

Types of House Foundations

Types of house foundations are somewhat different from the foundation of the other structures. Further, houses are small-scale buildings that are having low column axial loads.

You could be aware of the types of foundations for homes by reading this article completely.

Under the other types of foundations, small building foundations are not that complicated and they are the types of foundations constructed from the old time.

Let's what are the main types of house foundations.

Types of Foundations of Homes

- **Basement Foundation**
- **Crawlspace stem walls**
- **Wooden Foundation**
- **Pier and Beam Foundations**
- **Stone Foundations**
- **Drilled Shaft Concrete Pier Foundations**

Let's discuss each type of foundation in detail.

Basement Foundation

Basements are constructed when there are level differences between the approach and the land or if required additional space.

They are types of house foundations that incurred considerably higher costs compared to the normal structure constructed as shallow foundations such as isolated footings which fall under spread footing. The cost of building foundations could be increased due to the following reasons.

- When basement foundations are constructed, most of the time, sidewalls will be concrete walls if the basement level is lowered than the existing ground level.
- The cost of construction of concrete walls will be higher than that of normal masonry walls.
- When the basement is constructed, it is required to do the waterproofing and protection for the same.
- Earth filling compaction etc also increases the construction cost.



Though the basement adds additional space to the house they are types of house foundations that increase the cost of construction. Further, there are possibilities of occurring cracks in basement walls.

Crawlspace Stem Walls

The stem wall foundations are common types of house foundations that can be observed in countries like the United State. They are types of foundations system that connect the building foundation and the superstructure.

There are different types of stem walls.

- **Masonry stem walls**
- **Wood stem walls**
- **Concrete stem wall**

Some of the uses of the stem wall are as follows.

- Stem walls elevate the structure. It reduces the structure damage for the nature deceases. Especially, when we construct the structure from timber, these types of house foundations are more useful.
- Improves the aesthetic appearance of the structures
- Very useful in flooding areas

Wooden Foundations

Most of the ancient structures where the ground floor need to be elevated had been constructed from wood foundations. Timber joists inserted into the ground hard soil layers are used to constructed structures.

Attentions shall be made to the type of timber used for the construction as there are high possibilities in deteriorating them vary rapidly due to the environmental conditions. Therefore, these types of house foundations shall be used with much attention.



Properly treated timber can be used for the construction and it can bear the structure weight and maintain the durability of the structure. Structures constructed from wooden foundations are also made from timber. Therefore, the weight of the structure is also very less.

In the areas where timber is readily available, the construction of timber structures is more common. Further, timber structure can withstand up to about 20 years without much issue if we maintain it properly.

Pier and Beam Foundations

These types of house foundations are constructed as replacements to the shallow foundations. Pier foundations are a kind of deep foundations.

However, beam foundations are types of shallow foundations. There could be a combination of the pier foundation and beam foundation to resist the structure weight. These types of foundations for homes are not common.

The article, pier foundation could be read for different types of pier foundations.

When there is a high bearing capacity in the soil, the structure can rest on the beams constructed on the ground. There should be a low weight of the structure to rest it on the beam foundations. Further, the cost of construction of the foundation will be lesser as there are no additional footings constructed.

Stone Foundation

Stone foundations are not that not common in construction. Ancient structures are mostly constructed from stones. Before the invention, concrete, a major type of building foundation is the stone foundation.

In ancient structures, these types of house foundations can be observed. Properly placed stones are used to construct the house's foundation and superstructure.



There is some sort of mortar in between the stoned to maintain the bond between the stone and mortar. Those structures are more durable and stronger.

In addition, stone foundations are types of house foundations, they are used as retaining structures.

Drilled Shaft Concrete Pier Foundations

These types of house foundations can be identified as pile foundations or pier foundations.

Drilled shaft concrete pier foundations are reinforced concrete foundations and are not considered as types of house foundations. They have higher load-bearing capacity when compared to the other type of foundations for homes. Therefore, when there is a low bearing capacity of the soil or there is high axial load, drilled shaft concrete foundations are constructed.