

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.

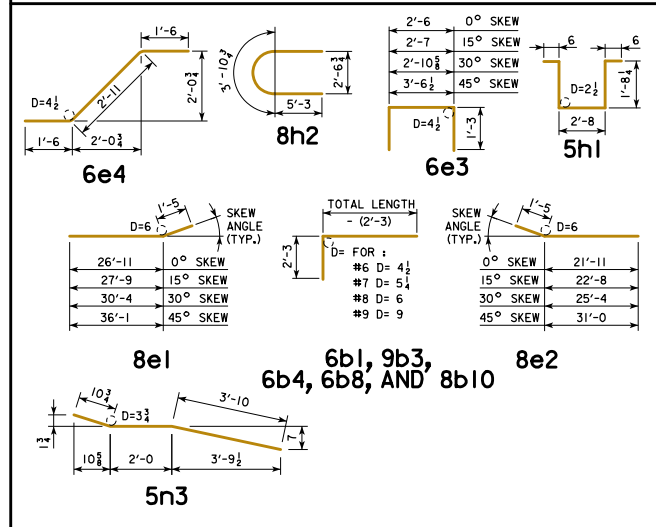
BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 80' BRIDGE										
LOCATION	SKEW	SHAPE	0°		15°		30°		45°	
			BAR NO.	LENGTH/WEIGHT	NO.	LENGTH/WEIGHT	NO.	LENGTH/WEIGHT	NO.	LENGTH/WEIGHT
SLAB LONGITUDINAL BOTTOM			8a1	58 18'-3 2827	58 18'-3 2827	58 18'-3 2827	58 18'-3 2827	58 18'-3 2827	58 18'-3 2827	58 18'-3 2827
SLAB LONGITUDINAL BOTTOM			8a2	58 27'-0 4182	58 27'-0 4182	58 27'-0 4182	58 27'-0 4182	58 27'-0 4182	58 27'-0 4182	58 27'-0 4182
SLAB LONGITUDINAL BOTTOM			8a3	58 28'-0 4337	58 28'-0 4337	58 28'-0 4337	58 28'-0 4337	58 28'-0 4337	58 28'-0 4337	58 28'-0 4337
SLAB LONGITUDINAL BOTTOM			7a4	58 23'-0 2727	58 23'-0 2727	58 23'-0 2727	58 23'-0 2727	58 23'-0 2727	58 23'-0 2727	58 23'-0 2727
SLAB LONGITUDINAL BOTTOM			7a5	29 24'-6 1453	29 24'-6 1453	29 24'-6 1453	29 24'-6 1453	29 24'-6 1453	29 24'-6 1453	29 24'-6 1453
SLAB LONGITUDINAL BOTTOM, AT RAIL			7a6	8 28'-9 471	8 28'-9 471	8 28'-9 471	8 28'-9 471	8 28'-9 471	8 28'-9 471	8 28'-9 471
SLAB LONGITUDINAL BOTTOM, AT RAIL			7a7	4 29'-4 240	4 29'-4 240	4 29'-4 240	4 29'-4 240	4 29'-4 240	4 29'-4 240	4 29'-4 240
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a8	8 20'-9 444	8 20'-9 444	8 20'-9 444	8 20'-9 444	8 20'-9 444	8 20'-9 444	8 20'-9 444
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	4 25'-6 273	4 25'-6 273	4 25'-6 273	4 25'-6 273	4 25'-6 273	4 25'-6 273	4 25'-6 273
SLAB LONGITUDINAL TOP			6b1	58 19'-6 1699	58 19'-6 1699	58 19'-6 1699	58 19'-6 1699	58 19'-6 1699	58 19'-6 1699	58 19'-6 1699
SLAB LONGITUDINAL TOP			9b2	58 21'-9 4290	58 21'-9 4290	58 21'-9 4290	58 21'-9 4290	58 21'-9 4290	58 21'-9 4290	58 21'-9 4290
SLAB LONGITUDINAL TOP			9b3	58 32'-0 6311	58 32'-0 6311	58 32'-0 6311	58 32'-0 6311	58 32'-0 6311	58 32'-0 6311	58 32'-0 6311
SLAB LONGITUDINAL TOP			6b4	58 7'-6 654	58 7'-6 654	58 7'-6 654	58 7'-6 654	58 7'-6 654	58 7'-6 654	58 7'-6 654
SLAB LONGITUDINAL TOP			8b5	58 21'-3 3291	58 21'-3 3291	58 21'-3 3291	58 21'-3 3291	58 21'-3 3291	58 21'-3 3291	58 21'-3 3291
SLAB LONGITUDINAL TOP			6b6	29 16'-4 712	29 16'-4 712	29 16'-4 712	29 16'-4 712	29 16'-4 712	29 16'-4 712	29 16'-4 712
SLAB LONGITUDINAL TOP, AT RAIL			6b8	8 25'-6 307	8 25'-6 307	8 25'-6 307	8 25'-6 307	8 25'-6 307	8 25'-6 307	8 25'-6 307
SLAB LONGITUDINAL TOP, AT RAIL			9b9	8 23'-6 640	8 23'-6 640	8 23'-6 640	8 23'-6 640	8 23'-6 640	8 23'-6 640	8 23'-6 640
SLAB LONGITUDINAL TOP, AT RAIL			8b10	8 34'-0 727	8 34'-0 727	8 34'-0 727	8 34'-0 727	8 34'-0 727	8 34'-0 727	8 34'-0 727
SLAB TRANSVERSE BOTTOM			6c1	77 25'-5 2940	77 26'-4 3046	66 25'-5 2520	58 23'-3 2375	59 23'-3 2061		
SLAB TRANSVERSE ENDS, BOTTOM			6c2	- - -	- - -	- - -	- - -	- - -		
SLAB TRANSVERSE ENDS, BOTTOM			6c3	- - -	- - -	12 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	77 25'-9 2069	77 26'-8 2142	66 25'-9 1773	56 25'-9 1505			
SLAB TRANSVERSE TOP			5d2	77 23'-3 1868	77 24'-1 1935	68 23'-3 1649	59 23'-3 1431			
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	72 7'-1 532	72 7'-1 532	90 7'-1 665	108 7'-1 798			
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	152 8'-6 1348	152 8'-6 1348	146 8'-6 1295	144 8'-6 1277			
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.				53,437	53,925	54,565	55,685			
BARRIER RAIL - SEE LIST ON RAIL SHEET J44-46-14				3571	3571	3571	3571			
OPEN RAIL - SEE LIST ON RAIL SHEET J44-49-14				3725	3725	3725	3725			
EPOXY COATED RAIL TOTAL - LBS.				57,008	57,496	58,136	59,256			
		WITH MONOLITHIC PIER CAP		57,162	57,650	58,290	59,410			
EPOXY COATED RAIL TOTAL - LBS.		WITH BARRIER RAIL		54,715	55,147	55,486	56,108			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL		54,869	55,301	55,640	56,262			
STAINLESS STEEL RAIL TOTAL - LBS.		WITH BARRIER RAIL		1893	1893	1893	1893			
		WITH OPEN RAIL		2074	2074	2074	2074			

**ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 80' 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.	212.9	214.1	217.9	226.2	206.6	207.5	210.6	217.3
	REINF. STEEL EPOXY COATED LBS.	57,008	57,496	58,136	59,256	54,715	55,147	55,486	56,108
	REINF. STEEL STAINLESS STEEL LBS.	2138	2138	2138	2138	2138	2138	2138	2138
CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	182.0	182.2	182.9	184.5	182.0	182.2	182.9	184.5
WITH OPEN RAIL	* STRUCTURAL CONCRETE (BRIDGE) C.Y.	212.8	213.9	217.7	226.0	206.4	207.3	210.4	217.1
	REINF. STEEL EPOXY COATED LBS.	57,162	57,650	58,290	59,410	54,869	55,301	55,640	56,262
	REINF. STEEL STAINLESS STEEL LBS.	2319	2319	2319	2319	2319	2319	2319	2319

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

**BENT BAR DETAILS**



**STAINLESS STEEL REINFORCING FOR SUPERSTRUCTURE - BRIDGE**

LOCATION	SHAPE	BAR NO.	LENGTH/WEIGHT
ABUTMENT PAVING NOTCH BAR	8u1	44	2'-1 245

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.

04-2016 LATEST REVISION DATE  <i>Thomas E. Mc Donnell</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES <b>CONTINUOUS CONCRETE SLAB BRIDGES</b> JULY, 2014
	<b>SUPERSTRUCTURE DETAILS</b> <b>80'-0 BRIDGE</b>  <b>J44-05-14</b>