

Chapter 6

LOCATING THE HOUSE ON THE SITE

EVEN after you have found and purchased a suitable building site, you may have some additional problems to settle in regard to just how the house should be positioned on the land. Many fine sites and homes have been spoiled to some extent because the house was just set down on the lot without any thought as to what position would be the best.

Facing to the South

As a general rule, a house is always positioned so that the main rooms—including the living room in most cases—will face to the south.

There is a very good reason for so placing the main rooms.

During the summer months the sun is very high in the sky and, therefore, a house facing south will be more or less directly under the sun at all times. This means that the rays of the sun will not shine directly through the windows on the south side of the house. This is an important point for homes in northern climates, including those in the southern sections of this country. During the winter months, the sun is much lower in the sky and its rays will

then shine into the rooms that face to the south. A room filled with sunshine during the cold winter months is very pleasant, not only because it will be cheerful, but also because the warmth supplied by the sun can help reduce the fuel bills. Many of us forget how many pleasant days there are during the winter months when the sun is shining brightly and producing a good deal of warmth.

In fact, solar heating, which is just beginning to come into its own, is based on using the sun's heat alone to keep the house warm during the winter.

Of course, a house that is going to depend on solar heat for all, or even a large portion, of its heating must be especially designed for this purpose, with large areas of glass and special overhanging eaves to allow a maximum amount of winter sun to enter and still keep out the hot summer sun. But, with a central heating system, positioning your house so that it faces south is a highly desirable feature.

Fig. 1 shows how it is possible to have the living room of a house face to the south regardless of the direction of the street..

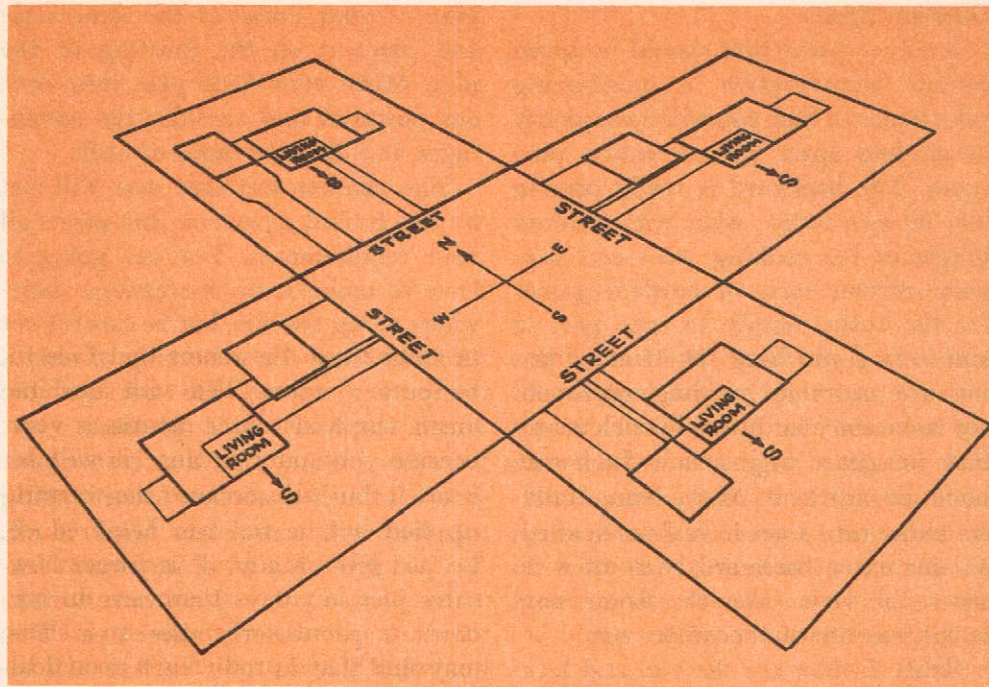


Fig. 1. The general practice is to locate the house on the plot in such a way that

the rooms used for living purposes will face to the south.

Other Considerations

There are, however, a lot of other important points to think about besides having the living room face to the south. There is, for example, a question of view. It may be that if you position your house so that the living room faces south you will be looking right out onto a busy street or some unattractive buildings. In the case of a street, you may be able to move your house towards the back of the lot and even put up a screen of trees to hide the street from view. However, if you do this you will need long walks and driveways from the house to the street and you will also reduce the size of your

backyard. If there happens to be a particularly pleasant view to the east or west, many probably will prefer to have their living room face in that direction rather than to the south in spite of the sun factor.

Another consideration is the direction of the prevailing winter and summer winds. If there is going to be an outside porch and terrace, it is certainly desirable to place your house so that these will receive the cooling summer breeze. And it is just as desirable not to place your house in such a fashion that the winter winds will blow right across the large glass areas in the living room.

Outdoor Space

Another point that should be given serious consideration is positioning your house so that you will have plenty of outdoor space for recreation purposes. The backyard is really coming into its own today, what with outdoor fireplaces for cooking week-end suppers, various sorts of outdoor games for the entire family to take part in and even sunbathing. If items of this sort are important to you, you should try to locate your house in such a way that you get a large area in back with some privacy to it. Many home builders today care a great deal more about an attractive backyard than they do about the view from the living-room or the warmth of the winter sun.

Other factors are the size and location of your gardens, both flower and vegetable, the location of any attractive trees that may be growing on the site and neighboring houses.

Balancing Advantages and Disadvantages

A very good way to help you to make up your mind as to just how the house should be positioned is to draw a scale plan of your plot showing its relation to the street and the position of trees, other houses, the direction of the prevailing winds and other important features of this sort. Now draw a floor

plan of your house at the same scale and place it on the drawing of the plot. Move your floor plan into various positions and consider the advantages and disadvantages of each.

The chances are that you will not be able to find a position that meets all your requirements. You are going to have to make some concessions somewhere along the line, but be careful not to make them for something of only a temporary nature. Do not put too much emphasis on a pleasant view, because you may find that before your house is finished, another house is going up that will completely block it off. Do not give up a lot of important features just so you will not have to take down a particularly nice tree. You may find that in time the tree will become so large that it keeps your house in the shade or that it is attacked by a disease and has to be removed.

A lot of home builders have positioned their homes on a site just for the benefit of their small children and then found that in just a few years the children have outgrown the site.

Naturally, the contours of your particular plot are going to have the last word in how your house is positioned, and they must be carefully studied before you are ready to go ahead with laying out the house and starting the excavation work.

READING PLANS AND BLUEPRINTS

It would take a book of many thousands of pages to describe in minute

detail each little step in the procedure involved in building a house from the

ground up. As many thousands of houses are built each year and each one is somewhat different from the rest, the building trades depend upon drawings rather than written instructions to show what is wanted. The architect who has designed a house uses these drawings to show the builder exactly how the house should be put together. It is a very good idea to understand how to read such drawings, because once you have mastered them, you can, theoretically at least, build any home that you have the plans for without additional information.

For the basic house described in this book there are framing plans that show the exact location of each piece of studding, each rafter and each joist, together with additional information. These will not be found in the regulation type of building plans, but if you know how to read regulation plans, they will be just as clear to you as the framing plans reproduced here.

The plans for building a house may be called by such names as blueprints, working drawings or simply plans. A set of these drawings will show you everything about the house that you need to know in order to build it. They will show the height of the wall, the location and size of the windows and doors, the position of the fireplace, the location of the interior partitions and other facts needed to construct the house exactly as the architect has planned it.

Blueprints or working drawings are understood by everyone engaged in

the building trades and, therefore, they can be used for many purposes. For example, when you go to a finance agency to get the necessary funds for building, the agency will want to see the blueprints of the house you plan to build. One look at these plans will tell anyone with any degree of skill in reading them what the value of the completed house should be. Before you can get a building permit—if one is required—you may have to show a set of blueprints to the local building authorities and they will determine from the plans whether or not a house of that type may be erected on the plot you have in mind for it. If you wish to get bids from contractors for jobs that you do not wish to undertake yourself, such as plumbing and heating, a set of blueprints will be necessary so that each contractor can give you a bid for his particular work.

You may find that before the house is completed, many sets of blueprints will be required. Not only may some be required for other persons, but the set that you are working with will almost surely become dirty and torn before the job has been completed. In almost every community there is a firm that specializes in making blueprints, and it is well worth the expense to have a sufficient number of sets made up in advance so that you will not be caught short or make an error because you were not able to read the blueprint clearly.

Architectural drawings or blueprints can be divided up into four groups.

First there are the *plan views*. These are also called *floor plans* and there will be one for each floor of the house—basement, first floor and attic, for instance. The plan view or floor plan will show the room arrangement on each floor by the arrangement of the partitions. It will also show the location of the fireplace, doors, windows, closets, stairs and similar details.

The *elevation drawings* show the outside of the finished house. As the house has four sides, four elevations are required. These may be called South, East, North and West elevation, or the front elevation, which is the front of the house, the right elevation, which is on your right when looking at the front of the house, the back elevation and the left elevation.

Elevation drawings show everything about a particular side of the house from the ground floor level to the roof. They show the location and size of windows and doors, distance from first-floor level to second-floor level, type of siding and other information.

A *section*, or sections, is a drawing used to show the type and size of construction used on a particular portion of the building. In these views, which are usually vertical, a portion of the construction is cut away to show various details. For example, a wall section will include a cutaway that reveals the necessary construction detail for the studs, joists, rafters, sills, plates, floor construction, etc.

The last type of drawing is the *detail*. This is used when it is required to

show some detail work that would not be very clear in a plan view, elevation or section.

For example, it would be difficult to show the cornice detail on an elevation view of a house and, therefore, the architect will make an enlarged drawing that shows the necessary points. Such detail drawings may be placed on the sheet containing the other drawings or, if there are a great many of them, they may be all grouped on a sheet of their own. Details will be required for plans, elevations and sections.

As it would be impossible to draw a house to full size on paper, it is necessary that the drawings be made *to scale*. This means that the house is reduced to a size that it is practical to put on paper. Dimensions must be reduced proportionately so that all members have the same relationship to one another as they did before they were reduced. House plans are usually drawn to a one-fourth-inch scale, which means that each quarter-inch on the plans indicates one foot. For example, if the actual height of an opening is ten feet, it is represented on the drawing by ten quarter-inches, which is two and one-half inches. This enables an architect to draw up the plans of a house on a relatively small piece of paper, which will average about eighteen by twenty-four inches in size.

The scale is always indicated on the drawing so there will be no question as to just what it is. If the scale is one-quarter inch, it will be represented on the drawing by: $\frac{1}{4}''$ equals 1'0". If

the scale is one-half, it is represented by: $\frac{1}{2}$ " equals 1'0". Sometimes, very complicated small detail work will be shown at full scale; in this case it will be so indicated on the drawings.

It is seldom that all the various dimensions required for building a house will be found on the drawings. If they were, it would require many pages of plans for one house because of the vast number of dimensions that would have to be given. Therefore, in some instances you will have to figure out the dimensions from the blueprints. This is not difficult if the drawings were accurately made to scale and you have the proper type of rule. The best rule to use for measuring blueprints is a three-sided scale. This contains six scales: $1\frac{1}{2}$ inches to a foot, 1 inch to a foot, $\frac{3}{4}$ inch to a foot, $\frac{1}{2}$ inch to a foot, $\frac{1}{4}$ inch to a foot and $\frac{1}{8}$ inch to a foot. An ordinary 12-inch rule can also be used if it has fine enough divisions so that you will be able to measure the fractions of quarter-inches.

Care must be taken in measuring any distance on a blueprint because, with the scale used, a small error at this time can mean the difference of several

inches when the actual work is made up in feet and inches. Be sure that the blueprint is absolutely flat and then, with a fine pencil, mark the extremes of the point that is to be measured. Place your rule or scale between these points and make your reading. Be sure that all the markings on the rule or square are perfectly legible and do not use this rule for rough work because of the chance of its becoming damaged.

When the actual dimensions are given, they are written in feet and inches. For example, an opening 4 feet wide will be expressed 4'-0". So that there will be no question as to just where this dimension applies, a dimension line is used to indicate the distances between the points. The ends of such lines have arrowheads and either the dimension figure will be set over the line or the line will be broken in the center and the dimension figure inserted at this point. Sometimes, the dimension line must be brought out beyond the actual dimension that is shown on the blueprint and, in this case, extension lines are used to indicate the extreme limits of the dimension.