DRAWING A FLOOR PLAN
Student Notes

Floor plans explain the overall size and shape of the building. Standard symbols are used to show doors, windows, appliances, stairs, and bathroom fixtures.

Exterior walls are generally built as (50 x 150). The wall thickness depends on the type of construction. If the walls were made of brick or concrete, they would need to be shown thicker. Exterior walls are usually drawn 15 thick when drawn manually.

The length and width of the house are always measured from the outside to outside.

TO DO:
Using the house plan that you have selected draw the exterior for the main floor plan. Do not worry about door or window openings at this time.

Interior partitions:

After you have completed the exterior walls, you will want to add interior walls to your drawing. The floor plan that you will be working from will provide room sizes and information about the kitchen layout. It will also provide layouts for the bathrooms, hallways, closets, window and door locations. The specific sizes are not given.

For manual drafting, interior walls or partitions are generally drawn 100 mm thick.
It is common practice to build one wall in the bathroom(s) with 2 x 6 construction. This allows extra space for the plumbing and ventilation pipes behind the water closet or toilet.

TO DO:
Place interior walls according to room size given on the presentation layout. Do not worry about the length of your walls now, just location. You will be able to trim them to the correct size once you locate all the important walls.

Here are some important sizes you need to use.

Interior Door sizes: Utility (813 mm)
Bedrooms/Dens (762)
Bathrooms (711)
Closets (610)
Exterior Door sizes: (915 x 2032mm)
Garage Doors: 2700 through 5400 by 2400 high
Closet -depth (600) min. (from inside wall to inside wall)
Bathtubs -length min (1524)
Hallways - (914) min. width
Stairwell openings -Single Width (900) to (1000)

You will notice that the doors and windows on your presentation drawing are strategically placed. They appear in locations that are quite likely. You will also notice that the window and door sizes are not given. Do not try to size your windows from this plan. Instead, using your presentation drawing as a guide, place your windows and doors where they look most appropriate.

Keep in mind that windows and doors are to be dimensioned and sized later. Most textbooks or suppliers will provide sizes and styles for windows that you can use.

Before we actually insert doors and windows we need to trim up some of our door openings.

Here are some important things to know.

The door jams are drawn at least (80mm) from the corner
Doors swing to the inside of the room and against a wall.

Windows
The two vertical lines indicate the edge of the window. The distance between each edge must be identical to the size of the window. When a dimension such as 120 x 90 is given, the first dimension is always the width and the second dimension is always the height. The location of a window is always measured from the outside edge of a house to the center of the window.

TO DO:
Insert all windows in the exterior walls.

Doors
Most new homes today will have 3' exterior doors (more convenient for moving large items in and out of a home).
The rough opening for a door is always 50 larger than the actual door size to accommodate for the thickness of the doorjamb (i.e. a 910 door will require a 960 opening).
Doorways to things such as linen closets can be quite small (600).
When creating door openings and symbols, try to be consistent in your door sizes (i.e.bathrooms, bedrooms, etc. should be the same size).
When creating door symbols you will need to use the line tool and the arc tool (arc-start, center, and end). You will need to make sure your rough openings correspond to the door size being inserted.

TO DO:
Insert all the exterior and interior doors in your floor plan.

Closet Doors
There are typically 2 types of closet doors available; sliding and bifold.
Bifold Closet Doors- Bifold doors are more restrictive in terms of rough openings. Generally, they are offered starting at (610) up to (1828) with (305) intervals in sizes. All lines are drawn at 30° off horizontal or vertical. The doors are snapped to the center of the stud.
If, for example, you have a 1220 opening and want a double bifold, each panel (line) will be 1' in length.

Closet Shelves and Hanger Poles
Closet shelves should be drawn using a single line (356) from the back wall of the closet (in closets containing a hanger pole). For closets without hanger poles, the shelves can be drawn wider, i.e. (457). Hanger poles should be drawn using a dashed line (25) from the back wall of the closet.

TO DO:
Add closet doors, shelves and rods to your floor plan.

Next we will try to complete our kitchen. The presentation drawing shows us a good arrangement of fridge, stove, and sink. Base cabinets are shown with a solid line, while the upper cabinets are shown using a hidden line.

Cabinets and vanities are included in architectural drawings only to indicate approximate location. Exact cabinet styles and sizes are often measured and ordered after the framing stage is complete.

Kitchen Cabinets are divided into 2 categories in architectural design, Base and upper cabinets. Base cabinets are drawn using a single line measured (610) From the back of the wall. Upper cabinets are drawn using a single dashed line (305) from the back of the wall.
Bathroom vanities are generally shallower (508) but can be the same size as kitchen cabinets in large bathrooms or utility rooms (laundry or workrooms).

TO DO:
Add the base and upper cabinets to your kitchen and vanity in the bathrooms.

Appliances are indicated on drawings as rectangular boxes that approximate their standard size.

- Refrigerator - Varies between (762) to (1372) wide x (686) deep
- Range- (762) x (533) deep
- Dishwasher- (610) x (610)

TO DO:
Add the kitchen appliances.

Plumbing
Here are some standard sizes for a variety of plumbing fixtures.

- Kitchen sink- double (813) x (533)
- Bathroom sink- (483) x (406) ,oval
- Water closet space- (760) wide (minimum); (600) clearance in front.
- Bath Tub- (813) x (1524)
- Shower- (914) square, (1067) square, or other combinations.
- Washer/dryer space- (900) deep, (1675) long minimum

TO DO:
Add the kitchen sink and all features in the bathrooms to the floor plan.

On your floor plan we will represent stairs by lines spaced (254mm) apart.
These lines represent the tread width or what we think of as the length of each step.
Stairways should be (900mm) minimum wide with a (260-300mm) tread.

The direction of the stairs is shown with a line that ends with a one sided arrowhead and the number of risers. Abbreviations are used DN (down), UP (up), and R (risers). A note 7R means there are 7 risers in the flight of stairs.

On the main floor the stairs are shown going down and in the basement the stairs are shown going up. You may show the beginning of your stairs and cut them off with a break line at an angle.

TO DO:
Place the stairs on your drawing.

To place room names

We place names in the center of all rooms. As a general rule, use a simple font (i.e. Arial) and make the text size approximately as tall as the exterior wall is wide. The size of the room may be shown under the room name.

TO DO:
Place the room names and sizes on your drawing.