

**BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 90' BRIDGE**

LOCATION	SKEW	SHAPE	BAR NO.	0°		15°		30°		45°					
				LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			8a1	39	20'-0	2083	39	20'-0	2083	39	20'-0	2083			
SLAB LONGITUDINAL BOTTOM			8a2	39	30'-3	3150	39	30'-3	3150	39	30'-3	3150			
SLAB LONGITUDINAL BOTTOM			8a3	39	28'-6	2968	39	28'-6	2968	39	28'-6	2968			
SLAB LONGITUDINAL BOTTOM			8a4	40	25'-6	2724	40	25'-6	2724	40	25'-6	2724			
SLAB LONGITUDINAL BOTTOM			8a5	20	28'-0	1496	20	28'-0	1496	20	28'-0	1496			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a6	8	32'-3	689	8	32'-3	689	8	32'-3	689			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a7	4	34'-4	367	4	34'-4	367	4	34'-4	367			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a8	8	22'-9	486	8	22'-9	486	8	22'-9	486			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	4	21'-0	225	4	21'-0	225	4	21'-0	225			
SLAB LONGITUDINAL TOP			6b1	39	8'-0	469	39	8'-0	469	39	8'-0	469			
SLAB LONGITUDINAL TOP			9b2	39	22'-9	3017	39	22'-9	3017	39	22'-9	3017			
SLAB LONGITUDINAL TOP			9b3	39	35'-0	4641	39	35'-0	4641	39	35'-0	4641			
SLAB LONGITUDINAL TOP			6b4	40	13'-0	782	40	13'-0	782	40	13'-0	782			
SLAB LONGITUDINAL TOP			9b5	40	27'-6	3740	40	27'-6	3740	40	27'-6	3740			
SLAB LONGITUDINAL TOP			6b6	20	16'-10	506	20	16'-10	506	20	16'-10	506			
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8	26'-0	313	8	26'-0	313	8	26'-0	313			
SLAB LONGITUDINAL TOP, AT RAIL			9b9	8	19'-6	531	8	19'-6	531	8	19'-6	531			
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	18'-0	109	4	18'-0	109	4	18'-0	109			
SLAB LONGITUDINAL TOP, AT RAIL			6b11	8	28'-6	343	8	28'-6	343	8	28'-6	343			
SLAB LONGITUDINAL TOP, AT RAIL			10b12	8	13'-3	457	8	13'-3	457	8	13'-3	457			
SLAB TRANSVERSE, BOTTOM			6c1	87	32'-10	4291	87	34'-0	4443	74	32'-10	3650			
SLAB TRANSVERSE ENDS, BOTTOM			6c2	-	-	-	-	-	30	VARIES	797	56	VARIES	1486	
SLAB TRANSVERSE, TOP			5d1	87	32'-10	2980	87	34'-0	3086	74	32'-10	2535	60	32'-10	2055
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	56	7'-3	424	56	7'-3	424	56	7'-3	424	70	7'-3	530
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	172	8'-6	1525	172	8'-6	1525	172	8'-6	1525	170	8'-6	1508
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.						42,769		43,125		43,455		44,246			
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06						5950		5950		5950		5950			
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06						6330		6330		6330		6330			
TOTAL - LBS.						48,719		49,075		49,405		50,196			
						49,099		49,455		49,785		50,576			
TOTAL - LBS.						47,152		47,472		47,686		48,114			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED						47,532		47,852		48,066		48,494			

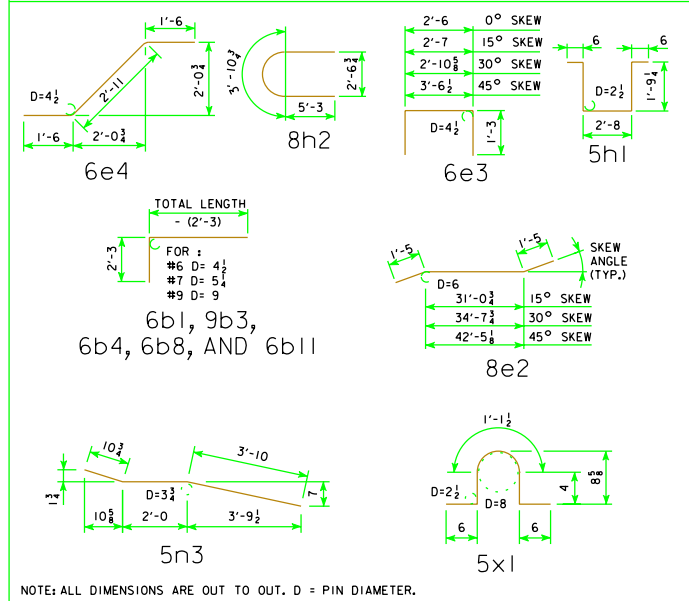
\*\* BARS MAY BE NON-COATED AT CONTRACTOR'S OPTION.

**ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 90' BRIDGE**

ITEM	SKEW	WITH MONOLITHIC PIER CAP				WITH NON-MONOLITHIC PIER CAP			
		0°	15°	30°	45°	0°	15°	30°	45°
WITH *STRUCTURAL CONCRETE (BRIDGE) C.Y.		176.5	177.3	180.1	186.1	171.9	172.5	174.9	179.7
BARRIER RAIL REINFORCING STEEL EPOXY COATED LBS.		48,719	49,075	49,405	50,196	47,152	47,472	47,686	48,114
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		202.0	202.2	202.9	204.5	202.0	202.2	202.9	204.5
WITH *STRUCTURAL CONCRETE (BRIDGE) C.Y.		176.3	177.1	180.0	185.9	171.7	172.4	174.7	179.5
OPEN RAIL REINFORCING STEEL EPOXY COATED LBS.		49,099	49,455	49,785	50,576	47,532	47,852	48,066	48,494

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

**BENT BAR DETAILS**



07-09 LATEST REVISION DATE	M. C. M. M. M. APPROVED BY BRIDGE ENGINEER	<p><b>Iowa Department of Transportation</b> Highway Division</p>
		<p>STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES</p> <p><b>CONTINUOUS CONCRETE</b> <b>SLAB BRIDGES</b></p> <p>NOVEMBER, 2006</p>
		<p>SUPERSTRUCTURE DETAILS 90'-0 BRIDGE</p>
EPOXY COATED REINFORCING		

REVISED 07-09 - OPEN RAIL REINF. QTY'S. CHANGED WHICH CHANGED TOTAL REINF. QTY'S.