EXPANSION OF EXISTING DIAL CENTRAL OFFICE SWITCHBOARDS

Purpose: The purpose of this addendum is to recommend the modification of existing switchboards to increase the present capability of operating over subscriber line loops of 1100 ohms or 1200 ohms to a maximum of 1500 ohms, including the telephone instrument, where plant conditions warrant it.

Additions: 9. MODIFICATION OF EXISTING SWITCHBOARDS TO EXTEND SUBSCRIBER LOOP LIMITS

9.1 Typically the comparison of outside plant designs based on 1100/1200 ohm equipment and 1500 ohm equipment, including the telephone instrument, show very significant savings by using finer gauge cable for the latter. The prospect of these outside plant savings make it desirable to consider modification of existing switchboards to extend subscriber loop limits at the same time major outside plant construction is contemplated.

9.2 It is possible to extend the line loop limits of many existing switchboards from a present 1100 ohms or 1200 ohms to a maximum of 1500 ohms, including the telephone instrument, by replacing or readjusting certain dialing, supervisory and ringing relays. Where outside plant savings make such a modification desirable, it is recommended that the supplier of the existing switchboard be consulted about the necessary modifications and the estimated cost.

9.3 In most cases new additions to older switchboards have the 1500 ohm capability, but it cannot always be utilized without modifying the present switchboard.

9.4 Generally the entire existing switchboard should be modified to 1500 ohm capability, thereby permitting any loop, regardless of length (up to 1500 ohms), to be served on any line or terminal of the central office equipment. There may be exceptions to this general rule, so that the resulting switchboard would have some groups with 1500 ohm capability and some with the shorter capability. This arrangement would lack flexibility, but would still be preferable over a switchboard with only 1100 or 1200 ohm capability, providing the people making the line and number assignments can cope with the problem of keeping the longer loops out of the wrong groups.

9.5 If the modification is possible at all, usually the material cost is quite modest. Much of the modification cost consists of labor.