

# The Mizoram Gazette

# EXTRAORDINARY Published by Authority

RNI No. 27009/1973

VOL - LIII Aizawl, Thursday 22.02.2024 Phalguna 3, S.E. 1945, Issue No. 137

# NOTIFICATION

**No. B.13017/124/2024-UD&PA, the 15<sup>th</sup> February, 2024:** In exercise of the powers conferred by Section 77 of the Mizoram Urban & Regional Development Act, 1990 and with the approval of the Council of Ministers obtained by circulation on 15.2.2024, the Governor of Mizoram is pleased to notify the Mizoram Urban Areas Building Regulations, 2024 for general information.

### Lalmalsawma Pachuau,

Secretary to the Govt. of Mizoram, Urban Development & Poverty Alleviation Department

# CHAPTER 1 DEFINITIONS AND ADMINISTRATION

### 1. GENERAL

All mandatory master plan/ development plan/zonal plan/ regional plan/ any other statutory plan in force regarding use, land use, coverage, FAR, setback, open space, height, number of stories, number of dwelling units, parking standards etc. for various categories of buildings including modification therein made from time to time shall be applicable mutatis mutandis in the regulation under this clause. All amendments/ modifications made in the foresaid regulation shall automatically stand deemed to have been included as part of these regulations.

### 2. SHORT TITLE, EXTENT AND COMMENCEMENT

- (1) These regulations may be called the Mizoram Urban Area Building Regulation 2024.
- (2) They shall apply to all Urban areaswithin the State of Mizoram excluding Aizawl Municipal Area.
- (3) They shall come into force on such date as the Government of Mizoram may notify by notification in the Official Gazette.

# 3. APPLICABILITY

These regulations shall be applicable to all building activities and read in conjunction with the master plan/development plan/ regional plan/ zonal plan or any other statutory plan in force, if any, and notifications, if any, with regard to the same and as amended from time to time.

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They shall apply to the building activities given below:

- (1) when a building is newly erected, to the design and construction of the building;
- (2) where the whole or any part of a building is dismantled / repaired;
- (3) where the whole or any part of a building is demolished, and
- (4) where alteration or addition to a building is made.

### 4. CONSTITUTION OF DISTRICT LEVEL OR LOCAL LEVEL COMMITTEE

The State Government may by notification constitute a district level or local level committee for enforcement of these regulation.

### 5. SITE DEVELOPMENT & SLOPE MODIFICATION REGULATION

- (1) The State Government/ Authority may by notification prepare a Model Site Development & Slope Modification Regulation which may be adopted by urban areas within Mizoram or may modify the Model Site Development & Slope Modification Regulation prepared by the State Government/ Authority as per the relief features of the urban area for adoption by urban areas within Mizoram.
- (2) These regulations shall apply for the purpose of stringent control of all aspects of site development, slope medications and clearing operations and to establish procedures for issuance, administration and enforcement of a site development permit.
- (3) Each urban area within Mizoram shall formulate and prepare a site development & slope modification regulation as per the relief feature of each area and also by taking into consideration the Model Site Development & Slope Modification Regulation notified by the State Government.

### 6. DEFINITIONS

For the purpose of these regulation,

- (a) 'Act' means the Mizoram Urban & Regional Development Act, 1990 (Act No.12 of 1990) or as amended from time to time;
- (b) 'Advertising Sign' means any surface or structure withcharacters, letters or illustrations applied thereto and displayed in any manner whatsoever out of doors for the purpose of advertising or to give information or to attract the public to any place, person, public performance, article or merchandise whatsoever, and which surface or structure is attached to or forms 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;
- (c) 'Addition and/ or Alteration' means a change from one occupancy to another, or a structural change including an addition to the area or change in height or the removal of part of building, or any change to the structure, such as the construction or removal or cutting into of any wall or part of a wall, partition, column, beam, joist, floor including a mezzanine floor or other support, or a change to or closing of any required means of access ingress or egress or a change to fixtures or equipment as provided in these regulations;
- (d) "Apartment" whether called block, chamber, dwelling unit, flat, office, showroom, shop, go down, premises, suit, tenement, unit or by any other name, means a separate and self-contained part of any immovable property, including one or more rooms or enclosed spaces, located on one or more floors or any part thereof, in a building or on a plot of land, used or intended to be used for any residential or commercial use such as residence, office, shop, showroom or go down or for carrying on any business, occupation, profession or trade, or for any other type of use ancillary to the purpose specified;
- (e) 'Approved' means as approved/ sanctioned by the Authority under applicable regulations
- (f) 'Applicant' means every person who applies to the Authority for permission under these regulations;

- (g) 'Application' means an application made in such form as may be prescribed by the Authority from time to time:
- (h) 'Architect' means a person holding a graduate degree in Bachelor of Architecture from any institute recognized by the Council of Architecture (COA) and has his/ her name entered in the register of COA for the time being, with a valid COA Registration number. (Please see ANNEXURE A Qualification and Competence of Technical Personnel for Preparation of Schemes for Building Permit and Supervision)
- (i) 'Area' in relation to a building means the superficies of ahorizontal section thereof made at the plinth level inclusive of the external walls and of such portions of the party walls as belong to the building;
- (j) 'Authority' means the Authority which has been created by a statute and which, for the purpose of administering the Code/ regulation, may authorize a committee or an official or an agency to act on its behalf; hereinafter called the 'Authority'. Authority can be any Urban Local Body/ Urban Development Authority or any other authority as notified by the Government of Mizoram as the case may be;
- (k) 'Basement or Cellar' means the lower storey of building belowor partly below ground level;
- (l) **'Building'** means any structure constructed for whatsoeverpurpose and of whatsoever materials and every part thereof, whether used as human habitation or not and includes foundations, plinths, walls, floors, roofs, chimneys, plumbing and building services, fixed platforms, verandah, balcony, cornice or projection, part of a building or anything affixed thereto or any wall enclosing or intended to enclose any land or space and signs and outdoor display structures, monuments, memorials or any contrivance of permanent nature/ stability built under or over ground.

For the purposes of these regulations, buildings are divided into three types, namely:

- (a) 'Multi-storied building' means a building having a height of 15 meters or more.
- (b) **'Special building'** means a building such as educational, assembly, institutional, industrial, storage, hazardous and mixed occupancies with any of the aforesaid occupancies having covered area more than 500 sq. meters.
  - (i) 'Ordinary building' Ordinary building means a building constructed with first class wooden posts, RCC posts up to the skirting level of the ground floor, wooden plank floor, bamboo or tile or sheet wall and thatched or GCI (galvanized corrugated iron) sheet roof covering;
  - (ii) 'Semi-Permanent (Semi-Pucca) building' Semi-permanent (semi-pucca) building means a building constructed with RCC (reinforced cement concrete) column footings, RCC columns and RCC beams of pre-designed dimensions and specifications up to a height not exceeding 7.5 meters having timber flooring, brick/ concrete block masonry wall up to skirting level, AC sheet or bamboo walling above skirting, timber roof truss with G.C.I sheet roofing;
  - (iii) 'Permanent building' means:
    - a. A building constructed with RCC foundation, column, beam, floor, roof and brick walling, or
    - b. A building constructed with steel structural members.

### (m) 'Building Height' means:

- (i) In the case of flat roofs or hip type roofs, the vertical distance from the ground floor to the highest terrace level:
- (ii) In case of pitched roofs, the vertical distance from the ground floor upto the point where the external surface of the outer wall intersects the finished surface of the sloping roof;
- (iii) In case of multi-storeyed buildings constructed on a slope having multiple ground floor levels, the vertical distance between any ground floor level and the corresponding highest point of the building directly above it.
- (iv) Architectural features serving no other function except that of decoration shall be excluded for the

purpose of taking heights. The height of the building shall be taken up to the terrace level for the purpose of fire safety requirements.

- (n) **'Canopy'** means a cantilevered projection from the face of the wall over anentry to the building at the lintel or slab level provided that -
  - (i) it shall not project over the plot line
  - (ii) it shall not be lower than 2.3 meters or 7' 6" when measured from ground, and
  - (iii) there shall be no structure on it and the top shall remain open to the sky.
- (o) "Carpet Area" means the net usable floor area of an apartment, excluding the area covered by the external walls, areas under services shafts, exclusive balcony or verandah area and exclusive open terrace area, but includes the area covered by the internal partition walls of the apartment. Explanation. the expression "exclusive balcony or verandah area" means the area of the balcony or verandah, as the case may be, which is appurtenant to the net usable floor area of an apartment, meant for the exclusive use of the allottee; and "exclusive open terrace area" means the area of open terrace which is appurtenant to the net usable floor area of an apartment, meant for the exclusive use of the occupant;
- (p) 'Chajja' means a sloping or projection or horizontal structure overhangusually provided over openings on external walls to provide protection from sun and rain or from architectural consideration;
- (q) 'Coverage' means the quotient obtained in terms of percentageby dividing the plinth areas of ground floor by plot area, i.e.,

# Coverage = Plinth area x Plot area

- (r) 'Covered Area' means the ground area immediately above the plinth level covered by the building but does not include the space covered by
  - (i) garden, rockery, well and well structures, plant nursery, water pool, swimming pool (if uncovered), platform round tree, tank, fountain and bench;
  - (ii) drainage, culvert, conduit, catch-pit, gully-pit, chamber, gutter and the like, and
  - (iii) compound wall, gate, slide/swing door, canopy, and areas covered by chajja or similar projections and staircases which are uncovered and open at least on three sides and also open to the sky;
- (s) 'Development Plan' means the development plan as prepared as per the provisions of the Act as amended from time to time;
- (t) 'Demolition' means total dismantling of an existing building;
- (u) 'Drain' means a conduit or channel for the carriage of stormwater, sewage or other used water and includes all fittings and equipment, such as manhole, inspection chambers, traps, gullies and floor traps used for the drainage of a building. It also includes open channel used for conveying surface water;
- (v) 'Dwelling' means a building or a portion thereof which is designed or used wholly or principally for residential purposes for a family;
- (w) 'EVCI' means Electric Vehicle Charging Infrastructure;
- (x) **'Exit'** means a passage, channel or means of egress from any building or floor area to a street or open space;
- (y) **'Floor'** means the lower surface in a storey on which one generally walks in a building, and does not include a mezzanine floor. The floor at ground level or immediately above the ground level shall be called the 'ground floor' and the floor above it shall be termed as the 'first floor' with the next higher floor being termed as the 'second floor' and so on;
- (z) 'Floor Area Ratio' (F.A.R.) means the quotient obtained by dividing the total covered area (plinth area) of all floors by the area of a plot, i.e.,

F.A.R. = <u>Total covered area of all floors</u> Plot area

- (aa) 'Footing' means a foundation unit constructed in brick-work, stone masonry or concrete under the base of a wall or column for the purpose of distributing the load over a larger area;
- (bb) 'Foundation' means that part of the structure which is in direct contact with the ground and which transmits load over it;
- (cc) 'Garage' means a building or a portion thereof designed and used for the parking of vehicle for private use OR a building or portion thereof, designed other than as a private garage operated for gain, designed and/ or used for repairing, servicing, using, selling or storing or parking motor driven or other vehicles;
- (dd)'Ground Floor/ Level' means the level of the natural ground surface or the finished surface after leveling from where erection of the building starts;
- (ee) 'Group Housing' means a building unit constructed or to be constructed with one or more floors having more than two dwelling units having common service facilities where land is owned jointly (as in the case of co operative societies or the public agencies, such as local authorities or housing boards, etc.) and the construction is undertaken by one Agency;
- (ff) 'Habitable Room' means a room occupied or designed for occupancy by one or more persons for study, living, sleeping, eating, kitchen if it is used for a living room, but not including bathrooms, water closet compartment, laundries, corridors, cellars, attics and spaces that are not used frequently or during extended periods;
- (gg) 'Layout Plan' means a Plan indicating configuration and sizes of all Use Premises, Each Use Zone may have one or more than one Layout Plan depending upon the extensiveness of the area under the specific Use Zones and vice versa. A layout plan shall have at least two use premises (apart from Recreational, utilities and transportation) and a minimum area of 1 hectare;
- (hh) **'Ledge'** means a shelf-like projection, supported in any manner whatsoever, except by means of vertical supports within a room itself but not having projection wider than one meter;
- (ii) 'Licensed Structural Engineer/ Engineer/ Architect/ Town Planner/ Supervisor/ Group or Firm' means a qualified Structural Engineer etc., who has been given license or recognized by the Authority. An architect who is registered as an architect by the Council of Architecture under the Architects Act, 1972 (20 of 1972) may be deemed to be licensed by the Authority by virtue of his/ her registration with the Council of Architecture (OR) a Town Planner who is registered as an Associate Member or Fellow Member by the Institute of Town Planners India (ITPI) may be deemed to be licensed by the Authority by virtue of his/ her registration with the ITPI, provided he/ she enrolls himself/ herself with the Authority. (Please see ANNEXUREB License Fees For Technical Personnel);
- (jj) 'Lift' means a mechanically guided car, platform for transport of persons and materials between two or more levels in a vertical or substantially vertical direction;
- (kk) 'Loft' means an intermediate floor between two floors or a residual space in a pitched roof, above normal floor level with a maximum height of 1.5 meter and which is used for storage purposes;
- (ll) 'Master Plan' means the Master Plan formulated under the Act as amended from time to time, for any urban town/city/urban area, approved and notified by the State Government;
- (mm) 'Mezzanine Floor' means an intermediate floor between two floors above ground level;
- (nn)'National Building Code' means the National Building Code of India and as amended from time to time:
- (oo)(1) 'Occupancy' means the function or use of the building;
  - (2)
  - (a) **Residential A:** These include any building in which sleeping accommodation is provided for normal residential purposes not exceeding 150 sq.m floor areas.

- (b) **Residential B:** These include one or two or multi-family dwellings with residential accommodation exceeding 150 sq.m floor area.
- (c) **Special Residential:** These include all lodginghouses, dormitories, hostels and hotels with residential accommodation.
- (d) **Educational Buildings:** These include anybuilding or part thereof used for school, college, primary and nursery school, education or research purpose and recreation not covered under Institutional.
- (e) Mercantile (Commercial) Buildings: Theseinclude any building or part of the building which is used for display or sale of merchandise such as shops, stores, markets etc., either whole-sale or retail, banking and financial institutions, private business houses and professional establishments of doctors, dentists, tailors etc. beauty parlor, barber shops, new stands, milk booth, lunch counters and restaurants.
- (f) **Institutional (Medical) Buildings:** These include any building or part thereof, which is used for purposes such as medical or other treatment or care of persons suffering from physical or mental illness, diseases or infirmity. Buildings and structures under this use shall include hospitals, clinics, homes for the aged and infirm, convalescent homes and orphanages, mental hospitals etc.
- (g) **Government Buildings:** These include any buildingor part of a building which is used for the transaction of Government business, for records keeping, accounts and similar purposes. Local Government and Semi-Government offices, court houses, public utility buildings including slaughter houses, jails and prisons etc., will be covered by this use.
- a. **Assembly Buildings:** These include any buildingor part of a building where group of people (exceeding 100) congregate or gather for amusement, recreation, social, religious, patriotic, civil, travel and other purposes; for example, theatres, cinemas, assembly halls for educational, dramatic or theatrical presentation, auditorium, exhibition halls, art galleries, museums, libraries.
- b. **Industrial Buildings:** These include any buildingor part of building or structure in which products or materials of all kinds and properties are fabricated, assembled or processed e.g., workshops, assembly plants, laboratories, laundries, dairies, saw mills, power plants etc.
- c. Storage Buildings: These include any buildingor part thereof used primarily for the storage or shelter of goods, wares or merchandise and include buildings used as warehouse, cold storage, freight depot, transit shed, store house, public garage, hanger, truck terminal, grain elevator, barn and stables.
- d. **Hazardous Buildings:** These include anybuilding or part of a building which is used for the storage, handling, manufacture or processing of highly combustible, explosive, poisonous, irritant, toxic or noxious materials or products or materials producing dust.
- (pp) 'Owner' means a person or group of persons, a company, trust, institute, registered body, State or Central Government Departments and offices under them in whose name is vested the ownership dominion or title of the property and includes a receiver, executor or administrator, or a person who is legally empowered to construct or execute work on a building unit or structure or a manager appointed by any court of competent jurisdiction to have the charge of or to exercise the rights of the owner;
- (qq) 'Parapet' means a low wall or railing built along the edge of a floor or a roof;
- (rr) 'Parking Space' means an enclosed or unenclosed covered or open area sufficient in 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 vehicles;
- (ss) 'Party Wall' includes
  - (i) a wall forming part of a building and being used and constructed to be used in any part of the height or length of such wall for separation of adjoining buildings belonging to different owners or constructed or adopted to be occupied by different persons, and

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- (ii) a wall forming part of a building and standing in any part of the length of such wall, to a greater extent than the projection of the footing on one side or ground of different owners;
- (tt) **'Permission or Permit'** means a valid permission or authorization in writing by the Authority or any person authorized by it in this behalf to carry out development or work regulated by these regulation;
- (uu) 'Plinth' means the portion of a structure between the level of the ground and the floor immediately above the ground;
- (vv) 'Plinth Area' means the built-up covered area measured at the floor level of the ground floor or of any storey;
- (ww) 'Plot or Site' means a parcel or piece of land enclosed by definite boundaries;
- (xx) 'Professional' means a Competent Professional who is brought on record to represent his/ her client for a construction project, to act on their behalf regarding building permits and process of construction. He/ she may be registered with the Authority for the cause.
- (yy) 'Road/Street' means any highway, street, land, pathway, alley, stairway, passageway, carriageway, footway, square, place or bridge, whether a thorough-fare or over which the public have rite of passage or access or have passed and have access uninterruptedly for a specified period, whether existing or proposed in any scheme and includes all bends, channels, ditches, storm water drains, culverts, sidewalks, traffic islands, roadside trees and hedges, retaining walls, fences, barriers and railings within the street lines;
- (zz) 'Sanctioned Plan' means a set of plans and specifications submitted under these regulation in connection with a building and duly approved and sanctioned by the Authority;
- (aaa) **'Set Back'** means the open space from the proposed building to the plot boundaries beyond which nothing can be constructed towards the boundaries;
- (bbb) **'Site Plan'** means a detailed plan showing the proposed placement of structures, parking areas, open space, landscaping, and other development features, on a parcel of land, as required by specific sections of the development code
- (ccc) **'Spiral Staircase'** means a staircase having treads forming continuous winding curve round a central point or axis provided in the open/covered/semi-covered space;
  - (a) Stair cover or Mumty means a structure with a 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.
- (ddd) **'Storey'** means the portion of building included between the surface of any floor and the surface of the floor next above it, or if there be no floor above it, then the space between any floor and the ceiling next above it.
- (eee) 'Total Floor Area' means the area of all floors of a building including habitable rooms, attic, basement and mezzanine floor;
- (fff) 'Travel Distance' means the distance an occupant has to travel to reach the exit from the remotest point;
- (ggg) **'Unauthorized Construction'** means the erection or re-erection, addition or alteration which is not approved or sanctioned by the Authority;
- (hhh) 'Verandah' means a covered/semi-covered/open area with at least one side open to the outside and the floor of which is resting on the ground;
- (iii) 'Zonal Plan' means a plan detailing out the proposals of the Master Plan and acting as a link between the 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;

(jjj) Words and expressions used herein and not defined but defined in the Act will have the same meaning specified therein.

### 7. APPLICATION FOR BUILDING/ DEMOLITION PERMISSION

- (1) Every person, including Central and State Government Departments and Semi-Government Departments/ Organizations excluding the Defense Ministry, who intends to erect, re-erect or make material/ structural alterations (except internal alterations which do not affect the safety of the building) shall obtain a building permit by giving an application to the Authority in the prescribed form given in ANNEXURE C to be purchased from the office of the Authority. The application shall be accompanied by the prescribed fees and three copies each of the documents mentioned regulation 8 below. One copy each of these documents shall be returned to the applicant after issue of permission or refusal.
- (2) In the case of proposal for demolition of any building, application may be submitted to the Authority as provided in ANNEXURE Calong with No Objection Certificate (NOC) from the Local Or Village Council, within whose jurisdiction the building is situated and other relevant information.

Provided that in case of emergency when a building is required to be immediately demolished or dismantled due to landslide etc., the Local Council/ Village Council concerned may give permission for demolition of the building with an intimation to the Authority.

Provided further that no permission for demolition of a building shall be necessary in case of ordinary buildings except those situated along the motor-able (black top) road.

- (3) In regard to vertical extension of a building, for erection/ construction of mumty, overhead water tank, greenhouse or other building services within the prescribed setbacks, no permission is required if the height of the proposed erection/ construction is up to a maximum of 3 meters. For any vertical extension other than the conditions stated above, application may be made as prescribed.
- (4) In case of Horizontal extension of a building that involves erection of new column within the prescribed setback,, an application shall be made as provided in ANNEXURE C enclosing NOCfrom the concerned Local Council/ Village Council and an attested copy of land lease;

Provided that, any horizontal extension such as cantilever shall not be permitted unless it is within the prescribed setback.

Provided further that, if the proposed extension is likely to affect the structural safety of the building, the Authority shall have the power to require submission of application for building permission in the usual/prescribed manner or demand a certificate of structural safety.

# 8. INFORMATION ACCOMPANYING APPLICATION FOR BUILDING PERMISSION

- (1) In the case of **ordinary building**, the following information shall accompany the application for building permission:
  - (a) ownership title;
  - (b) NOC from the concerned Chairman Local Council/ Chairman Village Council;
  - (c) a certificate of structural soundness of the existing building in case of proposed addition as provided in ANNEXURE D;
  - (d) receipt of Latest Property Tax paid. (if required);
  - (e) receipt of Latest Revenue Tax paid;
  - (f) building application as provided in ANNEXURE C.
- (2) In the case of **semi-permanent building**, the following information shall accompany application for building permission:
  - (a) ownership title;
  - (b) NOC from the concerned Chairman Local Council/ Chairman Village Council;

- (c) building plan and undertaking of structural safety prepared by Authority and Technical License Holder registered under the Authority;
- (d) a certificate of structural soundness of existing building in case of proposed addition;
- (e) receipt of latest property tax paid. (if required);
- (f) receipt of latest revenue tax paid;
- (g) building application as provided in ANNEXURE C.
- (3) In the case of **permanent building**, the following information shall accompany the application for building permission:
  - (a) site plan;
  - (b) ownership title;
  - (c) building plans;
  - (d) NOC from the concerned Chairman Local Council/ Chairman Village Council;
  - (e) structural drawing, and specifications;
  - (f) a certificate of structural soundness of the existing building in case of proposed addition;
  - (g) receipt of latest property tax paid. (if required);
  - (h) receipt of latest revenue tax paid;
  - (i) NOC shall be obtained from the Local Fire Station for building above 15m;
  - (j) latest revenue tax receipt/ tax clearance;
  - (k) structural drawing with certification as in ANNEXURE D;
  - (l) building application as provided in ANNEXURE C:
- (4) In case of change of name (permit holder), the following documents shall be required Application as provided in ANNEXURE C, NOC from previous permit holder countersigned by Chairman Local Council/ Chairman Village Council, copies of Revised LSC (2 nos.)
- (5) In the case of building up to G+2 or 10 meters in height, (v) and (vi) above shall not be necessary if an undertaking of structural safety by Design Cell, Authority or by a competent technical person registered under Authority is enclosed with the application.
- (6) If the applicant and the Ownership Title holder is not same, then NOC from the Ownership Title holder in the form of Affidavit under Notary Registration shall be enclosed. In case, if the Ownership Title holder is a deceased then Heirship Certificate shall be enclosed.
- (7) If a Local Council/ Village Council refuse to issue No Objection Certificate (NOC) to any person for building construction as indicated in regulations 7, and if such person is aggrieved by such refusal, he may approach the Authority by submitting an application on plain paper. On receipt of such application, the Authority shall ascertain from the concerned Local Council/ Village Council the reason or reasons for refusing the No Objection Certificate (NOC) and make necessary investigation. Thereafter, the Authority shall take decision as to whether or not construction of building is permissible.
- (8) Site Plan shall be drawn to scales as shown below:

Sl. No.	Size of Plot (in sq.m)	Scale	
1	Up to 150	1:50, 1:75, 1:100	
2	From 151 to 250	1:100, 1:150, 1:200	
3	From 251 to 500	1:200, 1:250, 1:300	
4	Above 500	1:300, 1:350, 1:400, 1:500	

and shall show: -

- (i) boundaries of plot with dimensions;
- (ii) position of the plot in relation to the neighboring streets;
- (iii) position of the proposed building in relation to north direction of the site;

- (iv) plot area, coverage and F.A.R;
- (v) sewerage and surface drains, position and sizes of septic tank and soak pit;
- (vi) setbacks of the building;
- (vii) all existing structures on the plot with dimensions, and
- (viii) proposed building area with dimensions;
- (ix) any other particular as may be prescribed by the Authority;
- (9) **Building plans** accompanying the application shall be drawnto a scale of 1:50, 1:75, 1:100, 1:125 or 1:150. In case of exceptionally large buildings, a key plan to a scale of 1:200 shall also accompany the drawings. The **Building Plans** shall:
  - (i) include floor plans of all floors indicating the use of each floor of the building;
  - (ii) indicate height of the building and parapet;
  - (iii) give dimensions of the projected portions;
  - (iv) include a roof plan indicating drainage and roof slope in case of building proposal having pitch roof(s);
  - (v) specify the total floor area of the building;
  - (vi) include one elevation and sectional elevation in longitudinal directions indicating staircases, fire escape, lift well etc., and ground profile;
  - (vii) provide for parking space, where necessary;
  - (viii) include site development and permanent structures like retaining wall, surface drain, approach road, steps etc., pertaining to the building, and
  - (ix) include provision for a suitable rain water harvesting facility.
- (10) **Specifications:** General specifications shall indicate thetypes and grades of materials to be used.
- (11) **Structural Drawings:** The structural drawings shall be prepared by a competent engineer/structural engineer as per the relevant provisions of the Indian Standard Code of Practice as given in ANNEXURE L.
- (12) **Ownership Title**: An attested copy of land settlementcertificate (LSC) or house pass or sale/lease deed shall also accompany the application.
- (13) **Color Code**: The plans accompanying the applications shall have the color scheme as specified in the Table given below and such color scheme shall be indicated it in the legend of the plan.

Coloring Notation for Building Work			
Sl. No.	No. Item Notational Coloring		
1	Plot lines	Thick black continuous line	
2	Proposed Work	Red continuous lines	
3	(a) Existing Work (to be demolished)	Green dash-dot line	
	(b) Existing Work (to be retained)	Green continuous line	
4	Drainage & Sewerage Work	Blue continuous line	

(14) **Planning, Designing and Supervision of Building Works and signing of plans:** - Every building work for whichpermission is sought under these regulation, except building works relating to ordinary buildings, shall be planned, designed and supervised by licensed/ registered technical personnel. All plans and drawing shall be duly signed by the applicant and by the licensed/ registered technical person who has planned and designed the same.

The technical person/ group/ firm who sign the plans and drawings shall be responsible for supervision of the work till its completion and shall submit an undertaking as per ANNEXURE H.

- (15) **Qualifications and Competence of Technical Personnel:** -The qualifications and competence of the technical personnel and license fees shall be as given in ANNEXURE A.
- (16) A fine ranging from rupees one thousand up to rupees ten thousand may be imposed on a technical person and/ or suspension/ cancellation of his/ her technical license or both by any person authorized by the Authority on this behalf for any of the following reasons:
  - (a) failure to supervise construction of a building in respect of which he signs the plans and drawings;
  - (b) failure to give completion certificate in the form as prescribed under regulation 19read with ANNEXURE J;
  - (c) failure to report deviation from the sanctioned plan as required under regulation 16;
  - (d) failure to give commencement certificate in the form as prescribed under regulation 15read with ANNEXURE I:
  - (e) preparation, on more than two occasions, of plans and drawings of a project which are not in conformity with the requirements of the regulation, and
  - (f) failure to comply with any of the Duties & Responsibilities of Technical persons as stated in ANNEXURE K.
  - (g) such action/ inaction may be punishable by suspension of cancellation or a fine punishable as decided by the Authority of the said technical license:

Provided that no fine shall be imposed nor suspension/ cancellation technical license shall be made without giving the concerned person a reasonable opportunity of being heard.

(17) Every technical person, including a Group or Firm except Architects registered under Council of Architecture (COA) or Town Planner registered under Institute of Town Planners India (ITPI), shall make a security deposit with the Authority as follows:

(a) Group/Firm - Rs. 30,000.00
(b) Structural Engineer - Rs. 15,000.00
(c) Engineer - Rs. 10,000.00
(d) Town Planner - Rs. 10,000.00
(e) Supervisor - Rs. 5,000.00

However, any of the enlisted Architects under the Authority found to contravene regulation 8(16) of this regulationshall be informed to the Council of Architecture (COA) for cancellation/ suspension of his/her registration.

Technical person or Group/ Firm from outside the State of Mizoram/ Non-Tribal shall possess valid Inner Line Permit (ILP) with at least 2 years validity and other necessary documents which include valid registration under the Authority, work permit from the concerned Department etc. in order to provide professional expertise within the urban area. In addition, Technical person or Group/ Firm from outside the State of Mizoram/ Non-Tribal shall pay the double of the entire License fee and security.

The security deposit, or the balance thereof after deduction of fine, if any, shall be reimbursed to the technical person concerned at the expiry of his/her license/ registration.

(18) **Duties and responsibilities of technical personnel and applicant/ owner:** - The duties and responsibilities oftechnical personnel and the applicant/ owner shall be as in ANNEXURE K.

### 9. SUBMISSION OF APPLICATION AND PAYMENT OF FEES

(1) Application in the prescribed form and complete in all respects shall be submitted to the office of the Authority. If the application is found to be in order and complete in all respects, the amount of fee payable shall be calculated under regulation23 of the regulation and the same shall be paid to the Authority by the applicant for which two copies of receipt shall be issued. The applicant shall enclose

the duplicate copy of the receipt with his application which is to be submitted to the Authority. If the application is found to be not in order, the same shall be returned to the applicant.

(2) Application for building permit shall be made by the owner of the plot on which the building is proposed in the format prescribed in ANNEXURE C. Drawings, specifications and documents to be submitted along with the application for obtaining a building permit shall be as per these regulation if not specified by the Competent Authority.

### 10. GRANT OR REFUSAL OF BUILDING PERMISSION

(1) The Authority may grant permission or may grant permission after modification(s), based on conformity or otherwise with these regulation and shall communicate its decision to the applicant. Grant of permission shall be communicated to the applicant in the prescribed form given in ANNEXURE E. A copy thereof shall be endorsed to the concerned Local Council and the concerned technical person:

Provided that if, within 30 days of receipt of the application complete in all respects along with a duplicate copy of receipt for payment of the prescribed fee, the Authority fails to intimate to the applicant its refusal or sanction or any intimation, the application with its plans and specifications shall be deemed to have been sanctioned provided the fact is brought to the notice of the Authority in writing by the applicant within seven days.

(2) Refusal of Building Permission: If permission is to be refused, the applicant shall be given an opportunity to show-cause why permission as sought for should not be refused in the form prescribed in ANNEXURE F. A copy thereof shall be endorsed to the concerned Local Council/ Village Council and the concerned Technical Person:

Provided that if the applicant did not comply with the show cause notice given within a specific period. The application shall be refused in the form prescribed in ANNEXURE G.

(3) Permission may be refused or granted with conditions in high security zones as declared by the State Government/ Local Authority from time to time.

*Provided that this sub – section shall not apply to private land declared as high security by the State Government zone.* 

- (4) The above provision of deemed sanction shall be applicable only in those cases where construction is to be carried on plot forming part of an approved layout plan of the Authority.
- (5) No Application shall be valid unless the information required by the Authority under these Regulation or any further information which may be required has been furnished to the satisfaction of the Authority.
- (6) The Owner/ Technical Person shall be fully responsible for any violation of Master Plan/Development Plan/Zonal Plan/ Building Regulation, architectural controls, lease deed conditions etc. In case of any default they shall be liable for action. Any construction so raised shall be deemed to be unauthorized and shall be liable for action.

### 11. DURATION OF VALIDITY OF BUILDING PERMISSION

- (1) The building permission once accorded shall remain valid up to THREE years
- (2) Extension of permit may be extended subject to the approval of the Sanctioning Authority
- (3) The following information shall accompany the application for renewal of the building permit
  - (a) House pass / LSC
  - (b) Building plan (Drawing)
  - (c) Specifications
  - (d) Scanned copy of Existing Permit
  - (e) Receipt of the old building fees paid earlier

(4) Fees for extension every year, which may be a period of up to one year shall be one-fourth of the original fees paid earlier. The renewal fees submitted after the permit period prescribed shall be accompanied by a late fee of Rs 10/- for every day of delay.

### 12. WITHDRAWAL OF APPLICATION

The applicant may withdraw his application at any time prior to sanction, and such withdrawal shall terminate all proceedings with respect to such application, but the fees paid shall not be refunded.

### 13. CANCELLATION OF PERMIT

If, at any time after the issuance of the permit, if the Authority is satisfied that such permit was granted in consequence of any material misrepresentation or fraudulent statement contained in the application given or information furnished, the Authority has the right to cancel the permit and any work done or rendered shall be deemed to have been done without permission.

#### 14. SUSPENSION OF PERMIT

Building permit granted under these Regulation shall be deemed to be suspended in case of resignation by the technical person who supervises the building work till new technical person is engaged and the Authority is informed of such engagement by the permit holder. Any work done during the period of suspension shall be treated as unauthorized construction.

### 15. NOTICE FOR COMMENCEMENT OF BUILDING WORK

Before the commencement of the work the owner shall give notice to the Authority in the prescribed proforma given in ANNEXURE I indicating the date on which he proposes to commence the work and the Authority shall inspect the work within fourteen days from the date on which the work is to commence as indicated in the proforma.

### 16. DEVIATION DURING BUILDING CONSTRUCTION

- (1) Changes or revisions in the sanctioned design and specification of a building may be made provided that a Revised Building Permit is obtained before construction is undertaken on the portion of the building that deviates from the sanctioned plan. The changes shall be not more than 10% of built up area for consideration as Revised Building Permit, for changes above 10%, a new application shall be made.
- (2) For any deviation from the sanctioned plan during any stage of construction, permission of the Authority shall be obtained by the person who has obtained permission for building construction and if the construction is not according to the approved plan; action shall be taken as per the provisions of the Act. Any deviation from the sanctioned plan shall be immediately reported to the Authority by the technical person who supervises the work of building construction.

### 17. INSPECTION

The Authority shall carry out inspection of the construction works, from the receipt of commencement of work to the receipt of completion certificate, at various stages of construction to ascertain whether the work is proceeding as per the provisions of these Regulations and the sanctioned plan.

### 18. RESPONSIBILITIES AND POWERS OF LOCAL COUNCILS/ VILLAGE COUNCILS

It shall be the responsibility of the concerned Local Council/ Village Council to ensure general compliance with the provisions of these Regulations by everybody in its jurisdiction. In particular, the Local Council/

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Village Council shall ensure that no person constructs a house or modifies or alters it without obtaining permission from the Authority and that the requirements of setbacks for front, sides and rear of a building are strictly observed. The concerned Local Council/ Village Council is, by virtue of this provision, empowered to give a stay of construction of a building for any violation of the provisions of these Regulation or the Master Plan/ Zonal Development Plan or violation of the conditions of the building permission. If a stay is given by the Local Council/ Village Council, a copy of the stay order shall immediately be forwarded to the Authority which may confirm or cancel the stay after necessary enquiry and verification.

### 19. COMPLETION CERTIFICATE

On completion of the building, the owner through the licensed engineer, registered architect etc., who has supervised the construction, shall give completion certificate to the Authority in the form as given in ANNEXURE J.

### 20. OFFENCES AND PENALTIES

Contravention of any of these regulations shall be dealt with as per the provisions of section 34 of the Act.

### 21. UNSAFE BUILDING/ STRUCTURE

Any building/ structure reported to be unsafe or damaged shall be examined by a technical committee to be constituted by the Authority which shall make a written record of its finding and recommendations. The Authority shall, after taking the recommendations of the committee into consideration, give necessary direction to the owner or occupier to complete repairs as may be specified or to demolish the building within specified time and shall be dealt with as per the provision of section 60 through 60 of the Act.

Provided that the Authority shall have the power to get any building which has been declared as unsafe evacuated at any time with the help of police, if necessary.

### 22. ARCHITECTURAL CONTROL

Any proposal for construction of a building in an important area within the urban area or of an important monumental building or of a building in the proximity of an area or building of historical importance may be referred to a committee to be formed by the Authority. The Authority may, after taking the recommendations of the committee into consideration, give necessary direction which shall be complied with by the person who proposes to construct such building.

### 23. FEES FOR SCRUTINY OF BUILDING PERMISSION

- (1) Fees payable for scrutiny of application for building permission shall be determined by the respective local authority and approved by the Government.
- (2) Generally, fees shall be charged in two slabs one for the first storey (at the level where the construction commences) and thereafter for every subsequent storey built atop the same. Local authorities may further classify the charges payable on the basis of the ground area as below:
  - (a) For up to 100 sq.m
  - (b) more than 100 sq.m but not exceeding 250 sq.m
  - (c) more than 500 sq.m but not exceeding 1000 sq.m
  - (d) more than 1000 sq.m
- (3) Local Authorities may add further sub-categories based upon local conditions and apply them with the approval of the Government.

Provided that,

- (i) For the purpose of calculation of fees, ground area shall mean the area of the portion which is proposed to be built upon including the internal courtyard.
- (ii) For purposes of the above table, the basement, where provided, will be regarded as the first storey, the ground floor over the basement as the second storey and so on.
- (iii) In case an application is rejected 5% of the fee due shall be retained and the balance shall be refunded to the applicant under the orders of Secretary of the Authority.

# CHAPTER 2 BUILDING REQUIREMENTS

### 24. REQUIREMENTS OF SITES

Any piece of land can be used as a site for construction provided –

- (a) the proposed use conforms to the Master Plan and Zonal Development Plan prepared under the Act;
- (b) the site is properly drained or capable of being drained;
- (c) the site is accessible by any means of passage, whether private or public, for vehicles or for pedestrians and includes any street, and
- (d) the site is not an active hazard-prone area such as landslide, subsidence, mass movement, etc.

### 25. SET BACKS AND OPEN SPACES

(a) The following setbacks and open spaces are mentioned below

Diet size (e.g. m)	Minimum Permissible Set Back (meter)			
Plot size (sq.m)	Front	Side 1	Side 2	Rear
Up to 50 sq.m	1.50	0.60	0.60	Should not be less than 0.60
50 to 150 sq.m	1.50	0.90	0.90	Should not be less than 0.90
150 to 300 sq.m	1.50	1.20	1.20	Should not be less than 1.20
300 sq.m to 500sq.m	1.50	1.50	1.50	Should not be less than 1.50
500 to 1000sq.m	1.50	2.50	2.50	Should not be less than 2.50
Above 1000sq.m	1.50	3	3	Should not be less than 2.50

- (b) In case where the site fronts two or more streets, the frontage would be on the street having the longer or longest width. In cases where the streets are of the same width, then the longer/ longest side of the plot will decide the frontage and open spaces.
- (c) The minimum distance between any two or more buildings within one plot shall be 2.4 m if one of the buildings or both the buildings is/are multi-storied; otherwise, it shall be 1.2 m provided that in the former case where the buildings are not parallel, the average of the prescribe distance may be acceptable with a minimum distance of 1.2 m.
- (d) In respect of a plot situated along an existing row of commercial buildings, setbacks may be decided on merit of individual case after taking the recommendation of the Committee.
- (e) For vertical extension/ addition of an existing building wherein any further lateral development is restricted by the Regulation, the existing structural columns and non-cantilevered beams lying in the specified side and rear setbacks may be allowed to continue in the vertical extension/ addition. No other structure except structural columns and non-cantilevered beams, floor slabs and safety measures such as railings shall be allowed within the prescribed set back area or side set back area.
- (f) In cases where the building plinth is higher than the road level, construction of a ramp may be permitted. Provided in case of need for provision of stepsonly recessed steps may be permitted. In addition, building services such as underground water tanks, septic tank, soak pit, inspection chamber, etc. may be allowed within the prescribed set back areas, provided that such structures remain flushed

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- with the adjoining ground/ slope.
- (g) Chajjas, sunshades and rain gutters may be allowed to project up to 0.45m (1½ ft.) within the prescribed setback area, provided that there is a minimum of 1.2 m wide setback on the respective side.
- (h) In case of plots less than 93 sq.m and not having a vehicular approach or not abutting a vehicular road, the prescribed setbacks may be decided in consultation with the concerned Local Council/ Village Council and on submission of a NOC from the adjacent neighboring land owner(s), whereby all other requirements of the Regulation with respect to structural safety, building services, lighting and ventilation, etc. are ensured.
- (i) In cases where the building plinth is higher than the road level, construction of a ramp may be permitted. However, steps built beyond the building setback are strictly prohibited; only recessed stairs may be permitted.
- (j) If, in the interest of the public, it becomes necessary to prescribe or alter any provision of this Regulation taking into consideration the Master Plan/Zonal/Ward Development Plan or any kind of development plan prepared under the Act or as amended from time to time, the size of the plot, the area in which the building is situated, the height of the building or any other relevant factor, the Authority shall have the power to do so and the reason or reasons thereof shall be communicated to the applicant in writing.

#### 26. MINIMUM PLOT SIZES

- (a) For residential: The minimum plot size shall be 93sq.m, with a minimum width of 8m.
- (b) **For commercial:** The minimum plot size shall be 50sq.m, with a minimum width of 6m.
- (c) For service, small-scale and cottage industries: -The minimum size of plot shall not be less than 50 sq.m. For automobile workshop, the minimum plot size shall be 300 sq.m.
- (d) For medium industry: The minimum size of plot shallbe 1800 sq.m.
- (e) For auditorium, museum and library: The minimum sizeof plot shall be 800 sq.m.
- (f) For LIG / EWS Housing: The minimum plot size shallbe 46.45 sq.m per unit. Further, the FAR may be relaxed on the merit of each case.
- (g) For plots less than 46.45 sq.m, construction shall be allowed for only public utilities and services such as garage, waiting shed, public toilets, etc. in consultation with the concerned Local Council/ Village

Explanation: For the purpose of this regulation, 'service industry' means an industry which is mainly small scale and is concerned with repair, maintenance, servicing, etc. and not employing more than 25 persons and not using power of more than 10 horse power (HP) (7.5 KW).

### 27. DISTANCE FROM ELECTRICITY LINES

No roof of a building shall be made, and no verandah, balcony or the like shall be allowed to be erected or re-erected or new addition or alteration made to a building within the distance quoted below in accordance with the Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2010:-

Sl. No.	Voltago I aval	Distance between Line and Building		
SI. NO.	Voltage Level	Vertical	Horizontal	
1	Upto 650 V	2.5 m	1.2 m	
2	Exceeding 650V upto and including 33 kV	3.7 m	1.2 m (for 11 kV line) 2.0m(for 33kV line)	
3	Exceeding 33kV	3.7m (plus 0.3m for every additional 33kV or part thereof)	2.0 m (plus 0.3m for every additional 33kV or part thereof)	

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# 28. MINIMUM OFF-STREET PARKING SPACE The off-street parkingspace shall be as shown below:

Sl. No.	Type of Occupancy	One parking space for every	Remarks
	Residential		
	Residential - Plotted	2 ECS in plot size of 250-300sqm	
1		1 ECS/100 sqm of built-up area for plot size exceeding 300 sqm.	
	Residential - Group	2 ECS/100sqm built up area	
	Cluster Court Housing	2 ECS/100sqm built up area	
	Guest House/Lodging & Boarding House/ Dharamshala	2 ECS/100sqm built up area	
	Commercial Centres		
	Convenience Shopping Centre/Local Shopping Centre / Local Level Commercial areas	2ECS/100sqm of floor area	
	Service Market	2ECS/100sqm of floor area	
2	Commercial Centre/Non-Hierarchical Commercial Centre	3ECS/100sqm of floor area	
	District Centre/ Sub-Central Business District	2ECS/100sqm of floor area	
	Service Apartment	3ECS/100sqm of floor area	
	Any other commercial centre including commercial component along with Railway/MRTS and ISBT	3ECS/100sqm of floor area	
	Socio-Cultural Facilities	•	
	Community Hall	3 ECS/100sqm of floor area	
	Science Centre	2 ECS/100sqm of floor area	
	Convention centre	2 ECS/100sqm of floor area	
3	Auditorium/Music, Dance &Drama centre/meditation, spiritual centre	2 ECS/100sqm of floor area	
	Old Age Home / Care Centre for Physically / Mentally challenged / Working women / men hostel /Adult Education Centre / Orphanage / Children's Centre / Night Shelter	1.8ECS/100sqm of floor area	
	Sport facility such as Stadium or Sport Centre	2ECS/100sqm of floor area	
	Public-Semi Public		
	Govt. or Semi – Public	1.8ECS/100sqm of floor area	
4	Recreational Park	3 ECS/100sqm of floor area	
	Hospitals	2 ECS/100sqm of floor area	
	Veterinary Hospital	1.33 ECS/100sqm of floor area	

	Veterinary Dispensary	1.33 ECS/100sqm of floor area	
	Nursing and Paramedic institute	2 ECS/100sqm of floor area	
	Medical College	As per Regulatory Body	
5	Industrial	2 ECS/100sqm of floor area	
6	Storage	2 ECS/100sqm of floor area	
7	Mixed Land Use	2 ECS/100sqm of floor area	

Provided that depending on occupancy requirements, the Authority shall have powers to insist upon provisions for parking of medium and heavy vehicles in addition to the scales prescribed above.

# 29. REQUIREMENTS OF PARTS OF BUILDING

(1) **Size and Area requirements:** The sizes and areas of someparts of a building may be as follows:

Sl. No	Parts of building	Minimum width	Minimum Floor Area	Minimum Floor Height
1	Habitable room	2.4 m	7.5 sq.m	2.4 m
2	Kitchen	1.8 m	5.0 sq.m	2.4 m
3	(a) Bathroom (single)	1.2 m	1.8 sq.m	2.2 m
	(b) Combined bath & Water Closet	1.2 m	2.8 sq.m	2.2 m
	(c) Water Closet	0.9 m	1.1 sq.m	2.2 m
4	Mezzanine floor	Maximum coverage of 33.3% of Plinth area of the building	9.5 sq. m	2.2 m
5	Loft	Maximum coverage of 26% of room size	-	1.5 m
6	Ledge	Maximum coverage of 25% of room size	-	2.2 m
7	D. 1 C		(a) Residential 2.5 m X 4.5 m	2.4 m
/	Parking Space	-	(b) Others 2.5 m X 5.0 m	2.4 m
8	Parapet		-	1.0 m
9	Staircase	Maximum height of Riser: 20 cm (8")	Width of tread: 25.4 cm (10")	2.2m below landing of a staircase

Provided that other than those mention above, the requirement of parts of buildings may be regulated as per the provisions of the National Building Code of India as amended from time to time.

- (2) Other requirements of Parts of Building:
  - (a) Plinth: The plinth of any part of a building may be raised above ground level or road level so that adequate drainage of site is assured. This may preferably be not less than 0.45 meter. Every interior court-yard or garage may be raised by a minimum of 0.15 meter above ground level and may be satisfactorily drained.

(b) Roofs: The roofs shall be so constructed to permiteffective drainage of the rain water thereof by means of rain gutters and closed conduits of suitable material and adequate capacity, joined and fixed so as to ensure that rain water is properly discharged at ground level by pipe and dampness does not occur in any part of the walls or foundations of the buildings or those of adjacent buildings, and no spout should be allowed to drain into the road or public area or within the adjacent compound or building. For buildings with RCC roofing, water proofing material shall be used at the roof level.

Any incomplete floor or completed flat roof which is accessible shall be provided with safety measures such as fencing or parapet.

#### 30. PROVISION OF LIFT

Provision of lifts shall be made for special residential, mercantile, and institutional and government or semipublic buildings having four floors or more, with only a single point entry floor. In counting the number of floors for provision of lift, a floor which has a separate and independent entrance shall not be counted.

# 31. EXITS AND MEANS OF ACCESS

An exit may be a doorway, corridor, passage-way to an internal staircase or external or to a verandah or roof or terrace having access to a street. Lift and escalator shall not be considered as exits.

- (a) Every building meant for human occupancy shall be provided with exits sufficient to permit safe escape of the occupants in case of fire or other emergencies.
- (b) Exits shall be arranged so as to provide continuous means of access to the exterior of a building or an exterior open space leading to a street, without passing through any occupied unit.
- (c) Exits shall be so located that the travel distance on the floor shall not exceed 22 meters in the case of residential and public buildings and 30 meters in the case of commercial, industrial and other types of occupancy.
- (d) The width of any exit shall be not less than 90 cm.

# 32. OTHER REQUIREMENTS OF EXITS

(1) **Doorways:** The minimum width of an exit doorway shall notbe less than 90 cm. and the minimum height shall not be less than 195 cm.

### (2) Stairways:

- (a) The minimum width of an internal staircase shall be 120 cm. except in the case of residential dwellings where the minimum width shall be 100 cm.
- (b) In the case of residential buildings, the minimum width of treads without nosing shall be 25.4 cm for an internal staircase. In case of other buildings, the tread shall be 30 cm.
- (c) The maximum height of riser shall be 20 cm.
- (d) Handrail shall be provided with a minimum height of 90 cm. from the center of the tread.
- (3) **Fire escape or external stairs:** In any buildings, the fire escape placements shall be dictated by the travelling distance, the maximum of which should not be more than 22 meters.

# (4) Fire escapes shall be regulated as under:

- (a) All fire escapes shall be directly connected to the ground.
- (b) Entrance to fire escapes shall be separated and remote from internal staircase.
- (c) The route to fire escapes shall be free of obstructions at all times, except a doorway leading to the fire escape which shall have the required fire resistance.
- (d) Fire escapes shall be constructed of non-combustible materials.
- (e) It shall have straight flight not less than 75 cm wide with 25 cm tread and riser not more than 19

cm. The number of risers shall be limited to 15 per flight.

- (f) The height of hand rails shall not be less than 100 cm.
- (5) **Spiral Stairs (Fire Escape):** The use of spiral staircase shallbe limited to low occupant load and to buildings of the height of 9 meters unless it is connected to platform such as balconies and terraces.
- (6) Ramps: Ramps shall be provided within or as an appendageto a building if required by the function of the building. In general, ramps shall have a minimum width of 1.5 meter and a maximum slope of 1 vertical: 10 horizontal. In special cases, steeper slopes may be allowed but in no case greater than 1: 6. In case of hospitals, the minimum width shall be 2.2 meter. The ramps shall be finished with non-slip surface and handrails with a minimum height of 90 cm. shall be provided on the free edges. Level platforms of at least 1.8 meter x 1.8 meter size shall be provided at every turn and at intervals of at least 9.5 meter for the purpose of rest and safety. Each ramp shall have at least 1.8 meter x 1.8 meter size platform at the top and bottom.

# CHAPTER 3 STRUCTURAL SAFETY AND SERVICES

### 33. STRUCTURAL DESIGN:

- (1) The structural design of foundations, masonry, timber, plain concrete, reinforced concrete, pre-stressed concrete and structural steel shall be carried out in accordance with Part VI Structural Design, Section 1-Loads, Section 2- Foundation, Section 3-Wood, Section 4-Masonry, Section 5-Concrete, Section 6-Steel of the National Building Code of India as amended from time to timetaking into consideration the Indian Standards as given in ANNEXUREL.
- (2) In compliance of the design with the above Indian Standard, The Structural Engineer on Record will submit a structural design basis report in the format given in ANNEXUREP covering the essential safety requirements specified in the Standard.

### (3) Seismic Strengthening/ Retrofitting:

Prior to seismic strengthening/ retrofitting of any existing structure, evaluation of the existing structure as regards to vulnerability in the specified wind/ seismic hazard zone shall be carried out by a Registered Structural Engineer/ Registered Structural Design Agency. If as per the evaluation of the Registered Structural Engineer/ Registered Structural Design Agency, the seismic resistance is assessed to be less than the specified minimum seismic resistance as given in the note below, action will be initiated to carry out the upgrading of the seismic resistance of the building as per the applicable standard guidelines.

Note: for masonry buildings reference is to be made to IS:4326 and IS:13935 and for concrete buildings and structures reference is to be made to BIS Code on evaluation and seismic strengthening for retrofitting of RCC buildings under preparation at present.

### (4) Review of Structural Design:

- (a) The Authority shall create a Structural Design Review Panel (SDRP) consisting of Senior Structural Design Engineers on Record and Structural Design Agencies on Record, whose task will be to review and certify the design prepared by Structural Engineer on Record (SER) or Structural Design Agency on Record (SDAR) whenever referred by the competent authority.
- (b) The Reviewing Agency shall submit addendum to the certificate or a new certificate in case of subsequent changes in structural design.
- (c) The following table gives requirements of SDRP for structures of different complexities. Table: Proof checking requirements for structural design

Sl. No.	Type of structure	Submission from SER to SDAR	To be Proof- Checked
1	High rise building, building above 200 M plinth area and	Structural Design Basis Report (SDBR)	To be checked
	more than G+3 (RCC/ Steel	Preliminary design	To be checked
	frame structure)	Structural design/ drawings	To be checked
2	Public buildings with more	SDBR	To be checked
	than 1000 M plinth area, G+3	Preliminary design	To be checked
	and above	Structural design/ drawings	To be checked
3	(i) Special Structures	SDBR	To be checked
	(ii) Special Buildings	Preliminary design	To be checked
		Structural design/ drawings	To be checked

#### Notes:

- Public building means assembly of large number of people including schools, hospitals, courts etc.
- Special structure means large span structures such as stadium, assembly halls, or tall structures such as water tanks, TV tower, chimney etc. and the requirement by the Authority for third party verification will depend on the type of structure.

### 34. QUALITY OF MATERIALS AND WORKMANSHIP

All materials and workmanship shall be of good quality conforming generally to the accepted standards of Public Works Department of Mizoram and the Indian Standards Specifications and Codes as included in Part V-Building Materials and Part VIII - Constructional Practices and Safety of the National Building Code of India as amended from time to time.

#### 35. BUILDING SERVICES

The planning, design and installation of lifts and escalators shall be carried out in accordance of Part VIII - Building Services, Section 2 - Electrical Installations, Section 3-Air Conditioning and Heating, Section V - Installation of Lifts and Escalators of the National Building Code of India as amended from time to time.

### 36. PLUMBING SERVICES

- (1) The planning, design, construction and installation of water supply, drainage and sanitation and gas supply system shall be in accordance with Part IX Plumbing Services, Section I-Water Supply, Section 2-Drainage and Sanitation and Section 3 Gas Supply of the National Building Code of Indiaas amended from time to time.
- (2) A septic tank of appropriate capacity with soak pit or any other suitable sludge disposal system shall be provided for all water closets/latrines. Such provisions shall not be located within a radius of 15 meters from a water source.

A suitable rain water harvesting facility shall also be provided in all buildings.

### 37. SIGNS AND OUTDOOR DISPLAY STRUCTURES

- (1) The display of advertising signs and building signs on buildings and land shall be in accordance with Display of Advertisement and Hoarding Regulations, 2014 OR Part X-Signs and Outdoor Display Structures of the as amended from time to time.
- (2) The type, design and construction of street furniture including bus shelters shall be to the satisfaction of the Authority.

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### 38. FIRE SAFETY, DETECTION AND EXTINGUISHING SYSTEMS

- (1) The Authority while according permission shall take into consideration the Code of Practice and Standards of Requirements recommended in the National Building Code of India as amended from time to time.
- (2) All buildings in their design and construction shall generally ensure safety of life from fire, smoke, flames and panic arising from these or similar other causes.
- (3) Fire protection and extinguishing system shall conform to accepted standards and shall be installed as recommended in the National Building Code of India as amended from time to time.
- (4) Fixed firefighting equipment shall be suitably located in all types of buildings except in residential buildings not more than 15m height and shall be clearly marked by illuminated signs.

### 39. SOLAR WATER HEATING SYSTEM

- (1) A suitable solar heating system in accordance with the order/ notification of the Government of Mizoram shall be installed in allbuildings as specified by the Government which are as follows:
  - (a) Hospitals and Nursing Home
  - (b) Guest Houses
  - (c) Tourist Lodges
  - (d) Bungalows
  - (e) Schools, Colleges, Training Centers.
  - (f) Barracks of Armed Forces and Police
  - (g) Functional Buildings of Airports like Waiting Rooms, Rest Rooms and Catering Units.
  - (h) Community Centers
  - (i) All Government Buildings which are in need of hot water.
- (2) The detailed specifications, capacity etc. of the system to be installed shall be determined in the light of the guidelines issued by the Government of India.

### 40. DISCHARGE OF RAIN AND WASTE WATER

- (1) If, in the interest of public safety, it is necessary to discharge rain and waste water of a building through the land of another person, the owner of such land/plot shall allow construction of a closed conduit in his land for discharging rain and waste water. If any damage, including excavation of earth, is caused to the property of the owner of the land through which the closed conduit is constructed, it shall be the responsibility of the person who constructs the closed conduit to repair/replace the damaged property and restore it to its original condition.
  - If inspection and repair of the closed conduit is necessary, the owner of the land shall allow such inspection and repair as may be necessary. If there is any dispute, the decision of the officer of the Authority designated for the purpose shall be final.
- (2) Cement concrete or stone/brick masonry surface drain/closed conduit of adequate capacity to the nearest public drain shall be provided for proper disposal of surface and waste water.
- (3) Any buildings having covered area of 500sq.m or minimum discharge of 1000 liters and above per day shall incorporate waste water recycling system. The recycled water should be used for non-drinking purposes.

### **CHAPTER 4**

REQUIREMENTS OF SANITARY FITTINGS IN SHOPS, COMMERCIAL OFFICES, HOTELS, EDUCATIONAL OCCUPANCY, ETC.

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### 41. REQUIREMENT OF SANITARY FITTINGS

Requirements of sanitary fittings for shops and commercial offices, hotels, educational occupancy, institutional medical occupancy (hospitals, staff quarters and hostels), Government and public business occupancies and offices, assembly occupancy buildings (cinema, theatre, auditorium etc.), assembly buildings (art galleries, libraries and museums), restaurants and factories shall be as shown in ANNEXURE - M (a) to (t).

# CHAPTER 5 DEVELOPMENT CODES

### 42. MAXIMUM PERMISSIBLE FLOOR AREA RATIO (F.A.R.), AND HEIGHT LIMITATION

# (1) Buildings shall be regulated as under:

Dist size (see m)	Maximum Permissible Floor Area Ratio (FAR)	Proposed Total maximum height of building (meters)	In special areas designated to receive additional FAR through Transferable Development Rights	
Plot size (sq.m)			Base (accorded with the site)	Maximum (purchased in the form of TDR)
Up to 50 sq.m	2.50	12.00	2.50	NIL
50 to 150 sq.m	3.00	16.00	3.00	3.50
150 to 300 sq.m	3.00	19.00	3.00	4.00
300 sq.m to 500sq.m	3.00	19.00	3.00	4.00
500 to 1000sq.m	4.00	19.00	4.00	5.00
Above 1000sq.m	4.00	19.00	4.00	5.00

### (a) Floor Area Ratio:

- Provided that any floor space used for parking or plant room shall not be taken into account in calculating F.A.R.
- Provided also that in Institutional (Medical) Buildings, Government Buildings or Special project buildings approved by the State Government/ Local Authority and Assembly Buildings in case of vertical or horizontal extension, the FAR may be relaxed on the merit of the specific site conditions, provided a NOC from immediate neighbors within a radius of 20m from the periphery of the said plot is also included.
- In the case of special areas, notified as being eligible to receive additional Floor Area Ratio, owners can avail of the maximum Floor Area Ratio after purchasing the necessary development rights from persons who own them and whose availability is confirmed by the competent Local Authority.

Provided that the competent planning authority, subject to having satisfied itself on the geological and geotechnical stability of such area on the basis of hazard maps (see Rule 62 and 63) declare such area as being a special area, eligible to avail of additional FAR by means of purchase of transferable development rights.

[Illustration: In a plot admeasuring say, 200 square meters, the base FAR is 3.00, i.e. the owner is entitled to build up to 600 square meters without any additional burden. However, should the owner decide to build more than 600 square meters, he or she will have to purchase additional development rights from a person who owns such development rights which can be sold in the area. The concerned local Authority shall maintain a list of such persons and the amount of development rights held by them.]

- In case of any owner constructing beyond the minimum FAR without purchasing any development rights the concerned local authority shall recover as penalty the amount that would have been ordinarily payable by such person had he or she purchased such development rights in addition to a penalty of at least 15 percent of such amount. This recovered amount would be distributed amongst all existing holders of development rights certificates under Section 6(5) of the Act.

Provided that no owner can utilize additional development rights unless such the purchase of such rights are registered with the concerned local authority and updated in their register as having been purchased and thereby extinguished for further use.

- (b) Permissible Plinth Coverage:
- Provided that in the case of Institutional (Medical) Building, Government Buildings or Special project buildings approved by the State Government/ Local Authority and Assembly Buildings the ground coverage may be relaxed in the merit of each case, provided the mandatory setbacks are maintained.
- (c) Height of the building:
- Provided further that staircase cover or mumty and safety installations shall not be taken into account while calculating height.
- Provided that if an entire floor is used as a parking space or service floor, that floor shall not be considered while calculating height subject to the condition that the total height of the building shall not exceed 22m.
- Provided further that the project shall mean programs implemented by the State or Central Government or projects considered special projects by the State due to the building use.
- Provided also that in case of Institutional (Medical) Building, Government Buildings or Special project buildings approved by the State Government, the height may be relaxed depending on the specific site conditions and conformity to all other requirements of relevant regulation whereby all other requirements of the Regulation with respect to structural safety, soil test report, etc. are ensured.
- (2) **Occupancy:** The occupancy of any building or part thereofshall be governed by the following provisions: The usage of plots proposed for development/ re-development shall be governed by the provisions contained in the Master Plan/ Development Plan/Zonal Plan/ Layout Plan prepared for the locality, provided where no such Plan exists; the usage of plots shall be as approved by the Authority.

### **CHAPTER 6**

# FACILITIES TO BE PROVIDED FOR PHYSICALLY CHALLENGED PERSONS

### 43. BUILDING REQUIREMENTS

The following are the requirements tobe provided for the physically challenged persons in public buildings:

- (a) Ramp Entrance to Public Buildings:Every public buildingshall have at least one ramp entrance/ exit accessible to physically challenged persons and it shall be indicated by proper signage.
- (b) Such entrance/exit shall have a minimum width of 1 meter and a maximum gradient of 1:12. The length of ramp should not exceed 9 meters. Handrail of the height of 0.90 meter on both sides of the ramp may be provided.

Provision for ramp may be provided to connect each floor of the public building.

- (c) Staircase: If a staircase can be provided for the physicallychallenged persons, the requirements shall be as follows:
  - (i) The maximum width shall be 1.350 meters.
  - (ii) The maximum height of rise shall be 0.15 meter.
  - (iii) The minimum width of tread shall be 0.275 meter.
  - (iv) The maximum number of steps on each flight of staircase shall be 10.

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# 44. LIFT

Lift capable of accommodating standard wheelchair shall be provided in any public building having G+3 floors and more.

### 45. TOILET

In public buildings where toilets are required to be provided, if the required number of toilets is one, which shall be of European-type. If the required number is more than one in a floor, at least one shall be European-type. The European-type toilets shall be indicated by proper signage.

# CHAPTER 7 ERECTION OF TELECOMMUNICATION TOWERS

### 46. SUBMISSION OF APPLICATION

Application for erection of telecommunication towershall be made in the prescribed application form (ANNEXURE N)

# 47. INFORMATION ACCOMPANYING APPLICATION FOR ERECTION OF TELECOMMUNICATION TOWER

Application for erection oftelecommunication tower shall be accompanied by the following in triplicate:

- (a) Ownership title of the plot/ house on which the tower is proposed to be erected;
- (b) NOC from owner of the plot/ house;
- (c) NOC from the concerned Local Council/ Village Council;
- (d) NOC from the Mizoram Pollution Control Board (MPCB) for installation of generator set at the site of the tower;
- (e) Registration certificate from the Department of Communication, Govt. of India.
- (f) Clearance from Standing Advisory Committee on Frequency Allocation (SACFA) for the proposed site.
- (g) Certificate of structural soundness for the tower as well as the building on which the tower is to be erected from a licensed Structural Engineer under Authority. Special precaution for fire safety (such as fire extinguishers) and lightning (such as lightning conductors) shall be provided;
- (h) Structural drawing;
  - (i) Site Plan indicating:
  - (i) plot boundaries with dimensions,
  - (ii) position of plot in relation to neighboring streets;
  - (iii) setbacks;
  - (iv) all other existing structures on the plot;
  - (v) height of buildings/structures on neighboring plots, and
  - (vi) type of buildings/structures on neighboring plots.
- (j) To submit an undertaking for the safe removal/ demolition of the tower on completion of its usage or due to safety aspects
- (k) Any other information as may be required by the Authority.

### 48. LOCATION

The telecommunication tower may be erected on a building or on the ground.

### 49. TYPE OF STRUCTURE

The type of structure of telecommunication tower shall be as follows:

- (a) Steel fabricated tower or antennae on M.S. pole;
- (b) Pre-fabricated shelters of fiber glass or P.V.C. on the building roof top/ terrace for equipment;
- (c) Masonry structure/ shelter on the ground for equipment;
- (d) Sound proof cover, as may be necessary, to reduce the noise generated by generator to permissible level. Provided that the Authority shall have the power to accept any other type of structure approved by a competent authority.

### 50. FEES FOR ERECTION OF TELECOMMUNICATION TOWER

The fee for erection of telecommunication tower shall be `60,000. In case the tower is shared by other cellular phone operator/ operators, an additional amount of `30,000 per sharing shall be charged.

- (a) The applicant shall deposit following one-time application fees along with the application as per table at sub-para(b) below.
- (b) The applicant shall deposit the applicable charges as per (ii) and (iii) in table below for using areas of lands and buildings of State Government/ Local Authority/ Bodies/ Institutions. These applicable charges shall be payable by the applicant only after receiving the permission to install the telecom infrastructure/ tower from the Local Authority.

Sl. No.	Particulars	Urban Areas (Rs)	Rural Areas (Rs)
(i)	One time permission charges for 10,000 establishments of Telecom Towers (GBT/RTT).	10000	5000
(ii)	Land usage charges for ground based Tower for 3 years (applicable for Govt. land only	200 per sq ft	100 per sq ft
(iii)	One time roof usage charges for Roof Top Towers, for 3 years (Applicable for Govt. buildings only)	300 per sq ft	200 per sq ft

- (c) Usage charges can be calculated on pro-rata basis as per the area used. These charges can be revised from time to time by the Nodal Department.
- (d) The guidelines of the Mizoram Telecom Infrastructure Policy, 2020, shall be referred to in all telecommunication related applications/cases.
- (e) Addendum to Model Building Bye Laws 2016, Provisions of 'In-Building Solutions, Digital Communication Infrastructure' prepared by Ministry of Telecommunication, Department of Telecommunications, Government of India shall be referred to in all telecommunication related applications/ cases.'

# 51. IN-BUILDING SOLUTIONS FOR COMMON TELECOMMUNICATION INFRASTRUCTURE: For installation of In – Building, Solution (IBS)/ Smart Connectivity Infrastructure, the procedure laid down in ANNEXURE S shall be followed. The State Government may by notification specify the urban areas for which this provision may be followed.

# CHAPTER 8 RAINWATER HARVESTING

### 52. THE RAIN WATER HARVESTING SYSTEM

(1) The harvesting of rain water simply involves the collection of water from surfaces on which rain falls, and subsequently storing this water for use. The rain water collected can be stored for direct use or can be recharged into the underground aquifers. In scientific terms water harvesting (broadly) refers to collection and storage of rain water from the rooftops. This also restricts evaporation and seepage into building foundations. All buildings while submitting the building plans for sanction shall mandatorily include the complete proposal of rain water harvesting.

- (2) A rain water harvesting system consists of:
  - (a) Roof catchment
  - (b) Gutters
  - (c) Down pipes
  - (d) Rain water/ storm water drains
  - (e) Filter chamber
  - (f) Storage tanks/ pits/ sumps
  - (g) Ground water recharge structures like pit, trench, tube well or combination of above structure
- (3) Rain water harvesting is a way to capture the rain runoff, store that water above ground or charge the underground aquifers and use it later. This happens naturally in open rural areas. But in congested, over paved metropolitan cities, there is a need to devise methods to capture the rain water. The rain water that is incident on the surface/ roof top is guided to bore wells or pits or new/ old/ abandoned wells through small diameter pipes to recharges the underground water which can be used later whenever required.

### 53. RAIN WATER HARVESTING TECHNIQUES

- (1) There are two main techniques of rain water harvestings:
  - (a) Storage of rain water on surface for future use
  - (b) Recharge to ground water
- (2) The technical aspects and options of Rain Water Harvesting from which the authorities can assess and choose to adopt are placed at ANNEXUREO of the regulation.

### 54. RAINWATER HARVESTING PROVISION

All new construction on a plot of more than 93sq.m regardless of building type/use must include proposal for rainwater harvesting which must be incorporated in the building plans while applying for a building permit.

Area of Plot (sq.m.)	Provisions to be made	Other conditions
ted Houses		
100 and above	Construction of Rain Water Harvesting Structure.	Shall have emphasis on both storage and reuse
All plot sizes	Harvesting Structure. ii. Concrete	
-public buildings		
All plot sizes	i. Shall have Rain Water Harvesting Structure and storage ii. Shall have Recharge pits Shall have emphasis on both storage and reuse.	
	(sq.m.) red Houses 100 and above All plot sizes public buildings	(sq.m.)  red Houses  100 and above Construction of Rain Water Harvesting Structure.  All plot sizes i. Construction of Rain Water Harvesting Structure. ii. Concrete paving to be avoided and permeable materials are to be used for all open parking spaces.  public buildings  All plot sizes i. Shall have Rain Water Harvesting Structure and storage ii. Shall have Recharge pits Shall have emphasis

All Proposals	All plot sizes	i. Construction of Rain Water Harvesting Structure. ii. Soft landscape provisions and open spaces with Percolation pits. iii. Common treatment plant to be made part of the integrated development, funded by sale of commercial space.	Strom Water Drainage, Rain Water Harvesting Structure and Recharging Well Shall have emphasis on both storage
Industrial			
All proposals	All plot sizes	i. Construction of Rain Water Harvesting Structure. ii. Soft landscape provisions and open spaces with Percolation pits. iii. Use of abandoned bore wells for recharging of ground water. iv. Common treatment plant to be made part of the integrated development funded by sale of commercial space.	Strom Water Drainage, Rain Water Harvesting Structure and Recharging Well. Provision should be made not to inject contaminated water into recharge structures in industrial areas and care
Other proposals	All plot sizes	Similar as above	Similar as above

### 55. RAIN WATER HARVESTING PROVISIONS FOR OPEN SPACES IN CITIES

(1) Open spaces/recreational land use generally constitute regional parks, district parks, playground and stadium, sports complex, monument zones, public parking, plaza and other public open space. All such public open spaces above the size of 500 sq.m shall have arrangements for complete utilization and capture of storm water with scientific rain water harvesting arrangements.

Following ideas may also be included:

- (a) Well cum Channel cum Percolation pits.
- (b) Use of abandoned bore wells for recharging of ground water
- (c) Artificial or natural Storage of storm water runoff from larger sites
- (2) To promote rain water harvesting incentives may be given in the form of waivers in statutory taxes and fees, provided that such facilities constructed by the owner or occupier of a plot are found to be functional at the time such exemption is claimed.

Provided that the Government or any competent authority may ascertain by any appropriate means the functionality of the same.

### 56. GROUND WATER RECHARGE

The Ground Water Recharge should also be mandatory for open spaces like parks, parking, plazas and playgrounds. The harvesting and recharge structures could be constructed by the Authority with the involvement of community-based organizations.

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### **CHAPTER 9**

#### RISK BASED CLASSIFICATION OF BUILDINGS

### 57. CLASSIFICATION ON THE BASIS OF RISK PARAMETERS/ RISK – BASED

The buildings have been classified further on the basis of risk parameters/ risk-based classification to clear the building permits on fast track system. This kind of classification shall be used for fast tracking the sanction of building plans, which shall facilitate regulated and faster construction permits. Further classification on the abovementioned basis is as follows:-

### (1) Residential Buildings:

For approval of the residential plotted and group housing buildings, risk-based classification shall be as per the following table.

Risks		Very Low	Low	Moderate	High
Criteria	Parameters				
Size of the Plot	Square Meters	Below 105 m2	105 – 500m2	Above 500 m2	All sizes
Height of building	Meters	Below 15 m	Below 15 m	Below 15 m	15 m and above
Use of the premise	Various Categories	Residential Plotted	Residential Plotted	Residential Plotted	Group Housing

### (a) Modes of Fast-Tracking Tools:

# (i) For Very Low Risk Buildings:

In case of standard building plans prepared by the Authority for residential plots upto 105 sq.mt in size and forming part of the approved layout plan, the owner shall be entitled to sign such standard plans and the required documents for sanction. In such cases, certificate from professionals would not be necessary and the owner shall be bound to follow the approved standard plan in detail. The Authority shall explore options of EWS/ LIG/ MIG plotted housing schemes to develop pre-approved Standardized Building plans of Housing Units for variable plot sizes/ carpet area (in the range 30 sq.m – 105 sq.m)

# (ii) For Low Risk Buildings:

A competent professional (qualification & competence as per ANNEXURE A) shall be empowered to issue the building permit, but only after submitting the plan along with requisite documents and fees to the concerned local body. If the owner/ professional desires to get the building plan sanctioned by the authority, building plans prepared by a qualified architect/ engineer will have to be submitted to the concerned the authority along with the fees and other requisite documents and the authority shall grant the building permit.

### (iii) For Moderate Risk Buildings:

Building plans will have to be prepared by a competent professional and the building plans will have to be submitted to the concerned Authority along with the fees and other requisite documents. The local body shall grant the building permit.

### (iv) For High Risk Buildings:

Clearance from Fire Department and other necessary clearances from agencies such as AAI, NMA etc. have to be obtained. Building plans will have to be prepared by a competent professional and the building plans will have to be submitted to the concerned Authority along with the fees and other requisite documents.

# (2) Storage/ Warehouse Buildings:

For approval of the buildings meant for use as storage buildings/ warehouses/ godowns, risk-based

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classification shall be as per the following table:

Risks	Very Low	Low	Moderate	High
Covered area on all floors/ built-up area	Up to 250 m2	Above 250 m2 and up to 2000 m2	Up to 2000 m2	Above 2000 m2
Height of building	Below 15 m	Below 15 m	Below 15 m	Below 15 m
Abutting road width	Min. 12 m	Min. 12 m	Min 12 m	Min. 12 m
Type of Material storage	Category A	Category A	Category B (Stacking height – Medium)	Category B (Stacking height – High)

# (a) Modes of Fast-Tracking Tools:

# (i) For Very Low Risk Buildings:

A competent professional (qualification & competence as per ANNEXUREA) shall be empowered to issue the building permit, but only after submitted the plan along with requisite documents and fees to the concerned local body. If the owner/ architect/ engineer desire to get the building plan sanctioned by the Authority, he shall apply online to the Authority and the Authority shall grant the building permit.

# (ii) For Low Risk Buildings:

Building plans will have to be prepared by a competent professional and the building plans will have to be submitted to the concerned Authority along with the fees and other requisite documents. The Authority shall grant the building permit.

# (iii) For Moderate Risk Buildings:

Building plans will have to be prepared by a competent professional and the building plans will have to be submitted to the concerned Authority along with the fees and other requisite documents. The Authority shall grant the building permit.

# (iv) For High Risk Buildings:

Building plans will have to be prepared by a qualified architect and the building plans will have to be submitted to the concerned local body along with the fees and other requisite documents. The Authority shall grant the building permit.

### (3) Industrial Buildings:

For approval of the buildings meant for use as storage buildings/ warehouses/ godowns, risk-based classification shall be as per the following table:

Risks		Low	Moderate	High
Criteria	Parameters			
Size of the Plot	Square meters	Up to 350 m2	Above 350 m2	All sizes
Height of building	Meters	Less than 15 m	Less than 15 m	15 m and above
Abutting Road width	Meters	Min 12 m	Min 12 m	Min 12 m

# (a) Modes of Fast-Tracking Tools:

### (1) For Low Risk Buildings:

- (i) Deemed Approval with Self Certification
- (ii) Plans to be submitted along with Structural drawings which does not require sanction

# (2) For Moderate Risk Buildings:

(i) Plans to be submitted to the empanelled professional

- (ii) Fire/ Structural safety certification by Fire Services/ Structural Engineers
- (iii) Approval to be granted within 10 working days by the empanelled professional
- (iv) Approval plan to be submitted to the Authority.
- (3) For High Risk Buildings:
  - (i) Online application
  - (ii) Immediate acknowledgement by software
  - (iii) Fire/ Structural safety certification by Fire Services/ Structural Engineers
  - (iv) Approval by the Authority within 20 working days.

#### **CHAPTER 10**

#### GREEN BUILDINGS AND SUSTAINABILITY PROVISIONS

Modern buildings consume about 25% to 30% of total energy, and up to 30% of fresh potable water, and generate approximately 40 % of total waste. Sustainable buildings have demonstrated reduction in energy and water consumption to less than half of the present consumption in conventional buildings, and complete elimination of the construction and operational waste through recycling. Thus, all buildings on various plot sizes above 100 sq.mmay comply with the green norms and conform to the requirements mandatory for sanction as mentioned in this chapter.

These provisions are not specific to any rating system and are not intended to provide a single metric indication of overall building performance. These provisions allow the practitioners to easily exercise their engineering judgment in holistically and objectively applying the underlying principles of sustainability to a development or building facility, considering its functionality and required comfort level.

# 58. SUSTAINABILITY MEASURES TO BE CONSIDERED

- (1) Consideration of Sustainability Measures for incentives
  - (a) The competent Authority or any agency notified by the Government may certify any structure that includes any or all of the measures as below as being eligible to claim incentives, if any notified in this regard.
    - (i) Water Conservation and Management
    - a) Rain Water Harvesting
    - b) Low Water Consumption Plumbing Fixtures
    - c) Waste Water Recycle and Reuse
    - d) Reduction of Hardscape
    - (ii) Solar Energy Utilization
    - a) Installation of Solar Photovoltaic Panels (detailed at section 53.3 below)
    - b) Installation of Solar Assisted Water Heating Systems
    - (iii) Energy Efficiency (Concept of passive solar design of buildings) (Ref. Table below)
    - a) Low Energy Consumption Lighting Fixtures (Electrical Appliances BEE Star and Energy Efficient Appliances)
    - b) Energy Efficiency in HVAC systems
    - c) Lighting of Common areas by Solar energy/ LED devices
    - (iv) Waste Management
    - a) Segregation of Waste
    - b) Organic Waste Management
    - (v) Use of sustainable building materials
    - a) Use of traditional building materials with proven ecological benefits
    - b) Use of new materials aimed at reducing carbon footprint

- (b) The nature of incentives provided by the competent Authority may be dependent upon the time or the long term continuity of such measures. Generally, the guiding principle for such incentives is as follows:
  - (i) Where the sustainability measure can be ascertained at the beginning of the construction activity and is perpetual in nature: additional Floor Area Ratio
  - (ii) Where the sustainability measure need being validated at regular intervals: waivers in taxes and statutory fees

Provided that the manner of claim of incentives may be specified by the Government by time to time.

(c) Withdrawal of incentives/ penal levy: Where the competent authority determines that the conditions that warranted the claim of incentives has not been substantiated or has been falsified by the owner/ occupier, the competent Authority may impose penal levies in the form of surcharges on statutory levies or taxes or treat the additionally constructed area as being in violation of these rules.

# (2) Water Re-use and Recycling

All building having a minimum discharge of 10,000 liters. and above per day may incorporate waste water recycling system. The recycled water should be used for horticultural purposes.

# (3) Roof Top Solar Energy Installations

Rooftop photovoltaic power station, or rooftop PV system, is a photovoltaic system that has its electricity-generating solar panels mounted on the rooftop of residential or commercial buildings. The various components of such a system include photovoltaic modules, mounting systems, cables, solar inverters and other electrical accessories. Rooftop PV systems are faster than other types of renewable power plants. They're clean, quiet, and visually unobtrusive. The table below stipulates the Norms for Roof Top Solar PV installation-

Table: Norms for Roof Top Solar PV installation and generation

Sl. No.	Category of buildings/ area	Area standards	Generation requirement *		
1	Plotted Housing	For HIG Plots and above	Minimum 5% of connected load or 20W/sq.ft for 'available roof space' **, whichever is less		
2	Group Housing	All proposals, as per Group Housing	Minimum 5% of connected load or 20W/sq.ft for 'available roof space', whichever is less		
	All other buildings (Government or Private, defined as per clause 1.16b to g) (mandatory for buildings having shadow free rooftop area > 50 sq.mt)				
3	Educational	Plot size of 500 sq.mt and	Minimum 5% of connected		
4	Institutional	above	load or 20W/sq.ft for 'available		
5	Commercial		roof space', whichever is less.		
6	Industrial				
7	Mercantile				
8	Recreational				

<sup>\*</sup> Area provisions on roof top shall be @12sq.mt per 1KWp, as suggested by Ministry of New and Renewable Energy.

<sup>\*\* &#</sup>x27;available roof area' = 70% of the total roof size, considering 30% area reserved for residents' amenities.

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## (4) Installation of Solar Assisted Water Heating System in Buildings

- (a) No new building in the following categories in which there is a system of installation for supplying hot water shall be built unless the system of the installation is also having an auxiliary solar assisted water heating system:
  - (i) Hospitals and Nursing Home
  - (ii) Hotels, Lodges, Guest Houses, Group Housing with a plot area of 4000 sq.m
  - (iii) Hostels of schools, colleges and training centers with more than 100 students
  - (iv) Barracks of armed forces, paramilitary forces and police
  - (v) Individual residential buildings having more than 150 sq.m plinth area
  - (vi) Functional Buildings of Railway Stations and Air Ports like waiting rooms, retiring rooms, rest rooms, and inspection bungalows and catering units.
  - (vii) Community Centers, Banquet Halls, Barat Ghars, Mangal Karyalayas and buildings for similar use.

### (b) Definitions

i)	Solar Assisted Water Heating System	A device to heat water using solar energy as heat source
ii)	Auxiliary back-up	Electricity operated or fuel fired boilers/ systems to heat water coming out from solar water heating system to meet continuous requirement of hot water
iii)	New building	Such buildings of above said categories for which construction plans have been submitted to the Authority for clearance
iv)	Existing building	Such buildings, which are licensed to perform their respective business

- (c) Installation of Solar Water Heating System
- (i) New Buildings: Clearance of plan for the construction of new buildings of the aforesaid categories may be considered if they have a provision in the building design itself for an insulated pipeline from the rooftop in the building to various distribution points where hot water is required. The building to have a provision for continuous water supply to the solar water heating system. The building may also have open space on the rooftop, which receives direct sun light. The load bearing capacity of the roof should at least be 50 kg. per sq m. All new buildings of above said categories may complete installation of solar water heating systems before obtaining necessary license to commence their business.
- (ii) Existing Buildings:Installation of Solar Assisted Water Heating Systems in the existing building shall be made mandatory at the time of change of use to above said category provided there is a system or installation for supplying hot water.

[Note: Buildings that do not employ flat roofs or have roofs made of lightweight materials such as asbestos cement or galvanized iron shall be deemed exempt from the condition of mandatory installation of solar panels or solar water heating.]

- (d) Capacity: The capacity of solar water heating system to be installed on the building of different categories shall be decided in consultation with the local bodies. The recommended minimum capacity shall not be less than 25 liters per day for each bathroom and kitchen subject to the condition that maximum of 50% of the total roof area is provided with the system.
- (e) *Specifications:* Installation of Solar Assisted Water Heating Systems shall conform to BIS specification IS 12933. The solar collectors used in the system shall have the BIS certification mark.
- (f) Auxiliary System: Wherever hot water requirement is continuous, auxiliary heating arrangement either with electric elements or oil of adequate capacity can be provided.

## (5) Sustainable Waste Management

- (a) Zero Waste is a concept of waste management and planning approaches that emphasize waste prevention as opposed to end waste management. This means restructuring production and distribution systems, designing and managing products and processes to systematically follow the 3R rule of Reduce, Re-use and Re-cycle the volume of waste, to conserve and recover all used resources, and therefore eliminating all discharges to landfills, and prevent air, water and land pollution.
- (b) Zero Waste/land-fill can be achieved by adopting systematic approach of segregation at source by planning, by collection facilitation and most importantly by creating public awareness.

  The green waste can be converted into fuel cakes, kitchen waste into manure, construction & demolition waste into bricks, plastic waste into oil, paper, glass and steel back into the same and all residual inert materials can also be converted into bricks. Achieving zero land-fill is more conveniently possible, if
  - (i) The collection is made from house to house and some segregation is done at household level and
  - (ii) Separate wet and dry bins must be provided at the ground level.
  - (iii) The recycling is done at decentralized, say, ward or even lower levels.

# (6) Sustainability of Building Materials

- (a) Sustainability of natural resources for building materials shall be ensured through conservation of available natural resources and use of supplementary materials such as industrial/agricultural byproducts, renewable resources, and factory made building components and recycled construction and demolition waste.
  - Supplementary building materials (derived or processed waste) shall be suitably used in combination with conventional resources offers dual advantages in purview of health & environmental benefits.
- (b) Use of Factory made pre-fab/pre-cast and recycled components with Green benefits:
  - (i) Panels, hollow slabs, hollow blocks-etc. conservation of materials, less water requirement.
  - (ii) Fly Ash bricks, Portland Pozzolana cement, fly ash concrete, phosphogypsum based walling & roofing panels, particle wood recycled use of industrial/ agricultural by-products. (Ref. Table 14)
  - (iii) Fly ash/ AAC (Autoclaved aerated light weight concrete) panels/ CLC (Cellular light weight concrete) panels- ensures thermal comfort (significant reduction in air conditioning requirement)
  - (iv) Use of bamboo & rapidly growing plantation timbers- environmental benefits.
  - Local materials are generally suitable for prevailing geo-climatic conditions & have advantage of low transportation cost & time. Sustainable use of building materials shall be encouraged which may combine certain mandatory provisions and incentives.

# CHAPTER 11 ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

- 59. ELECTRIC VEHICLE CHARGING INFRASTRUCTURE
- (1) The State Government may by notification specifythe urban areas for which this provision may be followed. Charging infrastructure (CI) shall be provided in the premises of the various building types for Electric Vehicles (EVs) for at least 20% of the total parking capacity.
- (2) Additionally, the building premise will have to have an additional power load, equivalent to the power required for all charging points to be operated simultaneously with a safety factor of 1.25 as referred in ANNEXURE Q.

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## (a) Residential buildings (Plotted House)

Ownership of Station	Private (Owner)		
Connection and Metering	Domestic Meter		
Type of Charger	Slow Chargers as per owner's specific requirements		
Modes of Charging	AC (Single Charging gun)		
Norms of Provisions	Minimum one Slow Charger and additional provisions as per owner individual		

# (b) All other buildings (including Group Housing)

Any public charging stations installed at public/ private areas or building premises of any category that caters to commercial mode of charging of EVs shall be deemed as a Public Charging Station and shall have to install the minimum requirement of chargers as specified in the guidelines issued vide No.12/2/2018-EV dated 14.12.2018 by the Ministry of Power, Government of India, as referred in ANNEXURE R. However, in order to provide sufficient charging for the EV share in all vehicles, the Charging Infrastructure should be at least 20% of the parking capacity. The ratio of types of chargers shall be as specified in the Table below:

<b>Building Type</b>	Any building type			
Ownership of Station	Commercial Metering and Payment			
Types of Chargers	As per minimum requirements specified in Ministry of Power Guidelines as referred in ANNEXURE R			
Additional Chargers	PCS service provider shall install additional number of kiosk or chargers beyond the minimum specified requirements to meet the ratio of charging points as prescribed below (by type of vehicles)			
Norms of Provisions for Charging Points	4 - wheelers (a) 1 Slow Charger (SC) each 3 EVs (b) 1 Fast Charger (FC) each 10 EVs	3 - wheelers (i) 1 Slow Charger (SC) each 2 EVs	2- wheelers (i) 1 Slow Charger (SC) each 2 EVs	PV Buses (i) 1 Fast Charger (FC) each 10 EVs

### *Note:*

- 1. Charging bays shall be planned currently at 20% capacity of all vehicles including 2-wheelers and 4-wheelers
- 2. Open metering and on-spot payment options to be available for all users
- 3. Provision of Fuel Cooled Battery Charging Station (FCB CS) and Battery Swap (BS) shall not be mandatory and will be at the discretion of the service provider.

# CHAPTER 12 MISCELLANEOUS PROVISIONS

### 60. REPORTING OF CONTRAVENTION OF BUILDING REGULATIONS

Anyperson may report to the Authority, orally or in writing, any contravention or suspected contravention of any provision of this regulation. On receipt of such report, the Authority shall make necessary investigation and take action as may be called for.

### 61. RELAXATION

Any provision of these regulations may be relaxed by the Authority with prior approval of the State Government.

Provided that such approval may be deemed as regularized if not conveyed within three months.

### 62. REVISION

The contents of this regulation may be periodically revised from time to time.

Provided that the regulations may be reviewed at least once in five years to ascertain their general applicability or to account for situations which were originally not accounted for.

### 63. PUBLICATION OF HAZARD MAPS

Hazard zoning/ mapping for all the urban towns or any area within the State which the Government may deem appropriate may be published by the Government of Mizoram which shall be application under the regulation.

### 64. COMPILATION OF SLOPE & CUTTING/ FILLING DATA

Each municipal body or competent authority nominated under these rules to determine site development and/or slope cutting shall maintain a record of all such permissions issued, including of all such permissions issued including locations, which have been altered to such an extent that further construction on such sites are not permitted. The same shall be taken into account in the hazard zoning maps published by the Government.

### 65. SALE OR TRANSFER DEEDS TO MANDATORILY CONTAIN HAZARD ZONE MAP

Where any land is sold for any residential purpose, or transferred in accordance with any law of the State orunder Mizo customary law with an intent to construct a residence on the same, such transfer shall not be registered by the Government or any Village Council/ Local CouncilChairmanunless such a deed is accompanied by the hazard zone map of such locality.

Provided that where such transfer has been facilitated by any Village or Local Council in accordance with customary law without the inclusion of hazard map, such sale or transfer shall be deemed invalid and such Village Council President or Local Council Chairman liable for prosecution;

Provided further that this regulation may come into effect only after the hazard map of the particular area has been notified by the State or any directions issued by the Government to such effect allowing such transfer.

### 66. RESIDENTIAL LAND CERTIFICATE NOT TO BE ISSUED OR INVALIDATED

The Government of Mizoram including any competent authority there against, shall not issue residential land certificate in areas within any local authority's jurisdiction where the competent authority determines that it is not safe to construct any buildings in such area.

Provided that where residential land certificate has already been issued but where the competent authority denies building permission on account of such land being situated on inhospitable slopes or where cutting or filling is likely to destabilize the soil for any reason, such certificate shall be invalidated suo-moto.

### 67. MATTERS NOT CONTAINED IN REGULATION

In case of any requirements, not including in the existing provisions of the regulation, the Authority may issue Notifications/ Circulars on such matters from time to time.

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#### 68. INTERPRETATION

The interpretation of the regulation of the Authority will be final and binding.

# ANNEXURE A: QUALIFICATION AND COMPETENCE OF TECHNICAL PERSONNEL FOR PREPARATIONS OF SCHEMES FOR BUILDING PERMIT AND SUPERVISION

[Regulation8(12) of the Mizoram Urban Area Building Regulation, 2024]

Building/ Development work for which permission is sought, shall be planned, designed and supervised by registered professionals. The registered professionals for carrying out the various activities shall be:

Architect, Engineer, Structural Engineer, Town Planner, Landscape Architect, Urban Designer, Supervisor. Requirements of registration/license for these professionals by the Authority or by the body governing such profession and constituted under a statute, as applicable to practice within the local body's jurisdiction, are given in items 1 to 7 of the following table:

(Items 8-10 Plumber, Electrician and Fire Consultant may not need registration)

(Hellis	tems 8-10 Plumber, Electrician and Fire Consultant may not need registration)					
Sl. No.	Professional	Qualifications	Competence / Functions			
1	Architect	The minimum qualifications for an architect shall be the qualifications as provided for in the Architects Act, 1972 for registration with the Council of Architecture, India.	The registered architect shall be competent to carry out the work related to the building/ development permit as given below:  a. Prepare and sign all plans, sub-division/ layout plans and information connected with building permit except engineering services of multistoreyed/ specialbuildings.  b. Preparation of building plans, drawings and related information connected with development permit of area up to 1 hectare for metro-cities and 2 hectares for otherplaces.  c. Issuing certificate of supervision for development permit of area up to 1 hectare for metro-cities and 2 hectares for other places. (related to building layout and other architecturalaspects)  d. Issuing certificate of supervision and completion of all buildings pertaining to architecturalaspects.			
2	Engineer	The minimum qualifications for an engineer shall be a graduate in Civil Engineering/ architectural engineering from recognized Indian or foreign university.	The registered engineer shall be competent to carry out the work related to the building/ development permit as given below:  a. Prepare and sign all building plans, structural drawings and service plans and information connected with buildingpermit;			

		Registered with valid membership (Civil) of the Institution of Engineers, India.	<ul> <li>b. Preparation of structural drawings, details and calculations of buildings on plot up to 500 m2 and up to 5 storeys or 16 m in height, all service plans and related information connected with development permit of area up to 1 hectare for metro-cities and 2 hectares for otherplaces.</li> <li>c. Issuing certificate of supervision for development permit of area up to 1 hectare and 2 hectares for other places (pertaining to building layout, Building structure, civil works and serviceinstallations);</li> <li>d. Issuing certificate of supervision and completion of all buildings pertaining including structure and buildingservices.</li> </ul>
3	Structural Engineer	The minimum qualifications for a structural engineer shall be a graduate in Civil engineering from recognized Indian or foreign university, or Corporate Member (Civil) of Institution of Engineers (India) or equivalent overseas institution and with minimum 3 years' experience in structural engineering practice with designing and field work OR a qualified engineer after a minimum of 3 years relevant experience in structural engineering practice with designing and field work and completion of the ULB/ Authority examination for structural engineer.  NOTE — The 3 years' experience shall be relaxed to 2 years in the case of post-graduate degree of recognized Indian or foreign university in the branch of structural engineering. In case of doctorate in structural engineering, the experience required would beone year.	The registered structural engineer shall be competent to prepare the structural design, calculations and details for all buildings and undertake their supervision.  In case of buildings having special structural features, as decided by the Authority, they shall be designed only by Structuralengineers.

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4	Town Planner	Graduate or Post-graduate degree in Town and Country Planning with valid Associate Membership of the Institute of Town Planners,India.	The registered town planner shall be competent to carry out the work related to the development permit as givenbelow:  a. Preparation of plans for land sub-division/ layout and related information connected with development permit for all areas more than 1 Hectare.  b. Issuing of certificate of supervision for development of land of all areas.  NOTE — However, for land layouts for development permit above 5 hectares in area, an engineer with structural and geotechnical abilities shall also be associated, and for land development infrastructural services for roads, water supplies, sewerage/ drainage, electrification, etc., the registered engineers for utility services shall be associated.		
5	Landscape Architect	Bachelor or Master's degree in landscape architecture or equivalent from recognized Indian or foreign university.	The registered landscape architect shall be competent to carry out the work related to landscape design for building/development permit for land areas 5 hectares and above. In case of metro-cities, this limit of land area shall be 2 hectares andabove.  NOTE — For smaller areas below the limits indicated above, association of landscape architect may also be considered from the point of view of desired landscape development.		
6	Master's degree in Urban Designer Design or equivalent from recognized Indian or foreign university.		The registered urban designer shall be competed to carry out the work related to urban designer city areas more than 5 hectares and camparea more than 2 hectares. He/ She shall also competent to carry out the work of urban renew for all blighted/congested areas.  NOTE — For smaller areas below the liming indicated above, association of urban designer makes the considered from the point of view of designary urban design.		
7	Supervisor	Diploma in Civil engineering / Architectural Assistantship from recognized institute with 2yrs working experience or	The registered supervisor shall be competent to carry out the work related to the building permit as given below:		

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8	Plumber	Civil Draftsmanship from I.T.I with 5yrs experience under a qualified Architect / Civil Engineer forbuilding construction and supervision.  Licensed by the concerned	<ul> <li>a. All plans and related information connected with building permit for residential building on plot up to 100 m2 and up to two storeys 7.5 m in height; and</li> <li>b. Issuing certificate of supervision for building as per(a).</li> <li>A plumber shall be competent to do the following the shall be competent to do the following as per(a).</li> </ul>				
		Authority through examination of candidates-	jobs: a. Execution / supervision of sanitary works up to				
		Certificate of training from ITI, with minimum 2yrs experience of execution of sanitary and plumbing works under any govt. Dept./ Local body or a qualifiedArchitect / Engineer. Knowledge of working drawings anddimensioned sketches.	500 sq mt plot size and 4 storeyed buildings.				
9	Electrician	As prescribed by the concerned electricity company					
		1 1 7	, the contestined discoursely company				
10	Fire Consultant	As prescribed by Ch	ief Fire Officer, Town/City Fire Service.				
11		As prescribed by Cheron For multi-storeyed and special services shall be executed under personnel. The qualification for and plumbing engineers for car mechanical ventilation, electrical drainage, sanitation and gas sur Part 8 'Building Services' and Fode of India as amended from	libuildings, the work of building and plumbing the planning, design and supervision of competent registered mechanical engineer, electrical engineer rying out the work of air-conditioning, heating and al installations, lifts and escalators and water supply, apply installations respectively shall be as given in Part 9 'Plumbing Services' of the National Building a time to time, 2005 or as decided by the Authority f the national professional bodies dealing with the				

# ANNEXURE B: LICENCE FEES FOR TECHNICAL PERSONNEL

[Regulation6(35) of the Mizoram Urban Area Building Regulation, 2024]

- (i) License fees for Structural Engineer/Engineer/Town Planner Supervisor/ Group/Firm:
  - (i) For individual Structural Engineer/ Engineer/ Town Planner/ Architect Rs. 1000.00 (One Thousand)
  - (ii) For Supervisor Rs. 500.00 (Five Hundred)

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- (iii) For Group/Firm
  - Rs. 2000.00 (Two Thousand)
- (ii) Renewal fees per annum for individual/Group/Firm:
  - (i) For individual Structural Engineer/ Engineer/ Town Planner/ Architect Rs. 500.00 (Five Hundred)
  - (ii) For Supervisor
    - Rs. 250.00 (Two Hundred Fifty)
  - (iii) For Group/ Firm
    - Rs. 1000.00 (One Thousand)

#### Note:

- (a) Architect who has been registered with the Council of Architecture need not pay license fees but should register himself with the Authority by submitting valid registration letter.
- (b) A duplicate copy of the license may be issued on payment of fee equivalent to the renewal fee.

# ANNEXURE C: FORM OF APPLICATION FOR ERECTION, RE-ERECTION, DEMOLITION, OR ALTERATION OF A BUILDING

[Regulation7 of the Mizoram Urban Area Building Regulation, 2024]

To,	
The Commissioner/ Vice Chairman/ Secretary,	
[Authority],	
[Town Name], [District Name], Mizoram.	
Sir,	
I hereby give notice on behalf of Mr./ Mrs/ Ms [Name(s) in full	, owner(s)/
lessee(s) of the land/ building the particulars of which are given below, hereby apply for per	rmission to
erect/ re-erect/ make alteration in the building in Plot No Ward No in th	e locality of
[Veng] and in accordance the Mizoram Urban Area Building	Regulation,
2024 No I/ We forward herewith the following documents in triplicate duly sig	gned by me/
us and the Licensed Structural Engineer/ Town Planner/ Engineer/ Architect/ Supervisor/ Grounds and the Licensed Structural Engineer/ Town Planner/ Engineer/ Architect/ Supervisor/ Grounds and the Licensed Structural Engineer/ Town Planner/ Engineer/ Architect/ Supervisor/ Grounds and the Licensed Structural Engineer/ Town Planner/ Engineer/ Architect/ Supervisor/ Grounds and the Licensed Structural Engineer/ Town Planner/ Engineer/ Architect/ Supervisor/ Grounds and the Licensed Structural Engineer/	up/ Firm.
(1) C:4- Di	

- (1) Site Plan;
- (2) Building Plan;
- (3) Service Plan;
- (4) Parking and Circulation Plan;
- (5) General Specifications (in attached form);
- (6) Structural Drawings (where applicable) along with a certificate from the Engineer/ Structural Engineer/ Architect who prepared the structural drawings to the effect that while designing the structure, the provisions of regulation 31 have been complied with;
- (7) A certificate of structural soundness, in ANNEXURED, from a competent technical person (where applicable);
- (8) Ownership title;
- (9) Copy of receipt of fee for building permission;
- (10) No Objection Certificate (NOC) in prescribed form from the concerned Local Council/ Village Council;
- (11) Receipt of latest Revenue Tax paid;
- (12) Other documents as required.

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The building plan has been prepared strictly as per the approved building Regulation and the relevant IS Codes/ provisions of NBC. 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.

I am aware that in the event of building being constructed in violation of the sanctioned building plan approval, the Authority shall have the right to take action against me as it may deem fit including referring the matter to concerned professional and statutory councils for taking disciplinary action against me. I, therefore request that the construction may be approved and building permission issued to me.

(Signature of the Owners) Name of the owner(s) Address of the owner(s)	(Signature of Registered Architect/ Engineer/ Town Planner/ Supervisor
Name of the owner(s)	 (Signature of Registered Architect/ Engineer/ Town Planner/ Supervisor
Name of the owner(s)	(Signature of Registered Architect/ Engineer/ Town Flammer/ Supervisor
	Registration No. of the Architect/ Engineer/ Town Planner/ Supervisor
	Address of the Architect/ Engineer/ Town Planner/ Supervisor
Enclosed: As stated above	Dated:
	RM OF CERTIFICATE OF STRUCTURAL SOUNDNESS IN CASE OF ED EXTENSION/ADDITION OF AN EXISTING BUILDING
	[Regulation8(1) and 7(c) of the Mizoram Urban Area Building Regulation, 2024]
	CERTIFICATE OF STRUCTURAL SOUNDNESS
Certified that the structur	al soundness of the existing building owned by Mr./ Mrs/ Ms
Veng has been verified	by me with reference to the relevant Indian Standards for Structural Design as
	EL of the Mizoram Urban Area Building Regulation, 2024 and the building is proposed extension/ addition of the building as per his/her application to the
Date	:
Signature	:
NAME	:
License / Registration No.	:
ANN	EXURE E: FORM OF GRANT OF BUILDING PERMIT
	[Regulation10 (1) of the Mizoram Urban Area Building Regulation, 2024]
No	Dated
То,	
Mr./ Mrs./ Ms.	
_	
	application recorded as No dated for grant of ection/ alteration addition of a semi-permanent / permanent

building on a plot covered by LSC/ Pass No. \_\_\_\_\_ in \_\_\_\_ Ward in the locality of

\_\_\_\_\_ (Veng), I hereby inform you that –

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- permission has been granted as	per the approve	d drawings/ statement enclosed herewith.
- permission has been granted wi		
(1)		
(2)		
(3)		
Period of validity of building permissi		
Three year from the date of issue of th		
Dated	:	
Signature of the authorized officer	:	
NAME	:	
Designation	:	
(Office Seal)	:	
Copy to:		
	lage Council,	for favor of information and
necessary action.		
<ol> <li>Technical person concerned.</li> </ol>		
3) Guard File.		
	Regulation10(2)	of the Mizoram Urban Area Building Regulation, 2024
No		Dated
To,		
Mr./ Mrs./ Ms		
Sir/ Madam,		
· ·	for building pe	rmission dated, it is proposed to
refuse permission on the following g		
(1)		
(2)		
(3)		
You are called upon to show cau	 se, within seven	days of the receipt of this notice, why permission shall
not be refused.	,	,,, r
Dated	:	
Signature of the authorized officer	:	
NAME	:	
Designation	:	
(Office Seal)	:	
Copy to:	•	
1) Chairman, Local Council,		_ for favor of information and necessary action.
2) Technical person concerned.		·

# ANNEXURE G: FORM OF REFUSAL OF BUILDING PERMIT

[Regulation10(2) of the Mizoram Urban Area Building Regulation, 2024]

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No			Dated	l
To,				
Mr./ Mrs./ Ms.			_	
With reference to your application r			 dated	for grant of
permit for erection/ re-erection/ altera				
building on a plot covered by LSC/				
locality of(	Veng), I hereby in	nform you tl	hat permission cannot	be granted on the
following grounds:	7	,	1	C
(1)				
(2)				
(3)				
(4)				
Building Plans etc. are returned l	nerewith.			
Dated				
Signature of the authorized officer	:			
NAME	:			
Designation	:			
(Office Seal)	:			
Copy to:				
1) Chairman, Local Council,		for favor of	information and nece	ssarv action.
2) Technical person concerned.				7
3) Guard File.				
			-N.G	
	NNEXURE H: U			Dogulation 2024]
[R	eguiation/(14) of	the Mizorar	n Urban Area Building	g Regulation, 2024]
I hereby certify that the work in the	plot covered by	LSC/ Pass N	No. in	Ward in the
locality of \				
with the Sanctioned building plans sp				
hereby assure that no provisions of th				
Dated:				
	Signature	: .		
Name (in block letters) of Teo	•	: .		
License/ Reg	istration No.	: .		
_				
ANNEXURE I: FORM OF N				
	[Regulation15 of	the Mizorar	n Urban Area Building	g Regulation, 2024]
-				
То,				
The Commissioner/ Vice Chairm	nan/ Secretary,			
ULB/ Development Authority,				
[Town Name], [District Name], I	Mizoram.			
Sir,	,			1
I have the honor to inform you	that erection/ r	e-erection/	alteration of a buil	ding in Plot No.

		, Ward	No _			,					Veng
will	be commenced on										
						•	•	C		•	
			Yours	faith	fully,						
		Signature				:_					
		Name in l	olock lett	ter							
		Address v	vith Hou	se No		:_					
	ANNEXURE J: FORM						<b>E FOR BUIL</b> Urban Area B				2024)
То											
,	The Commissioner/ Vice C	Chairman/ S	Secretary	,							
1	ULB/ Development Autho	rity,									
	[Town Name], [District Na	ame], Mizor	am.								
Sir,											
	I have the honor to inform										
Plot ?	No, Ward cordance with permission		, _				······································	Veng ha	ıs been	comp	oletec
in ac	cordance with permission	No		dated			The wor	k has b	een co	mplet	ed or
Urba	 work has been executed in n Area Building Regulatio :					on giv	en and no pr	ovision	s of th	ie Miz	oram
			Yours	faith	fully,						
		Signature			·	:_					
		Name in l	olock lett	ter							
		Address v	. 1								

# ANNEXURE K: DUTIES AND RESPONSIBILITIES OF TECHNICAL PERSONNEL AND APPLICANT/ OWNER

[Regulation7(16)(f) of the Mizoram Urban Area Building Regulation, 2024)

- II. Duties and responsibilities of Engineers, Structural Engineers, Architects, Supervisors and Groups/Firms:
- (1) They shall be well-conversant with the provisions of the Act, these Regulation and all relevant rules and regulations made under the Act and shall prepare plans, sections, elevations and other structural details as per the provisions of these Regulation.
- (2) They shall submit all plans as may be necessary together with all documents and other details which are required to be submitted under these Regulation.
- (3) They shall comply with all directions of the Authority in connection with the buildings for which they have prepared plans/ drawings expeditiously and fully. When they do not agree with such directions, they shall state their objections in writing within the stipulated time.
- (4) They shall immediately intimate corrections or other changes made by them in the plans as per direction from the Authority to the owner.

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- (5) They shall not take up preparation of reports, estimate, plans or drawings, if the same are intended to be executed in contravention of the provisions of the Regulation.
- (6) They shall give all facilities to the Authority to inspect and examine the work in progress.
- (7) They shall be held responsible for any work executed on site in contravention of the provisions of the Regulation.
- (8) They should not deviate or allow any deviation from the sanctioned plan or site development permit in the execution of work at site.
- (9) They shall submit certificates in regard to commencement of work at site, and completion up to plinth level within 10 days of completion and completion certificate within 30 days after the work is completed.
- (10) They shall be deemed to have continued their supervision of construction of the building unless they have given notice in writing to the Authority that they have ceased to serve as the technical person for the building and shall be held responsible for the work executed up to the date of intimation.
- (11) The Authority may, in the case of violation of any of the provisions of the Act and the Regulation, take action against any technical person in accordance with the provisions of these Regulation.

## III. Duties and Responsibilities of Applicant/ Owner:

- (1) He/ She shall appoint/engage a technical person as required under these Regulation.
- (2) He/ She shall provide safety of workers and others during construction from commencement to completion.
- (3) He/ She shall ensure that no undue inconvenience is caused to others in the course of the construction activities.
- (4) He/ She shall observe and perform directions of the Authority issued from time to time and all terms and conditions of the site development permit and building permit and the provisions of the Act, Rules and Regulations relating to building construction.
- (5) He/ She shall be responsible for non-compliance of instructions, details and specifications supplied by the technical person during construction of the building.
- (6) He/ She shall not allow any deviation from the sanctioned site development permit and building plan in the course of construction of the building.
- (7) If it affects the neighbor's land/ property, the owner/ offender shall be fined to borne the expenditure for demolition, repairs and reconstruction of the neighbor's land/ property.

# ANNEXURE L: INDIAN STANDARDS TO BE TAKEN INTO CONSIDERATION FOR STRUCTURAL DESIGN OF BUILDINGS AND STRUCTURES

[Regulation8(11) of the Mizoram Urban Area Building Regulation, 2024]

#### For General Structural Safety

1.01	Ochicial Structural Said	. Ly	
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
			Part 2 Imposed Loads
5.	IS 875 (Part 3)	:	1987 Design Loads (other than Earthquake) for Buildings and Structure
			Part 3 Wind Loads.
6.	IS 875 (Part 4	:	1987 Design Loads (other than Earthquake) for Buildings and Structures

Part 4 Snow Loads.

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7. IS 875 (Part 5 1987 Design Loads (other than Earthquake) for Buildings and Structures Part 5 Special Loads and Combination. Code of Practice for Design of Structural Timber in Building. 8. IS 883:1966 9. IS 1904:1987 Code of Practice for Structural Safety of Buildings: Foundation. Code of Practice for Structural Safety of Buildings: Masonry Walls. 10. IS 1905:1987 11. IS 2911(Part1) Section 1:1979 Code of Practice for Design and Construction of Pile: Foundation Section. Section 2 Based Cast in situ Piles. Part 1 : Section 3 Driven Precast Concrete Piles. Part 1 Part 1 Section 4 Based Precast Concrete Piles. Part 2 : Timber Piles. : Under Reamed Piles. Part 3 : Load Test on Piles. Part 4

## For Cyclone/Wind Storm Protection

12. IS 875 (3)-1987 : Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures, Part 3, Wind Loads.

13. Guidelines (Based on IS 875 (3)-1987 for Improving the Cyclone Resistance of Low-rise Houses and other Buildings.

# For Earthquake Protection

14.	IS 1893-2002	:	Criteria for Earthquake Resistant Design of Structures (Fifth Revision)		
15.	IS 13920-1993	:	Ductile Detailing of Reinforced Concrete Structures subjected to Seismic		
			Forces Code of Practice.		
16.	IS 4326-1993	:	Earthquake Resistant Design and Construction of Buildings-Code of		
			Practice (Second Revision)		
17.	IS 13828-1993	:	Earthquake Resistant Design and Construction of Buildings-Code of		
			Practice (Second Revision)		
18.	IS 13827-1993	:	Improving Earthquake Resistance of Earthen Buildings - Guidelines		
19.	IS 13935-1993	:	Repair and Seismic Strengthening of Buildings-Guidelines.		

#### For Protection of Landslide Hazard

20. IS 14458 (Part 1) 1998 : Guidelines for Retaining Wall for Hill Area: Part1: Selection of Type of

21. IS 14458 (Part 2) 1997 : Guidelines for Retaining Wall for Hill Area: Part 2 Design of Retaining/ Breast Walls.

22. IS 14458 (Part 3) 1998 : Guidelines for Retaining Wall for Hill Area: Part 3 Construction of Dry Stone Walls.

23. IS 14496 (Part 2) 1998 : Guidelines for Preparation of Landslide-Hazard Zonation Maps in

Mountainous Terrains: Part 2 Macro - Zonation.

#### ANNEXURE M: REQUIREMENTS OF SANITARY FITTINGS IN PUBLIC BUILDINGS

[Regulation41 of the Mizoram Urban Area Building Regulation, 2024]

## (a) Requirements of sanitary fittings for Office buildings:

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Sl. No.	Fitments	For Males	For Females
1	Water Closet	1 for every 25 persons or part thereof	1 for every 15 persons part thereof exceeding 10
2	Ablution Taps	1 in each Water Closet	1 in each Water Closet
3	Urinals	Nil upto 6 persons 1 for 7 - 20 persons 2 for 21- 45 persons	
		3 for 46- 70 persons 4 for 71-100 persons from101-200 persons added at the rate of 3% above 200 persons added at the rate of 2.5%	
4	Wash Basin	1 for every 25 persons or part thereof exceeding 10	1 for every 25 persons or part thereof

# (b) Requirements of Sanitary fittings in Shops and Commercial Offices.

Sl. No.	Fitments	For Personnel
1	Water closet	One for every 25 persons or part thereof exceeding 15 (including employees and customers). For female personnel 1 for every 15 persons or part thereof exceeding 10.
2	Drinking water fountain	One for every 100 persons with a minimum of one on each floor.
3	Wash basin	One for every 25 persons or part thereof.
4	Urinal	Nil up to 6 persons
		One for 7 - 20 persons
		2 for 21 - 45 persons
		3 for 46 - 70 persons
		4 for 71 - 100 persons
		For 101 to 200 persons, add @ 3%
		For over 200 persons, add @ 2%
5	Cleaner's Sink	One per floor minimum, preferable in or adjacent to sanitary rooms.

Note: Number of customers for the purpose of the above calculation shall be the average number of persons in the premises for a time interval of one hour during the peak period. For male-female calculation a ratio of 1:1 may be assumed.

(c) Requirements of Sanitary fittings for Special Residential:

	*					
SI.	Fitments	For Residential Public	For Public Rooms	c Rooms	For Non-Residential Staff	idential Staff
No.		& Staff	For Male	For Female	For Male	For Female
1	Water Closet	One per 8 persons omitting occupants of the room with attached water closet. Minimum of 2 if both sexes are lodged	One per 100 persons up to 400 persons; for over 400 add @ 1 per 250 persons or part thereof	2 for 100 persons up to 200 persons; over 200 add @ 1 per 100 persons	1 for 1-15 persons 2 for 16-35 persons 3 for 36-65 persons 4 for 66-100 persons	1 for 1-12 persons 2 for 13-25 persons 3 for 26-40 persons 4 for 41-57 persons
7	Ablution	One in each water closet   One in each water   closet	One in each water closet	One in each water closet	One in each water closet	One in each water closet
I W.	ater tap with drainage a	1 water tap with drainage arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closet and urinals Nil up to 6 persons	ded for every 50 person to 6 persons	ns or part thereof in s	the vicinity of water clo	set and urinals Nil up
$\kappa$	Urinals		One for 50 persons or part thereof		Nil up to 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 46-70 persons 4 for 71-100 persons	
4	Wash Basins	One per 10 persons omitting the wash basins installed in the room suits	One per water closet and urinal provided	One per water closet provided	1 for 1-15 persons 2 for 16-35 persons 3 for 36-65 persons 4 for 66-100 persons 5 for 58-77 persons	1 for 1-12 persons 2 for 13-25 persons 3 for 26-40 persons 4 for 41-57 persons 5 for 58-100 persons
5	Baths	One per 10 persons omitting occupants of the room with bath in suits				
9	Stop sinks	One per 30 bed rooms(one per floor min.)				
7	Kitchen sinks	One in each Kitchen	One in each Kitchen	One in each Kitchen	One in each Kitchen	One in each Kitchen

- 49 -

Occupancy:
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d) Requirements o

SI.	1,4	Marson Colon	Boarding Institution	Institution	Other Educational Institution	nal Institution
No.	rimients	Nursery school	For Boys	For Girls	For Boys	For Girls
1	Water Closet	One per 15 pupils and part thereof	15 pupils One per 8 pupils and thereof part thereof	One per 6 pupils and part thereof	One per 6 pupils and One/40 pupils and One/25 part thereof	One/25 pupils and part
7	Ablution Taps	One in each water closet	each water One in each water One in each water One in each water One in each water closet	One in each water closet	One in each water closet	One in each water closet
	One water tap with durinals	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and urinals	shall be provided for e	very 50 persons or par	t thereof, in the vicinit	ty of water closet and
3	Urinals		One per every 25 pupils or part thereof		One per every 20 pupils or part thereof	
4	Wash Basins	One per every 15 pupils or part thereof	One per every 15 pupils or part 8 pupils or part 6 pupils or part 40 pupils or part thereof thereof thereof	One per every 6 pupils or part thereof	every One per every part 40 pupils or part thereof	every One per every part 40 pupils or part thereof
5	Basins	One bath sink per One for 40 pupils or part 8 pupils thereof	or	every One for every part 6 pupils or part thereof		
9	Drinking Water fountains	Water One for every 50 pupils or part thereof	One for every 50 pupils or part 50 pupils or part thereof thereof thereof One for every One for every 50 pupils or part 50 pupils or par	every One for every part 50 pupils or part thereof	every One for every part 50 pupils or part thereof	every One for every part 50 pupils or part thereof
^	Cleaner's sink		One per floor (minimum)	floor One per floor (minimum)	floor One per floor (minimum)	

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Hospitals
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ت	(e) Requirements of Sanitary fittings for Institutional (Medical) Occupancy - Hospitals	nitary fittings for Ins	titutional (Medical) O	ccupancy - Hos	pitals	
SI.	Fitments	Hospitals with	Boarding institution		Other Educational Institution	ion
No.		indoor patient wards for male and females	For Males	For Females	For Males Personnel	For Females Personnel
1	Water Closet	One for every 6 beds	One for every 100	One for every	One for every 25 persons	One for every 15
		or part thereof	or	or	or part thereof	persons or part
			thereot	part thereot		thereof
2	Ablution Taps	One in each water	One in each water	One in each	One in each water closet	One in each water
3	Socion dim not noton	Ciosci	crosci	Marci Closer	Lipsand in the circle tripies	ter closet and uninals
) Ite	water tap with thainag	e arrangements snam d	e provided for every 30	J persons or part	One water tap with transfer attaingements shall be provided for every 30 persons of part thereof, in the victurity of water closed and utiliass	ater croset affu urmans
3	Urinals		One for every 50		Nil up to 6 persons	
			persons or part		1 for 7-20 persons	
			thereof		2 for 21-45 persons	
					3 for 46-70 persons	
					4 for 71-100 persons from	
					101 to 200 persons add @	
					of 3% for over 200 persons	
					add @ ot 25%	
4	Wash Basins		One for every 100	One for every	One for every 100 persons	One for every 100
		add one for every	persons or part	100 persons or	or part thereof	persons or part
		additional 30 beds or part thereof	thereof	part thereof		thereof
5	Baths with shower	One bath with			One on each floor	One on each floor
	or part thereof	shower for every 8				
		beds or part thereor				
6	Bed pan washing sinks	One for each ward				
7	Kitchen sink and	One for each ward				
	dish washers (where					
	kitchen is provided)					
8	Cleaner's sink	One for each ward	One per floor	One per floor	One per floor	
		one per moor	(IIIIIIIIIIIII)			

(f) Requirements of Sanitary fittings for Institutional Medical Occupancy (Staff Quarters and Hostels)

SI.	Tittee out to	Doctor's D	Doctor's Dormitories	New Motor
No.	riments	For Male Staff	For Female Staff	Nurse moters
1	Water Closet	One for 4 persons	One for 4 persons	One for 4 persons and part thereof
2	Ablution Taps	One in each water closet	One in each water closet	One in each water closet
3	Wash Basins	One for every 8 persons or part	every 8 persons or part One for every 8 persons or part One for every 8 persons or part	One for every 8 persons or part
		thereof	thereof	thereof
4	4 Baths (with shower) One for		every 4 persons or part One for every 4 persons or part One for every 4-6 persons or part	One for every 4-6 persons or part
_		TICICOI	diction	tilet co.
5	Cleaner's sink	One per floor (minimum)	One per floor (minimum)	One per floor (minimum)

(g) Requirements of Sanitary fittings for Governmental and Public Business Occupancies and Offices

SI.	7,54 6 4.0	Other Educational Institution	nal Institution
No.	Firments	For Males Personnel	For Females Personnel
1	Water Closet	One for every 25 persons or part thereof	One for every 15 persons or part thereof
2	Ablution Taps	One in each water closet	One in each water closet
	One water tap with draina	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and	ns or part thereof, in the vicinity of water closet and
	urinals.		
	Urinals	Nil up to 6 persons	
		1 for $7 - 20$ persons	
3		2 for 21 – 45 persons	
		3 for 46 – 70 persons	
		4 for 71 – 100 persons	
		from 101 – 200 persons add @ of 3% for over 200	
		persons add @ of 2.5%	
4	Wash Basins	One for every 25 persons or part thereof	
5	Drinking water fountains	Drinking water fountains One for 100 persons with a minimum on each floor	
9	Baths	Preferably one on each floor	
7	Cleaner's Sink	One per floor (minimum) preferably in or adjacent	
		to sanitary rooms	

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	nitrements of Sanitary fittings for Assembly ( )C	and a manner of containing I are

No.         Fullents         Males         Females         Females         Females           Water Closet         One per 100 persons up to persons up to persons.         Two per 100 persons up to persons. For over 200 persons.         Dersons.         Dersons.           1         400 persons. For over 400 persons. For over 400 persons. And @ of 1 per 200 persons. And @ of 1 per 100 persons. Two for 16 - 35 persons.         Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 13 - 25 persons. Two for 14 persons. Two for 15 persons. The form for 1	SI.	T. 4 400 000 4.0	For P	For Public	For Staff	Staff
Water Closet Ablution Taps One water tap urinals. Urinals Wash Basins	No.		Males	Females	Males	Females
		Water Closet	One per 100 persons up to	Two per 100 persons up to	One for every 1 - 15	One for every 1 - 12
	_			200 persons. For over 200	persons.	persons.
	<del>-</del>		persons, add @ of 1 per 250	persons, add @ of 1 per 100	Two for 16 – 35 persons.	Two for 13 – 25 persons.
			persons or part thereof.	persons or part thereof.		
<b>'</b>		Ablution Taps				One in each water closet
Urinals.  Urinals  One for every persons or part thereof  Wash Basins  One for every 200 persons  Wash Basins  One for every 200 persons	7	One water tap	with drainage arrangements s	shall be provided for every 50	persons or part thereof, in the	e vicinity of water closet and
Urinals One for every persons or part thereof  Wash Basins One for every 200 persons or part thereof or part t		urinals.				
Wash BasinsOne for every 200 personsOne for every 200 personsOne for every 200 personsOne for every 200 personsOr part thereof2 for 16 - 35 persons		Urinals	One for every persons or		Nil up to 6 persons	
Wash BasinsOne for every 200 personsOne for every 200 personsOne for every 200 personsOne for every 200 personsOr part thereofOr part thereof2 for 16 - 35 persons			part thereof		1 for 7 – 20 persons	
Wash Basins One for every 200 persons One for every 200 persons or part thereof	<u> </u>				2 for 21 – 45 persons	
Wash BasinsOne for every 200 personsOne for every 200 personsOne for every 200 personsOne for every 200 personsor part thereofor part thereof2 for 16 – 35 persons					3 for 46 – 70 persons	
or part thereof or part thereof 2 for 16 – 35 persons	_	Wash Basins	One for every 200 persons	One for every 200 persons	1 for 1 – 15 persons	1 for 1 – 12 persons
	<del>-</del>		or part thereof	or part thereof	2 for 16 – 35 persons	2 for 13 – 25 persons

**Note:** It may be assumed that two – third of the number are males and one – third females.

(i) Requirements of Sanitary fittings for Assembly Buildings (Art Galleries, Libraries and Museums).

SI.	Sl.   Fitments	For Public		For Staff	
No.		Males	Females	Males	Females
П	Water Closet	One per 200 persons up to	One per 200 persons up to One per 100 persons up to One for every 1-15 One	One for every 1-15	One for every
		450 persons. For over 400 persons, add @ of 1 per 250	450 persons. For over 400 200 persons. For over 200 persons bersons, add @ of 1 per 250 persons, add @ of 1 per 250 persons.		1-12persons Two for 13-25 persons
		persons or part thereof	persons or part thereof		
2	Ablution Taps	One in each water closet	One in each water closet	One in each water closet One in each water closet	One in each water closet
	One water tap wit	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closet and	be provided for every 50 perso	ons or part thereof in the vi	cinity of water closet and
	uilliais				
3	Urinals	One for every 50 persons		Nil up to 6 persons	
				1 for 7 – 20 persons	
				2 for 21 – 45 persons	

1 for 1 – 12 persons 2 for 13 – 25 persons		
1 for 1 – 15 persons 2 for 16 – 35 persons		
thereof. For over 200 persons or 1 for 1 – 15 persons thereof. For over 200 part thereof. For over 200 2 for 16 – 35 persons, add @ of 1 per 250 persons, add @ of 1 per 150 persons or part thereof		1 per floor minimum
One for every 200 persons or part thereof. For over 200 persons, add @ of 1 per 250 persons or part thereof		
4 Wash Basins		Cleaner's sink
4		5

Note: It may be assumed that two - third of the number are males and one - third females

# (j) Requirements of Sanitary fittings for Restaurants

SI.	Difference	For	For Public	For Staff	f
No.	riments	Males	Females	Males	Females
1	Water Closet	One for 50 seats up to 200 seats. For over 400	0 seats up to One for 50 seats up to 200 One for every 1 – 15 per. For over 400 seats. For over 200 seats, Two for 16 – 35 persons	sons	1 for 1 – 12 persons 2 for 13 – 25 persons
		seats, add @ of 1 per 100	add @ of 1 per 100 seats or	seats, add @ of 1 per 100   add @ of 1 per 100 seats or   Three for every 36 - 65   3 for 26 - 40 persons	3 for 26 – 40 persons
		seats of part thereof	part thereof	persons	4 for 41 – 57 persons
				Four for every 66 - 100   5 for 58 - 77 persons	5 for 58 – 77 persons
				persons	6 for 78 – 100 persons
2	Ablution Taps	One in each water closet	One in each water closet One in each water closet	One in each water closet	One in each water closet
	One water tap with ourinals	Irainage arrangements shal	ll be provided for every 50 pe	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and urinals	inity of water closet and
3	Urinals	One per 50 seats		Nil up to 6 persons	
				1 for $7 - 20$ persons	
				2 for 21 – 45 persons	
				3 for 46 – 70 persons	
				4 for 71 – 100 persons	
4	Wash Basins		One for every water closet		
5	Kitchen sinks and		One in each Kitchen		
	dish washer				
9	Stop or service sink		One in the Restaurant		

Note: It may be assumed that two - third of the number are males and one - third females

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SI.	Tittee conf.	Other Educational Institution	nstitution
No.	ritments	For Males Personnel	For Females Personnel
1	Water Closet	1 for 1 – 15 persons	1 for 1 – 12 persons
		2 for 16 – 35 persons	2 for 16 – 25 persons
		3 for 36 – 65 persons	3 for 26 – 45 persons
		4 for 66 – 100 persons	4 for 41 – 57 persons
		From 101 to 200 persons add @ of 3%, from over 200	5 for 58 – 77 persons
		persons add @ of 2.5%	6 for 78 – 100 persons
2	Ablution Taps	One in each water closet	From 101 to 200 persons add @ of 5%
			From over 200 persons add @ of 4%
			One in each water closet
	One water tap with draina urinals	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and urinals	part thereof, in the vicinity of water closet and
3	Urinals	Nil up to 6 persons	
		For 7 – 20 persons	
		For 21 – 45 persons	
		For 46 – 70 persons	
		For 71 – 100 persons	
		For 101 to 200 persons add @ of 3%, for over 200 persons	
		add @ of 2.5%	
4	Wash Taps	One for every 25 persons or part thereof	One for every 25 persons or part thereof
5	Drinking water fountains	One for 100 persons with a minimum of one in each floor	
9	Baths preferably showers		As required for particular trades or occupation
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SI.		For Residential Public &	For Public Rooms	c Rooms	For Non-Residential Staff	idential Staff
No.	ritments	Staff	For Male	For Female	For Male	For Female
1	Water Closet	One per 8 persons omitting	One per 100	2 for 100	1 for 1-15 persons 2 for 16-35 persons	1 for 1-12 persons 2 for 13-25 persons
	136010	with attached water closet.		200 persons;	3 for 36-65 persons	3 for 26-40 persons
		Minimum of 2 if both sexes	for over 400	over 200 add	S	
		are lodged	add @ 1 per	@ 1 per 100		
			250 persons or	persons		
,						-
7	Ablution	One in each water closet	h	One in each	One in each water One in each water	One in each water
			water closet	water closet	closet	closet
$I_{\nu}$	1 water tap with drainage	trainage arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closet and	provided for every	, 50 persons or pa	rt thereof in the vicinity	v of water closet and
			urinals Nil up to 6 persons	6 persons		
3	Urinals		One for 50		Nil up to 6 persons	
			persons or part		1 for 7-20 persons	
			thereof		2 for 21-45 persons	
					3 for 46-70 persons	
					4 for 71-100 persons	
4	Wash Basins	One per 10 persons omitting	One per	One per water	1 for 1-15 persons	1 for 1-12 persons
		the wash basins installed in	water closet	closet provided	2 for 16-35 persons	2 for 13-25 persons
		the room suits	and urinal		3 for 36-65 persons	3 for 26-40 persons
			provided		4 for 66-100 persons	4 for 41-57 persons
					5 for 58-77 persons	5 for 58-100 persons
5	Baths	One per 10 persons omitting				
		occupants of the room with bath in suits				
9	Stop sinks	One per 30 bed rooms (one				
	Ť	per floor min.)				
	Kitchen	One in each Kitchen	each	One in each	One in each Kitchen One in each Kitchen	One in each Kitchen
	sinks		Kitchen	Kitchen		

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iitary fittings fo	
(m) Requirements of Sanitary fittings for Educationa	
(m) Requ	

SI.	7,000	Massing Colonia	Boarding Institution	nstitution	Other Educational Institution	nal Institution
No.	FILMEMES	nursery school	For Boys	For Girls	For Boys	For Girls
1	Water Closet	One per 15 pupils and part thereof	pupils One per 8 pupils and of part thereof	One per 6 pupils and part thereof	One per 6 pupils and One/40 pupils and One/25 pupils and part thereof part	One/25 pupils and part
2	Ablution Taps	One in each water closet	One in each water closet	One in each water closet	One in each water One in each water One in each water closet closet	One in each water closet
	One water tap v urinals	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and urinals	ents shall be provided fo	or every 50 persons or p	art thereof, in the vicin	ity of water closet and
С	Urinals		One per every 25 pupils or part thereof		One per every 20 pupils or part thereof	
4	Wash Basins	One per every 15 pupils or part thereof	One per every 15 One per every 8 One per every 6 One per every 40 One per every 40 pupils or part thereof	One per every 6 pupils or part thereof	One per every 40 pupils or part thereof	One per every 40 pupils or part thereof
5	Basins	One bath sink per 40 One for every 8 pupils or part thereof	One for every 8 pupils One for every 6 pupils or part thereof	One for every 6 pupils or part thereof		
9	Drinking Water fountains	One for every 50 pupils or part thereof	One for every 50 pupils or part thereof	One for every 50 pupils or part thereof	One for every 50 pupils or part thereof	One for every 50 pupils or part thereof
	Cleaner's sink		One per floor One (minimum)	One per floor One (minimum)	One per floor (minimum)	

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,		Hospitals with	Boarding institution	institution	Other Educational Institution	Institution
SI. No.	Fitments	indoor patient wards for male and females	For Males	For Females	For Males Personnel	For Females Personnel
1	Water Closet	One for every 6 beds or part thereof	One for every persons or thereof	100 One for every 100 part persons or part thereof	100 One for every 25 part persons or part thereof	One for every 15 persons or part thereof
2	Ablution Taps	One in each water closet	One in each water closet	One in each water One close	One in each water One closet	One in each water closet
One	water tap with drainage a	rrangements shall be	provided for every 50	persons or part therec	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and urinals	closet and urinals
6	Urinals		One for every 50 persons or part thereof		Nil up to 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 46-70 persons 4 for 71-100 persons from 101 to 200 persons add @ of 3% for over 200 persons add @ of 25%	
4	Wash Basins	2 up to 30 beds; add one for every additional 30 beds or part thereof	One for every 100 persons or part thereof	One for every persons or thereof	100 One for every 100 part persons or part thereof	One for every 100 persons or part thereof
7.	Baths with shower or part thereof	One bath with shower for every 8 beds or part thereof			One on each floor	One on each floor
9	Bed pan washing sinks	One for each ward				
	Kitchen sink and dish washers (where kitchen is provided)	One for each ward				
∞	Cleaner's sink	One for each ward one per floor	One per floor (minimum)	One per floor (minimum)	One per floor	

(o) Requirements of Sanitary fittings for Institutional Medical Occupancy (Staff Quarters and Hostels)

No.FuturentsFor Male StaffFor Female StaffFor Female StaffIndustry and part thereof1Water ClosetOne for 4 personsOne for 4 persons and part thereof2Ablution TapsOne in each water closetOne in each water closetOne in each water closet3Wash BasinsOne for every 8 persons or part thereofOne for every 4 persons or part thereofOne per floor (minimum)5Cleaner's sinkOne per floor (minimum)One per floor (minimum)One per floor (minimum)	SI.	T. 4 444 0 44 4 0	Doctor's Dormitories	ormitories	News Hotel
	No.	rimients	For Male Staff	For Female Staff	Nuise moters
	1	Water Closet	One for 4 persons	One for 4 persons	One for 4 persons and part thereof
	2	Ablution Taps	One in each water closet	One in each water closet	One in each water closet
	3	Wash Basins	One for every 8 persons or part thereof	One for every 8 persons or part thereof	One for every 8 persons or part thereof
One per floor (minimum)	4	Baths (with shower)	One for every 4 persons or part thereof	One for every 4 persons or part thereof	One for every 4-6 persons or part thereof
	5	Cleaner's sink	One per floor (minimum)	One per floor (minimum)	One per floor (minimum)

(p) Requirements of Sanitary fittings for Governmental and Public Business Occupancies and Offices

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SI.	Diffus confe	Other Educational Institution	ıtion
No.	rithents	For Males Personnel	For Females Personnel
1	Water Closet	One for every 25 persons or part thereof	One for every 15 persons or part thereof
2	Ablution Taps	One in each water closet	One in each water closet
3	One water tap with drainage urinals.	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and urinals.	hereof, in the vicinity of water closet and
	Urinals	Nil up to 6 persons	
		1 ror / – 20 persons 2 for 21 – 45 persons	
		3 for 46 – 70 persons	
		4 for 71 – 100 persons	
		from 101 – 200 persons add @ of 3% for over 200 persons add	
		@ of 2.5%	
4	Wash Basins	One for every 25 persons or part thereof	
5	Drinking water fountains	One for 100 persons with a minimum on each floor	
9	Baths	Preferably one on each floor	
7	Cleaner's Sink	One per floor (minimum) preferably in or adjacent to sanitary	
		rooms	

(q) Requirements of Sanitary fittings for Assembly Occupancy Buildings (Cinema, Theatres, Auditoria etc.)

SI.	7;4	For P	For Public	For Staff	Staff
No.	riuments	Males	Females	Males	Females
1	Water Closet	One per 100 persons up to	One per 100 persons up to Two per 100 persons up to One for every 1 - 15 One for every 1 - 12	One for every 1 - 15	One for every 1 - 12
		400 persons. For over 400	over 400 200 persons. For over 200 persons.	persons.	persons.
		persons, add @ of 1 per 250	1 per 250 persons, add @ of 1 per 100 Two for 16 - 35 persons.	Two for $16 - 35$ persons.	Two for 13 – 25 persons.
		persons or part thereof.	persons or part thereof.		
2	Ablution Taps	Ablution Taps One in each water closet	One in each water closet	One in each water closet	One in each water closet
	One water tap	with drainage arrangements s	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and	persons or part thereof, in the	e vicinity of water closet and
	urinals.				
3	Urinals	One for every persons or		Nil up to 6 persons	
		part thereof		1 for $7-20$ persons	
				2 for 21 – 45 persons	
				3 for 46 – 70 persons	
4	Wash Basins	One for every 200 persons	One for every 200 persons One for every 200 persons 1 for 1 – 15 persons	1 for 1 – 15 persons	1 for 1 – 12 persons
		or part thereof	or part thereof	2 for 16 – 35 persons	2 for 13 – 25 persons

Note: It may be assumed that two - third of the number are males and one - third females.

(r) Requirements of Sanitary fittings for Assembly Buildings (Art Galleries, Libraries and Museums).

S	Sl.   Fitments	For Public		For Staff	
Z	No.	Males	Females	Males	Females
	1 Water Closet	One per 200 persons up to	Water Closet   One per 200 persons up to   One per 100 persons up to   One for every 1-15 persons   One for every 1-12persons	One for every 1-15 persons	One for every 1-12persons
		450 persons. For over 400	over 400   200 persons. For over 200   Two for 16-35 persons	Two for 16-35 persons	Two for 13-25 persons
		persons, add @ of 1 per 250	persons, add @ of 1 per 250   persons, add @ of 1 per 150		
		persons or part thereof	persons or part thereof		
(1	2 Ablution Taps	One in each water closet	Ablution Taps One in each water closet One in each water closet One in each water closet	One in each water closet	One in each water closet
	One water tap	with drainage arrangements s	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closet and	persons or part thereof in the	e vicinity of water closet and
	urinals				

	1 for 1 – 12 persons 2 for 13 – 25 persons		
Nil up to 6 persons 1 for $7 - 20$ persons 2 for $21 - 45$ persons	1 for 1 – 15 persons 2 for 16 – 35 persons		
	Wash Basins One for every 200 persons One to every 200 persons or part thereof. For over part thereof. For over 200 2 for 16 – 35 persons 200 persons, add @ of 1 per persons, add @ of 1 per 150 250 persons or part thereof persons or part thereof	1 per floor minimum	r ( r · r
One for every 50 persons	One for every 200 persons or part thereof. For over 200 persons, add @ of 1 per persons, add @ of 1 per 250 persons or part thereof persons or part thereof		
3 Urinals	Wash Basins	5 Cleaner's sink	
3	4	5	

Note: It may be assumed that two – third of the number are males and one – third females

(s) Requirements of Sanitary fittings for Restaurants

SI.	Fitments	Fc	For Public	For Staff	ff
No.		Males	Females	Males	Females
1	Water Closet	One for 50 seats up One for 50 seat to 200 seats. For seats. For over over 400 seats, add add @ of 1 per @ of 1 per 100 seats or part thereof of part thereof	One for 50 seats up   One for 50 seats up to 200   One for every 1 – 15 persons to 200 seats. For over 200 seats, Two for 16 – 35 persons over 400 seats, add   add @ of 1 per 100 seats   Three for every 36 – @ of 1 per 100 seats   or part thereof   Pour for every 66 – Expension of part for every 60 – Expension of every 60 – Expe	One for 50 seats up to 200 One for every 1 – 15 persons 1 for 1 – 12 persons to 200 seats. For over 200 seats, add add @ of 1 per 100 seats of part thereof 200 seats of part thereof 200 seats of persons 200 seats and 300 seats and 300 seats and 300 seats add 300 seats and 300 seats	1 for 1 – 12 persons 2 for 13 – 25 persons 3 for 26 – 40 persons 4 for 41 – 57 persons 5 for 58 – 77 persons 6 for 78 – 100 persons
2	Ablution Taps	One in each water closet	One in each water One in each water closet closet	One in each water closet	One in each water closet
	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closet and urinals	rangements shall be <sub>l</sub>	provided for every 50 perso:	ns or part thereof, in the vicin	lity of water closet and
$\kappa$	Urinals	One per 50 seats		Nil up to 6 persons 1 for 7 – 20 persons 2 for 21 – 45 persons 3 for 46 – 70 persons 4 for 71 – 100 persons	
4	Wash Basins		One for every water closet		
5	Kitchen sinks and dish washer		One in each Kitchen		
9	Stop or service sink		One in the Restaurant		

Note: It may be assumed that two - third of the number are males and one - third females

(t) Requirements of Sanitary fittings for Factories:

CI N.	Tite and the	Other Educatic	Other Educational Institution
31. INO.	FILMENTS	For Males Personnel	For Females Personnel
1	Water Closet	1 for 1 – 15 persons	1 for 1 – 12 persons
		2 for 16 – 35 persons	2 for 16 – 25 persons
		3 for 36 – 65 persons	3 for 26 – 45 persons
		4 for 66 – 100 persons	4 for 41 – 57 persons
		From 101 to 200 persons add @ of 3%,	5 for 58 – 77 persons
		from over 200 persons add @ of 2.5%	6 for 78 – 100 persons
2	Ablution Taps	One in each water closet	From 101 to 200 persons add @ of 5%
			From over 200 persons add @ of 4%
			One in each water closet
	One water tap with drainage arrangeme	One water tap with drainage arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water	s or part thereof, in the vicinity of water
	closet and urinals		
3	Urinals	Nil up to 6 persons	
		For 7 – 20 persons	
		For 21 – 45 persons	
		For 46 – 70 persons	
		For 71 – 100 persons	
		For 101 to 200 persons add @ of 3%, for	
		over 200 persons add @ of 2.5%	
4	Wash Taps	One for every 25 persons or part thereof	One for every 25 persons or part thereof One for every 25 persons or part thereof
5	Drinking water fountains	One for 100 persons with a minimum	
		of one in each floor	
9	Baths preferably showers		As required for particular trades or
			occupation

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# ANNEXURE N: FORM OF APPLICATION FOR ERECTION OF TELECOMMUNICATION TOWERS

[Regulation46 of the Mizoram Urban Area Building Regulation, 2024]

To,			
	The Commissioner/ Vice Chairman/ Secretar	ry,	
	ULB/ Development Authority,		
	[Town Name], [District Name], Mizoram.		
Sir/	Madam,		
I/V	Ve	[name(s)	in full] hereby apply for permission to erect
а Т	elecommunication Tower on/ in	in the	e locality of, Ward No.
	under Rule	of the 1	Mizoram Urban Area Building Regulation
	4. I enclose herewith the following documents		
	Ownership title (attested copies of LSC/ Pass		
	NOC from owner of the house/plot and the a		aboring house/plot;
	NOC from the concerned Local Council/ Vil	,	2 1
	NOC from the Mizoram Pollution Control B of the tower;		
(5)	Registration certificate from the Dept. of Cor	nmunication,	Govt. of India.
	Clearance from Standing Advisory Commit		
	site.	•	,
(7)	Certificate of structural soundness for the to		
	erected from a licensed Structural Engineer (such as fire extinguishers) and lightning (such		, , , ,
(8)	Structural drawing;	cii as iigiitiiii	g conductors) shan be provided,
	Site Plan indicating –		
(2)	(i) Plot boundaries with dimensions;		
	(ii) Position of plot in relation to neighborin	a straats.	
	(iii) Setbacks;	ig streets,	
	(iv) All other existing structures on the plot;		
	(v) Height of buildings/ structures on neight	boring plote:	and
	(vi) Type of buildings/ structures on neighbor		and
(10	) Any other information as may be required by	~ -	V
	equest that permission may kindly be issued to		у.
	ted:	IIIC.	Yours faithfully,
Dai	Signature of the	Applicant	
	NAME in block		·
	Designation	1011013	
	Address		:
	Phone No		·
	I HOHE IN		•

# ANNEXURE O: TECHNICAL ASPECTS & OPTIONS OF RAIN WATER HARVESTING IN BUILT FORMS AND OPEN SPACES

[Regulation53 of the Mizoram Urban Area Building Regulation, 2024]

The storage of rain water on surface is a traditional technique and the structures used were underground tanks, ponds, check dams, weirs etc. Recharge to ground water is a new concept of rain water harvesting and the structures generally used are:

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(iii) Pits

Recharge pits are constructed for recharging the shallow aquifer. These are constructed 1 to 2 m, wide and to 3 m deep which are back filled with boulders, gravels, coarse sand.

(iv) Trenches

These are constructed when the permeable stream is available at shallow depth. Trench may be 0.5 m to 1 m wide, 1 to 1.5 m deep and 10 to 20 m long depending up availability of water. These are back filled with filler materials.

(v) Dug wells

Existing dug wells may be utilized as recharge structure and water should pass through filter media before putting into dug well.

(vi) Hand pumps

The existing hand pumps may be used for recharging the shallow/ deep aquifers, if the availability of water is limited. Water should pass through filter media before diverting it into hand pumps.

(vii) Recharge wells

Recharge wells of 100 to 300 mm diameter are generally constructed for recharging the deeper aquifers and water is passed through filter media to avoid choking of recharge wells.

(viii) Recharge shafts

For recharging the shallow aquifer which are located below clayey surface, recharge shafts of 0.5 to 3 m diameter and 10 to 15 m deep are constructed and back filled with boulders, gravels & course sand.

(ix) Lateral shafts with bore wells

For recharging the upper as well as deeper aquifers lateral shafts of 1.5 m to 2 m wide & 10 to 30 m long depending upon availability of water with one or two bore wells are constructed. The lateral shafts are back filled with boulders, gravels & coarse sand.

(x) Spreading techniques

When permeable strata start from top then this technique is used. Spread the water in streams/ Nalas by making check dams, nala bunds, cement plugs, gabion structures or a percolation pond may be constructed.

## ANNEXURE P: STRUCTURAL DESIGN BASIS REPORT

[Regulation33 of the Mizoram Urban Area Building Regulation, 2024]

- 1. This report will accompany the application for Building Permission
- 2. In case information on items 3. 10, 17, 18 and 19 cannot be given at this time; it should be submitted at least one week before commencement of construction.

	Part 1 General Data		
Sl. No.	Description	Information	Notes
1	Address of the building  Name of the building  Plot number  Subplot number  TPS scheme  Name  Number  Locality/ Township  District		

2	Name of the owner	
3	Name of builder on record	
4	Name of Architect/ Engineer on record	
5	Name of Structural Engineer on record	
6	Use of the building	
7	Number of storeys above ground level (including storey to be added later, if any)	
8	Number of basements below ground level	
9	Type of structure  Load bearing  RCC frame  RCC frame with shear walls  Steel frame	
10	Soil data	IS: 1893 Cl.6.3.5.2 IS: 875 Part 1
11	Dead load (unit weight adopted)  Earth  Water  Brick masonry  Plain cement concrete  Reinforced cement concrete  Floor finish  Other fill materials  Piazza floor fill and landscape	

# ANNEXURE Q: TECHNOLOGY, OPTIONS, SPECIFICATION OF EV CHARGING AND PCS INFRASTRUCTURE

[Regulation59 of the Mizoram Urban Area Building Regulation, 2024]

# 1. EV Charging Technology

- 1.1 **Electric Vehicle Supply Equipment (EVSE):** AN EVSE shall be a wall mounted box that supplies electric energy for recharging of electric vehicle batteries and shall have a safety lock out feature that does not allow current to flow from the device until the plug is physically inserted into the car. EVSEs may be customized with added features as mentioned, namely:
  - a) Authentication
  - b) Integrated payment gateways; and
  - c) Software for remote monitoring.

# 1.2 Types of EVSE

(a) **Charging speeds:** Charging power, which determined the time required to charge a vehicle, may vary by orders of magnitude across charge points, as shown in Table 1. A small household outlet may charge as slowly as 1.2 KW, while the most advanced rapid charging stations can charge up to 350 KW. Charging infrastructure is broadly broken unto three categories based on speed: Level 1, Level 2 and direct current (DC) fast-charging (sometimes referred to as Level 3).

- (b) **Private Charging:** Charging batteries of privately owned cars through domestic charging points. Billing shall be part of home or domestic metering.
- (c) **AC-Slow Charging:** The house private chargers are generally used with 230V/ 15A single phase plug which can deliver a maximum of up to about 2.5 KW of power. The EVSE supplies AC current to the vehicle's onboard charger which in turn shall convert the AC power to DC, allowing the battery to be charged.
- (d) **Public Charging:** For charging outside the house premises, electric power shall be billed and payment shall be collected. The power drawn by these chargers shall be managed from time to time.
- (e) **DC-Fast Charging:** DC current shall be sent to the electric car's battery directly via the charge port. FC chargers (usually 50 KW or more) may supply 100 or more kilometers of range per hour of charging. The fast chargers shall be used as a top-up, rather than fully charging vehicles, for cab companies and corporate users who have a fleet of electric cars.

# 2. EV share in all vehicles

The charging infrastructure prescriptions in all urban development guidelines shall be at least 20%.

# 3. Power Load Sanction to premises

While adding Charging Infrastructures to the proposed set of building types, enhanced Power Load shall be added for each such building type by the Power Electric Supply Companies ESCOMS, commensurate to the total additional power requirement of simultaneously operation of all the specified charging points in the premise. The load capacity assigned to each premise shall be kept with a safety factor of 1.25 with a long term vision of thirty years.

	11 2 10 01101 81118 11		/
Vehicle Type	<b>Slow Charging</b>	<b>Fast Charging</b>	Public CI
2-Wheelers	Y	N	Yes/ Limited
3-Wheelers	Y	N	Yes/ Limited
PVs (Cars)	Y	Y	Yes
PVs (Buses)	N	Y	Yes

Table 1: EVs charging modes and availability

Table 2: Charging options for EV types (by ownership)

		0 0 1	/1 \ / 1 /
Vehicle Type	Private CI	Public CS	Predominant place of charging
2-Wheelers	SC/ BS	SC	Point of residence/ Work
3-Wheelers	SC/ BS	SC/ BS	Residence/ Parking Stations
PVs (Cars)	SC/ BS	FC	Residence/ Point of work/ other public places
PVs (Buses)	SC/ BS	FC/ BS	Bus terminals/ Depots

- 1) The option of Battery Swapping (BS) for privately owned 2-Wheelers and PC (Cars) shall be limited to Private CI.
- 2) For 3-Wheelers, the BS shall be made available in PCS, for faster recharge experience only.
- 3) For PV (Buses), Captive Fast charging infrastructure for 100% internal use for fleets may be adopted by privately owned Depots/ Garages.
- 4) The charging infrastructure, installed at every Public Charging Station (PCS), shall follow the guidelines and standards for setting up Charging Infrastructure for Electric Vehicles, dated

14.12.2018, issued by the Ministry of Power and the connectivity regulations and safety norms shall be defined by respective authorities such as Central Electric Authority or Ministry of Power for grid access to such PCS or any other charging station or infrastructure.

# 4. Charger Specifications and PCS infrastructure

- Any installed PCS shall have one or more electric kiosk or boards with installation of all charger models as prescribed in the guidelines and standards notified by the Ministry of Power, dated 14th December, 2018, for Charging Infrastructure for EVs (at Annexure-Q), with other necessary arrangements as deemed necessary.
- 2) Public Charging Station service providers shall be free to create charging hubs and to install additional number of kiosk or chargers in addition to the minimum chargers prescribed vide the guidelines and standards notified by Ministry of Power, dated 14th December, 2018, including options for installation of additional chargers, if required. *Note*:
  - (i) Minimum infrastructure requirements shall not apply to Private Charging Points which are meant for self-use of individual EV owners (non-commercial basis).
  - (ii) Captive charging infrastructure for 100% internal use for a company's own fleet shall not be required to install all type of chargers and to have Network Service Providers (NSPs) tie ups.

# 5. Location of Public Charging Station (PCS)/ Fluid Cooled Batteries (FCBs) CS in local area/building precincts

In accordance with the guidelines and standards notified by the Ministry of Power, dated 14<sup>th</sup> December, 2018, following minimum standards with regard to density of/ distance between PCS in local level facilities in building premise/ urban precincts shall be followed, as per provisions in the Building Regulation namely;

- (1) At the local levels, within the urban area, at least one Public Charging Station is to be available within a grid of 3 Km x 3 Km.
- (2) At the building premise levels, for various building types:
  - a. Private charging, infrastructure (non-commercial use) for individuals
  - b. For all commercial modes of charging EVs, at least one PCS, as per the minimum specifications laid under the guidelines and standards notified by the Ministry of Power, dated 14th December, 2018
  - c. Stand-alone Battery Swapping Stations may be added with the PCs.

# ANNEXURE R: CHARGING INFRASTRUCTURE FOR ELECTRIC VEHICLES – GUIDELINES AND STANDARDS

(Issued by the Ministry of Power, Government of India vide letter No.12/2/2018-EV dated 14.12.2018) [Regulation59(b) of the Mizoram Urban Area Building Regulation, 2024]

- 1. Private charging at residence or offices shall be permitted and ESCOMs may facilitate the same.
- 2. Setting up of Public Charging Stations (PCS) shall be a de-licensed activity and any individual or entity is free to set up public charging stations:
  - Provided that, such stations shall meet the technical as well as performance standards and protocols laid down below, as well as any further norms, standards or specifications laid down by the Ministry of Power and Central Electricity Authority from time to time.
  - (i) Any person seeking to set up a Public Charging Station may apply for connectivity and he shall be provided connectivity on priority by the Distribution Company licensee to supply power in the area
  - (ii) Any Charging Station or Chain of Charging Stations may also obtain electricity from any generation company through open access.

- 3. Minimum requirements for Public Charging Infrastructure (PCI): Every Public Charging Station (PCS) shall have the following minimum infrastructure: an exclusive transformer with all related substation equipment including safety appliance;
  - (i) 33 or 11 KV line or cables with associated equipment including as needed for line termination, metering etc.;
  - (ii) Appropriate civil works;
  - (iii) Adequate space for charging and entry or exit of vehicles;
  - (iv) Current international standards that are prevalent and used by most vehicle manufactures internationally like CSS and CHadeMO. Hence, Public Charging Stations shall have one or more electric kiosk or boards with installation of all the charger models as follows:

Charger Type	Charger Connectors*	Rated Voltage (V)	No. of Charging Points/ No.of	
			Voltage (V) Connector guns (CG)	
Fast	CCS (min. 50 kW)	200 – 1000	1/ 1 CG	
	CHAdeMO (min. 50 kW)	200 – 1000	1/ 1 CG	
	Type-2 AC (min. 22 kW)	380 - 480	1/ 1 CG	
Slow/ Moderate	Bharat DC-00 I (15 kW)	72 – 200	1/ 1 CG	
Bharat AC-001 (JO kW) 230 3/ 3 CG of 3.3 kW each				
*In addition, any other fast/ slow/ moderate charger as per approved BIS standards whenever notified.				

- (v) The kiosk or board may have options for installation or additional chargers if required;
- (vi) The Public Charging Station Providers shall be free to create Charging Hubs and to install additional number of Kiosk or Chargers in addition to the minimum number of chargers prescribed above;
- (vii) Tie up with at least one online Network Service Providers (NSPs) to enable advance remote or online booking of charging slots by EV owners. Such online information to EV owners shall include information regarding location, types and numbers of chargers installed or available etc.;
- (viii) Share charging station data with appropriate EXCOM and to maintain appropriate protocols as prescribed by such ESCOM for this purpose. CEA shall have access to this database;
- (ix) Appropriate public amenities; and
- (x) In addition to the above, fast charging facility are provided at the PCS by the PCI provider, the following additional infrastructure shall be provided, namely:
  - a. Appropriate Liquid Cooled cables, if High Speed Charging Facility for onboard charging of Fluid Cooled Batteries (FCBs) is provided; and
  - b. Appropriate Climate Control Equipment for Fast Charging of Batteries to be used for swapping (i.e. not onboard).

Every Public Charging Station (PCS) shall be operational only after inspection and clearance as communicated by a suitable clearance certificate, by the concerned electrical inspector or technical personnel, designated specifically by the respective ESCOM for this purpose. ESCOMs may also empanel one or more third parties authorized technical agencies for this purpose.

- 4. Electric Vehicle Service Equipment (EVSE) shall be type tested by an appropriate reputed authority.
- 5. The above minimum infrastructure requirements shall not apply to Private Charging Points meant for self-use of individual EV owners (non-commercial basis).
- 6. Captive charging infrastructure for 100% internal use for a company's own or leased fleet for its own use shall not be required to install all type of chargers and to have NSP tie-up.
- 7. Public Charging Station may have the option to add Stand –alone battery swapping facilities in addition to the above mandatory facilities, provided space and other conditions permit.

- 8. Public charging infrastructure (PCI) for long distance EVs and/ or heavy duty EVs like trucks, buses etc. shall have the following minimum requirements, namely:
  - i. At least two chargers of minimum 100 kW (with 200-1000 V), each of different specification (CCS & Chaderno) and with single connector gun, each in addition to the minimum charging infrastructure requirements as mandated for Public Charging Stations in para 3.
  - ii. Appropriate Liquid Cooled Cables for high need charging facility for on board charging of Fluid Cooled Batteries, currently available in some long range EVs.
  - iii. In addition to above, the Fast Charging Stations (FCS) for Long Distance EVs and/ or Heavy Duty EVs may also have the option of swapping facilities for batteries, for meeting the charging requirements as per para 3. For Fast Charging or Long Distance use of EVs and/ or for Heavy Duty Vehicles like buses/ trucks etc. FCBs shall have higher charging rate and longer life. Such Fast Charging Stations (FCS) which are meant only for 100% in house/ captive utilization, for example buses of a company, shall be free to decide the charging specifications as per requirement for its in-house company EVs.
- 9. Location of Public Charging Stations: in case of Public Charging Stations, the following minimum requirements are laid down with regard to density/ distance between two charging points, namely:
  - i. At least one Charging Station shall be available in a grid of 3 km x 3 km. Further, one Charging Station shall be set up at every 25 km on both sides of highways or roads; and
  - ii. For long range EVs, like long range SUVs and heavy duty EVs like buses, trucks etc., there shall be at least one Fast Charging Station with Charging Infrastructure Specifications at every 100 km, one on each side of the highway or road located preferably within or alongside the stations. Within cities, such charging facilities for heavy duty EVs shall be located within Transport Stations, bus depots. Swapping facilities shall not be mandatory within cities for Buses, trucks, etc.
- 10. Additional public charging stations shall be set up in any area only after meeting the above requirements
- 11. The above density or distance requirements shall be used by the State Governments or their Agencies for the twin purposes of arrangement of land in any manner for public charging stations, as well as for priority in installation of distribution network including transformers, feeders etc. This shall be done in all cases including where no central or state subsidy is provided.
- 12. The Central or State Government may also give priority to existing retail outlets (ROs) of Oil Marketing Companies (OMCs) for installation of Public EV Charging Stations, in compliance with safety norms including firewalls, etc., to meet the requirements. Further, within such ROs, Company Owned and Company Operated (COCO) ROs may be given higher preference.
- 13. Any deviation from above norms shall be admissible only after specific approval of State Nodal Agency, in consultation with the Central Nodal Agency.
- 14. Database of Public EV Charging Stations: Central Electricity Authority (CEA) shall create and maintain a national online database of all the Public Charging Stations through ESCOMs. Appropriate protocols shall be notified by ESCOMs for this purpose which shall be mandatorily complied by the PCS or BCS. This database shall have restricted access as finalized between CEA and Ministry of Power.
- 15. Tariff for supply of electricity to EV Public Charging Stations.
- 16. Service charges at PCS or BCS. Charging of EVs is a service, as clarified by Ministry of Power, Government of India, vide letter No.23/08/2018-R&R, dated 13.04.2018. The State Nodal Agency shall fix the ceiling of the Service Charges to be charged by the Public Charging Stations.
- 17. Priority for rollout of EV Public Charging Infrastructure:
- 18. Implementation Mechanism for Rollout:
- 19. Selection of Implementation Agency for Rollout:

- a. The Central Nodal Agency shall finalize the cities and Expressways/ Highways to be finally taken up from the above phasing, in consultation with the respective State Government.
- b. An Implementation Agency shall be selected by the State Nodal Agency and shall be entrusted with responsibility of installation, operation and maintenance of PCS/ FCS/ BCS/ BSF for designated period, as per parameters specified and as entrusted by the concerned Nodal Agency. The Implementation Agency may be an Aggregator as mutually decided between Central and State Nodal Agencies: Provided that, they may decide to choose different PCS/ FCS providers for bundled packages or for individual locations as mutually decided. Provided further that, whenever bundled packages are carved for bidding, such packages shall necessarily include at least one identified expressway/ highway or part thereof to prepare a cohesive regional package. The selected identified cities may be divided into one or more parts as necessary for such purposes.
- c. Where Implementing Agency is selected by bidding, all bidding shall be conducted by the State Nodal Agency.
- d. There shall be an upper cap on the Service Charges declared by the State Nodal Agency. Subsidy, if admissible from Central or State Government, shall be suitably factored in such calculations of Upper Cap or Bid Variable.

#### ANNEXURE S: IN-BUILDING SOLUTIONS FOR CTI

[Regulation51 of the Mizoram Urban Area Building Regulation, 2024]

# 1. Introduction: Communication System

Data growth is exploding globally and in India as per Nokia MBiT 2021 Report, the average monthly data usage per user in India has increased almost 17 times over the past 5 years. Covid 19 has further pushed data consumption with people staying indoors. Government has facilitated Work from Home (WFH) guidelines with a Work from Anywhere (within India) permitted. Home consumption of data has therefore grown exponentially through 2020. According to the Tower and Infrastructure Providers Association, almost 85% data traffic and 70% voice traffic is now generated indoors.

The World Bank has clearly demonstrated that every 10% increase in broadband penetration leads to nearly 1.40% increase in GDP growth rate. While that is a global average, even the India specific study by the reputed quasi-Government research agency, ICRIER, has shown that every 10% increase in internet traffic delivers 3.1% increase in GDP per capita and a 10% increase in investment in Telecom Infrastructure will increase GDP by 3.3%. The entire consumer pull today is focused on data and broadband now with the new digital services providing voice services free with the data services. Video and app-based services are driving the demand for broadband with Apps for e-commerce, e-healthcare etc. in everyday use. It is very clear that internet traffic and Apps are contributing to GDP growth and for this to grow even further, conventional connectivity needs to be replaced with duct-sharing and fibre especially, which is an essential requirement In-Building as much as it is for FTTx and Tower Fibreization.

[Note - "Service Provider": an agency that provides any type of telecom / IT services in a building complex, as per scope defined by DOT i.e. TSP/ISP/IP1 etc.)

A broad variety of Information Communication Technology (ICT) systems are expected to be installed in buildings. In order to facilitate proper cabling and installation /up gradation of ICT systems and their cost effectiveness and maintenance, adequate physical infrastructure is required within buildings. This infrastructure will include common ducts, cable riser systems, conduits, cable trays and utility closets etc. among other things. The same can also be retrofitted into existing buildings wherever possible and feasible and must be designed in all new, re-developed and renovated structures. This section describes the general and specific requirements of such an ICT infrastructure in Building specially in respect of cabling aspects.

Communication systems are general utility in much the same way as water, power, gas, cable TV &

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CCTV/Security. Unlike traditional communication systems which are constantly evolving, the recommended Digital infrastructure has to be designed to be flexible enough to accommodate a variety of ICT systems and emerging technologies and be future proof for the next 25-30 years. Space and power is required for installation of common ducts, optical fibre, small cells, antennas, smart sensors etc., space, power and earthing is required for electronic equipment installation for supporting the various digital technologies of now and the future. Most communication utilities can share the same space since the physical topology and wiring requirements are similar and no significant power is present in the cables. However, in some cases state-of-the-art communication cabling or equipment will involve new or more specific requirements for utility spaces such as:

- Cable routing layout and cable length restrictions between Work-Space and utility closet.
- Bending radius and working clearance requirements for different cable types, e.g. Fibreoptic cables, Cat-6 Cables and co-axial cables.
- Isolated power circuits for permanent communication equipment,
- Protection, Safety, Grounding and environmental requirements of communication equipment.

## 2. Emerging Technologies in Telecommunication Services

The technologies used for telecommunications have changed greatly and over the past few years and particularly during the pandemic, India has experienced a massive surge in indoor voice and data consumption. According to the Tower and Infrastructure Providers Association, almost 85% data traffic and 70% voice traffic is now generated indoors. Telecommunication network architecture is changing to meet new requirements for number of services/applications viz. 5G, massive Internet of things, Artificial Intelligence etc.

Choosing efficient and cost-effective and fast-deployment technologies such as wired and wireless networks will improve accessibility. Based on type of building and profile of customers in the buildings, the needs of wired and wireless may vary. Further, the architecture of the information and communication infrastructure is changing to accommodate the requirements of a growing number of ICT-enabled services/applications (broadband, IP, mobile, multimedia, surveillance, loT etc.)

In line with the changing market needs, the Digital Service Providers (TSP)/ISPs/IP-1'shave been scaling up the deployment of in-building solutions (85) and FTTx, covering active and/or passive infrastructure. Further, industry stakeholders are putting greater emphasis on sharing in building infrastructure to save capex and capex, as well as to avoid the duplication of infrastructure deployment.

Moving forward, the humungous growth of data traffic riding on the use of the digital infrastructure during the pandemic and with the new WFH (Work-from-Home) and work-from anywhere paradigms and with the emergence of 5G are expected to create huge opportunities for extension of ubiquitous, reliable and high speed digital infrastructure into the homes and inside residential buildings, and lead to huge growth of shared in-Building Solutions sites.

Theoretically, wireless services can be provided from outside the building. However, there are appreciable losses in signal strength when it penetrates building walls, while all wireless services can suffer from poor in-building coverage, this problem is particularly pronounced for the high-speed services. These services require a much better signal quality than their voice counterpart. Therefore, in order to improve in-building coverage and to offer better-quality high-speed data services, there is a definite need to install in-building solutions (IBS) for augmenting the wireless based voice and data services. This is equally true for installing 5G and Wi-Fi hotspots along with Fibre to x(FTTX) distribution network of Fiber and Cat-6 Cables for seamless data connectivity.

Provisioning of telecom services and broadcasting services viz. Cable TV, DTH and Security Services viz. CCTV Cameras and futuristic services viz. loT based sensors would require suitable wireline connectivity inside the buildings inside buildings are not confined to wireless medium only. Wireline services through

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cables such as copper cables, optical fibre cables (OFC), LAN Cat-6 cables are also equally important for having uninterrupted connectivity. Also, for services such as Cable TV, DTH and Smart Devices Solutions (IoT), suitable cabling within building premises is a pre-requisite and for that, shared duct space across the building riser and floors is critical to achieve the flexibility in the future.

Improved IBS coverage MNOs/ Network operators should be allowed to install such appropriate instruments as provided by licensor/ Regulator from time to time.

# 3. Policy Efforts

The proliferation of in-building connectivity has become a key component of government policies. The National Digital Communications Policy, 2018 proposes to make the installation of telecom infrastructure and associated cabling and in-building solutions mandatory in all commercial, residential and official buildings (including government buildings) by amending the National Building Code of India as amended from time to time with the help of the Bureau of Indian Standards.

The Government has been taking a number of steps for promoting the sharing of in-building infrastructure, in line with TRAI recommendations.

- a) In October 2019, the Digital Communications Commission (DCC) approved in-building access and sharing of infrastructure among TSPs, thereby allowing them to share infrastructure and, in the process, curbing TSPs' monopoly to install infrastructure through exclusive contracts with the owners/builders.
- b) In November 2019, the Department of Telecommunications issued an advisory to encourage all TSPS/IP-1s to share their in-building infrastructure such as systems, optical fibre, other cables, ducts and boosters on government premises and other public places such as airports, railway stations, bus terminals and hospitals.

The government's policy and regulatory push coupled with the ever-expanding data usage has propelled TSPS/IP-1s to scale up the deployment of IBS. There is an urgent requirement to allow TSPS/IP-1s to own active built and manage active infrastructure in addition to passive infrastructure to help them cater to the ever-increasing data demand.

Bureau of Indian Standards (BIS) has framed National Building Code of India as amended from time to time under which provision of Common Telecom Infrastructure (CTI) housed inside the buildings for convenient provision of telecom services has been envisaged.

Making cities smarter: Ministry of Housing and Urban Affairs led Smart Cities Mission is another key driver that is encouraging the adoption of in-building solutions (IBS) and FTTX/ IP networks covering Fiber and LAN cables. Since, the success of the mission relies on the underlying digital communications infrastructure, the cities identified under this programme have mandated to install common infrastructure inside buildings to enable seamless connectivity. To this end, certain smart cities have started collaborating with infrastructure providers to scale up the deployment of IBS and Fiber network. Moving forward, IBS and FTTx/ IP networks covering Fiber and LAN cables should be included as one of the key parameters in the selection of smart cities for granting financial assistance.

## 4. In-Building and Gated Buildings Solutions

It is important to ensure quality telecom services inside a building-in residential, multi- story building, commercial complex, hotel or airport, police/Government offices/buildings etc. It is also essential for Telecommunication Service Providers/IP-1s to work on sharing of telecom infrastructure which may be made mandatory as they extend the services in the buildings. Telecom Service Providers/IP-1s require a non-discriminatory and unhindered access inside the building/along the premises to install the telecom infrastructure or lay their cables.

At present, mobile operators and the building owner or building developer or Resident Welfare Associations (RWA) enter into commercial agreements for in-building deployment. Building owners

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or building developers delay the negotiations or request exorbitant rents slowing down the speed of deployment. The Urban Local Body /Urban Development Authority may intervene in this regard wherein commercial agreements are insisted upon. TSPS/IP-1s should be given legal rights and permissions to use the Common Telecom Infrastructure (CTI) within the premises of Building/Gated Society free of charge or for a standardized nominal charge just like other essential services like water, electricity and/or gas. Provision of CTI in a building should not be deemed as a revenue source in any way, much as the water and electricity utilities are not. Sufficient space should be provided within the premises to install telecom services by MNOs/ network operators.

The issue is not limited to sharing of IBS/ Distributed Antenna System (DAS) systems only, but TSP should get access to all telecom infrastructures including Fiber Cable and LAN cables for provision of wired and wireless network, other telecom/ ICT and loT services.

It is important for telecom service providers to provide mobile coverage / network presence/high speed connectivity inside big residential/commercial complexes to improve QoS of their networks. It may not be practical to install individual in-building infrastructure by TSPS/IP-15 as this will result in not only duplication of network resources but will also entail huge avoidable cost. It may also be not advisable to lay down cables again and again on the same land/building by several TSPS/IP-1s.

# 5. Incorporation in State Building Regulation

The buildings are to be constructed in such a way that they are 'Digital Infrastructure deployment' / 'Digital Connectivity' ready. There should be provision of telecom ducts / common pathways/runways (digital access paths) to reach to the accessible parts of the buildings. The common ducts/digital access paths to access buildings from outside should invariably be part of the CTI, which could be used by TSPS/ IP-1s for laying/deploying digital infrastructure including cables. While approving the building plans, it has to be ensured that plan for creation of CTI including the common duct to access the common space used as telecom room inside the building is also prepared and separate set of drawings showing the inter/intra connectivity access to the building with distribution network need to be furnished.

Occupancy-cum-Completion certificate to a building to be granted only after ensuring that the CTI as per the prescribed standards is in place and an undertaking by the Architect or Engineer to be insisted to certify that building has ensured common access to all digital infrastructure to all Service providers in accordance with plan of creation of CTI. Provision of visit from Department of Telecom (DOT)/ TRAI officials along-with joint inspection with TSPs - who may suggest any relevant modification in the plan to be ensured.

As part of Building Regulation, the builder/RWA should be mandated to ensure that

- (1) While preparing the building plans, there is a need to mandate to have properly demarcated sections within buildings and on rooftops for housing Broadband / digital connectivity infrastructure / antenna. These areas should have access to power supply for reliable, always-on services.
- (2) Access to building as well as CTI facilities inside the building should be available on a fair, transparent and non-discriminatory manner to all Service Providers /IP1's.
- (3) The Service Providers / IP1's should have unrestricted access for maintenance work.
- (4) The permission to in-building access and/or CTI facilities inside the building should not be seen as a source of revenue generation for builder(s)/RWA(s) but as a means for facilitating penetration of broadband access and thereby helping in socio-economic growth of all the residents.
- (5) Charges (rentals/power rates etc.) levied to the TSPS/IP-1s should be fair, transparent and non-discriminatory and should be on residential rates.

Suitable provision for the creation of Common Telecom Infrastructure (CTI) inside the newly constructed public places like Airports, commercial complexes and residential complexes, is incorporated in State/UT Building Regulation.

## 6. At Layout Level

While developing Greenfield cities/towns, the layout plans should clearly indicate the telecom as Utility infrastructure lines. Standards followed for Utility planning shall be published and work shall be done by the respective department for bringing in the standardization of the utility coding and sequences. The placement and sequence of above and below-ground utilities at the appropriate location in the right-of-way to be ensured for unconstrained movement as well as easy access for maintenance. Telecommunication cables should be placed in a duct that can be accessed at frequent service points with sufficient spare capacity to enable scaling and future expansion, and empty pipes (large size hume pipes / HDPE pipes) should be laid before planting trees in order to accommodate additional infrastructure.

Digital Readiness Rating of Buildings / Society in line to the GREEN ratings shall be created where the existing and new buildings shall be rated on standardized parameters such as; but not limited to; Digital Infrastructure access, provisions for Emerging Technologies, Maintenance and Operational ease to TSPS/ IPv1, Quality of Wireless Services, Quality / Interchangeability ease of Wireline Services till each Unit Security, redundancy and Expandability of the digital infrastructure etc. A detailed rating parameters and calculation mechanism of Points / Stars shall be devised and benchmarked for all new/retrofitting of buildings/societies.

Digital Asset repository which will ensure Proper planning and mapping of utilities through GIS is necessary especially when the alignments of telecommunication cables are identified. Design criteria and standards Utilities should meet the following criteria:

- Telecommunication cables should ideally be placed below the parking area or service lane, which may be dug up easily without causing major inconvenience. Where this is not possible, the cables may be placed at the outer edge of the right-of-way.
- There is a need to reduce conflicts with pedestrian movements is to place telecom boxes in easements just off the right-of-way. Where this is not possible, they should be placed within parking or landscaping areas. If cables have to be located in the pedestrian path, a space of at least 2m should be maintained for the through movement of pedestrians. Telecom boxes should never constrain the width of a cycle track.
- In order to minimize disruptions, cables should be installed with proper maintenance infrastructure.

## 7. Other procedures for setting up In-Building Solution (IBS)/ Fiber Networks

There is a need to promote installation of In-Building Solution (IBS)/Smart Connectivity infrastructure, where there is a poor connectivity in terms of weak signal strength inside the office, shopping mall, hospitals, multi-story building, education institutions and the objective has to be to strengthen quality of service of the voice & data of mobile and Fiber broadband network and access to digital services being offered by TSP and IP1's

## A. Procedures of obtaining IBS-NOC during plan approval and completion:

- (a) While submitting the proposed Building plan seeking approval from the relevant sanctioning Authority, applicant shall also submit
  - i. A complete Service Plan for IBS-infrastructure along with required specifications (in consultation with, and certified by a credible Telecom Networking hardware consultant)
  - ii. An undertaking that such IBS Infrastructure, when constructed shall be available for sharing by various TSPS/IP-1s.
  - iii. Such Service Plan (IBS) shall be forwarded by the concerned Local Authority to the Telecom Enforcement Resource and Monitoring (TERM) cell of the State (external NOC) agency)- for approval NOC.
  - iv. During the Joint Site Inspection of the completed building structure the TERM cell shall undertake inspection of the constructed/installed IBS infrastructure for issuance of NOC for OCC.

(b) The Local Authority shall liaise with the TERM cell as per its relevant online/offline process of communication to seek the relevant NOCs within the specified time as per the Service Charter/ Service Guarantee Act and rules in place. Separate communication from the applicant shall be needed to secure the IBS NOC.

# B. Provision of IBS components in building premises: (as per NBC 2016)

Entrance Facilities (EF) /Lead-in conduits: (clause 3.1.4, of Part 8: Sec 6) min. 1.2m x 1.83m space to be allocated for each TSP adjacent to the EF.

Underground conduits/pipes to MDF room: min 100mm dia encased conduits.

Main Distribution Frame (MDF)/Equipment Room(ER): (clause 3.1.2, Part 8: Sec 6)

- prescribed size with L:W ratio between 1:1 to 2:1
- appropriate ventilation of MDF room
- proper Lighting for vision of equipments,
- located at a level above from the Natural Ground lvl to avoid incidence of flooding

Electric distribution panels, isolaters, sockets and earthing as per specific requirements w.r.t the area proposed for coverage (DUs/ service subscribers)

Telecommunications Room (TR) at each building block unless provided with MDF room: (all provisions of space to be as per clause 3.1.3.2, Part 8: Sec 6)

Appropriate nos. of Service/Telecom risers (vertical shafts) for all multi storeyed buildingsw.r.t the area proposed for coverage (DUS/ service subscribers):

- of appropriate nos and size (width & depth) to accommodate cable trays
- with of access door at each floor.

Telecommunications Enclosures (TE) at each floor of a block or TR (clause 3.1.5, Part 8: Sec 6)

Telecom Media and Connecting Hardware (TE): (clause 3.2, Part 8: Sec6)

Various cabling system and trays:(clause 3.2.4, Part 8: Sec6)

Wireless systems: (clause 3.2.5, Part 8: Sec6)

Backbone Cabling Media Distribution and Bldg. pathways(clause 3.3, Part 8: Sec6)

Horizontal Cabling Media Distribution and Bldg. pathways.(clause 3.4, Part 8: Sec6)

IBS installation spaces: area for rooms or systems (e.g. antennas, base stations, remote units, power distribution boxes etc.) to be provided as per requirements w.r.t the area proposed for coverage/ no. of proposed users (as per clause 3.1.3.2, Part 8: Sec6, table stated below)

## 1) Telecom room space norm for buildings with Built-up area >465 sqmt

SI.	Area to be covered by IBS	Size of Telecom Room (all dimension in m)
1	Upto 465 sqmt	3.0 x 2.4
2	465.0 sqmt to 930.0 sqmt	3.0 x 3.4
3	More than 930.0 sqmt	Additional TR required with same space norms

Space requirements for smaller buildings with Built-up area <465 sqmt

SI.	Area to be covered by IBS	Space provisions (all dimensions in m)
1	Upto 93.0 sqmt	Wall cabinets, self-contained enclosed cabinets.
2	93.0 sqmt to 465.0 sqmt	Shallow Room (0.6 x 2.6)
		Walk-in Room (1.3 x 1.3)

IBS installation spaces, so provided, should be:

- not susceptible to flooding
- not exposed to water, moisture, fumes, gases or dust
- able to withstand designed equipment load (to be specified in design)

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- located away from any vibrations to avoid dislocation/dislodgement For any other necessary detailing of building components and service installations with respect to common Telecom/Digital connectivity Infrastructure, architects/ developers and other service consultants involved in preparing building and service drawings may refer Part 8 - Section 6: Information and Communication Enabled Installations of Volume 2 of the National Building Code of India as amended from time to time.
- 2) Mode of deployment of In-Building, FTTx/IP Solution: There shall be various mode of deployment of In-Building solutions such as: The possible modes are deployment by al neutral host infrastructure provider or build and managed by mobile operator and sharing with other service providers on non-discriminatory basis. The In-Build Solutions (IBS), FTTx/IP Solutions can also be deployed by TSPS/ IPs. Moreover, if TSP/ IP1 requireinstalling optical fiber for connecting In-Building Solution (IBS)/ Distributed Antenna System (DAS) nodes/FTTx solutions, RoW/ permissions should be granted by the road owning agency/authority through online mode (if same is working seamlessly) or offline mode till online system is established. For deploying indoor solutions these companies should have deemed permissions from the premises owners for installation of Distribution Network within the utility shafts /common spaces with provisions for common/shared Points of Interconnect for Connectivity to individual units. Moreover, if the TSP/IP requires installing optical fiber for connecting In-Building Solution (IBS)/ Distributed Antenna System (DAS) nodes, FTTx/ IP Solutions for which RoW/ permissions should be granted by the road owning agency/authority through online mode.
- 3) Permissibility: The IBS, FTTx/ IP component being small equipment can be installed on any type of land/building/utility pole and shall be exempted from obtaining the permission for installation of these components from the respective Urban Local Body/Urban Development Authority but should get permission from the Administrative Authority of the concerned premises.
- 4) Procedure for submitting application for obtaining clearance: TSP/ IP-1 will apply to the administrative authority of the building/ head of the office with layout diagram for implementing IBS in the building as mentioned in the RoW Rules 2016 or State notified Row Policy.
- 5) Fees: No fee will be charged for IBS/ FTTxNetwork. However, charges may be levied for power (as per Industry tariffs), fixtures, etc. provided by building owners to TSP/IP-1s as per actuals.
- 6) Access and Distribution Fiber and IP/LAN networks for connectivity for the Shopping Malls, Multi-Storey Residential Buildings, Cooperative Housing Societies, Residential Welfare Association and Commercial Buildings to be planned and deployed by TSP/IP-1s as per standard requirement of providing high bandwidth and adequate indoor coverage to each unit/apartment in these complexes.