

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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CABLE SPLICING — BURIED
PIT SPLICING — PREPARING ENDS

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1. GENERAL

1.01 When sections of buried cable are to be joined in a splicing pit the trench in which the cable has been laid must be widened to facilitate the splicing work. This section describes the general rules to be followed in making the pit and the arrangement of the cable therein.

1.02 When the cable is placed the ends of the adjacent sections will be overlapped sufficiently for splicing.

2. PREPARATION OF SPLICING PIT

2.01 The size and shape of the splicing pit should be such that a minimum of excavation is required to provide adequate working space. Pit dimensions will generally be determined by the arrangement of the cable in the pit as shown in Part 3.

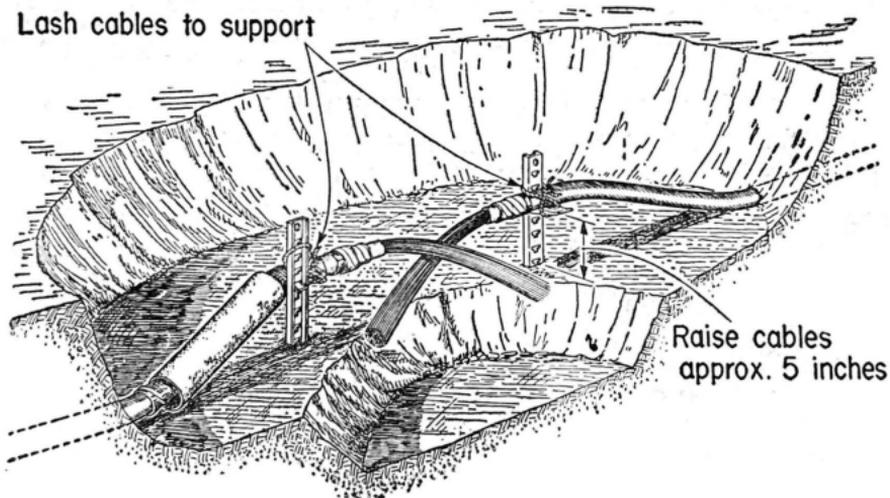
2.02 At the splice location the depth of excavation under the splice should be kept to a minimum so that the cable will rest on undisturbed earth.

3. ARRANGEMENT OF CABLE FOR SPLICING

3.01 The arrangement of the cable, or cables in the splicing pit should be such that a minimum of movement will be required to transfer the cable from the position in which it is spliced to the position in which it is buried.

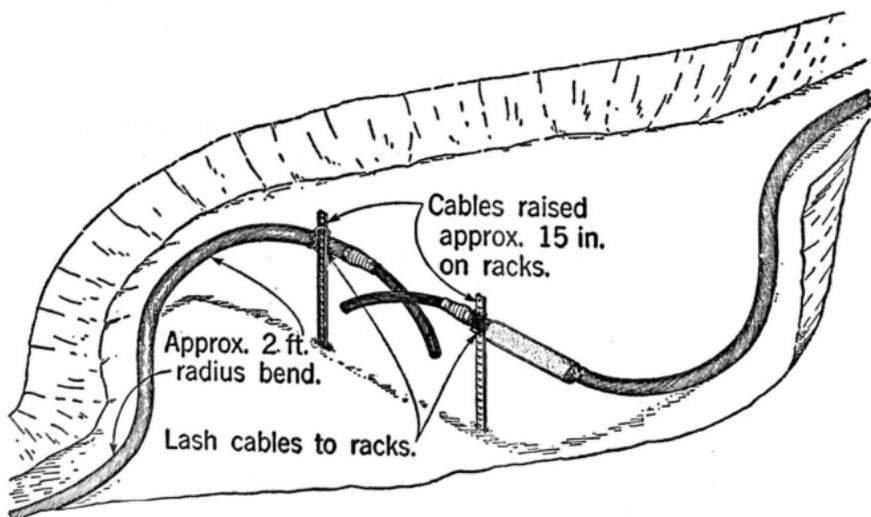
3.02 In order to facilitate future maintenance operations it is necessary to leave slack in the cable at splice points. For large diameter cables this should be done by placing an offset in the cable in the splicing pit. Long radius bends should be made to avoid damaging the cable. The ends may be set up for splicing by one of the methods given in the following paragraphs.

3.03 The following illustration shows a method of setting up the ends of the cable for splicing using a single offset to provide slack in the cable. This method permits using a splicing pit of small area but with the bottom at two different levels. The cable need be raised only a few inches to permit splicing and can be lowered to its final location after splicing with little bending or twisting of the cable. Excavating the splicing pit as shown permits making the splice near the bottom of the splicing pit and yet the sleeve of the splice can be placed on undisturbed earth for its final location where future settling should be a minimum. To arrange the cables as shown, the ends should be bent in a horizontal plane at the bottom of the splicing pit and then raised about five inches to permit splicing. The cable should be held in position by lashing it with houseline to supports (cable racks, 2 x 4's, etc.) of the desired height. The protective coverings and cable sheath should be removed after the ends are set up for splicing.



3.04 A modification of the above method using a splicing pit of minimum depth may be employed where it appears desirable. For this arrangement, the entire splicing pit is excavated only to the level of the cable and after the horizontal bends have been made the cable is raised approximately fifteen inches to a convenient position for splicing. This arrangement makes it necessary to bend and twist the cable slightly in lowering it to its final position, but requires a minimum splicing pit excavation. The method is more suitable for small cables than for large cables.

3.05 The following illustration shows a method of setting up the ends of the cable for splicing using a double offset arrangement to provide slack. This method provides space on both sides of the cable so that two men may work on the splice. It also permits lowering the cable to its final location after splicing with little bending or twisting of the cable, even though the splice is made some distance above the bottom of the splicing pit. To arrange the cable as shown, the cable ends should be bent in a horizontal plane at the bottom of the splicing pit, after which the ends can be raised to a convenient splicing position. Two cable racks driven several inches in the ground provide suitable support for the cable. The cable should be held in place by firmly lashing it to the racks and cable hooks with houseline. The protective coverings and sheath should be removed after the cable ends are set up for splicing.



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