

REVISED 07-2009; OPEN RAIL REINF. QTY'S CHANGED WHICH CHANGED TOTAL REINF. QTY'S.
REVISED 09-2020; UPDATED BRIDGE ENGINEER SIGNATURE. CHANGED PAVING BLOCK LIFTING HOOP BAR MARK WAS 5X11.

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 130' BRIDGE

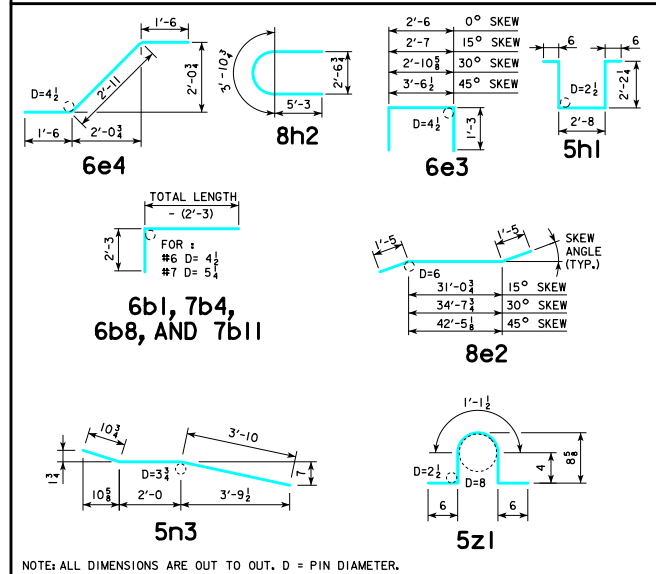
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM		9a1	39	27'-6"	3647	39	27'-6"	3647	39	27'-6"	3647	39	27'-6"	3647	39	27'-6"	3647	
SLAB LONGITUDINAL BOTTOM		9a2	39	42'-0"	5570	39	42'-0"	5570	39	42'-0"	5570	39	42'-0"	5570	39	42'-0"	5570	
SLAB LONGITUDINAL BOTTOM		9a3	39	38'-9"	5139	39	38'-9"	5139	39	38'-9"	5139	39	38'-9"	5139	39	38'-9"	5139	
SLAB LONGITUDINAL BOTTOM		9a4	40	31'-6"	4284	40	31'-6"	4284	40	31'-6"	4284	40	31'-6"	4284	40	31'-6"	4284	
SLAB LONGITUDINAL BOTTOM		10a5	20	38'-0"	3271	20	38'-0"	3271	20	38'-0"	3271	20	38'-0"	3271	20	38'-0"	3271	
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	36'-10"	1002	8	36'-10"	1002	8	36'-10"	1002	8	36'-10"	1002	8	36'-10"	1002	
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	8	13'-0"	354	8	13'-0"	354	8	13'-0"	354	8	13'-0"	354	8	13'-0"	354	
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a8	4	45'-2"	615	4	45'-2"	615	4	45'-2"	615	4	45'-2"	615	4	45'-2"	615	
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	8	30'-3"	647	8	30'-3"	647	8	30'-3"	647	8	30'-3"	647	8	30'-3"	647	
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a10	4	26'-4"	359	4	26'-4"	359	4	26'-4"	359	4	26'-4"	359	4	26'-4"	359	
SLAB LONGITUDINAL TOP		6b1	39	7'-6"	440	39	7'-6"	440	39	7'-6"	440	39	7'-6"	440	39	7'-6"	440	
SLAB LONGITUDINAL TOP		11b2	39	26'-3"	5440	39	26'-3"	5440	39	26'-3"	5440	39	26'-3"	5440	39	26'-3"	5440	
SLAB LONGITUDINAL TOP		11b3	39	28'-0"	5802	39	28'-0"	5802	39	28'-0"	5802	39	28'-0"	5802	39	28'-0"	5802	
SLAB LONGITUDINAL TOP		7b4	39	24'-2"	1927	39	24'-2"	1927	39	24'-2"	1927	39	24'-2"	1927	39	24'-2"	1927	
SLAB LONGITUDINAL TOP		10b5	40	23'-6"	4045	40	23'-6"	4045	40	23'-6"	4045	40	23'-6"	4045	40	23'-6"	4045	
SLAB LONGITUDINAL TOP		6b6	20	35'-6"	1067	20	35'-6"	1067	20	35'-6"	1067	20	35'-6"	1067	20	35'-6"	1067	
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	30'-11"	372	8	30'-11"	372	8	30'-11"	372	8	30'-11"	372	8	30'-11"	372	
SLAB LONGITUDINAL TOP, AT RAIL		11b9	8	30'-3"	1286	8	30'-3"	1286	8	30'-3"	1286	8	30'-3"	1286	8	30'-3"	1286	
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	24'-4"	147	4	24'-4"	147	4	24'-4"	147	4	24'-4"	147	4	24'-4"	147	
SLAB LONGITUDINAL TOP, AT RAIL		7b11	8	35'-11"	588	8	35'-11"	588	8	35'-11"	588	8	35'-11"	588	8	35'-11"	588	
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	21'-3"	904	8	21'-3"	904	8	21'-3"	904	8	21'-3"	904	8	21'-3"	904	
SLAB TRANSVERSE, BOTTOM		6c1	127	32'-10"	6264	127	34'-0"	6486	114	32'-10"	5622	100	32'-10"	4932				
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486				
SLAB TRANSVERSE, TOP		5d1	127	32'-10"	4350	127	34'-0"	4504	114	32'-10"	3904	100	32'-10"	3425				
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	7	5'-11"	640				
PIER CAP HOOPS		5h1	44	8'-1"	371	44	8'-1"	371	44	8'-1"	371	66	8'-1"	557				
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	252	8'-6"	2235	252	8'-6"	2235	252	8'-6"	2235	250	8'-6"	2217				
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		5z1	10	2'-10"	30	10	2'-10"	30	10	2'-10"	30	10	2'-10"	30				
SUB TOTAL - LBS.					64,579			65,053			65,263			66,135				
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					8054			8054			8054			8054				
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					8573			8573			8573			8573				
TOTAL - LBS.		WITH MONOLITHIC PIER CAP			72,636			73,107			73,317			74,189				
		WITH OPEN RAIL			73,152			73,626			73,836			74,708				
TOTAL - LBS.		WITH NON-MONOLITHIC PIER CAP			71,119			71,557			71,651			72,080				
SAME AS ABOVE EXCEPT ALL "H" BARS DELETED		WITH OPEN RAIL			71,638			72,076			72,170			72,599				

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 130' 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.		308.1	308.9	311.5	317.0	303.5	304.1	306.2	310.7
BARRIER RAIL REINFORCING STEEL LBS.		72,636	73,107	73,317	74,189	71,119	71,557	71,651	72,080
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		282.0	282.2	282.9	284.5	282.0	282.2	282.9	284.5
WITH STRUCTURAL CONCRETE (BRIDGE) C.Y.		307.9	308.6	311.3	316.8	303.3	303.9	306.0	310.4
OPEN RAIL REINFORCING STEEL LBS.		73,152	73,626	73,836	74,708	71,638	72,076	72,170	72,599

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

BENT BAR DETAILS



08-2020 LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER	IOWA DOT Highway Division	
		STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES	
		CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006	
SUPERSTRUCTURE DETAILS 130'-0' BRIDGE		J30-15B-06	
NON-EPOXY COATED REINFORCING			