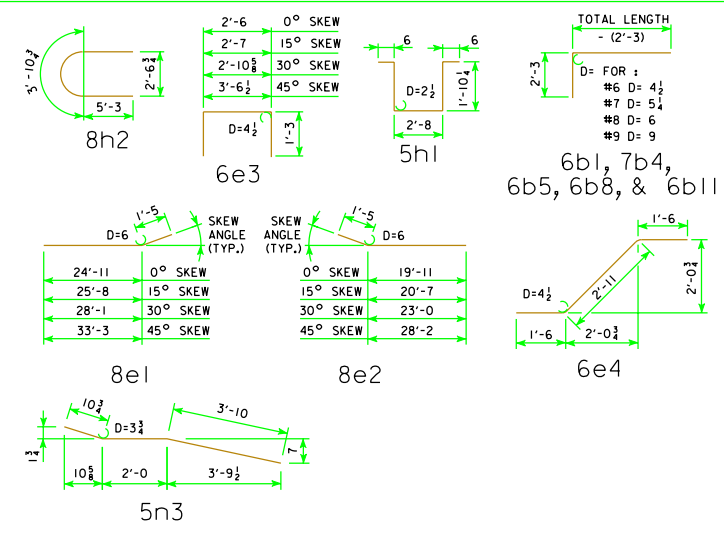


BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 100' BRIDGE

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	53	22'-3	3149	53	22'-3	3149	53	22'-3	3149	53	22'-3	3149			
SLAB LONGITUDINAL BOTTOM			8a2	53	33'-6	4741	53	33'-6	4741	53	33'-6	4741	53	33'-6	4741			
SLAB LONGITUDINAL BOTTOM			8a3	53	31'-6	4458	53	31'-6	4458	53	31'-6	4458	53	31'-6	4458			
SLAB LONGITUDINAL BOTTOM			9a4	52	28'-9	5083	52	28'-9	5083	52	28'-9	5083	52	28'-9	5083			
SLAB LONGITUDINAL BOTTOM			9a5	26	32'-0	2829	26	32'-0	2829	26	32'-0	2829	26	32'-0	2829			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a6	8	35'-9	764	8	35'-9	764	8	35'-9	764	8	35'-9	764			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a7	4	37'-4	399	4	37'-4	399	4	37'-4	399	4	37'-4	399			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a8	8	25'-0	534	8	25'-0	534	8	25'-0	534	8	25'-0	534			
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a9	4	22'-6	241	4	22'-6	241	4	22'-6	241	4	22'-6	241			
SLAB LONGITUDINAL TOP			6b1	53	7'-0	558	53	7'-0	558	53	7'-0	558	53	7'-0	558			
SLAB LONGITUDINAL TOP			10b2	53	26'-9	6101	53	26'-9	6101	53	26'-9	6101	53	26'-9	6101			
SLAB LONGITUDINAL TOP			10b3	53	27'-6	6272	53	27'-6	6272	53	27'-6	6272	53	27'-6	6272			
SLAB LONGITUDINAL TOP			7b4	53	16'-6	1788	53	16'-6	1788	53	16'-6	1788	53	16'-6	1788			
SLAB LONGITUDINAL TOP			6b5	52	13'-9	1074	52	13'-9	1074	52	13'-9	1074	52	13'-9	1074			
SLAB LONGITUDINAL TOP			9b6	52	22'-9	4023	52	22'-9	4023	52	22'-9	4023	52	22'-9	4023			
SLAB LONGITUDINAL TOP			6b7	26	26'-10	1048	26	26'-10	1048	26	26'-10	1048	26	26'-10	1048			
SLAB LONGITUDINAL TOP, AT RAIL			6b8	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			
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	21'-0	127	4	21'-0	127	4	21'-0	127	4	21'-0	127			
SLAB LONGITUDINAL TOP, AT RAIL			6b11	8	27'-6	331	8	27'-6	331	8	27'-6	331	8	27'-6	331			
SLAB LONGITUDINAL TOP, AT RAIL			10b12	8	19'-0	655	8	19'-0	655	8	19'-0	655	8	19'-0	655			
SLAB TRANSVERSE BOTTOM			6c1	97	23'-5	3412	97	24'-3	3534	88	23'-5	3096	78	23'-5	2744			
SLAB TRANSVERSE BOTTOM			6c2	97	21'-3	3096	97	22'-0	3206	89	21'-3	2841	81	21'-3	2586			
SLAB TRANSVERSE ENDS, BOTTOM			6c3	-	-	-	-	-	-	12	VARIES	223	20	VARIES	411			
SLAB TRANSVERSE ENDS, BOTTOM			6c4	-	-	-	-	-	-	11	VARIES	219	20	VARIES	386			
SLAB TRANSVERSE ENDS, BOTTOM			6c5	-	-	-	-	-	-	11	VARIES	176	18	VARIES	302			
SLAB TRANSVERSE ENDS, BOTTOM			6c6	-	-	-	-	-	-	11	VARIES	190	17	VARIES	311			
SLAB TRANSVERSE TOP			5d1	97	23'-9	2403	97	24'-7	2488	88	23'-9	2180	78	23'-9	1933			
SLAB TRANSVERSE TOP			5d2	97	21'-3	2150	97	22'-0	2226	89	21'-3	1973	81	21'-3	1796			
SLAB TRANSVERSE ENDS, TOP			5d3	-	-	-	-	-	-	12	VARIES	155	20	VARIES	286			
SLAB TRANSVERSE ENDS, TOP			5d4	-	-	-	-	-	-	11	VARIES	152	20	VARIES	268			
SLAB TRANSVERSE ENDS, TOP			5d5	-	-	-	-	-	-	11	VARIES	122	18	VARIES	210			
SLAB TRANSVERSE ENDS, TOP			5d6	-	-	-	-	-	-	11	VARIES	132	17	VARIES	216			
SLAB, TRANSVERSE AT ABUTMENT			8e1	18	26'-4	1266	18	27'-1	1302	18	29'-6	1418	18	34'-8	1667			
SLAB, TRANSVERSE AT ABUTMENT			8e2	18	21'-4	1026	18	22'-0	1058	18	24'-5	1174	18	29'-7	1422			
SLAB, HAIRPINS, AT ABUTMENT			6e3	92	5'-0	691	92	5'-1	703	92	5'-5	749	92	6'-1	841			
SLAB, DIAGONALS, AT ABUTMENT			6e4	92	5'-11	818	92	5'-11	818	92	5'-11	818	92	5'-11	818			
PIER CAP HOOPS			5h1	60	7'-5	465	60	7'-5	465	80	7'-5	619	100	7'-5	774			
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	192	8'-6	1703	192	8'-6	1703	182	8'-6	1614	176	8'-6	1561			
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 TOTAL - LBS.						64,305			64,828			65,329			66,344			
BARRIER RAIL - SEE LIST ON RAIL SHEET J40-46-06						6461			6461			6461			6461			
OPEN RAIL - SEE LIST ON RAIL SHEET J40-49-06						6794			6794			6794			6794			
TOTAL - LBS.			WITH MONOLITHIC PIER CAP			70,766			71,289			71,790			72,805			
			WITH OPEN RAIL			71,099			71,622			72,123			73,138			
TOTAL - LBS.			WITH NON-MONOLITHIC PIER CAP			68,669			69,142			69,336			69,862			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED			WITH OPEN RAIL			69,002			69,475			69,669			70,195			

BENT BAR DETAILS



NOTES:
 ALL REINFORCING STEEL SHALL 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.

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 100' 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.		264.9	265.9	269.3	276.6	258.8	259.6	262.3	268.2
BARRIER RAIL REINFORCING STEEL EPOXY COATED LBS.		70,766	71,289	71,790	72,805	68,669	69,142	69,336	69,862
CONCRETE BARRIER OR OPEN RAIL LIN. FT.		222.0	222.2	222.9	224.5	222.0	222.2	222.9	224.5
WITH *STRUCTURAL CONCRETE (BRIDGE) C.Y.		264.7	265.7	269.1	276.4	258.7	259.5	262.2	268.0
OPEN RAIL REINFORCING STEEL EPOXY COATED LBS.		71,099	71,622	72,123	73,138	69,002	69,475	69,669	70,195

* INCLUDES 4 WINGS @ 0.68 C.Y. EACH; EXCLUDES RAIL CONCRETE.

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006
		SUPERSTRUCTURE DETAILS 100'-0 BRIDGE

J40-09-06

REVISED 07-09 - OPEN RAIL REINF. QTY'S. CHANGED WHICH CHANGED TOTAL REINF. QTY'S.