

**BELL SYSTEM PRACTICES**  
**Outside Plant Construction**  
**and Maintenance**

**SECTION G21.140.1**  
**Issue 2, August, 1957**  
**AT&T Co Standard**

## **ERECTING POLES AND STUBS**

### **GENERAL**

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#### **1. GENERAL**

1.01 This section has been revised to refer to the pre-  
cautions contained in the section on "Pole Holes" in  
which instructions on gas and buried electric lines have recently  
been included.

1.02 Several methods of placing poles are described in this  
group of practices. The conditions existing and the  
equipment available should determine the particular method  
to be employed.

1.03 All work should be conducted so as to avoid any inter-  
ruption of service.

1.04 Where practicable the crossarms with associated hard-  
ware, cable suspension clamps, bolts, and pole steps  
should be placed before the pole is erected.

## **2. SAFETY PRECAUTIONS**

2.01 Employees engaged in pole placing or removal operations shall follow the instructions covered in the sections "Precautions, General" and "Precautions, Aerial Work."

2.02 The safety precautions contained in the section on "Pole Holes" shall be observed in connection with digging operations.

2.03 Placing or removing poles near electric power lines shall be done in accordance with the section "Placing or Removing Poles Near Electric Wires."

2.04 The winch line or wire rope snatch block must be secured to the pole sufficiently above the balance point, taking consideration of any added weight such as crossarms and other attachments, to assure a slightly butt heavy condition.

2.05 Manila ropes and blocks shall be used in accordance with the sections on "Manila Rope and Blocks."

2.06 All work should be planned to avoid leaving pole holes open over night. Holes which must be left open shall be properly protected.

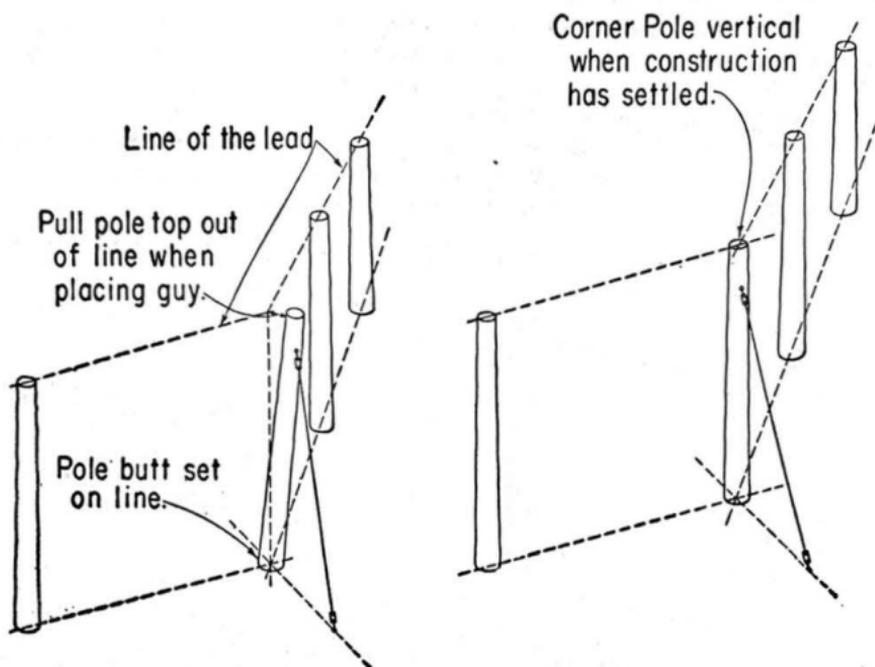
2.07 Climbers shall not be worn by any employee engaged in any of the ground operations in this group of practices.

2.08 Exercise extreme caution when footing is not good.

## **3. RAKE OF GUYED CORNER POLES, DEAD-END POLES OR STUBS**

3.01 When placing guys on corner poles, dead-end poles or stubs pull the top of the pole over an amount that, when the wire or strand is tensioned and the structure has settled, the pole will be in a vertical position. Under average conditions, pole tops should be pulled out of line an amount approximately equal to the diameter of the pole top. When conditions are such that more or less yield is expected from the pole and guy, this amount may be modified accordingly.

## GUYED CORNER POLE



### 4. RAKE OF PUSH BRACED POLES

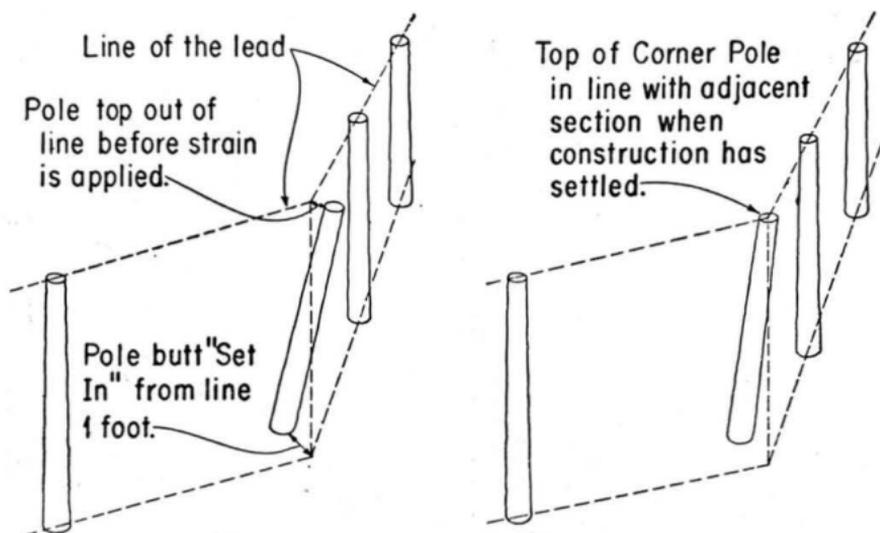
- 4.01 The amount of rake of push braced poles shall be as recommended in Part 3.

### 5. RAKE OF UNGUYED OR GROUND BRACED POLES OR STUBS

- 5.01 The recommended amount of rake of unguyed or ground braced poles or stubs is one foot for all lengths of poles.
- 5.02 Provide the rake by "setting in" the butt of the pole by an amount equal to the rake.

5.03 Tamp in the pole with sufficient additional rake at the top so that when the wire or strand is tensioned the top of the pole will come back into line with the lead.

### UNGUYED CORNER POLE RAKED



## 6. BACKFILLING AND TAMPING

6.01 After the pole is placed, line it up and hold it in position with pike poles so that it will not move during the backfilling operation. Backfill the hole with small quantities of earth, tamping each layer thoroughly. Avoid backfilling with frozen ground if possible. Where there is snow on the ground, take precautions to keep snow from mixing with the earth that is tamped back into the hole. Where conditions permit, use coarse soil or gravel at the top of the hole in filling. Wedge rock firmly around poles that are set in solid rock. In rural districts bank the earth around the pole above ground level and pack it firmly. In urban districts do not bank excess earth around the base of the pole. If necessary, dispose of excess earth by hauling it away.

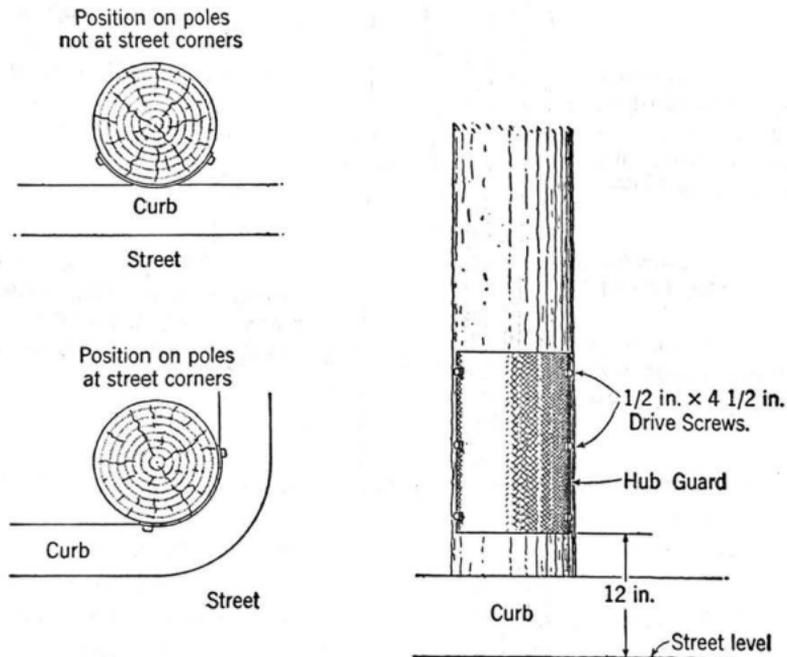
## 7. REPAVING

7.01 When suitable arrangements can be made with the municipality or property owner involved, it is desirable to leave an unpaved collar (2 to 3 inches wide) around the pole. This will facilitate future pole inspection, replacement or removal.

7.02 Where repaving up to the circumference of the pole is required, it is desirable that it should not be done until the backfill has completely settled.

## 8. HUB GUARDS

8.01 Where poles must be located within 6 inches of the street edge of the curb in business sections of cities and towns and at other locations if experience shows it to be advisable, place hub guards as shown.



### 9. GUARDS FOR CREOSOTED POLES

9.01 On creosoted poles it may be desirable in special cases to protect the public from contact with the preservative treatment by encircling them with a guard as shown.

