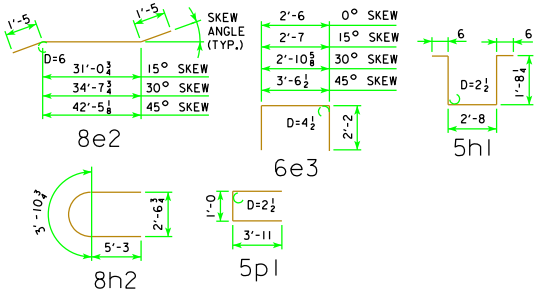
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 80' BRIDGE

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	19'-4	2013	39	19'-4	2013	39	19'-4	2013	39	19'-4	2013
SLAB LONGITUDINAL BOTTOM		8a2	39	27'-0	2812	39	27'-0	2812	39	27'-0	2812	39	27'-0	2812
SLAB LONGITUDINAL BOTTOM		8a3	39	29'-1	3028	39	29'-1	3028	39	29'-1	3028	39	29'-1	3028
SLAB LONGITUDINAL BOTTOM		7a4	40	24'-1	1969	40	24'-1	1969	40	24'-1	1969	40	24'-1	1969
SLAB LONGITUDINAL BOTTOM		7a5	20	24'-6	1002	20	24'-6	1002	20	24'-6	1002	20	24'-6	1002
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a6	8	29'-10	488	8	29'-10	488	8	29'-10	488	8	29'-10	488
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a7	4	29'-4	240	4	29'-4	240	4	29'-4	240	4	29'-4	240
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	21'-10	466	8	21'-10	466	8	21'-10	466	8	21'-10	466
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	25'-6	272	4	25'-6	272	4	25'-6	272	4	25'-6	272
SLAB LONGITUDINAL TOP		6b1	39	18'-4	1074	39	18'-4	1074	39	18'-4	1074	39	18'-4	1074
SLAB LONGITUDINAL TOP		9b2	39	21'-9	2884	39	21'-9	2884	39	21'-9	2884	39	21'-9	2884
SLAB LONGITUDINAL TOP		9b3	39	30'-10	4089	39	30'-10	4089	39	30'-10	4089	39	30'-10	4089
SLAB LONGITUDINAL TOP		6b4	40	6'-4	381	40	6'-4	381	40	6'-4	381	40	6'-4	381
SLAB LONGITUDINAL TOP		8b5	40	21'-3	2270	40	21'-3	2270	40	21'-3	2270	40	21'-3	2270
SLAB LONGITUDINAL TOP		6b6	20	16'-4	491	20	16'-4	491	20	16'-4	491	20	16'-4	491
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	24'-4	292	8	24'-4	292	8	24'-4	292	8	24'-4	292
SLAB LONGITUDINAL TOP, AT RAIL		9b9	8	23'-6	639	8	23'-6	639	8	23'-6	639	8	23'-6	639
SLAB LONGITUDINAL TOP, AT RAIL		8b10	8	32'-10	701	8	32'-10	701	8	32'-10	701	8	32'-10	701
SLAB TRANSVERSE, BOTTOM		6c1	77	32'-10	3797	77	34'-0	3932	66	32'-10	3255	54	32'-10	2663
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	28	VARIES	800	52	VARIES	1426
SLAB TRANSVERSE, TOP		5d1	77	32'-10	2637	77	34'-0	2731	66	32'-10	2260	54	32'-10	1849
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'-1	355	48	7'-1	355	60	7'-1	443	72	7'-1	532
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	152	8'-6	1348	152	8'-6	1348	152	8'-6	1348	150	8'-6	1330
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.					37,631			37,988			38,669			39,667
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					5156			5156			5156			5156
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					5376			5376			5376			5376
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			42,787			43,144			43,824			44,823
		WITH OPEN RAIL			43,007			43,364			44,044			45,043
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			41,290			41,612			42,087			42,739
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			41,510			41,832			42,307			42,959

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 80' 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.	158.7	159.7	163.3	171.2	153.7	154.6	157.7	164.3
	REINFORCING STEEL EPOXY COATED	LBS.	42,787	43,144	43,824	44,823	41,290	41,612	42,087	42,739
	CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	182.0	182.2	182.9	184.5	182.0	182.2	182.9	184.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	158.5	159.6	163.2	171.0	153.5	154.5	157.5	164.2
	REINFORCING STEEL EPOXY COATED	LBS.	43,007	43,364	44,044	45,043	41,510	41,832	42,307	42,959

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

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
80'-0 BRIDGE

EPOXY COATED REINFORCING

J30-05E-06

REVISED 12-07 - OPEN RAIL REINFORCING QUANTITY CHANGED