

7. SOME IMPORTANT BUILDING REQUIREMENTS

(a) Exterior Open Spaces

The exterior open spaces around buildings according to NBC 1983 and Kerala Building Rules (KER 1984) shall be as follows.

Occupancy Type	Minimum Front Open Space (m)	Minimum Rear Open Space (m)	Side Open Space (m)	Code/ Rules
Residential Building on streets of width less than 7.5 m and for building of height less than 7 m	5 m from the centre line of the road	1.5	1.5	NBC
For buildings up to a height of 10 m	3.0	Average 3, Min. at any point 1.8	1.5	KBR
do - exceeding 10 m height	add 0.5 m per every 3.0 m height	add 0.5 m per every 3.0 m height	add 0.5 m per every 3.0 m height	KBR
do - on streets of width up to 7.5 m	1.5	Average 3, Min. at any point 1.8	3 NBC	
7.5 - 18 m	3.0	- do -	- do -	
18 - 30 m	4.5	- do -	- do -	
above 30 m	6.0	- do -	- do -	
For buildings of height 15 m	Governed by the rule that the height of the bldg shall not exceed 1.5 times the combined width of abutting road and front open space	5	5	NBC
For additional height	- do	Add 1 m for 3 m increments upto 30 m and add 1 m for 5 m increments upto 50 m	Add 1 m for 3 m increments upto 30 m and add 1 m for 5 m increments upto 50 m	
Educational and Institutional buildings	6	6	6	NBC
- Do -	7.5 ✓	7.5 ✓	3.0 ✓	KBR
Assembly buildings		16	6	NBC
- Do -	7.5-1.2	3	3-6	KBR
Business, Merchantile and storage buildings	4.5	4.5	4.5	NBC
- Do -	3.0	1.5	1.5	KBR
Industrial hazardous buildings (up to 16 m height)	4.5	4.5	4.5	NBC
For every additional 1m	+0.25	+0.25	+0.25	NBC
- Do -	7.5	7.5	3.0	KBR

Note: Sanitary block and lock up garage etc. of height less than 2.4 m may be permitted in the side and rear open spaces

(b) Interior open spaces

- (i) Min. width of inner courtyard on which rooms are dependent for light and ventilation = 3 m.
(ii) Ventilation shaft sizes for water closets and bath rooms when they are not opening to exterior or interior open spaces shall be as follows

Height of building (m)	Area of ventilation shaft (sq .m)	Min. width of shaft (m)
UP to 10	1.2	0.9
12	2.8	1.2
18	4.0	1.5
24	5.4	1.8
30	8.0	2.4
above 30	9.0	3.0

(c) Area and height limitations

The limitations of area and heights* of buildings of different occupancy classes are achieved by specifying the Floor Area Ratio (FAR)

FAR Total covered area of all floors/plot area

The FAR for different localities of a city/town may be fixed by the authority in the overall frame work of the Master plan/Development plan or the same may be generally specified in the local Municipal Byelaws, for different occupancies. The ground coverage and the FAR permitted for different occupancies in Kerala Municipal Building Rules 1984 are as follows:

Occupancy	Max. permissible ground coverage as percentage of plot area	Max. permissible FAR
A Residential	50	1.50
B Educational	30	1.20
C Institutional (Medical)	25	1.00
D Assembly	40	0.70
E Institutional (Govt/Semipublic)	30	1.50
F Merchantile (commercial)	60	2.00
G Industrial	40	1.20
H Storage	70	2.00
I Hazardous	25	0.70

*The height of the building is generally fixed in relation to the width of the abutting road. The maximum height of the building shall not exceed 1.5 times the combined width of the abutting street and the front open space. For buildings and other installations in the vicinity of the airports, the maximum height is further restricted by special covenants issued by Director General of Civil Aviation from time to time

(d) Off street parking spaces

In addition to the exterior open spaces left out for lighting and ventilation purposes as described earlier additional spaces for off street parking of vehicles shall be provided. According to NBC 1 983, parking space for one car is 13.75 sq.m in area, for scooter 1.25 sq.m and for cycle 1 sq.m. According to KBR 1984, the parking spaces are 18.0 sq.m. 3 sq.m and 1.4 sq.m respectively.

For buildings of different occupancies the parking spaces are specified in NBC as follows

Occupancy	One car parking space for every
Residential	2 tenements having carpet area 101-200 sq.m. 1 tenement having carpet area exceeding 201 sq.m 4 guest rooms for lodgings and hotels.
Educational	70 sq.m carpet area or fractions thereof. of the administrative office or public services area.
Institutional (medical)	10 beds(private) or 15 beds(public).
Assembly halls	25 seats.
Restaurants Community Halls	upto 20 seats, nil one for every additional 20 seats or 200 sq.m of plot area.
Business offices and firms for private business	100 sq.m carpet area or fraction thereof.
Public or semipublic offices	200 sq.m - do -
Merchantile	100 sq.m - do -
Industrial	200 sq.m - do -
Storage	500 sq.m - do -

25 percent additional parking space shall be provided in the plot for other types of vehicles like scooters and cycles. Note that the parking space standards as given in KBR - 1984 are slightly different from the above.

8. REQUIREMENTS OF DIFFERENT PARTS OF BUILDING

(a) Minimum depth of foundation and plinth height

Minimum Depth of foundation	60 cm below ground level
Minimum plinth height for low income housing	30 cm above ground level
All other buildings	45 cm above ground level
Interior courtyards, garages, outhouses etc.	15 cm above ground level