

REVISED 07-2009; OPEN RAIL REINF. QTY'S CHANGED WHICH CHANGED TOTAL REINF. QTY'S.
REVISED 09-2020; UPDATED BRIDGE ENGINEER SIGNATURE. CHANGED PAVING BLOCK LIFTING HOOP BAR MARK WAS SK1.

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 110' BRIDGE

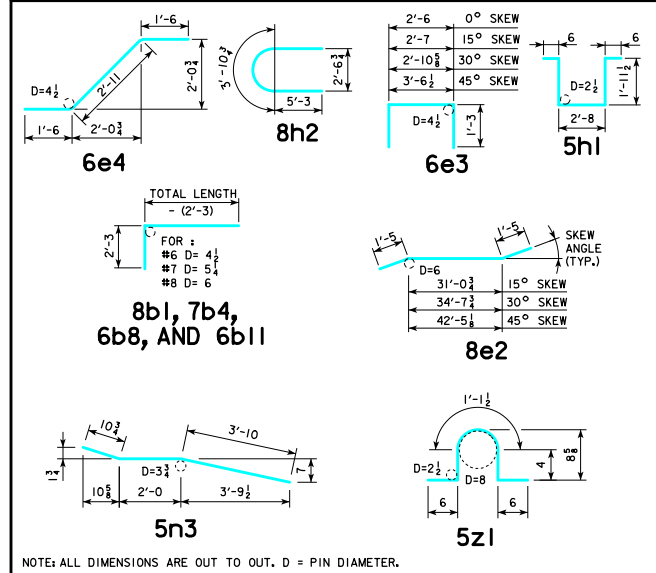
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT
SLAB LONGITUDINAL BOTTOM			8a1	39	23'-3	2422	39	23'-3	2422	39	23'-3	2422	39	23'-3	2422			
SLAB LONGITUDINAL BOTTOM			9a2	39	35'-9	4741	39	35'-9	4741	39	35'-9	4741	39	35'-9	4741			
SLAB LONGITUDINAL BOTTOM			8a3	39	32'-2	3350	39	32'-2	3350	39	32'-2	3350	39	32'-2	3350			
SLAB LONGITUDINAL BOTTOM			9a4	40	30'-6	4148	40	30'-6	4148	40	30'-6	4148	40	30'-6	4148			
SLAB LONGITUDINAL BOTTOM			8a5	20	39'-0	2083	20	39'-0	2083	20	39'-0	2083	20	39'-0	2083			
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a6	8	39'-3	1068	8	39'-3	1068	8	39'-3	1068	8	39'-3	1068			
SLAB LONGITUDINAL BOTTOM, AT RAIL			9a7	4	39'-2	533	4	39'-2	533	4	39'-2	533	4	39'-2	533			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a8	8	22'-9	486	8	22'-9	486	8	22'-9	486	8	22'-9	486			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	4	23'-0	246	4	23'-0	246	4	23'-0	246	4	23'-0	246			
SLAB LONGITUDINAL TOP			8b1	39	12'-6	1302	39	12'-6	1302	39	12'-6	1302	39	12'-6	1302			
SLAB LONGITUDINAL TOP			10b2	39	26'-4	4420	39	26'-4	4420	39	26'-4	4420	39	26'-4	4420			
SLAB LONGITUDINAL TOP			10b3	39	23'-7	3958	39	23'-7	3958	39	23'-7	3958	39	23'-7	3958			
SLAB LONGITUDINAL TOP			7b4	39	21'-7	1721	39	21'-7	1721	39	21'-7	1721	39	21'-7	1721			
SLAB LONGITUDINAL TOP			10b5	40	24'-6	4217	40	24'-6	4217	40	24'-6	4217	40	24'-6	4217			
SLAB LONGITUDINAL TOP			6b6	20	28'-6	857	20	28'-6	857	20	28'-6	857	20	28'-6	857			
SLAB LONGITUDINAL TOP, AT RAIL			6b7	8	27'-2	327	8	27'-2	327	8	27'-2	327	8	27'-2	327			
SLAB LONGITUDINAL TOP, AT RAIL			10b9	8	25'-3	870	8	25'-3	870	8	25'-3	870	8	25'-3	870			
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	21'-10	132	4	21'-10	132	4	21'-10	132	4	21'-10	132			
SLAB LONGITUDINAL TOP, AT RAIL			6b11	8	30'-8	369	8	30'-8	369	8	30'-8	369	8	30'-8	369			
SLAB LONGITUDINAL TOP, AT RAIL			10b12	8	17'-6	603	8	17'-6	603	8	17'-6	603	8	17'-6	603			
SLAB TRANSVERSE, BOTTOM			6c1	107	32'-10	5277	107	34'-0	5465	94	32'-10	4636	80	32'-10	3946			
SLAB TRANSVERSE ENDS, BOTTOM			6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486			
SLAB TRANSVERSE, TOP			5d1	107	32'-10	3665	107	34'-0	3795	94	32'-10	3220	80	32'-10	2740			
SLAB TRANSVERSE ENDS, TOP			5d2	-	-	-	-	-	-	30	VARIES	553	56	VARIES	1032			
SLAB, TRANSVERSE AT ABUTMENT			8e1	18	32'-10	1578	-	-	-	-	-	-	-	-				
SLAB, TRANSVERSE AT ABUTMENT			8e2	-	-	-	18	33'-11	1631	18	37'-6	1803	18	45'-4	2179			
SLAB, HAIRPINS, AT ABUTMENT			6e3	72	5'-0	541	72	5'-1	550	72	5'-5	586	72	5'-11	658			
SLAB, DIAGONALS, AT ABUTMENT			6e4	72	5'-11	640	72	5'-11	640	72	5'-11	640	72	5'-11	640			
PIER CAP HOOPS			5h1	54	7'-7	428	54	7'-7	428	54	7'-7	428	72	7'-7	570			
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	29'-10	638	8	30'-11	661	8	34'-5	736	8	42'-2	901			
PIER CAP, TOP LONGITUDINAL			8h4	4	32'-10	351	4	34'-0	364	4	37'-11	405	4	46'-6	497			
TOP OF SLAB, TRANSVERSE, AT RAIL			5j1	212	8'-6	1880	212	8'-6	1880	212	8'-6	1880	210	8'-6	1862			
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			
PAVING BLOCK LIFTING HOOPS			5z1	10	2'-10	30	10	2'-10	30	10	2'-10	30	10	2'-10	30			
SUB TOTAL - LBS.						53,556			53,972			54,242			55,069			
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06						6962			6962			6962			6962			
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06						7261			7261			7261			7261			
TOTAL - LBS.			WITH MONOLITHIC PIER CAP			60,518			60,934			61,204			62,031			
			WITH OPEN RAIL			60,817			61,233			61,503			62,330			
TOTAL - LBS.			WITH NON-MONOLITHIC PIER CAP			58,947			59,327			59,481			59,909			
SAME AS ABOVE EXCEPT ALL "H" BARS DELETED			WITH OPEN RAIL			59,246			59,626			59,780			60,208			

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 STRUCTURAL CONCRETE (BRIDGE) C.Y.		234.5	235.2	238.0	243.7	229.9	230.5	232.7	237.3
BARRIER RAIL REINFORCING STEEL LBS.		60,518	60,934	61,204	62,031	58,947	59,327	59,481	59,909
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		242.0	242.2	242.9	244.5	242.0	242.2	242.9	244.5
WITH STRUCTURAL CONCRETE (BRIDGE) C.Y.		234.3	235.0	237.8	243.5	229.7	230.3	232.5	237.1
OPEN RAIL REINFORCING STEEL LBS.		60,817	61,233	61,503	62,330	59,246	59,626	59,780	60,208

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH AND 2 TEMPORARY PAVING BLOCKS; EXCLUDES RAIL CONCRETE.

BENT BAR DETAILS



08-2020 LATEST REVISION DATE APPROVED BY BRIDGE ENGINEER 	 STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006	
	SUPERSTRUCTURE DETAILS 110'-0' BRIDGE	J30-11B-06
	NON-EPOXY COATED REINFORCING	