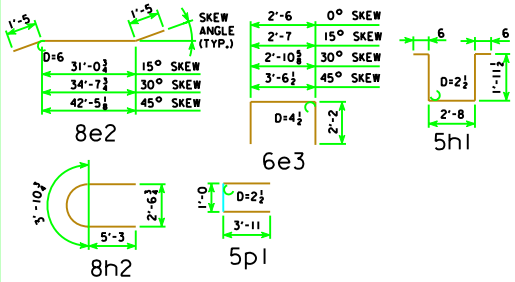
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 110' BRIDGE

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	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	3567	39	34'-3	3567	39	34'-3	3567	39	34'-3	3567
SLAB LONGITUDINAL BOTTOM		9a4	40	32'-10	4466	40	32'-10	4466	40	32'-10	4466	40	32'-10	4466
SLAB LONGITUDINAL BOTTOM		8a5	20	41'-0	2190	20	41'-0	2190	20	41'-0	2190	20	41'-0	2190
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	42'-8	581	4	42'-8	581	4	42'-8	581	4	42'-8	581
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	24'-10	531	8	24'-10	531	8	24'-10	531	8	24'-10	531
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	24'-0	257	4	24'-0	257	4	24'-0	257	4	24'-0	257
SLAB LONGITUDINAL TOP		8b1	39	11'-10	1233	39	11'-10	1233	39	11'-10	1233	39	11'-10	1233
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	4294	39	25'-7	4294	39	25'-7	4294	39	25'-7	4294
SLAB LONGITUDINAL TOP		7b4	39	20'-3	1615	39	20'-3	1615	39	20'-3	1615	39	20'-3	1615
SLAB LONGITUDINAL TOP		10b5	40	26'-6	4562	40	26'-6	4562	40	26'-6	4562	40	26'-6	4562
SLAB LONGITUDINAL TOP		6b6	20	27'-4	822	20	27'-4	822	20	27'-4	822	20	27'-4	822
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	25'-7	308	8	25'-7	308	8	25'-7	308	8	25'-7	308
SLAB LONGITUDINAL TOP, AT RAIL		10b9	8	27'-3	939	8	27'-3	939	8	27'-3	939	8	27'-3	939
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	21'-0	127	4	21'-0	127	4	21'-0	127	4	21'-0	127
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	29'-1	350	8	29'-1	350	8	29'-1	350	8	29'-1	350
SLAB LONGITUDINAL TOP, AT RAIL		10b12	8	19'-6	672	8	19'-6	672	8	19'-6	672	8	19'-6	672
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.					55,665			56,111			56,741			57,650
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			62,319			62,765			63,395			64,304
		WITH OPEN RAIL			62,271			62,717			63,347			64,256
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			60,796			61,206			61,593			62,245
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			60,748			61,158			61,545			62,197

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.	62,319	62,765	63,395	64,304	60,796	61,206	61,593	62,245
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.	62,271	62,717	63,347	64,256	60,748	61,158	61,545	62,197

* 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

EPOXY COATED REINFORCING

J30-11E-06