



UNIT – I

FUNDAMENTALS OF BUILDING

Residential Building

A residential building is defined as the building which provides more than half of its floor area for dwelling purposes. In other words, residential building provides sleeping accommodation with or without cooking or dining or both facilities.

Types of Residential Buildings

1. Single-Family Houses or Individual Houses for Residential Building



- The bungalow is a small house. This type of building can be surrounded by a large veranda.
- These types of residential houses are owned by single-family members for individual houses or private residences. In residential houses more than one family lives in a building, such residential houses are known as multiple-family private residences.
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2. Lodging or Rooming Houses for residential building



- There are multiple or buildings with lodging or rooming facilities. Which provides a separate living arrangement for foreign individuals under the management of a private temporarily or permanently.

3. Dormitories for Residential Building



- The dormitories building primarily accommodates a large number of people, such as boarding school, college, high school, or university students. In some countries, such buildings have several beds for large numbers of people.
- The word dormitory in the United Kingdom means a room with numerous beds for unrelated people. In the United Kingdom, these types of dormitory buildings are commonly used to accommodate boarding school students, travelers, or military personnel.



4. Apartments for Residential Building



- Apartments or flats are large buildings for residential. In which there are separate residences for different families. At least three families can live independently in separate apartments.
- An apartment is a group of different housing units in one building. In this type of residential building, all the houses have separate properties.

5. Townhome for Residential Building

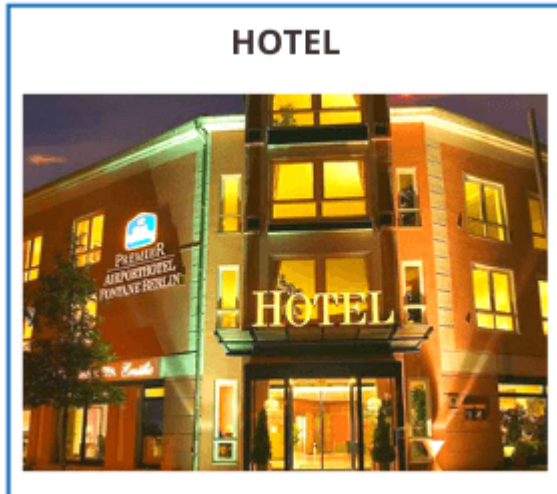


- The design of a townhome is like a home built in a row. In which other houses are separated by one or two walls.
- Townhouses can be two or three stories high. But some townhome buildings can be taller than three stories.
- In which the owners of the townhome individually own both the interior and the exterior. The individual owners of the townhomes are therefore



independently financially responsible for the maintenance of the exterior as well as the interior.

6. Hotels for Residential Building



- The hotel is managed by private and different trusts through single management. The hotel acts as a lodging house. This type of residential house mainly provides accommodation on a temporary basis. This type of residential home includes inns, hotels, etc.

Site Selection for Residential Buildings

Selection of site for any building is a very important and experts job and should be done very very carefully by an experienced engineer. The requirements of site for buildings with different occupancies are different. Following are some of the important factors which should be considered while selecting site for any residence.

1. The site should be in fully developed area or in the area which has potential of development.
2. There should be good transport facilities such as railway, bus service, for going to office, college, market, etc.
3. Civic services such as water supply, drainage sewers, electric lines, telephone lines, etc. should be very near to the selected site so as to obtain their services with no extra cost.



4. Soil at site should not be of made up type as far as possible. The buildings constructed over such soils normally undergo differential settlement and sometimes become the cause of collapse. Cracks in buildings in such conditions, are quite common
5. The selected site should be large enough; both to ensure the building abundant light and air to prevent any over dominance by the neighboring buildings.
6. The ground water table at the site should not be very high.
7. Nearness of schools, hospitals, market, etc. are considered good for residential site but these facilities do not carry any significance in the selection site for other public buildings.
8. Good foundation soil should be available at responsible depth. This aspect saves quite a bit in the cost of the building.
9. The site should command a good view of landscape such a hill, river, lake, etc.
10. Residential house site should be located away from the busy commercial roads.
11. Residential site should not be located near workshops, factories, because such locations are subjected to continuous noise.
12. Orientation of the site also has some bearing on its selection. Site should be such in our country that early morning sun and late evening sun is accepted in the building in summer and maximum sun light is available in most of winter.