



ODISHA FIRE & EMERGENCY SERVICE
FIRE SAFETY RECOMMENDATION

FORM-II

[Under Rule-12 (5)]



RECOMMENDATION No:	RECOMM1101010062024001952	APPLICATION No:	FSR1101010062024000002
Date of Issue:	23-03-2024	Date of Receipt of Application:	19-03-2024

1.	Name & Address of the proposed Building/Premises:	Proposed S+5 floors Residential apartment building (Mig Catagory) "For Mukta Homes Pvt. Ltd.", Plot No.- 1384/3235, 1384/2979 & others, Khata No-372/1648, 372/1315 & others, Mouza-Unit-16, Sobara, Ps-Jajpur Road, Dist-Jajpur.
2.	Name and Address of the Applicant(s):	Sri Vivekananda Rath, C/o Niranjan Rath, Markandeswar Sahi, Dhipasahi, Dist- Puri Odisha-752001.
3.	Proposed Occupancy (Type of Building):	Proposed S+5 floors Residential apartment building is coming under 'Residential building' as per Odisha Development Authorities (Planning and Building Standards) Rules, 2020 and Residential occupancy Group-A-4 as per NBCI, 2016.
4.	Area with Plot Number and Khata Number:	Plot area – 1524.75 Sqm. (As per possession) Plot No. - 1384/3235, 1384/2979 & others Khata No- 372/1648, 372/1315 & others
5.	Date of Inspection:	23-03-2024

6. Recommendation:



The Fire Safety Recommendation for the following building(s) is/are as follows: -

A.	Structural and construction site requirements:	
i.	Details of the building(s) like height, no. of floors, area on each floor, built up area, etc	<p>Stilt Floor-760.06 sqm. Usage:-Parking & Service area 1st floor- 626.47 sqm Usage:-Society Hall, Bed room, Drawing, Dining, Kitchen & Service area. 2nd to 5th floor- 595.02 sqm each. Usage:-Bed room, Drawing, Dining, Kitchen & Service area. Total built up area-3766.61 sqm. Height Height of the proposed building is 17.39 mtrs. from road level. (including Stilt floor height i.e-2.40 mtr) As per Rules-39 (vi) of Odisha Development Authorities Planning and Building Standards Rules, 2020 the height of stilt floor not exceeding 2.40 mtr is exempted.</p>
ii.	Parking	<p>As shown in the plan there is provision of stilt floor parking for the proposed building. Required provision of parking shall be made in accordance to Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p>
iii.	Access To The Building	<p>As shown in the proposed plan, the width of the abutting road to the proposed building is 09.14 mtrs. The requirement of means of access to the building premises and occupancies shall be as per the respective Rules/Regulation of building plan approving authority of the jurisdiction. As shown in the plan there is provision of 01 No. main entrances for the proposed building for entry and exit, having width 06.00 mtrs If main entrance provided width of the boundary gate shall not be less than 06 mtrs. The main gate shall fold back against the compound wall of the premises. If the main entrance gate is built over, the height of the same shall not be less than 05 mtrs. Provisions for access to the premises shall be provided as per Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p>
iv.	Open spaces (In Mtrs.)	<p>As shown in the plan there is provision of following minimum setback mentioned around the proposed building. Front= 03.05 mtrs, Rear= 03.05 mtrs, Left= 03.14 mtrs, Right= 03.01 mtrs. The covering slabs of underground water tank, soak pit, recharge tank, septic tank etc, if any which are proposed to be positioned in the compulsory open space area must have appropriate load bearing capacity. The space set apart for providing access within the premises shall be open to the sky and not to be used as parking space and shall be free from obstruction at all the time. Besides, the entire specified open space shall be kept unbuilt and driveway shall be constructed of hard surface capable of taking load of fire engine weighing 45 tons minimum for easy access of fire engine as per Odisha Development Authorities (Planning and Building Standards) Rules, 2020. Load bearing capacity certificate from the competent authority shall be obtained to that effect. Setbacks shall be provided as per Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p>
v.	Exits (Type, Number, Dimension & Ramp Arrangement)	<p>As shown in the plan there is provision of 02 Nos. staircases for the proposed building. 01 No serving from 1st floor to terrace floor having width 1.25 mtrs & another one is serving from stilt floor to terrace floor having width 01.27 mtrs respectively. Staircases shall be provided as per requirement of Odisha Development Authorities (Planning and Building Standards) Rules, 2020. The exits/staircases must be placed as remote from each other as possible and also comply to other provisions i.e. permissible travel distance, dead end corridor length in exit access etc, as per the provisions of Odisha Development Authorities (Planning and Building Standards) Rules, 2020. Internal staircase constructed with external wall shall be naturally ventilated or pressurized and internal staircase not constructed with external wall shall be pressurized. Mechanism for pressurizing the staircase shall operate automatically with the fire alarm. The natural ventilation requirement of the staircases shall be achieved through opening at each landing of an area 0.5 m2 in the external wall. Mechanism for pressurizing the staircase shall operate automatically with the fire alarm. External exit door of staircase enclosure at ground level shall open directly to the open spaces or can be reached without passing through any door other than a door provided to drought lobby.</p>



		<p>All the exits required to be accessible from the entire floor area at all floor levels.</p> <p>All staircases must be of non-combustible materials.</p> <p>No exit doorways shall be less than 01 mtrs. in width and height less than 02 mtrs.</p> <p>The naturally ventilated exit staircases may not require the provision of fire door. However, Access fire door of minimum 120 min fire resistance rating shall be provided for all other staircases and pressurization staircases.</p> <p>The minimum number of exit and their width required on every floor of the buildings and their dimensions must be in accordance with Part-IV of NBCI-2016 and exit requirements of Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p> <p>The use of mirrors is not permitted in enclosures for exits & exit passage way.</p> <p>The escape routes should be well ventilated and provided with safety lighting and free from obstructions.</p> <p>Exits must be clearly visible and all routes to reach the exit have to be clearly marked and sign posted to guide the population of the floor concerned. Signage's required to be illuminated and wired to an independent electrical circuit on an alternative source of supply.</p> <p>Exit signs and Floor exit plan must be provided such that no point in an exit access is more than 30 mtrs from a visible exit directional sign. Provision of escape lighting and exit signage needs to be made in accordance with Part-4, NBCI-2016 & IS 9457:1980, IS 12349:1988, IS 12407:1988.</p> <p>All landings of floor must have floor indication boards indicating the number of floors.</p> <p>In addition to above all other provisions for exits/doorways/stairways, means of escape and exit shall be made as per NBCI-2016 and Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p>
vi.	Firefighting Shaft	<p>Fire fighting shaft shall be provided for the proposed building as per NBCI-2016 and Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p> <p>Provision and requirement of fire fighting shaft shall comply to the requirements as specified in Clause-2.24 Part-4 of NBCI-2016 and as per Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p>
vii.	Lifts	<p>As shown in the plan there is provision of 02 Nos. lifts i.e. 01 No. stretcher lift and another one is passenger lift connecting from stilt to top floor.</p> <p>Provision of lift as proposed in the building shall satisfy the requirement as mentioned in Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p> <p>The capacities of lift shall not be less than 08 passenger's i.e. 544 kg. Grounding switch at ground floor level shall be provided.</p> <p>Lift car doors shall have a fire resistance rating of 01 Hr. Walls of lift enclosures shall have a fire rating of 02 (two) hrs. Lift shafts shall have vent at the top of area not less than 0.2 sqm.</p> <p>Telephone/talk back communication facilities may be provided in lift cars for communication system and lifts shall be connected to the fire control room of the building. All lift wells shall be provided with pressurization system. Pressurization of lift wells and lift lobbies shall be done as per Table-6 of NBCI-2016.</p> <p>Photo luminescent safety signs shall be posted and maintain on every floor at or near the lift indicating that in case of fire, occupants shall use the stairs unless instructed otherwise.</p> <p>In addition to above, other provisions of lift shall comply to the requirements as specified in Building Services, Section 5 Installation of Lifts, Sub-Section 5-A Lifts of Part-8 of National Building Code of India, 2016, Regulations-42 and Annexure-III, IX of Odisha Development Authorities (Planning and Building Standards) Rules, 2020.</p>
viii.	Electrical Service	<p>A stand-by diesel generator shall be installed to supply power to staircase and corridor lighting circuits, fire lifts, the stand-by fire pumps, pressurization fans and blowers, smoke extraction and damper system in case of failure of normal electric supply.</p> <p>The emergency lighting shall be on separate service and shall be independently connected so as it could be operated by one switch installation on the ground floor, easily accessible to firefighting staff at any time irrespective of the position of the individuate control of the light points, if any.</p> <p>Emergency lighting shall also be connected to alternate supply from parallel high-tension supply or to the supply from the stand-by generator. All wires and other accessories used for emergency light shall have fire retardant property.</p> <p>The staircase and corridor lighting shall be on separate service and shall be independently connected so as it could be operated by one switch installation on the ground floor, easily accessible to firefighting staff at any time irrespective of the position of the individuate control of the light points, if any.</p> <p>Staircase and corridor lighting shall also be connected to alternate supply from parallel high-tension supply or to the supply from the stand-by generator. All wires and other accessories used for emergency light shall have fire retardant property.</p> <p>The electric distribution cables or wiring shall be laid in separate duct which shall be sealed at every floor with non-combustible materials 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 cables, intercom cables, gas pipes or any other service line shall not be laid in the duct for electric cables.</p>



		Transformer shall be installed as per the National Building Code of India -2016, Indian Electricity Rule and required fire protection measures be taken for the transformer. Electrical Installations in the building shall comply to the provisions as per NBCI-2016 and Odisha Development Authorities (Planning and Building Standards) Rules, 2020. Provision for lightning protection shall be made in the proposed building as per IS/IEC 62305-4:2010.
ix.	Air Conditioning	If Central Air Conditioning system provided, Escape routes like staircases, common corridors, lift lobbies shall not be used as return air passage. Air ducts serving main floor areas, corridors, shall not pass through the staircase enclosure. The air-handling units shall be separate for each floor and air ducts for every floor shall be separated and in no way inter-connected with the ducting of any other floor. Wherever the ducts pass through fire walls or floors, the opening around the ducts shall be sealed with materials having fire resistance rating of the compartment. Such duct shall also be provided with fire dampers at all fire walls and floors unless such ducts are required to perform for fire safety operation. The Air Conditioning shall also be coupled with fire detection and alarm system. Metallic ducts shall be used even for the return air instead of space above the false ceiling. The materials used for insulating the duct system (inside or outside) shall be of non-combustible material. Air Conditioning system in the building shall comply to the provisions as per NBCI-2016 and Odisha Development Authorities (Planning and Building Standards) Rules, 2020.
x.	Gas supply	If gas bank provided, construction and provision of fire safety measures and firefighting measures shall be of IS-6044 of 2000.
xi.	Others	Construction During construction of the proposed high rise building the following fire protection measures shall be provided- i. Dry riser of minimum 100 mm diameter pipe with hydrant outlets on the floors. ii. Drums of 2000 litre capacity filled with water with 02 fire buckets on each floor. iii. A water storage tank of minimum 20,000 litre capacity. The minimum fire resistance ratings of structural and non-structural Elements (minute) shall be as given in Table-1 of part-4, NBCI-2016. The false ceiling, including all fixtures used for its suspension shall be of non-combustible material and shall provide adequate fire resistant to the ceiling in order to prevent spread of fire across ceiling. The provision of fire safety measures and other requirements for kitchen and use of LPG in the building shall comply with the provisions given in Annexure-G, Part-4, and NBCI 2016 and IS: 6044. Refuse chutes, if any provided in the building, shall have opening of at least 1 m above roof level for venting purpose and they shall have an enclosure wall of non-combustible material with fire resistance of not less than 120 min. Refuse chutes shall be made as per Clause-3.4.5.5 of Part-4 NBCI-2016. Provision for lightning protection shall be made in the building as per NBCI-2016 and incorporate to relevant BIS Specification. Routing down of conductors (Insulated or Un-Insulated) of lightning protection shall not be made through electrical or other service shafts. The structural safety design and construction of the building shall be done as per Clause-3.3 & 3.4 of NBCI-2016 and Regulation-73 of ODA (P&BS) Rules, 2020. Service Ducts and Shafts: - Openings in walls or floors which are necessary to be provided to allow passages of all building services like cables, electrical wirings, telephone cables, plumbing pipes, etc. shall be protected by enclosure in the form of ducts / shafts and such shaft and inspection doors fitted thereto shall have fire resistance rating not less than as per NBCI-2016 and Odisha Development Authorities (Planning and Building Standards) Rules, 2020.
xii.	Fire Command Centre	There shall be a Fire Command Centre on entrance floor of the building having direct access. The Fire Command Centre shall have the main fire alarm panel with communication system (suitable public-address system). All controls and monitoring of fire alarm systems, pressurization systems, smoke management systems shall happen from this room. Fire Command Centre shall have provisions as per NBCI-2016.
B.	Fixed Fire Fighting Installations :	
i.	Fire Extinguisher	Provision of fire extinguishers shall be made in the building. (BIS 2190)



ii.	First- Aid Hose Reel	First-aid hose reel shall be provided in all floor of the building. (BIS 884 & BIS 3844)
iii.	Down Comer	The proposed building is required to be provided down comer with provision of hydrant outlet and hose reel on each floor landing connected to the fire pump be available within 30 mtr from any point at each floor level on each floor. At each floor landing there shall be provision of hose box to accommodate 02 Nos. RRL Delivery Hoses of 15 meters length each of 63 mm dia and 01 Nos. branch pipe. (BIS 3844:1989) The internal diameter of the riser main required to be provided as per IS:901:1988 or amended. Fire hose with branch pipe and nozzle required to be provided as per IS:903:1984 or amended and kept adjacent to the hydrant in hose boxes.
iv.	Manually Operated Electronic Fire Alarm System	Manually Operated Electronic fire alarm system at conspicuous places in all floors of the building shall be provided. Manually operated electronic fire alarm system shall also include talk-back and Public Address System. (IS/ISO 7240-11:2011 or amended).
v.	Terrace Tank	Terrace Tank of 25,000 ltrs. capacity shall be provided at the top of the building for firefighting purpose. It should be ensured that water in the tank is not utilized for any other purpose other than firefighting.
vi.	Pump At Terrace Tank Level With Minimum Pressure Of 3.5 Kg/Cm2	Provision of terrace pump of 900 LPM capacity having connectivity to terrace tank shall be made for the building.
vii.	General	All the firefighting & life safety measures shall confirm to Odisha Development Authorities (Planning and Building Standards) Rules, 2020, National Building Code of India and other relevant Rules and Indian Standards.
C.	Opinion :	<p>The site for construction of Proposed S+5 floors Residential apartment building (Mig Catagory) "For Mukta Homes Pvt. Ltd.", Plot No.- 1384/3235, 1384/2979 & others, Khata No-372 / 1648, 372/1315 & others, Mouza-Unit-16, Sobara, Ps-Jajpur Road, Dist-Jajpur was inspected on 23.03.2024 being accompanied by Station Officer, Jajpur Road Fire Station in presence of the Authorized person of the proposed building. The recommendation is prepared as per provision of OFP & FS Rules-2017, Odisha Development Authorities (Planning and Building Standards) Rules, 2020, NBCI-2016, and other relevant Rules and Indian Standards.</p> <p>The site is suitable for construction of above proposed structures subject to condition that the owner/occupier shall incorporate the above furnished recommendations in the proposed structure. Besides, if the authority concerned will feels the requirement of additional fire safety requirements in future then the owner/occupier will adhere all recommendations issued by this department.</p> <p>After completion of the construction work including installation of fixed firefighting measures as suggested, the applicant shall be required to apply for Fire Safety Certificate as per Rule 13 (1) of Odisha Fire Prevention and Fire Safety Rules, 2017, along with following documents:-</p> <p>i. The applicant shall produce a certificate to be issued by the person concerned to the effect that all the provisions of Bye-Laws / Regulations of ODA (P&BS) Rules, 2020 and Recommendations issued from this office have been incorporated in the building.</p> <p>ii. The applicant shall produce a certificate of the Competent Authority concerned to the effect that electrical installations have been done as recommended and as per provisions given in Part-8 "Building Services, Section-2 Electrical and allied installations" of NBCI-2016 and Section-7 of National Electrical Code, 2011.</p> <p>iii. The applicant shall produce a certificate of the agency concerned to the effect that installation of firefighting measures has been done as recommended and as per provisions given in Part-4 of National Building Code of India – 2016 and relevant BIS specifications.</p>

Signature valid

Signed by : TRILOK
KUMAR SABU
Date : 23-03-2024 20:19:42

Range Fire Officer, Central
Range-I, Cuttack

NOTE

(i) It is a digitally signed electronically generated certificate and therefore needs no ink-signed signature.



(ii) This Certificate is issued as per section 4, 5, & 6 of Information Technology Act 2000 and its subsequent amendments in 2008.
(iii) For any Query or Verification, Agency / Department / Office may visit <http://agnishamaseva.odisha.gov.in>
(iv) Tampering of this Certificate will attract penal action.

