIER CAP 0°	15°	30°	45°
WITH BARRIER RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	241.2	242.2	245.7	253.3	236.2	237.1	240.0	246.4
	REINFORCING STEEL	LBS.	60,167	60,613	61,243	62,152	58,644	59,054	59,441	60,093
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	242.0	242.2	242.9	244.5	242.0	242.2	242.9	244.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	240.9	242.0	245.5	253.1	236.0	236.9	239.8	246.2
	REINFORCING STEEL	LBS.	60,119	60,565	61,195	62,104	58,596	59,006	59,393	60,045

* INCLUDES 4 WINGS @ 0.71 C.Y. EACH; EXCLUDES RAIL CONCRETE.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE SLAB BRIDGES

NOVEMBER, 2006

SUPERSTRUCTURE DETAILS
110'-0 BRIDGE

NON-EPOXY COATED REINFORCING

J30-11B-06