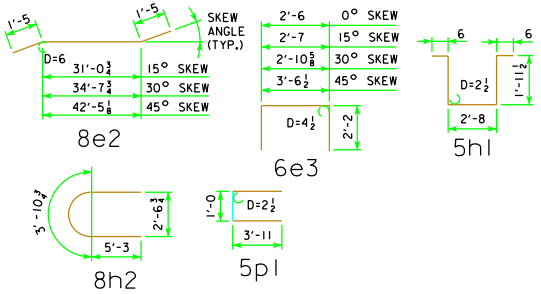
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 110' BRIDGE

LOCATION	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	25'-4	2638	39	25'-4	2638	39	25'-4	2638	39	25'-4	2638
SLAB LONGITUDINAL BOTTOM		9a2	39	38'-3	5072	39	38'-3	5072	39	38'-3	5072	39	38'-3	5072
SLAB LONGITUDINAL BOTTOM		8a3	39	34'-3	3566	39	34'-3	3566	39	34'-3	3566	39	34'-3	3566
SLAB LONGITUDINAL BOTTOM		9a4	40	32'-10	4465	40	32'-10	4465	40	32'-10	4465	40	32'-10	4465
SLAB LONGITUDINAL BOTTOM		8a5	20	41'-0	2189	20	41'-0	2189	20	41'-0	2189	20	41'-0	2189
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	40'-4	1097	8	40'-4	1097	8	40'-4	1097	8	40'-4	1097
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	4	42'-8	580	4	42'-8	580	4	42'-8	580	4	42'-8	580
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	24'-10	530	8	24'-10	530	8	24'-10	530	8	24'-10	530
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	24'-0	256	4	24'-0	256	4	24'-0	256	4	24'-0	256
SLAB LONGITUDINAL TOP		8b1	39	11'-10	1232	39	11'-10	1232	39	11'-10	1232	39	11'-10	1232
SLAB LONGITUDINAL TOP		10b2	39	28'-4	4755	39	28'-4	4755	39	28'-4	4755	39	28'-4	4755
SLAB LONGITUDINAL TOP		10b3	39	25'-7	4293	39	25'-7	4293	39	25'-7	4293	39	25'-7	4293
SLAB LONGITUDINAL TOP		7b4	39	20'-3	1614	39	20'-3	1614	39	20'-3	1614	39	20'-3	1614
SLAB LONGITUDINAL TOP		10b5	40	26'-6	4561	40	26'-6	4561	40	26'-6	4561	40	26'-6	4561
SLAB LONGITUDINAL TOP		6b6	20	27'-4	821	20	27'-4	821	20	27'-4	821	20	27'-4	821
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	25'-7	307	8	25'-7	307	8	25'-7	307	8	25'-7	307
SLAB LONGITUDINAL TOP, AT RAIL		10b9	8	27'-3	938	8	27'-3	938	8	27'-3	938	8	27'-3	938
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	21'-0	126	4	21'-0	126	4	21'-0	126	4	21'-0	126
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	29'-1	349	8	29'-1	349	8	29'-1	349	8	29'-1	349
SLAB LONGITUDINAL TOP, AT RAIL		10b12	8	19'-6	671	8	19'-6	671	8	19'-6	671	8	19'-6	671
SLAB TRANSVERSE, BOTTOM		6c1	107	32'-10	5277	107	34'-0	5464	96	32'-10	4734	84	32'-10	4143
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	107	32'-10	3664	107	34'-0	3794	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	1753	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	20	33'-11	1811	20	37'-6	2003	20	45'-4	2421
SLAB, HAIRPINS, AT ABUTMENT		6e3	72	6'-10	739	72	6'-11	748	72	7'-3	784	72	7'-11	856
PIER CAP HOOPS		5h1	48	7'-7	380	48	7'-7	380	64	7'-7	506	64	7'-7	506
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	637	8	30'-11	660	8	34'-5	735	8	42'-2	901
PIER CAP, TOP LONGITUDINAL		8h4	4	32'-10	351	4	34'-0	363	4	37'-11	405	4	46'-6	497
TOP OF SLAB, TRANSVERSE, AT RAIL		5j1	212	8'-6	1879	212	8'-6	1879	212	8'-6	1879	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	276	32	8'-10	295	34	8'-10	313	42	8'-10	387
PAVING SUPPORT LONGITUDINAL		5p3	6	30'-2	189	6	31'-3	196	6	34'-10	218	6	42'-7	266
SUB TOTAL - LBS.					55,643			56,088			56,718			57,630
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					6654			6654			6654			6654
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					6838			6838			6838			6838
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			62,297			62,742			63,372			64,284
		WITH OPEN RAIL			62,481			62,926			63,556			64,468
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			60,775			61,185			61,572			62,226
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			60,959			61,369			61,756			62,410

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 EPOXY COATED	LBS.	62,297	62,742	63,372	64,284	60,775	61,185	61,572	62,226
	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 EPOXY COATED	LBS.	62,481	62,926	63,556	64,468	60,959	61,369	61,756	62,410

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

REVISED 12-07 - OPEN RAIL REINFORCING QUANTITY CHANGED

12-07
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

EPOXY COATED REINFORCING

J30-11E-06