

Homebuilding project

Business



Housing is a basic commodity that we use every day in our daily business, whether in church, school, office or relaxing at home. However, remarkably few of us have ever taken a minute to our time to think how houses are constructed.

Building a home is a task every individual encounters at some point of his or her life. So, it is vital to understand the process and critical activities that must be carried out for someone who has his house built successfully. There are around 100 million housing units in the United States alone. Most of them are housing units occupied by families. The Heritage dictionary defines a house as ' a structure occupied by one or more persons, especially a family'. There are many steps involved in the building of a home.

A typical American home is a house with rooms, like the kitchen, bedrooms, living room and bathrooms. It is located on its own piece of land, with a lawn and some few plants outside. The house can have a pitched roof and walls covered by bricks, windows and sidings. This is a typical American home, although; new and advanced structures are coming up. It all depends on an individual's taste, preferences and budget allocated for the building project. J& K Homebuilders is a construction company that is committed to building housing that meets individual's needs.

The housing structures are constructed to be convenient to the environment. The construction process steps in the construction of American homes are mostly set out. There are basic activities that must be undertaken, so as to have project to be successful. Although, designs of different housing units are different in size, appearance and other things, there are those features

that are easily identifiable as they are basic in every home in the US. Most residential units are the same throughout the US, because of the set building codes that must be complied. The steps set out by J & K Homebuilders in the construction of a basic American home of 2400 square feet are discussed below.

The first and basic step is the preparation of the site for construction. The first team that is contracted is the one that prepares the site to be ready for construction. They arrive at the construction site with their work equipment in readiness to work. They clear trees, rocks and debris that may be on the ground. They level the ground using sophisticated machines, like bulldozer, and basic tools, like a back hoe. The crew can also set the foundation for building.

They dig the foundation for the house. The common foundation systems include basements, slabs, crawl spaces and posts in wet and coastal areas. In the crawl space foundation, the site preparation crew digs holes and trenches, concrete is poured into these holes which acts as an interface of the ground and the foundation wall. When the concrete is poured, construction stops for around four weeks, depending on the weather, to allow it to fully dry. Most crawl space foundations are made of cinder blocks with a brick facing.

The brick layer adjusts carefully the height of the bricks with mortar thickness and cinder blocks, making the crawl space walls level all the way round. The crawl space foundation has several advantages over the basement foundation and the slab foundation. First of all, it is cheaper than

either the basement foundation or the slab foundation. It gets the house off the ground, this is more important than the others, especially in the area with termites and wet and damp areas; and the last advantage over the others is that, it is easy to fit the duct work and plumbing, as they run through the crawl space. It is also easy to carry out maintenance and servicing throughout the life time of the housing unit. The one problem with the crawl space foundation is dampness; therefore, perforated pipe and gravel are laid in a trench around the crawl space, so as to keep water away.

The other type of foundation is the basement. To keep the foundation waterproof, the site preparation team digs the basement 8 feet deep; at the bottom there is a concrete slab, while the outer walls are fitted with concrete or cinder blocks. A perforated pipe and gravel added along the bottom of the walls to act as a drainage system. The walls are usually insulated with a rigid foam board and heavily waterproofed and dirt filled against the walls. The basement is mostly poured in three pieces; the beams, the walls and then the slab. The wall and the beam are bound together with a piece of steel, to keep it strong and stable.

The width of the beam depends on the compressibility of the soil; if the soil is light, it is wider, so as to spread out the weight, while in heavy clay soil it can be narrower. The third and last foundation used is the slab; it is rare in the United States, because during winter the ground freezes, making the floor intensely cold, it is common in warmer areas. The site preparation team trenched around the outside about approximately 2 feet deep, and leveled the ground for the laying of the pad. It is supremely easy to construct, it is just a flat concrete pad poured onto the ground. It is advantageous over the <https://assignbuster.com/homebuilding-project/>

other types of foundations, because it requires little site preparation and the amount of labor needed is less. It is, therefore, cheaper than the basement foundation.

The second and momentous step that is carried out is building of the floor and the walls. The team that is contracted for this exercise is the framing crew. They lay the floor for the basement and crawl space, but if the foundation is a slab, this step is avoided. In a crawl space foundation, the team starts with a still-plated treated lumber, which is in contact with bricks. The fire place is established from a centralized section of the frame. When the floor framing is finished, plywood is laid on top of it.

An oriented strand board can be laid on behalf of the plywood. The framing crew works on the walls next. They assemble the walls on the floor, which they finally raise into place. The walls are made of lumber and covered from the outside with an oriented strand board or plywood, and this gives the walls rigidity. The plywood makes walls stronger than when they use oriented strand board (OSB), as evidenced weak buildings that came up before plywood started being used.

The lumber of the chosen size is placed on a given inch center. Windows are also fitted into the walls. Windows are significant framings which will accommodate the internal walls when they are built. Plywood cuts out of the window as construction proceeds. The window is above a header, which is plywood put in between them, and along the bottom. The plywood in the header is to make it wide as the rest of the wall.

Headers are fitted over each door and every window, so as to give the wall enough strength over the door and the window to support the roof. All walls are built up using the same basic pattern overlapping at the top with the top plate of the other wall at the corners. In order to bind the corner, the walls are nailed together. Next, the crew builds interior walls that are at the top plates of exterior wall. The team builds the walls of the garage which are directly bolted to the brick foundation walls; this is because the garage will have a slab door.

The third step is to fit a roof to the house. Trusses are used for the framing of the roof. Trusses are triangulated and pre-fabricated wooden structures which support the roof. The team prefers trusses because: they are strong, they are less expensive, as they are built from shorter lengths of 2x4 lumber, allow for innovativeness, as they can be custom-made into any shape, portability is easier, as the weight is transmitted to the exterior walls, and finally they are easy to set up. The only disadvantage to the owner of the house is that he/she exceedingly limited the attic space. The trusses come with many custom-made shapes which are gable truss, scissors truss and m truss.

Scissors trusses are used at the front room, while m trusses are used at the garage with the gable trusses used at the end of the three rooflines. The trusses are either put up by hand or by crane by the team. They take averagely four hours to set up; they are tied to the walls with small plates. Once the trusses are fully put up, plywood or oriented strand board is used to cover the roof, this is recommended, because it gives the roof rigidity. The

crew builds a distinctive roof over the porch and the breezeway. The next step is the fitting of doors and windows.

Plastic stripping is clipped to the inside of all windows and doors. The windows which are used here are the standard vinyl, and are put in each rough opening and clipped in place on the inside. Next, the team, roofs the house using standard asphalt shingles. They cover the roof with building paper, the shingles then are fitted quickly, approximately within a day. Ridge vents are fitted; these give better circulation and prevent bats and squirrels from entering the attic.

Aluminum flashings are fitted to keep water away at points where the shingles touch the singles, are cut off with about 2 inches of overhang. The fourth step is plumbing. The septic tank is put in place; the sewer lines from the sink or the toilet to the septic tank are then constructed. The ' p' traps are put in every drain opening. A vent pipe is installed to allow the fumes from the septic tank to escape, but the vent has the problem of breaking vacuum, therefore, water flows down the pipe quickly.

In addition, plumbing code requires that: a uniform diameter for all pipes, good material for pipes, good joints, installs necessary supports, incline pipes at goo angles and the longest distance for lateral pipes. To finish the plumbing, the dry wall is erected; the drywallers put it up in a day and tape it the next day. Last on plumbing the garage slab is poured, which is four inches of gravel, is placed on the ground. The final and fifth step carried out is putting finishing touches to the house. Underlayment is put down which is covering the floor with 4-mil-thick plastic or the tar paper or and after that by

5/8-inch particle board. Next the HVCA contractor installs the heating and the air conditioning unit.

The electrician installs all light fixtures, cover plates, wall outlet and sandwitches. The company cabinet will install bathroom and kitchen cabinets.