

GENERAL NOTES

LOADING: A uniform load is determined which will produce yield stress at the base of the pole, this load is increased by 25% and the resulting load is considered the ultimate load. The ultimate load is used to size the footing. 42% of ultimate load is used to determine reinforcing.

UNIT STRESSES: $F_y(\text{pole}) = 55,000 \text{ p.s.i.}$; $F_y(\text{anchor bolts}) = 55,000 \text{ p.s.i.}$; $F_y(\text{rein.}) = 40,000 \text{ p.s.i.}$; $F_c = 3,000 \text{ p.s.i.}$ Footing is reinforced for pure bending at top by ACI 318-63. Footing size is determined by Research Report 105-3, Design of Footings for Minor Service Structures, Texas Transportation Institute.

CONCRETE: Use Class A Concrete throughout. Form top twelve inches of footing. Concrete shall be rodded and vibrated.

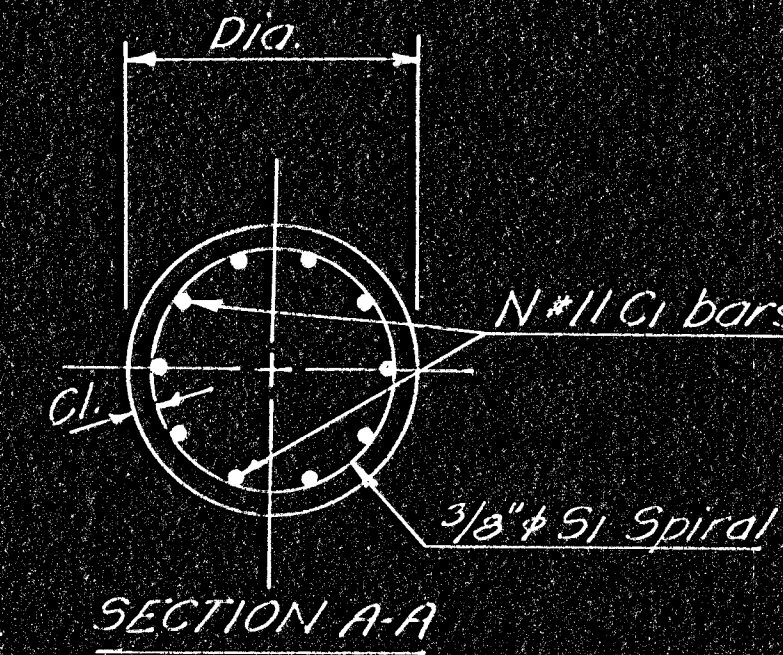
REINFORCING: All dimensions relative to reinforcing steel are to center line of bar unless otherwise noted. **ANCHOR BOLTS:** Anchor bolts shall conform to subsection 1006.13 (Type II) of the K.S.H.C. Standard Specifications, 1973 Edition.

EXCAVATION: Footing holes shall be carefully drilled to the required size at the proper location. All excavation shall be disposed of within the right-of-way in such a manner as to blend uniformly with the existing surface and as approved by the Engineer. Immediately before placing any concrete the contractor shall remove all loose and uncompacted material from the bottom of the hole.

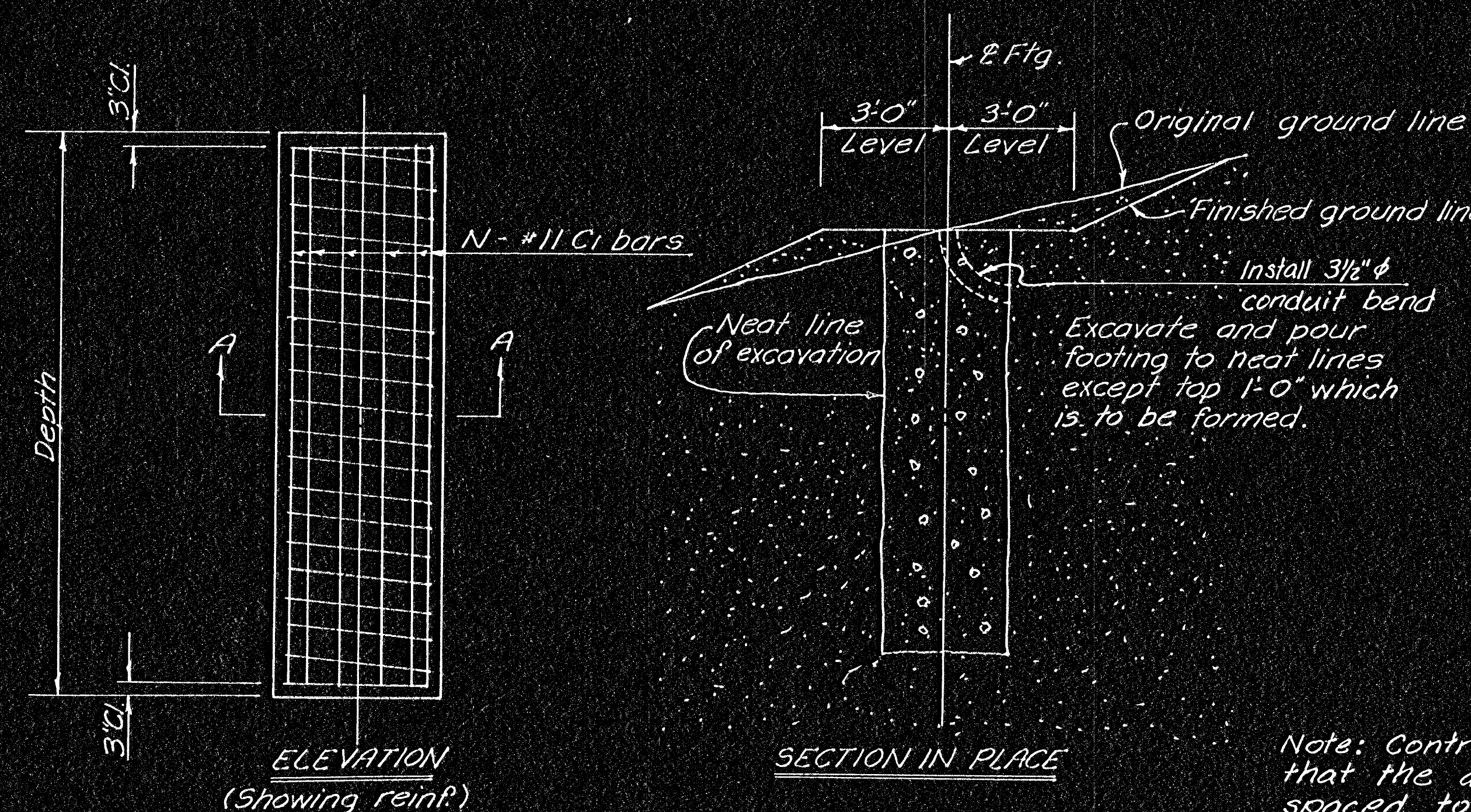
BACKFILL: All soil used for the backfilling of footing excavation shall be thoroughly compacted as it is placed. The backfill shall be brought up to the finished ground line adjacent to footings.

Design Note: The design of these footings is based on the use of Union Metal Drawing 72070-E56 Towers and 10 Holophane No. 1100 Lamps.

PAYMENT: All material and labor necessary to complete the light tower footings shall be included in the per each bid item, "Light Tower Footing."

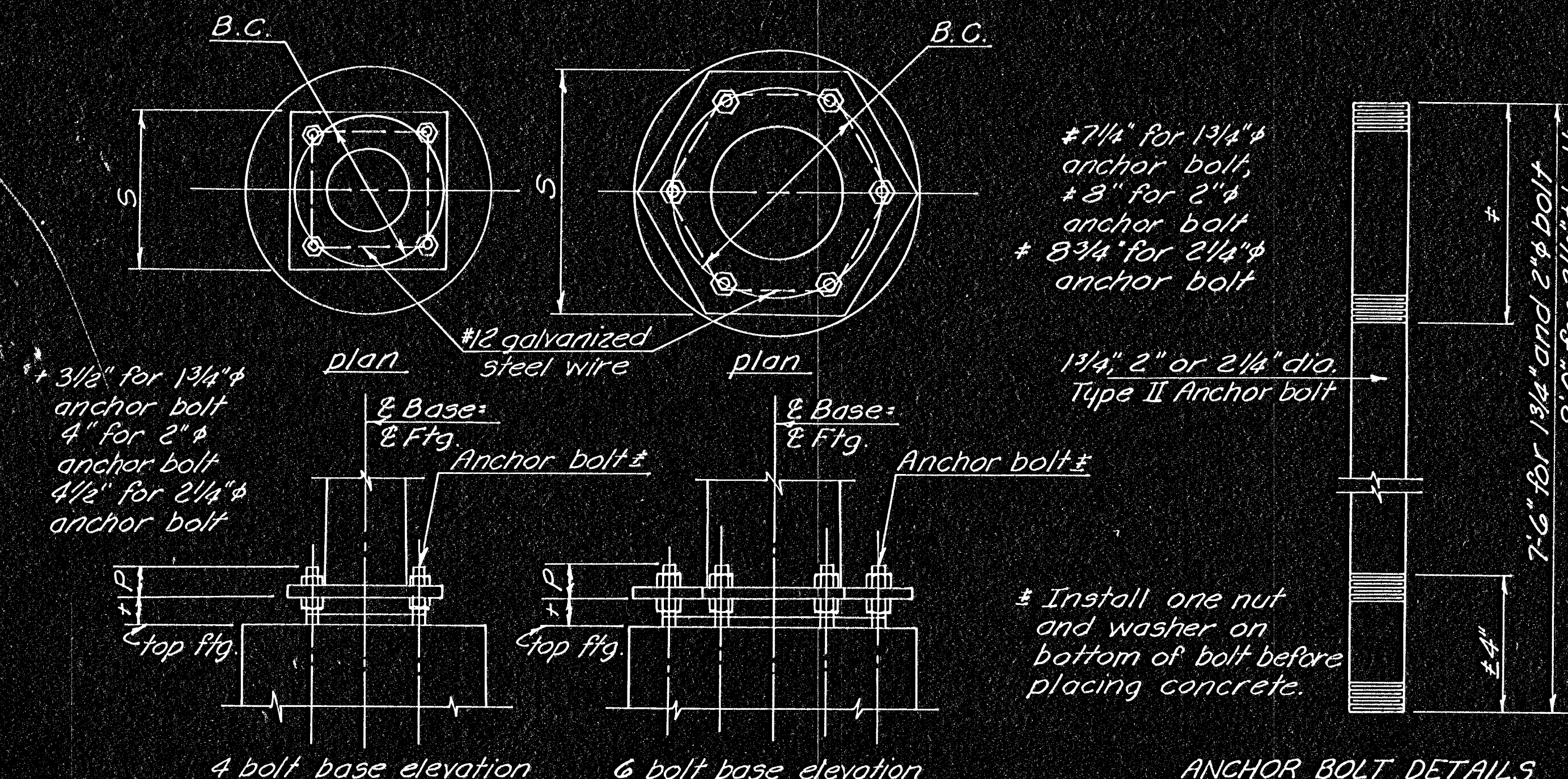


Dimension Pole Length	B.C.	S	P	Bolts	Dia.	N	Cl.	Spiral dia.
80'	1'-10"	1'-11"	3 3/4"	4-1 3/4" x 7'-6"	3'-0"	6	5 1/2"	2'-1"
90'	1'-11 1/2"	2'-0 1/2"	3 3/4"	4-1 3/4" x 7'-6"	3'-0"	6	5"	2'-2"
100'	2'-1 1/2"	2'-2 1/2"	4"	4-2" x 7'-6"	3'-0"	9	3 1/2"	2'-5"
110'	2'-0 1/2"	2'-5 1/2"	3 1/4"	6-1 3/4" x 7'-6"	3'-0"	11	4 1/2"	2'-3"
120'	2'-3 1/4"	2'-9"	3 1/2"	6-2" x 7'-6"	3'-6"	11	6"	2'-6"
130'	2'-6 3/4"	2'-11 1/4"	3 3/4"	6-2" x 7'-6"	3'-6"	13	4"	2'-10"
140'	2'-6 3/4"	3'-0 1/2"	4 1/4"	6-2 1/4" x 8'-0"	3'-6"	15	4"	2'-10"
150'	2'-6 3/4"	3'-0 1/2"	4 1/4"	6-2 1/4" x 8'-0"	3'-6"	17	4"	2'-10"



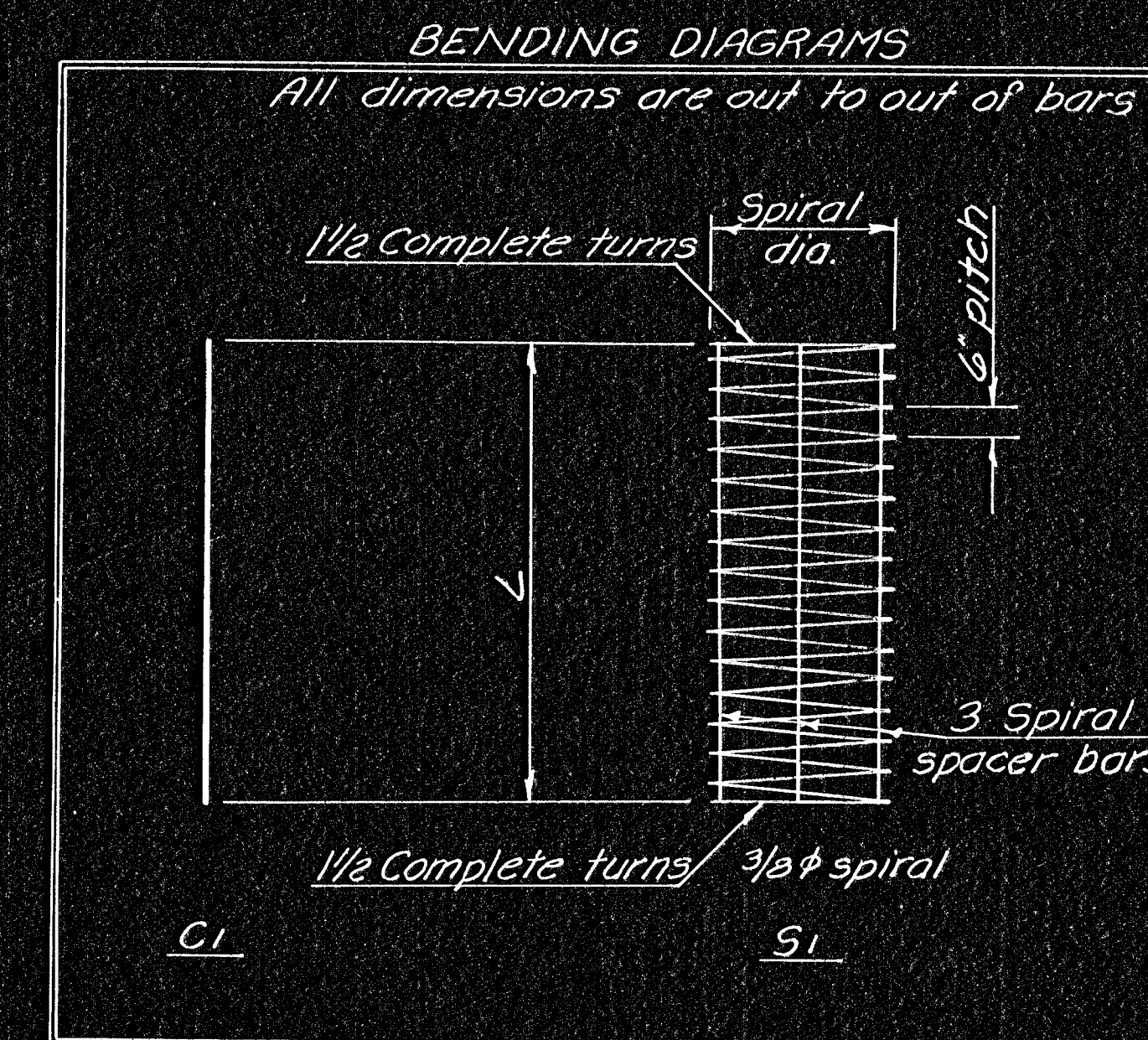
Location	Pole Length	Depth	L
Sta. 26+00 * Kellogg Ave.	110'	10'-0"	9'-6"
Sta. 32+00 * Kellogg Ave.	110'	13'-0"	17'-6"
Sta. 73+00 * Kellogg Ave.	110'	10'-0"	9'-6"
* 3' Rt. E			

Note: Contractor shall make certain that the anchor bolts are properly spaced to assure correct fit when the towers are erected.



TOWER ATTACHMENT DETAILS
(Towers under separate contract)

Note: Contractor shall supply two hex nuts and two washers at the top of each bolt.



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2					
1	7-12-73	Rev. to conform to 1973 Std. Specs	LES	E.E.W.	
NO.	DATE	REVISIONS	BY	APP'D	
STATE HIGHWAY COMMISSION OF KANSAS					
LIGHTING TOWERS					
FOOTING DETAILS					
SHEET NO. 2 OF 2	SCALE Varied	APP'D			
DESIGNED LES	DETAILED LES	QUANTITIES			
DESIGN CK. DRS	DETAIL CK. DRS	QUAN. CK.			