BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 110' BRIDGE

LOCATION \ SKEW	SHAPE	0° 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'-3	2526	39	24'-3	2526	39	24'-3	2526	39	24'-3	2526
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	31'-9	4318	40	31'-9	4318	40	31'-9	4318	40	31'-9	4318
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	39'-3	1068	8	39'-3	1068	8	39'-3	1068	8	39'-3	1068
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	23'-9	508	8	23'-9	508	8	23'-9	508	8	23'-9	508
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	13'-0	1354	39	13'-0	1354	39	13'-0	1354	39	13'-0	1354
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	21'-5	1708	39	21'-5	1708	39	21'-5	1708	39	21'-5	1708
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	26'-9	322	8	26'-9	322	8	26'-9	322	8	26'-9	322
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	30'-3	364	8	30'-3	364	8	30'-3	364	8	30'-3	364
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	94	32'-10	4636	80	32'-10	3946
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486
SLAB TRANSVERSE, TOP		5d1	107	32'-10	3665	107	34'-0	3795	94	32'-10	3220	80	32'-10	2740
SLAB TRANSVERSE ENDS, TOP		5d2	-	-	-	-	-	-	30	VARIES	553	56	VARIES	1032
SLAB, TRANSVERSE AT ABUTMENT		8e1	18	32'-10	1578	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	18	33'-11	1631	18	37'-6	1803	18	45'-4	2179
SLAB, HAIRPINS, AT ABUTMENT		6e3	72	5'-0	541	72	5'-1	550	72	5'-5	586	72	6'-1	658
SLAB, DIAGONALS, AT ABUTMENT		6e4	72	5'-11	640	72	5'-11	640	72	5'-11	640	72	5'-11	640
PIER CAP HOOPS		5h1	54	7'-7	428	54	7'-7	428	54	7'-7	428	72	7'-7	570
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	40	4'-5	185	40	4'-5	185	40	4'-5	185	40	4'-5	185
WING, HORIZONTAL BACK FACE		5n1	24	6'-8	167	24	6'-8	167	24	6'-8	167	24	6'-8	167
WING, HORIZONTAL TRAFFIC FACE		5n3	24	6'-9	169	24	6'-9	169	24	6'-9	169	24	6'-9	169
** PAVING BLOCK LIFTING HOOPS		5x1	10	2'-10	30	10	2'-10	30	10	2'-10	30	10	2'-10	30
SUB TOTAL - LBS.					55,709			56,125			56,395			57,222
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					6962			6962			6962			6962
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					7261			7261			7261			7261
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			62,671			63,087			63,357			64,184
		WITH OPEN RAIL			62,970			63,386			63,656			64,483
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			61,100			61,480			61,634			62,062
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			61,399			61,779			61,933			62,361

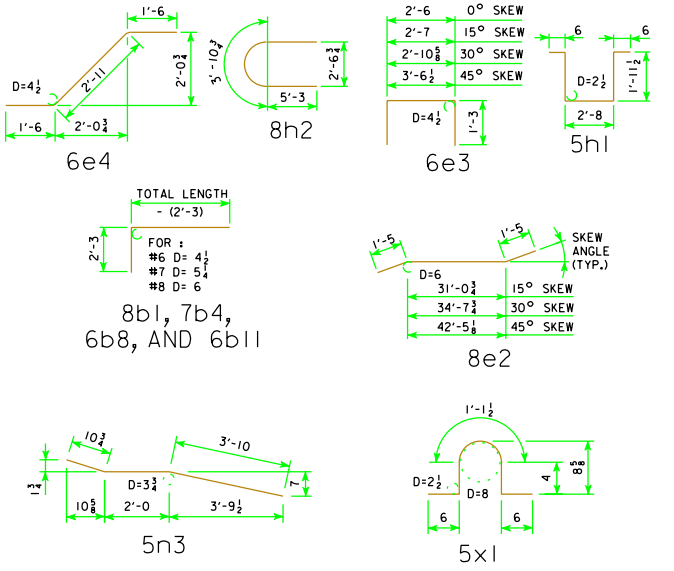
** BARS MAY BE NON-COATED AT CONTRACTOR'S OPTION.

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.	234.5	235.2	238.0	243.7	229.9	230.5	232.7	237.3
	REINFORCING STEEL EPOXY COATED	LBS.	62,671	63,087	63,357	64,184	61,100	61,480	61,634	62,062
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.	234.3	235.0	237.8	243.5	229.7	230.3	232.5	237.1
	REINFORCING STEEL EPOXY COATED	LBS.	62,970	63,386	63,656	64,483	61,399	61,779	61,933	62,361

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH AND 2 TEMPORARY PAVING BLOCKS; EXCLUDES RAIL CONCRETE.

BENT BAR DETAILS



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

REVISED 07-09 - OPEN RAIL REINF. QTYS. CHANGED WHICH CHANGED TOTAL REINF. QTYS.

07-09
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