

REVISED 09-14 - CHANGED REFERENCE TO THE BARRIER RAIL & OPEN RAIL TO THE J40-14 STANDARDS INSTEAD OF J40-06 STANDARDS.

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	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			801	53	18'-3	2583	53	18'-3	2583	53	18'-3	2583	53	18'-3	2583	53	18'-3	2583
SLAB LONGITUDINAL BOTTOM			802	53	27'-0	3821	53	27'-0	3821	53	27'-0	3821	53	27'-0	3821	53	27'-0	3821
SLAB LONGITUDINAL BOTTOM			803	53	28'-0	3963	53	28'-0	3963	53	28'-0	3963	53	28'-0	3963	53	28'-0	3963
SLAB LONGITUDINAL BOTTOM			704	52	23'-0	2445	52	23'-0	2445	52	23'-0	2445	52	23'-0	2445	52	23'-0	2445
SLAB LONGITUDINAL BOTTOM			705	26	24'-6	1303	26	24'-6	1303	26	24'-6	1303	26	24'-6	1303	26	24'-6	1303
SLAB LONGITUDINAL BOTTOM, AT RAIL			706	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			707	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			808	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			809	4	25'-6	273	4	25'-6	273	4	25'-6	273	4	25'-6	273	4	25'-6	273
SLAB LONGITUDINAL TOP			601	53	19'-6	1553	53	19'-6	1553	53	19'-6	1553	53	19'-6	1553	53	19'-6	1553
SLAB LONGITUDINAL TOP			902	53	21'-9	3920	53	21'-9	3920	53	21'-9	3920	53	21'-9	3920	53	21'-9	3920
SLAB LONGITUDINAL TOP			903	53	32'-0	5767	53	32'-0	5767	53	32'-0	5767	53	32'-0	5767	53	32'-0	5767
SLAB LONGITUDINAL TOP			604	52	7'-6	586	52	7'-6	586	52	7'-6	586	52	7'-6	586	52	7'-6	586
SLAB LONGITUDINAL TOP			805	52	21'-3	2951	52	21'-3	2951	52	21'-3	2951	52	21'-3	2951	52	21'-3	2951
SLAB LONGITUDINAL TOP			606	26	16'-4	638	26	16'-4	638	26	16'-4	638	26	16'-4	638	26	16'-4	638
SLAB LONGITUDINAL TOP, AT RAIL			608	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			909	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			8010	8	34'-0	727	8	34'-0	727	8	34'-0	727	8	34'-0	727	8	34'-0	727
SLAB TRANSVERSE BOTTOM			601	77	23'-5	2709	77	24'-3	2805	68	23'-5	2392	58	23'-5	2040			
SLAB TRANSVERSE BOTTOM			602	77	21'-3	2458	77	22'-0	2545	69	21'-3	2203	61	21'-3	1947			
SLAB TRANSVERSE ENDS, BOTTOM			603	-	-	-	-	-	-	12	VARIES	213	20	VARIES	411			
SLAB TRANSVERSE ENDS, BOTTOM			604	-	-	-	-	-	-	11	VARIES	219	20	VARIES	386			
SLAB TRANSVERSE ENDS, BOTTOM			605	-	-	-	-	-	-	11	VARIES	176	18	VARIES	302			
SLAB TRANSVERSE ENDS, BOTTOM			606	-	-	-	-	-	-	11	VARIES	190	17	VARIES	311			
SLAB TRANSVERSE TOP			501	77	23'-9	1908	77	24'-7	1975	68	23'-9	1685	58	23'-9	1437			
SLAB TRANSVERSE TOP			502	77	21'-3	1707	77	22'-0	1767	69	21'-3	1530	61	21'-3	1352			
SLAB TRANSVERSE ENDS, TOP			503	-	-	-	-	-	-	12	VARIES	155	20	VARIES	286			
SLAB TRANSVERSE ENDS, TOP			504	-	-	-	-	-	-	11	VARIES	152	20	VARIES	268			
SLAB TRANSVERSE ENDS, TOP			505	-	-	-	-	-	-	11	VARIES	122	18	VARIES	210			
SLAB TRANSVERSE ENDS, TOP			506	-	-	-	-	-	-	11	VARIES	132	17	VARIES	216			
SLAB, TRANSVERSE AT ABUTMENT			801	18	26'-4	1266	18	27'-1	1302	18	29'-6	1418	18	34'-8	1667			
SLAB, TRANSVERSE AT ABUTMENT			802	18	21'-4	1026	18	22'-0	1058	18	24'-5	1174	18	29'-7	1422			
SLAB, HAIRPINS, AT ABUTMENT			603	92	5'-0	691	92	5'-1	703	92	5'-5	749	92	6'-1	841			
SLAB, DIAGONALS, AT ABUTMENT			604	92	5'-11	818	92	5'-11	818	92	5'-11	818	92	5'-11	818			
PIER CAP HOOPS			5h1	72	7'-1	532	72	7'-1	532	72	7'-1	532	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	25'-5	543	8	26'-7	568	8	29'-4	627	8	35'-0	748			
PIER CAP, BOTTOM LONGITUDINAL			8h4	8	19'-11	426	8	20'-3	433	8	22'-2	474	8	26'-10	574			
PIER CAP, TOP LONGITUDINAL			8h5	4	26'-2	280	4	27'-5	293	4	30'-4	324	4	36'-1	386			
PIER CAP, TOP LONGITUDINAL			8h6	4	21'-5	229	4	21'-10	234	4	23'-11	256	4	28'-8	307			
TOP OF SLAB, TRANSVERSE, AT RAIL			5j1	152	8'-6	1348	152	8'-6	1348	142	8'-6	1259	136	8'-6	1206			
WING, VERTICAL			5ml	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			

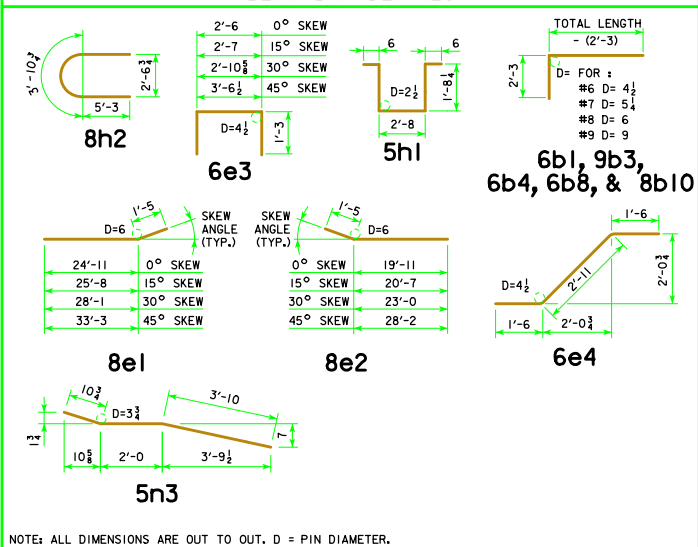
SUB EPOXY COATED TOTAL - LBS.					49,248		49,688		50,117		51,240							
BARRIER RAIL - SEE LIST ON RAIL SHEET J40-46-14					3571		3571		3571		3571							
OPEN RAIL - SEE LIST ON RAIL SHEET J40-49-14					3725		3725		3725		3725							
EPOXY COATED RAIL TOTAL - LBS.					52,819		53,259		53,688		54,811							
					52,973		53,413		53,842		54,965							
EPOXY COATED RAIL TOTAL - LBS.					50,655		51,045		51,321		51,844							
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED					50,809		51,199		51,475		51,998							
STAINLESS STEEL RAIL TOTAL - LBS.					1893		1893		1893		1893							
					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.		195.1	196.2	199.6	207.2	189.1	189.9	192.7	198.8									
REINF. STEEL EPOXY COATED LBS.		52,819	53,259	53,688	54,811	50,655	51,045	51,321	51,844									
REINF. STEEL STAINLESS STEEL LBS.		1893	1893	1893	1893	1893	1893	1893	1893									
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		182.0	182.2	182.9	184.5	162.0	162.2	162.9	164.5									
WITH OPEN RAIL																		
*STRUCTURAL CONCRETE (BRIDGE) C.Y.		195.0	196.0	199.5	207.1	188.9	189.8	192.6	198.7									
REINF. STEEL EPOXY COATED LBS.		52,973	53,413	53,842	54,965	50,809	51,199	51,475	51,998									
REINF. STEEL STAINLESS STEEL LBS.		2074	2074	2074	2074	2074	2074	2074	2074									

* 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 APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES JULY, 2014
	SUPERSTRUCTURE DETAILS 80'-0 BRIDGE

J40-05-14