BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 120' BRIDGE

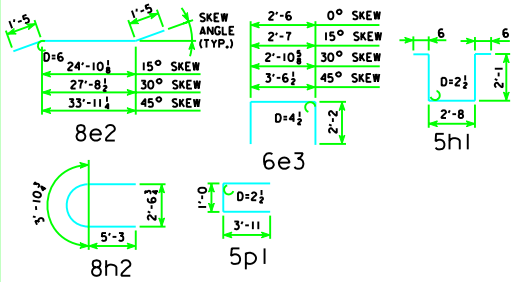
LOCATION \ SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		9a1	31	26'-10	2829	31	26'-10	2829	31	26'-10	2829	31	26'-10	2829
SLAB LONGITUDINAL BOTTOM		9a2	31	38'-9	4085	31	38'-9	4085	31	38'-9	4085	31	38'-9	4085
SLAB LONGITUDINAL BOTTOM		9a3	31	36'-2	3812	31	36'-2	3812	31	36'-2	3812	31	36'-2	3812
SLAB LONGITUDINAL BOTTOM		8a4	32	29'-4	2507	32	29'-4	2507	32	29'-4	2507	32	29'-4	2507
SLAB LONGITUDINAL BOTTOM		9a5	16	34'-0	1850	16	34'-0	1850	16	34'-0	1850	16	34'-0	1850
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	35'-5	964	8	35'-5	964	8	35'-5	964	8	35'-5	964
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a7	8	12'-0	327	8	12'-0	327	8	12'-0	327	8	12'-0	327
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a8	4	42'-2	574	4	42'-2	574	4	42'-2	574	4	42'-2	574
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a9	8	25'-7	547	8	25'-7	547	8	25'-7	547	8	25'-7	547
SLAB LONGITUDINAL BOTTOM, AT RAIL		8a10	4	23'-6	251	4	23'-6	251	4	23'-6	251	4	23'-6	251
SLAB LONGITUDINAL TOP		7b1	31	7'-4	465	31	7'-4	465	31	7'-4	465	31	7'-4	465
SLAB LONGITUDINAL TOP		10b2	31	27'-6	3669	31	27'-6	3669	31	27'-6	3669	31	27'-6	3669
SLAB LONGITUDINAL TOP		10b3	31	24'-9	3302	31	24'-9	3302	31	24'-9	3302	31	24'-9	3302
SLAB LONGITUDINAL TOP		7b4	31	22'-3	1410	31	22'-3	1410	31	22'-3	1410	31	22'-3	1410
SLAB LONGITUDINAL TOP		11b5	32	27'-9	4718	32	27'-9	4718	32	27'-9	4718	32	27'-9	4718
SLAB LONGITUDINAL TOP		6b6	16	30'-0	721	16	30'-0	721	16	30'-0	721	16	30'-0	721
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	28'-3	340	8	28'-3	340	8	28'-3	340	8	28'-3	340
SLAB LONGITUDINAL TOP, AT RAIL		10b9	8	27'-0	930	8	27'-0	930	8	27'-0	930	8	27'-0	930
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	23'-10	144	4	23'-10	144	4	23'-10	144	4	23'-10	144
SLAB LONGITUDINAL TOP, AT RAIL		6b11	8	30'-9	370	8	30'-9	370	8	30'-9	370	8	30'-9	370
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	21'-0	893	8	21'-0	893	8	21'-0	893	8	21'-0	893
SLAB TRANSVERSE, BOTTOM		6c1	117	26'-10	4716	117	27'-9	4877	110	26'-10	4434	100	26'-10	4031
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	20	VARIES	494	40	VARIES	916
SLAB TRANSVERSE, TOP		5d1	117	26'-10	3275	117	27'-9	3387	110	26'-10	3079	100	26'-10	2799
SLAB TRANSVERSE ENDS, TOP		5d2	-	-	-	-	-	-	20	VARIES	343	40	VARIES	636
SLAB, TRANSVERSE AT ABUTMENT		8e1	20	26'-10	1433	-	-	-	-	-	-	-	-	-
SLAB, TRANSVERSE AT ABUTMENT		8e2	-	-	-	20	27'-8	1478	20	30'-7	1634	20	36'-9	1963
SLAB, HAIRPINS, AT ABUTMENT		6e3	60	6'-10	616	60	6'-11	624	60	7'-3	654	60	7'-11	714
PIER CAP HOOPS		5h1	32	7'-10	262	32	7'-10	262	48	7'-10	393	48	7'-10	393
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	23'-10	510	8	24'-8	527	8	27'-6	588	8	33'-8	720
PIER CAP, TOP LONGITUDINAL		8h4	4	26'-10	287	4	27'-9	297	4	30'-11	331	4	37'-11	405
TOP OF SLAB, TRANSVERSE, AT RAIL		5j1	232	8'-6	2057	232	8'-6	2057	232	8'-6	2057	230	8'-6	2040
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	24	8'-10	222	26	8'-10	240	28	8'-10	258	34	8'-10	314
PAVING SUPPORT LONGITUDINAL		5p3	6	24'-2	152	6	25'-0	157	6	27'-11	175	6	34'-1	214
SUB TOTAL - LBS.					48,676			49,052			49,586			50,291
OPEN RAIL - SEE LIST ON RAIL SHEET J24-41-06					7340			7340			7340			7340
TOTAL - LBS. WITH MONOLITHIC PIER CAP AND OPEN RAIL					56,016			56,392			56,926			57,631
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP AND OPEN RAIL SAME AS ABOVE EXCEPT ALL "h" BARS DELETED					54,803			55,152			55,460			55,959

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 120' BRIDGE

ITEM		SKEW	WITH MONOLITHIC PIER CAP 0°	15°	30°	45°	WITH NON-MONOLITHIC PIER CAP 0°	15°	30°	45°
OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	227.9	228.7	231.5	237.6	223.7	224.4	226.7	231.8
	REINFORCING STEEL	LBS.	56,016	56,392	56,926	57,631	54,803	55,152	55,460	55,959
OPEN RAIL		LIN. FT.	262.0	262.2	262.9	264.5	262.0	262.2	262.9	264.5

* INCLUDES 4 WINGS @ 0.71 C.Y. EACH; EXCLUDES RAIL CONCRETE.

BENT BAR DETAILS



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

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE SLAB BRIDGES

NOVEMBER, 2006

SUPERSTRUCTURE DETAILS
120'-0 BRIDGE

J24-13-06