Mastering the blues

If you've ever stared at a set of blueprints and felt confused, you're not alone. Most people have a problem understanding blueprints without an explanation.

Blueprints are the primary way architects and other designers show you what they think you should build. After you've signed off on the project, the blueprints become a legal document. The drawings also serve as instructions for workers.

Understanding the directions for making a cake isn't the same as knowing what the cake will taste like. Recipes and blueprints require you to use your imagination to get a sense of the finished product.

Laying out the space

Part of the confusion concerning blueprints comes from calling them "plans." A plan is just one part of what you need to visualize a design. Think of your house as a box. The floor plan would be a drawing of the bottom, viewed from above. The sides of the box — the walls — simply would be thin lines on the paper.

Even the best plans aren't enough to depict the whole box in detail, however for that, you need a full drawing of each side of the box. These vertical views are called elevations. Elevations are flat, front-on and vertical, like a child's drawing of a house. To imagine a whole house from a set of plans, look for elevations and visualize them as you do the box sides. Once you've visualized a box, you have to know if it's a shoe-box or a refrigerator box. That requires a sense of scale.

Sizing it all up

Scale allows you to see every element at the same time, but in much reduced size. Until your eye gets used to this new size, it is difficult to see why the sofa won't fit in the breakfast room your designer just drew. Or, you might look at a plan and think the rooms are palatial, while your spouse might find them tiny.

Vertical scale can be a problem too. While some clients may think a 10-foot ceiling height would make a new family room a cavernous echo chamber, it could be described as "comfortable," rather than "dramatic" — a description you would probably save for a 12-foot cathedral ceiling. An architect can also make homeowners visualize room dimensions with real-world associations. If, for example, he's trying to get them to visualize a new 12 x12-foot room, he tries to show them a real room that size.

Most plans are drawn to 1/4-inch scale, which is listed as: 1/4-inch equals 1 foot. Some people convert that to real-world dimensions by thinking of it as 4 feet to an inch. Others prefer to make comparisons with familiar objects. For instance, at 1/4-inch scale, a small, 8x10-foot room is about the size of a tea bag in its packet. A two-car garage should equate to a 5 -1/4-inch computer disk, while a 3-1/2-inch diskette makes a good kitchen.

Kitchen and bath designers usually work in 1/2-inch scale. Since they're dealing with one room at a time, they can draw their plans twice as large to show extra detail. Detail drawings, such as wall sections, are zoomed—in even farther.

When you see a drawing that doesn't show the scale used, or one that's marked NTS (not to scale), you should pay attention to details.

Some homeowners who never have a problem understanding space and scale still get tripped up by the intricate detail that appears on architectural plans. One of the biggest problems is the symbols. The same symbols that are essential instructions to carpenters, plumbers, electricians and other professionals might look to you like hieroglyphics

You basically have a couple of choices in understanding what the symbols mean. First, look on the plans for their abbreviated meaning; almost all blueprints will have them and if not you could ask your architect to put them in or at least go over their meaning with you. Second, you might ask your architect to leave the details off for you on one set of drawings only to make it easier to read, just for yourself but remember, that doesn't mean they should be omitted from

Plethora of planning tools

As you and a designer work through the planning stage of a project the sketches gain detail. They also multiply into a whole stack of drawings. The completed set of drawings may include floor plans, elevations, wall sections and the following:

Foundation plans: Shows basement or crawl space walls, with notes on the floor framing above that.

Framing: plain Its background is an oversimplified floor plan -just the walls. On top of that are all the horizontal structural members.

Electrical and mechanical plans: For large or complicated projects, it's easier to read the plans if the electrical, plumbing and HVAC details are drawn separately over a simplified floor plan.

Roof plan: Includes ridges, hips, valleys, rakes and eaves.

Details: Shows complex details such as eaves, windowsills and doorsills, jambs and headers.

A site plan: Shows the lot boundaries, the structures on the lot and the compass direction. It should also show required setbacks and topography contours.

Schedule: Lists the size, make, model number and options of items such as doors, windows and fixtures.

Specifications: Written instructions on products and construction methods.

Perspectives: The closest to 3-D views you'll find on paper.

Computer-assisted drawing: (CAD) Provides nearly endless possibilities for perspectives.

Know the code

Most abbreviations on blueprints are obvious. Here are less obvious ones:

A.F.F. Above finished floor

ALT. Alternate. At the bidding stage, ALT. next to a detail means, "Tell us how much it will cost to build it this way and that other way, too."

BLKG. Blocking, or structural reinforcement, between joists or studs.

B.O. By owner.

CL. Closet

CL. ('L' superimposes over 'C') Centerline. Often, it's more accurate to locate a window, door or fixture with dimensions to its centerline, rather than its edge.

EX. Existing. In remodeling plans, it's crucial to clarify what is to be built referred to as "new," and what already exists.

F.F. Finished floor

HT. Height

GYP.BD. Gypsum board, more commonly known as