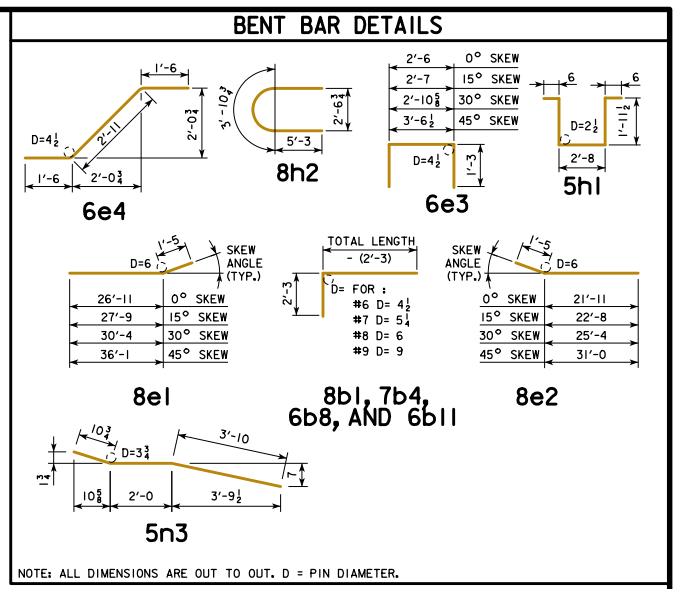


REVISED 09-14 - CHANGED REFERENCE TO THE BARRIER RAIL & OPEN RAIL TO THE J44-14 STANDARDS INSTEAD OF J44-06 STANDARDS.
 REVISED 03-2016 - REVISION FOR ADDITION OF PAVING NOTCH BAR 8u1.
 REVISED 04-2016 - REVISION TO INCLUDE PAVING NOTCH BAR 8u1 WEIGHT IN ESTIMATED QUANTITIES TABLE.

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 110' BRIDGE															
LOCATION	SKEW	SHAPE	0°		15°		30°		45°						
			BAR NO.	LENGTH	WEIGHT	BAR NO.	LENGTH	WEIGHT	BAR NO.	LENGTH	WEIGHT				
SLAB LONGITUDINAL BOTTOM			801	58	24'-3	3756	58	24'-3	3756	58	24'-3	3756			
SLAB LONGITUDINAL BOTTOM			902	58	38'-3	7543	58	38'-3	7543	58	38'-3	7543			
SLAB LONGITUDINAL BOTTOM			803	58	34'-3	5304	58	34'-3	5304	58	34'-3	5304			
SLAB LONGITUDINAL BOTTOM			904	58	31'-9	6262	58	31'-9	6262	58	31'-9	6262			
SLAB LONGITUDINAL BOTTOM			805	29	41'-0	3175	29	41'-0	3175	29	41'-0	3175			
SLAB LONGITUDINAL BOTTOM, AT RAIL			906	8	39'-3	1068	8	39'-3	1068	8	39'-3	1068			
SLAB LONGITUDINAL BOTTOM, AT RAIL			907	4	42'-8	581	4	42'-8	581	4	42'-8	581			
SLAB LONGITUDINAL BOTTOM, AT RAIL			808	8	23'-9	508	8	23'-9	508	8	23'-9	508			
SLAB LONGITUDINAL BOTTOM, AT RAIL			809	4	24'-0	257	4	24'-0	257	4	24'-0	257			
SLAB LONGITUDINAL TOP			801	58	13'-0	2014	58	13'-0	2014	58	13'-0	2014			
SLAB LONGITUDINAL TOP			10b2	58	28'-4	7072	58	28'-4	7072	58	28'-4	7072			
SLAB LONGITUDINAL TOP			10b3	58	25'-7	6385	58	25'-7	6385	58	25'-7	6385			
SLAB LONGITUDINAL TOP			7b4	58	21'-5	2539	58	21'-5	2539	58	21'-5	2539			
SLAB LONGITUDINAL TOP			10b5	58	26'-6	6614	58	26'-6	6614	58	26'-6	6614			
SLAB LONGITUDINAL TOP			6b6	29	27'-4	1191	29	27'-4	1191	29	27'-4	1191			
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8	26'-9	322	8	26'-9	322	8	26'-9	322			
SLAB LONGITUDINAL TOP, AT RAIL			10b9	8	27'-3	939	8	27'-3	939	8	27'-3	939			
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	21'-0	127	4	21'-0	127	4	21'-0	127			
SLAB LONGITUDINAL TOP, AT RAIL			6b11	8	30'-3	364	8	30'-3	364	8	30'-3	364			
SLAB LONGITUDINAL TOP, AT RAIL			10b12	8	19'-6	672	8	19'-6	672	8	19'-6	672			
SLAB TRANSVERSE BOTTOM			6c1	107	25'-5	4085	107	26'-4	4233	96	25'-5	3665			
SLAB TRANSVERSE BOTTOM			6c2	107	23'-3	3737	107	24'-1	3871	98	23'-3	3423			
SLAB TRANSVERSE ENDS, BOTTOM			6c3	-	-	-	-	-	14 VARIES	303	22 VARIES	495			
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	107	25'-9	2874	107	26'-8	2977	96	25'-9	2310			
SLAB TRANSVERSE TOP			5d2	107	23'-3	2595	107	24'-1	2688	98	23'-3	2159			
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			
SLAB TRANSVERSE AT ABUTMENT			8e2	18	23'-4	1122	18	24'-1	1158	18	26'-9	1286			
SLAB, HAIRPINS, AT ABUTMENT			6e3	100	5'-0	751	100	5'-1	764	100	5'-5	814			
SLAB, DIAGONALS, AT ABUTMENT			6e4	100	5'-11	889	100	5'-11	889	100	5'-11	889			
PIER CAP HOOPS			5h1	72	7'-7	570	72	7'-7	570	96	7'-7	760			
PIER CAP ENDS			8h2	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			
PIER CAP, BOTTOM LONGITUDINAL			8h4	8	21'-11	469	8	22'-4	478	8	24'-6	524			
PIER CAP, TOP LONGITUDINAL			8h5	4	28'-2	301	4	29'-6	316	4	32'-8	349			
PIER CAP, TOP LONGITUDINAL			8h6	4	23'-5	251	4	23'-11	256	4	26'-3	281			
TOP OF SLAB, TRANSVERSE, AT RAIL			5j1	212	8'-6	1880	212	8'-6	1880	206	8'-6	1827			
WING, VERTICAL			5m1	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			
WING, HORIZONTAL TRAFFIC FACE			5n3	24	6'-9	169	24	6'-9	169	24	6'-9	169			
SUB EPOXY COATED TOTAL - LBS.						78,840			79,463			80,027			81,014
BARRIER RAIL - SEE LIST ON RAIL SHEET J44-46-14						4504			4504			4504			4504
OPEN RAIL - SEE LIST ON RAIL SHEET J44-49-14						4770			4770			4770			4770
EPOXY COATED RAIL TOTAL - LBS.						83,344			83,967			84,531			85,518
WITH MONOLITHIC PIER CAP						83,610			84,233			84,797			85,784
WITH BARRIER RAIL						81,013			81,580			81,786			82,408
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED						81,279			81,846			82,052			82,674
WITH OPEN RAIL						2458			2458			2458			2458
WITH BARRIER RAIL						2491			2491			2491			2491
WITH OPEN RAIL						2491			2491			2491			2491

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 110' BRIDGE									
ITEM	SKEW	WITH MONOLITHIC PIER CAP				WITH NON-MONOLITHIC PIER CAP			
		0°	15°	30°	45°	0°	15°	30°	45°
WITH BARRIER RAIL		330.2	331.3	335.0	342.9	323.8	324.7	327.6	334.0
REINF. STEEL EPOXY COATED		83,344	83,967	84,531	85,518	81,013	81,580	81,786	82,408
REINF. STEEL STAINLESS STEEL		2703	2703	2703	2703	2703	2703	2703	2703
CONCRETE BARRIER OR OPEN RAIL		242.0	242.2	242.9	244.5	242.0	242.2	242.9	244.5
WITH OPEN RAIL		330.0	331.1	334.7	342.7	323.6	324.5	327.4	333.8
REINF. STEEL EPOXY COATED		83,610	84,233	84,797	85,784	81,279	81,846	82,052	82,674
REINF. STEEL STAINLESS STEEL		2736	2736	2736	2736	2736	2736	2736	2736

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH; EXCLUDES RAIL CONCRETE.
 Δ INCLUDES ABUTMENT PAVING NOTCH BAR WEIGHT.



STAINLESS STEEL REINFORCING FOR SUPERSTRUCTURE - BRIDGE					
LOCATION	ALL SKEWS		BAR	NO.	LENGTH
	SHAPE	WEIGHT			
ABUTMENT PAVING NOTCH BAR			8u1	44	2'-1
8u1 BARS SHALL BE PAID FOR UNDER THE BID ITEM "REINFORCING STEEL, STAINLESS STEEL".					WEIGHT = LBS.

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.

LATEST REVISION DATE 04-2016 <i>Thomas E. McQuillan</i> APPROVED BY BRIDGE ENGINEER	IOWA DOT Highway Division
	STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES
	CONTINUOUS CONCRETE SLAB BRIDGES
	JULY, 2014
SUPERSTRUCTURE DETAILS 110'-0 BRIDGE	J44-11-14