

## COLUMN SPACING IN EQUIPMENT ROOMS NEW EQUIPMENT-BUILDING SYSTEM (NEBS)

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**1. GENERAL**

**1.01** This section discusses and provides standards for column spacing. These standards are provided for use in the design of new buildings or building additions that are intended to house telephone equipment that meets the requirements of Section 800-614-164, "New Equipment-Building System (NEBS) Ground Equipment Requirements."

**1.02** Whenever this section is reissued the reasons for reissue will be listed in this paragraph. In this reissue, design standards for NEBS electronic switching offices and transmission terminals replace previous recommendations for crossbar and step-by-step central office equipment.

**1.03** It is important that early in the building design stage the Telephone Company engineers and the architects collaborate in arriving at the best method of structural framing as related to the equipment arrangements to assure maximum efficiency in the utilization of floor space.

**1.04** The purpose of this section is to recommend column spacing for equipment buildings, with the objective of effecting economies in building

construction by improving the efficient use of equipment floor space. Guidelines for floor design are contained in Section 760-200-100.

**2. COLUMN SPACING FOR NEBS EQUIPMENT**

**Aisle Dimensions**

**2.01** The use of standard aisles for 12-inch and 18-inch frames (Fig. 1 and 2, respectively) establish minimum aisle-spacings after proper consideration of certain pertinent factors. Such factors are those associated with operations and maintenance, installation of frames and cabling, cooling and lighting, floor loading, and cable densities. The NEBS 7-foot frames with cabling in standard floor plan arrangements impose reasonable loads on the 150-psf designed floor. Also, air diffusing into the standard aisles from the 10-foot level permits lower energy air-conditioning systems compared to those needed for equivalent high bay installations.

**Column Spacings**

**2.02** Column spacing is 20 feet by 20 feet for all building bays in telephone equipment buildings. Standard floor plans for 12 inches and 18 inches deep equipment (Fig. 3 and 4) indicate the dimensions that will exist for equipment placed next to columns with depths up to 2 feet 4 inches.

**2.03** Standard floor plans are available for all NEBS equipment that will be deployed in buildings with NEBS 20 feet by 20 feet spacing including switching, transmission, distributing frame, power, and operations support systems.

**2.04** The column lines in multistory buildings that are in-line with the equipment lineups should contain three 1 foot by 2 feet cable holes. Design standards for cable holes are provided in Section 760-200-032.

3. COLUMN SPACING FOR OTHER EQUIPMENT

3.01 For recommendations concerning column spacing for crossbar, step-by-step, distributing

frame, or toll terminal equipment that does not meet the NEBS standards (eg, equipment mounted on 11-foot 6-inch high frameworks), see the pertinent Floor Plan Data Sheets.

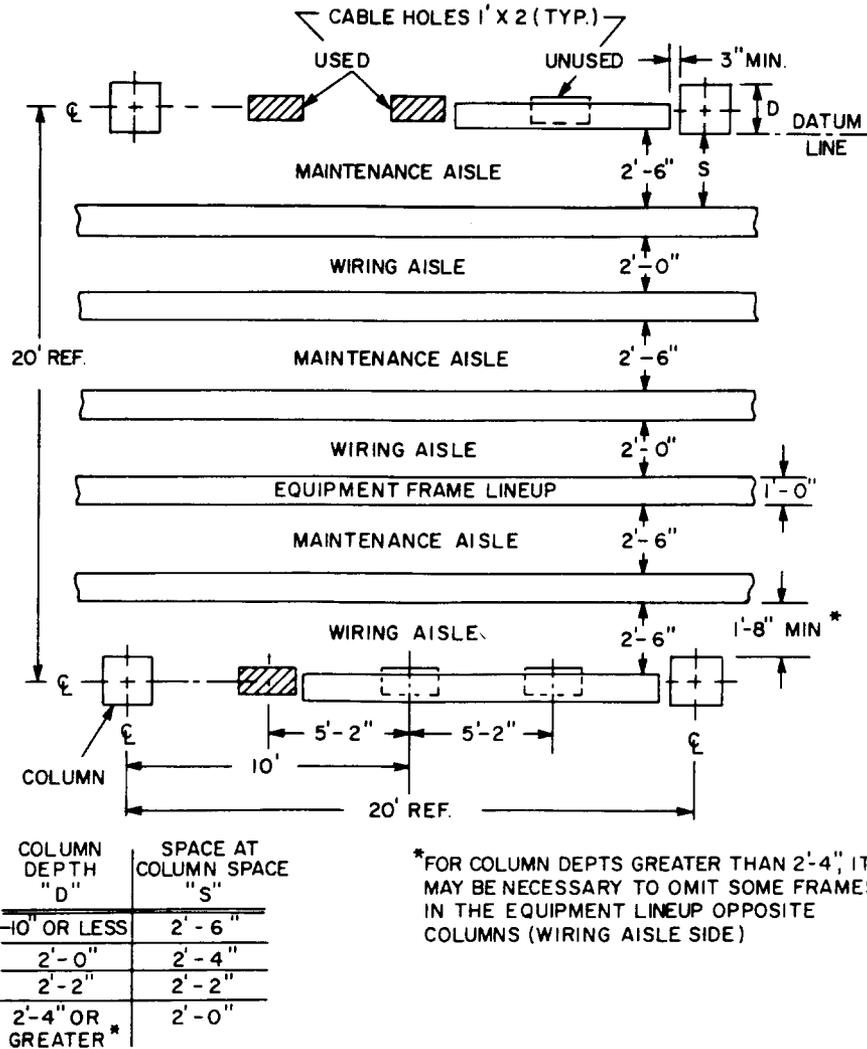


Fig. 1—NEBS Standard Floor Plan for Principal Depth 12-Inch Frame

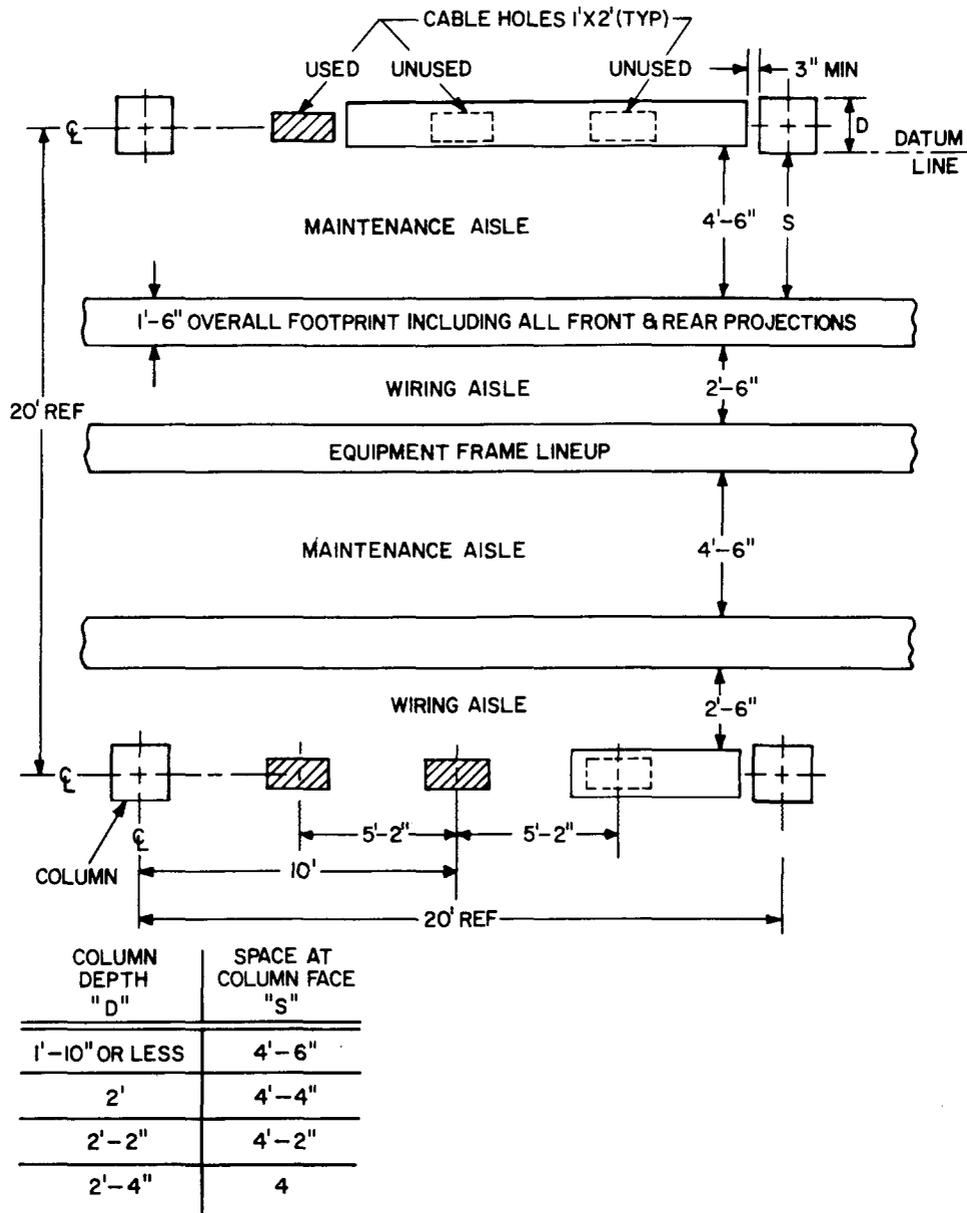


Fig. 2—NEBS Standard Floor Plan for 18-Inch Deep Frames