

**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.
8r1	ABUTMENT FOOTING LONGITUDINAL	▬	32'-10	7	614	7	614	7	614	7	614	7	614	7	614	7	614	7	614	7	614	
5s1	ABUTMENT FOOTING HOOPS	⊏	11'-0	28	321	28	321	28	321	28	321	28	321	29	333	29	333	28	321	28	321	
6+1	FOOTING TO SLAB DOWELS	▬	5'-0	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	
6+2	FOOTING TO SLAB DOWELS	▬	5'-7	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	
#2	PILE SPIRAL	⊗	38'-6	5	32	5	32	5	32	5	32	5	32	6	39	6	39	7	45	7	45	
	SPIRAL SPACERS - L 7/8 X 7/8 X 1/2 X 0.70	▬	1'-10	15	19	15	19	15	19	15	19	15	19	18	23	18	23	21	27	21	27	
REINFORCING STEEL - TOTAL (LBS.)					1558	1558	1558	1558	1558	1558	1581	1581	1579	1579	1581	1581	1579	1579	1579	1579	1579	1579

**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.
8r2	ABUTMENT FOOTING LONGITUDINAL	▬	33'-11	7	634	7	634	7	634	7	634	7	634	7	634	7	634	7	634	7	634	
5s1	ABUTMENT FOOTING HOOPS	⊏	11'-0	24	275	24	275	24	275	24	275	24	275	25	287	25	287	24	275	24	275	
5s2	ABUTMENT FOOTING HOOPS	⊏	11'-3	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47	4	47	
6+1	FOOTING TO SLAB DOWELS	▬	5'-0	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	
6+2	FOOTING TO SLAB DOWELS	▬	5'-7	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	
#2	PILE SPIRAL	⊗	38'-6	5	32	5	32	5	32	5	32	5	32	6	39	6	39	7	45	7	45	
	SPIRAL SPACERS - L 7/8 X 7/8 X 1/2 X 0.70	▬	1'-10	15	19	15	19	15	19	15	19	15	19	18	23	18	23	21	27	21	27	
REINFORCING STEEL - TOTAL (LBS.)					1579	1579	1579	1579	1579	1579	1602	1602	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600

**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.
8r2	ABUTMENT FOOTING LONGITUDINAL	▬	37'-6	7	701	7	701	7	701	7	701	7	701	7	701	7	701	7	701	7	701	
5s1	ABUTMENT FOOTING HOOPS	⊏	11'-0	30	344	30	344	30	344	30	344	30	344	30	344	30	344	30	344	30	344	
5s2	ABUTMENT FOOTING HOOPS	⊏	11'-11	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50	4	50	
6+1	FOOTING TO SLAB DOWELS	▬	5'-0	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	
6+2	FOOTING TO SLAB DOWELS	▬	5'-7	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	
#2	PILE SPIRAL	⊗	38'-6	6	39	6	39	6	39	6	39	6	39	6	39	6	39	7	45	7	45	
	SPIRAL SPACERS - L 7/8 X 7/8 X 1/2 X 0.70	▬	1'-10	18	23	18	23	18	23	18	23	18	23	18	23	18	23	21	27	21	27	
REINFORCING STEEL - TOTAL (LBS.)					1729	1729	1729	1729	1729	1729	1729	1729	1729	1729	1729	1729	1729	1739	1739	1739	1739	1739

**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.
8r2	ABUTMENT FOOTING LONGITUDINAL	▬	45'-3	7	846	7	846	7	846	7	846	7	846	7	846	7	846	7	846	7	846	
5s1	ABUTMENT FOOTING HOOPS	⊏	11'-0	42	482	42	482	42	482	42	482	42	482	42	482	42	482	42	482	42	482	
5s2	ABUTMENT FOOTING HOOPS	⊏	13'-6	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	4	56	
6+1	FOOTING TO SLAB DOWELS	▬	5'-0	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	36	270	
6+2	FOOTING TO SLAB DOWELS	▬	5'-7	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	36	302	
#2	PILE SPIRAL	⊗	38'-6	7	45	7	45	7	45	7	45	7	45	7	45	7	45	7	45	8	51	
	SPIRAL SPACERS - L 7/8 X 7/8 X 1/2 X 0.70	▬	1'-10	21	27	21	27	21	27	21	27	21	27	21	27	21	27	21	27	24	31	
REINFORCING STEEL - TOTAL (LBS.)					2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2028	2038	2038

**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.	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	
REINFORCING STEEL	LBS.	1558	1558	1558	1558	1558	1581	1581	1579	1579	
STEEL PILING HP 10 X 42	NO.	5	5	5	5	5	6	6	7	7	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	70	

**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.	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	
REINFORCING STEEL	LBS.	1579	1579	1579	1579	1579	1602	1602	1600	1600	
STEEL PILING HP 10 X 42	NO.	5	5	5	5	5	6	6	7	7	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	70	

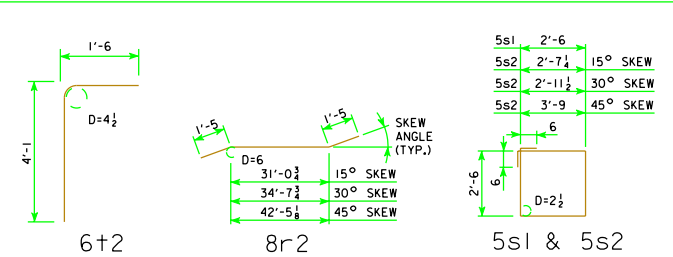
**ESTIMATED QUANTITIES - ONE ABUT. - 30° SKEW**

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.	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	
REINFORCING STEEL	LBS.	1729	1729	1729	1729	1729	1729	1729	1739	1739	
STEEL PILING HP 10 X 42	NO.	6	6	6	6	6	6	6	7	7	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	70	

**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.	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	
REINFORCING STEEL	LBS.	2028	2028	2028	2028	2028	2028	2028	2038	2038	
STEEL PILING HP 10 X 42	NO.	7	7	7	7	7	7	7	7	8	
PREBORE HOLES	FT.	-	-	-	-	-	-	-	70	80	

**BENT BAR DETAILS**



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

07-09 LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES <b>CONTINUOUS CONCRETE SLAB BRIDGES</b> NOVEMBER, 2006
		ABUTMENT DETAILS STEEL PILING

REVISED 07-09 - CONCRETE QUANTITIES CHANGED.

NOTE: THE PILE SPIRALS AND SPIRAL SPACERS ARE TO BE NON-COATED REINFORCING BUT MAY BE EPOXY COATED AT THE CONTRACTORS OPTION AND EXPENSE.