

THE FLOOR PLAN

The Floor plan is the heart of a set of construction drawings. It is the one drawing which all trade workers refer. When designing a residence, the floor plan is usually started first. It may be completed near the end of the designing, since modifications are frequently required during the development of the other plans in the set.

The purpose of the floor plan is to show the location and dimensions of the exterior and the interior walls, windows, doors, major appliances, cabinets, fireplace, and other fixed features of the house.

Required Information

1. Information about the following features should be included on the floor plan.
2. Exterior & Interior Walls
3. Size and Location of Windows & Doors
4. Built-in Cabinets Appliances & Permanent Fixtures
5. Stairs & Fireplaces
6. Walks, Patios & Decks
7. Room Names & Material Symbols
8. Location and Size Dimensions
9. Drawing Scale
10. Related Structures: garage, swimming pool, etc...

Location and Size of Walls

- Walls should be drawn accurately
- Symbols should be used to indicate materials used

WALL THICKNESS CHART

Wood Frame Walls	
Exterior walls (with sheathing and siding)	6 in.
Interior walls (with dry wall both sides)	5 in.
Concrete Block Walls	
Exterior walls	8, 10, or 12 in.
Interior walls	4 or 8 in.
Brick Veneer Exterior	
Veneer on frame	10 in.
Veneer on concrete block	12 in.
Brick Exterior Walls	
Two courses of brick	8 in.
Two courses with 2 in. air space	10 in.
Three courses of brick	12 in.

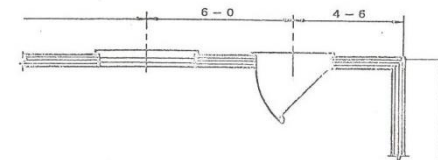


Fig. 16-4. Windows and doors should be located using a center line, type of window indicated, and door swing shown.

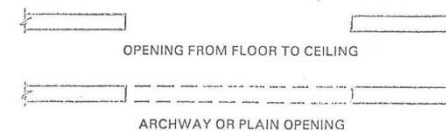


Fig. 16-5. Method of representing interior wall openings, other than windows and doors.

Location and Size of Windows and Doors

When locating windows and doors on the drawing, use a center line through the middle of the opening.

- The sash opening is shown for windows
- Actual door width is used for doors
- Sills are indicated for both windows and exterior doors
- The door swing must be indicated
- Plain openings and archway openings are also show
- Hidden Lines are used to show that the opening does not go to the ceiling

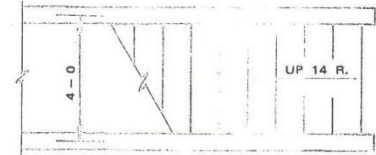


Fig. 16-6. Information about a set of stairs which is usually included on the floor plan.

Cabinet, Appliances, and Permanent Fixtures

The location and size of kitchen cabinets, bathroom vanities, fixtures, and appliances must be indicated.

- These features are drawn using standard symbols and sizes

Stairs and Fireplaces

If a stairway or fireplace is to be included, only basic size and location information needs to be recorded on the floor plan.

Details will be included in the set of drawings for these two features.

- The direction of flight, number of stairs and width of stairs is given
- The basic width, length, location and shape of opening of the fireplace is shown

Walks, Patios & Decks

Sizes and materials to be used should be indicated on the floor plan.

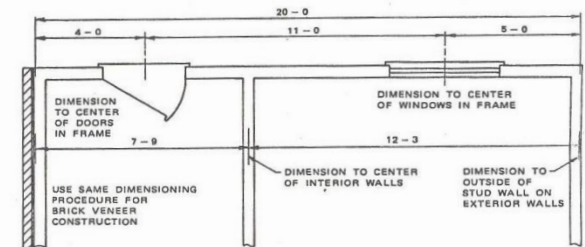


Fig. 16-9. Recommended method of dimensioning frame wall construction.

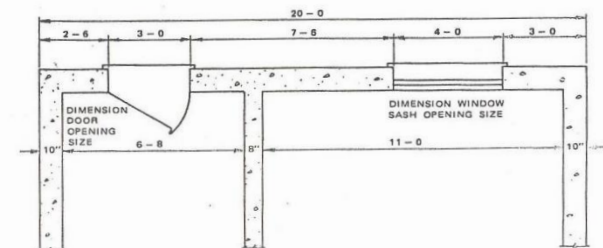


Fig. 16-10. Solid masonry walls (cast concrete, block, brick, or stone) are usually dimensioned as shown.

Room Names & Material Symbols

Room names add information, which is important in communicating the plan to others.

Room name lettering should be lettered slightly larger than surrounding lettering

Ideal location for the room name is the center of the room

If desired, the approximate size of the room may be added immediately below the name

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Dimensioning

Dimensions on a floor plan may show the size of a feature or its location. Placement of dimensions requires good judgment. It is recommended that the overall length and width of major wall segments should be lengths that are multiples of 4ft, leaving little material waste.

- Dimensions are always parallel to the dimension line
- Place Dimensions $\frac{3}{4}$ " away from object lines
- Spacing between dimension lines should be $\frac{1}{4}$ " away
- Dimensions may be placed inside the house area if that seems logical
- Recorded in feet and inches without the symbols (' / ")
- When the dimension is less than a foot, place a zero in the foot location followed by the number of inches (0-6)
- Interior walls, are dimensioned to the center
- Exterior walls, are dimensioned to the outside

Scale & Sheet Identification

Residential floor plans are usually drawn to a scale of $\frac{1}{4}'' = 1'-0''$.

The scale must appear at the bottom of each drawing

Numbering the sheets is important (1 of 6, 2 of 9, etc...) and should appear at the bottom right corner

Procedure For Drawing Floor Plan

The first step in designing a house is to determine the requirements of the structure and record them as preliminary sketches.

1. Lay out the exterior walls
2. Locate the interior walls
3. Determine the location of the windows and doors
4. Draw the stairs
5. Locate and draw the fireplace
6. Locate and draw walks, patios, or decks
7. Draw the kitchen cabinets, appliances, and bathroom fixtures
8. Add dimensions, notes, and room names
9. Add material and identification symbols
10. Add the title block
11. Check the drawing

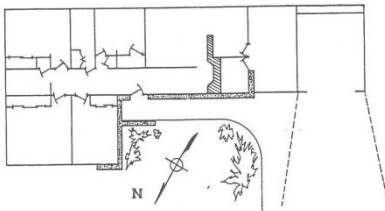


Fig. 33-2 A single-line floor plan.

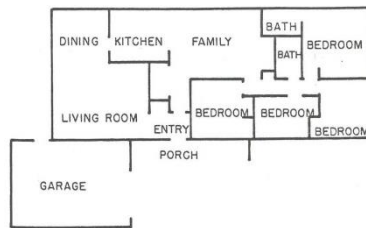
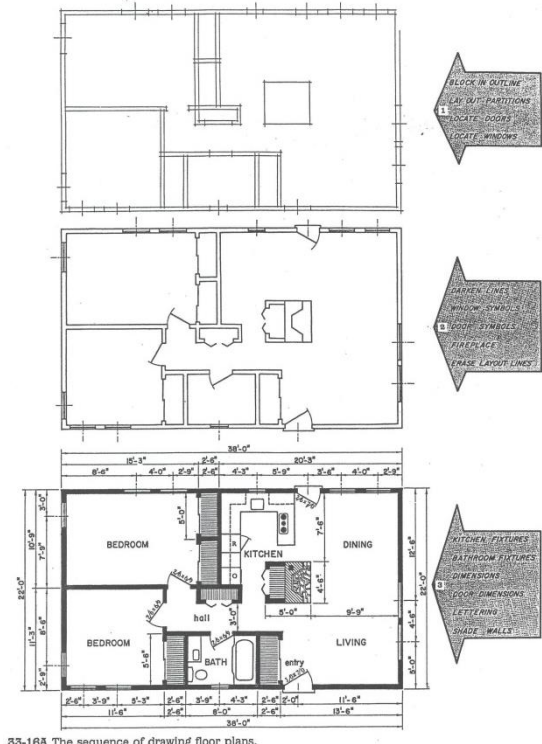
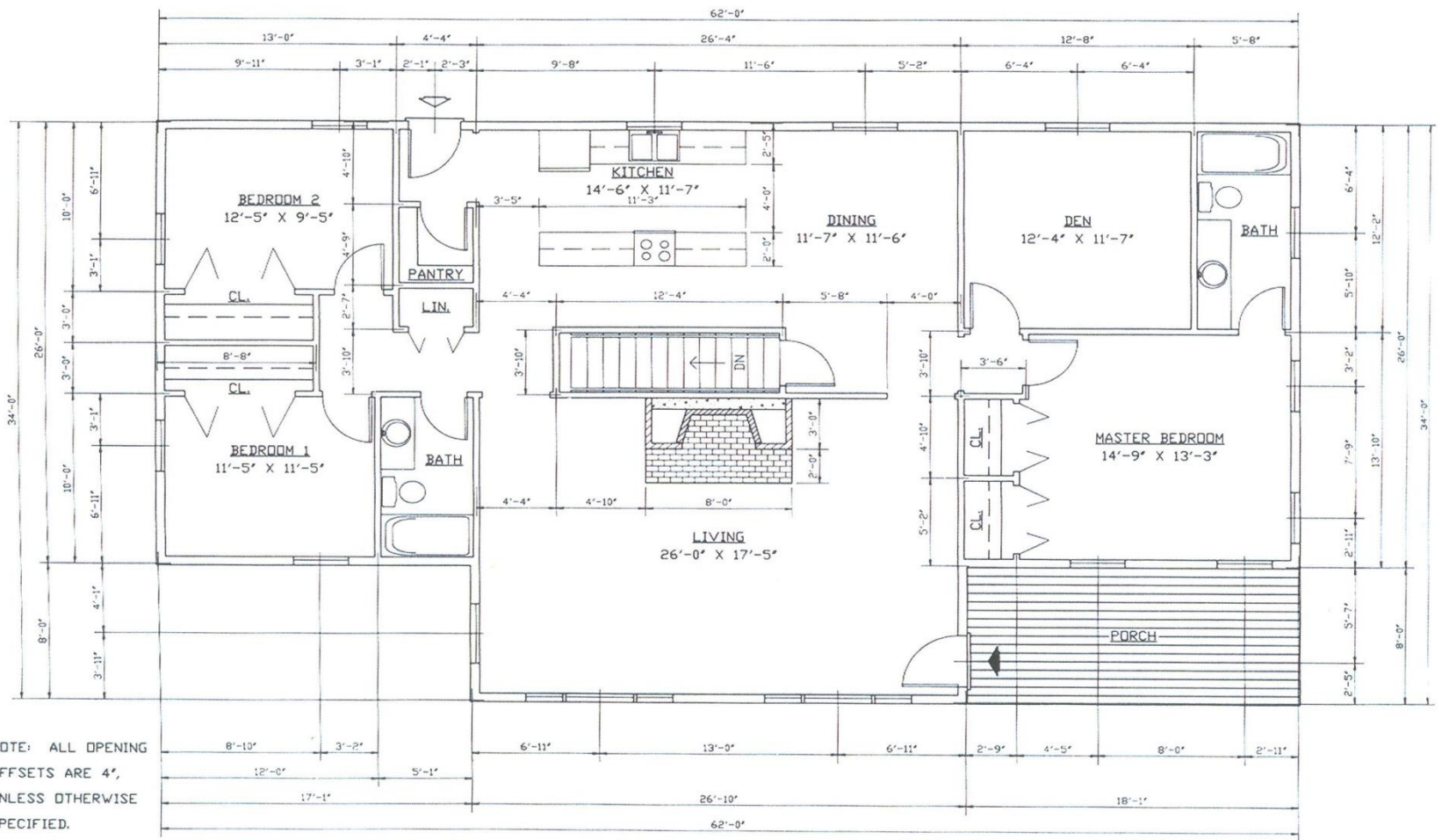


Fig. 33-3 An abbreviated floor plan.



33-16A The sequence of drawing floor plans.



Works Cited

Kicklighter, Clois E., Ronald J. Baird, and Joan C. Kicklighter. *Architecture: Residential Drawing and Design*. South Holland, IL: Goodheart-Willcox, 1995. Print.