

RAILROAD CROSSINGS

OVERHEAD CROSSINGS

POLES, CROSSARMS AND INSULATORS

Contents	Page
1. Sizes of Poles	1
2. Depth of Setting of Poles	2
3. Spliced Poles	3
4. Stub Reinforced Poles	3
5. Crossarms and Brackets	3
6. Drive Hooks and Guard Arm Hooks	4
7. Insulators and Tie Wires	4

1. SIZES OF POLES

1.01 Poles shall be of a size not less than the class specified in Table 1 below for the corresponding number of wires carried. If guys are omitted, poles must be of sufficient strength to meet the requirements specified in Section G10.310.6, Railroad Crossings, Overhead Crossings, Guys.

TABLE 1

MINIMUM CLASS

	<u>10 Wires or less</u>	<u>11 to 20 Wires</u>	<u>21 to 40 Wires</u>	<u>Over 40 Wires</u>
Heavy and Medium Loading Districts	7	6	5	4
Light Loading Districts	7	6	6	5

2. DEPTH OF SETTING OF POLES

2.01 The following table indicates the minimum depth of setting for railroad crossing poles that are not required to be side guyed.

TABLE 2
MINIMUM DEPTH OF SETTING FOR
CROSSING POLES NOT SIDE GUYED

Length of Pole in Feet	Depth in Feet in Average Firm Soil for Different Classes of Poles				Depth in Feet in Solid Rock All Classes
	Class 1 and 2	Class 3 and 4	Class 5 and 6	Class 7	
16	-	-	4	3-3/4	3
18	-	-	4-1/4	4	3-1/4
20	4-3/4	4-1/2	4-1/4	4	3-1/4
22	5	4-3/4	4-1/2	4-1/4	3-1/2
25	5-1/2	5-1/4	4-3/4	4-1/2	3-3/4
30	6	5-3/4	5-1/2	5	4-1/4
35	6-1/2	6	5-1/2	5-1/4	4-1/2
40	6-3/4	6-1/4	5-3/4	5-1/2	4-3/4
45	7	6-1/2	6	6	5
50	7-1/4	6-3/4	6-1/2	6-1/2	5-1/4
55	7-1/2	7	7	-	5-1/2
60	7-3/4	7-1/4	7	-	5-3/4
65	8	7-1/2	7-1/2	-	6
70	8-1/2	8	7-1/2	-	6
75	9	8-1/2	8	-	6
80	9-1/2	9	8-1/2	-	-

2.02 The minimum depth of setting railroad crossing poles that are side guyed is one foot less than the depth given in Table 2 where the pole is set in average firm soil and 1/2 foot less when set in solid rock but never less than 3 feet deep.

2.03 Where soil or other conditions are such that the minimum depths shown in Paragraphs 2.01 and 2.02 above will not develop the strength of a pole set under normal conditions, the pole shall be set to an additional depth or other standard means used to properly secure the pole.

3. SPLICED POLES

3.01 Spliced Poles, including pole top extensions, shall not be used to support the crossing span.

4. STUB REINFORCED POLES

4.01 Stub reinforced poles shall not be used at crossings over major tracks.

4.02 Stub reinforced poles are permitted at crossings over minor tracks provided:

(a) The pole above the ground line is in good condition and is of sufficient size to develop its required strength.

(b) The stub shall have a ground line circumference at least as great as would be required for a new pole in the same location.

(c) The stub shall be set to a depth at least as great as that required for the pole being stubbed. (See Paragraph 2.01.)

(d) Stubs shall, in general, be set at the side of the pole in a plane perpendicular to the direction of the line. Where the direction of the line changes at a stub reinforced pole, the stub shall be at the side of the pole in a plane bisecting the angle of the corner and in the direction of the corner pull. Where head guys are omitted, as permitted in Section G10.310.6, Paragraph 4, the stub shall be set on the track side of the pole in line with the crossing span.

5. CROSSARMS AND BRACKETS

5.01 Double crossarms are required for supporting open wire at railroad crossings, except over minor tracks, where wooden pole brackets in duplicate may be used. The use of 16 pin crossarms for supporting open wire at crossings shall be limited to the light and medium loading districts.

5.02 Crossarms or guard arms that support drop wires only need not be placed in duplicate.

6. DRIVE HOOKS AND GUARD ARM HOOKS

6.01 Standard drive hooks may be used to support drop wires on crossing poles. Each span of drop wire should be attached to the drive hook by means of a drop wire clamp. Not more than two drop wires, crossing the tracks, may be attached to each drive hook.

6.02 Standard guard arm hooks may be used in connection with attaching drop wires to guard arms and crossarms for crossing spans. Each span of drop wire should be attached to the guard arm hook by means of a drop wire clamp. Not more than four drop wires crossing the tracks may be attached to each guard arm hook.

7. INSULATORS AND TIE WIRES

7.01 Each conductor, unless dead-ended, should be tied to an insulator on each of the two brackets or on each of the two crossarms at each of the crossing poles. Any type of tie used in standard open wire constructions may be used in accordance with standard practices.