

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 - 120' BRIDGE

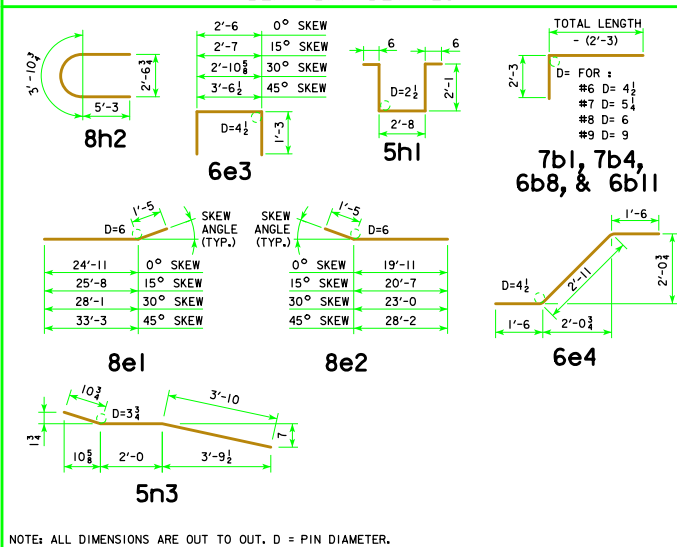
LOCATION	SKEW	SHAPE	0°				15°				30°				45°				
			BAR NO.	LENGTH	WEIGHT		BAR NO.	LENGTH	WEIGHT		BAR NO.	LENGTH	WEIGHT		BAR NO.	LENGTH	WEIGHT		
SLAB LONGITUDINAL BOTTOM			901	53	27'-0	4866	53	27'-0	4866	53	27'-0	4866	53	27'-0	4866	53	27'-0	4866	
SLAB LONGITUDINAL BOTTOM			902	53	41'-3	7434	53	41'-3	7434	53	41'-3	7434	53	41'-3	7434	53	41'-3	7434	
SLAB LONGITUDINAL BOTTOM			903	53	38'-9	6983	53	38'-9	6983	53	38'-9	6983	53	38'-9	6983	53	38'-9	6983	
SLAB LONGITUDINAL BOTTOM			804	52	29'-3	4062	52	29'-3	4062	52	29'-3	4062	52	29'-3	4062	52	29'-3	4062	
SLAB LONGITUDINAL BOTTOM			905	26	36'-6	3227	26	36'-6	3227	26	36'-6	3227	26	36'-6	3227	26	36'-6	3227	
SLAB LONGITUDINAL BOTTOM, AT RAIL			906	8	36'-1	982	8	36'-1	982	8	36'-1	982	8	36'-1	982	8	36'-1	982	
SLAB LONGITUDINAL BOTTOM, AT RAIL			907	8	12'-0	327	8	12'-0	327	8	12'-0	327	8	12'-0	327	8	12'-0	327	
SLAB LONGITUDINAL BOTTOM, AT RAIL			908	4	45'-8	622	4	45'-8	622	4	45'-8	622	4	45'-8	622	4	45'-8	622	
SLAB LONGITUDINAL BOTTOM, AT RAIL			809	8	25'-6	545	8	25'-6	545	8	25'-6	545	8	25'-6	545	8	25'-6	545	
SLAB LONGITUDINAL BOTTOM, AT RAIL			8010	4	25'-6	273	4	25'-6	273	4	25'-6	273	4	25'-6	273	4	25'-6	273	
SLAB LONGITUDINAL TOP			701	53	9'-0	975	53	9'-0	975	53	9'-0	975	53	9'-0	975	53	9'-0	975	
SLAB LONGITUDINAL TOP			1002	53	29'-6	6728	53	29'-6	6728	53	29'-6	6728	53	29'-6	6728	53	29'-6	6728	
SLAB LONGITUDINAL TOP			1003	53	26'-9	6101	53	26'-9	6101	53	26'-9	6101	53	26'-9	6101	53	26'-9	6101	
SLAB LONGITUDINAL TOP			704	53	23'-3	2519	53	23'-3	2519	53	23'-3	2519	53	23'-3	2519	53	23'-3	2519	
SLAB LONGITUDINAL TOP			1105	52	30'-3	8358	52	30'-3	8358	52	30'-3	8358	52	30'-3	8358	52	30'-3	8358	
SLAB LONGITUDINAL TOP			606	26	28'-4	1107	26	28'-4	1107	26	28'-4	1107	26	28'-4	1107	26	28'-4	1107	
SLAB LONGITUDINAL TOP, AT RAIL			608	8	29'-0	349	8	29'-0	349	8	29'-0	349	8	29'-0	349	8	29'-0	349	
SLAB LONGITUDINAL TOP, AT RAIL			1009	8	29'-0	999	8	29'-0	999	8	29'-0	999	8	29'-0	999	8	29'-0	999	
SLAB LONGITUDINAL TOP, AT RAIL			6010	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			6011	8	31'-6	379	8	31'-6	379	8	31'-6	379	8	31'-6	379	8	31'-6	379	
SLAB LONGITUDINAL TOP, AT RAIL			11012	8	23'-0	978	8	23'-0	978	8	23'-0	978	8	23'-0	978	8	23'-0	978	
SLAB TRANSVERSE BOTTOM			601	117	23'-5	4116	117	24'-3	4262	108	23'-5	3799	98	23'-5	3447				
SLAB TRANSVERSE BOTTOM			602	117	21'-3	3735	117	22'-0	3867	109	21'-3	3480	101	21'-3	3224				
SLAB TRANSVERSE ENDS, BOTTOM			603	-	-	-	-	-	-	12	VARIES	223	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	117	23'-9	2899	117	24'-7	3000	108	23'-9	2676	98	23'-9	2428				
SLAB TRANSVERSE TOP			502	117	21'-3	2594	117	22'-0	2685	109	21'-3	2416	101	21'-3	2239				
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			501	52	7'-10	425	52	7'-10	425	78	7'-10	638	104	7'-10	850				
PIER CAP ENDS			802	4	14'-5	154	4	14'-5	154	4	14'-5	154	4	14'-5	154				
PIER CAP, BOTTOM LONGITUDINAL			803	8	25'-5	543	8	26'-7	568	8	29'-4	627	8	35'-0	748				
PIER CAP, BOTTOM LONGITUDINAL			804	8	19'-11	426	8	20'-3	433	8	22'-2	474	8	26'-10	574				
PIER CAP, TOP LONGITUDINAL			805	4	26'-2	280	4	27'-5	293	4	30'-4	324	4	36'-1	386				
PIER CAP, TOP LONGITUDINAL			806	4	21'-5	229	4	21'-10	234	4	23'-11	256	4	28'-8	307				
TOP OF SLAB, TRANSVERSE, AT RAIL			501	232	8'-6	2057	232	8'-6	2057	222	8'-6	1969	216	8'-6	1915				
WING, VERTICAL			501	40	4'-5	185	40	4'-5	185	40	4'-5	185	40	4'-5	185				
WING, HORIZONTAL BACK FACE			501	24	6'-8	167	24	6'-8	167	24	6'-8	167	24	6'-8	167				
WING, HORIZONTAL TRAFFIC FACE			503	24	6'-9	169	24	6'-9	169	24	6'-9	169	24	6'-9	169				
SUB EPOXY COATED TOTAL - LBS.						79,733			80,333			80,815			81,884				
BARRIER RAIL - SEE LIST ON RAIL SHEET J40-46-14						4860			4860			4860			4860				
OPEN RAIL - SEE LIST ON RAIL SHEET J40-49-14						5304			5304			5304			5304				
EPOXY COATED RAIL TOTAL - LBS.						84,593			85,193			85,675			86,744				
						85,037			85,637			86,119			87,188				
EPOXY COATED RAIL TOTAL - LBS.						82,536			83,086			83,202			83,725				
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED						82,980			83,530			83,646			84,169				
STAINLESS STEEL RAIL TOTAL - LBS.						2676			2676			2676			2676				
						2757			2757			2757			2757				

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 120' 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.	350.5	351.5	354.7	361.8	344.5	345.2	347.8	353.4
REINF. STEEL EPOXY COATED	LBS.	84,593	85,193	85,675	86,744	82,536	83,086	83,202	83,725
REINF. STEEL STAINLESS STEEL	LBS.	2676	2676	2676	2676	2676	2676	2676	2676
CONCRETE BARRIER OR OPEN RAIL	LIN. FT.	262.0	262.2	262.9	264.5	262.0	262.2	262.9	264.5
WITH OPEN RAIL									
*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	350.3	351.2	354.5	361.6	344.3	345.0	347.6	353.2
REINF. STEEL EPOXY COATED	LBS.	85,037	85,637	86,119	87,188	82,980	83,530	83,646	84,169
REINF. STEEL STAINLESS STEEL	LBS.	2757	2757	2757	2757	2757	2757	2757	2757

* 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 <i>Thomas E. McQuillan</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES JULY, 2014
	SUPERSTRUCTURE DETAILS 120'-0 BRIDGE

J40-13-14