BILL OF REINFORCING STEEL - ONE ABUTMENT - 0° SKEW

BRIDGE LENGTH				70'-0		80'-0		90'-0		100'-0		110'-0		120'-0		130'-0		140'-0		150'-0	
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
8r1	ABUTMENT FOOTING, LONGITUDINAL		26'-10	7	502	7	502	7	502	7	502	7	502	7	502	7	502	7	502	7	502
5s1	ABUTMENT FOOTING, HOOPS		11'-0	25	287	25	287	25	287	25	287	24	275	24	275	24	275	24	275	24	275
5p2	PAVING SUPPORT, TRANSV.		9'-4	12	117	12	117	12	117	12	117	12	117	12	117	12	117	12	117	12	117
4p5	PAVING SUPPORT, TRANSV.		1'-11	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15
5p6	PAVING SUPPORT, LONGIT.		24'-2	2	50	2	50	2	50	2	50	2	50	2	50	2	50	2	50	2	50
6t1	FOOTING TO SLAB DOWELS		3'-11	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353
*5u1	WING, LONGITUDINAL		6'-8	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
*2	PILE SPIRAL		38'-6	4	26	4	26	4	26	4	26	5	32	5	32	5	32	6	39	6	39
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	8	10	8	10	8	10	8	10	10	13	10	13	10	13	12	15	12	15
	REINFORCING STEEL - TOTAL (LBS.)				1443		1443		1443		1443		1440		1440		1440		1449		1449

BILL OF REINFORCING STEEL - ONE ABUTMENT - 15° SKEW

BRIDGE LENGTH				70'-0		80'-0		90'-0		100'-0		110'-0		120'-0		130'-0		140'-0		150'-0	
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
8r2	ABUTMENT FOOTING, LONGITUDINAL		27'-8	7	517	7	517	7	517	7	517	7	517	7	517	7	517	7	517	7	517
5s1	ABUTMENT FOOTING, HOOPS		11'-0	24	275	24	275	24	275	24	275	24	275	24	275	24	275	20	229	20	229
5s2	ABUTMENT FOOTING, HOOPS AT ENDS		11'-3	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47
5p2	PAVING SUPPORT, TRANSV.		9'-4	13	127	13	127	13	127	13	127	13	127	13	127	13	127	13	127	13	127
4p5	PAVING SUPPORT, TRANSV.		1'-11	13	17	13	17	13	17	13	17	13	17	13	17	13	17	13	17	13	17
5p6	PAVING SUPPORT, LONGITUDINAL		25'-0	2	52	2	52	2	52	2	52	2	52	2	52	2	52	2	52	2	52
6t1	FOOTING TO SLAB DOWELS		3'-11	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353
*5u1	WING, LONGITUDINAL		6'-8	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
*2	PILE SPIRAL		38'-6	5	32	5	32	5	32	5	32	5	32	5	32	5	32	6	39	6	39
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	10	13	10	13	10	13	10	13	10	13	10	13	10	13	12	15	12	15
	REINFORCING STEEL - TOTAL (LBS.)				1516		1516		1516		1516		1516		1516		1516		1479		1479

BILL OF REINFORCING STEEL - ONE ABUTMENT - 30° SKEW

BRIDGE LENGTH				70'-0		80'-0		90'-0		100'-0		110'-0		120'-0		130'-0		140'-0		150'-0	
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
8r2	ABUTMENT FOOTING, LONGITUDINAL		30'-7	7	572	7	572	7	572	7	572	7	572	7	572	7	572	7	572	7	572
5s1	ABUTMENT FOOTING, HOOPS		11'-0	24	275	24	275	24	275	24	275	24	275	24	275	24	275	25	287	25	287
5s2	ABUTMENT FOOTING, HOOPS AT ENDS		11'-11	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50
5p2	PAVING SUPPORT, TRANSV.		9'-4	14	136	14	136	14	136	14	136	14	136	14	136	14	136	14	136	14	136
4p5	PAVING SUPPORT, TRANSV.		1'-11	14	18	14	18	14	18	14	18	14	18	14	18	14	18	14	18	14	18
5p6	PAVING SUPPORT, LONGITUDINAL		27'-11	2	58	2	58	2	58	2	58	2	58	2	58	2	58	2	58	2	58
6t1	FOOTING TO SLAB DOWELS		3'-11	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353
*5u1	WING, LONGITUDINAL		6'-8	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
*2	PILE SPIRAL		38'-6	5	32	5	32	5	32	5	32	5	32	5	32	5	32	6	39	6	39
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	10	13	10	13	10	13	10	13	10	13	10	13	10	13	12	15	12	15
	REINFORCING STEEL - TOTAL (LBS.)				1590		1590		1590		1590		1590		1590		1590		1611		1611

BILL OF REINFORCING STEEL - ONE ABUTMENT - 45° SKEW

BRIDGE LENGTH				70'-0		80'-0		90'-0		100'-0		110'-0		120'-0		130'-0		140'-0		150'-0	
MARK	LOCATION	SHAPE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
8r2	ABUTMENT FOOTING, LONGITUDINAL		36'-9	7	687	7	687	7	687	7	687	7	687	7	687	7	687	7	687	7	687
5s1	ABUTMENT FOOTING, HOOPS		11'-0	30	344	30	344	30	344	30	344	30	344	28	321	28	321	28	321	32	367
5s2	ABUTMENT FOOTING, HOOPS AT ENDS		13'-6	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56
5p2	PAVING SUPPORT, TRANSV.		9'-4	17	165	17	165	17	165	17	165	17	165	17	165	17	165	17	165	17	165
4p5	PAVING SUPPORT, TRANSV.		1'-11	17	22	17	22	17	22	17	22	17	22	17	22	17	22	17	22	17	22
5p6	PAVING SUPPORT, LONGITUDINAL		34'-1	2	71	2	71	2	71	2	71	2	71	2	71	2	71	2	71	2	71
6t1	FOOTING TO SLAB DOWELS		3'-11	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353	60	353
*5u1	WING, LONGITUDINAL		6'-8	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83	12	83
*2	PILE SPIRAL		38'-6	6	39	6	39	7	45	7	45	7	45	8	51	8	51	8	51	9	58
	SPIRAL SPACERS - L 3/8 X 3/8 X 1/8 X 0.70		1'-10	12	15	12	15	14	18	14	18	14	18	16	21	16	21	16	21	18	23
	REINFORCING STEEL - TOTAL (LBS.)				1835		1835		1844		1844		1844		1830		1830		1830		1885

* SEE SHEET J24-20-06 FOR SPACING

ESTIMATED QUANTITIES - ONE ABUT. - 0° SKEW

LOCATION	UNIT	QUANTITY								
BRIDGE LENGTH		70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
REINFORCING STEEL	LBS.	1443	1443	1443	1443	1440	1440	1440	1449	1449
STEEL PILING HP 10X42	NO.	4	4	4	4	5	5	5	6	6
PREBORE HOLES	FT.	-	-	-	-	-	-	-	60	60

ESTIMATED QUANTITIES - ONE ABUT. - 15° SKEW

LOCATION	UNIT	QUANTITY								
BRIDGE LENGTH		70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
REINFORCING STEEL	LBS.	1516	1516	1516	1516	1516	1516	1516	1479	1479
STEEL PILING HP 10X42	NO.	5	5	5	5	5	5	5	6	6
PREBORE HOLES	FT.	-	-	-	-	-	-	-	60	60

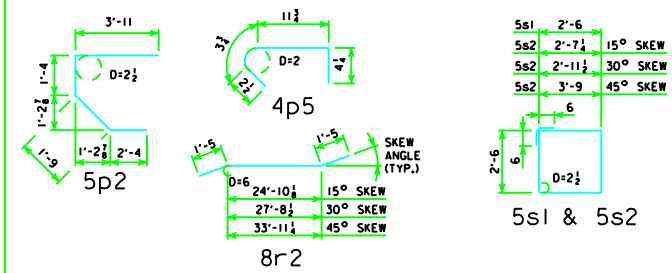
ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

LOCATION	UNIT	QUANTITY								
BRIDGE LENGTH		70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
REINFORCING STEEL	LBS.	1590	1590	1590	1590	1590	1590	1590	1611	1611
STEEL PILING HP 10X42	NO.	5	5	5	5	5	5	5	6	6
PREBORE HOLES	FT.	-	-	-	-	-	-	-	60	60

ESTIMATED QUANTITIES - ONE ABUT. - 45° SKEW

LOCATION	UNIT	QUANTITY								
BRIDGE LENGTH		70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
REINFORCING STEEL	LBS.	1835	1835	1844	1844	1844	1830	1830	1830	1885
STEEL PILING HP 10X42	NO.	6	6	7	7	7	8	8	8	9
PREBORE HOLES	FT.	-	-	-	-	-	-	-	80	90

BENT BAR DETAILS



NOTE: 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

ABUTMENT DETAILS
STEEL PILING

J24-39-06