Government of Bihar

Urban Development and Housing Department

Notification

पटना, दिनांक-12/11/26

संo-09/नoविoबिoभoउo- 03/2026.....11445 बिहार भवन उपविधि, 2026 का अंग्रेजी में निम्नलिखित अनुवाद बिहार राज्यपाल के प्राधिकार से एतद प्रकाशित किया जाता है जो भारत संविधान के अनुच्छेद-348 के खण्ड (3) के अधीन अंग्रेजी भाषा में उसका प्राधिकृत पाठ समझा जाएगा।

बिहार राज्यपाल के आदेश से

12/11/2026

(मनोज कुमार)

सरकार के अपर सचिव।

Patna, Date-12/11/26

संo-09/नoविoबिoभoउo - 03/2026.....11445 **In exercise of the powers conferred by Section-321 of the Bihar Municipal Act, 2007, and Section 81(2)(w) of the Bihar Urban Planning and Development Act, 2012 and in supersession and amendment of all existing byelaws on the subject, the Governor of Bihar hereby makes the following byelaws: —**

CHAPTER-I
PRELIMINARY

1. Short title, Extent and commencement

(1) These byelaws shall be called the Bihar Building Byelaws 2026.

(2) These byelaws shall apply to all building and development activities in the areas falling within the territorial jurisdiction of:

(a) all Municipal Corporations;
(b) all Municipal Councils;
(c) all Nagar Panchayats;
(d) all Metropolitan Areas; and
(e) all Planning Areas; and
(f) any other area as the State Government may, by notification, specify.

(3) All existing circulars and orders in force immediately before the commencement of these Byelaws, insofar as they are inconsistent with or contrary to the provisions of these Byelaws, shall stand modified to the extent of such inconsistency or conflict.

(4) These Byelaws shall not be applicable to Cantonment areas.

(5) The State Government may, on its own or on the recommendation of any Department, Competent Authority, Board or Municipality, by notification, exempt any area from the application of these Byelaws or any provision thereof.

(6) Notwithstanding anything contained in these Byelaws, the Development Control Regulations or other development control provisions contained in any Master Plan, Development Plan, Zonal Plan, Sector Plan, Local Area Plan, Town Planning Scheme or Area Development Scheme duly notified and in force shall continue to apply and shall prevail over the provisions of these Byelaws to the extent of any inconsistency or conflict.

(7) These Byelaws shall come into force on the date of their publication in the Official Gazette of Bihar.

2. Definitions

In these byelaws, unless the context otherwise requires:

Tanuja

(1) **"Act"** means the Bihar Urban Planning and Development Act, 2012;

(2) **"Addition or Alteration"** means structural change, such as addition to the covered area or height or the removal of part of a building or construction or cutting into or removal of any wall, partition, column, beam, joist, floor or other support, or a change to the fixture of equipment of the building;

(3) **"Air-Conditioning"** means the process of treating air so as to control simultaneously its temperature, humidity, cleanliness and distribution to meet the requirement of conditioned space;

(4) **"Amenity"** means roads, street, open spaces, parks, recreational grounds, play grounds, gardens, water supply, electric supply, street lighting, sewerage, drainage, public works and other utilities, services and conveniences;

(5) **"Annexure"** means an Annexure appended to these byelaws;

(6) **"Apartment"** means an Apartment as defined under Section 3(b) of the Bihar Apartment Ownership Act 2006;

(7) **"Applicant"** means the owner, builder or authorised empanelled technical person applying for building permission or land development as specified in these byelaws;

(8) **"Balcony"** means a projection to serve as passage or sit out place including a hand rail or balustrade;

(9) **"Barsati"** means a covered space on the roof used as a shelter during rain, having at least one side open and not covering more than twenty per cent. of the area of the roof, and in no case exceeding twenty square metres. A barsati shall be a common area of the building and shall not be sold as a separate unit. Where a barsati is constructed in violation of the norms mentioned herein, it shall be treated and counted as a separate floor under these byelaws;

(10) **"Basement or cellar"** means lower storeys of a building, below or partly below the ground level;

(11) **"Builder"** means an applicant, land owner, contractor, developer, holder of power of attorney of the land owner, partnership, trust or company which has responsibility for construction, leasing, selling or otherwise disposing of a building for residential and other purposes, duly registered with the Urban Development and Housing Department, Government of Bihar;

(12) **"Building"** means any structure or erection or part of a structure or erection which is intended to be used for residential, commercial or for the purpose of any business, occupation, profession or trade, or for any other related purposes. The building shall be classified based on the occupancy as below:

   (a) **"Assembly Building"** refers to a building or part of a building where group of people congregate or gather for amusement, recreation, social, religious, patriotic and similar purposes and includes theaters, assembly halls, auditoria, exhibition halls, museum, skating rinks, gymnasium, dance hall, clubrooms, recreation piers and stadia;

   (b) **"Commercial Building"** refers to a building or part of a building, which is used for transaction of business, keeping of accounts and records or for similar purposes and includes Banks and Commercial Offices and Corporate offices. It shall include mercantile buildings like shops, stores, market display and sale of merchandise either in wholesale or retail, or offices, storage or services facilities incidental to the sale of merchandise and includes Cinema Halls, Petrol Pumps, Hotels, Restaurants, Clinics, Pathology Labs Lodge-cum-guesthouses & Dharma Kantas, etc.;

   (c) **"Educational Building"** refers to a building used for school, college or daycare purpose for more than 8 hours per week involving assembly, instructions, education or recreation;

   (d) **"Hazardous Building"** refers to a building or part of a building which is used for the storage, handling, manufacture or processing of highly combustible or explosive materials or products which are liable to burn with extreme rapidity or producing poisonous fumes, or the storage, handling, manufacturing or processing of which involves highly corrosive, toxic, obnoxious alkalis, acids or other liquids, gases or chemicals, producing flame, fumes and explosion, poisonous

irritant or corrosive gasses and for the storage, handling or processing of any material producing explosive mixture of dust or which result in the division of matter into fine particles subject to spontaneous ignition. This shall include petrol filling stations;

(e) **"Industrial Building"** refers to a building or part of a building in which products or materials of all kind and properties are fabricated, assembled or processed such as assembly plants, laboratories, power plants, smoke houses, refineries, gas plants, mills, dairies or factories;

(f) **"Institutional Building"** refers to a building or part of a building which is used for purposes such as Research and Training Centre, Public or Semi Public offices, Hospitals, Dispensaries and Health Centers;

(g) **"Residential Building"** refers to a building in which sleeping accommodation is provided for normal residential purpose with or without cooking or dining or both facilities and includes one or two or multi-family dwelling, dormitories, apartment houses, flats and hostels;

Provided that "Single Residential Building" means a building intended exclusively for residential occupation by a single family and not intended for the sale, lease or transfer of parts or units for Residential use within the building.

(h) **"Public Utility Building"** means and includes Post Office, Police Station, Fire Station, Telephone Exchange, sub-station, water works, Taxi Stands, Bus Terminals, etc.;

(i) **"Storage Building"** refers to a building or part of building used primarily for the storage or sheltering of goods, storehouses, hangers, terminal depot, grain elevators barn or stables;

(j) **"Multi-Level Car Parking "** means a building partly below ground level having two or more basements or above ground level, primarily to be used for parking of cars, scooters or any other type of light motorized vehicles;

(13) **"Building Accessory"** means a subordinate building, use of which is incidental to that of a principal building, on the same plot such as garage, coal or fuel shed, peons, chowkidars, or domestic servant's quarters, etc;

(14) **"Building Envelope"** means the horizontal spatial limits up to which a building may be permitted to be constructed on a plot above ground level;

(15) **"Building Height"** means the vertical distance measured, in the case of flat roofs from the average level of the ground around and contiguous to the building to the top slab level of last livable floor of the building adjacent to the external walls; and in the case of pitched roofs up to the point where the external surface of the outer wall intersects the finished surface of the sloping roof, and in the case of gables facing the road, the midpoint between the eaves level and the ridge. Architectural features serving no other function except that of decoration shall be excluded for the purpose of measuring heights.

(a) Where the contiguous ground level of the building is above the average level of the centre line of the adjoining street, the height of the building shall be measured from such contiguous ground level or plinth, subject to a limit of 0.90 m. from the existing average level of the centre line of the adjoining street;

(b) In the case of a basement, the height of the building shall be measured from the ceiling level of the basement, not exceeding 1.20 m. from the average level of the ground around and contiguous to the building.

(16) **"Building Line"** means the line up to which the plinth of a building adjoining a street or an extension of a street or on a future street may lawfully extend and includes the lines

Applicant

prescribed in any development plan in operation for any area under the jurisdiction of the Competent Authority or specification indicated in any Development Plan or Scheme, or in these Byelaws;

(17) **"Built up Area"** means the total covered areas on all floors of an immovable property;

(18) **"Cabin"** means a non-residential enclosure constructed of non-load-bearing partitions;

(19) **"Canopy"** means cantilevered projection over any entrance;

(20) **"Carpet Area"** means the net usable floor area of an apartment, excluding the area covered by the external walls, area under service shafts, exclusive balcony or verandah and exclusive open terrace area, but includes the area covered by the internal partition walls of the apartment;

(21) **"Chajja or Sun-Shade"** means a sloping or horizontal structural overhang, usually provided at lintel level for protection from sun and rain or for architectural considerations;

(22) **"Chimney"** means an upright shaft containing and encasing one or more flues provided for the conveyance to the outer air of any product of combustion; resulting from the operation of any heat producing appliance or equipment employing solid, liquid or gaseous fuel;

(23) **"Combustible materials"** means a material, which burns or adds to a fire when used for combustibility in accordance with good practice;

(24) **"Competent Authority"** means the Authority created by a statute for the purpose of administering the Code, Part or Byelaw. The Competent Authority may be any Municipality, Planning Authority or any other authority as notified by the State Government. as the case may be;

(25) **"Corner plot"** means a plot at the junctions of and fronting on two or more intersecting streets. In cases, where the two streets are of same width, then the larger side of the plot will decide the front. In such case, the location of a garage (on a corner plot) if provided, within the open space shall be located diagonally opposite to the point of intersection;

(26) **"Cornice'** means a sloping or horizontal structural overhang usually provided over openings or external walls to provide protection from sun and rain, or for architectural consideration;

(27) **"Courtyard"** means a space permanently open to sky, with or without pergola, enclosed fully or partially by buildings and may be at ground level or any other level within a building;

(28) **"Coverage"** means percentage of covered area on the ground floor which is not open to sky excluding the chajja or roof projections up to 0.75 meter width overhanging the open space to the total plot area;

(29) **"Covered Area"** means in respect of ground floor, area covered immediately above the plinth level by the building but does not include the open space covered by:

(a) gardens, rockery, well and well-structures, rainwater harvesting structures, plant nursery, water-pool (if uncovered), platform round a tree, tank, fountain, bench, chabutara with open top unenclosed on sides by walls, boundary wall, swing, and area covered by chhajja without any pillars etc. touching the ground;

(b) 'drainage culvert conduit', catch-pit, gully pit, inspection chamber, gutter and the like;

(c) compound wall, gate, slide, swing door, canopy, and areas covered by chajjas or similar projections and staircases which are uncovered and open at least on three sides and also open to sky; and

(d) Watchmen booths, pump houses, garbage shafts, electric cabins or substations, and such other utility structure meant for the services of the building under construction;

(30) **"Damp-Proof Course"** means course consisting of some appropriate water proofing material provided to prevent penetration of dampness;

(31) **"Detached building"** means a building whose walls and roof are independent of any other building with open spaces on all sides;

(32) **"Development Plan"** means Development Plan as defined under Section 2 (xvi) of Bihar Urban Planning and Development Act, 2012 or Development Plan as defined under Section 2 (v) of Bihar City Development Act, 2026;

(33) **"Deviation"** means any construction made in departure from the approved plan by way of alterations or additions, modifications in the total floor area, coverage, floor area ratio (FAR), setbacks, height, parking space, provision of public utilities etc.;

(34) **"Drain"** means a line of pipes including all fittings and equipment such as manholes, inspection chamber, traps, gullies and floor traps, used for the drainage of a building or a number of buildings, or yards appurtenant to the buildings within the same cartilage and includes open channels used for conveying surface water;

(35) **"Drainage"** means the removal of any liquid by a system constructed for purpose;

(36) **"Dwelling Unit"** means an independent housing unit with facilities for living, cooking and sanitary requirements;

(37) **"Empanelled Technical Person"** means a technically qualified Architect or Civil Engineer, or Structural Engineer or Town Planner Empanelled with the Urban Development and Housing Department, Government of Bihar;

(38) **"Empanelled Third Party Fire Consultants"** means a third-party consultant with sufficient knowledge of the fire protection measures in a building empanelled by the Competent Authority or the fire department;

(39) **"Enclosed stair-case"** means a stair-case, separated by fire resistant walls from the rest of the building;

(40) **"Encroachment"** means an act to enter into the possession or rights either of permanent or temporary nature on a land or buildup property of local body or State or Central Government;

(41) **"Existing Building or Use"** means a building, structure or its use as sanctioned, approved or regularized by the Competent Authority, existing before the commencement of these Byelaws;

(42) **"Exit"** means a passage, channel or means of egress from any building, storey or floor area to a street or other open space of safety;

(43) **"External Wall"** means an outer wall of a building even though adjoining to a wall of another building and also means a wall abutting on an interior open space of a building;

(44) **"Farm House"** means a plot of land including construction thereon, in the area designated for agricultural use by the Authority;

(45) **"Farm Shed"** shall include permanent or temporary structures erected in the plot used for farmhouse;

(46) **"Fire Alarm System"** means an arrangement of call points or detectors, sounders and other equipment for the transmission and indication of alarm and sometimes used as signals for testing of circuits and whenever required for the operation of auxiliary services. This device may work automatically or manually to alert the occupants in the event of fire;

(47) **"Fire Lift"** means lift specially designed for use by fire service personnel in the event of fire;

(48) **"Fire Proof Door"** means a door or shutter fitted to a wall opening, and constructed and erected with the requirement to check the transmission of heat and fire for a specified period;

(49) **"Fire Resisting Material"** means the material, which is normally used for fire resistance;

(50) **"Flat"** means a dwelling unit in building;

(51) **"Floor"** means the lower surface in a storey on which one normally walks in a building;

(52) **"Floor Area Ratio (FAR)"** means the quotient obtained by dividing the combined covered area (plinth area) of all floors, excepting areas specifically exempted under these byelaws, by the total area of the plot;

(53) **"Footing"** means the part of a structure, which is in direct contact with the ground and transmitting loads to the ground;

(54) **"Forms"** means forms appended to these byelaws;

(55) **"Foundation"** means that part of a structure, which is indirect contact with and meant for transmitting loads to the ground;

(56) **"Gallery"** means an intermediate floor or platform projecting from a wall of an auditorium or a hall providing extra floor area, additional seating accommodation, etc. It shall also include structures provided for seating in stadia;

(57) **"Garage-Private"** means a building or a portion thereof designed for parking of privately owned motor vehicles or any other vehicles;

(58) **"Garage-Public"** means a building or a portion thereof designed or used for repairing, servicing, hiring, selling or parking of motor driven or any other vehicles;

(59) **"Ground Floor"** shall mean storey, which has its floor surface nearest to the ground around the building;

(60) **"Group Housing"** means a residential development where multiple independent dwelling units (such as apartments, flats, or plotted row houses) are built on a single, large plot of land;

(61) **"Hazardous and obnoxious industry"** means industry which creates nuisance to the surrounding development in the form of smell, smoke, gas, dust, air pollution, water pollution and other unhygienic conditions;

(62) **"Hazardous material"** means:

(a) radioactive substances;

(b) Material which is highly combustible or explosive or which may produce poisonous fumes explosive emanations, or storage, handling, processing or manufacturing of which may involve highly corrosive, toxic, obnoxious alkalis or acids or other liquids;

(c) Other liquids or chemicals producing flame, fumes, explosive, poisonous, irritant or corrosive gases or which may produce explosive mixtures of dust or fine articles capable of spontaneous ignition;

(63) **"Heritage Zone"** means the area as delineated in Development Plan or delineated as such under the concerned central or state statute;

(64) **"High Rise Building"** means a multi-storey building whose height is 24 m or more (irrespective of its occupancy);

(65) **"Illuminated Exit Signs"** means a device for indicating the means of escape during normal circumstances and power failure;

(66) **"Land Use"** means use of the land proposed in the Development Plans, Zonal Plans, Local Area Plans, Town Planning Scheme or Area Development Schemes or any designated land use zone with the approval of the State Government;

(67) **"Land Use Zone"** shall be considered as per section 27 of Bihar Urban Planning and Development Rules 2014;

(68) **"Latrine-connected"** means a latrine connected to the municipal sewer system;

(69) **"Latrine-unconnected"** means a latrine not connected to the municipal sewer system; it may be connected to a septic tank or suitable treatment or disposal system;

(70) **"Layout"** means the laying out a parcel of land into building plots with laying of roads or streets with formation, leveling, metalling or black topping or paving of the roads and footpaths, and laying of the services such as water supply, drainage, street lighting, open spaces and includes land sub-division for the purpose of building in such plots;

(71) **"Lift"** means an appliance designed to transport persons or materials between two or more levels in a vertical or substantially vertical direction by means of a guided car or platform. The word 'elevator' is also synonymously used for 'lift';

(72) **"Lobby"** means a covered space in which all or some of the adjoining rooms open;

(73) **"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 meters and which is constructed or adopted for storage purposes;

(74) **"Masonry"** means an assemblage of masonry units properly bonded together with mortar;

(75) **"Mezzanine Floor"** means an intermediate floor between any two floors above ground level, accessible only from the lower floor;

(76) **"Mixed Land Use or Mixed Use"** refers to an area or zone as per the Development Plan, Zonal Plan, Local Area Plan, Town Planning Scheme or Area Development Schemes where residential, commercial, institutional or mixed use of premises can be co-located in an integrated way as per provisions made in these byelaws or Development Control Regulations (DCR);

(77) **"Mixed Occupancy of premises or building"** is where many occupancies are intermingled;

(78) **"Mumty or Stair Cover"** means a structure with a covering roof over staircase and its landing built to enclose only the stairs for the purpose of providing protection from weather and not used for human habitation;

(79) **"Municipal Act"** means Bihar Municipal Act, 2007;

(80) **"Natural hazard prone areas"** means areas likely to have moderate to high intensity earthquake, or cyclonic storm, or significant flood flow or inundation, or landslides, mud flows, avalanches, or one or more of these hazards;

(81) **"New Area"** means such area as notified by the Competent Authority with approval of Urban Development & Housing Department, Government of Bihar;

(82) **"Non-Combustible Material"** means a material, which does not burn nor add heat to a fire when tested for combustibility in accordance with good practice;

(83) **"Non-Conforming Use of a Building or Land"** means the use of a building or land existing at the time of commencement of these Byelaws, and which does not conform to the Byelaws pertaining to the zone in which it is located;

(84) **"Occupancy or Use"** means the principal occupancy for which a building or a part of a building is used or intended to be used;

(85) **"Old Area"** means such area as notified by the Competent Authority with approval of Urban Development & Housing Department Government of Bihar;

(86) **"Open Space"** means an area forming an integral part of the plot, left open to the sky;

(87) **"Owner"** means a person, group of persons, a company, trust, Institute, Registered body, State or Central Government and its departments, undertakings and the like in whose name the property stands registered in revenue records. The owner shall include:

(a) An agent or trustee who receives the rent on behalf of the owner;

(b) An agent or trustee who receives the rent of or is entrusted with or is concerned with any building devoted to religious or charitable purpose;

(c) A receiver, executor or administrator or a manager appointed by any court of competent jurisdiction to have the charge of or to exercise rights of the owners.

(88) **"Parapet"** means a low wall or railing built along the edge of a roof or a floor having a height as prescribed from the finished floor level;

(89) **"Parking Space"** means an area enclosed or unenclosed, covered or open, of sufficient size to park vehicles, together with a driveway connecting the parking space with a street or any public area and permitting ingress and egress of the vehicles;

(90) **"Partition"** means an interior non-load bearing wall, one storey or part of a storey in height;

(91) **"Permit"** means a permission or authorization in writing by the Competent Authority to carry out the work regulated by these Byelaws;

(92) **"Plantation"** means plantation of plants and trees;

(93) **"Plinth"** means the portion of a structure between the surface of the surrounding ground and the surface of the floor, immediately above the ground;

(94) **"Plinth Area"** means the built-up area measured at the floor level of the ground floor;

(95) **"Porch"** means a covered surface supported on pillar or otherwise for the purpose of pedestrian or vehicular approach to a building;

(96) **"Principal use of land or premises"** refers in the case of an area where Development Plan, Zonal Plan, Local Area Plan, Town Planning Schemes or Area Development Schemes has been notified, means the use defined for that area in the Plan and in case of an area where these plans have not been notified, means the existing predominant use of the land/ premises;

(97) **"Prohibited area"** means any area specified or declared to be a prohibited area under Section 20A of the Ancient Monuments and Archaeological Sites and Remains Act (AMASR), 1958 or any other prevailing statutes;

(98) **"Protected monument"** means an ancient monument which is declared to be of national importance by or under the Ancient Monuments and Archaeological Sites and Remains Act (AMASR), 1958 or any other prevailing statutes;

(99) **"Public Utility service"** means drainage, sewerage, electricity, water supply, solid waste disposal, sanitation, fire services, roads and any other support or infrastructure and the like for which a building has to depend on public bodies, authorities or agencies;

(100) **"Ramp"** means a passage with gradual slope joining two level surfaces;

(101) **"Regulated Area"** means any area specified or declared under Section 20B under the Ancient Monuments and Archaeological Sites and Remains Act (AMASR), 1958 or any other prevailing statutes;

(102) **"Road"** means any access, including a highway, street, lane, pathway, alley or bridge, whether a thoroughfare or not, over which the public have a right of passage or access or have passed and had access uninterruptedly for a specified period, and includes all bunds, channels, ditches, storm-water drains, culverts, side tracks, traffic islands, roadside trees and hedges, retaining walls, fences, barriers and railings within the road line;

(103) **"Road Width or Right of Way (ROW)"** means the whole extent of space within the boundaries of a road, as laid down in the city survey, development plan or prescribed road lines under any law, measured generally at right angles. Plans under these byelaws shall be approved on the basis of the width of the road or street as it exists on the date of sanctioning;

(104) **"Room Height"** means the vertical distance measured from the finished floor level to the finished ceiling;

(105) **"Row Housing"** means a row of contiguous houses with only front, rear and interior open spaces;

(106) **"Semi-Detached Building"** means building detached on three sides (front, rear and side) with open spaces as specified under the Byelaws;

(107) **"Service Floor"** means a floor dedicated to building services (not to be used for any inhabitation) in any type of high rise building with height of ceiling from finished floor level between 2.1 m to 2.2 m and it shall not be counted in FAR;

(108) **"Service Road"** means a road provided at the front, rear or side of a plot for service purpose;

(109) **"Set back"** means the distance between the plinth lines of the building and the boundary of the plot. The setback shall be measured at ground level;

(110) **"Setback line"** means a line usually parallel to the plot boundaries and laid down in each case by the Authority beyond which nothing can be constructed towards the plot boundaries;

(111) **"Site"** means a parcel or piece of land enclosed by definite boundaries;

(112) **"Site Depth"** means horizontal distance between the front and rear side boundaries;

(113) **"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 clauses of the Administration Chapter;

(114) **"Site with Double Frontage"** means a site having frontage on two streets other than corner plot;

(115) **"Smoke Stop Door"** means a door for preventing or checking the spread of smoke from one area to another;

(116) **"Stilt Floor"** means a floor supported by pillars with all sides open to be used for parking, switch room, generator room, society room &information room with minimum height of 2.5 meter;

(117) **"Store Room"** means a room used as storage;

(118) **"Storage Space"** means a space where goods of non-hazardous nature are stored and includes cold storage and banking safe vaults;

(119) **"Spiral Staircase"** means a staircase forming continuous winding curve round a central point or axis provided in a open space having tread without risers;

(120) **"Storey"** means the space 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, but shall not include a service or mezzanine floor;

(121) **"Tenements"** means room or rooms in the occupation of, or meant for the occupation of one tenement;

(122) **"To abut"** means to abut on a road so that any portion of the building or land is on the road boundary;

(123) **"To erect"** a building means:

(a) to erect new building on any site whether previously built upon or not;

(b) to re-erect any building of which portions above the plinth level have been pulled down or destroyed.

(124) **"Tribunal"** means Municipal Building Tribunal under Section 329 of the Municipal Act or Tribunal constituted under Section 79 of Chapter XII of the Bihar Urban Planning and Development Act 2012;

(125) **"Unauthorized construction"** means the erection or re-erection, addition or alteration of any building constructed without approval or in direct violation of a sanctioned building plan by the Competent Authority;

(126) **"Underground or Overhead Tank"** means an underground overhead water tank, constructed or placed to store water;

(127) **"Unsafe Building"** means buildings which are structurally and construction wise unsafe, or in-sanitary, or do not provide adequate means of egress, or which constitute fire hazard, or are otherwise dangerous to human life or property, or which in relation to existing use constitute a hazard to safety, health, or public welfare by reason of inadequate maintenance, dilapidation or abandonment;

(128) **"Urban Local Body"** means any Municipal Corporation, Municipal Council, or Nagar Panchayat established under the Bihar Municipal Act, 2007.

(129) **"Ventilation"** means the supply of outside air into a building through window or other openings due to wind outside and convection effects arising from temperature, or vapour pressure differences (or both) between inside and outside of the building;

(130) **"Verandah"** means space with at least one side open to the outside with the exception of one-meter parapet on the upper floors to be provided on the open side;

(131) **"Water Closet/ W.C."** means a privy with arrangement for flushing the pan with water but does not include a bath room;

(132) **"Zoning"** means the planning areas where various land use zones viz, residential, commercial, industrial, public and semi-public, public utility, recreational, transport & communication, agriculture, water bodies and eco-sensitive areas having their zonal boundaries have been indicated.

CHAPTER-II
ADMINISTRATION

3. Applicability

Subject to the provisions of the Act and the Municipal Act, these byelaws shall apply:

(a) to the planning, design, construction, removal, demolition, alteration, change in occupancy or use of a building or any part thereof; and

(b) where any building has been constructed partly before the notification of these byelaws, and the validity period of the original sanction has lapsed, then the provisions of these byelaws shall be insisted upon the construction of the remaining portion, after extension of such validity period; provided that these byelaws shall also be applicable where development permissions have been granted but construction has not yet commenced and the corresponding validity period has lapsed.

4. Deemed Permission

Subject to the provisions of these byelaws, the structural regulations governing any building shall be applied in accordance with the following rules:

(a) the construction of any building in respect of which a valid development permission has been issued before the commencement of these byelaws, shall, so far as it is not inconsistent with the provisions of the preceding building byelaws, continue to be deemed valid and the said permission shall be deemed to have been issued under the corresponding provisions of these byelaws;

(b) where any building has been constructed without an approved plan, the provisions of these byelaws shall be insisted upon; and

(c) Where any applicant has applied for a building plan approval, and the same is not approved or rejected within 30 days, then the building plan shall be deemed to have been approved.

5. Exemption from approval of building plan permission or self-certification-

5A. Categories for which building plan approval is exempt - Notwithstanding anything contained elsewhere in these byelaws, no permission or notice shall be required for the execution of the following works:

(a) related to internal readjustments and do not otherwise violate any provisions regarding general building requirements, structural stability and fire and life safety requirements under these byelaws;

(b) carried out by Central Government and State Government Departments or Boards / entities under them, if the plans are formally approved by Government Architects or government Engineers. However, provided that such Government Architects or Engineers shall ensure that the plans are conformity with the provision of these byelaws and the notified development plan wherever applicable.

5B. Building plan approval under self-certification category: - Buildings upto height and built-up area as mentioned herein shall not be required to take the approval of their building plans. Instead, they are simply required to get their building plans approved an empanelled technical person and upload the same on the portal. After paying the requisite fee, the concerned person entity can download their certificate of approval of building plan.

Table 1: Occupancy Types under Self Certification Category

Sl. No.	Occupancy Type	Height upto which building plan may be approved on a self-certification basis	Total Built-up area
(i)	Residential	10 m	2500 m^2
(ii)	Commercial	10 m	2500 m^2
(iii)	Educational and Sports and leisure like Swimming pool, Gym, Spa, Stadium	9 m	5000 m^2
(iv)	Healthcare and Public and Semi-public	15 m	5000 m^2
(v)	Industrial (White Category Industry as classified by Bihar Pollution Control Committee/ CPCB)	15 m	5000 m^2
(vi)	Mixed Use	15 m	5000 m^2
(vii)	Any Other	15 m	5000 m^2

5C. **General conditions for self-certification: -**

(a) The above category of buildings are exempt from fire NOC. However, it is expected that the empanelled technical persons, while preparing the building plan for above category, shall ensure adequate fire safety protections in the building like fire extinguishers, fire exits, fire alarms, sprinklers, hoses, adequate water storage for firefighting etc;

(b) Notwithstanding the approval under self-certification, empanelled third-party fire consultants (3rd party fire consultants) or departmental fire officer may conduct a fire audit under the provisions Bihar Fire Safety Act, 2014 and may ask the owner to make suitable fire safety arrangements. Failure to comply, may result in the building to be sealed.

6. Application.

(1) Any applicant who intends to develop land, erect, re-erect or make additions or alterations in any building, demolish any building or subdivide a plot for development shall apply to the Competent Authority as applicable or through the Online facility.

(2) Any person who intends to carry out any development or redevelopment including sub-division or amalgamation on any plot or land shall be competent to do so under information to the authority and on payment of such fee as may be prescribed.

(3) Layers of drawings- All plans shall be shown as specified in below mentioned table. Where items of work are notified, the coloring notation used shall be indexed (However separate guidelines may be issued for preparation of drawings in a format to adapt to the Online facility).

Table 2: Coloring notation of the plans

Sl. No.	Item	Land Subdivision	Building Plan
		Computer Print/White Print	Computer Print/White Print
1	Plot Line	Thick Black	Thick Black
2	Existing Street	Green	-
3	Future Street	Green dotted	Green dotted
4	Permissible Building	Thick dotted black	Thick
5	Open Spaces	No Colour	No Colour
6	Existing out line	Black	Black
7	Work Proposed to be demolished	Yellow hatched	Yellow hatched
8	Proposed work- (a)Additions and alterations	Red filled	Red
	(b) Entirely new work	Not to be coloured	Not to be coloured
9	Drainage and sewerage work	Red dotted	Red dotted
10	Water Supply work	Black dotted thin	Black dotted thin

(4) Application for development permit (Land Development)-The application shall be made to the Competent Authority as prescribed and shall be accompanied by application for development permit in the case of development or re-development of land into plots, sub-divisions or land use zones. The documents shall be submitted with drawing in CAD format along with prescribed scrutiny fees, shelter fund, labour cess and other statutory dues as may be notified from time to time. The application shall also include the following components:

(a) Key Plan- This shall show the location of land proposed to be subdivided. This shall also show the North point and scale used. (Revenue Survey sheet/Municipal Survey sheet with Khesra no. or mutation record shall also be attached).

(b) Site Plan- This shall be drawn on a scale of not less than 1:1000 for plots up to 10 hectares and not less than 1:2000 for plots above 10 hectares and shall show-

(i) The boundaries of the site with dimensions and the details of contiguous land belonging to application indicating the Khesra numbers or any other equivalent local denomination, and in case, the continuous land owned by the applicant had been subdivided earlier, public facilities provided in it and all streets within it opening out in the site for which the permission is being sought.

(ii) The means of access for existing street (name and width of the street is to be mentioned) to the land, which, the applicant intends to sub-divide.

(iii) The position of all existing structures and features like high tension line, telegraph and electrical poles, underground pipe lines, trees, grave yards, religious buildings, railway lines, etc. within a distance of 30 meters from the nearest edge of the site.

(iv) All major physical characteristics of land proposed to be developed which include the approximate location and size of water body, normal flood-affected areas and contours at an interval of 0.5 meters in case of the site which has a slope of more than 1 in 20.

(v) Location of the site in Development Plan or in zoning as specified by the Competent Authority.

(vi) Existing and proposed use of land.

(vii) Scale used and North point.

(c) Sub-division Plan- This shall be drawn on a scale of not less than 1:500 for Plot upto 10 hectares and not less than 1:1000 for plots above 10 hectares. This shall apply to plans for integrated development schemes also. This shall contain the following-

(i) Scale used and North point,

(ii) The location of all proposed and existing roads with their widths within the land,

(iii) Building lines showing the set-backs with dimensions within each plot where applicable,

(iv) The location of drains, sewers, public facilities and services and electrical lines etc. and their connections to existing public utility services system,

(v) An analysis indicating, size, area and use of all the plots in the subdivision lay out plan,

(vi) A statement indicating the total area of the site area utilised under roads, open spaces, schools, shopping and other public places along with their percentage with reference to the total area of the site proposed to be subdivided,

(vii) In case of plots which are subdivided in built-up areas, in addition to the means of access to the subdivision from existing streets and the exiting service lines laid.

(d) Details to be submitted- Every application for permission of sub-division of land shall also be accompanied by the following-

(i) A statement containing general specification of all improvements proposed to be made within the area, including grading and paving of roads and lanes, provision of gutters, side drains, provision of sufficient, safe and assured water supply, arrangements for

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sewage disposal, street lighting and development of parks, playfields and public utilities;

(ii) The purpose for which the land is to be used and a written analysis of distribution of land under different uses;

(iii) General specifications of the materials to be used and estimated cost of the proposed development of the area;

(iv) The quality and quantity of effluent in respect of industrial units. Any other statement required by the Competent Authority; and

(v) Registered Development Agreement between land owner and developer if applicable.

(5) Application for building permit- The application shall be made to the Competent Authority in prescribed form or through an online facility. The documents shall be submitted with drawing in CAD format along with prescribed scrutiny fees, applicable shelter fund, labour cess and other statutory dues as may be notified from time-to-time. The application shall also include the following components:

(a) Site Plan-Plan sent with an application shall be drawn to a scale of not less than 1:500 for areas up to 1 hectare and not less than 1:1000 for areas more than 1 hectare and shall show-

(i) The boundary of the site with plot dimensions and the contiguous land around it;

(ii) The position of site in relation to neighbouring street along with the municipal plot number and revenue plot number the name of the street in which the building is proposed to be situated, if any,

(iii) The name of street in which the building is proposed to be situated if any;

(iv) All existing buildings standing on over or under the site and proposed buildings with dimensions;

(v) The position of the building or of all other building (if any) which the application intents to erect upon his contiguous land to in (a) in relation to the boundaries of the site and in case where the site has been partitioned, the boundaries of the portion owned by the applicant and also of the portion owned by the other.

(b) Key Plan- This shall show the location of land where the building is proposed. This shall also show the North point and scale used.

(c) Building Plan- The plan of the building and two elevations (front and side) and sections accompanying the application shall be drawn to a scale not less than (1:100). The plan shall-

(i) Include the floor plans, mezzanine plan or service floor of all floors together with the covered area clearly indicating the size and spacing of all framing members and sizes of rooms and the position of staircase, ramps and lift wells;

(ii) Show the use or occupancy of all parts of the building;

(iii) Details of the parking space;

(iv) Show exact location of essential services for example: WC, sink, bath and the like including the water supply and drainage line;

(v) Include two elevation (front and sides) and sectional drawing showing clearly the size of footings, thickness of basement wall, wall construction size and spacing of framing members, floor slabs and roof slabs with their materials and size and locations of doors, windows and other openings. The section shall indicate the heights of building and rooms and also the height of the parapet and the drainage and slope of the roof. At least one section should be taken through the staircase;

(vi) Show two sectional elevations of all street (levels) with existing and proposed ground level of plot; Show building elevations on all streets with existing and finished ground levels;

(vii) Indicate details of compound walls (including height and sections) around the boundary;

(viii) give dimensions of the permissible projected portions within open spaces;

(ix) rain water harvesting system, terrace plan indicating the drainage and the slope of the roof;

(x) give indications of the north point relative to the plan and scale used; and

(xi) any other particulars as required by the Authority.

(d) Services Plan- Plans, elevations and sections of private water supply and sewerage disposal system independent of the municipal services (if any) drawn to a scale of 1:10 shall be included.

(e) Specifications- General specification giving type and grade of materials to be used shall accompany the application.

(6) Additional documents and information required for Building Plan for High Risk or special buildings falling outside regulation 5B: Buildings of all categories falling outside regulation 5B should submit the following additional information shall be furnished or indicated in the building plan in addition to the items given under these byelaws as applicable:

(a) **Fire Plan and Fire NOC**: The fire NOC shall be embedded with the building plan. A certificate from Empanelled Third-Party Fire Consultants or Departmental Fire Officer is required. If a building plan is approved, then it shall be presumed that the fire NOC is also approved. In order to meet the fire safety standards, the applicant shall submit a detailed fire plan as under:

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

(ii) Size (width) of main and alternative staircases along with balcony approach, corridor, ventilated lobby approach;

(iii) Location and details of lift enclosures;

(iv) Location and size of fire lift;

(v) Smoke stop lobby or door, where provided;

(vi) Refuse chutes, refuse chamber, service duct, etc;

(vii) Vehicular parking space, parking space for fire brigade and ambulance;

(viii) Details of how the fire brigade or ambulance will travel within the plot;

(ix) Refuse area, if any;

(x) Details of building services- Air-conditioning system with position of fire dampers, mechanical ventilation system, electrical services, boilers, gas pipes, etc;

(xi) Detail of exits including provision of ramps, etc., for hospitals and special risk buildings uses;

(xii) Location of generator, transformer and switch gear room;

(xiii) Smoke exhauster system, if any;

(xiv) Details of fire alarm system network;

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

(xvi) Location and dimension of static water storage tank and pump room along with fire service inlets for mobile pump and water storage tank;

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(xvii) Location and details of fixed fire protection installations, such as sprinklers, wet risers, hose-reels, drenchers, etc;
(xviii) Location and details of first-aid firefighting equipment installations;
(xix) longitudinal cross section of the building including size of footings, basement and super structure framing members and details of building and room heights and of staircase;
(xx) Location and details of provisions for Gas supply and other related equipment;
(xxi) Location and details of provisions for solid waste management, differently abled, children and elderly, rainwater harvesting, green building& sustainability provisions made under these byelaws if applicable.

(b) **Services plans:** The services plan shall include all details of building and plumbing services, and also plans, elevations and sections of private water supply, sewage disposal system and rain water harvesting system.

(c) **Parking Plan:** Parking Plan shall be submitted separately for approval along with group housing, commercial institutional office and other multi-storey building maps, in which parking area for all types of vehicles along with proper circulation arrangements for their entry and exit shall be shown.

(d) **Landscape Plan:** The landscape if any, plan shall include the area to be developed as lawn, garden, plantation etc.

(e) **Specifications of building material:** Specifications, both general and detailed, giving type and grade of materials to be used shall be jointly signed by the the empanelled technical person and shall accompany the application.

(7) **Certificates and Clearances:**

Every applicant shall submit the following statutory clearances and technical certificates, wherever applicable:

(a) The Necessary environmental clearance obtained from the appropriate authority;
(b) a NOC from Airport Authority of India, which shall be furnished wherever applicable as per the proposed CCZM (Colour Coded Zone Map);
(c) a certificate from the Empanelled Technical Person that the building plan and the design complies with the Earthquake Safety requirements as stipulated by Bihar State Disaster Management Authority;
(d) a NOC from National Monument Authority or Archeological Survey of India or State Archeology Department; and
(e) a structural stability certificate for High Rise buildings accompanied with Structural Design Basis Report duly verified and signed by the Empanelled Engineer.

7. Authorization in Respect of Building Plans and Drawing:

(1) All plans and drawings shall be prepared by an Empanelled Technical Person and the plan shall indicate their full name and registration numbers on the body of the plan and upon all other related documents.
(2) All plans, drawings, statements and design details shall be duly endorsed by the applicant or his authorized Empanelled Technical Person.

8. Fees

All applicable fees shall be levied and collected in accordance with the rates and procedures notified from time to time by the Authority.

9. Procedure for Permission

(1) Risk based classification of Buildings for fast tracking building plan approvals:

For the purpose of facilitating fast-tracking building permission procedures, the buildings are hereby classified on the basis of risk parameters, risk-based classification. The following risk matrix for residential buildings may be referred:

Table 3: Risk Matrix for Residential Buildings

Risk Parameter	Low	Moderate	High
Height of the building	Up to 10 m	Above 10 m and upto 24 m	Above 24 m
Total Built-up Area	Up to 2500 sq.m.	2500-5000 sq.m.	Above 5000 sq.m.

Table 4: Risk Matrix for Commercial Buildings

Risk Parameter	Low	Moderate	High
Height of Building	Up to 10 m	Above 10 m and upto 24 m	Above 24 m
Total Built-up Area	Up to 2500 sq.m.	2500-5000 sq.m.	Above 5000 sq.m.
Activities	Non-obnoxious, non-noxious and non-hazardous activity.	Non-obnoxious, non-noxious and non-hazardous activity	All other activities.

Table 5: Risk Matrix for Industrial Buildings

Risk Parameter	Low	High
Category	White Category Industry as classified by Bihar Pollution Control Committee/ CPCB	All category
Height of Building	Upto 15 m	Above 15m
Total Built-up Area	Up to 5000 sq.m.	Above 5000 sq.m.
Activities	Non-obnoxious, non-noxious and non-hazardous activity. No use of water and hazardous chemicals or raw material, effluents or by-products etc.	Use of water and hazardous materials, chemicals etc.

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Table 6: Risk Matrix for Educational / Sports/ Leisure Buildings

Risk Parameter	Low	High
Height of Building	Upto 9 m	Above 9 m
Total Built-up Area	Up to 5000 sq.m.	Above 5000 sq.m.
Activities	Non-obnoxious, non-noxious and non-hazardous activity. No use of hazardous chemicals or raw material, effluents or by-products etc.	Use of hazardous materials, chemicals etc.

Table 7: Risk Matrix for Healthcare/ Public and Semi-public

Risk Parameter	Low	High
Height of Building	Upto 15 m	Above 15m
Total Built-up Area	Up to 5000 sq.m.	Above 5000 sq.m.
Activities	Non-obnoxious, non-noxious and non-hazardous activity. No use of hazardous chemicals or raw material, effluents or by-products etc	Use of hazardous materials, chemicals etc.

Table 8: Risk Matrix for Mixed Use Buildings

Risk Parameter	Low	High
Height of Building	Upto 15 m	Above 15m
Total Built-up Area	Up to 5000 sq.m.	Above 5000 sq.m.
Activities	Non-obnoxious, non-noxious and non-hazardous activity. No use of hazardous chemicals or raw material, effluents or by-products etc.	Use of hazardous materials, chemicals etc.

Table 9: Risk Matrix for Any Other Buildings

Risk Parameter	Low	High
Height of Building	Upto 15 m	Above 15m
Total Built-up Area	Up to 5000 sq.m.	Above 5000 sq.m.
Activities	Non-obnoxious, non-noxious and non-hazardous activity. No use of hazardous chemicals or raw material, effluents or by-products etc.	Use of hazardous materials, chemicals etc.

Note:

(i) For the risk matrix given above, if a building is found to be in a category belonging to more than one risk-based classification, it will be considered under the higher risk-based classification.

(ii) Also, if a building doesn't qualify under any risk matrix shall be treated as High-risk building.

(2) **Building Plan Approval for Low-Risk buildings:**

(a) The building plan approval for low-risk categories shall be on the basis of self-certification in terms of Rule 5 B & 5C mentioned before;

(b) In case it is found that the building permit has been secured through misrepresentation or fraud, the permission may be revoked by the Authority and the building (whether constructed or under construction) will be liable to be sealed.

(3) **Building plan approval for Moderate Risk buildings:**

The building plan approval for moderate risk buildings shall be approved by Architect who is an Empanelled Technical Person through Online system. For this case, Map preparation and approval cannot be done by same person.

(4) **Building Plan Approval for High-Risk buildings:**

(a) The building plan approval for high-risk buildings shall be approved by the competent authority in the local Municipal Corporation or the Urban Development Department;

(b) All clarifications with respect to any deficiency in the building plan, documents shall be sought for from the applicant a single consolidated communication within 15 days from the date of receipt of the application. The site inspection of all concerned bodies as required under these byelaws shall also be conducted within this same period;

(c) Once the plan has been scrutinized and all the objections have been pointed out a single consolidated communication, the applicant shall modify the plan to comply with the objections raised and re-submit it within 7 days along with any further documents that may have been asked for. The Competent Authority shall scrutinize the re-submitted plan and convey its final decision on the submitted plan and documents within 7 days of the receipt of the amended plan and documents;

(d) Any rejection of submitted plan should be accompanied by a speaking order of the competent authority setting forth the grounds for refusal;

(e) The applicant shall to deposit the building permit fee after receiving the communication of approval of plan but before the issue of formal sanction letter;

(f) The Competent Authority shall communicate either the approval or refusal of the permit in the prescribed form within 30 days from the date of the receipt of application under these byelaws;

(g) In case the Competent Authority does not approve or refuse the plan, within 30 days, then the building plan shall be deemed to have been approved;

(h) An appeal against the decision of the Authority shall lie with the Tribunal, under the Act, if the order has been passed by the Planning Authority, and the Bihar Municipal Tribunal if the order has been passed by any Urban Local Body.

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10. Duration of Permission

(1) Every permission granted under these byelaws shall remain valid for a period of five years from the date such permission is granted, within which time the notice of completion shall be compulsorily submitted to the Competent Authority, Where an applicant submit then notice of completion shall have to be submitted within this period. However, in case of failure to submit the notice of completion within the prescribed period the permission shall be required to be revalidated before the expiry of the above period on payment of such fee as specified in these bylaws and such revalidation shall be valid for another five years. On payment of fee, immediate revalidation shall be granted automatically.

(2) If the building or development works are not completed within the aggregate ten years period established under sub-byelaws (1), the applicant shall be required to make a fresh application for the approval of the building plan in accordance with the prevailing regulations.

11. Information at the Site of Construction of High- Risk- Buildings.

(1) Where structural tests of any building material are made to ensure conformity of the requirements of these byelaws, records of the tests data including (cube test and soil test report), shall be kept available for inspection during the construction of the building and for such subsequent period as may be required by the Authority.

(2) The persons to whom a permit is issued shall, during the entire duration of construction, keep displayed and secured in a conspicuous place on the property in respect of which the permit was issued, a copy of approved drawings and specifications.

(3) A copy of the periodic progress report and the maintained register shall be stored securely at the site office and produced instantly upon the demand of any authorized municipal inspector.

(4) The full names and contact details of representatives of the developers or owners, along with the corresponding details of the site supervisors or technical persons shall be legibly displayed at the primary entrance of the construction site.

12. Inspection.

(1) All construction or development work for which a permit is required shall be subject to inspection by the concerned agencies at all reasonable hours with prior intimation.

(2) Inspection, where required, shall be made within seven days following the receipt of periodic report of construction in prescribed form. At the time of first inspection, the Authority shall determine that the building construction has been taken up in accordance with approved plans. A copy of the inspection report shall made available to the applicant.

13. Completion of Construction

(1) An Empanelled Technical Person shall be competent to certify completion of building falling under the low-risk and moderate- risk classification cases. The buildings whose plans are approved under self-certification category shall also have to submit a completion certificate duly issued by any empanelled technical person.

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(2) For all high-risk types of buildings, the owner or authorized empanelled technical person shall submit the notice of completion in the prescribed Form to the Competent Authority. The said notice shall be accompanied by:

(a) as-built drawings rendered in CAD format, alongside site photographs; and
(b) a Certificate in the prescribed format issued by the empanelled technical person showing compliance with the various fire and life safety provisions as well as applicable environment clearance.

(3) Any structural or spatial deviations shall also be brought to the notice of the Competent Authority (with relevant documents including periodic progress reports submitted earlier).

(4) The inspecting officials of the authority shall verify the following within seven days of the submission of the notice of completion;

(a) Number of floors;
(b) Building height;
(c) External Setbacks including projections;
(d) Obstructions or construction in the setback area;
(e) Building Line;
(f) Parking space provision;
(g) Abutting road width;
(h) FAR;
(i) Basement (extent and height);
(j) Tree Cover and green strip;
(k) Water harvesting structures;
(l) Land if required to be surrendered through deed of transfer in favour of authority;
(m) Removal of structures, as required according to the sanctioned plan;
(n) Energy efficiency, green building, solar water heating, disabled-friendly, rain water harvesting, segregated public toilet provisions etc. as per applicability;
(o) Provisions for fire-fighting wherever applicable;
(p) STP provisions wherever applicable; and
(q) Provisions to connect to CGDN (City Gas distribution Network) if applicable.

(5) In case a completion certificate is not duly issued by the Competent Authority in the high-risk category, within 30 days from the date of submission, it shall be deemed to have been issued. Such deemed completion certificate shall be downloadable from the portal.

14. Certificate for Occupancy for Low / Moderate / High-Risk Buildings

(1) Low-risk and moderate-risk buildings shall not be required to obtain an Occupancy Certificate from the Authority. However, an Architect who is a Licensed Technical Person shall be eligible to issue the Completion-cum-Occupancy Certificate through the online mode.

(2) The Authority shall issue a certificate for occupancy for all high-risk categories of buildings, within 15 days from the date of submission of Completion Certificate. In case an occupancy certificate is not duly issued by the Competent Authority in the high-risk category, within 15 days from the date of submission of the completion certificate, it shall be deemed to have been issued. Such deemed occupancy certificate shall be downloadable from the portal The refusal of occupancy certificate shall be a speaking order clearly mentioning the reason for refusal of

occupancy certificate. In case of any false statement the applicant shall be liable for punishment under the provisions of these Byelaws and other suitable legal action.

(3) Temporary occupancy- On the request of the Empanelled Technical Person, the Authority or a Architect who is an Empaneled Technical Person may issue a temporary certificate of occupancy for a building or a part thereof before the entire work covered by the building permit shall have been completed, provided such portion or portions may be occupied safely prior to full completion of building without endangering life or public welfare.

(4) A connection of water supply, drainage, sewerage and electricity for the purposes of construction can be given after the approval of the Building Plan. In case the building use is changed or unauthorized construction is made, the Authority is authorized to discontinue such services or cause discontinuance of such services.

(5) An appeal against the decision of the Authority shall lie with the Tribunal under the Act if the order has been passed by the Planning Authority, and the Bihar Municipal Tribunal if the order has been passed by any Urban Local Body.

15. Penal Action

(1) The Authority reserves the right to take action and to debar or blacklist the Town Planner, Architect, Engineer, Structure Engineer, Empanelled Third-Party Fire Consultant if found to have deviated from professional conduct or to have made any false statement or on account of misrepresentation of any material facts or default either in authentication of a plan or in supervision of the construction against the building Byelaws and the sanctioned building plans.

(2) If the Authority finds at any time any violation of the building Byelaws or misrepresentation of facts, or construction at variance with the sanction or building Byelaws, inclusive of the prescribed documents, the Authority shall revoke the sanction and take appropriate action against such professional and such professional shall not be authorized to submit fresh plans till finalization of the case. Before debarring or blacklisting such professional if found to be indulging in professional misconduct or where she or he has misrepresented any material facts, the Authority shall issue a show cause notice with an opportunity of a personal hearing and shall pass an order to debar her or him for submission and supervision of the construction with full justification for the same. An appeal against this order shall lie with the department.

16. Unauthorized Development and construction without map sanctioning

(1) In case of unauthorized development or unsafe construction, the Authority shall take suitable action, which may include demolition of unauthorized works, sealing of premises, prosecution and criminal proceeding against the offender in pursuance of relevant laws in force.

(2) In addition to the above, the authority may enforce suitable fine or penal action as per law; provided that no action shall be taken without giving due opportunity of hearing to the person concerned.

17. Construction not According to Plan.

(1) Where the Authority finds, at any stage, that the construction is being carried on otherwise than in accordance with the sanctioned plan, or is in contravention of any of the provision of

these Byelaws, it shall serve a notice upon the applicant specifying the particulars of such deviation or contravention; and upon such issuance, all further construction activities shall be stayed until necessary corrections in the plan are made and such modified plan is duly approved by the Authority.

Provided that, where the deviation falls within condonable or compoundable limits as specified in these Byelaws, the progress of the construction work shall not be stopped or impeded.

(2) In the event that an applicant fails to rectify the notified deviation or comply with the requisitions of the Authority within the timeframe specified at any stage of construction, the Authority may revoke and cancel the building permission previously issued, and shall cause a show-cause notice of such cancellation to be affixed conspicuously upon the impugned construction site. Where the applicant is not traceable at the address given with the application, the affixture of such notice upon the premises shall be considered as sufficient notification of cancellation to the owner thereof; and no further work shall be undertaken or permitted upon such construction site until a valid building permission is issued subsequent thereto.

(3) The notice under sub-byelaw (2) shall also be published as public notice.

(4) The procedure under sub-byelaws (1), (2), and (3) shall mutatis mutandis apply to deviations from the sanctioned layout, as well as to instances involving material misrepresentation and fraud in self-certified, low risk "Trust and Verify" cases.

(5) Any person aggrieved by an order of cancellation passed under sub-byelaw (2) may prefer an appeal before the statutory Appellate Tribunal constituted under the Act and the Municipal Act.

(6) A list of projects for which notice(s) has been issued shall be displayed on the website of the Authority.

18. Single Window Clearance.

The Authority may provide single window for receipt, processing and issuance of various notices and certificates in a digital manner. In case of rejections of clearances or approvals with modification by the respective authorities, the Nodal Authority shall examine the issues involved, may ask the applicant for such modifications as required by the respective authority for further consideration.

19. Unsafe Building. -

(1) All unsafe buildings shall be considered to constitute danger to public safety and shall be restored by repairs or demolished or dealt with otherwise as directed by the Authority.

(2) The Authority shall examine or cause to be examined every building reported to be unsafe or damaged and shall make a written record of such examination.

(3) Whenever the Authority finds any building or portion thereof to be unsafe, it shall, in accordance with established procedure for legal notice, give to the owner or occupier of such building written notices stating the defects thereof. This notice shall require the owner or the occupier within a stated time either to complete specified repairs or improvements or to demolish and remove the building or portion thereof.

(4) The Authority may record the reasons thereof directing in writing that the building which in its opinion is dangerous or has no provision for exit in the event of fire, shall be vacated immediately or within the period specified for the purpose.

(5) If any person does not comply with the orders of vacating a building, the Authority may with the help of police remove the person from the building.

(6) Where the owner or occupier fails, neglects or refuses to comply with the notice to repair or to demolish the said building or portion thereof, the Authority shall cause the danger to be removed either by demolition or repair of the building or portion thereof or otherwise.

(7) In case of emergency, which, in the opinion of the Authority involves imminent danger to human life or health, the decision of the Authority shall be final. The Authority shall forthwith or with such notice as may possible promptly cause such building or portion thereof to be rendered safe by retrofitting/strengthening to the degree of safety or removed. For this purpose, the Authority may at once enter such structure or land on which it stands, or abutting land or structure, with such assistance and at such cost as may be deemed necessary. The Authority may also get the adjacent structures vacated and protect the public by appropriate fencing or such other means as may be necessary.

(8) Costs incurred under sub-byelaws (6) & (7) shall be charged to the owner of the premises involved. Such cost shall be charged on the premises in respect of which or for the benefit of which the same have been incurred and shall be recoverable as per law.

20. Demolition of Building.

(1) Before a building is demolished, the owner shall notify all utilities having service connections within the building, such as water, electricity, gas, sewer and other connections. A permit to demolish a building shall not be issued until a release is obtained from the utilities departments stating that their respective service connections and appurtenant equipment, such as meters and regulators have been removed or sealed and plugged in a safe manner.

(2) The owner shall take all precautionary measures to avoid noise and dust pollution and shall not cause any inconvenience to the neighboring plot owners.

21. Responsibility and Duty of the Applicant and His Authorized Empanelled Technical Person

(1) **Indemnification and Compliance with Construction Standards:** The applicant shall indemnify and hold harmless the Authority against any and all claims of any damages, suites, legal liabilities and other actions or proceedings of a similar nature arising out of or in connection with the development project. The applicant and his authorized Empanelled Technical Person (ETP) shall be fully responsible for carrying out the work in accordance with the requirements of these byelaws.

(2) **Right of Entry for Enforcement and Inspection Protocols:** Every owner or applicant shall permit the Authority to enter the building or premises, for which permission has been granted at any reasonable time for purpose of enforcing the byelaws. During any such inspection, the owner or applicant shall be present personally or through representative and shall produce all relevant maps and certificates for verification.

CHAPTER-III
LAND USE CLASSIFICATION AND PERMISSIBLE USES

22. LAND USE & ACTIVITIES. -

A. Negative List of activities -

(1) Under these Building Byelaws there shall be minimum zoning requirements.

(2) All the activities in any zone are permitted unless prohibited. The list of prohibited activities is given below.

(3) Any activity not specified in the list of prohibited activities, including mixed use development, shall be lawful within any zone without the necessity of obtaining independent permission for a Change in Land Use (CLU).

(4) The Authority shall be competent to levy and collect such charges, for secondary activities in a particular Land use, as may be prescribed.

(5) These charges shall be payable along with the building plan fee. The regulation of zoning across different land use zones shall be strictly governed by the list of prohibited activities as specified hereinafter:

Table 10: List of prohibited activities

Existing land use zones	Activities not permitted
Of land falling inside the Master Plan	
1. Residential Zone	a. Orange and Red category industries (as classified by the Bihar Pollution Control Committee). b. Funeral homes / mortuaries / burial / cremation grounds (except designated areas) c. Integrated freight complexes (Wholesale shops & logistics hubs), truck terminals, storage depots, container yards, warehouses, service / repair facilities for HMV, workshops and garages (heavy vehicle focused), cold storage (large scale)
2. Commercial Zone	a. Orange and Red category industries (as classified by the Bihar Pollution Control Committee). b. Research laboratories handling contagious or hazardous biological agents. c. Cremation grounds and burial grounds
3. Traffic and Transportation	Orange and Red category industries (as classified by the Bihar Pollution Control Committee) **except** transport depot, bus terminus, railway station, airport, dry port, bus/truck shelters, automobile workshop. Car and other automobile parking including multi-level parking and incidental uses of storage / warehouses, shops, public utility building like sewage pumping station, water works, fire stations, telephone exchanges, fuel filling stations and service stations, storage of domestic cooking gas cylinders
4. Industrial Use	There shall be no negative list. Industrial areas shall be governed by their own norms.

Existing land use zones	Activities not permitted
5. Public-Semi-Public / Institutional (PSP)	a. Orange and Red category industries (as classified by the Bihar Pollution Control Committee). b. Animal-based commercial uses: poultry farms, dairy farms, cremation / burial grounds (unless demarcated for public utility). c. Integrated freight complexes / truck terminals, weighbridges / workshops and garages for LMV & HMV / repair yards, scrap yards, junk yards, / heavy goods markets and wholesale mandir / agro mandis.
6. Agriculture, Recreational and Allied Use	Orange and Red category industries (as classified by the Bihar Pollution Control Committee).
7. Waterbody Use	All permanent structures except kiosks, cafeteria, toilet units or any other public utilities.

Explanation: No enterprise shall be permitted in restricted areas such as Forest, Wildlife, Archaeological etc. unless due prior approvals from concerned authorities (Defence, Forest, Wildlife Reserve, Archaeological Survey of India or other organizations, governed by State or Central Laws) are in place

Existing land use zones	Activities not permitted
Of land falling outside the Master Plan	
1. Purely Residential	a. Orange and Red category industries (as classified by the Bihar Pollution Control Committee). b. Funeral homes / mortuaries / burial / cremation grounds (except designated areas)
2. Purely Commercial	a. Orange and Red category industries (as classified by the Bihar Pollution Control Committee). b. Research laboratories handling contagious or hazardous biological agents. c. Cremation grounds and burial grounds
3. Notified Industrial Areas	There shall be no negative list. Industrial areas shall be governed by their own norms
4. Agriculture Areas	Orange and Red category industries (as classified by the Bihar Pollution Control Committee)
5. Waterbodies	All permanent structures except kiosks, cafeteria, toilet units or any other public utilities
6. Restricted Use	No enterprise is permitted unless due prior approvals from concerned authorities (Defence, Forest, Wildlife Reserve, Archaeological Survey of India or other organizations, governed by Central Laws) are in place

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B. Permissible activities in a mixed-use building

Table 11: Permissible activities in a mixed – use building

Sl. No.	Occupancy to be mixed with	Resi-dential	Educa-tional	Insti-tutional	Assem-bly	Commer-cial	Indus-trial	Storage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
i)	Residential	-	Yes	Yes	Yes	Yes	White	No
ii)	Educational	Yes	-	Yes	Yes	Yes	No	No
iii)	Institutional	Yes	Yes	-	Yes	Yes	No	No
iv)	Assembly	Yes	Yes	Yes	-	Yes	White	No
v)	Commercial	Yes	Yes	Yes	Yes	-	White/ Green	No
vi)	Industrial	Yes	Yes	Yes	Yes	Yes	-	Yes
vii)	Storage	No	No	No	No	No	All categories	-

CHAPTER-IV
GENERAL CONDITIONS

23. Requirements of parts of Building

(1) Minimum Standard Specifications:

The various components of a building shall comply with the minimum standards as specified below: -

Table 12: Minimum Size, Width and Height of Different Components of building

S. No.	Components of Building	Area (sq.m)	Width (m)	Height (m)
1	Habitable Rooms	9.0	2.4	2.75
2	Kitchen	4.5	1.8	
3	Pantry	3.0	1.4	
4	Kitchen with Dining Area	7.5	2.1	
5	Bathroom	1.8	1.2	2.2
6	WC	1.2	0.9	
7	Combined Bath & WC	2.8	1.2	
8	Doorways	–	0.9	2.1
9	Plinth (permissible height)	-	-	0.45 (Minimum) 0.9 (Maximum)
10	Parapet	-	-	1.2 (Minimum) 1.5 (Maximum)

Note: *Minimum clear headway under any beam shall not be less than* ***2.4 m****.*

(2) Staircase and Exit Requirements. -

(a) Every building meant for human occupancy shall be provided with exits sufficient to permit safe escape of occupants, in case of fire or other emergency.
(b) In every building exit shall comply with the minimum requirement of exit except those not essential for general public use.
(c) All exits shall be free from obstructions.
(d) No building shall be altered so as to reduce the number, width of protection of exits to less than that required.
(e) Exits shall be clearly visible and the routes to reach the exits shall be clearly marked and signposted to guide the population of floor concerned.
(f) Adequate and reliable illumination shall be provided for exits.
(g) Fire fighting equipment and fire alarms shall be suitably located and clearly marked.
(h) Alarm devices shall be installed to ensure prompt evacuation of the population concerned.
(i) All exits shall provide continuous means of egress to the exterior of building or to an exterior open space leading to street.
(j) Exits shall be so arranged that they may be reached without passing through another occupied unit.

(3) Arrangement of exits

Exits shall be so located so that the travel distance on the floor shall not exceed 30 meters for all occupancies.

(4) Capacities of Exits-

(a) The unit of exit width used to measure capacity of any exit shall be 50 cm. A clear width of 25 cm shall be counted as an additional half unit. Clear width less than 25 cm. shall not be counted for exit width.
(b) The occupancies per unit exit which shall be as given in table below:-

Table 13: - Number of occupants as per type of occupancy

S.No.	Type of Occupancy	Number of occupants per unit exit	
		Stair Case	Door
(1)	(2)	(3)	(4)
1	Residential	25	75
2	Educational	25	75
3	Institutional	25	75
4	Assembly	60	90
5	Business	50	75
6	Mercantile	50	75
7	Industrial	50	75
8	Storage	50	75
9	Hazardous	25	10

Explanation:

(I) Lifts and escalators shall not be considered as an exit.

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(II) Travel distance' means the distance from any point in the floor area to any exit measured along the path or egress except that when the floor areas are sub-divided into rooms, used singly or of rooms and served by suite corridors and passage, the travel distance may be measured from the corridor entrance of such rooms or suites to the nearest staircase or verandah having access to the street.

(III) For the dormitory portions of homes for the aged, orphanages, mental hospitals, etc. these multipliers will be doubled.

(IV) The plinth or covered area shall include, in addition to the main assembly rooms or usable space, any occupied connecting room or space in the same storey or in the storey above or below where entrance is common to such rooms and space and they are available for use by the occupants of the assembly place.

(V) No deductions shall be made in the gross area of the corridors, closets or other sub-divisions; all space serving the particular assembly occupancy shall be reckoned.

(5) Other requirements of Exits-

(a) Every exit doorway shall open into an enclosed stairway, a horizontal exit, on a corridor or passageway providing continuous and protected means of egress.

(b) No exit doorway shall be less than 100 centimeters in width. Doorways shall be not less than 200 centimeters in height.

(c) Exit doorways shall open outwards, that is away from the room but shall not obstruct the travel along any exit. No door, when opened shall reduce the required width of stairway or landing to less than 90 cm. Over head or sliding doors shall not be installed.

(d) An exit door shall not open immediately upon a flight or stairs; a landing equal to at least the width of the door shall be provided in the stairway at each doorway, level of landing shall be the same as that of the floor which it serves.

(e) Exit doorways shall be operable from the side which they serve without the use of key.

(6) Other Exits

(a) Revolving Doors-

(i) Revolving doors shall not be used as required exits except in residential, business and mercantile occupancies, provided that they shall not constitute more than half the total required door width.

(ii) When revolving door is considered as required exit way each revolving door shall be computed as constituting a half-unit of exit width.

(iii) Revolving door shall not be located at the foot of a stairway. Any stairway served by a revolving door shall discharge through a lobby or foyer.

(b) Stairways -

(i) Interior stairs shall be constructed of non-combustible materials throughout.

(ii) Interior staircase shall be constructed as a self-contained unit with at least one side shall be completely adjacent to an external wall.

(iii) A staircase shall not be arranged around a lift shaft unless the latter is entirely enclosed by a material of fire-resistance rating as for that type of construction itself.

(iv) Hollow combustible construction shall not be permitted.

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(v) Hand rails shall be provided with a minimum height of 90 cm. from the centre of the tread.

(vi) Minimum clear width:

Table 14: minimum width for staircase for respective occupancies

Sl. No.	Building Occupancy	Minimum Width
(A)	Residential buildings (low rise): - (NOTE: - For row housing with 2 storeys, the minimum width shall be 0.75 m.)	1.00 m
(B)	Other Residential buildings (Like Flat, Hostel, Group housing, Guest house, etc.)	1.25 m
(C)	Assembly buildings like auditoria, theatre and cinemas: - NOTE. The width of stairs may be accepted to be 1.50 m in case of assembly occupancy having less than 150 persons.	2.0 m
(D)	All Other Buildings including Hotels	1.5 m
(E)	Institutional Building (like Hospital)	2.0 m
(F)	Educational Building (like school, collage, etc.)	1.5 m

(vii) **Minimum tread:** The minimum width of tread without nosing shall be 300 mm. However, for one- or two-family dwelling, it may be reduced to not less than 250 mm.

(viii) **Maximum riser:** The maximum height of riser shall be 150 mm. However, for one- or two-family dwelling, it may be increased to not more than 190 mm. The number of risers shall be limited to 12 per flight.

(ix) The minimum head-room in a passage under the landing of a staircase shall be 2.2 m. The minimum clear head-room in any staircase shall be 2.2 m.

(c) Fire Escape or external stairs-

(i) Fire escapes shall not be taken into account in calculating the evacuation time of a building.

(ii) All fire escapes shall be directly connected to the ground.

(iii) The entrance to fire escape shall be separate and remote from the internal staircase.

(iv) The route of fire escape shall be free from obstructions at all times except a doorway leading to the fire escape which shall have the required fire resistance.

(v) Fire escape shall be constructed of non-combustible materials.

(vi) Fire escape stairs shall have straight flight not less than 100 cm. wide with minimum 25 cm. treads and riser not more than 19 cm. The number of risers shall be limited to 12 per flight.

(vii) Handrails shall be of a height not less than 90 cm.

(d) Spiral Stairs

The use of spiral staircase shall be limited to low occupant load and to a building of maximum height 9 m. unless they are connected to platforms, such as balconies and terraces to allow escapes to pause. A spiral fire escape shall be not less than 150 cm. in diameter and shall be designed to give adequate headroom.

(e) Ramps.

(i) Pedestrian ramps with a slope of not more than 1:12 may be substituted for and shall comply with all the requirements of required stairway as to enclosure, capacity and limiting

dimensions; large slopes shall be provided for special uses but in no case greater that 1:10. The ramp with a slope between 1:12 to 1:10 shall be allowed only upto height of 2.4 Meter.

(ii) For any height more than 2.4 Meter the slope of pedestrian ramp shall not exceed 1:20.

(iii) For all pedestrian ramp, slopes exceeding 1:12 and where the use is such as to involve danger of slipping the ramp shall be surfaced with approved non-slipping materials.

(iv) After providing 3.66 m for fire tender ramps may be provided within required minimum setbacks.

(v) The ramps can be permitted in Basement, Semi-basement, within the minimum set back provided it should not obstruct the movement of fire-engine.

(vi) Pedestrian ramps for any hospital shall not be greater than 1:20.

(7) Roofs

(a) The roof of a building shall be so designed and constructed as to effectively drain water by means of sufficient rain-water pipes of adequate size, wherever required, so arranged, jointed and fixed as to ensure that the rain-water is carried away from the building without causing dampness in any part of the walls, roof or foundations of the building or an adjacent building.

(b) The Authority may require rain-water pipes to be connected to a drain or sewer to a covered channel formed beneath the public footpath to connect the rainwater rain water pipe to the road gutter or in any other approved manner.

(c) Rain-water pipes shall be affixed to the outside of the external walls of the building or in recesses or chases cut or formed in such external walls or in such other manner as may be approved by the Authority.

(8) Interior open space.

The whole or part of one side of one or more rooms intended for human habitation and not abutting on either the front, rear or side open spaces shall abut on an interior open space whose minimum width in all directions shall be 3.0 m in case of buildings not more than 15 m in height, and in case of buildings above 15 m it shall have mandatory mechanical ventilation in addition.

(9) Chimneys

The chimneys shall be built at least 0.9 m above flat roofs, provided the top of the chimneys is not below the top of the adjacent parapet wall. In the case of sloping roofs, the chimney top shall not be less than 0.6 m above the ridge of the roof in which the chimney penetrates.

(10) Boundary wall

The requirements of the boundary wall shall be as follows:

(a) The maximum height of the compound wall shall be 1.5 m above the centre line of the front street. Compound wall up to 2.4 m height may be permitted if the top 0.9 m is of open type construction of as approved by the Authority.

(b) In the case of a corner plot, the height of the boundary wall shall be restricted to 0.75 m for a length of 10 m on the front and side of the inter-sections and the balance height of 0.75 m if required in accordance with (a) may be made up of open type construction (through railings) and of design to be approved by the Authority.

(c) In industrial buildings, electric sub-stations, transformer stations, institutional buildings like sanitoria, hospitals, industrial buildings like workshops, factories and educational buildings like schools, colleges, including hostels, and other uses of public utility undertakings and strategically sensitive buildings, a height up to 2.4 m shall be permitted by the Authority.

(11) Septic tanks

A sub-soil dispersion system shall not be closer than 18 m from any source of drinking water, such as well, to mitigate the possibility of bacterial pollution of subsurface water. It shall also be as far removed from the nearest habitable building as economically feasible but not closer than 6 m, to avoid damage to the structures.

(12) Mezzanine

Mezzanine floor may be permitted above any floor in all types of buildings up to an extent of one-third of the actual covered area of that floor. All Mezzanine floors shall be counted toward FAR calculation.

(13) Basement / Cellar

(a) Basements/cellars shall not be permitted in low lying area as defined in development plan or notified by authority and shall ensure drainage from the basement. Basement shall not be allowed in flood prone areas. The basements/cellars shall not be used for residential purpose or any storage of combustible and hazardous items.

(b) Individual residential and small commercial buildings of plot size minimum 100 Sq. Meter may have one basement. Maximum three basements/cellars may be permitted to be constructed for other buildings leaving 2 meter or half of the depth of the basement whichever is maximum from the boundary of the premises subject to the portion of the basement projecting out of the building line shall flush with the ground.

(c) The basement shall fulfill the following requirements:

(i) Every basement shall be in every part at least 2.4 m. in height from the floor to the soffit of the roof slab or ceiling;

(ii) Adequate ventilation shall be provided for the basement.

(iii) The access to the basement shall be separate from the main and alternative staircase providing access and exit from higher floors shall be provided. Where the staircase is continuous in the case of buildings served by more than one staircase, the same shall be of enclosed type serving as a fire separation from the basement floor and higher floor.

(iv) The ramp providing access to basement to be used for parking shall have a gradient not steeper than 1:8 and this shall not obstruct the clear vehicular and pedestrian movement around the building including movement of fire tender (3.66 meters).

(v) For parking spaces in basements and upper storey of parking floors, at least two ramps of minimum 3.6-meter width or one ramp of minimum 5.4 m width and in maximum [1:8 slope] shall be provided. Access to these may also be accomplished through provisions of mechanical lifts. The ramp slab over which the fire tender shall move shall be capable of taking the load of fire engine, fire vehicle of at least 45 tonnes.

(14) Provision of Lift and Lift NOC.

(a) An operational passenger lift shall be compulsorily provided in all buildings exceeding a structural height of 15 meters.

(b) The Number and capacity of lift shall be provided as specified in the table below:

Table 15: Provision for lift size

Sl No.	No. of Passengers	Rated Load(kg)	Car Size (mm)		2P COPD Door Width(mm)	Rated Speed: 1.0–2.0 m/s Shaft Size (mm)		Rated Speed: 2.5 m/s Shaft Size (mm)		Rated Speed: 3.0 m/s Shaft Size (mm)	
			Width	Depth		Width	Depth	Width	Depth	Width	Depth
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	4	272	800	950	700	1 600	1 300	–	–	–	–
ii)	6	408	1 000	1 100	800	2 000	1 550	–	–	–	–
iii)	8	544	1 300	1 100	800	2 150	1 550	–	–	–	–
iv)	10	680	1 300	1 350	800	2 250	1 800	2 300	2 150	–	–
v)	13	884	1 500	1 450	900	2 250	1 900	2 550	2 150	2 550	2 250
vi)	15	1 020	1 500	1 600	1 000	2 550	2 050	2 650	2 150	2 650	2 250
vii)	16	1 088	1 500	1 650	1 000	2 550	2 050	2 650	2 200	2 650	2 300
viii)	20	1 360	1 700	1 800	1 000	2 550	2 350	2 850	2 350	2 850	2 350
ix)	22	1 496	1 800	1 900	1 000	2 700	2 400	2 800	2 450	2 750	2 450
x)	24	1 632	1 500	2 400	1 000	2 500	2 900	2 750	2 850	2 750	2 850
xi)	26	1 768	1 900	2 000	1 000	2 850	2 700	2 850	2 700	2 850	2 700
xii)	29	1 972	1 900	2 200	1 200	2 900	2 750	3 100	2 200	–	–

(c) Notwithstanding anything contained in these byelaws in case of building with 21 m. or more in height, at least two lifts shall be provided.

(d) **Lift NOC**: The lift NOC shall be embedded with the building plan approval. Any separate lift NOC is not required to be submitted by the applicant. The Empanelled Technical Person shall be competent to certify the lift's safety.

(15) Barrier free access for the physically challenged person

(a) Applicability

These regulations shall be applicable to all buildings and facilities used by the public such as educational, institutional, assembly, commercial, business, mercantile buildings and group housing constructed on plots having an area of more than 2000 sq.m. It shall not apply to private residential buildings.

(b) Guidelines and Provisions

(i) Site Development

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

(ii) Access Path or Walk Way:

Access path from plot entry and surface parking to building entrance shall be a minimum of 1800 mm. wide having even surface without any steps. Slope, if any, shall not have gradient greater than 5%. Selection of floor materials shall be made suitably to attract or to guide visually impaired persons (Limited to coloured floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emit different sound to guide visually impaired persons hereinafter referred to as "guiding floor material"). Finishes shall have non slip surface with a texture traversable by a wheel chair. Curbs wherever provided should blend to a common level.

(iii) Parking:

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

(A) Surface parking for two car spaces shall be provided near entrance for the physically specially abled persons with maximum travel distance of 30 meter from building entrance.

(B) The width of parking bay shall be minimum 3.6 meter.

(C) The information stating that the space is reserved for specially abled persons shall be conspicuously displayed.

(D) Guiding floor materials shall be provided or a device which guides visually impaired persons with audible signals or other devices which serves the same purpose shall be provided.

(iv) Building requirements:

The specified facilities for the buildings for specially abled persons shall be as follows:

(A) Approach at plinth level: Every building must have at least one entrance accessible to the specially abled and shall be indicated by proper signage. This entrance shall be approached through a ramp together with stepped entry.

(B) Ramp Approach: Ramp shall be finished with non-slip material. Minimum width of ramp shall be 1800 mm. with maximum gradient 1:12, length of ramp shall not exceed 9 meter having 800 mm high hand rail on both sides extending 300 mm beyond top and bottom of the ramp. Minimum gap from the adjacent wall to the hand rail shall be 50 mm.

(C) Stepped Approach: For stepped approach width of tread shall not be less than 300 mm. and maximum riser shall be 150 mm. Provision of 800 mm. high hand rail on both sides of the stepped approach similar to the ramp approach shall be made.

(D) Exit/Entrance Door: Minimum clear opening of the entrance door shall be 900 mm and it shall not be provided with a step that obstructs the passage of a wheel chair user. Threshold shall not be raised more than 12 mm.

(E) Entrance Landing: Entrance landing shall be provided adjacent to ramp with the minimum dimension 1800 mm X 2000 mm. The entrance landing that adjoins the top end of a slope shall be provided with floor materials to attract the attention of visually impaired persons (limited to colored floor material whose color and brightness is conspicuously different from that of the surrounding floor material or the material that emits different sound to guide visually impaired persons hereinafter referred to as "guiding floor material"). Finishes shall have a non-slip surface with a texture traversable by a wheel chair. Curbs wherever provided must blend to a common level.

(F) Corridor connecting the entrance/exit for the specially abled: The corridor connecting the entrance/exit for specially abled leading directly outdoors to a place where information concerning the overall use of the specified building can be provided to visually impaired persons either by a person or by signs, shall be provided as follows:

(I) Guiding floor materials, shall be provided or devices that emit sound to guide visually impaired persons,

(II) The minimum width shall be 1250 mm.

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

(2) Hand rails shall be provided for ramps/slope ways at a height of 800 mm.

(3) Minimum Width Provisions for Passageway/Corridors

(III) The following minimum width provisions shall be made for each passage way/corridor.

(1) Residential buildings, dwelling unit type. 1.25 m.

(2) Residential buildings, e.g., hostels, etc. 1.25 m.

(3) Assembly buildings like auditorium theatres and cinemas. 2.00 m.

(4) All other buildings including hotels. 1.50 m.

(5) Hospital, Nursing Homes, Educational etc. 2.40 m.

(v) Stair ways:

One of the stairways near the entrance/exit for the specially abled shall have the following provisions:

(A) The minimum width shall be 1350 mm.

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

(C) Maximum number of risers on a flight shall be limited to 12.

(D) Hand rails shall be provided on both sides and shall extend 30 mm on the top and bottom of each flight of steps.

(vi) Lifts:

(A) Wherever lift is required as per byelaws, provision of at least one lift shall be made for the wheel chair user with the following cage dimensions of lift recommended for passenger lift of 13-person capacity by Bureau of Indian Standards.

(I) Clear internal depth: 1100 mm.

(II) Clear internal width: 2000 mm.

(III) Entrance door width: 900 mm.

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

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

(D) The time of an automatically closing door shall be minimum 5 seconds and the closing speed should not exceed 0.25 meter/sec.

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

(F) The control panel shall have marking in Braille to help visually impaired.

(vii) Toilets:

One special Water Closet, in a set of toilets shall be provided for the use of abled with essential provision of washbasin near the entrance for the specially abled.

(A) The minimum size shall be 1500 x 1750 mm.

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

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

(D) The Water Closet seat shall be 500 mm from the floor.

(viii) Drinking Water:

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

(ix) Provision of W.Cs in buildings without lift:

Provision of special W.C. shall be made on all floors for buildings designed for ambulant disabled persons. For buildings designed for non-ambulant disabled special W.C. shall be provided at Ground Floor. Size of W.C. shall depend on the type of wheel chair used by the disabled.

(x) Provisions of W.Cs in buildings with lift

Provision of Special W.C. shall be made on all floors. Size will depend on the category of disabled for whom it has been provided.

(xi) Toilet Details: For Toilets Designed for Ambulant Disabled

(A) The minimum size of W.C. shall be 1075 x 1650 mm with a minimum depth of 1450 mm from entry door.

(B) 900 mm long handrail on the side closer to W.C. with a clear width between the handrails shall be 900 mm and height of handrails shall be 800 mm from floor level.

(C) Minimum size of the clear door opening shall be 780 mm.

(xii) For Toilets Designed for Non-Ambulant Disabled Small Wheel Chair:

(A) The minimum size of W.C. shall be 1350 x 1500 mm with a minimum depth of 1500 mm from entry door. 900 mm long handrail on the side closer to W.C. shall be provided. To provide movement space for wheel chair, W.C. seat shall be fixed towards one side to the opposite adjacent wall. The center line of W.C. from the adjacent wall shall be 400 mm and minimum 950 mm from the other wall. Minimum size of the clear door opening shall be 780 mm.

(B) The minimum size of W.C. shall be 1500 X 1750 mm with a minimum depth of 1750 mm for entry door. 900 mm long handrail on the side wall closer to W.C. shall be provided. To provide movement space for wheel chair, W.C. seat shall be fixed towards one side of the opposite wall. The center line of the W.C. from the adjacent wall shall be 400 mm and a minimum of 1100 mm from the other wall. Min. size of clear door opening shall be 860 mm.

(C) Designing for Children: In a building meant for the predominant use of the children, it is necessary to suitably alter the height of the handrail and other fittings and fixtures. In the buildings meant for the pre-dominant use of the children, it will be necessary to suitably alter the height of the handrail and other fittings & fixtures etc.

Note: *Guiding / Warning Floor Material: The floor material to guide or to warn the visually impaired persons with a change of colour or material texture and*

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easily distinguishable from the rest of the surrounding floor materials. The material with different texture gives audible signals with sensory warning when a person moves on this surface with walking stick. The guiding/warning floor material is meant to give the directional effect or warn a person at critical places. It should be provided in the following areas:

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

(2) The landing lobby towards the information board, reception, lifts, staircases and toilets.

(3) Immediately at the beginning/end of walkway where there is a vehicular traffic.

(4) At the location abruptly changing in level or beginning/end of a ramp.

(5) Immediately in front of an entrance/exit and the landing.

(16) Refuge

(a) An alternative to immediate evacuation of a building via staircases and/ or lifts is the movement of disabled persons to areas of safety within a building. If possible, they could remain there until the fire is controlled and extinguished or until rescued by the fire fighters.

(b) It is useful to have the provisions of a refuge area, usually at the fire protected stair landing on each floor that can safely hold one or two wheelchairs.

(c) Hand Doorways with clear opening width of 900 mm and regular compliance.

(d) Have an alarm switch installed between 900 mm and 1200 mm from floor level.

(17) Proper signage

(a) Appropriate identification of specific facilities within a building for the differently abled persons should be done with proper signals.

(b) Visually impaired persons make use of other senses such as hearing and touch to compensate for the lack of vision, whereas visual signals benefit those with hearing disabilities. Signs should be designed and located so that they are easily legible by using suitable letter size (not less than 20 mm high).

(c) For visually impaired persons, information board in brail should be installed on the wall at a suitable height and it should be possible to approach them closely.

(d) To ensure safe walking, there should not be any protruding sign which creates obstruction in walking.

(e) Public Address System may also be provided in busy public areas.

(f) The symbols/information should be in contrasting colour and properly illuminated because people with limited vision may be able to differentiate amongst primary colours.

(g) International Symbol Mark for wheel chair be installed in a lift, toilet, staircase, parking areas, etc., that have been provided for the differently abled.

(18) Service ducts and refuge chute

(a) Service duct shall be enclosed by walls and door, if any, of 2 hours fire rating. If ducts are larger than 10 square meters the floor should seal them, but provide suitable opening for the pipes to pass through, with the gaps sealed.

(b) A vent opening at the top of the service shaft shall be provided between one-fourth and one-half of the area of the shaft. Refuge chutes shall have an outlet at least of wall of non-

combustible material with fire resistance of not less than two hours. They shall not be located within the staircase enclosure or service shafts or air-conditioning shafts. Inspection panel and door shall be tight fitting with 1 hour fire resistance; the chutes should be as far away as possible form exits.

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

(19) Electrical services

(a) The electric distribution cables and wiring shall be laid in a separate duct shall be sealed at every floor with non-combustible material having the same fire resistance as that of the duct. Low and medium voltage wiring running in shaft and in false ceiling shall run in separate conduits.

Water mains, telephone wires, inter-com lines, gas pipes or any other service lines shall not be laid in ducts for electric cables.

(b) Separate conduits for water pumps, lifts, staircases and corridor lighting and blowers for pressuring system shall be directly from the main switch panel and these circuits shall be laid in separate conduit pipes, so that fire in one circuit will not affect the others. Master switches controlling essential service circuits shall be clearly labelled.

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

(d) Medium and low voltage wiring running in shafts, and within false ceiling shall run in metal conduits. Any 230-voltage wiring for lighting or other services, above false ceiling should have 660V grade insulation. The false ceiling including all fixtures used for its suspension shall be of non-combustible material.

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

(f) Miniature circuit breakers (MCB) and Earth leakage circuit breaker (ELCB) shall be provided for electrical circuit.

(20) Staircase and corridor lights

(a) The staircase and corridor lighting shall be on separate circuits and shall be independently connected so that it may be operated by one switch installation on the ground floor, easily accessible to fire-fighting staff at any time, irrespective of the position of the individual control of the light points, if any. It shall be of miniature circuit breaker type of switch so as to avoid replacement of fuse in case of emergency.

(b) Staircase and corridor lighting shall also be connected to alternate source of power supply.

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

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

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(21) Air-conditioning

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

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

(c) Air- conditioning system serving large places of assembly (over one thousand persons), large departmental stores, or hostels with over 100 rooms in a single block should be provided with effective means for preventing circulation of smoke through the system in the case of fire in air filters or from other sources drawn into the system even though there is insufficient heat to actuate heat smoke sensitive devices controlling fans or dampers. Such means shall consist of approved effective smoke sensitive controls.

(i) **Air- Conditioning should conform to the following:**

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

(B) The ducting should be constructed of metal in accordance with BIS 655:1963

(C) Wherever the ducts pass through fire walls or floor, the opening around the ducts should be sealed with fire resisting material of same rating as of walls/floors.

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

(E) The material used for insulating the duct system (inside or outside) should be of flame resistant (IS 4355: 1977) and non- conductor of heat.

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

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

(H) In case of buildings more than 24 m. in height, in non-ventilated lobbies, corridors, smoke extraction shaft should be provided.

(ii) Fire Dampers

(A) These shall be located in air ducts and return air ducts/passages at the following points:

(I) At the fire separation wall.

(II) Where ducts/passages enter the central vertical shaft.

(III) Where the ducts pass through floors.

(IV) At the inlet of supply air duct and the return air duct of each compartment on every floor.

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

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

(C) Fire and smoke dampers (for smoke extraction shafts) for building more than 24 m. in height.

(I) For apartment houses in non-ventilated lobbies/corridor operated by detection system and manual control sprinkler system.

(II) For other buildings on operation of smoke/heat detection system and manual control/sprinkler system.

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

(22) Boiler Room

(a) The provisions of boiler and boiler rooms shall conform to the provisions of the Indian Boiler Act, 1923 (as amended) and the rules promulgated thereunder.

(b) Without prejudice to sub-byelaw (1), the boilers and boiler rooms shall be subject to the following:

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

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

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

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

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

(vi) Foam inlets shall be provided on the external walls of the building near the ground level to enable the fire services to use foam in case of fire.

(23) Alternate source of electric supply

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

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

(24) Safety measures in electric sub-station

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

(ii) The approaches corridors to the sub-station area shall be kept clear for movement of men and material at all times.

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

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

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

(vi) Steel shutters of 8'X 8' with suitable grills shall be provided for transformers and sub-station room.

(vii) The floor of the sub-station should be capable of carrying 10 tons of transformer weight on wheels.

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

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

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

(xi) RCC pipes at suitable places as required will be provided for the cable entries to the substation space and making suitable arrangement for non-ingress of water through these pipes.

(xii) The substation space is to be provided in the approved/sanctioned covered area of the building.

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

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

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

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

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

(xviii) No combustible material should be stacked inside the substation premises or in the vicinity to avoid chances of fire.

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

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

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

(xxii) The sub-station area shall have a clear height of 15 feet (4.5 m.) below beams. Further the Sub-station area will have level above the rest of basement level by 2 feet.

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

(xxiv) The licensee of electricity will have the power to disconnect the supply of the building in case of violation of any of the above points. However, provision of emergency lights has to be made in the sub-station for emergency operations.

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

(xxvi) The sub-station should be located on periphery /sub-basement and (not above ground floor).

(xxvii) Additional exit shall be provided if travel distance from farthest corner to ramp is more than 15 m.

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

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

(xxx) Suitable arrangement for pump house, water storage tanks with main electrical pump and a diesel-operated pump shall be made if no such arrangement is provided in the building. In case the water pumping facilities are existing in the building for sprinkler system, the same should however be utilized for high velocity water spray system. Alternatively automatic CO2 total flooding system shall be provided with manual controls outside the electric sub-station.

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

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

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

(xxxiv) Cable trenches shall be filled with sand.

(xxxv) Partition walls shall be provided between two transformers as per the rules.

(xxxvi) Electric control panels shall be segregated.

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

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

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

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

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

(xlii) Other facility will be as per Building Byelaws and relevant electric rules.

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

(xliv) Oil less transformer shall be preferred. If the sub-station is located in basement / ground floor of the main building, the transformers shall be essentially of dry type. In case of dry type transformer room with wall enclosure is not essential.

Note: *The sub-station installations shall be carried out in conformity with the local fire regulations and rules there under wherever they are in force.*

24. Rain Water Harvesting System

All applications for building plan sanctions pertaining to plots measuring 100 square meters or more shall mandatorily include a complete and detailed architectural proposal for the installation of a rainwater harvesting system.

25. Information and Communication Technology Landing Points

All high-rise building complex shall provide for Information and Communication Technology (ICT) landing point, configured in the form of a room situated near the main entrance gate of dimension not less than 3 meters x 4 meters and having 3 meters clear height. The room shall have two fire proofs doors of 1.2 meters width opening outwards along with adequate ventilation in the form of windows or ventilators. Such room shall not be counted in coverage and FAR calculations.

26. Distance from Electric lines.

No verandah, balcony, projection, chhajja, cornice, weather shade, or any similar appurtenant structure shall be erected, re-erected, extended, altered or added to any building so as to infringe the minimum safety clearance from any overhead electric supply line.

Table 16: Minimum distance from electric line

Type of Electric Line	Vertical distance in meters	Horizontal distance in meters
For lines of voltage exceeding 650 Volts upto and including 11, 000 Volts	3.7	1.2
High voltage lines above 11,000 volt and up to and including 33,000 Volt	3.7	2.0
Extra high voltage line beyond 33,000 Volt	3.7 (Plus 0.3 meters for every additional 33,000 volts or part thereof)	2.0 (Plus 0.3 meters for every additional 33,000 volts or part thereof)

27. Means of Access

(1) Every building or plot shall abut upon a public or private means of access having a minimum width of 3.7 m.
Provided that, in any area where a Master Plan, Zonal Plan or any other Development Plan has been duly notified, the means of access shall conform to the provisions of the latest notified plan.

(2) Where the existing road width is less than the width prescribed under sub-rule (1), the owners of plots abutting both sides of such road shall, to the extent required, equally surrender the portion of land falling within their respective plots for accommodating the prescribed road width. The centre line of the existing road shall be taken as the reference line for determining the portion of land to be surrendered by each owner. The land so required for road widening shall be kept free from any construction or obstruction and shall be left available for road widening, as applicable.

(3) The portion of land surrendered for road widening under sub-rule (2) shall be transferred to the concerned authority, as the case may be, through an affidavit.

(4) Notwithstanding such surrender, the portion of land surrendered for road widening shall continue to be reckoned for the purpose of determining the Total Buil-up Area. Total Buil-up Area shall be calculated on Base FAR, and the FAR attributable to such portion shall be utilised on the remaining area of plot from which the land has been surrendered.

(5) **Access from Highways/ Important Roads**: In case of access from national highway, state highway or expressway, a No Objection Certificate (NOC) shall be obtained from the respective authority having the jurisdiction.

28. Setback

(1) Every building shall provide a mandatory side setback along at least one side unless otherwise exempted; preferably on the right side to facilitate the entry and movement of disaster response and emergency vehicles and to ensure unhindered access to the building.

(2) Notwithstanding anything contained in sub-clause (1):
   a. For a plot having road access from the front and any one side, the mandatory side setback shall be provided along the internal side boundary that does not abut any road.
   b. Where a plot abuts roads on the front and both sides, the mandatory side setback shall be provided along the side boundary facing the road of smaller width.

(3) For Single Residential Buildings having a plot width up to 20 metres or a plot depth up to 20 metres and a building height up to 10 metres shall be exempt from the setback requirements.

(4) Buildings other than Single Residential Buildings, having a plot width up to 10 metres or a plot depth up to 10 metres and a building height up to 10 metres, shall also be exempt from the setback requirements.

(5) For plots falling outside the exempted limits, a side setback shall be provided on one side only. A minimum side setback of 3.7 metres shall be provided for buildings up to 15 metres in height, with an additional setback of 0.3 metre for every additional 3

metres of building height. The maximum side setback required under this provision shall not exceed 9.0 metres.

(6) The required setback shall be continuous and free from any permanent or temporary obstruction, including projections, structures, parking, ramps, boundary walls, plantation or any other impediments, so as to maintain clear access for disaster response vehicles.

(7) For two or more building blocks within a plot, the minimum clear space between the building blocks shall be 3.7 m for building blocks with height up to 15 m. For building blocks with height above 15 m, the minimum clear space between the building blocks shall be 3.7 m plus 0.3 m for every additional 3 m or part thereof of building height above 15 m, subject to a maximum of 9m. The required clear space shall be calculated based on the height of the higher building block.

Provided that, the required space shall be maintained throughout the height of the building blocks and shall be provided irrespective of any podium, bridge, corridor, or other building connection between the building blocks at any floor level.

29. Floor Area Ratio. –

(1) The base FAR shall be 3.0 for all plots, irrespective of the area or use of the building.

(2) The calculation of FAR shall include all areas covered by each floor of the building, except those areas specifically exempted under these Byelaws.

(3) The parking space provided in compliance with the mandatory parking provisions under Byelaw No. 31 of these Byelaws shall be exempt from the calculation of Floor Area Ratio.

(4) Any parking space provided in excess of the mandatory parking requirement shall be included in the calculation of FAR.

(5) Additional FAR on Base FAR, shall be granted as an incentive to buildings that obtain green building ratings, as per the table given below:

Rating Level	LEED (for all types of Building)	GRIHA (for all types of Building)	ECSBC (for Commercial/ office Building)	ECSBC (for Residential Building only)	Additional FAR beyond the Base FAR
Level 1	Silver	3-Star	ECBC Compliant	ENS Compliant	5%
Level 2	Gold	4-Star	ECBC+	ENS+ Compliance	10%
Level 3	Platinum	5-Star	Super ECBC	Super ENS Compliance	15%

Note:

a. *Pre-certification from the Rating organisation or empaneled consultant or recognized/approved agency by the Rating organisation (whichever the case may be) shall be mandatory to avail additional FAR at the application for building permit stage.*

b. *Final certification from the Rating organisation must be produced at the time of occupancy to confirm the achieved rating.*

c. *If the developer fails to achieve the committed rating as per pre-certification of the building prior to the issuance of the final Occupancy Certificate, then the issuance of such final Occupancy Certificate shall be subject to the purchase of the required additional FAR beyond the limit of base FAR from the competent authority*

(6) The Maximum Permissible Floor Area Ratio for shall be governed based on the following:

a. For all plot or Building use, there shall be no upper cap on the maximum Floor Area Ratio. Additional FAR may be purchased by the applicant after payment of applicable charges as notified by the Competent Authority from time to time.

b. The FAR permitted under sub-clauses (a) above shall be strictly subject to:

i. Compliance with applicable Environmental Clearances, zoning, and land-use regulations under the statutory Master Plan;

ii. Development restrictions governing heritage, conserved, preserved, or protected areas as notified by the competent authority; and

iii. Payment of prescribed applicaas determined by the competent authority.

30. Height of a Building

(1) There shall be no restriction on maximum building height for all permissible activities in all land use zones.

(2) The height of buildings adjacent to the aerodrome or air-force stations shall be in accordance with the orders issued by the Government of India, Ministry of Civil Aviation, Ministry of Defence, Airport Authority of India and shall be adhered to as per the latest CCZM (Colour Coded Zoning Map), from time to time.

(3) The maximum height of the building shall also be governed by the distance from the protected monument, heritage site and other statutory restrictions related to various sectors.

31. Off Street Parking Space

(1) Permissible Locations for Parking: Off-street parking spaces shall be permitted within the following structural and spatial configurations:

(a) Basements or cellars;
(b) On stilt floor;
(c) open parking area;
(d) exclusive multi-level parking or Roof top parking in case of commercial/IT/ITES and corporate building;
(e) Podium parking;
(f) A combination of any or all of the above.

Provided that, adequate provision shall be made for vehicular access to and egress from all parking spaces.

(2) Parking standards:

(a) For the purpose of calculating the area required for car parking, 15 sq m shall be reckoned per car parking space. For residential buildings, one car parking space shall be provided per dwelling unit. In Educational, Commercial, Institutional, Assembly and Mixed-Use buildings, one car parking space shall be provided for every 100 sq m of built-up area, and in Industrial and Storage buildings, one car parking space shall be provided for every 300 sq m of built-up area.

(b) The Authority reserves the right to seal the buildings where the mandatory parking spaces specified above are not provided, or where any such parking area is used for any other purpose.

(3) Stilt Parking: The construction of a stilt for the purpose of parking shall be permissible across all types of buildings.

(4) **Multi-level parking:** Multi-level parking structures developed under the parking spaces prescribed in the master plan, zonal plan, layout plan or under residential, commercial and office, public and semi-public facilities, traffic and transportation nodes, shall be developed as per the following parameters-

(a) The minimum size of the plot for multi-level parking facility shall be 1000 square meters. In case of built-up area, the facility may be provided in 750 square meters.

(b) The place selected for parking shall be located on a minimum 9-meter-wide road in the built-up area and on a minimum 12-meter-wide road in the non-built-up area.

(c) To meet the cost or ensure feasibility of multi-level parking, a sufficient portion of building may be used for commercial, office and entertainment purposes.

(5) **Podium parking:** Where a building to be constructed with stilt floor on individual plot for providing parking space and where basement could not be approached for parking, in such cases a podium may be constructed on ground floor in continuation of the stilt floor having access from the front for the parking after leaving minimum 3 m setback from the plot line. The terrace of podium may be used for plantation & landscaping.

32. Fire protection requirements

(1) All buildings shall be planned, designed and constructed to ensure fire safety in accordance with provisions of these byelaws.

(2) **First Aid, Fixed Fire Fighting, Fire Detection Systems and other Facilities:** The provision of fire safety arrangements and facilities for different categories of occupancy comply with the specifications and standards prescribed in Annexure Tables No. 17 to 30.

CHAPTER-V

COMPOUNDING, PENALTIES AND COMPLIANCE

33. Compounding and Condonation Procedures

(1) Compounding of Offences:

The Competent Authority may, either before or after the institution of the proceedings under the provisions of the Act, compound any offence within the framework of use restrictions and the provisions of these byelaws applicable to the concerned plot, where:

(a) development or constructions has been undertaken without prior approval; or

(b) development or constructions has been undertaken in deviation from the approved plan.

(2) Condonation:

The Competent Authority may however condone deviations beyond the permissible norms of these byelaws.

(3) Compounding Process

(a) An owner or developer may submit an application for compounding either suo-moto or in response to a notice issued by the Competent Authority.

(b) While granting or refusing the compounding of any construction or development work, Competent Authority shall examine the nature and extent of the violations; the provisions of

these Byelaws that have been contravened; and whether such deviations fall within the permissible limits prescribed for compounding.

(4) Non-compoundable Contraventions:

Notwithstanding anything contained in sub-byelaws (1) and (2), construction undertaken in violation of the list of prohibited activities as prescribed in Byelaw 22(1), Table 10, or in violation of terms and conditions mentioned in No Objection Certificates (NOCs) received from concerned departments, authorities or organizations shall not be eligible for compounding.

(5) Applicability

(a) Deviations in construction beyond the permissible norms of these byelaws may be condoned up to 10% in respect of side and rear setbacks, FAR and height.

(b) Any construction, addition, alteration, or deviation exceeding the limits prescribed for compounding or condonation under these Byelaws shall be deemed non-compoundable and shall be demolished.

(6) Compounding and Condonation Rate-

(a) Compounding fees and condonation rates for various categories of buildings shall be as notified by the Competent Authority from time to time.

(b) The compounding fee and condonation rates prescribed under this Chapter shall be levied in addition to the building permit fee, scrutiny fee, development charges, infrastructure charges, and any other fees or charges payable under these Byelaws or any other applicable law.

34. Action Against Builder or Technical Personnel

(1) Notwithstanding anything contained in these byelaws, the Authority reserves the right to debar or black list and take legal action against the builder/ technical person who has deviated from the professional conduct; or has made any fraudulent statement or has misrepresented or suppressed any material facts in his application or plan; or is involved in construction of the building deviating from the approved plan or norms of these byelaws.

(2) Before taking any action under clause (1) specified above, the Authority shall issue a notice specifying the reasons thereof asking for a show-cause within 15 days as to why such builder or technical person shall not be debarred or black listed. After receipt of the show cause, if any, the same shall be placed before the Authority for a decision on debarring or black listing the technical person or builder. The decision of the Authority in this regard shall be published in the Notice Board of the Authority and the Government website.

(3) An appeal against an order under (2) above shall lie under Section-79 of the Act and Section 329 of the Bihar Municipal Act, 2007.

CHAPTER-VI

SAVINGS AND REPEALS

35. Savings and Repeal

(1) Building Byelaws, 2014, with all its amendments and associated executive orders are hereby repealed.

(2) Notwithstanding such repeal, anything done or any action taken under the byelaws so repealed shall be deemed to have been done or taken under these byelaws.

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(3) Notwithstanding anything contained in these Byelaws for the time being in force, any building or structure erected or any development undertaken prior to the commencement of these Byelaws without obtaining a valid permit or is in violation of a building permit obtained under the then prevailing byelaws, but which otherwise conforms to the norms prescribed under these Byelaws, shall be eligible for the grant of a building permit upon application, in accordance with the applicable risk matrix, subject to payment of such fee as may be notified by the State Government from time to time.

(4) A Building Byelaws Review Committee constituted by the Urban Development and Housing Department shall undertake periodic review and reconsideration and necessary modification of these Byelaws. The department may notify any additional information, fee structure, guidelines, clarifications, removal of difficulties or minor changes for better implementation of these Byelaws.

36. Annexures

Table 17: Requirements for Firefighting Installations – For Residential Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
RESIDENTIAL BUILDINGS (A)									
a)	Lodging and Rooming Houses (A-I)	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable							
1)	24 m and above in height and, having any area OR Less than 24 m in height but of area:								
i)	Floor area on any single floor 501 m² to 1 000 m² (HL-1) See Notes 1, 2, 3 and 4	R	R	NR	NR	NR	NR	R	NR
ii)	1 001 m² and above (HL-2) See Notes 2, 3 and 4	R	R	R	NR	NR	NR	R	R
b)	Dormitories (A-II)	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable							
1)	501 m² to 1 000 m² (HL-1) See Notes 1, 2, 3 and 4	R	R	NR	NR	NR	NR	NR	NR
2)	1 001 m² and above (HL-2) See Notes 2, 3 and 4	R	R	R	NR	NR	NR	R	NR
c)	Apartment Houses (A-III)	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable							
1)	24 m and above but not exceeding 60 m in height; and, height less than 24 m, but of area:								
i)	501 m² to 1 000 m² (HL-2) See Notes	R	R	R	NR	NR	NR	NR	NR

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
	2, 3, 4, 7 and 9								
ii)	1 001 m² and above (HL-3) See Notes 2, 3, 4, 5, 7, 9 and 10	R	R	NR	R	R	NR	R	R
2)	Above 60 m height (CL-4) See Notes 3, 4, 5, 7, 8, 9 and 10	R	R	NR	R	R	R	R	R
d)	Hotels (A-IV)	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable							
1)	Up to 24 m in height, but of area:								
i)	501 m² to 1 000 m² (HL-3) See Notes 2, 3, 4, 7 and 9	R	R	R	NR	NR	NR	R	NR
ii)	1 001 m² and above (CL-3) See Notes 3, 4, 7 and 9	R	R	NR	R	NR	R	R	R
2)	24 m and above but not exceeding 60 m in height OR 3/4 Star Hotels (CL-4) See Notes 3, 4, 5, 7, 8 and 9	R	R	NR	R	R	R	R	R
3)	Above 60 m – See Note 5	—	—	—	—	—	—	—	—
e)	Starred (Franchise – 5 Star) Hotels (A-V)								
1)	Up to 60 m (CL-5) See Note 4	R	R	NR	R	R	R	R	R
2)	Above 60 m – See Note 5	—	—	—	—	—	—	—	—

R – Required NR – Not Required

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of

fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 If the building has kitchen, the protection level will be HL-2.

2 If the building has basement to be protected with sprinklers, the protection level should comply with CL-3.

3 If the building has electrical vehicles (EV) parks in podium or basements, it should be protected with sprinklers and complying to CL-5.

4 Rate of rise of heat sensor/detection system should be provided in EV parks and charging areas. Smoke sensor/detectors should be provided in all basements other than ICE vehicles parks. ICE vehicle parks should be provided with carbon monoxide sensors as part of fire alarm system to activate ventilation system.

5 If the building height exceeds 60 m the hydraulic calculations meeting recommended system architecture with multi-level pumping and storage with gravity redundant down comer may be considered. The pumps considered should not exceed 12 bar shutoff pressure.

6 Pump pressure and quantity should be supported by hydraulic calculations.

7 2,500 lpm at 10 bar common pumping and water storage of 2,55,000 litre should be provided for a cluster of maximum 5 buildings, with or without common basement. The buildings should not be closer than 9 m. If the buildings are closer than 9 m, or the basement is used for EV parking and/or charging facilities, the protection level should comply with CL-5.

8 Multi-level pumping and water storage as per schematic line drawing (SLD) may be considered for cluster buildings more than 45 m in height; and water storage at every 45 m above should be provided for individual buildings.

9 If the cluster of buildings exceeds 5, another set of pumps and water storage of similar capacity should be provided. A maximum of two such sets is recommended provided it satisfies the hydraulic requirements and functioning at the remotest point.

10 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

Table 18: Requirements for Firefighting Installations – For Educational Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
EDUCATIONAL BUILDINGS (B)									
	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable								
1)	24 m and above but not exceeding 45 m; and, height less than 24 m, but of area:								
i)	501 m² to 1 000 m² (HL-3) See Notes 1, 2, 3, 5, 7 and 9	R	R	NR	R	R	NR	R	R
ii)	1 001 m² and above (CL-4) See Notes 3, 5, 7, 9 and 10	R	R	NR	R	R	R	R	R
2)	45 m and above but not exceeding 60 m in height (CL-4) See Notes 5, 6, 7, 8, 9 and 10	R	R	NR	R	R	R	R	R
3)	Above 60 m – See Note 5	—	—	—	—	—	—	—	—

R – Required NR – Not Required

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 If there are laboratories, AV/computer rooms, auditoriums, they should be protected with sprinkler and the protection level should comply with CL-3.

2 If the building has basement to be protected with sprinklers, the protection level should comply with CL-3.

3 If the building has electrical vehicles (EV) parks in podium or basements, it should be protected with sprinklers and complying to CL-5.

4 Rate of rise heat sensor/detection system should be provided in EV parks and charging areas. Smoke sensor/detectors should be provided in all basements other than ICE vehicles parks. ICE vehicle parks should be provided with carbon monoxide sensors as part of fire alarm system to activate ventilation system.

5 If the building height exceeds 60 m the hydraulic calculations meeting recommended system architecture with multi-level pumping and storage with gravity redundant down comer may be considered. The pumps considered should not exceed 12 bar shutoff pressure.

6 Pump pressure and quantity should be supported by hydraulic calculations.

7 2,500 lpm at 10 bar common pumping and water storage of 2,55,000 litre should be provided for a cluster of maximum 5 buildings, with or without common basement. The buildings should not be closer than 9 m.

8 Multi-level Pumping and water storage as per SLD may be considered for cluster buildings more than 45 m; and water storage at every 45 m above should be provided for individual buildings.

9 If the cluster of buildings exceeds 5, another set of pumps and water storage of similar capacity should be provided. A maximum of two such sets is recommended.

10 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

Table 19: Requirements for Firefighting Installations – For Institutional Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
INSTITUTIONAL BUILDINGS (C)									
a)	Nursing Homes and Sanatoria	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable							
i)	Building height above 15 m; and, for heights up to 15 m, and area 501 m² and above (HL-3) See Notes 1, 2, 4, 6 and 9	R	R	R	NR	NR	NR	R	NR
b)	Hospitals (C-I)	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a Certified and State Approved building professional should be treated acceptable							
1)	For heights not exceeding 45 m in height:								
i)	501 m² to 1 000 m² (CL-3) See Notes 2, 4, 6, 7, 9 and 10	R	R	NR	R	R	R	R	NR
ii)	Above 1 001 m² (CL-4) See Notes 2, 4, 6, 7, 9 and 10	R	R	NR	R	R	R	R	R
2)	Above 45 m but not exceeding 60 m in height (CL-5) See Notes 4, 6, 7, 9 and 10	R	R	NR	R	R	R	R	R
3)	Above 60 m – See Note 3	—	—	—	—	—	—	—	—
b)	Custodial, Penal and Mental Institutions (C-II and III)	Up to 500 m² area and up to 24 m height (both conditions to be met), self-certification by a Certified and State Approved building professional should be treated acceptable							

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
1)	For heights not exceeding 45 m in height:								
i)	501 m² to 1 000 m² (HL-2) See Notes 1, 2, 4 and 6	R	R	R	NR	NR	NR	NR	R
ii)	1 001 m² and above (HL-3) See Notes 1, 2, 4, 6 and 9	R	R	NR	R	R	NR	R	R
2)	Above 45 m (HL-4) See Notes 1, 2, 3, 6, 8 and 9	R	R	NR	R	R	NR	R	R

R – Required NR – Not Required

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 Basement area or storage of oxygen or any medical gases or any gas fuel, laundry or linen/waste, transformer/HT rooms within the building footprint or in basement should be protected with sprinkler and the protection level should comply with CL-3.

2 If the building has electrical vehicles (EV) parks in podium or basements, it should be protected with sprinklers and complying to CL-5.

3 If the building height exceeds 60 m the hydraulic calculations meeting recommended system architecture with multi-level pumping and storage with gravity redundant down comer may be considered. The pumps considered should not exceed 12 bar shutoff pressure.

4 Protection should comply to supplementary protection for specific hazard/critical rooms as per Table 28/Table 29/Table 30 as applicable.

5 Pump pressure and quantity should be supported by hydraulic calculations.

6 Rate of rise heat sensor/detection system should be provided in EV parks and charging areas. Smoke sensor/detectors should be provided in all basements other than ICE vehicles parks. ICE vehicle parks should be provided with carbon monoxide sensors as part of fire alarm system to activate ventilation system.

7 3785/2500 lpm at 10 bar common pumping and water storage of 3,50,000/2,55,000 litre should be provided for cluster of maximum 5 buildings 45 m height, with or without common basement. The buildings should not be closer than 9 m. If the buildings are closer than 9 m, or the basement is used for EV parking and/or charging facilities, the protection level should comply with CL-5.

8 Multi-level pumping and water storage as per SLD may be considered for cluster buildings more than 45 m; and water storage at every 45 m above should be provided for individual buildings.

9 If the cluster of buildings exceeds 5, another set of pumps and water storage of similar capacity should be provided. A maximum of two such sets is recommended.

10 If the building height exceeds 30 m it should comply hydraulic calculations meeting recommended system architecture.

11 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

Table 20: Requirements for Firefighting Installations – For Assembly Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
ASSEMBLY BUILDINGS (D) — See Note 4									
a)	Assembly Buildings	Up to 500 m² area and up to 9 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable							
1)	9 m and above but not exceeding 15 m in height; and, for heights less than 9 m; and area — See Note 6:								
i)	501 m² to 1 000 m² (HL-3) See Notes 1, 2, 3, 5 and 8	R	R	NR	R	NR	NR	R	NR
ii)	1 001 m² and above (CL-4) See Notes 2, 5, 8 and 9	R	R	NR	R	R	R	R	NR
2)	Above 15 m in height (CL-4) See Notes 2, 5, 6, 7 8 and 9	R	R	NR	R	R	R	R	NR

R – Required NR – Not Required

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 If the building has basement to be protected with sprinklers, the protection level should comply with CL-3.

2 If the building has electrical vehicles (EV) parks in podium or basements, it should be protected with sprinklers and complying to CL-5.

3 Live cooking kitchens, boiler/furnace rooms, laundry or linen/waste rooms, transformer/HT rooms within the building footprint or in basement the area should be protected with sprinkler protection and should comply with CL-4.

4 Pump pressure and quantity should be supported by hydraulic calculations.

5 Rate of rise heat sensor/detection system should be provided in EV parks and charging areas. Smoke sensor/detectors should be provided in all basements other than ICE vehicles parks. ICE vehicle parks should be provided with carbon monoxide sensors as part of fire alarm system to activate ventilation system.

6 2,500 lpm at 10 bar common pumping and water storage of 2,55,000 litre should be provided for a cluster of maximum 5 buildings, with or without common basement. The buildings should not be closer than 9 m.

7 Multi-level pumping and water storage as per SLD may be considered for cluster buildings more than 45 m; and water storage at every 45 m above should be provided for individual buildings.

8 If the cluster of buildings exceeds 5, another set of pumps and water storage of similar capacity should be provided. A maximum of two such sets is recommended.

9 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

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Table 21: Requirements for Firefighting Installations – For Business Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
BUSINESS BUILDINGS (E) — See Note 5									
a)	Business Buildings (Human Occupied)	Up to 500 m² area and up to 15 m height (both conditions to be met), self-certification by a Certified and State approved building professional should be treated acceptable							
1)	15 m and above but not exceeding 45 m in height; and, for heights less than 15 m and area:								
i)	500 m² to 1 000 m² (CL-2) See Notes 1, 2, 3, 6, 7, 9 and 11	R	R	R	NR	NR	R	R	R
ii)	1 001 m² to 3 000 m² (CL-3) See Notes 2, 3, 6, 7, 9 and 11	R	R	NR	R	R	R	R	R
iii)	3 001 m² and above (CL-4) See Notes 2, 3, 6, 7, 9 and 11	R	R	NR	R	R	R	R	R
2)	Above 45 m but not exceeding 60 m height (CL-5) See Notes 3, 4, 6, 7, 8, 9 and 11	R	R	NR	R	R	R	R	R
3)	For buildings over 60 m height — See Note 4	—	—	—	—	—	—	—	—
b)	Data Centres (Machine Environment) See Notes 3, 12, 13 and 15								
1)	Less than 15 m in height:								
i)	Floor Area on any single floor up to 1 000 m²	R	R	NR	R	R	R	R	R
ii)	1 001 m² and above	R	R	NR	R	R	R	R	R

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
2)	Above 15 m in height:								
i)	Floor area on any single floor up to 1 000 m²	R	R	NR	R	R	R	R	R
ii)	1 001 m² and above	R	R	NR	R	R	R	R	R

R – Required NR – Not Required

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 If the building has basement to be protected with sprinklers, the protection level should comply with CL-3.

2 If the building has Electrical Vehicles (EV) parks in podium or basements, it should be protected with sprinklers and complying to CL-5.

3 Protection should comply to supplementary protection for specific hazard/critical rooms as per Table 28/ Table 29/ Table 30 as applicable.

4 If the building height exceeds 60 m the hydraulic calculations meeting recommended system architecture with multi-level pumping and storage with gravity redundant down comer may be considered. The pumps considered should not exceed 12 bar shutoff pressure.

5 Pump pressure and quantity should be supported by hydraulic calculations.

6 2,500 lpm at 10 bar common pumping and water storage of 2,55,000 litre should be provided for a cluster of maximum 5 buildings, with or without common basement. The buildings should not be closer than 9 m.

7 3,785 lpm at 10 bar common pumping and water storage of 3,50,000 litre should be provided for cluster of maximum 5 buildings, with or without common basement. The buildings should not be closer than 9 m.

8 Multi-level pumping and water storage as per SLD (see Fig. 20) may be considered for cluster buildings more than 45 m; and water storage at every 45 m above should be provided for individual buildings.

9 If the cluster of buildings exceeds 5, another set of pumps and water storage of similar capacity should be provided. A maximum of two such sets is recommended.

10 The entire building should be protected with sprinkler and the protection level should comply with CL-5. IT/Data Hall should be protected with suitable clean agent gas suppression only if the racks are without BBU (not exceeding 20 kWh backup battery units).

11 All internet data centres or hyper scales or colocation data centres comply with protection level CL-6.

12 If the IT/data hall (DC) racks are with BBUs with Lithium-ion batteries not exceeding 20 kWh/rack, wet or dry sprinkler/pre-action/water mist (3rd party tested for lithium ion BBUs) should be deployed. If the BBUs exceed 20 kWh/rack, water mist should not be installed.

13 If the cluster of data centre buildings to a maximum of 3, common pumping system and storage may be with an additional diesel engine pump, with double water storage.

14 If any of the building houses lithium-ion energy storage systems exceeding 600 kWh/floor, the building should comply to protection level CL-6.

15 Lithium-ion battery energy storage systems (BESS) room should be protected with wet/single interlock pre action sprinkler only, considering entire room as 'assumed area of operation'. Pump and water storage should be calculated based on maximum design and hydraulic calculations whichever is higher.

16 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

Table 22: Requirements for Firefighting Installations – For Mercantile Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
MERCANTILE BUILDINGS (F) — See Note 4									
a)	Mercantile Buildings (F)	Up to 500 m² area and up to 15 m height (both conditions to be met), self-certification by a certified and State approved building professional should be treated acceptable							
1)	Above 15 m but not exceeding 30 m in height; and, for heights less than 15 m and area:								
i)	501 m² to 1 000 m² (HL-3) See Notes 1, 2, 3, 5, 6 and 7	R	R	R	NR	NR	NR	R	NR
ii)	1 001 m² and above (CL-4) See Notes 2, 3, 5, 6, 7 and 8	R	R	NR	R	R	R	R	NR
2)	Above 30 m — See Note 5	—	—	—	—	—	—	—	—
b)	Underground Shopping Complex (CL-5) See Note 3	R	R	NR	R	R	R	R	R

R – Required NR – Not Required

REMARK 1: Any state or area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such states/areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 If the building has basement to be protected with sprinklers, the protection level should comply with CL-3.

2 If the building has electrical vehicles (EV) parks in podium or basements, it should be protected with sprinklers and complying to CL-5.

3 Protection should comply to supplementary protection for specific hazard/critical rooms as per Table 28/Table 29/Table 30 as applicable.

4 Pump pressure and quantity should be supported by hydraulic calculations.

5 If the building height exceeds 30 m it should comply with hydraulic calculations meeting recommended system architecture.

6 If the building height exceeds 60 m multi-level pumping and storage with gravity redundant down comer. The pumps considered should not exceed 12 bar shutoff pressure.

7 Rate of rise heat sensor/detection system should be provided in EV parks and charging areas. Smoke sensor/detectors should be provided in all basements other than ICE vehicles parks. ICE vehicles parks should be provided with carbon monoxide sensors as part of fire alarm system to activate ventilation system.

8 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

Table 23: Requirements for Firefighting Installations – For Industrial Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
Industrial Buildings (G) — See Note 5									
a)	Low Hazard (G-1) See Notes 1 and 6								
i)	Built up area up to 1 000 m² (Including the MSMEs) (HL-1)	R	R	NR	NR	NR	NR	NR	NR
ii)	Built up area from 1 001 m² to 2 000 m² (HL-2)	R	R	R	NR	NR	NR	NR	NR
iii)	Built up area from 2 001 m² up to 3 000 m² (HL-3)	R	R	NR	NR	R	NR	R	NR
iv)	Above 3 001 m² (HL-4) See Note 1	R	R	NR	NR	R	NR	R	NR
b)	Moderate Hazard (G-2) See Notes 1, 4 and 6								
i)	Built up area up to 500 m² (HL-2)	R	R	R	NR	NR	NR	NR	NR
ii)	Built up area from 501 m² to 2 000 m² (HL-3)	R	R	NR	R	R	NR	R	NR
iii)	Built up area from 2 001 m² to 3 000 m² (HL-4)	R	R	NR	R	R	NR	R	NR
iv)	Built up area above 3 001 m² (CL-5)	R	R	NR	R	R	R	R	NR
c)	High Hazard (G-3)								
i)	Built up area up to 250 m² (CL-4) See Notes 1, 2, 3 and 7	R	R	NR	R	R	R	NR	NR
ii)	Built up area from 251 m² to 1 000 m² (CL-5) See Notes 1, 2, 3, 4 and 7	R	R	NR	R	R	R	R	NR
iii)	Built up area above 1 001 m² (CL-6) See Notes 2, 3, 4 and 7	R	R	NR	R	R	R	R	R

R – Required **NR – Not Required**

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such states/areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 If the building has any type of combustible storage, combustible packing, fuel storage, boilers, furnaces such areas should be protected and should comply to protection level CL-6.

2 Alternate suppression agent should be considered as per relevant Indian Standards if water is not a suitable agent for materials protected.

3 Oxidizing materials, ignitable liquids, water resistive chemicals, explosives, aluminium dust, or any other explosive environment should be treated separately.

4 Protection should comply to supplementary protection for specific hazard/critical rooms as per Table 28/Table 29/Table 30 as applicable.

5 Pump pressure and quantity should be supported by hydraulic calculations.

6 If the cluster of buildings exceeds 5, another set of pumps and water storage of similar capacity should be provided. A maximum of two such sets is recommended.

7 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered

Table 24: Requirements for Firefighting Installations – For Storage Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
Storage Buildings (H) — See Notes 1, 2 and 3									
i)	Built-up area up to 500 m² (HL-4)	R	R	NR	R	NR	NR	R	NR
ii)	501 m² to 1 000 m² (HL-5)	R	R	NR	R	R	NR	R	NR
iii)	1 001 m² to 2 000 m² or building ridge height up to 7.6 m (CL-6)	R	R	R	NR	R	R	R	NR
iv)	Above 2 001 m² or Building ridge height above 7.6 m and up to 9.0 m (CL-7)	R	R	NR	R	R	R	R	R
v)	Building of any height with rack storage	R	R	NR	R	R	R	R	R

R – Required NR – Not Required

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 Pump pressure mentioned in above table is considering minimum requirement; it should be supported by hydraulic calculations. The above Table applies to the below Storage categories only, stored on ground, not exceeding 3.7 m (12 feet), excluding tyre storage. They should also comply with supplementary protection as per Table 28/Table 29/Table 30: (a) Packaging materials stored on ground with or without pallets; (b) Raw materials storage, in solid pile, shelves, pallets; (c) Finished goods storage, solid pile, shelves, pallets; (d) Miscellaneous storage in and around manufacturing/assembly/packaging areas; (e) Retail storage in shelves other than catwalk storage.

2 For rack storages, with plastic/combustible packaging, water reactive solids/liquid storages, lithium battery storages, ignitable chemical storages, or retail catwalk, any other oxidizing agent storages, relevant Indian Standards should be followed, and pumping capacities and water storage should be justified by way of hydraulic calculations.

3 If the cluster of buildings exceeds 5, another set of pumps and water storage of similar capacity should be provided. A maximum of two such sets is recommended.

4 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

Table 25: Requirements for Firefighting Installations – For Hazardous Buildings

Sl No.	Type of Building Occupancy	Type of Installation							
		Fire Extinguisher (3)	First Aid Hose Reel (4)	Down Comer (5)	Wet Riser (6)	Yard Hydrant (7)	Automatic Wet Sprinkler System (8)	Automatic Fire Detection & Alarm System (9)	Public Address & Voice Evacuation System (10)
Hazardous Buildings (J) — See Notes 1 and 2									
1)	Up to 15 m in height:								
i)	Single storey building (CL-7)	R	R	NR	R	R	R	R	NR
ii)	More than one floor building but not exceeding 15 m (CL-8)	R	R	NR	R	R	R	R	R

R – Required NR – Not Required

REMARK 1: Any area where the municipal supply caters to municipal/public yard hydrant system with hydrant outlets provided throughout the premises with adequate water supply meeting the wet riser requirement demand flow and pressure 24 × 7 uninterrupted, such areas/jurisdiction can replace the wet riser system and its associated pumping with water storage with a dry riser system. Dry riser system is also recommended for areas where ambient temperature below is 4 °C and has facility of connecting the yard hydrant to the dry riser in any event of fire in the building. This system is to be maintained with quarterly checks to ensure the system integrity to handle the required flow and pressure. This is applicable for buildings height only up to 24 m where HL Protection is required as per above Table.

REMARK 2: Sharing of water storage tank may be permitted between the adjacent neighbouring properties including industry clusters, without any loss of hydraulic effects (which is essential to fight the fire during an emergency).

NOTES

1 These buildings should deploy specific tailor-made systems and solutions in terms of water hydrant/sprinklers, dry chemical, dry powder, water mist, gas/wet chemical suppression, foam or/and any other as per relevant Indian Standards and international standards (wherever Indian Standards are not available) in consultation with local fire services or Authority having Jurisdiction (AHJ).

2 Pump pressure and quantity should be supported by hydraulic calculations.

3 Table 26 and Table 27 suggesting the basis for water quantity required for fire-fighting, respectively for combined (sprinkler and hose) protection and hose protection be considered.

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Table 26: Base Calculations for Combined Protection System (Sprinkler System and Hose Stream)

Sl No.	Combined System	Hazard Classification	Sprinkler Demand (lpm / m² & lpm)	Hose Stream Flow @ 3.5 bar (lpm)	Number of Hose Streams	Pump Capacity and Quantity	Duration (min)
i)	Level of Protection – CL-1	Extra Low Hazard-1	2.25 / 84	50	2	379 lpm × 1	30 – 60
ii)	Level of Protection – CL-2	Extra Low Hazard-2	4.1 / 140	170	2	946 lpm × 1	30 – 60
iii)	Level of Protection – CL-3	Low Hazard	6.1 / 230	285	3	1 892 lpm × 1	30 – 60
iv)	Level of Protection – CL-4	Moderate Hazard-1	8.1 / 230	285	3	2 500 lpm × 1	60 – 120
v)	Level of Protection – CL-5	Moderate Hazard-2	12.2 / 230	475	3	3 785 lpm × 1	60 – 120
vi)	Level of Protection – CL-6	Extra Hazard-1	16.3 / 230	475	3	4 731 lpm × 1	60 – 120
vii)	Level of Protection – CL-7	Extra Hazard-2	18.3 / 280	670	4	7 570 lpm × 1	60 – 120
viii)	Level of Protection – CL-8	High Hazard	24.5 / 280	1 050	4	4 731 lpm × 2	60 – 120

NOTES

1 'Pump' implies, providing an electric pump and 'Standby pump of equivalent capacity'. For loss in pressure, jockey pump is also to be provided.

2 The duration of firefighting may be decided from 30 min to 120 min based on the hazard, fire preparedness, local conditions, to name a few.

3 The required quantity of water may be calculated as per the respective Indian Standards (where available); or based on the Table 26 and Table 27.

Pump capacity = Total flow with 20 percent overflow and operating at 140 percent capacity. Example for CL-5: capacity = (12.2 × 230) + (475 × 3) = 4 231 litre; with overflow margin = 5 077.2 litre; pump selection = 5 077.2/140 × 100 = 3 627 lpm (nearest Indian Standard pump: 3 785 lpm).

Table 27: Base Calculations for Hose Stream Protection System

Sl No.	Hose Stream Only	Hazard Classification	Hose Stream Flow (lpm)	Number of Hose Streams	Pump Capacity and Quantity	Duration (min)
i)	Level of Protection – HL-1	Extra Light-1	50	4	379 lpm × 1	30 – 60
ii)	Level of Protection – HL-2	Extra Light-2	170	4	946 lpm × 1	30 – 60
iii)	Level of Protection – HL-3	Low Hazard	270	4	1 514 lpm × 1	30 – 60
iv)	Level of Protection – HL-4	Moderate-1	475	4	2 839 lpm × 1	60 – 120
v)	Level of Protection – HL-5	Moderate-2	670	5	4 731 lpm × 1	60 – 120
vi)	Level of Protection – HL-6	Extra Hazard	670	6	5 677 lpm × 1	60 – 120

NOTES

1 'Pump' implies, providing an Electric pump and 'Standby pump of equivalent capacity'. For loss in pressure, jockey pump is also to be provided.

2 The duration of firefighting may be decided from 30 min to 120 min based on the hazard, fire preparedness, local conditions, to name a few.

3 The required quantity of water may be calculated as per the respective Indian Standards (where available); or based on the Table 26 and Table 27.

Pump capacity = Total flow with 40 percent overflow and operating at 140 percent capacity. Example for HL-3: capacity = 270 × 4 = 1 080 litre; with overflow margin = 1 512 litre; pump selection = 1 512/140 × 100 = 1 514 lpm (nearest Indian Standard pump).

Table 28: Fire Detection and Suppression Systems

Sl No.	Type of Risk/ Hazard	Types of Special Protection System											
		Automatic Detection System					Automatic Fire Suppression Systems						
		Pneumatic Linear (Copper/ Steel/ Teflon Tubing) High Sensitivity Heat Detection	Aspiration High Sensitivity Smoke Detection	Gas/ Flame / Video Detection	Fuel Leak Detection	Linear Heat Sensing Cable (LHS)	Water Mist Low/ High Pressure	Clean Agent Gas Suppression	Water Pre-Action Sprinkler	Modular Panel/ Rack Suppression with Heat Sensitive Tubing	Water Spray Protection	Wet Chemical Kitchen Suppression	Aerosol Based Fire Suppression
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
i)	UPS room without batteries	NS	S	S	NS	NS	S	S	S	NS	NS	NS	NS
ii)	UPS room with batteries (except Lithium ion)	NS	S	S	NS	NS	S	S	S	NS	NS	NS	NS
iii)	Battery room with Lithium ion	S	S	S	NS	NS	NS	NS	S	NS	S	NS	NS
iv)	Server room/data halls	NS	S	NS	NS	NS	S	S	S	NS	NS	NS	NS
v)	Kitchen with any type of fuel, (live cooking)	NS	NS	S	NS	S	S	NS	NS	NS	NS	NS	NS
vi)	Networ	NS	S	NS	NS	NS	S	S	S	NS	NS	NS	NS

Sl No.	Type of Risk/ Hazard	Types of Special Protection System											
		Automatic Detection System					Automatic Fire Suppression Systems						
		Pneumatic Linear (Copper/ Steel/ Teflon Tubing) High Sensitivity Heat Detection	Aspiration High Sensitivity Smoke Detection	Gas/ Flame / Video Detection	Fuel Leak Detection	Linear Heat Sensing Cable (LHS)	Water Mist Low/ High Pressure	Clean Agent Gas Suppression	Water Pre-Action Sprinkler	Modular Panel/ Rack Suppression with Heat Sensitive Tubing	Water Spray Protection	Wet Chemical Kitchen Suppression	Aerosol Based Fire Suppression
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	k/ Electrical rooms												
vii)	Electrical/ MCC panels	NS	S	NS	NS	NS	NS	S	NS	S	NS	NS	S
viii)	Cable cellar and trenches and trays over 1.5 m wide	S	NS	NS	NS	S	S	NS	NS	NS	S	NS	S
ix)	Dry transformer indoor	S	NS	S	NS	NS	NS	NS	NS	NS	NS	NS	NS
x)	Oil transformer outdoor more than 2.0 MVA or 2 000 litre oil	S	NS	S	NS	NS	NS	NS	NS	NS	S	NS	NS
xi)	DG rooms	S	NS	S	S	S	S	NS	NS	NS	S	NS	S

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Sl No.	Type of Risk/ Hazard	Types of Special Protection System											
		Automatic Detection System					Automatic Fire Suppression Systems						
		Pneumatic Linear (Copper/ Steel/ Teflon Tubing) High Sensitivity Heat Detection	Aspiration High Sensitivity Smoke Detection	Gas/ Flame / Video Detection	Fuel Leak Detection	Linear Heat Sensing Cable (LHS)	Water Mist Low/ High Pressure	Clean Agent Gas Suppression	Water Pre-Action Sprinkler	Modular Panel/ Rack Suppression with Heat Sensitive Tubing	Water Spray Protection	Wet Chemical Kitchen Suppression	Aerosol Based Fire Suppression
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
xii)	Cold/freezer rooms	S	S	NS	NS	NS	S	S	NS	NS	NS	NS	NS
xiii)	MRI/ scanning rooms	NS	S	NS	NS	NS	S	NS	NS	NS	NS	NS	NS
xiv)	Operation Theatres	NS	S	NS	NS	NS	S	NS	S	NS	NS	NS	NS
xv)	Tunnel protection	S	NS	S	NS	S	S	NS	NS	NS	S	NS	NS

NS = Not Suitable S = Suitable

NOTES

1. Wet sprinklers are acceptable for all areas where pre-action sprinklers or closed water mist is suitable.
2. DG rooms should be protected with total flooding open nozzles where water mist is being deployed.
3. Spray system should be supplemented with suitable foam, if ignitable liquids or water miscible liquids are involved.
4. Water mist system should be selected based on 3rd party independent test carried out for the specific application, flow rate, density, etc. The products in terms of functionality and the performance should be based on actual test results and certifications, and should NOT be prescriptive.
5. Water mist solution selected, total flooding with sprinklers, total flooding with open nozzles, wet system, pre-action system should comply based on actual test results, and certifications.

Table 29: Special Protection Systems — Automatic Detection Systems for G to J Occupancies

Sl No.	Type of Risk/Hazard	Pneumatic Linear (Copper/Steel/Teflon Tubing) High Sensitivity Heat Detection	Flame/Gas/ Spark Detection	High Ceiling Beam Detection System	Linear Heat Sensing Cable	Probe Type Heat Detector	Aspiration High Sensitivity Smoke Detection
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	Generator room	S	S	NS	S	S	NS
ii)	Water reactive chemical store	S	S	NS	S	S	NS
iii)	Chemical store	S	S	NS	S	S	NS
iv)	Paint booth	S	S	NS	S	S	NS
v)	Paint/varnish storage	S	S	NS	S	S	NS
vi)	Warehouse	NS	S	S	NS	NS	S
vii)	Above ground fuel oil storage	S	S	NS	S	NS	NS
viii)	Oil transformers	S	S	NS	NS	NS	NS
ix)	Diesel/HSD tanks	S	S	NS	S	NS	NS
x)	LPG bullets/Benzene, Xylene, Toulene tanks	NS	NS	NS	NS	NS	NS
xi)	Airport hanger	S	S	S	S	NS	NS
xii)	Hydrogenation rooms	NS	S	NS	S	S	S
xiii)	Sulphur storage	S	S	NS	S	S	S
xiv)	Tanker loading/unloading bay	NS	S	NS	NS	S	NS
xv)	Kitchen	S	S	NS	S	S	NS
xvi)	Conveyors	S	S	NS	S	NS	NS
xvii)	QA/QC labs	S	S	NS	S	S	NS
xviii)	Open large atriums	NS	NS	NS	NS	NS	S
xix)	Floating roof tanks	S	S	NS	S	NS	NS
xx)	Oil fire boiler room, oil quenching tank	NS	NS	NS	S	S	NS
xxi)	Cooling tower	S	NS	NS	S	NS	NS
xxii)	MCC room	S	NS	NS	S	S	S
xxiii)	Cable cellar/trenches	S	NS	NS	S	S	NS
xxiv)	Electrical panels	S	NS	NS	S	NS	NS

NS = Not Suitable S = Suitable

Table 30: Special Protection Systems - Automatic Fire Suppression Systems for G to J Occupancies

Sl No.	Type Of Risk/Hazard	Water Spray System	Wet/Dry Pre-action	Nitrogen Injection	Water Mist	Foam Sprinkler System	Dry Powder Flooding System	Clean Agent Total Flooding	Carbon-Dioxide Flooding
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
i)	Generator room	S	NS	NS	S	NS	NS	NS	NS
ii)	Water reactive chemical store	NS	NS	NS	NS	NS	S	NS	S
iii)	Chemical store	S	NS	NS	S	S	NS	NS	NS
iv)	Paint booth	S	NS	NS	S	NS	NS	NS	NS
v)	Paint/varnish storage	S	NS	NS	S	S	S	NS	NS
vi)	Warehouse	NS	NS	NS	NS	NS	NS	NS	NS
vii)	Above ground fuel oil storage	S	NS	NS	NS	S	NS	NS	NS
viii)	Oil transformers	S	NS	S	S	NS	NS	NS	NS
ix)	Diesel / HSD tanks	S	NS	NS	NS	S	NS	NS	NS
x)	LPG bullets/Benzene, Xylene, Toulene tanks	S	NS	NS	NS	NS	NS	NS	NS
xi)	Airport hanger	NS	NS	NS	NS	S	NS	NS	NS
xii)	Hydrogenation rooms	S	NS	NS	S	NS	NS	NS	NS
xiii)	Sulphur storage	NS	NS	NS	S	NS	NS	NS	NS
xiv)	Tanker loading/unloading bay	S	NS	NS	NS	NS	NS	NS	NS
xv)	Kitchen	NS	NS	NS	S	NS	NS	NS	NS
xvi)	Conveyors	S	NS	NS	S	NS	NS	NS	NS
xvii)	QA/QC labs	NS	S	NS	S	S	S	S	NS
xviii)	Open large atriums	NS	NS	NS	S	NS	NS	NS	NS

Sl No.	Type Of Risk/Hazard	Water Spray System	Wet/Dry Pre-action	Nitrogen Injection	Water Mist	Foam Sprinkler System	Dry Powder Flooding System	Clean Agent Total Flooding	Carbon-Dioxide Flooding
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
xix)	Floating roof tanks	S	NS	NS	NS	S	NS	NS	NS
xx)	Oil fire boiler room, oil quenching tank	S	NS	NS	S	S	NS	NS	NS
xxi)	Cooling tower	S	NS	NS	NS	NS	NS	NS	NS
xxii)	MCC room	NS	S	NS	S	NS	NS	S	S
xxiii)	Cable cellar/trenches	S	NS	NS	S	NS	NS	NS	S
xxiv)	Electrical panels	NS	NS	NS	NS	NS	NS	NS	S

NS = Not Suitable S = Suitable

NOTES

1. Spray system should be supplemented with suitable foam, if ignitable liquids or water miscible liquids are involved.
2. Chemical material safety data sheet (MSDS) as per manufacture should be referred to select the right suppression agent.
3. Water mist system should be selected based on third party independent test carried out for the specific application, flow rate, density, etc. The products in terms of functionality and the performance should be based on actual test results and certifications, and should not be prescriptive.
4. Water mist solution selected, total flooding with sprinklers, total flooding with open nozzles, wet system, pre-action system should comply based on actual test results, and certifications.
5. Oxygen-reduction systems, which is not listed but are proactive fire prevention solutions by maintaining the oxygen percentage below the threshold needed for ignition and sustained combustion but suitable for human occupancy. These systems should be carefully evaluated and used for normally unoccupied areas with proper monitoring of oxygen levels. Fully enclosed very sensitive and critical high valve equipment rooms, rooms in heritage buildings for storing archives or ancient manuscripts, areas where no other fire protection system are effective and feasible are a few areas where it can be implemented. The implementer should ensure all 3rd party product/system accreditations certifications for specific applications and approval from local statutory bodies and AHJs in place before use.

<u>आदेश:</u> आदेश दिया जाता है कि इस अधिसूचना को बिहार राजपत्र के अगले असाधरण अंक में सर्वसाधारण की जानकारी हेतु प्राकशित किया जाय।

बिहार राज्यपाल के आदेश से

12/11/2026

(मनोज कुमार)

अपर सचिव,

नगर विकास एवं आवास विभाग।

ज्ञापांक-09/न०वि०बि०भ०उ० - 03/2026...11445...न०वि० एवं आ०वि०, पटना, दिनांक- 12/11/26

प्रतिलिपि-अधीक्षक, राजकीय मुद्रणालय, गुलजारबाग, पटना/ई-गजट कोषांग वित्त विभाग, पटना (सी०डी० के साथ) को बिहार गजट में अतिरिक्त प्रकाशन हेतु सूचनार्थ एवं अनुरोध है कि प्रकाशित गजट के 200 कॉपी कार्यालय उपयोग के लिए उपलब्ध कराया जाय।

12/11/2026

अपर सचिव,

नगर विकास एवं आवास विभाग।

ज्ञापांक-09/न०वि०बि०भ०उ० - 03/2026...11445...न०वि० एवं आ०वि०, पटना, दिनांक- 12/11/26

प्रतिलिपि-मुख्य सचिव, बिहार/विकास आयुक्त, बिहार/मुख्यमंत्री के प्रधान सचिव/सभी अपर मुख्य सचिव/प्रधान सचिव/सचिव/सभी प्रमण्डलीय आयुक्त/सभी जिला पदाधिकारी/अध्यक्ष, बिहार भू-सम्पदा अपीलीय न्यायाधिकरण, पटना/अध्यक्ष, भू-सम्पदा विनियामक प्राधिकरण, बिहार, पटना/ मुख्य कार्यपालक पदाधिकारी, पटना महानगर क्षेत्र प्राधिकार/नगर आयुक्त, सभी नगर निगम/मुख्य कार्यपालक पदाधिकारी, सभी जिला आयोजना क्षेत्र प्राधिकार/नगर कार्यपालक पदाधिकारी, सभी नगर परिषद् एवं सभी नगर पंचायत को सूचनार्थ एवं आवश्यक कारवाई हेतु प्रेषित।

प्रतिलिपि-विभागीय मंत्री के आप्त सचिव/प्रधान सचिव के प्रधान आप्त सचिव, नगर विकास एवं आवास विभाग/विभाग के सभी पदाधिकारियों को सूचनार्थ एवं आवश्यक कारवाई हेतु प्रेषित।

प्रतिलिपि-आई०टी० प्रबंधक, नगर विकास एवं आवास विभाग को सूचनार्थ एवं विभागीय वेबसाईट पर अपलोड करने हेतु प्रेषित।

12/11/2026

अपर सचिव,

नगर विकास एवं आवास विभाग।