JAMMU MUNICIPAL CORPORATION
TOWN HALL, JAMMU

NOTIFICATION NO: 02-JMC OF 2011

DATED:- 05.09.2011

Sub:-The Jammu Municipal Corporation (Building) Bye- laws2011.

In pursuance to clause (D) of Section 385 of Jammu & Kashmir Municipal Corporation Act 2000 and with the prior approval of the Government conveyed vide no LSG(J)139/2010 dated:-1-9-2011, the Jammu Municipal Corporation (Building) bye-laws 2011 are hereby notified with immediate effect.

These bye laws can also be downloaded from the official website of JMC i.e www.jmc.nic.in

5/9/2011

Commissioner
Municipal Corporation
Jammu

No:Mj/Estt/S/305-09
Dated: 05.09.2011

Copy to the:

1. Principal Secretary, Housing & Urban Dev. Deptt. Civil Sectt. Srinagar for inf.
2. Vice Chairman, Jammu Development Authority, Jammu for inf.
3. Chief Town Planner, Jammu for inf.
4. Chief Architect, J&K, for inf.
5. General Manager, Government Printing press, for urgent publication in Govt. Gazatte.

BUILDING BYELAWS UNDER J&K MUNICIPAL CORP. ACT 2000

JAMMU MUNICIPAL CORPORATION

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CHAPTER- 1

PRELIMINARY

1. **Short Title:-** These bye-laws may be called the Jammu Municipal Corporation (Building) Bye-Laws 2010.

2. **Definitions:-** In these Bye-Laws, unless the context otherwise required the definition given shall have the meaning indicated against each term.

   a. **'Act'** means the Jammu & Kashmir Municipal Corporation Act, 2000.

   b. **'Advertising Sign' -** Any surface or structure with characters, letters or illustrations applied there to and displayed in any manner whatsoever out of door for the purpose of advertising or giving information regarding or to attract the public to any place, person, public performance, article, or merchandise and which surface or structure is attached to, from part of, or is connected with any building or is fixed to a tree or to the ground or to any pole screen, fence or hoarding or displayed in space, or in or over any water body included in the jurisdiction of the concerned Authority.

   c. **'Air-Conditioning' –** A process of treating air to control simultaneously its temperature, humidity, cleanliness and distribution to meet the requirement of an enclosed space.

d. **'Balcony' -** A horizontal projection, cantilevered or otherwise including a parapet handrail balustrade, to serve as a passage or sitting out place.

e. **'Barsati' -** A habitable room/ rooms on the roof of t he building with or without toilet/ kitchen.

f. **'Basement or Cellar' -** The lower story of a uilding below, or partly below the ground level.

g. **'Building Line' -** The line upto which the plinth of building adjoining a street or an extension of a street or on a future street or a water channel may lawfully extend and includes the lines prescribed, if any, in any scheme and/or development plan.

h. **'Building Height' -** The vertical distance measured:

(1) In the case of flat roofs from the average level of the front road and continuance to the highest point of the building.

(2) In case of pitched roofs upto the point where the external surface of the outer wall intersects the finished surface of the sloping roof.

(3) In the case of gables facing the road, the mid point between the leaves level and the ridge. Architectural features serving no other function except that of decoration shall be excluded for the purpose of taking heights.

i. **'Building Height'** – is the vertical distance measured from the average level of the central line of adjoining street to the highest point of the building.

j. **'Building set back'** – means the distance by which any building or structure shall be separated from the corresponding boundary lines of the plot.

k. **'Canopy' -** shall mean a cantilevered projection from the face of the wall over an entry to the building at the lintel level provided that:

(1) It shall not project beyond the plot line.

(2) It shall not be lower than 2.3 mts or 7'-6" when measured from the ground.

(3) There shall be no structure on it and the top shall remain open to sky.

l. **'Chajja' -** A sloping or horizontal structural overhang provided over openings on external walls for protection from the weather.

m. **'Cabin' -** A non- residential enclosure constructed of non-load bearing partitions.

n. **'Chimney' -** A construction by means of which a flue is formed for the purpose of carrying products of combustion to the open air and includes a chimney stack and the flue pipe.

o. **'Courtyard'** - A space permanently open to sky, enclosed fully or partially by buildings and may be at ground level or any other level within or adjacent to a building.

p. **'Covered Area'** - The Ground area covered immediately above the plinth level covered by the building but does not include the space covered by:

a) Garden, rockery, well and well structures, plant nursery, water pool, swimming pool (if uncovered), platform round a tree, tank, fountain, bench, chabutra with open top and unenclosed on sides by walls and the like.

b) Drainage culvert, conduit, catch-pit, gully-pit, chamber, gutter and the like.

c) Compound wall, gate, slide swing, canopy, and areas covered by chhajja or a like projections and staircases which are uncovered and open at least on three sides and also open to sky.

q. **'Cornice' -** means a sloping or horizontal structural overhang usually provided over openings or external walls to provide protection from sun and rain.

r. **"Conversion of Building" means**

(a) Conversion of building or any part of for human habitation from one dwelling house intio more than dwelling house or vice versa.

(b) Conversion of a building or part there of into a shop, warehouse or factory or vice versa.

(c) Change of a building use or one intended to be used for purposes, such as shop, warehouse or light industry etc, used for any other purpose.

s. **'Dwelling'** – is a building designed or used to be used for residential purposes. Dwelling shall not include boarding or rooming houses, tents, tourist camps, hotels, guesthouses or other structure used for transit residents like pilgrims, tourists, specialized terms etc.

t. **'Enclosed Staircase'** - means a staircase separated by fire resistant walls and doors from the rest of the building.

u. **"Erection"-** Means to construct for the first time or to construct existing building after demolition or to add another storey over the existing one according to some pre or revised plans.

v. **'Fire and /or Emergency alarm System '** - means an arrangement of call points or detectors, sounders and other equipment for the transmission and indication of alarm signals working automatically or manually in the event of fire.

w. **'Fire Pump' -** means a machine, driven by external power for transmission energy to fluids by coupling the pump to a suitable engine or motor, which may have varying outputs/ capacity but shall be capable of having a pressure of 3.2 Kg/cm^2 at the topmost level of multi-story or high rise building.

x. **'Fire Service Inlet'** - means a connection provided at the base of a building for pumping up the water through in built fire-fighting arrangements by fire service pumps in

accordance; with the recommendation of the Chief Fire Officer.

y. **'Fire Tower'** - means an enclosed staircase that can only be approached from the various floors through landings or lobbies separated from both the floor area and the staircase by fire resisting doors.

z. **'Fire Hazard Industries':**

i) "**Low Fire Hazard Industries**" include engineering industries using/ processing or assembling non-combustible materials i.i lathe machines, steel works, steel components etc.

ii) **"Moderate Fire Hazard Industries"** industries include using/processing or assembling combustible materials but not flammable liquid etc., i.e. plastic industries, fubber nd PVS industries, textile paper, furniture flour mills etc.

iii) **"High Fire Hazard Industries"** includes indistries using/ processing flammable liquids, gases, chemicals petroleum products, plastic or thermo setting group etc.

aa. **'Floor Area Ratio (FAR)' –** The quotient of the ratio of the combined covered area of all floors, excepting areas specifically exempted under these regulations, to the total area of plot viz:

$$\text{Floor Area Ratio (FAR)} = \frac{\text{Total Covered area on all Floor} \times 100}{\text{Plot Area}}$$

bb. **'Foundation' -** This part of the structure, which is in direct contact with ground and transmits load over it.

cc. **'Gallery' –** An immediate floor or platform projecting from a wall or an auditorium or a hall providing etc. floor area and additional seating accommodation and includes the structures provided for seating in stadia.

dd. **'Jhamp' –** A downward, vertical or sloping projection hanging below any horizontal projection like balcony, canopy, verandah, passage etc to provide protection from direct sun and rain.

ee. **'Jhot'** - A strip of land permanently left open for drainage purposes. It is not to be used as an access way or a street and is not to be included as a part of setbacks.

ff. **'Lift'** - A mechanically guided car, platform for transport of persons and materials between two or more levels in a vertical or substantially vertical direction.

gg. **'Loft' -** An intermediate floor between two floors or a residual space in a pitched roof above normal level constructed for storage with maximum clear height of 1.5 meter.

hh. **'Master Plan' –** A Master Plan for town approve by the Government.

ii. **'Mezzanine Floor'** - An intermediate floor, not being a loft, between the floor and ceiling of any story.

jj. **'Mumti or Stair cover'** – A structure with a covering roof over a staircase and its landing built to enclose only the stairs for

the purpose of providing protection from weather and not used for human habitation.

kk. **"Material alterations"-** Means to make any modification in existing building by way of additions/alteration or any other change in the roof or wall or compound in any respect on the plot for which the permission for construction has been previously obtained.

ll. **'Non conforming use/ building'** – it is a building, structure or use of land existing at the time of commencement of the zoning regulations and which does not conform to the regulations pertaining to the zone in which it is situated.

mm. **'Parapet'** – A low wall or railing built along the edge of a roof or a floor.

nn. **'Parking Space' -** An enclosed or unenclosed covered or open area sufficient on size to park vehicles. Parking spaces shall be served by a driveway connecting them with a street or alley and permitting ingress and egress of the vehicles.

oo. **'Permanent Open air space' -** Air space permanently open:

i) If it is a street.

ii) It its freedom from encroachment is protected by any law or contract ensuring that the ground below it is either a street or is permanently and irrevocably appropriated as an open space.

pp. **'Plinth' -** The portion of a structure between the surface of the surrounding ground and surface of the floor immediately above the ground.

qq. **'Plinth Area'** – The built up covered area measured at the floor level of the basement or of any story.

rr. **'Porch'** - A covered surface supported on pillars otherwise for the purpose of a pedestrian or vehicular approach to a building.

ss. **'Plans'** – means a detailed sub division plan indicating size and arrangement of all premises uses.

tt. **'Plot'** – A piece of land occupied or intend to be occupied for occupancy by a main building with its accessory buildings and uses incidental to it.

uu. **'Plot Width'** – The shorter the distance from one side of the plot line to the other measured through that part of the plot to be occupied by the building.

vv. **"Required open space"-** The space between the plot lines and the minimum building set back lines.

ww. **'Set-back Line'** - A line usually parallel to the plot boundaries or center line of a road and laid down in each case by the Authority or as per recommendations of Master/ Zonal Plan, beyond which nothing can be constructed towards the plot boundaries excepting with the permission of the Authority.

xx. **'Storey'** – The portion of a building included between the surface of any floor and the surface of the floor next above it, or if there can be no floor above it, then the space between any floor and the ceiling next above it.

yy. **'Spiral Staircase'** – A staircase forming continued winding curve round a central point or axis provided in an open space.

zz. **'Use Zone'** – means any area of any one of the specific dominant uses of urban functions like Residential, Commercial, Pilgrim facilities, transport and communication, green areas etc.

aaa. **'Ventilation'** – shall mean the supply of outside air into a building through window or other openings due to wind out side and convection effects arising from temperature, or vapour pressure differences (or both) between inside and outside of the building.

bbb. **'Water Closet (W.C)'** – A privy with an arrangement for flushing the pan with water, but does not include a bathroom.

ccc. **'Window'** – An opening to the outside other than a door, which provides all or part of the required natural light or ventilation of both to an interior space and not used as a means of egress/ ingress.

ddd. **'Zonal plan'** – A plan detailing out the proposals of Master Plan and acting as a link between Master Plan and the layout plan. It may contain a site plan and land use plan, with approximate location and extent of land uses. Such as public & semi public buildings/ works utilities, roads, housing, recreation, industry, business, markets, schools, hospitals open spaces etc. It may also specify standards of population density and various components of development of the zone.

eee. **'Zone'** – means any division in which local areas is divided for purpose of development.

CHAPTER – 2

PROCEDURE FOR OBTAINING BUILDING SANCTION

3. Notice

(1) Every person who intends to erect, re-erect or make alternation in any place in a building or demolish any building shall give notice in writing to the Commissioner, JMC of his intention in the Form-A.

(2) Such notice shall be accompanied by the following documents:

a) Twelve copies each of the Key/ Site Plan, Layout Plan, Building Plans, Service Plan and wherever necessary, Landscape and Parking Plan.

b) Four copies of structural drawings along with calculations for all constructions in form A-8 except (i) Construction upto G+1 (ii) Construction of plinth area upto 200 Sqm. *

c) Proof of ownership of the land and/or building in duplicate, such as:-

i. Lease-deed, sale deed and other transfer deeds like gift deed etc.

ii. Shajra Khasra.

iii. Intikhabi Girdwari/ Jamabandi.

d) Approval from the Chief Inspector of Factories in case of Industrial Buildings as well as from the Pollution Control Board, wherever required.

e) Approval from Chief Controller of Explosives and Chief Fire Officer in case of hazardous buildings.

Note: *Certificate to be enclosed in the FormA-8 wherever required*

f) Indemnity Bond in case of proposal for the construction of a basement as given in FormA-7.

g) No objection certificate from the Civil Aviation Department wherever required**.**

3. **Key Plan**: The key plan drawn to a scale of not less than 1:10,000 shall indicate the location of the site with respect of neighborhood land marks**.**

4. **Site Plan:** The site-plan shall be drawn to a scale of 1:100 plots upto 500 sq.mt in size and on a scale of 1:500 for plots above 500 sq.mt in size. The plan shall show as below:

a) The Boundaries of the site on which building to be erected or re-erected.

b) The position of the site in relation to neighboring street and if there is no street within a distance of 12 mt of the site, the nearest existing street and the means of access from the street to the building.

c) The width of the street, if any, in front of the street, at the sides or rear of building.

d) The direction of north point relative to the plan of the buildings.

e) Any existing physical features such as well, drains, trees, over head electric supply lines etc.

5. **Layout Plan**: The layout plan shall be formulated as per the norms of Master Plan/Zonal Plan Town Planning Schemes of the local area if any.

6. **Building Plan**: (a) The plans of the building elevations and sections accompanying the notice with dimensions shall be drawn to a scale of 1:50 for plots measuring upto 250 sq.mt. For plots measuring above 250 sq.mt. to 2000 sq.mt. in a scale of 1:100, and above 2000 sq.mt. in a scale of 1:200 with details on a scale of 1:100 and shall:-

(i) Include floor plans of all floors together with the covered area clearly indicating the size ans spacing of all frame members and sizes of rooms and the position and width of staircases, ramps and other exitways, and lift machine room.

(ii) Show the use of occupancy of all parts of the building.

(iii) Include sectional drawing showing clearly the sizes of the footings, thickness of basement wall, wall construction, size and spacing framing members, floor slabs and roof slabs with their materials. The section shall indicate the

heights of building and rooms and also the heights of the parapet: and the drainage and the slope of the roof.

(iv) Show exact location of essential services, like Septic Tank, Soak pit, Underground and over head water tank, etc.

(v) Show all elevations.

(vi) Give dimensions of the projected portions beyond the permissible building line.

(vii) Give indication of all doors, windows and other openings including ventilators with sizes in proper schedule form.

(viii) Include terrace plan indicating the drainage and the slope of the roof.

(ix) Give indications of the north point relative to the plan; and

(x) Details of parking spaces provide, if any.

(b) Building Plan for Multi-Storeyed Buildings: For multi-storeyed buildings, which are above 4 storeyes and above 15 mt. In height the following additional information shall be furnished/indicated in the building plans.

(i) Access to fire appliances/vehicles with details of vehicular turning circle/and clear motorable access way around the building.

(ii) Size (width) of main and alternate staircase along with balcony approach, corridor ventilated lobby approach.

(iii) Location and details of lift enclosures.

(iv) Location and size of fire lift.

(v) Smoke stop lobby/door where provided;

(vi) Refuse chutes, refuse chamber, services duct, etc.

(vii) Vehicular parking spaces.

(viii) Refuge area if any.

(ix) Details of building service-air conditioning system with position of dampers, mechanical ventilation system, electrical services, boilers, gas pipes etc.

(x) Details of exits including provision of ramps, etc. For hospitals and special risk.

(xi) Location of generator, transformer and switchgear room;

(xii) Smoke exhauster system if any;

(xiii) Details of fire alarm system network;

(xiv) Location of centralized control connecting all fire alarm system, built in fire protection arrangements and public address system, etc.

(xv) Location and dimension of static water storage tank and pump room;

(xvi) Location and details of fixed fire protection installations such as spinklers, wet risers, hose reels, drenchers, CO_2 installation etc. and

(xvii) Location and details of first aid fire fighting equipment/installation;

(xviii) The proper signs/symbols and abbreviation of all fire fighting systems shall be shown in diligent as per the relevant I.S Code.

8. Service Plan and Water Supply Provisions: Plans, elevations and sections of private water supply, sewage disposal system and details of building services shall be made available on a scale not less than 1:100 for residential plots more than 2000 sq.mt. and non-residential plots more than 1 hectare in size, the following provisions shall be made:

1. Separate conveying system to be provided for sewerage and sullage to facilitate rescue to sullage water for gardening and washing purpose. This requires suitable storage facilities that are to be indicated on the building plans.

2. For rechjarging ground water, rainwater-harvesting provisions are to be provided within the plot, which are to be indicated on the building plans.

9. **Landscape Plan**: Landscape plan shall be in the scale of 1:100 for plot upto 50 sq.mt. in size and for plots above 500 sq.mt. the scale shall be 1:500, indicating the circulation and parking spaces, pathways (hard surface), greenery and plantation (soft area) etc.

10. Signing the Plans:

(a) All building and other related plans shall be signed by the owner(S) and:-

i. Architects holding valid registration with council of Architecture; or

ii. Persons having qualification of Diploma in Architecture or 2 years Draftsmanship in Civil with three years working experience with a qualified Architect registered with Council of Architecture and registered with local Authority i.e. Municipal Council or Municipality. These registered persons shall be allowed to design residential building with plot area not more than 500 Sqm. And commercial buildings not more than 250 Sqm.

2. All layout plans for plotted development shall be signed by the owner(s) and by one of the following:

(i) Town Planners holding valid registration with the Institute of Town Planners, India.

(ii) Architect holding a valid registration with the Council of Architecture for Layout Plans of plots on land measuring less than 1 ha.

11. Standard Building Plans: In case of standard building plans prepared by the Housing Board, development Authority, Housing cooperatives or any other authorized agency for any approved housing colony or township and such standard plans have also

been approved by the Municipality the signature of the owner(s) alone shall be sufficient and further signature and certificate of the architect/town planner shall not be required. In such cases the owner shall be responsible to follow the standard building plans.

12. QUALIFICATIONS FOR ARCHITECTS, ENGINEERS, STRUCTURAL ENGINEERS, AND TOWN PLANNERS

1. **Architect**

   The minimum qualifications for an Architect shall be the qualification as provided for in the Architects Act, 1972 for registration with Council of Architecture.

2. **Town Planner**

   The minimum qualification for a town planner shall be the associate membership of the institute of town planners or graduate or post-graduate degree in town and country planning.

3. **Engineer**

   The minimum qualification for an engineer shall be graduate in civil engineering of recognized Indian or foreign university. Or the corporate member of civil engineering division of the institution of engineer (India).

4. Structural engineer

The minimum qualification for structural engineer shall be graduate in civil engineering of recognized Indian or foreign university. Or the corporate member of civil engineering division of the Institutions of Engineers (India) and with minimum 3 years experience in structural engineering practice with designing and field work.

Note: The 3 years experience would not be needed in the case of post graduate degree or doctorate of recognized Indian or foreign university in the branch of structural engineering.

CHAPTER – 3

PROCEDURE FOR SANCTIONING BUILDING PLANS

13. Construction with concerned agencies:

a) After an application for erection, re-erection or alternation of a building has been received, the Authority shall immediately forward a copy of the plans to the concerned Executive Engineers of the Power Development, Public Health Engineering and Urban Environmental Engineering Departments and to the Chief Town Planner of the Town Planning Organization for their clearance with or without condition within a period of four weeks. If no such clearance is received within the period of three weeks it shall be presumed that the concerned agency has no objection to the erection or re-erection of the building at the proposed site.

b) Wherever necessary the Authority shall also forward a copy of the site plan and the ownership records to the Assistant Commissioner (R) & Assistant Commissioner (N) for verification of the title of ownership and for a report that the land or its any part thereof is not encroached on the state or forest land. Such a verification report shall be submitted within a period of three weeks and if no such report is received within the stipulated period it shall be presumed that the ownership claim of the applicant is correct.

c) The Authority shall within a period of two weeks from the date of submission of the application, cause the proposed site of erection or re-erection of the building inspected by the designated officer of the Municipal Corporation who in turn shall record his inspection note soon thereafter.

14. **Building Permission Authority:**

(a**)** The following Building Permission Authority has been constituted for Municipal Corporation, Jammu.

1. Local area of Municipal Corporation

i.	Commissioner	Chairman
ii.	Chief Town Planner, Town Planning Org./ Senior Town Planner of Corporation	Member Secy.
iii.	Joint Commissioner (A)	Member
iv.	Joint Commissioner (W)	Member
v.	Assistant Commissioner (Nazool)	Member
vi.	Exen PHE	Member
vii.	Exen PDD (Inspection Division)	Member
viii.	Exen UEED	Member

b) The Authority shall preferably meet once in a fortnight on a fixed date and in case of holiday the said meeting shall be held on a next working day. The date, time and place of the meeting shall be determined by the Chairman of the Authority.

c) The Member secretary shall place before the Authority all the applications for building plan in respect of which necessary clearance and comments have been received from the concerned agencies or no such clearance and comments have been received within the stipulated period and the authority shall deliberate on all such cases.

d) The Authority may either sanction or refuse to sanction the plans or may sanction them with modification or directions as it may deem necessary.

15. Time Limit for Permission:

a) The Authority shall communicate the decision of the building permission authority in Form A-1 and Form A-2 to the person giving the notice under regulation 5(a) of the Bye-Laws within a period of 60 days from the date of the receipt of the notice.

b) If the authority fails to communicate its decision within the stipulated period the application for building plan shall be deemed to have sanctioned provided that the fact is immediately brought to the notice of the authority in writing by the applicant and that no further intimation is received from authority within 15 days of giving such notice.

16. Modification of Building Plan: when a building has been sanctioned by the authority with such modifications as it may deem necessary the applicant shall modify the plan to comply with the objections raised and submit the modified plans. The authority shall scrutinize the resubmitted plans and if there are still some objections that shall be intimated to the applicant for compliance. Only thereafter the plans shall be sanctioned.

17. Duration of Permission and Revalidation: Once a building plan is sanctioned it shall remain valid for three years from the date of sanction. The validity period of sanction in case of additions/ alterations shall be two years from the date of sanction. Revalidation shall be subject to the Master Plan/ Zonal Plans regulation and building bye laws, as in force, for the area where construction has not started.

18. Revocation of Permission;

a. The authority may revoke any building permission issued under the provisions of the bye- Laws in the following cases wherever there has been any false statement, misrepresentation of material facts in application on which the building permission has been sanctioned.

Or

If during construction it is found that the owner has violated any of the provisions of the sanctioned plan or building bye- laws and compoundable limits.

In such cases fresh sanction of building plans shall be taken by the owner of the building from the Jammu Municipal Corporation after bringing the building within the framework of sanctioned plan, Master Plan, Zonal; Plan, Building Bye-Laws.

Any building permit which has been issued by the Authority before the commencement of the Building Bye-Laws and where construction is in progress and has not been completed within the specified period from the date of such permit, the said permission shall be deemed to be sanctioned under these Bye-Laws and shall only be eligible for revalidation there under. Accordingly where the, only validity of sanction has expired and construction has not commenced, construction shall be governed by the provisions of these Building Bye-Laws.

CHAPTER – 4

PROCEDURE DURING CONSTRUCTION WORK

19. Construction to be in conformity with Bye-Laws Owners Liability: Neither the granting of the permission nor the approval of the drawings and specification, nor inspection by the Municipal Corporation during erection of the building, shall in any way relieve the owner of the building from full responsibility for carrying out work in accordance with these Bye-Laws.

20. Document at Site: (a) The person to whom permission has been granted shall during construction keep the following documents readily available at site on demand in respect of building for which the permit was issued.

i) A copy of the building permit;
ii) A copy of the approved drawings and specifications of the property in respect of which the permit was issued.

(b) Where tests of any materials are made to ensure conformity with the requirements of the bye-laws, records of test date shall be kept available for inspection during the construction of the building and for such a period thereafter as required by the Authority.

(c) The Authority shall get the site inspected periodically during further construction. A report of each inspection shall be prepared in duplicate as per Form A-6 and a copy of the same duly signed by the designated officer shall be given to the owner or to his Architect/Engineer/ Supervisor.

21. Notice of Completion: Every owner shall submit a notice of completion in Form A-3 to the Municipal Corporation, Jammu regarding completion of the building for which permission has been granted. The notice of completion shall be accompanied by the following documents:-

i) Clearance from Chief Fire Officer, wherever required.

ii) Clearance from Chief Controller of explosives, wherever required.

iii) Structural stability certificate duly signed by the Structural Engineer for construction wherever required.

22. Completion Certificate: (a) The local authority through their designated officer shall on receipt of the notice of completion get the work inspected on Form A-4 and communicate the approval or refusal or objection there to in Form A-5 and A-6 within 30 days from the receipt of notice of completion for residential building and 60 days for other buildings.

(b) In case of commercial buildings more than 200 Sft plinth area over G+1, the work shall also be subject to the inspection of the Chief Fire Officer, and the Completion certificate shall be issued by the Authority only after the clearance from Chief Fire Officer regarding the completion of work from the fire protection point of view.

(c) If nothing is communicated within this period, it shall be deemed to have been approved by the Authority for occupation provided the fact is immediately brought to the notice of Authority in writing by the person, who had given the notice and has not received any intimation from the Authority within 15 days, where the completion certificate is refused, the reason shall be intimated for rejection at the first instance itself.

23. Sewer/ Water/ Electricity Connection:

(a) No permanent connection of the water, sewer line and power shall be given to the building by the concerned agencies unless completion certificate has been issued by the Municipal Corporation Jammu.

(b) Temporary connection for water, electricity or sewer can be permitted only for the purpose of facilitating the construction. Such temporary connections shall not be allowed to continue in the premised without obtaining Completion certificate. Validity of the temporary connection shall be only for a period of one year or completion whichever is less.

CHAPTER – 5

ZONING REGULATIONS/ BUILDING BYELAWS

RESIDENTIAL USE ZONE:

The residential areas are developed either as: a) Plotted Development or b) Group Housing/ Flatted Development. The density pattern i.e. (high density, medium density or low density) are followed for working out the pattern of development with respect to the size of the plot to number of dwelling units on each plot, set backs, FAR and no. of storeys/ height of the building. The municipal & social infrastructure as per the norms and specified in the Master Plan of Jammu are provided. The development norms for different use/ activities and on different size of plots shall be applied for sanctioning of the plan. These are based on development control rules applicable to Jammu city as per Master Plan/ Zonal Plan/ Layout Plan.

Residential use in designated core area of old city:

The designated area of old city shall compromise of the congested part of the city. In essence it shall comprise of the densely populated wards of the old city.

Max. Ground Coverage permissible	-	70%
No. of storeys	-	Ground + 2

Note:

No building shall be allowed on lands with more than 30% slope. Building line for proposed building shall be governed by Ribbon Development Act and National Highway building line respectively.

Minimum size plots:

The minimum plot size for economically weaker section of society may be 50 Sqmts. Plot coverage, No. of permissible storey and setbacks are given in the following table:-

Plotted Housing:

S.No	Area (In Sq mt)	Max. Ground Coverage	No. of Storeys	Type of Const.	Set Back Limits (Minimum)			
					Front (M)	Rear (M)	Side (M)	Side (M)
1.	50-100	75%	G+2	Row	1.5	1.0	0	0
2.	101-250	65%	G+2	Row	3.5	1.5	0	0
3.	251-350	55%	G+2	Semi-detached	4.0	2	2	0
4.	351-450	50%	G+2	Semi-detached	6.0	2	2	0
5.	451-500	45%	G+2	Detached	7.5	2	3	2
6.	501-1000	40%	G+2	Detached	8.5	3	3	2
7.	Above 1000 Sqm	35%	G+2	Detached	12	3	3	2

Note:

i) No side set backs shall be required in plots or irregular proportions/ dimensions upto the width of 30 feet. Minimum front set back of 5' and rear set back of 3' shall be permitted in cases where depth of such irregular plots is upto 40 feet. However, there shall be no change in permissible ground coverage, No. of storeys and height of the building as given in the table above.

ii) Height of each storey in a residential house should not be less than 3.0 mts. Staircase, mounty height upto 2.5 mts shall be in addition to G+2 storeys permissible.

iii) Garage/ Porch to the extent of 16.00 Sqmts each shall be allowed in semi-detached and detached houses. Room over porch only on one storey shall be allowed.

iv) Mezzanine floor shall not be allowed in residential area.

v) Basement shall not be permitted in residential plots of Govt. approved colony.

vi) The height of basement shall not exceed 2.6 mts from finished floor to slab soft.

I (b) Regulations for Private/ Public Developers

i) Group Housing/ Flatted Development:

Minimum plot size	0.40 ha (4000 Sqm)
Max. Ground Coverage	40%
Max. FAR	240%
Maximum Height	40 mts.
Min. Set backs	to be determined @ one- third of the height of each building or 25'-0"

Note:

a) Basement, if constructed and used for parking, services and for essential storage shall not be counted in FAR.

b) The quantum of basement varies between 33 1/3% to 75% of the plot area and shall not be included in FAR if used for Parking/ Services.

c) In-house back-up facilities to be provided for buildings beyond four storeys.

d) Minimum 1 ECS per dwelling unit shall be provided for MIG and HIG Housing.

e) Stilts, Balconies, lift stairs, lift ducts shall not be counted in FAR.

ii) Housing Colonies:

1. A group or a group of persons or a co-operative society or firm intending to plot out an estate into more than 4 plots (1000 Sqm or more) shall give notice in writing to the competent authority which will be accompanied by a layout plan of entire land showing the areas allotted for roads, open spaces, plot and public buildings, the specification of the roads, drains and other infrastructures.

2. Min. Width of road

   i) Housing colony upto 50 Kanals

      Entry from the main road shall not be less than 30' and no internal road shall be less than 20'-0".

   ii) Housing colony beyond 50 Kanals.

      Entry from the main road shall not be less than 50' and no internal road shall be less than 20'-0".

3. Roads, Drains, water mains and electric lines required for the colony shall be constructed by the developer at his own cost and no plot shall be eligible for any services and utilities by the govt. and/or Municipal Corporation unless the colony is developed properly and approved by the competent authority, and no building plan shall be considered by the Municipality or prescribed authority in any plot of such a colony which has not received the prior approval of the competent authority (developer) in this case will mean the person, co-operative or the firm intending to plot out the land into more than 4 plots.

4. No housing colony can be allowed in the area not specified as the residential in the proposed Master Plan (if approved by Govt.) unless considered in any special circumstances by the competent authority with the approval of Govt. In such housing colonies, the following standards shall apply:-

   a) Area under roads — Min. 15% to 20% of the total area of land under the proposed colony.

   b) Land to be allotted for open spaces, schools and public building for a housing colony of 20 plots and above shall not be less than 15% of the total area of the colony. However, if the competent authority feels that

an open space or a school site is absolutely necessary within the layout plan of less than 20 plots; necessary provision shall have to be made by the developer in the layout plan.

5. No housing colony will have shop plots of more than one for every ten plots. After the developed land is sold by the developer the roads and drains etc. constructed by the developer shall be transferred to the Municipal Corporation for their maintenance. Area under commercial use shall be 4% to 5%.
6. Land use of the layout plan approved by the competent authority shall not be changed unless with the prior consent of the competent authority.

Open spaces allocated for parks, play-fields, school sites and public building in a colony shall be deemed to have been sold along with the plots as a amenities of the colony by the developer to the plot holders of the colony. The development of such open spaces shall be the responsibility of the Municipality/Development authority which may levy betterment charges on the plot holders of the colony in accordance with the provisions of the Act.

No permission shall be accorded for construction of a building in any notified area which shall cause nuisance by way of odour, smoke, noise or disturbance to inhabitants of the locality or be injurious to health of the residents of the buildings or to the inhabitants in the surrounding areas.

II- COMMERCIAL USE:

A. Single Shops:

Plot Area less than 100 Sqmts

Max. Ground Coverage	80%
Max. FAR	240%
Maximum Height	12 mts.

Front set back shall be governed by the building line of the road.

B. Shopping Cluster:

a)	Plot Area	100 Sqmt- 750 Sqmts
	Max. Ground Coverage	60%
	Max. FAR	180%
	Maximum Height	15 mts.

Set Backs:

Front set backs to be governed by the approved building line of the abutting road. Rear set back should be 3 mts and side set back should be 3 mts on one side only upto plot of 500 Sqm & 10'-0" on both sides for area more than 500 Sqm.

C. Commercial Complex:

a.)	Plot Area	751 Sqmts to 4000 sqmts
	Max. Ground Coverage	45%
	Max. FAR	180%
	Max. Height	20 mts.

Set Backs:

Front setback shall be governed by the building line or 20 ft from the plot line whichever is more. Rear 1/3rd of the height of the building and sides 10'-0" on each side.

b.) Plot Area	More than 4000 Sqm
Max. Ground Coverage	40%
Max. FAR	200%
Max. Height	25 mts.

Set Backs:

Front setback to be governed by the building line or 40 ft from the plot line whichever is more.

Side Setback	10'-0" on each side.
Rear Setback	1/3rd of the height

Note:

Shopping permissible on ground and 1st floor only.

Commercial use Zone:

The use, coverage., FAR, setbacks, open spaces shall be as per provisions of Jammu Master plan approved by the Govt. or as per the simplified development promotions, regulations of the urban development plan formulation and implementation guidelines and where these are silent on such issues or which requires interpretations, the norms decided by the authority shall apply. The permission of uses/ use activities in premises shall be permitted in accordance with the provisions of Master Plan/ zonal plan/ layout plan.

Note:

Height of mumty/ liftwell above the terrace shall be in addition to the prescribed height.

D. Cinemas/ Cineplex:

Plot Area	0.40 hec or 4000 Sqm
Max. Ground Coverage	50%
Max. FAR	150%

However the height of the building should not be more than 30 mts. Other regulations as proposed in Cinematography Act shall apply in this case.

Front set back shall be governed by building line of the road or 30 ft from the plot line whichever is more.

Rear and side set backs shall be 1/3rd of the height of the building

E. Hotels:

a.) Plot Area	1000-2000 Sqmts
Max. Ground Coverage	40%
Max. FAR	160%
Max. Height	20 mts.
b.) Plot Area	2000 Sqmts and above
Max. Ground Coverage	30%
Max. FAR	180%
Max. Height	25 mts.

Set Backs:

Front setback to be governed by the building line or 20 ft from the plot line whichever is more.

Side and rear set backs should be minimum 1/3rd of the height of the building or 3 mts whichever is more.

Parking:

Minimum 1 ECS for 3 guest rooms plus 1 ECS for 4 seats in case of restaurant & Bar. If banquet hall is to be provided in Hotel, the prevailing norms given in for banquet hall shall apply over and above.

F. Multiplexes:

Definition:- Multiplex complex shall mean an integrated entertainment and shopping centre/ complex having at least 2 cinema halls/ PVRs. The minimum area on which this use shall be permitted should not be less than 0.40 Hectares, or 4000 Sqmts. Apart from cinema halls, the multiplexes shall also have a restaurant, fast food, outlet, pubs, Health spas/ centers, hotels and other recreational activities. The shopping center may have retail outlet, video games, parlours, bowling alleys, health centers, shopping malls, office space.

Existing cinema halls can be considered for conversion into a multiplex by the Building Permission Authority provided it has a minimum plot area of 2500 Sqmts.

Land Use:

Multiplex may also be permitted on land earmarked for commercial use or cinema halls in the approved Master Plans/ Development Plans.

Bye Laws:

Minimum Plot Area	4000 Sqmts or 0.40 hectares
Maximum Ground Coverage	40%
Maximum FAR	200%
Maximum height of Building	30 mts.

Side set backs:

Front setback to be governed by the building line of the road on which a multiplex is proposed. In case it is not facing any major road the minimum front set back for a multiplex should be 12 mts from the plot line. Rear and side set backs shall be minimum 1/3rd of the height of the structure or 6 mts whichever is minimum.

Parking:

Three level basement parking will be permissible within the complex. Parking under the basement shall be permissible over 75% of the plot area subject to a minimum set back of 3 mtrs, on all sides. 15% of the basement area shall be reserved for locating services like Generator Room, Electric Room/ Plant Room etc. Portion of the basement where these services are proposed should be segregated suitably from the other uses so as to ensure adequate safeguards against the hazards.

Parking space to be provided within the proposed multiplex shall be @ 2 car space for every 100 Sqmts of floor space.

Area to be considered under parking in basement/ stilts/ open shall be as under:

i)	Basement	28 Sqmts per car space
ii)	Stilts	23 Sqmts per car space
iii)	Open to Sky	18 Sqmts per car space

Note:

Area under parking/ services in the basement floor and stilts shall not be counted towards the calculation of FAR.

G. Janjghar/ Community Center/ Banquet Hall:

Minimum Plot Area	1.5 acres (12 Kanals)
Max. Ground Coverage	30%
No. of Storeys	G + 1
Max. FAR	60%
Max. Height	12 mts

Set Backs:

Front setback to be governed by the building line or 30 ft from the plot line whichever is more.

Side and rear set backs shall be minimum 1/3rd of the height of the building.

H. Ware Housing, Storage Vegetables & Fruit Mandis:

Minimum Plot area	2.5 Hec (25.000 Sqm)
Maximum Coverage	25%
FAR	100%
Max. Height	15 mts.

I. Petrol Pumps:

The following regulations are recommended for locating petrol pumps cum service stations:-

i. Minimum distance from the road intersections.
   a. 50 mts. on roads having R/W upto 30 mts
   b. 100 mts. on roads having R/W more than 30 mts

ii. The minimum distance to the property line of Pump from the center line of the road should not be less than 15 meters on roads having less than 30 mts R/W. In case of road having 30 mts. or more R/W building line of the road should be protected.

iii. Plot Size (Minimum);
   a. Only filing station 30 mts. X 17 mts.
   b. Filling cum service Station minimum size 36 mts x 30 mts.
   c. Frontage of the plot should not be less than 30 mts.
   d. Longer side of the plot should be the frontage.
   e. New petrol pump shall not be located on any road having R/W less than 15 mts.

b) Other Controls:

b-i. Filling Cum Service Station (Size 30 mt. x 36 mts. And above.)

i.	Ground Coverage	20 %
ii.	FAR	20%
iii.	Max. Height	6 mts
iv.	Canopy	Equivalent to permissible ground coverage within setback line
v.	Front Setback	6 mts (min) or B/L whichever is more

b-ii) Filling Station (Size 30 mt x 17 mts

i.	Ground Coverage	10 %
ii.	FAR	10%
iii.	Max. Height	6 mts
iv.	Canopy	Equivalent to permissible ground coverage within setback line
v.	Front Setback	3 mts (min) or b/l whichever is most

c) Compressed Natural Gas (CNG) Mother Station

i.	Plot Size (minimum)	36 mt. x 30 mt.
ii.	Max. Ground Coverage	20 %
iii.	Max. Height	4.5 mt. (Single Storey)
iv.	Building Component	Control room /office /dispensing room, Store, Pantry and W.C

d) Other Regulations:-

i. Shall be accepted to explosive /Fire Deptt.
ii. Ground Coverage will exclude canopy area
iii. Mezzanine if provided will be counted in FAR
iv. Whenever the plot is more than 33 mt x 45 mt. development norms shall be restricted to as applicable to the size i.e. 33 mt x 45 mt both in urban and rural areas.

III- PUBLIC AND SEMI PUBLIC/ INSTITUTIONAL USE:

A- Government Offices:

Max. Ground Coverage	35%
Max. FAR	175%
Max. Height	15 mts

Set Backs:

Front setback to be governed by the building line or 30 ft from the plot line whichever is more. Rear and side set backs shall be minimum 1/3rd of the height of the building.

Note:

1. The integrated office complex shall include Central Govt. Offices, local Govt. offices, public sector undertaking offices, courts and other Govt. offices, institutions.
2. Basement upto the building envelops to the maximum extent of 75% of the plot area shall be allowed and if used for parking and services & should not be counted towards FAR.

B- Educational:

a) Nursery School:

Minimum Plot Area	750 Sqmt
Maximum Ground Coverage	25%
Maximum FAR	50%
Maximum height	9 mts

Front set back shall be governed by the building line of the road or 20' from the plot line whichever is more. Rear and side set backs should be 3 mts.

b) Primary School:

Minimum Plot Area	2000 Sqmts
Maximum Ground Coverage	25%
Maximum FAR	75%
Maximum height	15 mts

Set Backs:

Front set back shall be governed by the building line of the road or 20' from the plot line whichever is more. Rear and side set backs should be 1/3rd of the height of the building.

Note:

School for handicapped shall have the same norms as the primary school.

c) Middle School:

Minimum Plot Area	4000 Sqmts
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	15 mts

Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more. Rear and side set backs should be 1/3rd of the height of the building.

d) High/ Higher Secondary School:

Minimum Plot Area	7500 Sqm.	
Maximum Ground Coverage	25%	including Hostel/ Residential accommodation for staff
Maximum FAR	100%	
Maximum height	18 mts	

Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more. Rear and side set backs should be 1/3rd of the height of the building.

e) College:

Minimum Plot Area	30000 Sqm	
Maximum Ground Coverage	25%	including Hostel/ Admin. Block/ Residential accommodation for staff
Maximum FAR	100%	
Maximum height	18 mts	

Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more. Rear and side set backs should be 1/3rd of the height of the building.

Note:

i) In case of specialized professional institutions like B. Ed Colleges, Law Colleges, Coaching Centers, Tutorials etc. plot area limitation shall be regulated by the Building Permission Authority on the merits of the case in accordance with the requirements/ guide lines of the regulating authority like Medical Council of India, AICTE, UGC etc.

ii) Minimum road width in front should not be less than 12 mts.

iii) Basement upto the building envelope to the maximum extent of 50% plot area shall be allowed and if used for parking and services should not be counted for FAR.

f) Educational and Research Center, (Large campus i.e. above 8 ha.):

i) Academic including Administration (45% of the total land area):

Max. Ground Cov.	20%
Max. FAR	80%
Max. Height	20 mts

ii) Residential (25% of the total land area):

Regulations as provided in group housing/ flatted development shall apply.

iii) Sports and Cultural Activities (15% of the total land area):

Maximum Ground Coverage	10%
Maximum FAR	15%

iv) Parks and Landscape Areas (15%of the total land area):

Note:

Basement below the ground floor and to the maximum extent of ground coverage shall be allowed and if used for parking and services should not be counted in FAR.

C- Health:

a) Hospital:

Minimum Plot Area	6000 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	18 mts

Note:

i) Area to be used for housing of essential staff is indicated in the norms for health facilities. In such an area the regulations of group housing shall apply.

ii) Basement below the ground floor and to the extent of ground coverage shall be allowed and if used for parking and services should not be counted in FAR.

iii) Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more.

iv) Minimum rear and side set backs should be 1/3rd of the height of the building.

b) Health Center/ Nursing Home:

Minimum Plot Area	1000 Sqm
Maximum Ground Coverage	35%
Maximum FAR	100%
Maximum height	15 mts

Note:

i) Front set back shall be governed by the building line of the road or 20' from the plot line whichever is more.

ii) Minimum rear and side set backs should be 1/3rd of the height of the building or 10'-0".

D- Facilities And Amenities:

i. Religious Premises:

Plot Area	500 Sqm
Maximum Ground Coverage	30%
Maximum FAR	60%
Maximum height	11 mts

(Excluding minars, shikahrs and Domes)

ii. Police Post:

Plot Area	500 Sqm
Maximum Ground Coverage	35%
Maximum FAR	70%
Maximum height	12 mts

iii. Police Station/ Fire Station

Plot Area	10000 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	15 mts

iv. Post & Telegraph Office

Plot Area	500 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	15 mts

v. General (Public & Semi Public Premises)

Plot Area	500 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	15 mts

IV Non- Residential Premises:

i) Hostel

Maximum Ground Coverage	33.33%
Maximum FAR	100%
Maximum Height	15 m
Min. No. of occupants	40

Note:

a) Front set back shall be governed by the building line of the road or 25 ft from the plot line. The rear and side set back shall be 1/3rd of the height of the building or 10'-0".

b) Min. road width should not be less than 12 mts.

c) Basemernt upto the bld. Envelope to the max. extent of 50% of plot area shall be allowed & if used for parking & services should not be counted in FAR

ii) Guest House, Boarding House and Lodging House

Minimum Plot Size	500 Sqm.
Maximum ground Coverage	33.33%
Maximum FAR	100%
Maximum Height	18 m

Parking @ 1.0 ECS for every 100 Sqm. shall be provided within own premises.

Note:

a) Front set back shall be governed by the building line of the road or 20 ft from the plot line. The rear and side set back shall be 1/3rd of the height of the building or 10'-0" .

b) Max. no of rooms shall be 12 (double bed room).

VI- <u>INDUSTRIAL USE:</u>

a. <u>Flatted Group Industry and Service Cenre:</u>

Minimum Plot Area	2000 Sqm
Maximum Ground Coverage	30%
Maximum FAR	120%
Maximum height	15 mts

Other Controls

Basement upto the building envelop line to the maximum extent of 50% plot area shall be allowed and if used for parking and services should not be counted in FAR.

b. <u>Light and Service Industry:</u>

S. No.	Plot Size (Sqm)	Max. Ground Coverage	Max. FAR	Max. height
1.	100 to 400	60%	125	12 m.
2.	400 to 4000	50%	125	12 m.
3.	4000 to 12000	45%	125	12 m.
4.	Above 12000	40%	100	12 m.

Other Controls:

i) Maximum floors allowed shall be basement, ground floor and 1st floors; basement should be below ground floor and to the maximum extent of ground coverage shall be counted in FAR. In case the basement is not constructed, the permissible FAR can be achieved on the second floor.

ii) In case of truss, height of building should be adjusted/ relaxed.

c. <u>Extensive Industry (Medium & Large Industry):</u>

S. No.	Plot Size (Sqm)	Max. Ground Coverage	Max. FAR	Max. height (m)
1.	400 to 4000	50%	100	9
2.	4000 to 12000	45%	90	9
3.	12000 to 28000	40%	80	9
4.	28000 & Above	30%	60	9

Note:

i) Single Storey building with basement is allowed. Basement shall be below the ground level and the maximum extent of the ground coverage and shall not be counted in FAR.

ii) In case of truss, height of building should be adjusted/ relaxed..

iii) Height relaxation can be considered by the content authority for specialized industries requiring more height.

VII- <u>PARKING STANDARD:</u>

The following table may be referred for deciding the parking norms for different use zones/ activity depending upon local vehicle ownership mass transportation and parking needs. Only one value of equivalent car space (ECS) and not a range should be specified in the development plan. It should fall within the range indicated and can be changed in subsequent plan depending upon need.

Table on Next Page:-

S.No	Use/ Use Permitted	Equivalent Car Spaces (ECS) per 100 Sqm of floor area
	Residential Group Housing	1.5 ECS for each dwelling unit for MIG & HIG having covered area above 800 Sft , 1 ECS for LIG having area between 500 to 799 Sft. & 0.5 ECS for EWS
1.	**Commercial :** i) Wholesale, retail, shopping, office & Hotels ii) Cinemas iii) Community/ Banquet Hall/ Janjghar iv) Restaurant /Fast food Bar;	 2.0 per 100 Sqm of total built up area on all floors. Area under lifts/ stairs, ducts, balconies shall not be cunted while calculating parking. 1 ECS for 10 seats Minimum 100 ECS upto an area of 16 Kanals in case the area is more 6 car spaces shall be added after every additional 1 kanal of area. 1 ECS for 4 seats. **Note:** If banquet hall is to be provided in Hotel the prevailing Upon norm given for banquet halls shall apply over & above
2.	**Public /Semi Public** i. Nursing Home , hospitals (private) social cultural and other institutions government and semi government offices ii. School, college, university and Govt hospitals.	1.0
3.	**Industrial.** Light and service industry flatted group industry extensive industry	0.75

Note:

a) Areas under lift, open Stairs, ducts, balconies shall not be counted while calculating parking.

b) If basement & stilts constructed and provided for parking it shall not be counted in FAR.

VII Mulba Stacking

In cases of plots falling under any land –use approved under the master plan stacking of building material shall be done within the plot premises if the plot area is above 500sqmts. An undertaking for not stacking of materials on the adjoining Govt. land like parks, roads, Janes etc. shall be appended by the applicant while applying for building permit.

For plots below and upto 500 sqmts, the applicant may stack building material in adjoining Govt. Land i.e road, land etc but the same shall be removed on weekly basis by the applicant if the same is not done the local authority shall remove the mulba and the cost on this account be borne by the plot owner.

CHAPTER – 6

SPACE REQUIREMENT FOR DIFFERENT PARTS OF BUILDING

6.1 MAIN BUILDING

The plinth of any part of a building or house shall be located with respect to average road level of site so that adequate drainage of the site is assured but not at a height less than 45 cm.

6.2 INTERIOR COURTYARDS, COVERED PARKING SPACES AND GARAGES.

These shall be raised at least 15cm above the surrounding ground level and shall satisfactorily drained.

6.3 HABITABLE ROOM SIZE AND WIDTH

The minimum size and width shall be as given in table.

Minimum Size & Width of Different Components of Residential Premises

S. No.	Component of Building	Min. Requirement for Plots upto 50 Sq. mt.	Min. Requirement for Plots above 50 Sq. mt.
1.	Habitable Room	Area 7.50 Sq. mt. Width 2.10 mt. Height 2.75 mt.	Area 9.50 Sq. mt. Width 2.40 mt. Height 2.75 mt.
2.	Kitchen	Area 3.30 Sq. mt. Width 1.50 mt. Height 2.75 mt.	Area 4.50 Sq. mt. Width 1.50 mt. Height 2.75 mt.
3.	Pantries	Area not applicable Width not applicable Height not applicable	Area 3.00 Sq. mt. Width 1.40 mt. Height 2.75 mt.

4.	Bathroom	Area 1.20 Sq. mt. Width 1.00 mt. Height 2.20 mt	Area 1.80 Sq. mt. Width 1.20 mt. Height 2.20 mt.
5.	W.C	Area 1.00 Sq. mt. Width 0.90 mt. Height 2.20 mt	Area 1.10 Sq. mt. Width 0.90 mt. Height 2.20 mt.
6.	Combined with Bath and W.C	Area 1.80 Sq. mt. Width 1.00 mt. Height 2.20 mt	Area 2.80 Sq. mt. Width 1.20 mt. Height 2.20 mt.
7.	Store	Area No Restriction Width No Restriction Height 2.20 mt	Area No Restriction Width No Restriction Height 2.20 mt
8.	Projections	Permitted within the setbacks upto 0.75mt width	Permitted within the setbacks upto 0.75mt width
9.	Garage	---	Area 14.50 sq. mt. Width 2.70 mt. Height 2.40 mt. Length 5.40 mt.
10.	Passage	---	Width 1.00 mt.
11.	Doorways Habitable Rooms	Width 2.80 mt. Height 2.00 mt.	Width 0.90 mt. Height 2.20 mt.
12.	For Kitchen Bath W.C. etc	Width 0.75 mt. Height 2.00 mt.	Width 0.75 mt. Height 2.00 mt.
13.	Staircase	Width 0.75 mt. No restriction for Internal Ladder	Width 0.90 mt.

Note:

1. Provided that the minimum clear head way under any beam shall not be less than 2.4 mt.

2. Maximum height permissible for all the component of the building mentioned above is 4 mt.

6.4 NON –RESIDENTIAL BUILDINGS

The minimum area for office / room / shop or any other space to be used as workspace shall not be less than 6.0 sq. mt. with a minimum width of 2.1 mt.

6.5 OTHER GENERAL REQUIREMENT

6.6 KITCHEN

Any room to be used as kitchen shall have:

(a) Unless separately provided in pantry, means for washing of kitchen utensils, which shall lead directly or through a sink to a grated and trapped – connection to the waste pipe;

(b) An impermeable floor;

(c) At least a window not less than 1 sq mt. in area open directly to an interior or exterior open space, but not into a shaft and ;

(d) In residential building 15 mt. or more in height, refuse chutes.

6.7 BATHROOM AND W.C.

Every bathroom or water closet shall:

(a) Be so situated that at least one of its walls open to external air and shall have a minimum opening in the form of window or ventilation to the extent of 0.37 sq. mt.

(b) Not to be directly over any room other than another latrine, washing place, bath or terrace unless it has a watertight floor.

(c) Have the platform or seat made of water tight non-absorbent material.

(d) Be enclosed by walls or partitions and the surface of every such wall partition shall be finished with a smooth impervious material to a height of not less than 1.0mt above the floor of such a room.

(e) Be provided with an impervious floor covering, sloping towards the drain with a suitable grade and not towards verandah or any other place.

(f) No room containing water closets shall be used for any purpose except as a lavatory.

(g) Every water closed and / or a set of urinals shall have flushing cistern of adequate capacity attached to it.

(h) A toilet on terrace having a maximum of 2.2 mt height shall be permitted to condition that the area of toilet be counted in FAR.

(i) All the sewerage outlets shall be connected to the Municipal Sewerage system. Where no such system exists, a septic tank shall be provided within the plot conforming to the requirements.

6.8 MEZZANINE FLOOR

Mezzanine Floor may be permitted with the minimum height of 2.75 mt between any two floors above ground in all types of building provided the same is counted as part of total permissible floor are ration and height of thebuilding.

6.9 BASEMENT

The construction of the basement shall be allowed by Authority in accordance with the land use and other provisions specified under the Master Plan / Zonal Plan. The basement shall have the following requirements:

i). Every basement shall be in every part at least 2.5 mt in height from the floor to underside of the roof slab or ceiling and with maximum height not more than 4.5 mt.

ii). Adequate ventilation shall be provided for the basement. Standard of ventilation shall be the same as required by the particular occupancy according to Building Bye-Laws. Any deficiency may be met by providing adequate mechanical ventilation in the form of blowers, exhaust fans (one exhaust fan for 50 sq mt basement area), air conditioning system etc.

iii). The minimum height of the ceiling of any basement shall be 0.9 mt and maximum of 1.2 mt above the road level on the front side of the building.

iv). Adequate arrangement shall be made such that surface drainage does not enter the basement.

v). The walls and floors of the basement shall be water tight and be so designed that the effect of the surrounding soil and moisture, if any, are taken into account in design and adequate damp proofing treatment is given.

vi). The access of the basement shall be either from the main or alternate staircase providing access to the building. No direct entry from the road shall be permitted to the basement.

vii). Basement in an individual plot touching the adjacent property shall be allowed subject to following;

(a) In all cases the owners shall have to indemnify the local body against any damage caused by him / them to the adjacent property.

(b) In case the portion of the basement projecting out of the building line that shall flush with the ground.

viii). In case the partition in the basement are allowed by the Authority no compartment shall be less than 50.0 sq mt in the area and each compartment shall have ventilation standards as laid down in sub-clause – ii, above separately and independently. The basement partition shall however, conform to the norms laid down by Fire Service.

6.10 GARAGE

i) The plinth of garage located at ground level shall not be less than 15 cm above the surrounding ground level.

ii) The garages shall be setback behind the building line of the street / road on to which the plot abuts and shall not be located affecting the access ways to the building. If the garages is not setback as aforesaid, the Authority my require the owner or occupier of the garage to discontinue its use as such or to carry our such structural alterations to the premises or to take such other measures as the Authority may consider necessary in order to prevent danger or obstruction to traffic along the street.

6.11 CORNER SITE

When the site fronts on two streets, the frontage would be as on the street having larger width. In cases, where the two streets are of same width, then the larger depth of the site will decide the frontage and open spaces. In such case the location of a garages (on a corner plot) if provided within the open spaces shall be located diagonally opposite the point of intersection.

6.12 REQUIREMENT IN RESPECT OF BUILDING SITES

6.13 DAMP SITE

Wherever the dampness of a site or the nature of the soil renders such precautions necessary the ground surface of the site between the walls of any building erected thereon shall be rendered damp proof to the satisfaction of the authority.

6.14 DISTANCE FROM ELECTRIC LINE

The distance in accordance with the current electricity rules and its amendments from time to time be provided between the building and overhead electric supply line:

		Vertically	**Horizontally**
a.	Low and medium voltage line and service lines.	2.50 mt	1.20 mt
b.	High voltage lines upto and including 11,000 volts	3.70 mt	1.20 mt
c.	High voltage lines above 11,000 volts and upto and including 33,000 volts	3.70 mt	2.00 mt
d.	Extra high voltage lines additional 33,000 volts	Plus 0.3 mt for every additional 33,000 volts of part or part thereof.	Plus 0.3 mt for every additional 33,000 volts or part thereof.

6.15 MINIMUM SIZE OF SUITES

The minimum size of sites for the construction of different types of building or different use groups shall be in accordance with provisions of Master Plan and any land development Rules and Regulations of the Authority.

CHAPTER – 7

GENERAL BUILDING REQUIREMENTS

7.1 ELEVATORS (LIFTS)

a) Lift shall be provided in al building as prescribed hereunder:

i). In case of Building having Ground Floor and three upper floors or more.

ii). Lifts shall be provided at the rate of one lift for 20 tenaments of the floors or part thereof for residential building and at the rate of one lift per 1000.00 sq mt or part thereof built-up area for non-residential buildings.

The tenements and built-up area on ground floor and two upper floors shall be excluded in computing the above requirements.

Lifts shall be provided from ground floor and shall have minimum capacity of six persons. On the basis of detailed calculations based on the relevant provisions of National Building Code, the number of lifts cab be varied.

Provided that if the number of floors does not exceed three floors excluding the ground floor, the lift may not be provided.

7.2 FIRE PROTECTION

In case of high rise buildings, the following provision shall be made for safety of building from fire:

i). In addition to the requirement under Regulation No 7.1 at least one lift designed as fire lift, as defined in the National Building Code shall be designed as fire lift as defined in the Building Code shall be installed.

ii). At least one staircase shall be provided as fire staircase as defined in the National Building Code. Provided that this shall not be applicable if any two sided of a staircase are kept totally open to external open air space.

iii). Water Supply: Underground tank of the capacity of one lakh liters and two lakh liters for the building situated within the Municipal limits and outside Municipal Limits respectively be invariably provided in the high rise buildings. Water in the normal use tank should come only through the overflow of fire tank so provided.

iv). In high rise building the internal fire hydrants shall be installed as provided in the National Building Code or as prescribe in the Indian Standard Code or practice for installation of internal fire hydrants in high rise buildings. The detailed plan showing the arrangements of pipe lines, booster pumps and water tanks at various levels shall be submitted for approval of the concerned authority along with the plans and section of the buildings.

v). In case of high rise buildings, an external fire hydrant shall be provided within the confines of the site of the building and shall be connected with Municipal Water mains not less than 4” in diameter. In addition, fire hydrant shall be connected with Booster Pump from the static supply maintained at site.

vi). In case of high rise buildings separate electric circuits fro lift installation. Lighting of passages, corridors and stairs and for internal fire hydrant system shall be provided.

vii). All the requirements under the above regulations shall be clearly indicated on plans duly signed by the owner and the person who has prepared the plans. The competent authority may direct the owner to submit such further drawings as may be necessary to clarify the implementation of the provisions of the above regulations.

viii). Every Building having a height of more than 10 mt shall be provided with diesel generators which can be utilized in case of failure of the electricity.

ix). The standard of National Building Code must be adopted fully in providing stair-case and alarm system.

x). There should be provision of dry-powder, fire extinguisher to the extent of two on each floor with a capacity of 5 kg in all the High Rise Buildings.

7.3 SAFETY OF BUILDING

1. All external walls shall be as per the provisions of National Building Code I.S specifications.

2. The thickness of the load bearing walls in the case of masonry walled building shall be as under:

Building With	Thickness of Wall			
	On G. F.	On F. F.	On S. F.	On T. F
i. Ground + 1 Floor	23 cm	23 cm	--	--
ii. Ground + 2 Floor	23 cm	23 cm	23 cm	--
iii. Ground + 3 Floor	35 cm	23 cm	23 cm	23cm

In case of cellars, the external walls shall be of R.C.C. only and if shall have minimum thickness of 23 cms or 45 cms, brickwork in case of brick wall.

3. Subject to any of the above regulations every person who undertakes construction of a building and / or who designs the structural member of building shall comply with the provisions of National Building Code prevailing at the relevant time of the provision of the Indian Standard Specifications published from time to time.

4. Every person who undertakes the construction work on a building or direct or supervise such work shall be responsible and shall ensure use of sound and good quality building materials, properly put together for optimum safety. He shall be liable for all consequences arising out of breach of these regulations.

7.4 PLINTH

a) Habitable rooms shall have minimum plinth height of 0.45 mt from the ground level.

b) Parking garage may have no plinth.

c) The ground floor of a building may be permitted on stills / pillars instead of a solid plinth with a height of 2.4 mts. In case of slabs with beams height should not exceed 2.8 mts and further that this space shall at all the time be kept free from any enclosure except for genuine stair-case.

Provided further that an electric meter room, room for telephone D.B: bath-room, Watch room, stair case room, pump room, water closet, servant room, security cabin may be permitted subject to maximum built up area of 15 sq mt allowed with a minimum plinth height of 30 cm and this area shall not be considered towards computation of F.S.I.

7.5 CELLAR

In a building unit cellar may be planned on the following conditions:

i). **Area and Extent**: The total area of any cellar (basement) shall not exceed twice the plinth area of the building or the area of the plot which ever is less. It may be in one level or two. No cellar shall be permitted in the required minimum marginal space.

ii). Height of the cellar shall not be less than 2.4 mt cleat from the top of the floor to the bottom of the lowest structural member. The maximum depth of the basement shall be 2.5 mt below ground level. The maximum height of the their shall not be more than 3 mts.

iii). Clear width of the stair leading to the cellar shall not be less than the width of the regular stair-case leading to upper floor.

iv). No stairs to be constructed under these regulations shall consist of any wooden material.

v). Adequate opening for ventilation should be provided as directed by Competent Authority. The materials of the construction and fixtures of the cellar should be of fire resisting nature and in no case, wood shall be used as structural part of the cellar or any fixture thereof. The extent of ventilation shall be the same as required by the particular occupancy for which the basement is used. Any deficiency must be made good by resort to mechanical system, viz Blowers, exhaust fans, air conditioning system according to the standards in Part – VIII Building Services, Section – I Lighting and Ventilation, National Building Code.

vi). No water connection or drainage connection shall be permitted in the cellar.

vii). In no case cellar shall be permitted to be connected to normal drainage line.

viii). Uses Permitted: Parking, Safe Deposit Vault, A.C. Plant.

ix). In genuine requirement of parking, competent authority may permit the second cellar if the parking space available at ground level and in the first cellar is not sufficient for the reasons stated in writing.

7.6 HEIGHT OF FLOORS

Minimum height of floors in the building at any point shall be 2.8 mt for residential and commercial uses and 3 mt or as per factory Act or other relevant Act in case ground floor and upper floors in a building used for officers for ancillary used of factories, workshops, godowns and other industrial purposes.

Provided that in case of folder roof the minimum height of 3.0 mt shall be measured from the lowest point of the fold.

Provided that in case of gabled or slopping roof the minimum height below the lowest part of the roof shall not be less than 2.2 mt and an average height of the rooms shall not be less than the minimum prescribed here above.

Provided further that in case of trussed-roof the minimum height shall be measured from the pavement to bottom of the tie beam.

Provided that for verandah, Bathroom, W.C. passages, puja room, store room, stair cabin, and minimum height of 2.00mts is permissible.

7.7 LOFT

The loft at a minimum height of 2mts. from floor level not exceeding 30% of floor area of the room may be allowed in any room.

7.8 STAIRS, LIFTS, LOBBIES AND CORRIDOR

The width of lobbies or corridors in building shall be as under

(a) (I) In case of residential and non-residential building except individual detached building minimum clear width of corridor shall be as under:

Length of Corridor in Mts	**Width of Corridor**	
	Residential,	**Non-Residential**
Upto 6	1.0	1.2
Upto 9	1.2	1.5
Upto 15	1.2	2.0
Above 15	1.5	2.5

NOTE:

i). For every additional 9.00mts length or part there of the width of corridor shall be increased by 0.30mts upto a maximum of 3.00mts.

ii). In case of starred hotels the width of the corridor shall be as per the authorized standards of the starred hotels.

(b) Whereas in case of residential dwelling unit occupied by single family and constructed up to three floors width of the stairs shall not be less than 1.0mtr.

(c) In case of all non-residential and high rise residential building, the clear width of stair landing exclusive of parapet shall not be less than 1.5mts.

(d) Minimum stair width for more than 6 tenements on each floor shall be 1.5mts.

(e) The stair-case & lifts (elevators) shall be so located that it shall be within accessible distance of not more than 25mts. from any entrance of tenement or an office provided on each floor.

(f) The design of the lift & stair along with the tread and riser shall comply of the National Building Code for that class of building.

(g) No winders can be allowed except in case of individual dwelling unit.

7.9 SANITARY ACCOMMODATION:

All the buildings when erected or re-erected from foundation or when additions to the floors are made shall be provided with minimum sanitary accommodation.

(a) In the of use of building as office and public building except cinemas, theatres. Meetings and lecture halls. Minimum sanitary facilities should be provided as under

i). Every office building or public building shall, be provided with at least one water closet.

ii). Water closets shall be provided for each sex and the number of such water closets for each sex shall in every case be based upon the maximum number likely to occupy such building at one time.

iii). There shall be provided one water closets for every 50 persons of each sex or part thereof upto 500 persons and for excess over 500 one water closet for every 100 persons of each sex of part thereof shall be provided. However, if the total number of employees in such, a building or the number of persons likely to use such building does not exceed 20. One water closet each for both sexes shall be sufficient and no. urinal may be provided.

iv). The building shall be deemed to be, occupied by persons or employees at the rate of one per every 5 square meters of the floor area and sanitary facilities shall e provided according to the number of employees or occupation so worked out.

v). Such water closet and urinals shall be in an accessible location and shall be provided with signs plainly indicating their purposes and the sex for which they are meant.

(b) Industrial Building and Warehouses:

All types of industrial buildings shall be provided with minimum sanitary facilities as under:

i). Every such building shall be provided with at least one water closet to privy.

ii). Water closets or privies shall be provided for each sex and number of such closets or privies for each sex shall in every case be based upon the maximum number or persons of that sex employed in occupying such building.

iii). Water closet or privy accommodation shall be provided in every W.C. on the following scale where females are employed there shall be at least one water closet or one privy for every 24 females.

Where males are employed, there shall be at least one water closet or one privy for every 25 males.

Provided that where the number of males employed exceed 1 DO, it hall be sufficient if there is one water closet or one privy for every 25 males up to the first 100, and one water closet or one privy for every 50 males thereafter.

In calculating the number of water closets or privies required under these regulations any number of workers less than 25 or 50, as the case may be shall be reckoned as 25 or 50 and the number of workers to be considered shall be the maximum number employed at one time during the day.

iv). In every such factory there shall be provided one urinal for every 100 persons of each sex or any less number thereof.

v). In, every such factory there shall be provided one washing place of 3.6 square meters in area with sufficient number of taps as per standards laid down by rules in respect of factories.

vi). In every building of the warehouse class there shall be provided one water closet for every 50 males or any less number thereof and one water closet for every 50 females or any less number thereof. There after water closet shall be provided at the rate of one closet or every 70 persons.

vii). In every building of the warehouse there shall be provided one urinal for every 100 persons of each sex or any less number thereof.

viii). For the purpose of determining the number of water closets and urinals each 30 sq mts of the gross floor space of such building shall be deemed to be occupied by one person.

ix). Such water closets and urinals shall be accessible in location and shall be provided with signs plainly indicating their purpose and the sex for which they are meant.

(c) **Educational Buildings:**

Any building used for educational purpose shall be provided with minimum sanitary facilities as follows:

i). Subject minimum provisions of two water closets and five urinals, there shall be water closet and four urinals for every 200 students or part thereof.

ii). Competent Authority may enforce the' distribution of the above sanitary facilities to be provided at each floor of the building.

iii). The building shall be deemed to be occupied by students at the rate of one student per every 1.00 sq. mt. of the floor area of all the class-rooms and sanitary facilities shall be provided according to the number of students so worked out.

(d) **Residential Building or Residential Tenements**:
Each residential building or residential tenements shall be provided with at least one water-closet.

7.9 VENTILATION

(a) Ventilation of Rooms: Every such room whether it is living room or a kitchen shall be so constructed that the proper ventilation is achieved.

A window or window and/or ventilation clear of such frames. Opening directly into an interior or exterior open air space or into an open verandah or gallery abutting such open air spaces having an opening of not less than one tenth of the floor area of the room.

Such an aggregate opening of doors. Windows and ventilators of not less than one seventh of the floor area of the room.

Such aggregate opening in respect of sitting room, or dining room of three or more room tenements may be provided either by windows. Ventilators or doors, if such room abuts on an open verandah or gallery.

(b) Factories and buildings of the warehouses: Every room in such building shall be lighted and ventilated by sufficient number of windows. Ventilators and sky lights exclusive of doors having clear opening not less than 1/7th of the floor area abutting on open air space of width not less than 1/3rd of the height of the part of the building abutting such open space:
Provided that this requirement may be relaxed if artificial lighting and ventilation is installed to the satisfaction of the Competent Authority.

(c) Ventilation of stair-cases: Every stair case provided under the foregoing clauses shall be lighted and ventilated to the satisfaction of the Authority from an open air space not less than 1 sq. mt.

(d) Windows in stair-case Bay: There shall be provided a window or windows of an aggregate area of at least 1.2 meters on each storey in such of the wall of the stair case room which abuts on such 1 sq. mt. open air space to light and ventilate such stair case.

(e) Ventilation from the Top and Skylight etc: Where an open well for light and ventilation, within the space enclosed by a stairway and its

landings is proposed to be provided the least horizontal dimensions of which are equal to two times the width of the staircase then the requirements of (c) & (d).

May be dispensed with provided that, there shall be in the roof directly over each such stair well. 3no. ventilating skylight provided with fixed or movable louvers to the satisfaction of the Competent Authority. The glazed roof of the skylight shall not be less than 3.7 sq. mts. in area. No lift or any other fixture shall be erected in such staircase.

7.11 LOCATION OF OPENINGS:

Every person who undertakes construction work of a building shall so locate every opening abutting on any open space that the sill of such opening shall not be less than 90cms above the level of the floor from which such opening is accessible.

Provided that if such opening is to be constructed flush with floor level its lower portion for a height of 90cms. shall be" protected by bars or grill or similar other devices to the satisfaction of the competent Authority.

7.12 STAIRWAY:

Stairway shall conform to the following provisions in addition to items (I) to (vii) below. In addition, in order to satisfy fire fighting requirements any stairway identified as an exit stairways shall confirm to the requirement stipped in fire protection regulations provided in these regulation.

(a) Width: The minimum width of a staircase other than a fire escape shall be as given in Table here under:

TABLE

Minimum width of common Stairway */* Corridors for occupancies

S.No.	**Type of occupant**	**Minimum width of staircase I Stairway / Corridors in meters**
(1)	(2)	(3)
1	Residential building	
	(a) Low rise	1.2
	(b) Hotels and High rise	1.5
2	Education building	
	(a) Upto 24 m. High	1.5
	(b) Over 24 m. High	2.0
3	Institutional buildings (i.e. Hospital)	
	(a) Upto 10 beds	1.5
	(b) Over to beds	2.0
4	Assembly buildings	2.0
5	Mercantile, business, Industrial Storage, Hazardous Buildings	
	(a) Low rise	1.5
	(b) High rise	2.0

(b) Flight: No flight shall contain more than 12 rises but in residential buildings. In narrow plots and in high density Housing a single flight staircase may be permitted.

(c) Risers: The maximum height of a riser shall be 19cm. in residential buildings and 16cm. in any other occupancy. However, in an internal stairway within a dwelling area, a riser may be 25cm. high.

(d) Treads: The minimum width of the tread without nosing shall be 25cm. for staircase of a residential building, other than fire escapes. In other occupancies the minimum width of the tread, shall be 36cm. It shall have a non-slippery finish and shall be maintained in that fashion.

(e) Head room: The minimum head room in passage under the landing of a staircase, shall be 2.2.M.

(f) Floor indicator: The number of each floor shall be conspicuously painted in figures at least 15cm. large on the wall facing the flight of a stairway or at such suitable place is distinctly visible from the flights.

(g) Hand rail: Handrail of a minimum height of 0.9m from the centre of the tread shall be provided.

7.13 RAMPS:

1. Ramps for pedestrians:

(a) General: The provisions applicable to stairway shall generally apply to ramps. A ramp in a hospital shall not be less than 2.25rnts wide in addition to satisfy the *fire* fighting requirements.

(b) Slope: A ramp shall have slope of (not more than 1: 1 0). It shall be of non-slippery material.

(c) Handrail: A handrail shall be provided on both the sides of the ramp.

2. **Ramps for handicapped people** : The provision of the ramp with handrails for every public building of ground floor only as compulsory for handicapped people as per the revised National Building Code.

3. **Ramp for basement or storied parking**: For parking spaces in a basement and upper at least two ramps of adequate width and slope shall be provided preferably at the opposite and such ramps may be permitted in the side and rear marginal open spaces after leaving sufficient space for movement of fire fighting equipments.

7.14 ROOFS:

i). Effective drainage of rain water: The roof a building shall be so constructed or framed as to permit effectual drainage of the rain water by means or rain water pipes at the scale of at least one pipe of 10cm. diameter for every 40 sqm. of roof area. Such pipes shall be so arranged, jointed and fixed as to ensure that the rain water is carried away from the building without causing dampness in any part of the walls or foundations of the building or those of adjacent buildings.

ii). Manner of fixing rain water pipes: Rain water pipes shall be fixed to the out side of the walls of the building or in recesses or chases

cut or formed in such walls or in such other manner as may be approved by the Competent Authority.

7.15 TERRACE:

Terraces shall be free from plantations of any kind and accessible by a common staircase.

7.16 PARAPET:

Parapet walls and handrails provided on the edges of the roof. Terrace, balcony etc. shall not be less than 1.15mts from the finishing floor level and not more than 1.3mts in height above the unfinished floor level. Parapet construction shall be made of material and design such that it ensures optimum safety to the user / occupants of the building.

7.17 MOSQUITO PROOF WATER TANK:

Water storage tank shall be maintained to the perfectly mosquito-proof condition by providing & properly fitting hinged cover and every tank more than 1.50mts. in height shall be provided with a permanently fixed iron ladder to enable inspection by anti-malaria staff.

7.18 REFUSE AREA / DISPOSAL OF SOLID WASTE:

Wherever a property is developed or redeveloped, a space for community - Bin for disposal of Solid Waste shall be provided in the road- side front

marginal open space. The owners / occupants shall be required to provide the airtight cover on top at the standards prescribed as follows:

i). The size of community bin (container) shall be calculated at the rate of 10 liters capacity per tenement / dwelling unit for Residential use of building; provided that the maximum capacity of container shall be 80 liters. The numbers of bins shall be calculated on the basis of total no. of dwelling units / tenements.

ii). The size of community-Bin (container) shall be calculated at the rate of the 20 liters capacity for each 100 sqmt of floor-area in case of non-residential use of building; provided that the maximum capacity of container shall be 80 liters. The number of bins shall be calculated on the basis of total no. of dwelling units / tenements. Provided that in case of Hospitals, Hotels, Restaurants like uses the disposal of Solid Waste shall be carried out as per the norms decided by the authority from time to time.

11.1 DISCHARGE OF RAIN WATER:

No roof terrace abutting on a public street shall be constructed without providing sufficient number of down take pipes and such pipes shall be so fixed as to discharge the rain water at a level not higher than 0.6 meter above the street level.

7.20 CONSERVATION OF ARTIFACTS, STRUCTURES AND PRECINCTS OF HISTORICAL AND / OR AESTHETICAL AND / OR ARCHITECTURAL AND / OR CULTURAL VALUE. (HERITAGE BOUNDING AND HERITAGE PRECINCTS):

No development or redevelopment or change of use or engineering operations or additions, alterations, repairs, renovations including the painting of buildings replacement of special features or demolition of the whole or part thereof or plastering of heritage buildings and / or heritage precincts and polls shall not be allowed except with the written permission of the competent authority.

11.2 PROVISION OF LETTER BOX:

In all case of building having more than two floors including ground floor, a letter box for each separate unit shall be provided at ground floor revel in such a way that post man can easily deliver the posts in them.

7.22 STRUCTURAL SAFETY AND SERVICES STRUCTURAL DESIGN:

The structural design of foundations, elements made of masonry, timber, plain concrete. Reinforced concrete, pre-stressed concrete and structural steel shall conform to the provisions of part VI Structural Design Section-I Loans, Section-2 Foundation, Sectio-3 Wood, Section-4 Masonry, Section-5 Concrete, Section-6 Steel, National Building Code of India taking in consideration the Indian Standards and Guidelines for hazards safety as given below:

Structural Safety

1. IS:456:2000 "Code of Practice for Plain and Reinforced Concrete"
2. IS:800:1984 "Code of Practice for General Construction in Steel"
3. IS:801:1975 "Code of Practice for Use of Cold Formal light Gauge Steel Structural Members in General Building Construction"
4. IS:875 (Part-2)1987 "Design loads (other than earthquake) for buildings and structures" 2 Imposed Loads.
5. IS:875 (Part-3) 1987 "Design loads (other than earthquake) for buildings and structures" 3 Wind Loads
6. IS:875 (Part-4) 1987 "Design loads (other than earthquake) for buildings and structures" 4 Snow Loads.
7. IS:875 (Part-5) 1987 "Design loads (other than earthquake) for buildings and structures" 5 Special Loads and load combination.
8. IS:883: 1966 "Code of Practice for Design of Structural Timber in Building"
9. IS:1904:1987 "Code of Practice for Structural Safety of Buildings: Foundation"
10. IS: 1905: 1987 "Code of Practice for Structural Safety of Building: Masonry Walls"
11. 18:2911 (Part-1) : Section-1 : 1979 "Code of Practice for Design and Construction of Pile Foundation" Section-1 :

    Part-1: Section-2 Based Cast-in-Situ Piles.
    Part-1: Section-3 Driven Pre-cast Concrete Piles.
    Part-1: Section-4 Based Pre-cast Concrete Piles.
    Part-2: Timber Piles.
    Part-3: Under-Reamed Piles.
    Part-4: Load Test of Piles.

(a) For Earthquake Protection:

1. IS: 1893-1984 """"Criteria for Earthquake Resistant Design of Structures (Fourth Revision)
2. IS: 13920-1993 "Ductile Detailing of Reinforced Concrete Structures subjected to Seismic Forces - Code of Practice"
3. IS: 4326-1993 "Earthquake Resistant Design and Construction of Buildings - Code of Practice (Second Revision).
4. IS:13828-1993 "Improving Earthquake Resistance of Low Strength Masonry Buildings - Guidelines"
5. IS:13827 -1993 "Improving Earthquake Resistance of Earthen Buildings-Guidelines"
6. IS: 13935-1993 "Repair and Seismic Strengthening of Buildings-Guidelines"
7. Improving Earthquake Resistance of Buildings-Guideline. By Expert Group, Government of India. Ministry of Urban Affairs & Employment Published by Building Materials and Technology Promotion Council, 1998

(b) For Cyclone Wind Storm Protection

- IS: 875(3)-1987 "Code of Practice for Design Lords (other than Earthquake) for Buildings and Structures, Pan 3, Wind Loads"

- Improving Wind / Cyclone Resistance of Buildings Guideline" by Expert Group. Government of India, Ministry of Urban Affairs & Employment, published by Building Materials and Technology Promotion Council, 1998.

Note:

Wherever an Indian Standard including those referred in the National Building Code or the National Building Code is referred the latest version of the same shall be followed.

In pursuance of the above, a certificate as indicated in Form-2(C) shall be sublimed along with building plans / drawings and other building information schedule annexed thereto.

7.23 QUALITY CONTROL REQUIREMENTS:

The quality of all materials and workmanship shall conform to accepted standards and Indian Standard Specifications and Codes as included in Pan V Building Materials a; 1 c\Part VII Constructional Practices and safety. National Building Code of India.

All borrow pits dug in the course of construction and repair of buildings, Embankments etc shall be deep and connected with each other in the formation of a drain directed towards the lowest level and properly stepped for discharge into a river stream channel or drain. And no person shall create any borrow pit which is likely to cause accumulation of water that may breed mosquitoes.

Alternative material. Method of design, construction and tests: The provisions of the regulation are not intended to prevent the use of any material or method of design of construction not specifically prescribed in them provided any such alternative has been approved. Nothing of the provisions of these Regulations is intended to prevent the adoption of architectural planning and layout conceived as an integrated development scheme. The Competent authority may approve any such alternative if it conforms to the provisions of the relevant parts of the National Building Code. Regarding material, design and construction, and

the material method of work offered is, 'for the purpose intended at least equivalent to that prescribed in these Regulations in quality, strength, compatibility effectiveness, fire and water resistance, durability and safety.

All buildings shall be constructed on a quality control requirements.

In case of existing buildings under construction based on approved building permission. Structural safety requirement shall have to be observed. However, due to slow structure work of strengthening / retrofitting in certain tiebacks and margin get reduced. Special permission may be granted on case to case basis.

7.24 (3) TESTS :

Whenever there is insufficient evidence of compliance with the provisions of the Regulations or evidence that any material or method of design or construction does NM confirm to the requirements of the Regulations in order to substantiate claims for alternative materials, design or methods of construction, the Competent Authority may require tests, sufficiently in advanced as proof of compliance. These tests shall be made by an approved agency at the expense of the owner as follows:

8. Test Methods: Test methods shall be as specified by - the Regulations for the materials or design or construction in question. If there are no appropriate test methods specified in the Regulations, the Competent Authority shall doctrine the test procedure for methods of tests for building materials, reference shall be made to the relevant Indian Standards as given in the National Building Code of India published by the Bureau of Indian

Standards.

9. Test Result to be preserved: Copies of the result of all such tests shall be retained by the Competent Authority for not less then two years after the unacceptance of the alternative material. The testing of the materials as per Indian Standards shall be carried out by laboratories approve~ by the competent authority on this behalf. The laboratory / agency shall work out in consultation with the construction agent testing programme of materials such as cement. Steel and quality of concrete including its mixing, laying and strength at site as well as in the laboratory, this should cover various stages of construction from foundation to completion as per Regulation. The laboratory shall maintain a duly authenticated report in a bound register. Copy of which will be submitted to the construction agency which will in turn forward the testing report to the competent authority.

4. Structural Stability and Fire Safety of Existing Buildings

9.1 The Competent Authority shall have the assessment of structural outdoor fire safety of an existing building / structure damaged / undamaged carried out at stipulated periodical intervals through expert(s) chosen from a panel of experts identified by the Competent Authority.

9.2 The owner / developer / occupant on advise of such expert(s) shall carry out such repair / restoration and strengthening / retrofitting of

the building found necessary so as to 'comply with the safety standards laid down in the National Building Code and the Indian Standards as specified.

7.25 BUILDING SERVICES:

1. **Electrical installation**: The planning design and installation of electrical installation air-conditioning and heating work shall conform to the provisions of Pan VIII Building Services Section – 2. Electrical Installation Section-3 Air-conditioning and Heating National Building Code of India.

2. **Lift :**

   i). The planning and design of lifts including their in lumber type and capacity depending on the occupancy of the building, the population on each floor based on the occupant load and the building height shall be in accordance with Section-5.

   ii). Installation of Lifts and Escalators, National Building Code of India.

CHAPTER – 8

SPECIAL REQUIREMENTS FOR OCCUPANCY, LAND DEVELOPMENT AND OTHER INDUSTRIAL BUILDING (FACTORIES, WORKSHOPS, ETC)

1. The relevant provisions contained in the Factory Act. 1948 shall apply for construction of factory buildings. The minimum height of workrooms shall not be less than 4.5 mt. measured from the floor level to the lowest point in the ceiling provided that this by- law shall not apply to rooms occupied by workers for purposes of manufacture.

In case of small factories, employing less than 50 workers for purposes of manufacturing and carrying on a class of manufacturing covered under the flatted factories and service industries, as driven in the Master Plan development Plan, the Authority may allow minimum height upto 3.66 mt

2. Parking space provisions as provide in development code of Master Plan / Development Plan.

3. The effluent from industries (industrial and biological in nature) shall be treated and shall be of quality to satisfaction of the concerned local bodies before letting out the same into a watercourse or municipal drain.

4. EDUCATIONAL BUILDING (SCHOOL / COLLEGES)

All educational buildings shall be dealt as per University Grant Commission norms and provision of National Building code.

5. ASSEMBLY BUILDING (CINEMA, THEATRES, ETC,)

The relevant provisions of the Cinematographic Rules Acts of the Particular States and IS: 4878 code for construction of cinema Building shall apply for planning, design and construction of cinema Building

6. PETROL FILLING STATION

The location of the petrol filling stations and its layout shall be approved by the Authority in consultation with the Competent Authority depending upon width of roads and traffic generated location with respect of intersections and nearness to occupancies of educational, assembly, storage and hazardous uses.

7. SIGN AND OUTDOOR DISPLAY STRUCTURES

No advertising signs (including hoarding) on buildings or on land shall be displayed without the prior approval of the Authority. The standards specified in part X Signs and outdoor display structures of National - Building Code of India published by Indian Standards Institution shall be applicable.

8. POLLUTION CONTROL

AIR POLLUTION

All building shall conform to provisions of Air Pollution control Act, 1981

9. WATER POLLUTION

All building shall conform to provisions of water (prevention and Control of pollution) Act, 1974

10. NOISE POLLUTION

All buildings shall maintain ambient air quality standards in respect of noise, as prescribed in the Noise pollution (Regulation and control) Rules 2000.

CHAPTER – 9

TO PROVIDE FACILITIES FOR PHYSICALLY HANDICAPPED PERSONS

7.19 SITE DEVELOPMENT

Level of the roads access paths and parking areas shall be described in the plan along with specification of the materials

7.20 ACCESS' PATH / WALK WAY:

Access path from the entry and surface parking to building entrance shall be minimum of) 800mm wide having even surface without any steps. Slope if any shall not have gradient greater than 5%. Selection of floor material shall be made suitable to attract or to guide visually impaired persons (limited to colored floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emit different sound to guide visually impaired persons here in after referred to as guiding floor material (regulation no. 28.6). “Finishes shall have a non slip surface with a texture traversable by a wheel chair. Curbs wherever provided should blend to a common level.

7.21 PARKING:

For parking of vehicles of handicapped people the following provisions shall be made:

1. Surface parking for two car spaces shall be provided near entrance for the physically handicapped persons with maximum travel distance of 30Mts from building.

2. The width of parking bay shall be minimum 3.60 meter.

3. The information stating that the space is reserved for wheel chair users shall be displayed.

4. Guiding floor materials shall be provided or a device which guides visually impaired persons with audible signals or other devices which serve the same purpose shall be provided

7.22 BUILDING REQUIREMENTS:

The specified facilities for the building for physically handicapped persons shall be as follows:

(a) Approach to plinth level.
(b) Corridor connecting the entrance / exit for the handicapped.
(c) Stair- ways.
(d) Lift.
(e) Toilet.
(f) Drinking water.

7.23 APPROACH TO PLINTH LEVEL

Every building should have at least one entrance accessible to the handicapped and shall be indicated by proper signage. This entrance shall be approached through a ramp together with the stepped entry.

i. RAMPED APPROACH:

Ramp shall be finished with non slip material to enter the building, minimum width of ramp shall be 1800mm with maximum gradient of 1: 12, length of ramp shall not exceed 9.0mtr. having 800 mm high hand rail on both sides extending 300mm beyond top and bottom of the ramp. Minimum gap from the adjacent wall to the hand rail shall be 50mm.

ii. STEP APPROACH:

For stepped approach, size of tread shall not be less than 300mm and maximum riser shall be 150mm. Provision of 800mm high hand rail on both sides of the approach is similar to ramped approach.

iii. EXIT / ENTRANCE DOOR

Minimum clear opening of the entrance door shall be 900mm and it shall not be provided with a step that obstructs the passage of a wheel chair user. Thresh hold shall not be raised more than 12mm

7.24 ENTRANCE LANDING

Entrance landing shall be provided adjacent to ramp with the minimum dimension of 1800x 2000mm. The entrance landing that adjoin the top end of a slope shall be provided with floor materials to attract the attention of visually impaired persons (limited to colored floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emit different sound to guide visually impaired persons hereinafter referred to as "guiding floor material" (regulation no. 28.6)

8 Finishes shall have a non slip surface with a texture traversable by a wheel chair. Curbs wherever provided should blend to a common level.

7.25 CORRIDOR CONNECTING THE ENTRANCE / EXIT FOR THE HANDICAPPED

The corridor connecting the entrance / exit for handicapped leading

directly outdoors to a place where information concerning the use of the specified building can be provided to visually impaired persons either by a person or by signs shall be provided as follows.

(a) "Guiding floor materials 'shall be provided or devices that emit sound to guide visually impaired persons.

(b) The minimum width shall be 1500mm.

(c) In case there is a difference of level slope ways shall be provided with a slope of 1 : 12.

(d) Hand rails shall be provided on both sides and shall extend 300mm on the top and bottom for each flight on steps.

7.26 STAIRWAYS

One of the stair- ways near the entrance / exit for the handicapped shall have the following provisions:

1. The minimum width shall be 1350 mm.

2. Height of the riser shall not be more than 150mm and width of the tread 300m.The steps shall not have abrupt (square) nosing.

3. Maximum number of risers in flight shall be limited to 12.

4. Hand rails shall be provided on both sides and shall extend 300mm on the top and bottom of each flight on steps.

7.27 LIFTS

Wherever lifts is required as per bye-laws provision of at least one lift shall be made for the wheel chair user with the following cage dimensions of lift recommended for passenger lift of 13 persons capacity by bureau of Indian Standard.

Clear Internal Depth	:	1100 mm
Clear Internal Width	:	2000 mm
Entrance Door Width	:	900mm

(a) A hand rail not less than 600 mm long at 1000mm above floor level shall be fixed adjacent to the control panel.

(b) The lift lobby shall be of an inside measurement of 1800x1800 mm or more.

(c) The lift of an automatically closing door should be minimum 5 seconds and the closing speed should not exceed 0.25 mt / sec.

(d) The interior of the cage shall be provided with a device that audibly indicated the floor till café has reached and indicated that the door of the cage for entrance / exit is open or closed.

7.28 TOILETS

One special W.C. in set of toilet shall be provided for the use of handicapped with essential provision of wash basin near the entrance for the handicapped.

(a) The minimum size shall be 100 x 1750 mm.

(b) Minimum clear opening of the door shall be 900mm and the door shall be swing out.

(c) Suitable arrangement of vertical / horizontal hand rails with 50mm clearance from wall shall be made in the toilet.

(d) The W.C. seat shall be 500mm from the floor.

7.29 DRINKING WATER:

Suitable provision of drinking water shall be made for the handicapped near the special toilet provided for them.

7.30 DESIGNING FOR CHILDREN:

In the building meant for the predominant use of the children, it will be necessarily suitable toalter height of the hand-rail and other fittings and fixtures etc.

7.31 EXPLANATORY NOTES

GUIDING / WARNING FLOOR MATERIAL

The floor materials to guide or to warn the visually impaired persons with a change of colour or material with conspicuously different texture and easily distinguishable - from the rest of the surrounding floor materials is called guiding or warning floor materials. The material with different textures gives audible signals with sensory warning when a person moves on this surface with walking stick. The guiding / warning floor material is meant to give the directional effect or warn a person at critical places. This floor material shall be provided in the following areas.

(a) The access path to the building and to the parking area.

(b) The landing lobby towards the information board, reception, lifts. Staircases and toilets.

(c) Immediately at the beginning *I* end of walkway where there is a vehicular traffic.

(d) At the location abruptly changing in level or ramp.

(e) Immediately in front of an entrance *I* exit and the landing

7.32 **PROPER SIGNED**

Appropriate identification of specific facilities within a building for the handicapped persons should be done with proper signages. Visually impaired persons make use of other senses such as hearing and touch to compensate for the lack of vision. Whereas visual signals benefit those with hearing disabilities. Signs should be designed and located so that they are easily legible by using suitable letter size (not less than 20 mm High). For visually impaired persons information board in Braille should be installed on the wall at a suitable height and it should be possible to approach them closely. To ensure safe walking there should not be any protruding sign which creates obstruction in walking. Public address System may also be provided in busy public areas. The symbols information should be in contrasting colour, and properly illuminated because people with limited vision may be able to differentiate amongst primary colors.

CHAPTER - 10

FIRE PROTECTION AND FIRE SAFETY REQUIREMENTS

SCOPE

This part covers the 'requirements of the fire protection for the multistoried buildings (high rise buildings) and the 'buildings which' are of 10 mt. and above in height and low occupancies of categories such as Assembly, Institutionally Educational (more than two storied and built up area exceeds 1000 sq. mt, Business (where plot area exceeds 500 sq mt. Mercantile (where aggregate covered area exceeds 750 sq. mt., Hotel, Hospital, Nursing Homes, 'Underground complexes, Industrial Storages, Meeting/Banquet Halls, Hazardous occupancies.

PROCEDURE FOR CLEARANCE FROM FIRE SERVICE

(a) The concerned Authority shall refer the building plans to the Chief Fire Officer, Fire Service for obtaining clearance in respect of building identified with height 10mt & above.

(b) The Authority shall furnish three sets of complete building plans along with prescribed free to Chief Fire Officer, after ensuring that the proposals are in line with Master Plan/Zonal Plan of the area.

(c) The plans shall clearly mark and indicate the complete fire protection arrangements and the means of access/escape for the proposed building with suitable legend along with standard signs and symbols on the drawings. The same shall be duly signed/certified by a licensed Fire Consultant Architect.

(d) The Chief Fire Officer shall examine these plans to ensure that they are in accordance with the provisions of fire safety and means of escape as per these bye-laws and shall forward two sets of plans duly signed for implementation to the concerned building sanctioning authority.

(e) After completion of fire fighting installations as approved and duly tested and certified by the licensed Architect/Fire Consultant, Owner/Builder of the building shall approach the Chief Fire Officer through the concerned Authority for obtaining clearance from fire safety and means of escape point view. The concerned Authority shall ensure that clearance from Chief Fire officer has been obtained for the building identified before granting the completion certificate.

(f) On receipt of the above, request, The Chief Fire Officer shall issue the No Objection Certificate from fire safety and means of escape point of view after satisfying him that the entire fire protection measures are implemented and functional as per approved plans.

(g) Any deficiencies observed during the course of inspection shall be communicated to the concerned Authority for rectification "and a copy of the same shall be forwarded to the concerned building owner/builder.

RENEWAL OF FIRE CLEARANCE

On the basis of undertaking given by the Architect/Authorized Fire Consultant, the Chief Fire officer shall renew the fire clearance in respect of the following buildings on annual basis:

(1) Public entertainment and assembly.
(2) Hospitals
(3) Hotels
(4) Underground shopping complex.

FEE

(a) For augmentation of fire service facilities with fire service for effecting rescue/fire fighting operation in high rise building, fee payable to Chief Fire Officer, Fire Service by the applicant (S) along with sets of plans for obtaining the No Objection Certificate shall be as prescribed by the Authority.

10.5 FIRE CONSULTANT

The Architect of the project will be responsible for making provisions for fire protection and fire fighting measure as provided in this Chapter and for that he may consult an expert in this field, as in case of other professional for structure, sanitary and others.

a. TERMINOLOGY

For the purpose of this Chapter all the technical terms shall have the meaning as defined in National Building Code of India, Part-IV, Fire Protection as amended from time to time but for the' terms which are defined otherwise in these bye-laws.

10.7 GENERAL

The Chief Fire Officer, Fire Services may insist on suitable provisions in the building from fire safety and means of escape point of view depending on the occupancy, height or no account of new developments creating special fire hazard, in addition to the provision of these building bye-laws and part IV (Fire Protection) of National Building Code of India.

a. MEANS OF ACCESS

i. No building shall be erected as to deprive any other building of the means of access.

ii. Every person who erects a building shall not, at any time erect or cause or permit to erect or re-erect any building, which in any way encroaches upon or diminishes the area set apart as means of access.

iii. For building identified in Building. Bye-Law the following provisions of means of access shall be applicable.

(a) The width of the main street on which the building abuts shall not be less than 10.0 mt.

(b) If there are any bends or curves on the approach road, sufficient width shall be pennitted at the curve to enable the fire appliances to turn, the turning circle shall be at least of 9.0 mt. radius.

(c) The approach to the building and open spaces on its all sides upto 6.0 mt width and the layout for the same shall be done in consultation with the Chief Fire Officer, Fire Service and the same shall be of hard surface capable of taking the weight of fire engine, weighing 22 tones for building 10 mt., and above. The said open space shall be kept free of obstructions and shall be motor able.

(d) Main entrance to the premises shall be of adequate width to allow easy access to the fire engine and in no case it shall measure less than 5 mt. The entrance gate shall fold back against the compound wall of the premises, thus leaving the exterior access way within the plot free for movement of the fire service vehicles. If-archway is provided over the main entrance, the height of the archway shall not be of height less than 5.0 mt.

(e) For multi-storyed group housing schemes on one plot., the approach road shall be 10.0 mt. or as per Master Plan/Development Plan provisions and between individual buildings, there shall be of 6.0 mt. around.

(f) In case of basement extending beyond the building line, it shall be capable of taking load of 45 tones for building of height 15.0 mt and above 22 tones for building less than 15.0 mt in height.

(g) The external window shall not be blocked by louvers etc. In such case provisions shall be made so that one can enter the building or to be rescued through the window by using hydraulic platform etc

b. EXIT REQUIREMENTS

GENERAL

The following general requirement shall apply to exits:

a. Every building meant for human occupancy shall be provided with exits sufficient to permit safe escape of occupants in case of fire or other emergency.

b. In every building exit shall comply with the minimum requirement of this part, except those not accessible for general public use.

c. All exits shall be free of obstructions.

d. No building shall be altered so as to reduce the number, width, or' portion of exits to less than required.

e. Exits shall be clearly visible and the routes to reach exits shall be clearly marked and sign posted to guide the population of floor concerned.

f. All exit ways shall be properly illuminated.

g. Fire fighting equipment shall be provided along exits shall be suitably located and clearly marked but must not obstruct the exit way and there should be clear indication about its location from either side of the exit way.

h. Alarm devices shall be installed to ensure prompt evacuation of the population concerned through the exits, wherever required.

i. All exits shall provide continuous means of access to the exterior of a building or to an exterior open space leading to a street.

j. Exits shall be so arranged that they may be reached without passing through occupied unit, except in the case of residential building.

c. SPIRAL STAIRS

i). The use of spiral staircase shall be limited to low occupant load and to a building height 9 mt.

ii). Spiral stair shall not be less than 15 cm in diameter and shall be designed to give the adequate headroom.

d. STAIRCASE ENCLOSURES

10 The external enclosing walls of the staircase shall be of the brick or the R.C.C. construction having the fire resistance of not less than two hours. All enclosed staircase shall have access through self closing doors of one hour fire resistance.

These shall be single swing doors opening in the direction of the escape. The door shall be fitted with the check action door closers.

11 The staircase enclosures on the external wall of the building shall be ventilated to the atmosphere at each landing.

12 Permanent vents at the top equal to the 5% of the cross sectional area of the enclosure and openable sashes at each floor level with area equal to 1 to 15 % of the cross sectional area of the enclosure in the external shall be provided. The roof of the shaft shall have no glazing or the glass bricks in any internal closing wall of staircase. If the stair case is in core of the building and cannot be ventilated at each landing, a positive of 5 mm w.g. by electricity operated blower / blowers shall be maintained.

13 The mechanism for pressurizing the staircase shaft shall be so installed that the same shall operate automatically on fire alarm system / sprinkle and be provided with manual operation facilities.

e. RAMPS

(a) Ramps of slop of not more than 1 in 10 may be substituted for and shall comply with all the applicable requirements of all required stairways as to enclosure capacity and limiting dimensions. Larger slopes shall be provided for special uses but in no case greater than 1 in 8. For all slopes exceeding 1 in 10 and where the use is such as to involve danger of slipping, the ramp shall be surfaced with approved non slipping material.

(b) The minimum width of the ramp in the hospitals shall be 2.4 mt and in the basement using car parking shall be 0.6mt.

(c) Handrails shall be provided on both sides of the ramp.

(d) Ramp shall lead directly to outside open space at ground level or courtyards of safe place.

(e) For building above 10.0 mt in height access to ramps from any floor of the building shall be through smoke fire check door.

(f) In case of nursing homes, hospitals etc area exceeding 300 sq mt at each floor one of the exit facility shall be a ramp of not less than 2.4 mt in width.

f. PROVISION OF LIFTS

(a) Provision of the lifts shall be made for all multi storyed building having a height of 12.0 mt and above.

(b) All the floors shall be accessible for 24.0 hrs by the lift. The lift provided in the building shall not be considered as means of escape in case of emergency.

(c) Groundling switch at ground floor level to enable the fire services to ground the lift car in case of emergency shall also be provided.

(d) The lift machine room shall be separate and not other machinery be installed therein.

g. LIFT ENCLOSURE / LIFT

General requirement shall be as follows:

(a) Walls of lift enclosures shall have a fire rating to two hours lift shafts shall have a vent at the top of area not less than 0.2 sq. mt.

(b) Lift motor room shall be located preferably on top of the shaft and separated from the shaft by the floor of the room.

(c) Landing door in lift enclosures shall have a fire resistance of not less than one hour.

(d) The number of lifts is one lift bank shall not exceed four. A wall of 2 hours fire rating shall separated individual shifts in a bank.

(e) Lift car door shall have a fire resistance rating of 1 hour.

(f) For building 12.0 mt and above in height, collapsible gated shall not be permitted for lifts and shall have solid doors with fire resistance of at least one hour.

(g) If the lift shaft and lobby is in the core of the building positive pressure between 25 and 30 pa shall be maintained in the lobby and a possible pressure of 50 pa shall be maintained in the lift shaft. The mechanism for the pressurization shall act automatically with the fire alarm / sprinkle system did it shall be possible to operate this mechanically also.

(h) Exit from the lift lobby, if located in the core of the building shall be through a self closing fire smoke check door of one hour fire resistance.

(i) Lift shall not normally communicate with the basement. If however lifts are in communication the lift lobby of the basement shall be pressurized with self closing door.

(j) Grounding switch (es) at ground floor level shall be provided to enable the fire service to ground the lifts.

(k) Telephone / talk back communication facilities may be provided in lift cars communication system for lifts shall be connected to the fire control room of the building.

(l) Suitable arrangement such as providing slope in the floor of the lift lobby shall be made to prevent water used during fire fighting etc at any landing from entering the lift shafts.

(m) A sign shall be posted and maintained on every floor at or near the lift indicating that in case of fire, occupants shall use the stairs unless instructed otherwise. The sign shall also contain a plan for each floor showing the location of the stairways. Floor making shall be done at each floor on the wall in front of the lift landing door.

(n) Alternate power supply shall be provided in all the lifts.

h. FIRE LIFT

Following details shall apply for a fire lift in addition to above requirements:

To enable fire service personal to reach to upper floors with the minimum delay one or more lifts shall be so designed so as to be available for exclusive use of the fireman in an emergency and be directly accessible to every dwelling / lettable floor space on each floor.

The lift shall have floor are of not less than 1.4 sq mt. It shall have a loading capacity of not less than 545 kg (8 persons lift) with automatic closing doors.

The electric supply shall be on a separate service from electric supply mains in a building and the cables run in a route safe from fire, that is within a lift. Shift light and fans in the elevator having wooden paneling or sheet construction shall be operated on 240 volts supply/

In case of failure of normal electric supply it shall automatically switchover to the alternate supply. For apartment housed this changeover of supply could be done through manually operated changeover switch. Alternatively, the lift should be so wired that in case of power failure; it comes down at the ground level and come to stand still with door open.

The operation of a fire lift shall be a single toggle of two button switch situated in a glass fronted box adjacent to the lift at the entrance level. When the switch is on landing call points will become inoperative and the lift will be on car control only or on a priority control device. When the switch is off, the lift will return to normal. This lift can be used by the occupant in normal times.

The words “FIRE LIFT” shall be conspicuously displayed in the fluorescent paint on the lift landing doors at each floor level.

The speed of the fire lift shall be such that it can reach to the floor from ground level within one minute.

i. BASEMENT

The construction of the basement shall be allowed by Authority in accordance with the land use and other provisions specified under the Master/Plan/Zonal plan. The basement shall have the following requirement:

1. Every basement shall be in every part at least 2.5 mt in height from the floor to underside of the rood slab or ceiling and with maximum height not more than 4.5 mt. However for parking clear maximum height shall not be more than 2.5 mts.

2. Adequate ventilation shall be provided for the basement. The standard of ventilation shall be the same as require by the particular occupancy according to Building Bye-Laws. Any deficiency may be met by providing adequate mechanical ventilation from blowers, exhaust fans (one exhaust fan for 50 sq mt basement) air conditioning system etc.

3. The minimum height of the ceiling of any basement shall be 0.9 mt and maximum of 1.2 mt above the average road level on the front side of the building.

4. Adequate arrangement shall be made such that surface drainage does not enter the basement.

5. The walls and floors of the basement shall be watertight and be so designed that the effect of the surrounding soil and moisture if any are taken into account in design and adequate damp proofing treatment is given.

6. The access to the basement shall be either from the main or alternate staircase providing access to the building. Not direct entry from the road shall be permitted to the basement.

7. Basement in an individual plot touching the adjacent property shall be allowed subject to following:

In all cases the owners shall have to indemnify the local body against any damage caused by him/them to the adjacent property.

In case the portion of the basement projecting out of the building line that shall flush with the ground.

8. In case the partition in the basement are allowed by the Authority, no compartment shall be less than 50:.0 sq mt in area and each compartment shall have ventilation standards as laid down sub clause-ii above separately and independently. The basement partition shall however conform to the norms laid down by the fire service.

j. REQUIREMENTS

11. The access to the basement shall be either from the main or alternate staircase providing access and exit from higher floors where the staircase continues, the same shall be enclosed type serving as a fire separation from the basement floor and higher floors. Open ramps shall be permitted if they are constructed within the building line.
12. In case of basement for office, sufficient number of exit ways and access ways shall be provided with a travel distance not more than 15.0 mt. The travel dist. in case of dead-end shall be 7.5 mt.
13. In case of basement shall be partitioned and in no case compartment shall be more than 500 sq mt and less than 50 sq mt area except parking. Each compartment shall have ventilation standards as laid down in Bye-Laws separately and independently. The partition shall be made in consultation with Chief Fire Officer.
14. The first basement (immediately below ground level) can be used for services / parking / other permissible services. Lower basement shall exclusively be used for parking only if provided.
15. Each basement shall be separately ventilated. Vents with cross-sectional area (aggregate) not less than 2.5 percent of the floor area spread evenly round the perimeter of the basement shall be provided in the form of grills or breakable starboard lights or pavements lights or by way of shafts. Alternatively a system of air install shall be provided at basement floor level and smoke outlets at basement ceiling level. Inlets and extracts may be terminated

at ground level with starboard or pavement lights as before, but ducts to convey fresh air to the basement floor level have to be laid. Starboard and pavement lights should be in position easily accessible to the fire bridge and clearly marked "**SMOKE OUTLET" or "AIR INLET"** with an indication of area served at or near the opening.

16. The staircase of basement shall be of enclosed type having fire resistance of not less than two hours and shall be suited at the periphery of the basement to be entered at ground level only from the open air and in such positions that smoke from any fire in the basement shall not obstruct any exit serving the ground and upper storeyes of the building and shall communicate with basement through a lobby provided with fire resisting self closing door of one hour rating. In case of basement being used as car parking only, the travel distance shall be 45 mt.

17. In multi storeyed basement: intake duct may serve all basements levels but each basement compartment shall have separate smoke outlet duct or ducts. Mechanical extractors for smoke venting system from lower basement levels shall also be provided. The system shall be of such design as to operate on actuation of smoke, heat sensitive detectors / sprinkles if installed and shall have a considerably superior performance compared to the standard units. It shall also have an arrangement to start it manually.

18. Mechanical extractors shall have an internal locking arrangement so that extractors shall continue to operate and supply fans shall stop automatically with the actuation of fire detectors. Mechanical extractors shall be designed to permit 30 air changes per hour in

case of fire or distress call. However, for normal operation only 30 air changes or any other convenient factor can be maintained.

19. Mechanical extractors shall have an alternate source of power supply.

20. Ventilating duct shall be integrated with the structure and made out of brick masonry or RCC as far as possible and when this duct crosses the transformer area of electrical switch board fire dampers shall be provided.

21. Kitchen working on gas fuel shall not be permitted in basement / sub-basement.

22. If cutout are provided from basement to the upper floors or to the atmosphere all side cutout openings in the basement shall be protected by sprinkler heads at closed spacing so as to form a water curtain in the event of a fire.

23. Dewatering pump shall be provided in all basements

k. SERVICE DUCTS / REFUGE CHUTE

Service duct shall be enclosed by walls and doors if any of 2 hours fire rating. If ducts are larger than 10 sq mt the floor should be seal them but provide suitable opening for the pipes to pass through with the gaps sealed.

A verit opening at the top of the service shaft shall be provided between one fourth and one half of the area of the shaft. Refuge chutes shall have an outlet at least of wall of non-combustible material with fire resistance of not less than two hours. They shall not be located within the staircase enclosure of service shafts or air-conditioning shafts. Inspection panel and door shall be tight fitting with 1 hour fire resistance the chutes should be as for away as possible from exits.

Refuge chutes shall not be provided in staircase walls and A/C shafts etc.

I. ELECTRICAL SERVICES

Electrical Services shall conform to the following:

1. The electric distribution cables / wiring shall be laid in a separate duct shall be sealed at every floor with no-combustible material having the same fire resistance as that of the duct. Low and medium voltage wiring running in shaft and in false ceiling shall run in separate conduits.

2. Water mains, telephone wires, intercom lines, gas pipes or any other service line shall not be laid duct for electric cables.

3. Separate conduits for water pumps, lifts, staircases and corridor lighting and blowers for pressuring system shall be directly from the main switch gear and these circuits shall be laid in separate conduit pipes, so that fire in one circuit will not effect the others

Master switched controlling essential service circuits shall be clearly labeled.

4. The inspection panel doors and other opening in the shaft shall be provided with airtight fire doors having fire resistance of not less than 1 hour.

5. Medium and low voltage wiring running in shaft and within false ceiling shall run in metal conduct. Any 230 voltage wiring for lighting or other services, above false ceiling should have 660V grade insulation. The false ceiling including all fixture used for its suspension shall be non-combustible material.

6. An independent and well ventilated service room shall be provided on the ground floor with direct access from out side or from the corridor for the purpose of termination of electrical supply from the licenses service and alternative supply cables. The doors provided for the service room shall have fire resistance of not less than 1 hour.

7. MCB and ELCB shall be provided for electrical circuit.

m. STAIRCASE AND CORRIDOR

The Staircase and corridor light shall be on separate circuit and shall be independently connected so that it could be operated by one switch installation on the ground floor easily accessible to fire fighting staff at any time irrespective of the position of the individual control of light points, if any. It should be of miniature circuit breaker type of switch so as to avoid replacement of fuse in case of crises.

(a) Staircase and corridor lighting shall also be connected to

alternate source of power supply.

(b) Suitable arrangement shall be made by installing double throw switches to ensure that the lighting installed in the staircase and the corridor does not get connected to two sources simultaneously. Double throw switch shall be installed in the service room for terminating the stand by supply.

(c) Emergency lights shall be provided in the staircase and corridor

n. AIR-CONDITIONING

i) Air-conditioning system should be installed and maintained so as to minimize the danger of spread of fire, smokes of fumes thereby from one floor of fire area to another or from outside into any occupied building or structure.

ii) Air-conditioning system circulating air to more than one floor area should be provided with dampers designed to closed automatically in case of fire and thereby prevent spread of fire or smoke. Such a system should also be provided with automatic controls to stop fans in case of fire, unless arranged to remove smoke from a fire, in which case these should be designed to remain in operation.

iii) Air-conditioning system serving large places of assembly (over one thousand persons), large departmental stores, or hostels with over 100 rooms in a single block should be provided with effective, solution in the case of fire in air filters or from other

sources drawn into the system even through there is insufficient heat to actuate heat smoke sensitive devices controlling fans or dampers. Such means shall consist of approved effective smoke sensitive controls.

o. AIR-CONDITIONING SHOULD CONFORM TO THE FOIIOWING:

a) Escape routes like staircase, common corridors, lift lobbies; etc. should not be used as return air passage.

b) The ducting should be constructed of metal in accordance with 81S 655.

c) Wherever the ducts pass through fire walls or floor, the opening around the ducts pass through be sealed with fire resist in material of same rating as of walls/floors.

d) Metallic ducts should be used even for the return air instead of space above the false ceiling.

e) The material used for insulating the duct system (inside or outside) should be of flame resistant (see IS 4355) and non-conductor of heat.

f) Area more than 750 sq. mt. on individual floor should be segregated by a firewall and automatic fire dampers for isolation should be provided.

g) In case of more than one floor, arrangement by way of automatic fire dampers for isolating the ducting at every floor from the floor should be made. Where plenums used for return air passage, ceiling and its features and air filters of the air handling units, these should be flame resistant. Inspection panels should be provided in the main trenching. No combustible material should be fixed nearer than 15 cm to any duct unless such ducting is properly enclosed and protected with flame resistant material.

h) In case of building more than 10 mt. in height, in non-ventilated lobbies, corridors, smoke extraction shaft should be provided.

p. FIRE DAMPERS

(a) These shall be located in conditioned air ducts and return air ducts/passages at the following points.

a. At the fire separation wall.

b. Where ducts/passages enter the central vertical shaft.

c. Where the ducts pass through floors.

d. At the inlet of supply air duct and the return air duct of each compartment on every floor.

(b) The dampers shall operate automatically and shall simultaneously switch *oft* the air-handling fans. Manual operation facilities shall also be provided.

Note: *For blowers where extraction system and dust accumulators are used dampers shall be provided.*

(c) Fire/smoke dampers (for smoke extraction shafts) for building more than 10 mt in height.

For apartment houses In non-ventilated lobbies/corridor operated by detection system and manual control sprinkler system.

For other buildings On operation of smoke/heat detection system and manual control / sprinkler system

(d) Automatic fire dampers shall be so arranged so as to close by gravity in the direction of air movement and to remain tightly closed on operation of a fusible link.

q. BOILER ROOM

Provisions of boiler and boiler rooms shall confine to Indian Boiler Act. Further, the following additional aspects may be taken into account in the location of boiler/boiler room.

a. The boiler shall not be allowed in sub-basement, but may be allowed in the basement away from the escape routes.

b. The boilers shall be installed in a fire resisting room of 4 hours, fire resistance rating, and this room shall be situated on the periphery of the basement. Catch pits shall be provided at the low level.

c. Entry to this room shall be provided with a composite door of 2 hours fire resistance.

d. The boiler room shall be provided with fresh air inlets and smoke exhaust directly to the atmosphere.

e. The furnace oil tank for the boiler if located in the adjoining room shall be separated by fire resisting wall of 4 hours rating. The entrance to this room shall be provided with double composite doors. A curb of suitable height shall be provided at the entrance in order to prevent the flow of oil into boiler room in case of tank rupture.

f. Form inlets shall De provided on the external walls of the building near the ground level to enable the fire service to use foam in case of fire

r. ALTERNATE SOURCE OF ELECTRIC SUPPLY

A stand by electric generator shall be installed to supply power to staircase and corridor lighting circuits, lifts detection system, fire pumps, pressurization fans and blowers, PA system, exit sigh, smoke extraction system, in case of failure of normal electric supply. The generator shall be capable of taking starting current of all the machines and circuits staled above simultaneously.

If the stand by pump is driven by diesel engine, the generator supply need not be connected, to the stand by pump. The generator shall be automatic in operation.

s. SAFETY MEASURES IN ELECTRICAL SUB-STATION

(a) Clear independent approach to the sub-station from outside the building would be made available round the clock.

(b) The approaches/corridors to the sub-stations area would be kept clear for movement of man and material at all the times.

(c) The sub-station space is required to be provided with proper internal lighting arrangements.

(d) In addition to natural ventilation proper ventilation to the sub-station area is to provided by grill shutters and exhaust fans at suitable places so as to discharge all smoke from the sub station without delay in case of fire so that sub-station operations can be carried out expeditiously.

(e) Cable trenches of 0.6 mt x 0.6 mt. depth/dummy floor 0.6 mt. depth shall be provided to facilitate laying of cable inside the building for connecting to the equipment.

(f) The floor of the sub-station should be suitable for carrying 10 tons of transformers weight on wheels.

(g) Built up substation space is to be provided free of cost.

(h) Sub station space should be clear from any water, sewer, air condition gas pipe or telephone services. No other service should pass through the sub-station space or the cable trenches.

(i) Proper ramp with suitable slope may be provided for loading and unloading of the equipment and proper approach will be provided.

(j) Any other alteration / modification required while erection of the equipment will be made by the promoter at site as per requirement.

(k) Adequate arrangement for fixing chain pulley block above the fixing be available for load of 15 tons.

(l) Provisions shall be kept for the sumps into ground so as to accommodate complete volume of transformer oil, which can spillover in the event of explosion of the transformer in the basement of the building. Sufficient arrangement should exist to avoid fire in the sub station building from spread of the oil from the sumps.

(m) Arrangement should be made for the provision of the retardate cables so as to avoid chances of spread of fire in the sub station building.

(n) Sufficient pumping arrangement should exist for pumping the water out, in case of fire so as to ensure minimum loss to the switch gear and transformer.

(o) No, combustible should be stacked inside the sub station premises or in the vicinity to avoid chances of fire.

(p) It should be made mandatory that the promoters of the multi-storeyed building should get substation premises inspected once a year to get their license revalidated for the provision of electric supply from Electricity Board. So that suitable action can be taken against the promoters in case of non-implementation of Bye-Laws.

(q) The sub-station must not be located below the 1st basement and above the ground floor.

(r) The sub-station space should be totally segregated from other area of the basement by fire resisting wall. The ramp should have a slope of 1:10 with entry from ground level. The entire Sub-station space including the entrance at ground floor be handed over to the license of electricity free of cost and rent.

(s) The sub-station area will have a clear height of 12 feet (3.65mt.) below beams. Further the S/Stn. area will have level above the rest of basement level by 2 feet.

(t) It is to be ensured that the Sub-station area is free of seepage / leakage of water.

(u) The licensee, of electricity will have the power to disconnect the supply of the building in case of violation of any of the above points.

(v) Electric sub-station enclosure must be completely segregated with 4-hour fire rating wall from remaining part of basement.

(w) Should be located on periphery/sub basement and (not above ground floor).

(x) Additional exit shall be provided if travel distance from farthest comer to ramp is more than 15 mt.

(y) Perfect independent vent system 30 air changes per hour linked with detection as well as automatic high velocity water spray system shall be provided.

(z) All the transformers shall be protected with high velocity water spray system / Nitrogen Injection System Carbon Dioxide total flooding system in case of oil filled transformer. In addition to this manual control of auto high velocity spray system for individual transformers shall be located outside the building at ground floor.

(aa) Suitable arrangement for pump house, water storage tanks with main electrical pump and a diesel-operated pump shall be made if no such arrangement is provided in the building. In case the water pumping facilities are existing in the building for sprinkler system, the same should however be utilized for high velocity water spray system. Alternatively automatic C02 total flooding system shall be provided with manual controls outside the electric sub-station.

(bb) System shall have facility to give an audio alarm in the basement as well as at the control room.

(cc) Fire control-room shall be manned round the clock.

(dd) The electric sub-station shall have electric supply from alternate source for operation of vent system lighting arrangements.

(ee) Cable trenches shall be filled with sand.

(ff) Party walls shall be provided between two transformers as per the rules.

(gg) Electric control panels shall be segregated.

(hh) Exits from basement electric sub-station shall have self-closing fire smoke check doors of 2-hours Fire rating near entry to ramp.

(ii) All openings to lower basement or to ground floor shall be sealed properly.

(jj) Yearly inspection shall be carried out by electrical load sanctioning Authority.

(kk) Ramp to be designed in a manner that in case of fire no smoke should enter the main building.

(ll) Electric sub-station transformer shall have clearance on all sides as per BB/relevant electric rules.

(mm) Other facility will be as per Building Bye-Laws relevant electric rules.

(nn) Rising electrical mains shall consist of metal bus bars suitably protected from safety point of view.

t. FIRE PROTECTION REQUIREMENTS

Buildings shall be planned, designed and constructed to ensure fire safety and this shall be done in accordance with part IV Fire Protection of National Building Code of India, unless otherwise specified in these Bye Laws. In the case of building (identified in Bye-Laws No.

u. THE BUILDING SCHEMES SHALL ALSO BE CLEARED BY THE CHIEF FIRE OFFICER.

FIRST AID / FIXED FIRE FIGHTING/FIRE DETECTION SYSTEMS AND OTHER FACILITIES

Provision of fire safety arrangement for different occupancy from SI. NO.1 to 23 as indicated below shall be as per Annexure 'A' '8' & 'C'.

(a) Access

(b) Wet Riser

(c) Down Corner

(d) Hose Reel

(e) Automatic Sprinkler System

(f) Yard Hydrant

(g) D. G. Tank with Draw off connection

(h) Terrance Tanks

(i) Fire Pump

(j) Terrace Pump

(k) First Aid Fire Fighting Appliances

(l) Auto Detection System

(m) Manual Operated Electrical Fire Alarm System

(n) P. A. System with Tank Back Facility

(o) Emergency Light

(p) Auto D. G. Set

(q) Illuminated Exit Sign

(r) Means of Escape

(s) Compartimentation

(t) MCB / ELCB

(u) Fire Man Switch in Lift

(v) Hose Boxed with Delivery Hosed and Branch

(w) Pipes Refuge Area

Note for Annexure 'A', 'B' & 'C'

(a) Where more than one riser is required because of large floor area, the quantity of water and pump capacity recommended in these Annexures should be finalized in consultation with Chief Fire Officer.

(b) The above quantities of water shall be exclusively for fire fighting and shall not be utilized for domestic or other use.

(c) A facility to boost up water pressure in the riser directly from the mobile pump shall be, provided in the wet riser, down comer system with a suitable fire service inlets (collecting head) with 2 to 4 numbers of 63 mm inlets for 100-200 mm dia main, with check valve and a gate valve.

(d) Internal diameter of rubber hose for reel shall be minimum 20 mm. A shut off branch with nozzle of 5 mm. size shall be provided.

(e) Fire pumps shall have positive suctions. The pump house shall be adequately ventilated by using normal/mechanical means. A clear space of _mt. shall be kept in between the pumps and enclosure for easy movement/maintenance. Proper testing facilities and control panel etc. shall be provided.

(f) Unless otherwise specified in Bye-Laws, the fire fighting equipment's installation shall conform to relevant Indian Standard Specification.

(g) In case of mixed occupancy, the fire fighting arrangement shall be made as per the highest class of occupancy.

(h) Requirement of water based first air free extinguishers shall be reduced to half if hose reel is provided in the building

v. STATIC WATER STORAGE TANK

1) A satisfactory supply of water exclusively for the purpose of fire fighting shall always be available in the form of underground static storage tank with capacity specified in Annexure-A with arrangement of replenishment by Town's main or alternative source of supply @ 1000 Liters per minute. The static storage water supply required for the above mentioned purpose should entirely be accessible to the fire engines of the local fire service. Provision of suitable number of manholes shall be made available for inspection repairs and insertion of suction hose etc. The covering slab shall be able to withstand the vehicular load of 22 tones. A draw off .connection shall be provided. The slab need not been strengthened if the static tank is not located in mandatory set-back area.

2) To prevent stagnation of water in the static water tank the suction tank of the domestic water supply shall be fed only through an over flow arrangement to maintain the level therein at the minimum specified capacity.

3) The static water storage tank shall be provided with a fire brigade collecting branching with 4 Nos. 63mm dia instantaneous male inlets arranged in a valve box with a suitable fixed pipe not less than 15 dia to discharge water into the tank. This arrangement is not required where down comer is provided.

w. FIXED CARBON DI-OXIDE / FOAM / DCO WATER SPRAY EXTINGUISHING SYSTEM

Fixed extinguishing installations shall be provided as per the relevant specifications in the premises where use of above extinguishing media is considered necessary by the Chief Fire Officer.

x. CONTROL ROOM

There shall be a control room on the entrance floor of the building with communication system (suitable public address system) to all floors and facilities for receiving the massage from different floors. Details of all floor plans along with the details of fire fighting equipment and installation shall be maintained in the control room. The Control Room shall also have facility to detect the fire on any floor through indicator boards connecting fire detection and alarm system on all floors. The staff incharge of the Control Room shall be responsible for the maintenance of the various services and fire fighting equipment and installation. The Control Room shall be manned round the clock by trained fire fighting staff.

y. FIRE DRILLS AND FIRE ORDERS

The guidelines for fire drill and evacuation etc. for high-rise building may be seen in Appendix (B) of National Building Code part' IV. All such building shall prepare the fire orders duly approved by the Chief Fire Officer, Fire Services.

A qualified fire officer and trained staff shall be appointed for the following buildings:

a. All hotels, identified under classification three star and above category by Tourism Department and all hotels above 15mt. in height with 150 beds capacity or more without star category.

b. All hospital building of 15mt. and above or having number of beds exceeding 100.

c. Underground shopping complex where covered area exceeds 1000sq.mt.

d. All high hazard industries.

e. Any other risk where Chief Fire Officer considers necessary. The lightning protection warning light (red) for high rise buildings shall be provided in accordance with the relevant standard. The same shall be checked from electrical department.

z. MATERIAL USED FOR CONSTRUCTION OF BUILDING

i. The combustible / flammable material shall not be used for partitioning, wall paneling, false ceiling etc. Any material giving out toxic gases / smoke if involved in the fire shall not be used for partitioning of a floor or wail paneling or a false ceiling etc. The surface frames spread of the lining material shall conform to class-I of the standard specification. The frame work of the entire false ceiling would be provided with metallic sections and no wooden frame work shall be allowed for paneling / false ceiling.

ii. Construction features / elements of structures shall conform to National Building Code and BIS code.

aa. LPG

The Use of LPG shall not be permitted in the high rise building except residential / hotel / hostel / kitchen / pantry (if any) shall be located at the periphery of the building on the ground level

bb. HOUSE KEEPING

A high standard of house keeping must be insisting upon by all concerned. There must be no laxity in this respect. It must be borne in mind that fire safety is independent to a large extent upon good house keeping.

GOOD HOUSE KEEPING INCLUDES THE FOIIOWING

(1) Maintaining the entire premises is neat and clean condition.

(2) Ensuring that rubbish and combustible material are not thrown about allowed to accumulate, even in small quantity, in any portion of the building. Particular attention must be paid to corners and places hidden from view.

(3) Providing metal receptacles / waste paper basket (of non-combustible material) at suitable locations for disposal of waste. Separate receptacles must be provided for disposal of cotton

rags / waste, wherever it is generated, these must under no circumstances be left lying around in any portion of the building.

(4) Ensuring that receptacles for waste are emptied at regular intervals and the waste removed immediately for safe disposal outside the building.

(5) Ensuring that all doors / fixtures are maintained in good repairs particular attention must be paid to self-closing fire smoke check doors and automatic fire / doors / rolling shutters.

(6) Ensuring that self closing fire / smoke check doors close properly and that the doors are not wedged open.

(7) Ensuring that all entire structure of the building is maintained in good repairs.

(8) Ensuring that all electrical and mechanical service equipments are maintained in good working condition at all times.

(9) Ensuring that Cars Scooters etc. are parked systematically in neat rows. It is advisable to mark parking lines on the, ground in the parking areas near the building and in the parking area on ground floor and in basement(s) as applicable; inside the building. A parking attendant must ensure that vehicle's are parked in an orderly manner and that the vehicles do not encroach upon the open space surrounding the building.

cc. SMOKING RESTRICTIONS

(a) Smoking shall be prohibited throughout the basement(s) and in all areas where there is a profusion of combustible materials. Easily readable "NO SMOKING" signs must be conspicuously posted at locations where they can catch the eye. Each sign must also include a pictograph. The sign may preferably by illuminate.

(b) In all places where smoking is permitted ashtrays, half filed with water must be placed on each table at each other suitable locations for safe disposal of spent smoking materials. The design of the ashtrays must be such that they cannot easily topple over. If, for any reason, this is not practicable a minimum of one metal bucket or other non-combustible container half filled with water must be provided in each compartment for disposal of spent smoking material.

LIMITING THE OCCUPANT LOAD IN PARKING AND OTHER AREAS OF BASEMENT(S)

Where parking facility is provided in the basement(s) no person other than the floor parking attendant may be allowed to enter and remain in the parking areas except for parking and removal of Cars / Scooters. Regular offices must not be maintained in the storage / parking area in the basement(s). The stores godowns must be opened for the limited purpose's of keeping or removing stores.

(a) No person other than those on duty may be permitted in the air-conditioning plant room(s), HL/L T switch room, transformer compartment, control room, pump-house, generator room, stores and records etc.

dd. FIRE PREVENTION

In addition to the measure recommended above, the following fire prevention measures must be implemented when the building is in occupation.

(a) Storage of flammable substances, such as diesel oil, gasoline, motor oils, etc must not be allowed anywhere within the building. The only exception to this rule may be.

a. Storage of diesel oil, in a properly installed tank in a fire resisting compartment in the generator room;

b. Diesel oil, gasoline, motor oil etc. filled in the vehicle tanks.

(b) Preparation of tea and warming of food must be prohibited throughout the building.

(c) Where heaters are used during winters, the following precautions must be taken.

(a) All heaters, except convector heaters, must be fitted with guards.

(b) Heaters must not be placed in direct contact with or too close to any combustible material.

(c) Heaters must be kept away from curtains to ensure that the latter are not blow over the heater accidentally.

(d) Heaters must not be left unattended while they are switched on.

(e) Defective heaters must be immediately removed from service until they have been repaired and tested for satisfactory performance.

(f) Use of heaters must be prohibited in the entire basement, fire control room and in all weather maker rooms throughout the building. Also in all places where there is profusion of combustible flammable materials.

(d) Use of candles or other naked light flame must be forbidden throughout the building, except in the offices (for sealing letters only) and proper kitchen. When candles *I* spirit lamps are used for sealing letters *I* packets, ~xtreme care must be take to ensure that paper do not come direct contact with the naked flame and the candle *I* spirit lamp does not topple over accidentally while still lighted. All candles *I* spirit lamps kitchen fires must be extinguished when no longer required.

(e) Fluorescent lights must not be directly above the open file racks in offices *I* record rooms. Where this is unavoidable, such lights must be switched on only for as long as they are needed.

(f) Filling up of old furniture and other combustible materials such as scrap paper, rags, etc. must not be permitted anywhere in the building. These must be promptly removed

from the building.

(g) More than, one portable electrical appliance must not be connected to any single electrical outlet.

(h) Used stencils ink smeared combustible materials and empty ink tubes must not be allowed to accumulate in rooms / compartments where cyclostyling is done. These must be removed and disposed off regularly.

(i) All shutters / doors of main switch panels and compartments / shafts for electrical cables must be kept locked.

(j) Aisles in record rooms and stores must have a clear uniform width of not less than 1.0mt. Racks must not be placed directly against the wall partition.

(k) In record rooms, offices and stores, a clear space of not less than 30cm. must be maintained between the top most stack of stores / records and the or lighting fittings whichever is lower.

(l) A similar clearance, and at (k) above must be maintained from fire detectors.

(m) Fire detectors must not be painted under any circumstances and must also be kept free from lime / distemper.

(n) Records must not be piled / dumped on the floor.

(o) Welding or use of blow torch shall not be permitted inside the

building, except when it is done under strict supervision and in full conformity with the requirements laid down in 1S:3016-1966 code of practice for fire precautions in welding and cutting operation.

(p) Printing ink / oil must not be allowed to remain on the floor, the floor must be maintained in a clean condition at all times.

ee. OCCUPANCY RESTRICTIONS

(a) The premises leased to any party shall be used strictly for the purpose for which they are leased.

(b) No dangerous trade / practices (including experimenting with dangerous chemicals) shall be curried on in the leased premises.

(c) No dangerous goods shall be stored within the leased premises.

(d) The common / public corridor shall be maintained free of obstructions, and the lessee shall not put up any fixtures that may obstruct the passage in the corridor and/or shall not keep any wares, furniture or other articles in the corridor.

(e) The penalty for contravention of the condition laid down below must be immediate termination of lease and removal of all offending materials.

(f) Regular inspection and checks must be carried out at frequent intervals to ensure compliance with conditions maintained above.

CHAPTER – 11

WATER HARVESTING

(a) METHOD OF HARVESTING

(a) The places where the rains are throughout the, year the rain water can be stored in tanks. However at places where rains are for 2-3 mO,nths hug volumes of storage container would have to be provided. To such places it would be feasible to use rain water to recharge ground water aquifers rather than for storage.

(b) Stable size gutters, pipes filter and storage tank should be provided First 10-20 minutes of rain water is flushed of through first flush drain pipe then the valve opened. The water passing through filter is stored in suitable size storage tank.

(c) The first flush drain pipe and overflow pipe should be connected with house drain.

(d) The underground storage tank may of masonry or re-enforced cement concrete. Plastic / high density polyethylene or made of Ferro-cement.

(e) The size of the tank depends upon requirements, catchments and rainfall.

(f) The down pipe should be of at least 100mm diameter with 850 micron nylon wire screen at the inlet to prevent dry leaves and debris from entering in it.

(g) The underground storage tank should preferably have a suitable Jump / installed for withdrawal of water or pumping it to an overhead storage tank. Their top should remain at least 300mm above the ground.

(h) Before the tank is put into use, it should be thoroughly cleaned and disinfected with a suitable disinfectant such as chlorine bleaching powder, potassium permanganate etc. Since the water shall remain stored for quite a long time, periodical disinfections of stored water is essential to prevent growth of pathogenic bacteria.

(i) When the tank required to be cleaned or stored water is required to be disposed it should be drained to the nearest nallah or any natural drains or disposed through a properly designed outlet system.

(j) Water harvesting through storage of water run off including rain water in all new buildings on plots of 500 Sq. mts. and above will be mandatory. The plan submitted to the local Authority shall indicate the system of storm water drainage along with points of collection of rain water in surface reservoirs or in recharge wells.

CHAPTER 12
SOLAR ASSISTED WATER HEATING SYSTEM

A significant amount of electricity can be conserved in our urban areas and in industries particularly during peak demand periods through installation of solar water heating systems. So it should become mandatory for various buildings to encourage the solar assisted water heating systems.

No new building in the following categories in which there is a system or installation for supplying hot water shall be built unless the system or the installation is also having an auxiliary solar assisted water system:

(a) Hospitals & Nursing homes

(b) Hotels, lodges & guest houses

(c) Hostels of schools, colleges training centers

(d) Barracks of armed forces, paramilitary forces & police

(e) Individual residential building having mire than 200sqm plinth area.

(f) Functional buildings of railway stations & airports like waiting rooms, retiring rooms, rest rooms, inspection banglows & catering units.

(g) Community centers, banquet halls, barat ghars, kalian mandaps & buildings of similar use.

By Order of the Govt. of Jammu and Kashmir

Principal Secretary to Government

CHAPTER- 13

GREY WATER RECYCLING BYELAWS

Whereas it is expedient to regulate the activities such as:

a) Pretreatment of Grey Water, sewage and grey water before it is accepted for reuse for the purpose of non-portable use;
b) Installation of flow meters, samplers or other devices to measure flow and quality of the sewage, recycled water & industrial waste discharge;
c) Pretreatment of Grey water and Sewage as per classification before it is accepted for discharge to the sewerage system;
d) Separation of non-portable water plumbing and portable water plumbing;
e) Sampling and monitoring of industrial waste discharges to ensure compliance of conditions under the byelaws;
f) Encouraging the use of treated recycles water for not-portable use;

1. Definitions

In this Byelaws:

'Grey Water' means involving water from sinks, tubs, showers and washing.

'Industrial/Commercial Premises' means any premises which is being used or intended to be used (whether for profit or not) for carrying on any trade, business, education, research or industry.

'Commercial Waste' or 'Wastes' are the waste removed from an industrial plant or other premises by way of discharge of any liquid, with or without matter in suspension or solution therein, that is or may be discharged from trade premises in the course of any trade or industrial process or operation or in the course of an activity or operation of alike nature.

'Inspector' includes whomever the Municipal Commissioner, Jammu/ V.C, JDA has appointed in writing for the purposes of these Byelaws.

'ISO5667' means the latest edition complete with any amendments, of international Standards ISO 5667:1994 Water Quality Sampling.

Part 1:1980 Guidance on the design of Sampling programmes.

Part 2:1991 Guidance on sampling techniques.

Part 3:1994 Guidance on the preservation and handling of samples.

Part 10:1992 Guidance on sampling of Grey Waters.

'ISO TR 9824' means the latest edition complete with any amendments, of international Standard ISO TR 9824: Measurement of liquid flow in open channels;

Part 1:1990 Measurement of free surface flow in closed conduits Methods.

Part 2:1990 Measurement of free surface flow in closed conduits Equipment.

'Sewerage System' means all types of sewer, appurtenances, pumping stations, storage tanks, waste water treatment facility plants, marine outfalls and other related structures existing in the urban area and used for the reception, treatment and disposal of waste water and also termed as "waste water system"

'Waste minimization' means the implementation on trade premises, of operations and restrictions, appropriate to the goal of reducing or eliminating the quantity and toxicity of wastes.

Section 'A' Applicability of Grey Water Reuse Byelaws

1.1 Applicable to all group housing, commercial and industrial premises which fall in one of the following categories:

Category 1: Whose plot area is more than 2000 Sq.M.

Category 2: Water quota is more than 40,000 lits/day.

Category 3: Premises which has more than 50 dwelling unit of any kind.

1.2 Exemptions could be accorded under following circumstances, as decided by the authority;

In case the existing premises cannot permit the provision of additional overhead tank for the purpose of the use of treated water.

If, in the existing structure, there is no space for installation of treatment facility and collection chamber.

2. Enforcement of byelaws:

2.1 In case of existing properties, Municipal Commissioner, Jammu/ V.C, JDA or his authorized officer will issue a notice to the occupier for making arrangements of reuse of Grey Water within specified time.

2.2 In case of proposed/intending/under redevelopment properties, the occupier/developer/builder will submit an application directly or through his authorized consultant to the Municipal Commissioner, Jammu/ V.C, JDA with details of proposed 'Discharge management Plan' along with the application for demand of water permission to connect the Grey Water/Sewarage to municipal sewerage system where ever applicable.

3. Granting a Permission

3.1 Every premises will be granted permission for the discharge of industrial waste or wastes to the municipal sewerage system only if the recycling measures and conditions set forth in schedules issued under this Byelaw are fulfilled.

4. Waste tests and their results

4.1 An occupier of an industrial plant or premises requiring a license shall provide to the Municipal Commissioner, Jammu/ V.C, JDA or an authorized officer once a year for the purpose of receiving a license, test results of the industrial wastes discharged from the plant or premises.

4.2 Without derogating the provisions specified in clause of byelaw 4, the occupier of a premises requiring a license or the occupier of a controlled plant or premises, shall provide to Municipal Commissioner, Jammu/ V.C, JDA test results of the industrial

wastes or waste discharged from the plant or premises at any time he is requested in writing to do so by the Municipal Commissioner, Jammu/ V.C, JDA.

4.3 The testing of wastes and the submission of the results shall be done in a manner in accordance with the terms and conditions prescribed by the Municipal Commissioner, Jammu/VC JDA or an authorized officer in this regard.

This Byelaw accords the authority of Municipal Commissioner, Jammu/VC JDA, his agent or an authorized officer of their authority to visit the plant premises at any reasonable time.

5. **Notices for testing of discharge**

5.1 The Municipal Commissioner, Jammu/VC JDA may order the testing of sample industrial waste or wastes as described in clause of byelaw 4 if he feels that the circumstances so demand and he may, by written notice, direct the plant or premises occupier to pay the expenses of performing such tests.

5.2 A controlled plant whose occupier received notice as stated in clause of byelaws (4) shall comply the provisions of byelaws (3) prescribed above for that purpose.

6. **Operational Permission for the Grey Water Recycling Treatment Plant**

6.1 Municipal Commissioner, Jammu/VC JDA may determine on the basis of test results of the wastes that were provided to him or that were performed at his instance or behalf, that a recycled water plant is fulfilling the requirements and will issue permission in writing to put the plant on permanent to the occupier.

6.2 The occupier shall operate the plant as specified.

7. Separation of grey Water:

7.1 The wastes from toilets in the premises will be separated from grey water that is of bathroom and kitchen wastes by means of separate down take discharge system. The grey water shall be recycled by providing recycling plant and shall be reused for non-portable purposes after storing the same in distinctly separate tank by means of purple colored down take pipes. The water quality shall conform to standards of non portable water. The recycled water shall be tested once in six months and results shall be made available to Municipal Commissioner JMC/ V.C, JDA or his authorized officer whenever demanded.

The make-up connection to the system will be done at the collection tank of the treated water, through a free fall if from Municipal water connection, but preferable from a local source like bore well.

8. Conditional Waste Discharge Permission:

8.1 Waste discharge of the conditional type plant will be allowed on the issuance of conditional permission provided the conditional type plant has recycling and reuse of water facility and not exceeding limits given in as per JKPCB norms.

9. Mandatory notice regarding changes:

9.1 An occupier of premises shall inform the Municipal Commissioner, Jammu/VC JDA or his authorized officer of any change in the quality, nature or quality of the wastes discharged from his plant or premises, the manner of their discharge or extra requirement of external supply of water in variation or violation of license under these byelaws.

10. Authority to change license/notice conditions:

10.1 The Municipal Commissioner, Jammu/ V.C, JDA or his authorized officer, having given a license or a notice in writing by the authority vested in him by this byelaw, may revoke, modify or stipulate conditions to the license or notice if not satisfied on inception of the plant, premises or test reports.

11. Interface with the Authority

11.1 Interface with the authority of Municipal Commissioner, Jammu/VC JDA or his agent or with the authorized officer is strictly prohibited.

12. Delivery of Notice/Permission.

12.1 Notice/permission required by this byelaw shall be deemed to have been delivered lawfully if it is given in to the hand of their intended receiver with acknowledgement, or delivered to his place or residence or his place of occupation or place known to be so with acknowledgement, or to adult member of his family or to an adult employee with acknowledgement, or if sent by registered mail to the same person according to his place of residence, of normal place of employment recently known to be so. If it is not possible to make the delivery as stated, the notice will be assumed to have been delivered lawfully if the notice is pasted in a conspicuous place in one of the above stated locations.

13. Corrective action

13.1 Any person violating the provisions of these byelaws shall be fined Rs. 5000/- only on the day of detection and if the violation continues shall be fined Rs. 100/- only for every day as a corrective action after a written notice from the Municipal Commissioner, Jammu/ V.C, JDA or his authorized officer is delivered to him.

13.2 Failure to operate (as determined by the Inspector or authorized officer of JMC from the observations of test results and/or physical

verification) the recycling plant will attract a penalty of Rs. 500/- per day and/or disconnection of water connection.

14. Authorization of Officers

14.1 Municipal Commissioner, Jammu/ V.C, JDA will authorize his officers/inspectors and will delegate the necessary powers for carrying various duties under this byelaw.

Form- A

(To be submitted in duplicate)

FORM FOR APPLICATION TO ERECT, RE-ERECT OR TO MAKE MATERIAL ALTERATION IN ANY PLACE IN A BUILDING

To

The Commissioner,
Municipal Corporation, Jammu.

Sir,

I hereby give notice to erect/demolish or make alteration in the building number or to on/in Plot No ……. Block No…….. House No…….. situated at ……. Scheme ……. And in accordance with the building Byelaws No…….. and I forward herewith, the following plans and specification duly signed be me and Architect/ Licensed draftsman.

1. Site Plan
2. Building Plan
3. Service Plan (if required)
4. Parking and Circulation Plan (if required)
5. Landscape Plan (if required)
6. General Specifications
7. Ownership Tile (Lease/ Conveyance/ Sale Deed, etc)
8. Other documents, as required.

(ii) The building plan has been prepared strictly as per the approved building Byelaws. The construction shall be carried out in accordance with the building plan and I shall be completely accountable for any lapse on my part up to within 6 months after obtaining completion certificate of the building.

……..
Signature of the Owners

Name of the Owner(s) ……

Address of the owner(s)

Form- A-5

File No……

Plan No……..

Shri/Miss/Smt……

…….

COMPLETION-CUM-OCCUPANCY CERTIFICATE

With reference to your notice of completion dated……, i hereby certify that building as per description below certified plan at plot no……. Block No…… Scheme ……. Situated at …… whose plans were sanctioned vide No……. has been inspected with reference to building bye-laws in respect to the structural safety, fire safety, hygienic and sanitary conditions inside and in the surroundings and is declared fit for occupation and release of regular water and electricity connections. The description of construction works completed is given as under:

Description of Construction Work Block Wise/ Building Wise.

(a) Block Building No.

(b) Details of completed Work floor wise.

Designated Officer
Senior Town Planner
JMC

Note: The Commissioner, JMC should designate officers with Technical background to issue Completion Certificates.

Form- A-6

FORM OF REJECTION OR COMPLIANCE IN RESPECT OF OCCUPANCY CERTIFICATE

File No…….

Dated……..

Sh. / Smt…….

…….

Subject: Occupancy Certificate in respect of Plot No……

Dear Sir/ Madam,

(a) With reference to your letter dated…….

(b) With reference to your notice of completion dated.

(c) In continuation of this office letter of even No…….. dated on the subject noted above, I am directed to inform you that your case has been examined and occupancy certificate is rejected for the reasons as given below:

Designated Officer
Senior Town Planner
JMC

Note: The Commissioner, JMC should designate officers with Technical background to issue Completion Certificates.