

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G73.110.1
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AT&T Co Standard

PRESSURE TESTING
ARRANGEMENT OF VALVES

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1. GENERAL

1.01 This section covers the arrangement of the various pressure testing valves that provide permanent pressure measuring and gas admission points on cables. It replaces the related information contained in Section G73.206, Issue 1, which is cancelled.

1.02 **Materials List**

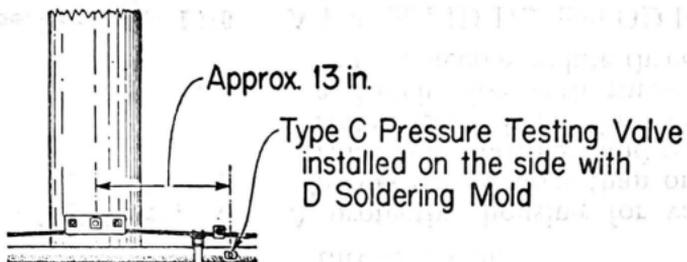
Housing, Valve, C A protective housing for mounting a single valve brought above ground from buried cable. The housing mounts on a 1-1/4-inch pipe with threaded end.

Housing, Valve, M A protective housing for valves at points where more than one valve is brought above ground from buried cables. This housing mounts on a 2-inch pipe with threaded end and can accommodate three valves.

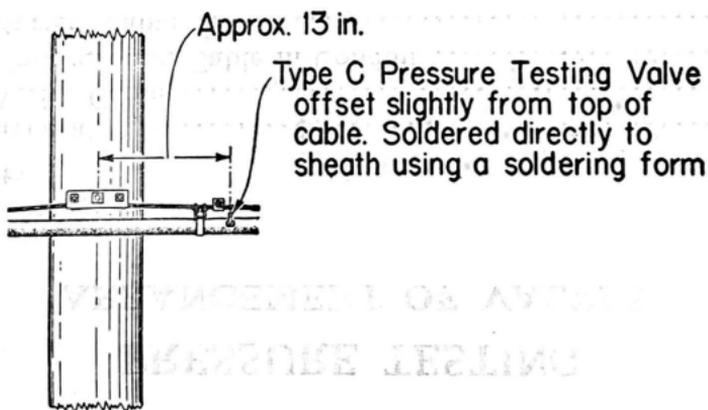
Pipe, Lead, CA-1520 A 1/4-inch ID 1/2-inch OD lead pipe for extending valves in manholes or above ground at marker posts, and making by-pass connections between cables. Available with plain lead or polyethylene jacket tape armor protection.

2. AERIAL CABLE

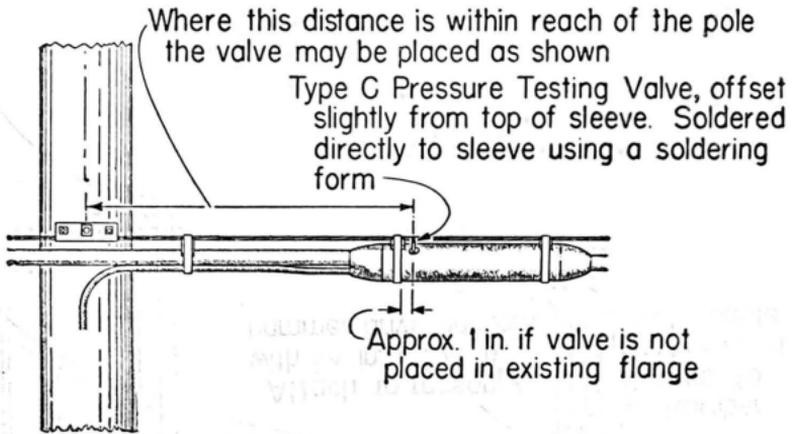
2.01 The arrangement of valves placed in the sheath of aerial cable is illustrated below.



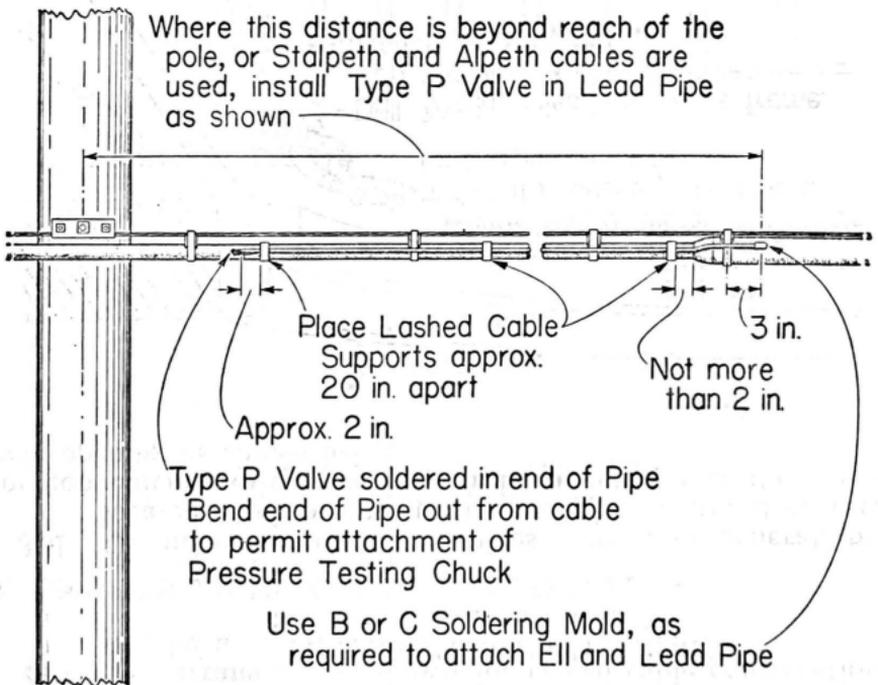
The above arrangement is preferred to allow sufficient clearance and prevent damage from wheels of cable car.



2.02 Where the valve is to be placed in a sleeve that is adjacent to and within reach of the pole, install a C pressure testing valve directly in the sleeve or an F pressure testing valve in an existing flange.



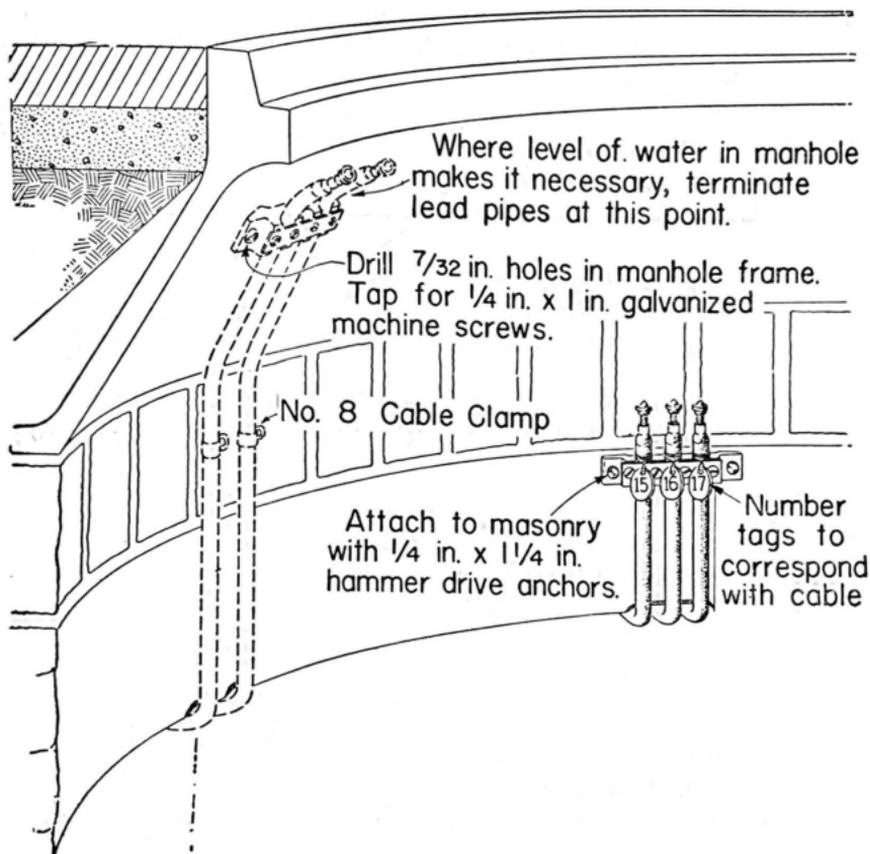
2.03 If the sleeve is near the pole but beyond reaching distance, the following arrangement can be used.



2.04 The arrangements shown for lashed cable construction can be used on cables supported by rings.

3. UNDERGROUND CABLE IN CONDUIT

3.01 On underground cable, valves should, in general, be located on sleeves rather than on the sheath. However, for convenience valves are frequently mounted near the man-hole opening as shown below.



3.02 The valve is connected to the cable by means of a lead pipe that can be wiped into the lead sleeve if the pipe is placed at the time of splicing. On existing cables, or when other conditions make it desirable, the pipe can be connected to the top of the sleeve by means of a copper ell. Before soldering to the cable, the lead pipe should be dried by screwing a valve into one end and allowing nitrogen gas to pass through the pipe for several minutes at a regulator pressure of five or six pounds.

3.03 The lead pipe is carried along the cable to the first cable rack or other convenient point, then vertically back of the existing cables. The pipe should be lashed to the cable with lead lashing wire or lashed cable supports and clamped to the manhole walls and roof as required. At the valve end, it is fastened to the manhole wall or frame by means of a valve bracket as illustrated in the preceding sketch.

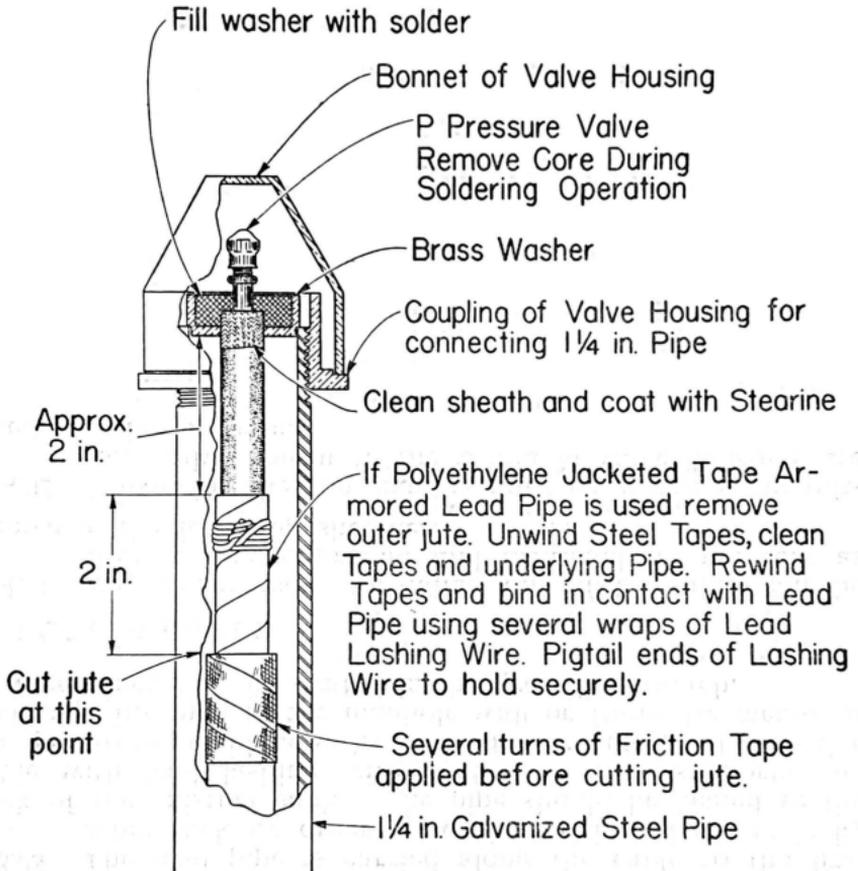
4. BURIED CABLE

4.01 Permanent valves installed on buried cable can be brought above ground and arranged on markers as shown in the following sketches.

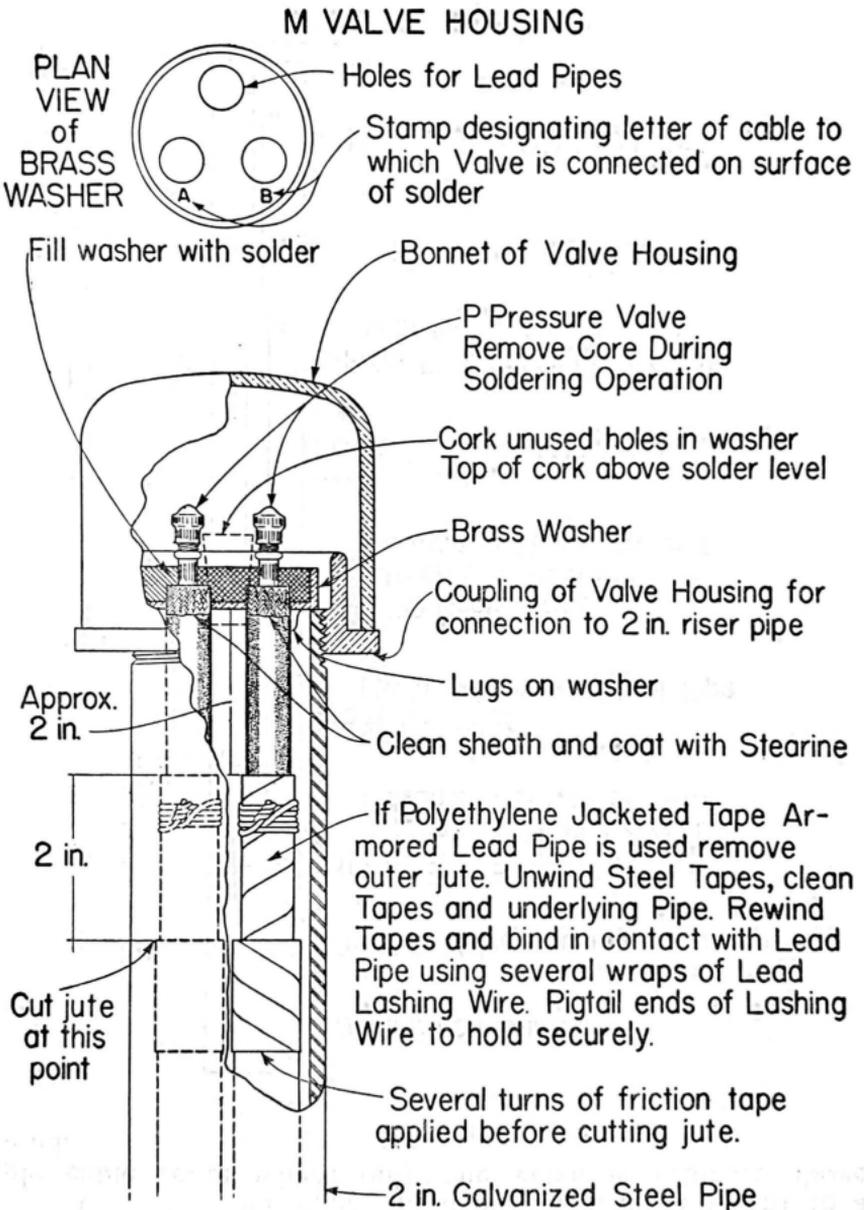
4.02 Valves installed on markers must be protected by suitable valve housings. The C and M valve housings are used for this purpose.

4.03 **C Valve Housing:** The C type housing is used for protecting a single valve on the marker. The housing mounts on a 1-1/4-inch pipe.

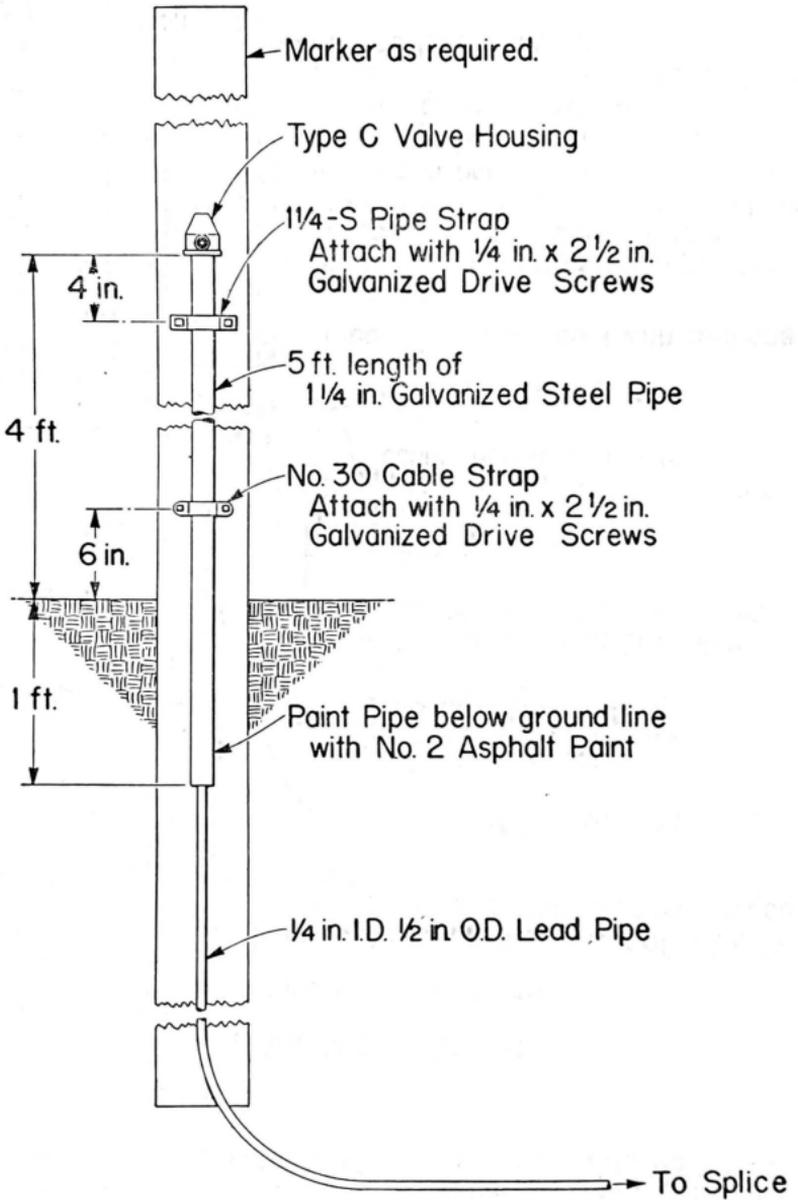
C VALVE HOUSING



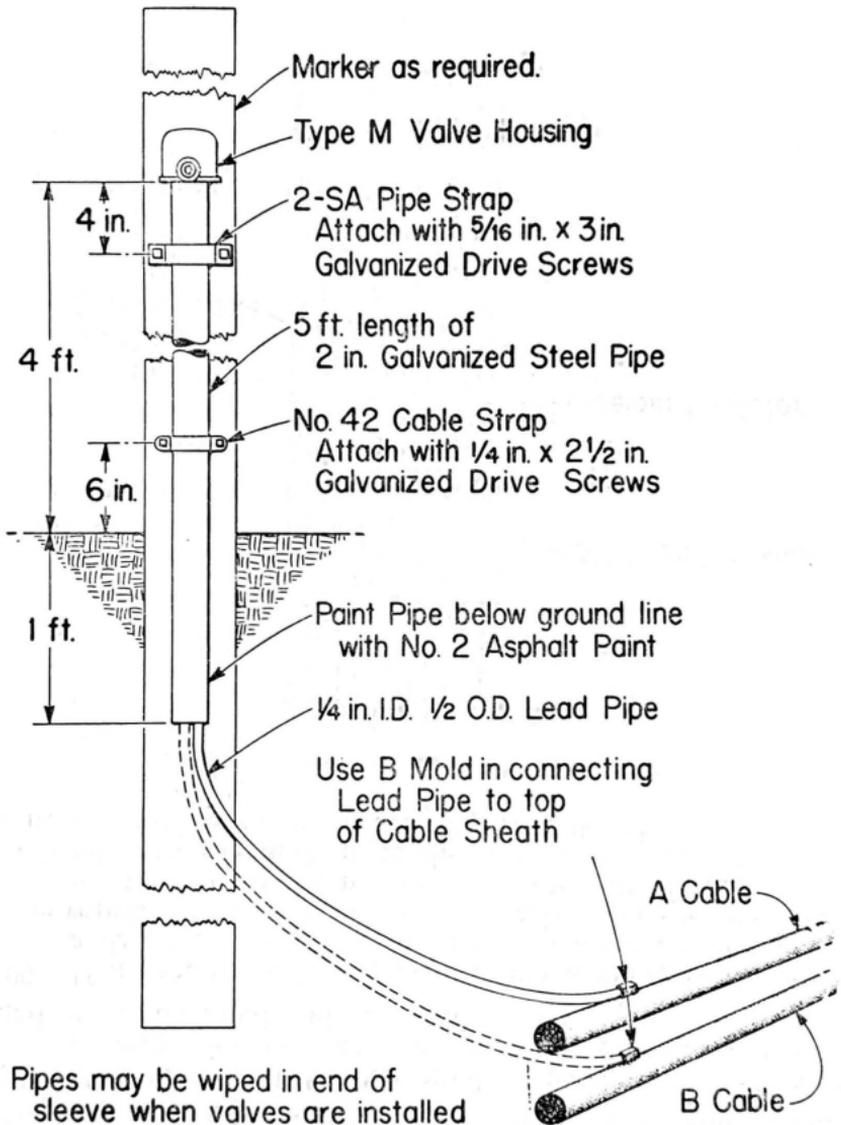
4.04 **M Valve Housing:** The M valve housing will accommodate three valves. This housing mounts on a 2-inch pipe.



4.05 The following sketch illustrates the arrangement of a C valve housing mounted on a marker adjacent to a single cable route where only one valve is brought above ground.



4.06 If more than one valve is required on a twin cable route, or on an existing single cable route where Y cable terminals are used, the M valve housing and steel pipe are arranged as shown below.

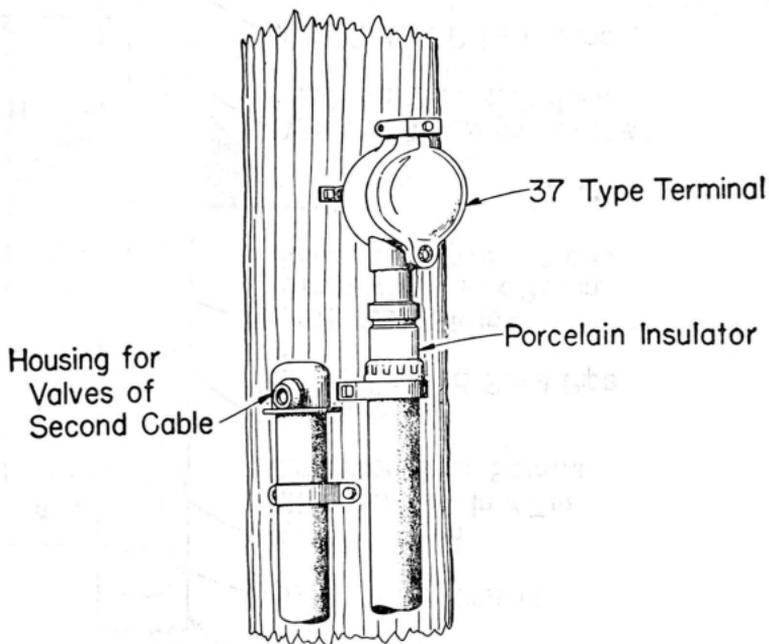


Pipes may be wiped in end of sleeve when valves are installed near regular splicing points or may be connected to the sleeve by use of the B Mold.

4.07 When an additional valve is to be located on a marker where the existing valve is protected by a C valve housing, the second valve should be mounted in a C housing as close to the first as practicable and at the same level.

4.08 If a 37 type cable terminal is used, the two valves required for contactor check and adjustment are included in the terminal and no auxiliary valve pipe is required.

4.09 If a second cable is placed along a cable route where a 37 type terminal is mounted on an existing marker, the appropriate valve housing for the valves on the new cable should be attached to the marker with the top of the housing on a level with the bottom of the porcelain insulator on the 37 type terminal as shown in the following sketch.



WATER VALVE
INSTALLATION

