BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 70′ 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		7a1	39	16′-0	1276	39	16′-0	1276	39	16′-0	1276	39	16′-0	1276
SLAB LONGITUDINAL BOTTOM		8a2	39	25′-0	2604	39	25′-0	2604	39	25′-0	2604	39	25′-0	2604
SLAB LONGITUDINAL BOTTOM		7a3	39	24′-3	1934	39	24′-3	1934	39	24′-3	1934	39	24′-3	1934
SLAB LONGITUDINAL BOTTOM		8a4	40	20′-9	2217	40	20′-9	2217	40	20′-9	2217	40	20′-9	2217
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a5	20	22′-0	900	20	22′-0	900	20	22′-0	900	20	22′-0	900
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a6	8	24′-9	405	8	24′-9	405	8	24′-9	405	8	24′-9	405
SLAB LONGITUDINAL BOTTOM, AT RAIL		7a7	4	27′-4	224	4	27′-4	224	4	27′-4	224	4	27′-4	224
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a8	8	18′-3	390	8	18′-3	390	8	18′-3	390	8	18′-3	390
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	4	23′-6	251	4	23′-6	251	4	23′-6	251	4	23′-6	251
SLAB LONGITUDINAL TOP		6b1	39	9′-0	528	39	9′-0	528	39	9′-0	528	39	9′-0	528
SLAB LONGITUDINAL TOP		8b2	39	18′-3	1901	39	18′-3	1901	39	18′-3	1901	39	18′-3	1901
SLAB LONGITUDINAL TOP		8b3	39	27′-6	2864	39	27′-6	2864	39	27′-6	2864	39	27′-6	2864
SLAB LONGITUDINAL TOP		7b4	40	22′-3	1820	40	22′-3	1820	40	22′-3	1820	40	22′-3	1820
SLAB LONGITUDINAL TOP		8b5	40	12′-6	1335	40	12′-6	1335	40	12′-6	1335	40	12′-6	1335
SLAB LONGITUDINAL TOP		6b6	20	20′-4	611	20	20′-4	611	20	20′-4	611	20	20′-4	611
SLAB LONGITUDINAL TOP, AT RAIL		8b8	8	40′-0	855	8	40′-0	855	8	40′-0	855	8	40′-0	855
SLAB LONGITUDINAL TOP, AT RAIL		8b9	8	30′-0	641	8	30′-0	641	8	30′-0	641	8	30′-0	641
SLAB TRANSVERSE, BOTTOM		6c1	67	32′-10	3305	67	34′-0	3422	54	32′-10	2664	40	32′-10	1973
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486
SLAB TRANSVERSE, TOP		5d1	67	32′-10	2295	67	34′-0	2376	54	32′-10	1850	40	32′-10	1370
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	48	6′-11	347	48	6′-11	347	60	6′-11	433	72	6′-11	520
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	132	8′-6	1171	132	8′-6	1171	132	8′-6	1171	130	8′-6	1153
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.					32,327			32,623			33,099			33,870
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					4957			4957			4957			4957
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					5100			5100			5100			5100
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			37,284			37,580			38,056			38,827
		WITH OPEN RAIL			37,427			37,723			38,199			38,970
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			35,794			36,054			36,328			36,755
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			35,937			36,197			36,471			36,898

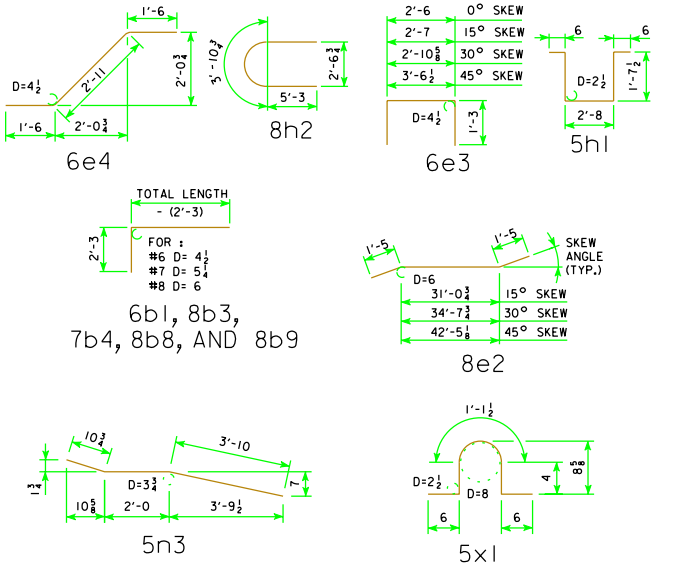
** BARS MAY BE NON-COATED AT CONTRACTOR'S OPTION.

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 70′ 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.	131.2	132.0	134.9	141.0	126.6	127.3	129.6	134.6
	REINFORCING STEEL EPOXY COATED	LBS.	37,284	37,580	38,056	38,827	35,794	36,054	36,328	36,755
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	162.0	162.2	162.9	164.5	162.0	162.2	162.9	164.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	131.1	131.9	134.8	140.8	125.5	127.1	129.5	134.5
	REINFORCING STEEL EPOXY COATED	LBS.	37,427	37,723	38,199	38,970	35,937	36,197	36,471	36,898

* 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
70′-0 BRIDGE

EPOXY COATED REINFORCING

J30-03E-06