BILL OF REINFORCING STEEL FOR SUPERSTRUCTURE - 150' BRIDGE

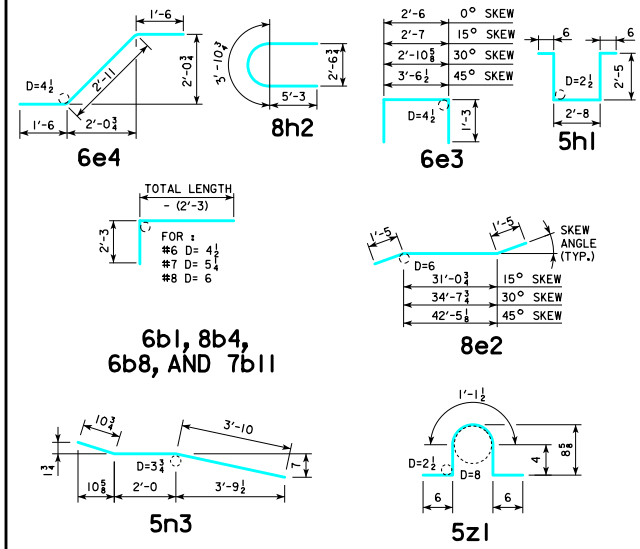
LOCATION \ SKEW	SHAPE	BAR	0° NO.	0° LENGTH	0° WEIGHT	15° NO.	15° LENGTH	15° WEIGHT	30° NO.	30° LENGTH	30° WEIGHT	45° NO.	45° LENGTH	45° WEIGHT
SLAB LONGITUDINAL BOTTOM		10a1	39	31'-3	5245	39	31'-3	5245	39	31'-3	5245	39	31'-3	5245
SLAB LONGITUDINAL BOTTOM		10a2	39	48'-4	8112	39	48'-4	8112	39	48'-4	8112	39	48'-4	8112
SLAB LONGITUDINAL BOTTOM		10a3	39	45'-4	7608	39	45'-4	7608	39	45'-4	7608	39	45'-4	7608
SLAB LONGITUDINAL BOTTOM		9a4	40	35'-0	4760	40	35'-0	4760	40	35'-0	4760	40	35'-0	4760
SLAB LONGITUDINAL BOTTOM		9a5	20	42'-6	2890	20	42'-6	2890	20	42'-6	2890	20	42'-6	2890
SLAB LONGITUDINAL BOTTOM, AT RAIL		9a6	8	42'-10	1166	8	42'-10	1166	8	42'-10	1166	8	42'-10	1166
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	53'-2	724	4	53'-2	724	4	53'-2	724	4	53'-2	724
SLAB LONGITUDINAL BOTTOM, AT RAIL		10a9	8	36'-0	1240	8	36'-0	1240	8	36'-0	1240	8	36'-0	1240
SLAB LONGITUDINAL BOTTOM, AT RAIL		10a10	4	32'-0	551	4	32'-0	551	4	32'-0	551	4	32'-0	551
SLAB LONGITUDINAL TOP		6b1	39	7'-6	440	39	7'-6	440	39	7'-6	440	39	7'-6	440
SLAB LONGITUDINAL TOP		11b2	39	30'-3	6269	39	30'-3	6269	39	30'-3	6269	39	30'-3	6269
SLAB LONGITUDINAL TOP		11b3	39	26'-0	5388	39	26'-0	5388	39	26'-0	5388	39	26'-0	5388
SLAB LONGITUDINAL TOP		8b4	39	33'-4	3471	39	33'-4	3471	39	33'-4	3471	39	33'-4	3471
SLAB LONGITUDINAL TOP		11b5	40	27'-6	5845	40	27'-6	5845	40	27'-6	5845	40	27'-6	5845
SLAB LONGITUDINAL TOP		6b6	20	39'-0	1172	20	39'-0	1172	20	39'-0	1172	20	39'-0	1172
SLAB LONGITUDINAL TOP, AT RAIL		6b8	8	35'-8	429	8	35'-8	429	8	35'-8	429	8	35'-8	429
SLAB LONGITUDINAL TOP, AT RAIL		11b9	8	33'-0	1403	8	33'-0	1403	8	33'-0	1403	8	33'-0	1403
SLAB LONGITUDINAL TOP, AT RAIL		6b10	4	29'-4	177	4	29'-4	177	4	29'-4	177	4	29'-4	177
SLAB LONGITUDINAL TOP, AT RAIL		7b11	8	41'-2	674	8	41'-2	674	8	41'-2	674	8	41'-2	674
SLAB LONGITUDINAL TOP, AT RAIL		11b12	8	23'-0	978	8	23'-0	978	8	23'-0	978	8	23'-0	978
SLAB TRANSVERSE, BOTTOM		6c1	147	32'-10	7250	147	34'-0	7507	134	32'-10	6609	120	32'-10	5918
SLAB TRANSVERSE ENDS, BOTTOM		6c2	-	-	-	-	-	-	30	VARIES	797	56	VARIES	1486
SLAB TRANSVERSE, TOP		5d1	147	32'-10	5035	147	34'-0	5213	134	32'-10	4589	120	32'-10	4110
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	6'-1	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	44	8'-6	391	44	8'-6	391	44	8'-6	391	66	8'-6	586
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	292	8'-6	2589	292	8'-6	2589	292	8'-6	2589	290	8'-6	2571
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.					78,614			79,147			79,299			80,179
BARRIER RAIL - SEE LIST ON RAIL SHEET J30-41-06					9161			9161			9161			9161
OPEN RAIL - SEE LIST ON RAIL SHEET J30-44-06					9605			9605			9605			9605
TOTAL - LBS. WITH MONOLITHIC PIER CAP		WITH BARRIER RAIL			87,775			88,308			88,460			89,340
		WITH OPEN RAIL			88,219			88,752			88,904			89,784
TOTAL - LBS. WITH NON-MONOLITHIC PIER CAP		WITH BARRIER RAIL			86,241			86,738			86,774			87,202
SAME AS ABOVE EXCEPT ALL "h" BARS DELETED		WITH OPEN RAIL			86,685			87,182			87,218			87,646

ESTIMATED QUANTITIES FOR SUPERSTRUCTURE - 150' 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.	393.1	393.8	396.3	401.6	388.5	389.0	391.0	395.2
	REINFORCING STEEL	LBS.	87,775	88,308	88,460	89,340	86,241	86,738	86,774	87,202
CONCRETE BARRIER OR OPEN RAIL		LIN. FT.	322.0	322.2	322.9	324.5	322.0	322.2	322.9	324.5
WITH OPEN RAIL	*STRUCTURAL CONCRETE (BRIDGE)	C.Y.	392.8	393.5	396.0	401.3	388.2	388.7	390.8	394.9
	REINFORCING STEEL	LBS.	88,219	88,752	88,904	89,784	86,685	87,182	87,218	87,646

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

BENT BAR DETAILS



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

REVISED 07-2009: OPEN RAIL REINF. QTYS. CHANGED WHICH CHANGED TOTAL REINF. QTYS.
REVISED 09-2020: UPDATED BRIDGE ENGINEER SIGNATURE. CHANGED PAVING BLOCK LIFTING HOOP BAR MARK. (WAS 5x1).

09-2020
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

IOWADOT Highway Division

STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE SLAB BRIDGES

NOVEMBER, 2006

SUPERSTRUCTURE DETAILS 150'-0 BRIDGE

NON-EPOXY COATED REINFORCING

J30-19B-06