

BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 100' BRIDGE

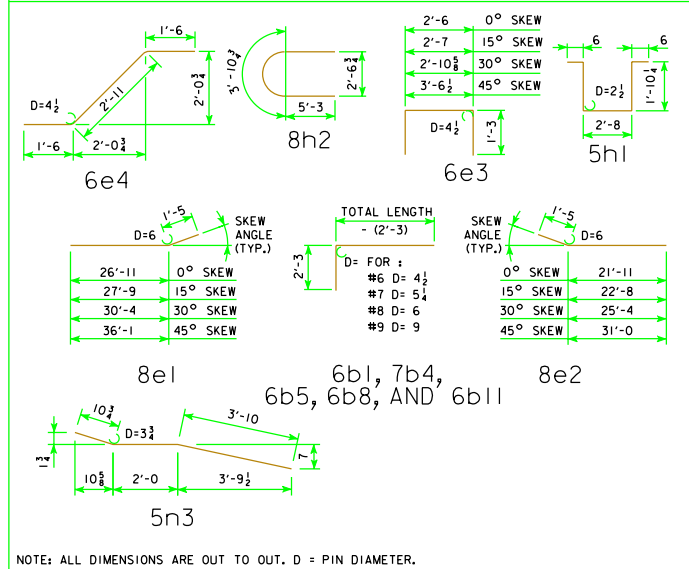
LOCATION	SKEW	SHAPE	0°				15°				30°				45°			
			BAR NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
SLAB LONGITUDINAL BOTTOM			8a1	58	22'-3	3446	58	22'-3	3446	58	22'-3	3446	58	22'-3	3446	58	22'-3	3446
SLAB LONGITUDINAL BOTTOM			8a2	58	33'-6	5188	58	33'-6	5188	58	33'-6	5188	58	33'-6	5188	58	33'-6	5188
SLAB LONGITUDINAL BOTTOM			8a3	58	31'-6	4879	58	31'-6	4879	58	31'-6	4879	58	31'-6	4879	58	31'-6	4879
SLAB LONGITUDINAL BOTTOM			9a4	58	28'-9	5670	58	28'-9	5670	58	28'-9	5670	58	28'-9	5670	58	28'-9	5670
SLAB LONGITUDINAL BOTTOM			9a5	29	32'-0	3156	29	32'-0	3156	29	32'-0	3156	29	32'-0	3156	29	32'-0	3156
SLAB LONGITUDINAL BOTTOM, AT RAIL			8a6	8	35'-9	764	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	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	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	4	22'-6	241
SLAB LONGITUDINAL TOP			6b1	58	7'-0	610	58	7'-0	610	58	7'-0	610	58	7'-0	610	58	7'-0	610
SLAB LONGITUDINAL TOP			10b2	58	26'-9	6677	58	26'-9	6677	58	26'-9	6677	58	26'-9	6677	58	26'-9	6677
SLAB LONGITUDINAL TOP			10b3	58	27'-6	6864	58	27'-6	6864	58	27'-6	6864	58	27'-6	6864	58	27'-6	6864
SLAB LONGITUDINAL TOP			7b4	58	16'-6	1957	58	16'-6	1957	58	16'-6	1957	58	16'-6	1957	58	16'-6	1957
SLAB LONGITUDINAL TOP			6b5	58	13'-9	1198	58	13'-9	1198	58	13'-9	1198	58	13'-9	1198	58	13'-9	1198
SLAB LONGITUDINAL TOP			9b6	58	22'-9	4487	58	22'-9	4487	58	22'-9	4487	58	22'-9	4487	58	22'-9	4487
SLAB LONGITUDINAL TOP			6b7	29	26'-10	1169	29	26'-10	1169	29	26'-10	1169	29	26'-10	1169	29	26'-10	1169
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
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
SLAB LONGITUDINAL TOP, AT RAIL			6b10	4	21'-0	127	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	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	8	19'-0	655
SLAB TRANSVERSE BOTTOM			6c1	97	25'-5	3704	97	26'-4	3837	86	25'-5	3284	76	25'-5	2902			
SLAB TRANSVERSE BOTTOM			6c2	97	23'-3	3388	97	24'-1	3509	88	23'-3	3074	79	23'-3	2759			
SLAB TRANSVERSE ENDS, BOTTOM			6c3	-	-	-	-	-	14	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	97	25'-9	2606	97	26'-8	2698	86	25'-9	2310	76	25'-9	2042			
SLAB TRANSVERSE TOP			5d2	97	23'-3	2353	97	24'-1	2437	88	23'-3	2134	79	23'-3	1916			
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	66	7'-5	511	66	7'-5	511	88	7'-5	681	110	7'-5	851			
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	192	8'-6	1703	192	8'-6	1703	186	8'-6	1649	184	8'-6	1631			
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.						69,970			70,545			71,134			72,291			
BARRIER RAIL - SEE LIST ON RAIL SHEET J44-46-06						6461			6461			6461			6461			
OPEN RAIL - SEE LIST ON RAIL SHEET J44-49-06						6794			6794			6794			6794			
TOTAL - LBS.			WITH MONOLITHIC PIER CAP			76,431			77,006			77,595			78,752			
			WITH OPEN RAIL			76,764			77,339			77,928			79,085			
TOTAL - LBS.			WITH NON-MONOLITHIC PIER CAP			74,159			74,678			74,929			75,551			
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED			WITH OPEN RAIL			74,492			75,011			75,262			75,884			

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.		289.2	290.2	293.9	302.0	282.8	283.6	286.6	293.1
BARRIER RAIL REINFORCING STEEL EPOXY COATED LBS.		76,431	77,006	77,595	78,752	74,159	74,678	74,929	75,551
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.		289.0	290.1	293.8	301.8	282.6	283.5	286.4	292.9
OPEN RAIL REINFORCING STEEL EPOXY COATED LBS.		76,764	77,339	77,928	79,085	74,492	75,011	75,262	75,884

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

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIAMETER.

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.

07-09 LATEST REVISION DATE Approved by [Signature] APPROVED BY BRIDGE ENGINEER	<p>Iowa Department of Transportation Highway Division</p>
	STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006
	SUPERSTRUCTURE DETAILS 100'-0 BRIDGE

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