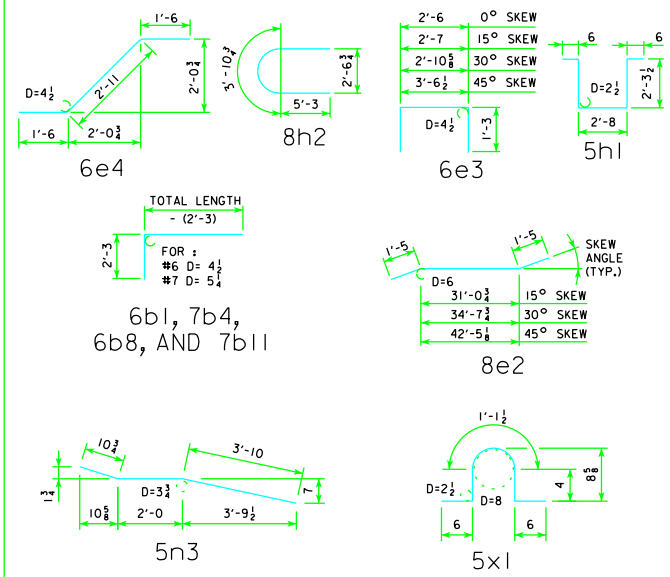
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 140' BRIDGE

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	29'-3	3879	39	29'-3	3879	39	29'-3	3879	39	29'-3	3879
SLAB LONGITUDINAL BOTTOM		10a2	39	45'-4	7608	39	45'-4	7608	39	45'-4	7608	39	45'-4	7608
SLAB LONGITUDINAL BOTTOM		9a3	39	41'-3	5470	39	41'-3	5470	39	41'-3	5470	39	41'-3	5470
SLAB LONGITUDINAL BOTTOM		10a4	40	33'-9	5810	40	33'-9	5810	40	33'-9	5810	40	33'-9	5810
SLAB LONGITUDINAL BOTTOM		9a5	20	40'-6	2754	20	40'-6	2754	20	40'-6	2754	20	40'-6	2754
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	39'-10	1084	8	39'-10	1084	8	39'-10	1084	8	39'-10	1084
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	8	13'-0	354	8	13'-0	354	8	13'-0	354	8	13'-0	354
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a8	4	49'-2	669	4	49'-2	669	4	49'-2	669	4	49'-2	669
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a9	8	33'-0	898	8	33'-0	898	8	33'-0	898	8	33'-0	898
SLAB LONGITUDINAL BOTTOM, AT RAIL		10a10	4	29'-8	511	4	29'-8	511	4	29'-8	511	4	29'-8	511
SLAB LONGITUDINAL TOP		6b1	39	7'-6	440	39	7'-6	440	39	7'-6	440	39	7'-6	440
SLAB LONGITUDINAL TOP		11b2	39	23'-6	4870	39	23'-6	4870	39	23'-6	4870	39	23'-6	4870
SLAB LONGITUDINAL TOP		11b3	39	29'-3	6061	39	29'-3	6061	39	29'-3	6061	39	29'-3	6061
SLAB LONGITUDINAL TOP		7b4	39	25'-11	2066	39	25'-11	2066	39	25'-11	2066	39	25'-11	2066
SLAB LONGITUDINAL TOP		11b5	40	26'-6	5632	40	26'-6	5632	40	26'-6	5632	40	26'-6	5632
SLAB LONGITUDINAL TOP		6b6	20	36'-0	1082	20	36'-0	1082	20	36'-0	1082	20	36'-0	1082
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	33'-5	402	8	33'-5	402	8	33'-5	402	8	33'-5	402
SLAB LONGITUDINAL TOP, AT RAIL		11b9	8	31'-6	1339	8	31'-6	1339	8	31'-6	1339	8	31'-6	1339
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	26'-10	162	4	26'-10	162	4	26'-10	162	4	26'-10	162
SLAB LONGITUDINAL TOP, AT RAIL		7b11	8	38'-8	633	8	38'-8	633	8	38'-8	633	8	38'-8	633
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	21'-9	925	8	21'-9	925	8	21'-9	925	8	21'-9	925
SLAB TRANSVERSE, BOTTOM		6c1	137	32'-10	6757	137	34'-0	6997	124	32'-10	6116	110	32'-10	5425
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486
SLAB TRANSVERSE, TOP		5d1	137	32'-10	4692	137	34'-0	4859	124	32'-10	4247	110	32'-10	3767
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	44	8'-3	379	44	8'-3	379	44	8'-3	379	66	8'-3	568
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	272	8'-6	2412	272	8'-6	2412	272	8'-6	2412	270	8'-6	2394
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.					71,342			71,847			72,028			72,901
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					8522			8522			8522			8522
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					9138			9138			9138			9138
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			79,864			80,369			80,550			81,423
		WITH OPEN RAIL			80,480			80,985			81,166			82,039
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			78,342			78,811			78,876			79,303
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			78,958			79,427			79,492			79,919

BENT BAR DETAILS



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

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 140' 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.	347.4	348.1	350.7	356.2	342.8	343.4	345.5	349.8
	REINFORCING STEEL	LBS.	79,864	80,369	80,550	81,423	78,342	78,811	78,876	79,303
	CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	302.0	302.2	302.9	304.5	302.0	302.2	302.9	304.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	347.2	347.9	350.5	355.9	342.6	343.1	345.2	349.5
	REINFORCING STEEL	LBS.	80,480	80,985	81,166	82,039	78,958	79,427	79,492	79,919

* 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
140'-0 BRIDGE

NON-EPOXY COATED REINFORCING

J30-17B-06