BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 130' BRIDGE

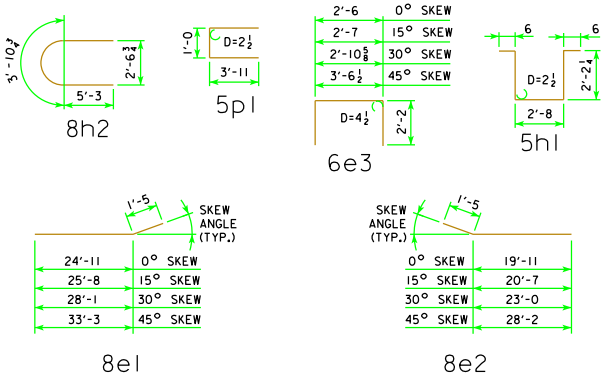
LOCATION / SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		9a1	53	29'-10	5376	53	29'-10	5376	53	29'-10	5376	53	29'-10	5376
SLAB LONGITUDINAL BOTTOM		9a2	53	44'-6	8019	53	44'-6	8019	53	44'-6	8019	53	44'-6	8019
SLAB LONGITUDINAL BOTTOM		9a3	53	41'-3	7433	53	41'-3	7433	53	41'-3	7433	53	41'-3	7433
SLAB LONGITUDINAL BOTTOM		9a4	52	33'-10	5982	52	33'-10	5982	52	33'-10	5982	52	33'-10	5982
SLAB LONGITUDINAL BOTTOM		10a5	26	41'-0	4587	26	41'-0	4587	26	41'-0	4587	26	41'-0	4587
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	39'-8	1079	8	39'-8	1079	8	39'-8	1079	8	39'-8	1079
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	8	13'-0	354	8	13'-0	354	8	13'-0	354	8	13'-0	354
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a8	4	48'-8	662	4	48'-8	662	4	48'-8	662	4	48'-8	662
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	8	32'-4	691	8	32'-4	691	8	32'-4	691	8	32'-4	691
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a10	4	29'-0	394	4	29'-0	394	4	29'-0	394	4	29'-0	394
SLAB LONGITUDINAL TOP		6b1	53	6'-7	524	53	6'-7	524	53	6'-7	524	53	6'-7	524
SLAB LONGITUDINAL TOP		11b2	53	28'-9	8096	53	28'-9	8096	53	28'-9	8096	53	28'-9	8096
SLAB LONGITUDINAL TOP		11b3	53	30'-6	8588	53	30'-6	8588	53	30'-6	8588	53	30'-6	8588
SLAB LONGITUDINAL TOP		7b4	53	22'-7	2446	53	22'-7	2446	53	22'-7	2446	53	22'-7	2446
SLAB LONGITUDINAL TOP		10b5	52	25'-6	5706	52	25'-6	5706	52	25'-6	5706	52	25'-6	5706
SLAB LONGITUDINAL TOP		6b6	26	34'-4	1341	26	34'-4	1341	26	34'-4	1341	26	34'-4	1341
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	29'-1	349	8	29'-1	349	8	29'-1	349	8	29'-1	349
SLAB LONGITUDINAL TOP, AT RAIL		11b9	8	32'-9	1392	8	32'-9	1392	8	32'-9	1392	8	32'-9	1392
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	23'-0	138	4	23'-0	138	4	23'-0	138	4	23'-0	138
SLAB LONGITUDINAL TOP, AT RAIL		7b11	8	34'-4	561	8	34'-4	561	8	34'-4	561	8	34'-4	561
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	23'-9	1009	8	23'-9	1009	8	23'-9	1009	8	23'-9	1009
SLAB TRANSVERSE BOTTOM		6c1	127	23'-5	4467	127	24'-3	4626	120	23'-5	4221	112	23'-5	3939
SLAB TRANSVERSE BOTTOM		6c2	127	21'-3	4054	127	22'-0	4197	121	21'-3	3862	114	21'-3	3639
SLAB TRANSVERSE ENDS, BOTTOM		6c3	-	-	-	-	-	-	11	VARIES	226	18	VARIES	386
SLAB TRANSVERSE ENDS, BOTTOM		6c4	-	-	-	-	-	-	10	VARIES	219	18	VARIES	363
SLAB TRANSVERSE ENDS, BOTTOM		6c5	-	-	-	-	-	-	10	VARIES	180	17	VARIES	288
SLAB TRANSVERSE ENDS, BOTTOM		6c6	-	-	-	-	-	-	10	VARIES	193	16	VARIES	319
SLAB TRANSVERSE TOP		5d1	127	23'-9	3146	127	24'-7	3256	120	23'-9	2973	112	23'-9	2774
SLAB TRANSVERSE TOP		5d2	127	21'-3	2815	127	22'-0	2914	121	21'-3	2682	114	21'-3	2527
SLAB TRANSVERSE ENDS, TOP		5d3	-	-	-	-	-	-	11	VARIES	157	18	VARIES	268
SLAB TRANSVERSE ENDS, TOP		5d4	-	-	-	-	-	-	10	VARIES	152	18	VARIES	252
SLAB TRANSVERSE ENDS, TOP		5d5	-	-	-	-	-	-	10	VARIES	125	17	VARIES	200
SLAB TRANSVERSE ENDS, TOP		5d6	-	-	-	-	-	-	10	VARIES	134	16	VARIES	222
SLAB, TRANSVERSE AT ABUTMENT		8e1	20	26'-4	1406	20	27'-1	1446	20	29'-6	1575	20	34'-8	1851
SLAB, TRANSVERSE AT ABUTMENT		8e2	20	21'-4	1139	20	22'-0	1175	20	24'-5	1304	20	29'-7	1580
SLAB, HAIRPINS, AT ABUTMENT		6e3	92	6'-10	944	92	6'-11	956	92	7'-3	1002	92	7'-11	1094
PIER CAP HOOPS		5h1	52	8'-1	438	52	8'-1	438	78	8'-1	658	104	8'-1	877
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	425	8	20'-3	433	8	22'-2	473	8	26'-10	573
PIER CAP, TOP LONGITUDINAL		8h5	4	26'-2	279	4	27'-5	293	4	30'-4	324	4	36'-1	385
PIER CAP, TOP LONGITUDINAL		8h6	4	21'-5	229	4	21'-10	233	4	23'-11	255	4	28'-8	306
TOP OF SLAB, TRANSVERSE, AT RAIL		5j1	252	8'-6	2234	252	8'-6	2234	246	8'-6	2181	244	8'-6	2163
WING, VERTICAL		5m1-4	32	SHOWN	117	32	SHOWN	117	32	SHOWN	117	32	SHOWN	117
WING, HORIZONTAL		5n1	24	6'-8	167	24	6'-8	167	24	6'-8	167	24	6'-8	167
PAVING SUPPORT, TRANSVERSE		5p1	40	8'-10	369	42	8'-10	387	46	8'-10	424	56	8'-10	516
PAVING SUPPORT LONGITUDINAL		5p3	6	22'-9	142	6	24'-0	150	6	26'-5	165	6	31'-9	199
PAVING SUPPORT LONGITUDINAL		5p4	6	20'-0	125	6	20'-9	130	6	23'-1	144	6	28'-3	177
SUB TOTAL - LBS.					87,920			88,601			89,421			90,811
BARRIER RAIL - SEE LIST ON RAIL SHEET J40-46-06					7746			7746			7746			7746
OPEN RAIL - SEE LIST ON RAIL SHEET J40-49-06					8150			8150			8150			8150
TOTAL - LBS. WITH MONOLITHIC PIER CAP	WITH BARRIER RAIL				95,666			96,347			97,167			98,557
	WITH OPEN RAIL				96,070			96,751			97,571			98,961
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP	WITH BARRIER RAIL				93,598			94,228			94,676			95,514
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED	WITH OPEN RAIL				94,002			94,632			95,080			95,918

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 130' BRIDGE

ITEM		SKEW	WITH MONOLITHIC PIER CAP 0°	15°	30°	45°	WITH NON-MONOLITHIC PIER CAP 0°	15°	30°	45°
WITH BARRIER RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	409.1	410.4	414.9	424.6	403.1	404.2	408.0	416.2
	REINFORCING STEEL EPOXY COATED	LBS.	95,666	96,347	97,167	98,557	93,598	94,228	94,676	95,514
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	282.0	282.2	282.9	284.5	282.0	282.2	282.9	284.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	408.9	410.2	414.6	424.3	402.8	403.9	407.7	415.9
	REINFORCING STEEL EPOXY COATED	LBS.	96,070	96,751	97,571	98,961	94,002	94,632	95,080	95,918

* INCLUDES 4 WINGS @ 0.71 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.

REVISED 12-07 - OPEN RAIL REINFORCING QUANTITY CHANGED

12-07
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
130'-0 BRIDGE

J40-15-06