

BILL OF REINFORCING STEEL - ONE ABUTMENT - 0° SKEW

MARK	LOCATION	SHAPE	LENGTH	70'-0"		80'-0"		90'-0"		100'-0"		110'-0"		120'-0"		130'-0"		140'-0"		150'-0"				
				NO.	WEIGHT	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	7	502	
5s1	ABUTMENT FOOTING HOOPS	▭	11'-0"	22	252	22	252	22	252	25	287	25	287	20	229	20	229	22	252	22	252	22	252	
6t1	FOOTING TO SLAB DOWELS	▬	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	
6t2	FOOTING TO SLAB DOWELS	▬	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	
#2	PILE SPIRAL	⊘	38'-6"	7	45	7	45	7	45	8	51	8	51	9	58	9	58	10	64	10	64	10	64	
	SPIRAL SPACERS, L _{1/2} x L _{1/2} x L _{1/2} x 0.70	▬	1'-10"	21	27	21	27	21	27	24	31	24	31	27	35	27	35	30	39	30	39	30	39	
REINFORCING STEEL - TOTAL (LBS.)					1303	1303	1303	1303	1348	1348	1301	1301	1334	1334										

BILL OF REINFORCING STEEL - ONE ABUTMENT - 15° SKEW

MARK	LOCATION	SHAPE	LENGTH	70'-0"		80'-0"		90'-0"		100'-0"		110'-0"		120'-0"		130'-0"		140'-0"		150'-0"				
				NO.	WEIGHT	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	7	517	
5s1	ABUTMENT FOOTING HOOPS	▭	11'-0"	24	275	24	275	21	241	21	241	21	241	24	275	24	275	18	207	18	207	18	207	
5s2	ABUTMENT FOOTING HOOPS	▭	11'-3"	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47	
6t1	FOOTING TO SLAB DOWELS	▬	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	
6t2	FOOTING TO SLAB DOWELS	▬	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	
#2	PILE SPIRAL	⊘	38'-6"	7	45	7	45	8	51	8	51	8	51	9	58	9	58	10	64	10	64	10	64	
	SPIRAL SPACERS, L _{1/2} x L _{1/2} x L _{1/2} x 0.70	▬	1'-10"	21	27	21	27	24	31	24	31	24	31	27	35	27	35	30	39	30	39	30	39	
REINFORCING STEEL - TOTAL (LBS.)					1388	1388	1364	1364	1364	1409	1409	1351	1351											

BILL OF REINFORCING STEEL - ONE ABUTMENT - 30° SKEW

MARK	LOCATION	SHAPE	LENGTH	70'-0"		80'-0"		90'-0"		100'-0"		110'-0"		120'-0"		130'-0"		140'-0"		150'-0"				
				NO.	WEIGHT	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	7	572	
5s1	ABUTMENT FOOTING HOOPS	▭	11'-0"	24	275	24	275	21	241	21	241	24	275	24	275	27	310	20	229	22	252	22	252	
5s2	ABUTMENT FOOTING HOOPS	▭	11'-11"	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50	
6t1	FOOTING TO SLAB DOWELS	▬	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	
6t2	FOOTING TO SLAB DOWELS	▬	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	
#2	PILE SPIRAL	⊘	38'-6"	7	45	7	45	8	51	8	51	9	58	9	58	10	64	11	71	12	77	12	77	
	SPIRAL SPACERS, L _{1/2} x L _{1/2} x L _{1/2} x 0.70	▬	1'-10"	21	27	21	27	24	31	24	31	27	35	27	35	30	39	33	42	36	46	36	46	
REINFORCING STEEL - TOTAL (LBS.)					1446	1446	1422	1422	1467	1467	1512	1441	1474											

BILL OF REINFORCING STEEL - ONE ABUTMENT - 45° SKEW

MARK	LOCATION	SHAPE	LENGTH	70'-0"		80'-0"		90'-0"		100'-0"		110'-0"		120'-0"		130'-0"		140'-0"		150'-0"				
				NO.	WEIGHT	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	7	687	
5s1	ABUTMENT FOOTING HOOPS	▭	11'-0"	28	321	28	321	28	321	32	367	32	367	27	310	27	310	33	379	33	379	33	379	
5s2	ABUTMENT FOOTING HOOPS	▭	13'-6"	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	
6t1	FOOTING TO SLAB DOWELS	▬	5'-0"	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	30	225	
6t2	FOOTING TO SLAB DOWELS	▬	5'-7"	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	30	252	
#2	PILE SPIRAL	⊘	38'-6"	8	51	8	51	8	51	9	58	9	58	10	64	10	64	12	77	12	77	12	77	
	SPIRAL SPACERS, L _{1/2} x L _{1/2} x L _{1/2} x 0.70	▬	1'-10"	24	31	24	31	24	31	27	35	27	35	30	39	30	39	36	46	36	46	36	46	
REINFORCING STEEL - TOTAL (LBS.)					1623	1623	1623	1680	1680	1633	1633	1722	1722											

ESTIMATED QUANTITIES - ONE ABUT. - 0° SKEW

LOCATION	UNIT	QUANTITY									
		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	8.6	8.6	8.6	8.6	8.6	8.5	8.5	8.4	8.4	
REINFORCING STEEL	LBS.	1303	1303	1303	1348	1348	1301	1301	1334	1334	
WOOD PILES (TREATED)	NO.	7	7	7	8	8	9	9	10	10	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	100	100	

ESTIMATED QUANTITIES - ONE ABUT. - 15° SKEW

LOCATION	UNIT	QUANTITY									
		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	8.9	8.9	8.9	8.9	8.9	8.8	8.8	8.7	8.7	
REINFORCING STEEL	LBS.	1388	1388	1364	1364	1364	1409	1409	1351	1351	
WOOD PILES (TREATED)	NO.	7	7	8	8	8	9	9	10	10	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	100	100	

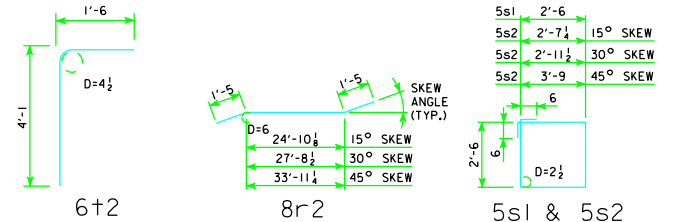
ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW

LOCATION	UNIT	QUANTITY									
		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	10.0	10.0	10.0	10.0	9.9	9.9	9.8	9.8	9.7	
REINFORCING STEEL	LBS.	1446	1446	1422	1422	1467	1467	1512	1441	1474	
WOOD PILES (TREATED)	NO.	7	7	8	8	9	9	10	11	12	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	110	120	

ESTIMATED QUANTITIES - ONE ABUT. - 45° SKEW

LOCATION	UNIT	QUANTITY									
		70'-0"	80'-0"	90'-0"	100'-0"	110'-0"	120'-0"	130'-0"	140'-0"	150'-0"	
STRUCTURAL CONCRETE (BRIDGE)	C.Y.	12.3	12.3	12.3	12.3	12.3	12.2	12.2	12.1	12.1	
REINFORCING STEEL	LBS.	1623	1623	1623	1680	1680	1633	1633	1722	1722	
WOOD PILES (TREATED)	NO.	8	8	8	9	9	10	10	12	12	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	120	120	

BENT BAR DETAILS



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

07-09 LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER <i>Thomas C. McQuinn</i>	<p>Iowa Department of Transportation Highway Division</p>
		<p>STANDARD DESIGN - 24' ROADWAY, 3 SPAN BRIDGES</p> <p>CONTINUOUS CONCRETE SLAB BRIDGES</p> <p>NOVEMBER, 2006</p>
		<p>ABUTMENT DETAILS TIMBER PILING</p> <p align="right">J24-33-06</p>

REVISED 07-09 - CONCRETE QUANTITIES CHANGED.