

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

**SECTION G63.120.6**  
**Issue 1, November, 1953**  
**AT&T Co Standard**

# **ELECTROLYSIS DRAINAGE**

## **WIRE CONSTRUCTION**

### **UNDERGROUND**

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#### **1. GENERAL**

1.01 This section covers methods to be used when drainage wires are placed in underground conduits.

#### **2. DRAINAGE WIRES IN UNDERGROUND CONDUITS**

2.01 In general rubber covered wires shall be used for underground installations.

2.02 The detail plans will specify the ducts to be used. In general an upper duct will be selected to facilitate handling and give the least interference.

2.03 If the wire is to be placed in a foreign company conduit, the foreign company will specify the duct to be used. It is advisable that a representative of the foreign company be present while the work is in progress.

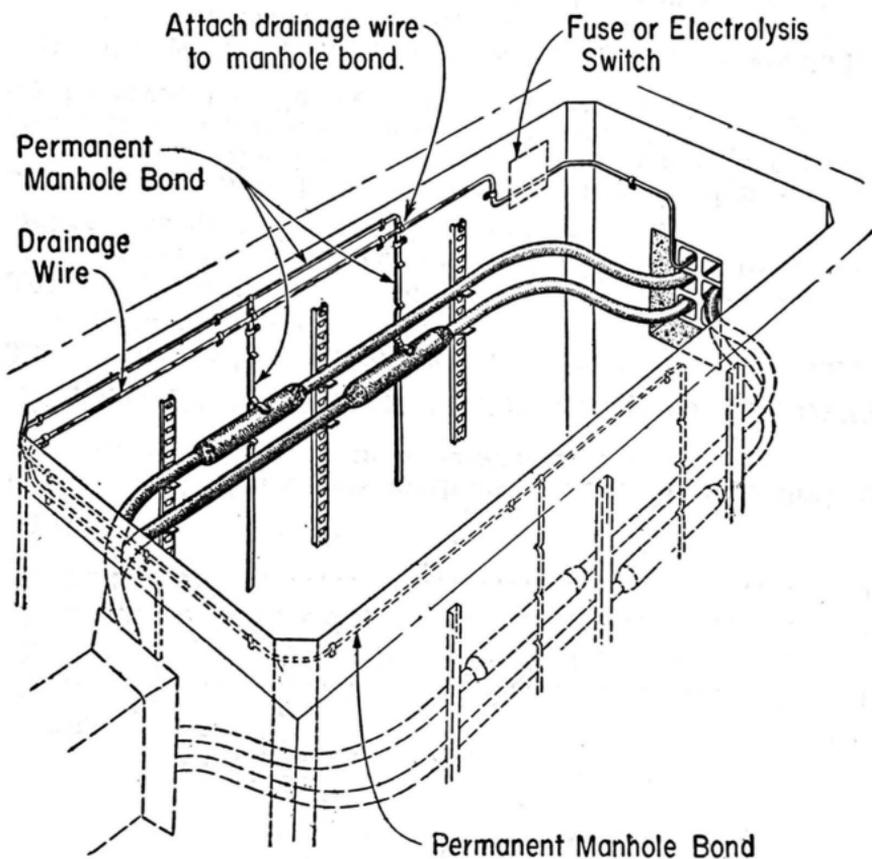
2.04 Where the drainage wire is looped from a manhole to a pole in order to connect it to a fuse or other protective apparatus, the conductors may be placed in the same duct. Where the cable sheath is used for carrying the current from the manhole to the apparatus on the pole, the return conductor may be placed in the same duct with the cable.

2.05 In general, placing drainage wires in conduits is similar to placing cable as covered in the practices on underground cable placing.

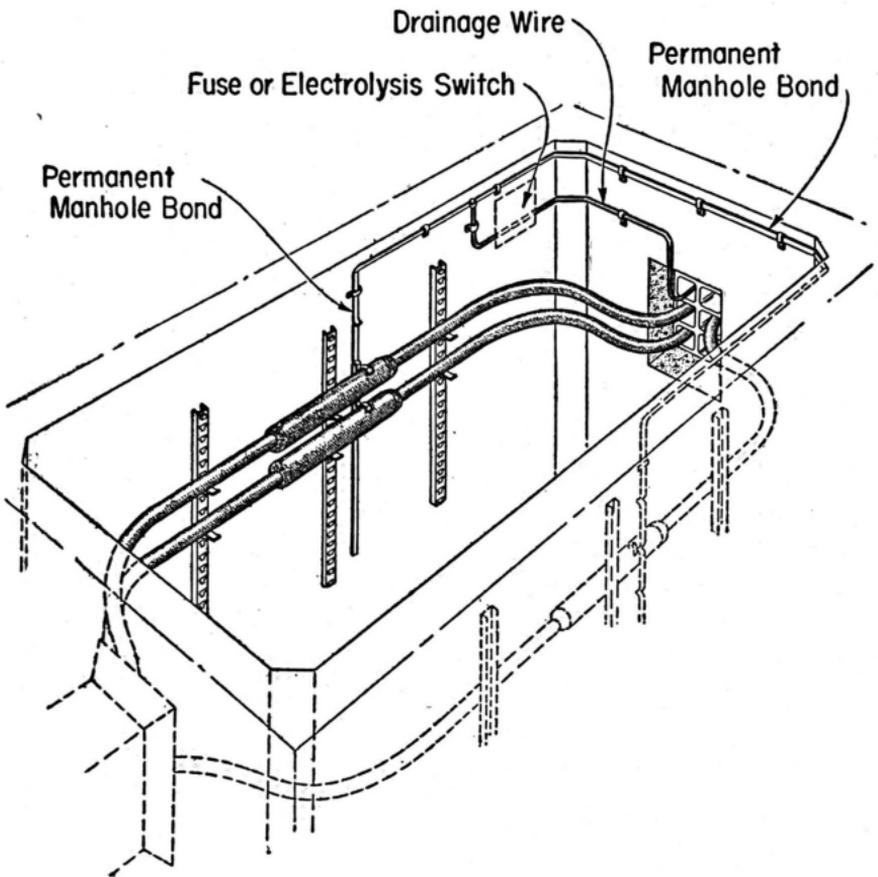
### 3. DRAINAGE WIRE CONNECTIONS

3.01 Attach the drainage wire to the permanent manhole bond at a convenient location.

(a) Where the wire is pulled through the manhole:



(b) Where the wire terminates in the manhole:



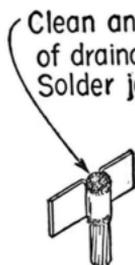
3.02 Attach the drainage wire to the manhole bond as follows:

(a) For wire not larger than 3/8-inch diameter.

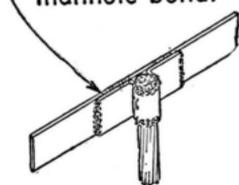
Cut and form short piece of bonding ribbon.



Clean and tin end of drainage wire. Solder joints thoroughly.

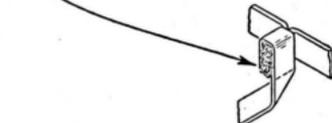


Solder to permanent manhole bond.

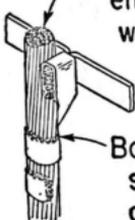


(b) For all wire sizes.

Short length of bonding ribbon placed once around projection in permanent bond and thoroughly soldered to it.



Clean and tin end of drainage wire thoroughly.



Bonding ribbon soldered to drainage wire.



1. Clean drainage wire or permanent bond thoroughly at point where bonding ribbon is to be placed.
2. Place bonding ribbon around wire or permanent bond and solder it properly all around.

3.03 When it is necessary to fasten drainage wires to the walls of manholes, refer to the section covering cable placing, clamps, and straps.

#### **4. BONDING**

4.01 The permanent bonding of underground cables is covered in other sections of the practices.