

5.08 Straight lengths of conduit can be used to construct horizontal or vertical bends or sweeps with a radius of 40 feet or more. Duct joints for the entire bend section should be made outside the trench at least 2 hours before placing to help ensure an effective joint. An example of a partially completed bend constructed with straight lengths of conduit is shown in Fig. 7.

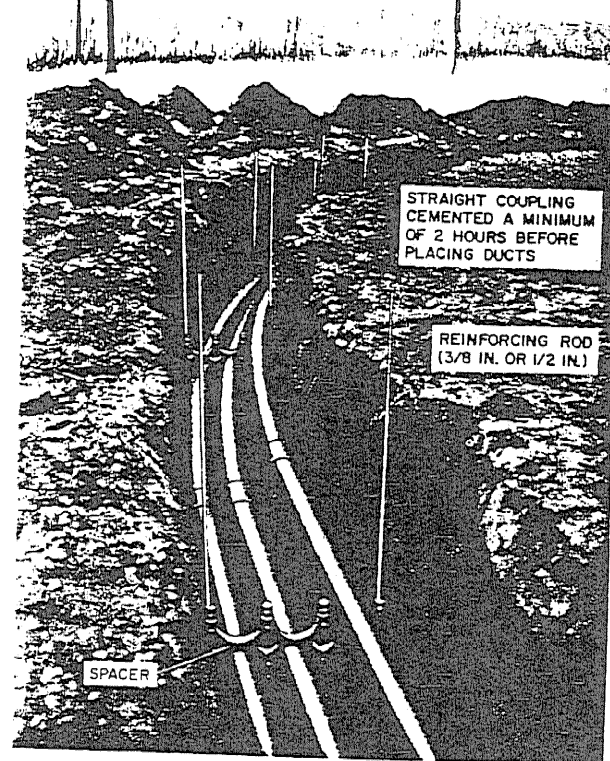


Fig. 7—Partially Completed Bend

When constructing bends with the bend segments, assemble the components on a flat surface alongside the trench to be sure the completed bend lies in a single plane.

5.09 The preformed 7-degree and 30-degree, 15-foot radius bend segments should be used to construct bends where a direction change with a radius of less than 40 feet is needed. The bend segments may be used singly or in combination to achieve the required direction change.

5.10 For mainline conduit, never use less than a 15-foot radius bend.

5.11 When it is necessary to stop construction in a section, 4-inch universal plugs can be used to temporarily seal the ducts against mud, dirt, etc (Fig. 8). Such plugs also can be used to advantage during manhole construction to keep duct entrances at manholes free of debris.

6. ENCASING

6.01 The concrete used to encase conduit is described in Section 622-020-020. It has a nominal compression strength of 2500 pounds per square inch. The slump should be 9 inches. It is important to use concrete of this type in order to permit adequate distribution and ensure proper support of the conduit. When the mix is too dry, flow to the bottom and between the layers of the duct formation will be difficult. When it is too wet, the ducts will float.