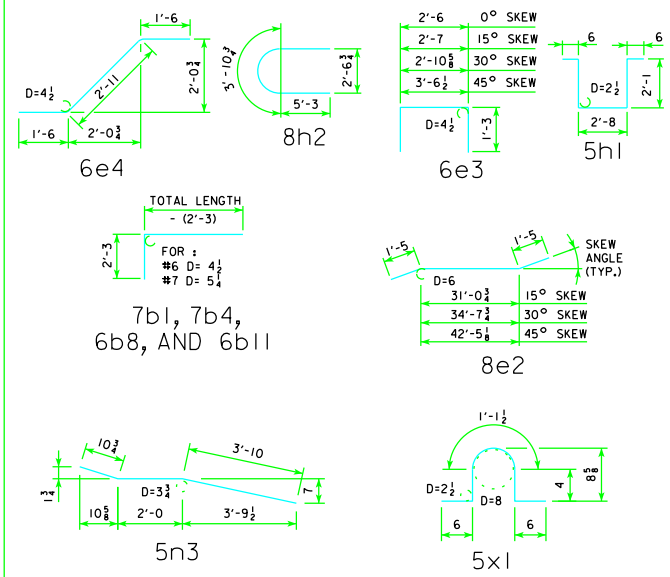
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 120' BRIDGE

LOCATION	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		9a1	39	25'-9	3415	39	25'-9	3415	39	25'-9	3415	39	25'-9	3415
SLAB LONGITUDINAL BOTTOM		9a2	39	38'-9	5139	39	38'-9	5139	39	38'-9	5139	39	38'-9	5139
SLAB LONGITUDINAL BOTTOM		9a3	39	36'-2	4796	39	36'-2	4796	39	36'-2	4796	39	36'-2	4796
SLAB LONGITUDINAL BOTTOM		8a4	40	28'-3	3018	40	28'-3	3018	40	28'-3	3018	40	28'-3	3018
SLAB LONGITUDINAL BOTTOM		9a5	20	34'-0	2312	20	34'-0	2312	20	34'-0	2312	20	34'-0	2312
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	34'-4	934	8	34'-4	934	8	34'-4	934	8	34'-4	934
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	8	12'-0	327	8	12'-0	327	8	12'-0	327	8	12'-0	327
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a8	4	42'-2	574	4	42'-2	574	4	42'-2	574	4	42'-2	574
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	8	24'-6	524	8	24'-6	524	8	24'-6	524	8	24'-6	524
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a10	4	23'-6	251	4	23'-6	251	4	23'-6	251	4	23'-6	251
SLAB LONGITUDINAL TOP		7b1	39	8'-6	678	39	8'-6	678	39	8'-6	678	39	8'-6	678
SLAB LONGITUDINAL TOP		10b2	39	27'-6	4615	39	27'-6	4615	39	27'-6	4615	39	27'-6	4615
SLAB LONGITUDINAL TOP		10b3	39	24'-9	4154	39	24'-9	4154	39	24'-9	4154	39	24'-9	4154
SLAB LONGITUDINAL TOP		7b4	39	23'-5	1867	39	23'-5	1867	39	23'-5	1867	39	23'-5	1867
SLAB LONGITUDINAL TOP		11b5	40	27'-9	5898	40	27'-9	5898	40	27'-9	5898	40	27'-9	5898
SLAB LONGITUDINAL TOP		6b6	20	30'-0	902	20	30'-0	902	20	30'-0	902	20	30'-0	902
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	29'-5	354	8	29'-5	354	8	29'-5	354	8	29'-5	354
SLAB LONGITUDINAL TOP, AT RAIL		10b9	8	27'-0	930	8	27'-0	930	8	27'-0	930	8	27'-0	930
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	23'-10	144	4	23'-10	144	4	23'-10	144	4	23'-10	144
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	31'-11	384	8	31'-11	384	8	31'-11	384	8	31'-11	384
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	21'-0	893	8	21'-0	893	8	21'-0	893	8	21'-0	893
SLAB TRANSVERSE, BOTTOM		6c1	117	32'-10	5770	117	34'-0	5975	104	32'-10	5129	90	32'-10	4439
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486
SLAB TRANSVERSE, TOP		5d1	117	32'-10	4007	117	34'-0	4150	104	32'-10	3562	90	32'-10	3083
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	40	7'-10	327	40	7'-10	327	60	7'-10	491	60	7'-10	491
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	232	8'-6	2057	232	8'-6	2057	232	8'-6	2057	230	8'-6	2040
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.					58,723			59,169			59,573			60,260
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					7456			7456			7456			7456
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					8142			8142			8142			8142
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			66,179			66,625			67,029			67,716
		WITH OPEN RAIL			66,865			67,311			67,715			68,402
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			64,709			65,119			65,243			65,673
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			65,395			65,805			65,929			66,359

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 120' 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.	271.4	272.1	274.8	280.4	266.8	267.4	269.6	274.1
	REINFORCING STEEL	LBS.	66,179	66,625	67,029	67,716	64,709	65,119	65,243	65,673
	CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	262.0	262.2	262.9	264.5	262.0	262.2	262.9	264.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	271.2	271.9	274.6	280.2	266.6	267.1	269.3	273.8
	REINFORCING STEEL	LBS.	66,865	67,311	67,715	68,402	65,395	65,805	65,929	66,359

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

REVISED 12-08 - REVISED SHEET FOR NEW PAVING NOTCH.
REVISED 12-07 - OPEN RAIL REINFORCING QUANTITY CHANGED

12-08
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
120'-0 BRIDGE

NON-EPOXY COATED REINFORCING

J30-13B-06