EXPERIMENT NO: 6

BUILDING PLANNING AND DRAWING

To understand about principles of building planning and building bye laws

- **Principles of Planning:**
  Plan of a building is the assembling or grouping of arranging of its component parts in a systematic manner and proper order so as to form a meaningful wholesome and homogeneous body.
  Planning of the building depends on its;
  1. Its functional object and requirements.
  2. Its components parts, their sizes and the relationship between the different rooms.
  3. Shape of the plot and topography.
  4. Climatic conditions of the place.
  5. Its location and neighborhood.
  6. Type of the buildings like single storied/ multi storied or detached/ semi-detached/ row houses.

  The factors or principles which govern the theory of planning are aspects, Prospect, Privacy, Furniture requirements, Grouping, Circulation, Sanitation, Flexibility, Elegance, Economy, Practical Examination.

NATIONAL BUILDING CODE OF INDIA

- Group A : Residential Buildings
- Group B : Educational Buildings
- Group C : Institutional Buildings
- Group D : Assembly Buildings
- Group E : Business Buildings
- Group F : Mercantile Buildings
- Group G : Industrial Buildings
- Group H : Storage Buildings
- Group I : Hazardous Buildings
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CLASSIFICATIONS OF MULTI STOREY BUILDINGS:

Depending on the height, need and various other factors, multi storey buildings are classified into following.

1. Low Rise building: A low rise multi storey building has few storeys (typically less than four), with the usage of elevators and stairs for vertical circulation.

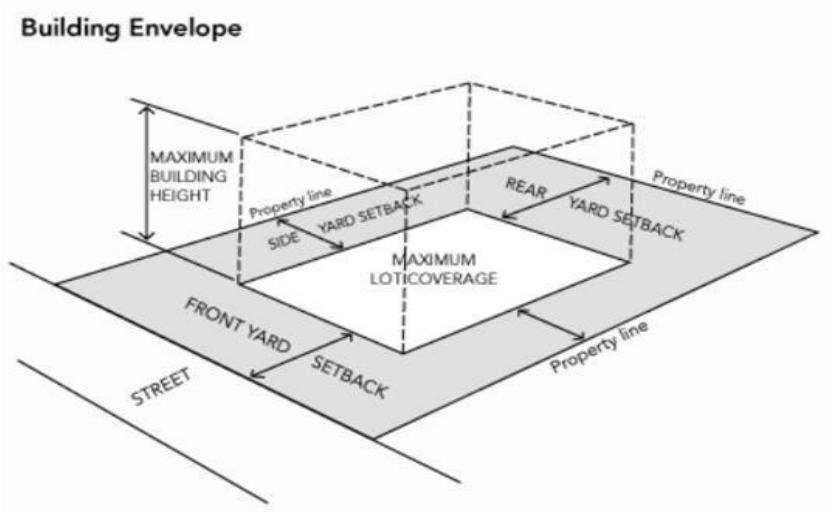
2. Mid Rise building: A Mid Rise building has number of storeys ranging from 4 to 12.

3. High Rise building: A High Rise building has number of storeys ranging from 12 to 40, with usage of lifts and stairs.

4. Skyscraper building: A tall and habitable steel building having storeys more than 40 but height less than 300m is considered as Sky Scrapper Multi storey building.

5. Super tall building: Super tall building is the steel building with its height exceeding 300m are Super tall Multi storey building.

6. Mega tall building: Super tall building is the steel building with its height exceeding 600m are Super tall Multi storey building.



Minimum Plot Size and Building Frontage

Different types of residential Building, plot size and their frontages		
Types of Residential Building	**Plot size in m^2**	**Frontage in m**
Detached Building	Above 250	Above 12
Semi Detached Building	125-250	8-12
Row type Building	50-125	4.5-8

Note: Minimum frontage on any street 6m, for row housing it may be 5.5m

Minimum Front open space to be provided

Width of street in front of plot in m	Front open space minimum in m
Up to 7.5m	1.5
7.5 to 18	3.0
18 to 30	4.5
Above 30	6.0

Permissible Plinth Area (Covered area) in Residential Plots

Area of Plot	Max. Permissible covered area
< 200 m^2	66.66% of plot area
201 to 500 m^2	50% of the plot area
501 to 1000 m^2	40% of the plot area
> 1000 m^2	33.33% of the plot area

Minimum Rear open space to be provided (upto 10m height): Average width = 3m but not less than 1.8m

Minimum side open space to be provided (upto 10m height)

- Detached building: 3m on both sides
- Semidetached building: 3m on one side only

Floor Area Ratio:

- Floor area ratio (FAR) = Total covered area of all floors / plot area
- FAR : 1 to 2 depending on type of construction
- Maximum building height = (1.5 x width of abuting road) + front open space