LAYING OUT FLOORS

MANUAL OFFICE (LOCAL AND TOLL)

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2. GENERAL

2.1 Scope

2.11 This section covers specific information requirements and methods for laying out floors in Manual Offices (Local and Toll) including all switchboards and desks other than 23 type which are covered in Section 30B of this handbook.

2.2 Associated Information

2.21 Refer to chart on next page for the location of information to which reference may be necessary when performing operations covered by this section.

2.22 Section 6A covers common information, requirements and methods for laying out floors including the usual procedures for locating and laying out reference lines, marking lines on the floor representing the ends of the lineups, edges of guard rails, and cable racks and the fronts of frame bases; marking the locations of intermediate frames in the lineup; marking frame designations and spotting the location of expansion bolt holes. Precautions and the arrangement of tools to be observed when laying out floors and the installing equipment that may be required is also covered in Section 6A.

2.23 Reference shall also be made to specifications and floor plan drawings furnished the job.

3. FLOOR PLAN FOR MANUAL OFFICE - LOCAL AND TOLL

3.1 A typical floor plan layout for a No. 11 Central Office is shown in Figures 1 and 2.

ASSOCIATED HANDBOOK INFORMATION REFERENCE CHART

Subject	Handbook	Section
Laying Out Floors Common Information, Requirements and Methods (Including Specific Information for Common Systems Bays and Racks)	30	6A
Verification Outline	30	6V
Erecting, Placing and Fastening Frames, Racks and Associated Parts - Common Requirements and Information	30	19A
Placing, Fastening and Aligning Switchboard Sections Desks and Associated Parts	30	30
23 Type Desks	30	30B

3.2 The majority of the frameworks in a manual office (local and toll) are relay bays. The floor plan convention and corresponding floor plan details for the different type relay bays are shown in Figures 3 and 5.

4. LOCATING AND MARKING POSITION OF BAYS ON FLOOR

4.1 Locate the equipment to conform with the dimensions on the floor plan drawing. Lateral dimensions for relay bay equipment are shown in Figures 3 and 5.

4.2 The procedure outlined in Section 6A should be followed when locating and marking lines on the floor.

4.3 Expansion bolt holes are located for each lineup of bays per fastening requirements in Section 19A. When the number and location have been established each hole should be marked with a (+) (See Section 6A). A punch mark can be made at the center location of each hole to facilitate drilling operations later on. Refer to drawing H-582-226 for locating expansion bolt holes on jobs requiring earthquake protection.

5. LOCATING AND MARKING THE POSITION OF SWITCHBOARD AND DESKS ON FLOOR

5.1 The location of switchboard sections, desks and cabinets should conform to the particular plans for each installation.

5.2 Where limiting dimensions or tolerances are not specified the equipment should be located to within such limits of the specified dimensions as will insure satisfactory function and workman like appearance of the equipment.

5.3 Before marking lines on the floor check the cable hole locations making measurements as shown on the floor plan drawings.

5.4 For locating and aligning purposes a lineup of switchboards separated by one or more angle section is considered a separate lineup. Using the dimensions shown on the floor plan drawings mark lines on the floor for each switchboard lineup as indicated below.

5.41 The "Face-of-Jack" Line (See Figures 4 and 6): This line should extend the entire length of each lineup. This is the basic line for checking the overall alignment.

5.42 The "Front-Surface-of-the-Lockrail" Line (See Figures 4 and 6): This line should be indicated at both ends of each lineup and at junctors between straight and angle sections. These lines are used for locating the end sections of each lineup with respect to reference points, walls, columns, etc., shown on the floor plan drawing.

5.43 The junction lines between adjacent sections including angle sections.

5.5 When lines have been marked on the floor either shellac over or cover the lines representing the ends of sections and the face-of-jacks with R-2805 acetate fibre tape as outlined in Section 6A.

5.6 For switchboard sections and desks having floor angles, bolt holes are in most instances located from information furnished on the H-299-201 drawing. If a particular section or desk is not represented on this drawing the floor should be drilled through the floor angle holes after the sections and desks are aligned, therefore these holes would not be located at the time the floors are layed out. In the case of No. 11 and similar sections secured by clamp plates, the holes in the floor are located between the base angles or channels of adjacent units.

NOTES:

1. FRAMES SHOWN IN BLOCK FORM HAVE THE SAME DIMENSIONS AS THE FIRST FRAME OF THE PARTICULAR GROUP UNLESS OTHERWISE SHOWN.

2. LOCATING DIMENSIONS ARE GIVEN FROM REFERENCE LINES OR FROM A WALL AND CABLE HOLE OR SLOT. THE ILLUSTRATION BELOW SHOWS THE LOCATING DIMENSIONS FROM CABLE SLOT AND WALL.

3. VERIFY CABLE HOLE AND CABLE SLOT LOCATION BEFORE LAYING OUT FRAME LINEUPS.

4. DIMENSIONS GIVEN IN BRACKETS ARE APPROXIMATE. AND SHALL NOT BE USED BY THE INSTALLER.

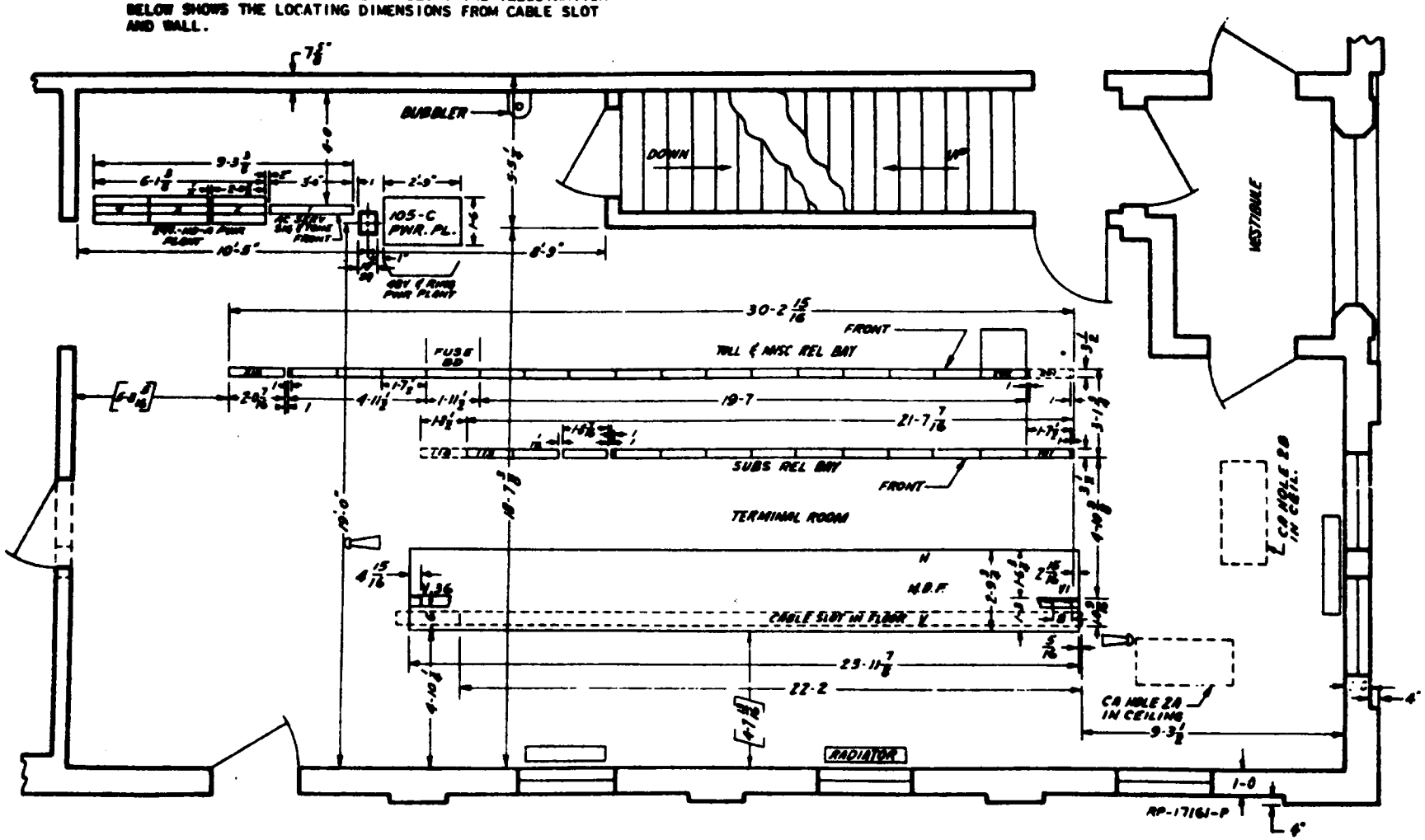


FIG. 1 TYPICAL FLOOR PLAN FOR THE APPARATUS ROOM OF NO. 11 OFFICE (PAR. 3.1)

NOTES:

1. THIS DIMENSION IS TO THE EDGE OF THE KEY SHELF. THE "FACE OF LOCK RAIL LINE" IS 1/2" IN BACK OF THE EDGE OF KEYSHELF. THIS LINE RUNS PARALLEL TO THE EDGE OF THE KEY SHELVES AND SHOULD BE MARKED ON THE FLOOR AT EACH END OF THE LINEUP. THE END SECTIONS ARE LOCATED WITH RESPECT TO THESE LINES.
2. F.O.J. INDICATES THE "FACE OF JACK LINE". THIS LINE SHOULD BE MARKED ON FLOOR FOR ENTIRE LENGTH OF LINEUP.
3. C.T.S. INDICATES CABLE TURNING SECTION. THE DIMENSIONS FOR LOCATING THIS SECTION ARE MEASURED FROM THE INSIDE OF THE FINISHED CABLE HOLE SHEATHING.
4. VERIFY CABLE HOLE LOCATION BEFORE LAYING OUT FLOOR FOR SWITCHBOARD SECTIONS.
5. SWITCHBOARD SECTIONS ARE LOCATED FROM THE CABLE HOLES.
6. DIMENSIONS GIVEN IN BRACKETS ARE APPROXIMATE AND SHOULD NOT BE USED BY THE INSTALLER

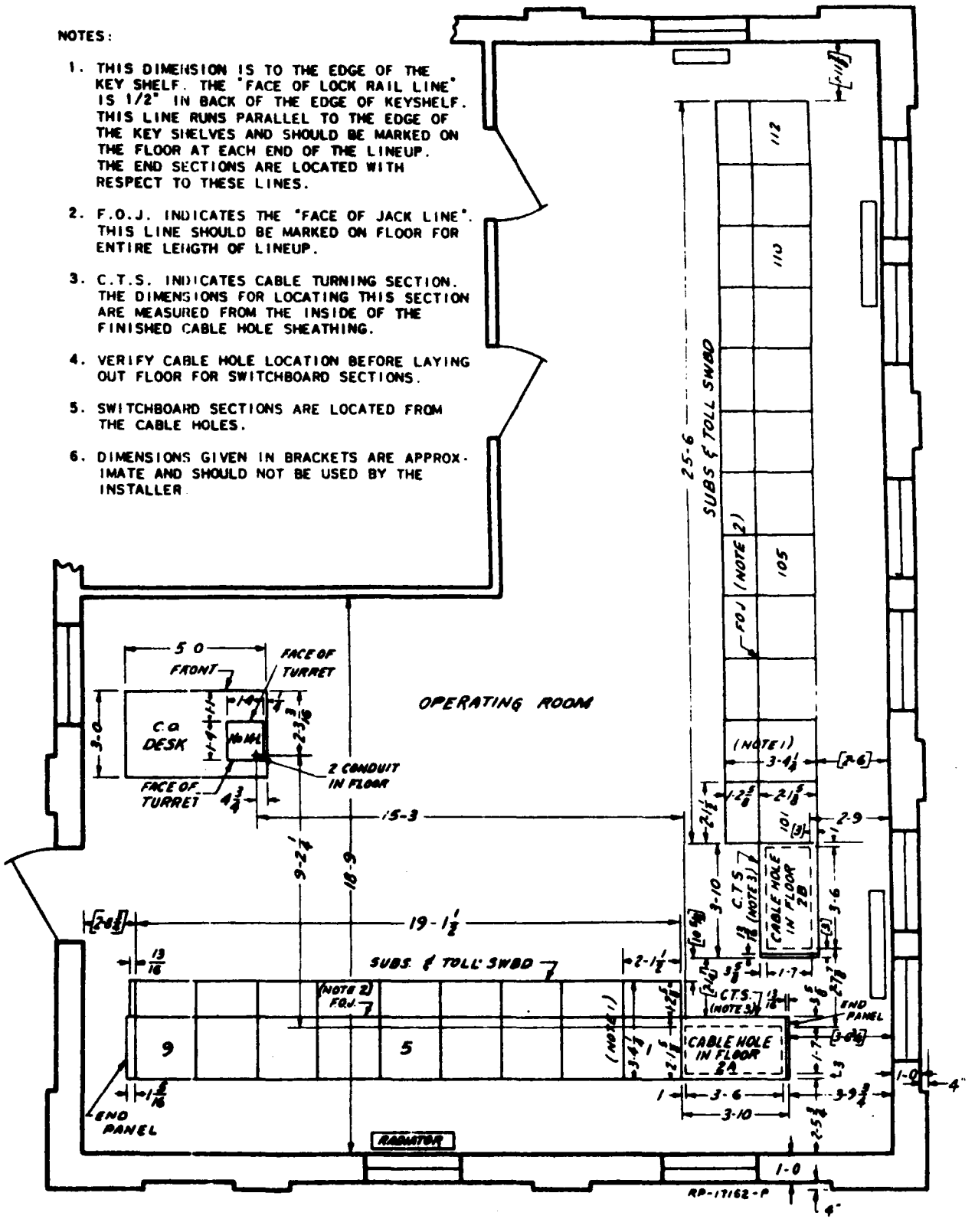
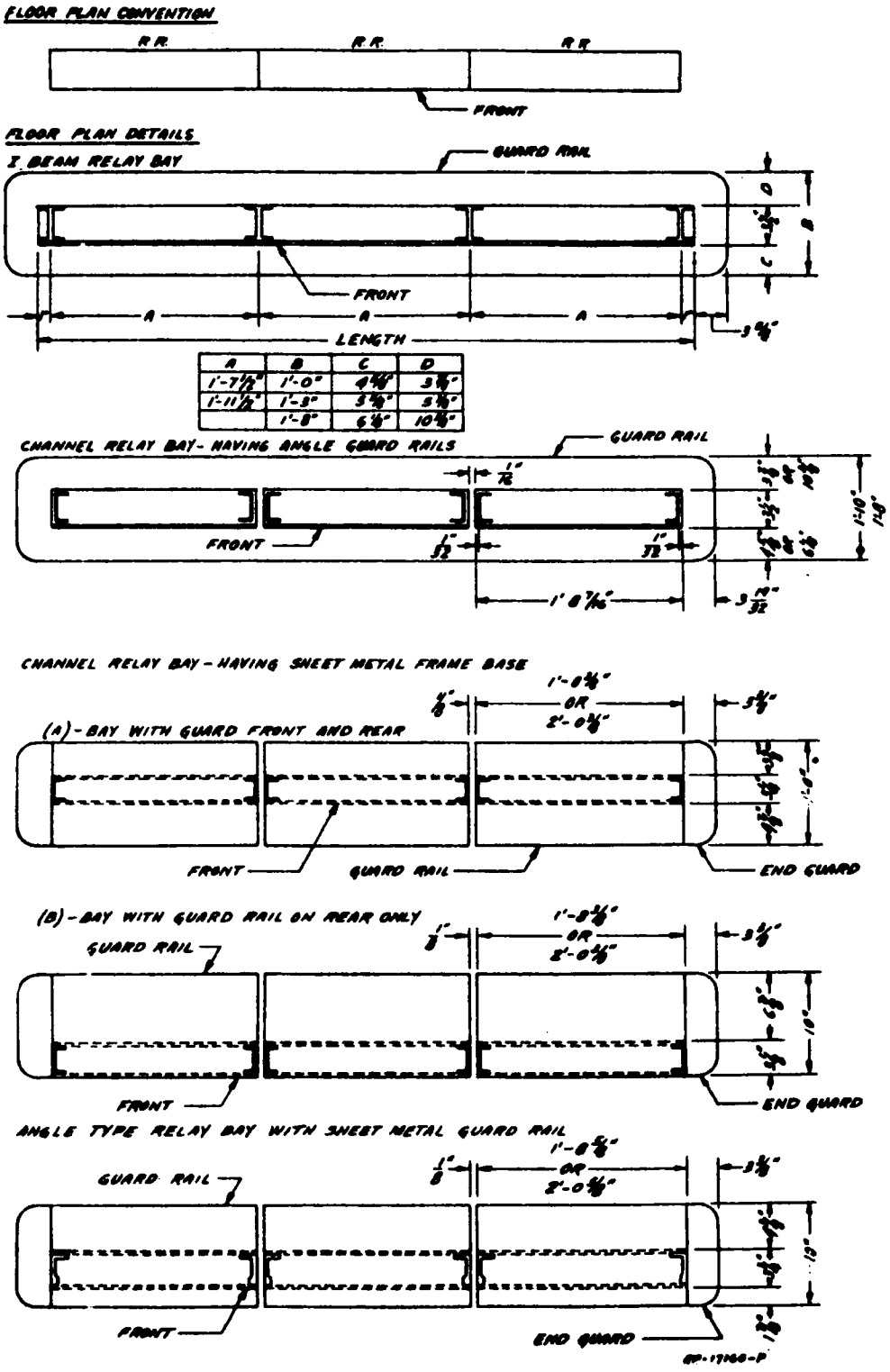
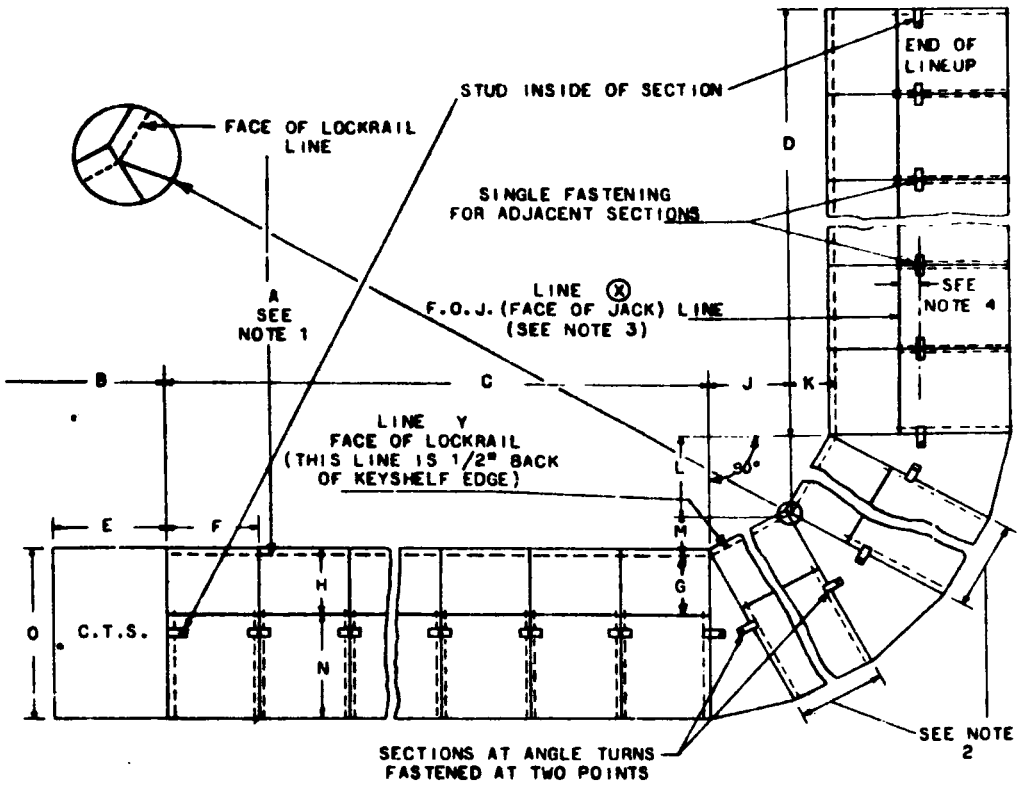


FIG. 2 TYPICAL FLOOR PLAN FOR THE OPERATING ROOM OF NO. 11 OFFICE (PAR. 3.1)



A	B	C	D
1'-7 1/2"	1'-0"	4 7/16"	3 5/8"
1'-11 1/2"	1'-3"	5 7/16"	5 1/16"
	1'-8"	6 1/16"	10 5/16"

FIG. 3 FLOOR PLAN CONVENTION AND FLOOR PLAN DETAILS FOR COMMON TYPE RELAY BAYS (PARS. 3.2, 4.1)



NOTES:

1. DIMENSIONS INDICATED BY LETTERS ARE OBTAINED FROM FLOOR PLAN DRAWING. NOTE THAT THE BASIC LOCATING DIMENSIONS A,C,J,K,L & M FOR ANGLE SECTION ARE TO FRONT FACE OF LOCKRAIL AND NOT THE KEYSHELF EDGE.
2. MAY BE TWO OR MORE SECTIONS DEPENDING UPON TYPE OF SECTION. SEE FLOOR PLAN DRAWING.
3. LINE Ⓧ SHOULD BE DRAWN ON FLOOR FOR ENTIRE LENGTH OF LINEUP. LINES SHOULD ALSO BE DRAWN INDICATING BOTH ENDS OF LINEUP AND JUNCTIONS BETWEEN ADJACENT SECTIONS.
4. LOCATING DIMENSIONS FOR FLOOR BOLT HOLES WITH RESPECT TO "FACE OF JACK" LINE FOR THE DIFFERENT TYPES OF SECTIONS ARE SHOWN ON H.299-201.

(RP-15496)

FIG. 4 LAYING OUT FLOOR AND LOCATING OF EXPANSION SHIELDS OR LAG SCREWS FOR FASTENING UNIVERSAL TYPE SECTIONS (PARS. 5.41, 5.42)

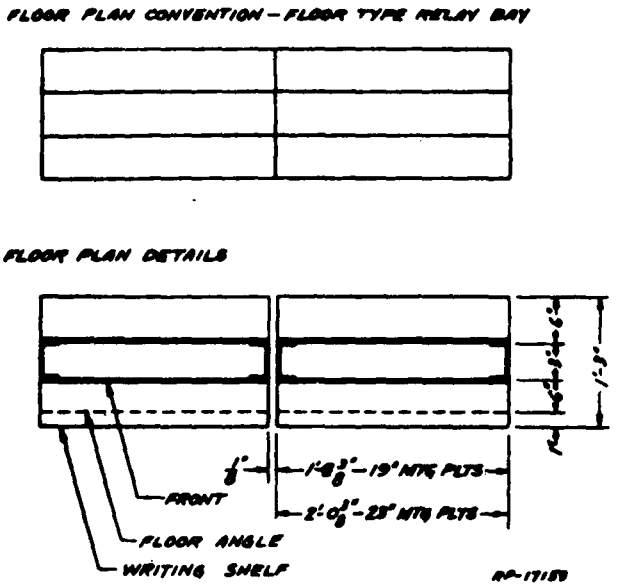


FIG. 5 FLOOR PLAN CONVENTION AND FLOOR PLAN DETAILS FOR FLOOR TYPE RELAY BAY (PARS. 3.2, 4.1)

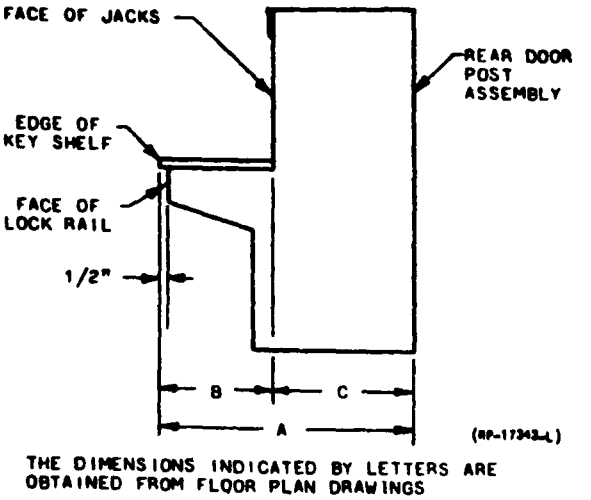


FIG. 6 PROFILE OF SWITCHBOARD SECTION SHOWING SURFACES OF LOCATION (PAR. 5.42)

Engineer of Installation

[Vertical lines at side of paragraph indicate requirements.

Reason for Issue:
To include laying out floor information for a Manual Office (Local and Toll) in one section.

Replaces corresponding information contained in Sections 6 and 30 dated 6-14-32 and 5-18-50 respectively.