

## GENERAL SEPARATIONS FOR DROP AND BLOCK WIRING

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### 1. GENERAL

**1.01** This section outlines the Company's policy with respect to antenna attachments to Telephone Company poles or other fixtures and clearances between telephone conductors and antennae lead-in conductors. It is reissued to revise reference section number.

**1.02** Circuits associated with community TV Systems, other than those installed by the Telephone Company, should be treated as power circuits due to the possibility of improper clearance from power circuits or attachments.

**1.03** Where obtainable greater separations than those indicated herein are desirable from a maintenance standpoint.

**1.04** Minimum separations for buried wire, underground service cable located on the outside of buildings and for wiring extended outside of buildings are the same as those specified herein for drop and block wires.

**1.05** *Drop and block wires, buried wires and service cables shall not be placed in pipe, conduit or compartment containing electric light*

*or power wires or cables, nor in the same outlet box, junction box or similar fitting compartment unless separated from the electric light or power wires by a suitable partition, except where the power wires are terminated in an outlet box, junction box or compartment solely as power supply to signalling equipment or for connection to remote control equipment.*

### 2. MINIMUM SEPARATIONS ON OUTSIDE OF BUILDINGS

**2.01** Table 1 specifies (a) recommended minimum separations for drop or block wires that cross or parallel other conductors or metallic objects on the outside of buildings and (b) the type of supplemental protection to be placed at crossings where the minimum separations cannot be obtained.

**TABLE 1  
MINIMUM SEPARATIONS BETWEEN DROP, BLOCK  
AND TELEPHONE GROUND WIRES ON BUILDINGS  
TO TYPE OF PLANT INDICATED BELOW  
(Applies to crossings and to horizontal or  
vertical parallel runs)**

| Type of Plant Involved<br>(Including Associated Fixed Equipment and Wiring) |   | Minimum Separations | Protection Required if Minimum Separations cannot be Obtained |
|---|---|---------------------|---|
| 1. Electric Supply:   | Service Drops or Open Wiring not over 750 Volts             | 4 in.               | P<br>Wire Guard*  |
|   | Wires in Conduit or in Armored or Non Metallic Sheath Cable | 2 in.               |   |
| 2. Radio and Television:  | Antenna Lead-in and Ground Wires                            | 4 in.               |   |
| 3. Signal Wires:  | Open Wires or Wires in Conduit or Cable                     | 2 in.               |   |
| 4. Communication Wires:   | Foreign Open Wires and Wires in Conduit or Cable            | 2 in.               |   |
|   | Between Exposed and Unexposed Telephone Co. Wires           | 2 in.               |   |
| 5. Metallic Objects:  | Rain Spouts and Gutters                                     | 2 in.               |   |
|   | Gratings etc.   | —                   |   |

TABLE 1 — (Cont'd)

| Type of Plant Involved<br>(Including Associated Fixed Equipment and Wiring) |   | Minimum Separations | Protection Required if Minimum Separations cannot be Obtained |
|---|---|---------------------|---|
| 6. Ground Wires:  | Ground Wires (Except Radio, Television, Lightning Ground Wires, and Telephone Ground Wires) | 2 in.               |   |
| 7. Lightning:   | Lightning Wires and Rods  | 6 ft.               | See Para. 2.02  |
| 8. Signs:   | Neon Signs and Associated Wiring from Transformer   | 6 in.               | P Wire Guard 12 in. Long*                                     |
|   | Telephone Ground Rods to other Ground Rods  | 6 ft.               | No Alternative  |

\* Applies only to crossings. For parallel runs the indicated minimum separations must be obtained.

**2.02** Separations of less than 6 feet between drop, block or telephone ground wires and lightning wires or rods are permissible under the following conditions. In no case shall the separation be less than 4 inches.

(a) Where telephone, power and lightning rod ground connections are made to a common grounding medium such as a cold water pipe.

(b) Where separate driven ground rods are used for telephone power and lightning rod installations, **and the ground rods are bonded together.**

### 3. MINIMUM SEPARATIONS FOR DROP WIRE SPANS TO BUILDINGS

**3.01** Table 2 specifies the minimum separations that shall be obtained between drop wire in the span to a building and other conductors or metallic objects.

TABLE 2

#### MINIMUM SEPARATIONS BETWEEN DROP WIRE SPAN TO BUILDINGS AND TYPE OF PLANT INDICATED BELOW

| Type of Plant Involved<br>Including Associated Fixed Equipment and Wiring |   | Drop Wire Span to Building<br>Minimum Separation |          |
|---|---|--|----------|
|   |   | Crossing   | Parallel |
| 1. Electric Supply:   | Service Drops or Open Wiring not over 750 Volts             | 2 ft.  | 1 ft.    |
|   | Wires in Conduit or in Armored or Non Metallic Sheath Cable | 4 in.  | 4 in.    |
| 2. Radio and Television:  | Antenna Lead-in and Ground Wires                            | 2 ft.  | 1 ft.    |
| 3. Signal Wires:  | Open Wires  | 2 ft.  | 1 ft.    |
|   | Wires in Conduit or Cable                                   | 4 in.  | 4 in.    |

TABLE 2 — (Cont'd)

| Type of Plant Involved<br>Including Associated Fixed Equipment and Wiring |   | Drop Wire Span to Building<br>Minimum Separation |          |
|---|---|--|----------|
|   |   | Crossing   | Parallel |
| 4. Communication Wires:   | Foreign Open Wires  | 2 ft.  | 1 ft.    |
|   | Foreign Wires in Conduit or Cable                                   | 4 in.  | 4 in.    |
| 5. Metallic Objects:  | Rain Spouts, Gutters, etc.  | 4 in.  | 4 in.    |
| 6. Ground Wires:  | Ground Wires (Except Radio, Television, and Lightning Ground Wires) | 4 in.  | 4 in.    |
| 7. Lightning:   | Lightning Wires and Rods (See Para. 2.02)                           | 6 ft.  | 6 ft.    |
| 8. Signs:   | Neon Signs and Assoc. Wiring from Transformer                       | 1 ft.  | 1 ft.    |

### 4. RADIO AND TELEVISION ANTENNAE

**4.01** No permits have been issued or shall be issued, to provide authority for the attachment of antennae to telephone company poles or other property due to hazards they present.

**4.02** When an antenna is found attached to one of our poles, the owner shall be requested to remove it. Should he refuse to comply with the request, the craftsman shall prepare a copy of Form 732, "Report of Hazardous Plant Conditions", giving the location, describing the conditions, outlining discussions with the owner, etc., and shall forward the report to his supervisor. Additional sheets should be attached to the Form 732 when the space thereon is insufficient to cover a complete report.

**4.03** Form 732 shall be processed as outlined in the Plant Administration Practices.

### 5. RADIO AND TELEVISION ANTENNAE LEAD-IN CONDUCTORS

**5.01** Attention has been directed to the methods used in some locations by workmen installing foreign radio and television receiver antennae and lead-in conductors. It has been found that there were cases where the lead-in conductors were attached to Telephone Company drop wire supports and were also being placed in ring runs. Such installations do not conform to the clearance requirements outlined in this section. In some instances the lead-in conductors were not equipped with lightning protection devices.

**5.02** Foreign lead-in conductors from out-door antennae should be attached to buildings in such a manner as to provide clearance of at least 4 inches from telephone conductors. In connection with the omission of lightning arresters we are concerned in those situations where, because of the close proximity of the lead-in conductors and the telephone conductors, lightning discharges to the antenna may be carried into the building through the telephone wiring.

**5.03** Where a foreign television or radio antenna lead-in conductor crosses a telephone wire, a 6 inch piece of P Wire Guard shall be placed on the telephone wire, centered so that its ends are equidistant from the lead-in conductor as illustrated in Section 462-450-205CA.

**5.04** Sometimes it may be possible to disengage foreign lead-in conductors from Telephone Company attachments without causing interrup-

tions or creating unsatisfactory conditions pending proper correction by the customer. Where the Telephone Company has full jurisdiction over attachments, i.e., on telephone poles and fixtures, etc., the customer should be advised of such proposed rearrangements. In other cases, the customer's permission should be obtained before disengaging the conductor.

**5.05** In discussing rearrangements the employee may explain to the customer that the fastening of the television lead-in wire to telephone attachments is not in accordance with the safety practices adopted by the Telephone Company and under some circumstances might have a detrimental effect on the television signal.

**5.06** Where it is difficult to secure cooperation from the customer, or corrective action is not taken, the case shall be reported on Form 732 as outlined in Para. 2.02.