

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 - 150' BRIDGE

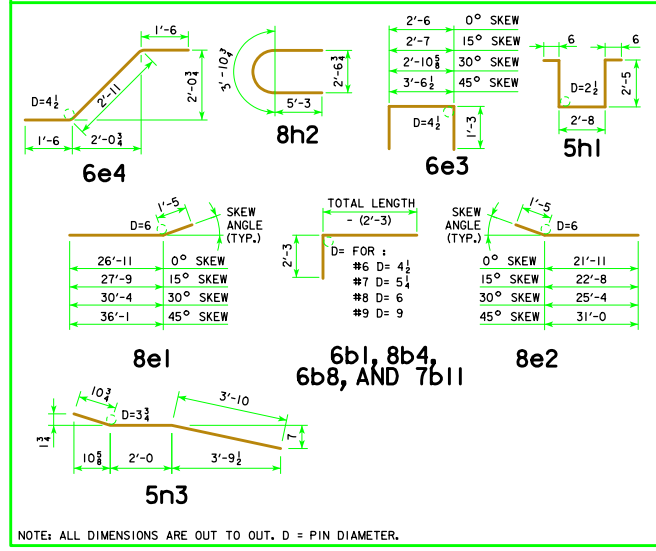
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			10a1	58	32'-9	8174	58	32'-9	8174	58	32'-9	8174	58	32'-9	8174	58	32'-9	8174
SLAB LONGITUDINAL BOTTOM			10a2	58	51'-6	12,854	58	51'-6	12,854	58	51'-6	12,854	58	51'-6	12,854	58	51'-6	12,854
SLAB LONGITUDINAL BOTTOM			10a3	58	48'-6	12,105	58	48'-6	12,105	58	48'-6	12,105	58	48'-6	12,105	58	48'-6	12,105
SLAB LONGITUDINAL BOTTOM			9a4	58	36'-3	7149	58	36'-3	7149	58	36'-3	7149	58	36'-3	7149	58	36'-3	7149
SLAB LONGITUDINAL BOTTOM			9a5	29	45'-0	4437	29	45'-0	4437	29	45'-0	4437	29	45'-0	4437	29	45'-0	4437
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a6	8	44'-7	1213	8	44'-7	1213	8	44'-7	1213	8	44'-7	1213	8	44'-7	1213
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	56'-8	771	4	56'-8	771	4	56'-8	771	4	56'-8	771	4	56'-8	771
SLAB LONGITUDINAL BOTTOM, AT RAIL			10a9	8	37'-6	1291	8	37'-6	1291	8	37'-6	1291	8	37'-6	1291	8	37'-6	1291
SLAB LONGITUDINAL BOTTOM, AT RAIL			10a10	4	35'-0	603	4	35'-0	603	4	35'-0	603	4	35'-0	603	4	35'-0	603
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	32'-9	10,093	58	32'-9	10,093	58	32'-9	10,093	58	32'-9	10,093	58	32'-9	10,093
SLAB LONGITUDINAL TOP			11b3	58	28'-6	8783	58	28'-6	8783	58	28'-6	8783	58	28'-6	8783	58	28'-6	8783
SLAB LONGITUDINAL TOP			8b4	58	33'-2	5137	58	33'-2	5137	58	33'-2	5137	58	33'-2	5137	58	33'-2	5137
SLAB LONGITUDINAL TOP			11b5	58	30'-0	9245	58	30'-0	9245	58	30'-0	9245	58	30'-0	9245	58	30'-0	9245
SLAB LONGITUDINAL TOP			6b6	29	37'-4	1627	29	37'-4	1627	29	37'-4	1627	29	37'-4	1627	29	37'-4	1627
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8	35'-0	421	8	35'-0	421	8	35'-0	421	8	35'-0	421	8	35'-0	421
SLAB LONGITUDINAL TOP, AT RAIL			11b9	8	35'-6	1509	8	35'-6	1509	8	35'-6	1509	8	35'-6	1509	8	35'-6	1509
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	28'-0	169	4	28'-0	169	4	28'-0	169	4	28'-0	169	4	28'-0	169
SLAB LONGITUDINAL TOP, AT RAIL			7b11	8	40'-9	667	8	40'-9	667	8	40'-9	667	8	40'-9	667	8	40'-9	667
SLAB LONGITUDINAL TOP, AT RAIL			11b12	8	25'-6	1084	8	25'-6	1084	8	25'-6	1084	8	25'-6	1084	8	25'-6	1084
SLAB TRANSVERSE BOTTOM			6c1	147	25'-5	5612	147	26'-4	5815	136	25'-5	5192	126	25'-5	4811			
SLAB TRANSVERSE BOTTOM			6c2	147	23'-3	5134	147	24'-1	5318	138	23'-3	4820	129	23'-3	4505			
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	147	25'-9	3949	147	26'-8	4089	136	25'-9	3653	126	25'-9	3385			
SLAB TRANSVERSE TOP			5d2	147	23'-3	3565	147	24'-1	3693	138	23'-3	3347	129	23'-3	3129			
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	68	8'-6	603	68	8'-6	603	68	8'-6	603	102	8'-6	905			
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	292	8'-6	2589	292	8'-6	2589	286	8'-6	2536	284	8'-6	2518			
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.						116,220			117,020			117,216			118,505			
BARRIER RAIL - SEE LIST ON RAIL SHEET J44-46-14						5795			5795			5795			5795			
OPEN RAIL - SEE LIST ON RAIL SHEET J44-49-14						6338			6338			6338			6338			
EPOXY COATED RAIL TOTAL - LBS.			WITH MONOLITHIC PIER CAP			122,015			122,815			123,011			124,300			
			WITH BARRIER RAIL			122,558			123,358			123,554			124,843			
EPOXY COATED RAIL TOTAL - LBS.			WITH BARRIER RAIL			119,651			120,395			120,423			121,045			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED			WITH OPEN RAIL			120,194			120,938			120,966			121,588			
STAINLESS STEEL RAIL TOTAL - LBS.			WITH BARRIER RAIL			3366			3366			3366			3366			
			WITH OPEN RAIL			3267			3267			3267			3267			

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 150' 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.	555.7	556.7	560.1	567.4	549.3	550.1	552.8	558.5
		REINF. STEEL EPOXY COATED LBS.	122,015	122,815	123,011	124,300	119,651	120,395	120,423	121,045
		REINF. STEEL STAINLESS STEEL LBS.	3366	3366	3366	3366	3366	3366	3366	3366
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	322.0	322.2	322.9	324.5	322.0	322.2	322.9	324.5
WITH OPEN RAIL		*STRUCTURAL CONCRETE (BRIDGE) C.Y.	555.4	556.4	559.8	567.1	549.0	549.8	552.5	558.2
		REINF. STEEL EPOXY COATED LBS.	122,558	123,358	123,554	124,843	120,194	120,938	120,966	121,588
		REINF. STEEL STAINLESS STEEL LBS.	3267	3267	3267	3267	3267	3267	3267	3267

* INCLUDES 4 WINGS @ 0.6 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 <i>Thomas E. M. Donnell</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES JULY, 2014
	<div style="text-align: center;"> SUPERSTRUCTURE DETAILS 150'-0 BRIDGE </div> <div style="text-align: right;"> J44-19-14 </div>