

REVISED 09-14 - CHANGED REFERENCE TO THE BARRIER RAIL & OPEN RAIL TO THE J44-14 STANDARDS INSTEAD OF J44-06 STANDARDS.

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 130' BRIDGE

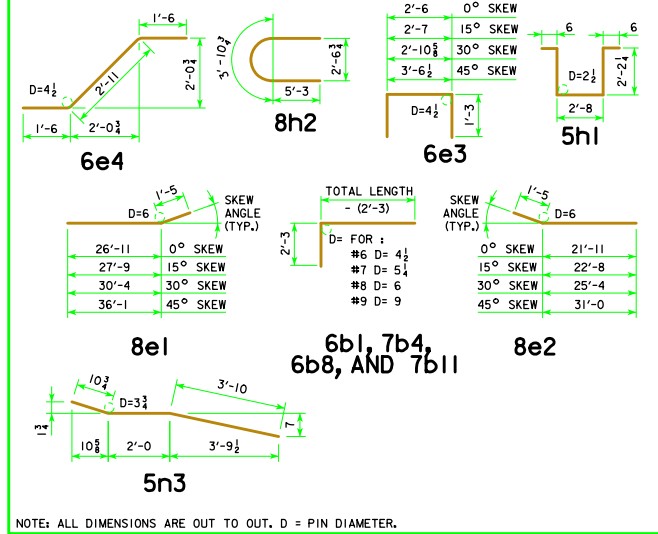
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR NO.	LENGTH	WEIGHT		BAR NO.	LENGTH	WEIGHT		BAR NO.	LENGTH	WEIGHT		BAR NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			9a1	58	28'-9	5670	58	28'-9	5670	58	28'-9	5670	58	28'-9	5670	58	28'-9	5670
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a2	58	44'-6	8776	58	44'-6	8776	58	44'-6	8776	58	44'-6	8776	58	44'-6	8776
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a3	58	41'-3	8135	58	41'-3	8135	58	41'-3	8135	58	41'-3	8135	58	41'-3	8135
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a4	58	32'-9	6459	58	32'-9	6459	58	32'-9	6459	58	32'-9	6459	58	32'-9	6459
SLAB LONGITUDINAL BOTTOM, AT RAIL			10a5	29	41'-0	5117	29	41'-0	5117	29	41'-0	5117	29	41'-0	5117	29	41'-0	5117
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a6	8	38'-7	1050	8	38'-7	1050	8	38'-7	1050	8	38'-7	1050	8	38'-7	1050
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	48'-8	662	4	48'-8	662	4	48'-8	662	4	48'-8	662	4	48'-8	662
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	8	31'-3	668	8	31'-3	668	8	31'-3	668	8	31'-3	668	8	31'-3	668
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a10	4	29'-0	395	4	29'-0	395	4	29'-0	395	4	29'-0	395	4	29'-0	395
SLAB LONGITUDINAL TOP			6b1	58	7'-9	676	58	7'-9	676	58	7'-9	676	58	7'-9	676	58	7'-9	676
SLAB LONGITUDINAL TOP			11b2	58	28'-9	8860	58	28'-9	8860	58	28'-9	8860	58	28'-9	8860	58	28'-9	8860
SLAB LONGITUDINAL TOP			11b3	58	30'-6	9399	58	30'-6	9399	58	30'-6	9399	58	30'-6	9399	58	30'-6	9399
SLAB LONGITUDINAL TOP			7b4	58	23'-9	2816	58	23'-9	2816	58	23'-9	2816	58	23'-9	2816	58	23'-9	2816
SLAB LONGITUDINAL TOP			10b5	58	25'-6	6365	58	25'-6	6365	58	25'-6	6365	58	25'-6	6365	58	25'-6	6365
SLAB LONGITUDINAL TOP			6b6	29	34'-4	1496	29	34'-4	1496	29	34'-4	1496	29	34'-4	1496	29	34'-4	1496
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8	30'-3	364	8	30'-3	364	8	30'-3	364	8	30'-3	364	8	30'-3	364
SLAB LONGITUDINAL TOP, AT RAIL			11b9	8	32'-9	1393	8	32'-9	1393	8	32'-9	1393	8	32'-9	1393	8	32'-9	1393
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	23'-0	139	4	23'-0	139	4	23'-0	139	4	23'-0	139	4	23'-0	139
SLAB LONGITUDINAL TOP, AT RAIL			7b11	8	35'-6	581	8	35'-6	581	8	35'-6	581	8	35'-6	581	8	35'-6	581
SLAB LONGITUDINAL TOP, AT RAIL			11b12	8	23'-9	1010	8	23'-9	1010	8	23'-9	1010	8	23'-9	1010	8	23'-9	1010
SLAB TRANSVERSE BOTTOM			6c1	127	25'-5	4849	127	26'-4	5024	116	25'-5	4429	106	25'-5	4047			
SLAB TRANSVERSE BOTTOM			6c2	127	23'-3	4436	127	24'-1	4594	118	23'-3	4121	109	23'-3	3807			
SLAB TRANSVERSE ENDS, BOTTOM			6c3	-	-	-	-	-	-	14	VARIES	303	22	VARIES	485			
SLAB TRANSVERSE ENDS, BOTTOM			6c4	-	-	-	-	-	-	12	VARIES	255	22	VARIES	458			
SLAB TRANSVERSE ENDS, BOTTOM			6c5	-	-	-	-	-	-	12	VARIES	208	20	VARIES	366			
SLAB TRANSVERSE ENDS, BOTTOM			6c6	-	-	-	-	-	-	12	VARIES	227	19	VARIES	376			
SLAB TRANSVERSE TOP			5d1	127	25'-9	3411	127	26'-8	3533	116	25'-9	3116	106	25'-9	2847			
SLAB TRANSVERSE TOP			5d2	127	23'-3	3080	127	24'-1	3191	118	23'-3	2862	109	23'-3	2644			
SLAB TRANSVERSE ENDS, TOP			5d3	-	-	-	-	-	-	14	VARIES	210	22	VARIES	337			
SLAB TRANSVERSE ENDS, TOP			5d4	-	-	-	-	-	-	12	VARIES	177	22	VARIES	318			
SLAB TRANSVERSE ENDS, TOP			5d5	-	-	-	-	-	-	12	VARIES	144	20	VARIES	254			
SLAB TRANSVERSE ENDS, TOP			5d6	-	-	-	-	-	-	12	VARIES	158	19	VARIES	261			
SLAB TRANSVERSE AT ABUTMENT			8e1	18	28'-4	1362	18	29'-2	1402	18	31'-9	1526	18	37'-6	1803			
SLAB TRANSVERSE AT ABUTMENT			8e2	18	23'-4	1122	18	24'-1	1158	18	26'-9	1286	18	32'-5	1558			
SLAB, HAIRPINS, AT ABUTMENT			6e3	100	5'-0	751	100	5'-1	764	100	5'-5	814	100	6'-1	914			
SLAB, DIAGONALS, AT ABUTMENT			6e4	100	5'-11	889	100	5'-11	889	100	5'-11	889	100	5'-11	889			
PIER CAP HOOPS			5h1	60	8'-1	506	60	8'-1	506	90	8'-1	759	90	8'-1	759			
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	27'-5	586	8	28'-8	613	8	31'-8	677	8	37'-10	809			
PIER CAP, BOTTOM LONGITUDINAL			8h4	8	21'-11	469	8	22'-4	478	8	24'-6	524	8	29'-8	634			
PIER CAP, TOP LONGITUDINAL			8h5	4	28'-2	301	4	29'-6	316	4	32'-8	349	4	38'-11	416			
PIER CAP, TOP LONGITUDINAL			8h6	4	23'-5	251	4	23'-11	256	4	26'-3	281	4	31'-6	337			
TOP OF SLAB, TRANSVERSE, AT RAIL			5j1	252	8'-6	2235	252	8'-6	2235	246	8'-6	2181	244	8'-6	2164			
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			
SUB EPOXY COATED TOTAL - LBS.						95,308			96,019			96,556			97,543			
BARRIER RAIL - SEE LIST ON RAIL SHEET J44-46-14						5172			5172			5172			5172			
OPEN RAIL - SEE LIST ON RAIL SHEET J44-49-14						5628			5628			5628			5628			
EPOXY COATED RAIL TOTAL - LBS.			WITH MONOLITHIC PIER CAP			100,480			101,191			101,728			102,171			
EPOXY COATED RAIL TOTAL - LBS.			WITH BARRIER RAIL			98,213			98,868			98,984			99,606			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED			WITH OPEN RAIL			98,669			99,324			99,440			100,062			
STAINLESS STEEL RAIL TOTAL - LBS.			WITH BARRIER RAIL			2882			2882			2882			2882			
STAINLESS STEEL RAIL TOTAL - LBS.			WITH OPEN RAIL			2945			2945			2945			2945			

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 BARRIER RAIL																		
*STRUCTURAL CONCRETE (BRIDGE) C.Y.		435.0	436.0	439.5	447.1	428.6	429.4	432.2	438.2									
REINF. STEEL EPOXY COATED LBS.		100,480	101,191	101,728	102,715	98,213	98,868	98,984	99,606									
REINF. STEEL STAINLESS STEEL LBS.		2882	2882	2882	2882	2882	2882	2882	2882									
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		282.0	282.2	282.9	284.5	282.0	282.2	282.9	284.5									
WITH OPEN RAIL																		
*STRUCTURAL CONCRETE (BRIDGE) C.Y.		434.7	435.8	439.3	446.9	428.3	429.1	431.9	438.0									
REINF. STEEL EPOXY COATED LBS.		100,936	101,647	102,184	103,171	98,669	99,324	99,440	100,062									
REINF. STEEL STAINLESS STEEL LBS.		2945	2945	2945	2945	2945	2945	2945	2945									

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH; EXCLUDES RAIL CONCRETE.

BENT BAR DETAILS



NOTES:

ALL BARRIER RAIL REINFORCING STEEL IS TO BE EITHER EPOXY COATED OR STAINLESS STEEL AS SHOWN OR NOTED. THE STAINLESS STEEL REINFORCING STEEL SHALL BE DEFORMED BAR GRADE 60 MEETING THE REQUIREMENTS OF MATERIALS I.M.452.

ALL OTHER REINFORCING STEEL IS TO BE EPOXY COATED.

THE TRANSVERSE REBARS ARE DETAILED WITH A SPLICE LAP. AT THE CONTRACTOR'S OPTION, THIS LAP MAY BE ELIMINATED BY FURNISHING FULL LENGTH BARS WITH NO REDUCTION IN PAY WEIGHT FOR SAME.

09-14 LATEST REVISION DATE Approved by Bridge Engineer APPROVED BY BRIDGE ENGINEER	IOWA DOT Highway Division
	STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES JULY, 2014
	SUPERSTRUCTURE DETAILS 130'-0 BRIDGE
	J44-15-14