

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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AT&T Co Standard

PRESSURE TESTING

BURIED CABLE

THERMOMETER WELL

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1. GENERAL

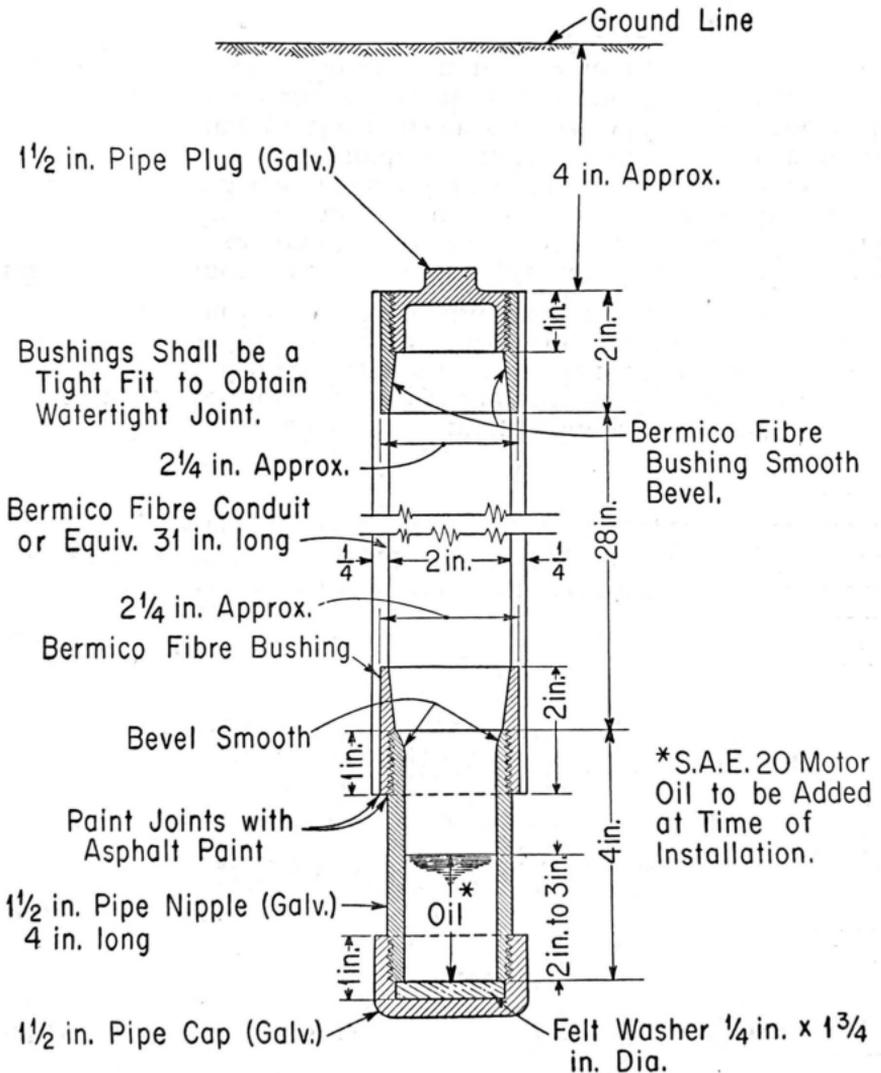
1.01 This section covers the installation and use of buried cable thermometer wells. Thermometer wells are sometimes installed at intervals along a buried cable to facilitate accurate temperature measurements required for temperature correction of routine readings and charging pressures.

1.02 If thermometer wells are provided they are usually installed adjacent to each routine reading valve and charging valve in the gas section. Generally, the wells should be located about 2 feet from the base of the marker or post to which the valve is attached. A cable location number plate should be attached to the marker on the side facing the well and stamped by means of steel dies with the identification THERM WELL and distance in feet from the marker to the well.

2. DESCRIPTION OF THERMOMETER WELL

2.01 A suggested design for a thermometer well is shown in the following illustration. Thermometer wells of this or comparable design should be made locally when required for a specific job.

BURIED CABLE THERMOMETER WELL



2.02 The metal pipe nipple at the base of the well is used in order to provide a rapid heat conducting material between the well and the surrounding ground at approximate cable depth. Fibre conduit is used for the intermediate portion of the well to minimize heat conduction from the ground surface which may be subject to rapid temperature changes.

2.03 Generally the well shown in the illustration is of sufficient depth for temperature measurement regardless of the depth of cable. Temperature changes at depths of 3 feet or more are small and take place very slowly.

3. TEMPERATURE MEASUREMENT

3.01 To make a temperature measurement, uncover the top of the well and remove the pipe plug. Suspend a pressure testing thermometer in the well with the bulb in the oil filled base. Place the plug loosely over the opening and wait about 5 minutes. Then remove the thermometer and immediately observe its reading. After the reading has been taken, replace the pipe plug tightly and restore the ground surface.