Government of Goa
Directorate of Fire & Emergency Services
(ISO 9001:2015 & 45001:2018 Certified)
St. Inez, Panaji,
Goa – 403 001 – India

File No.: DFES/FP/HB/171/24-25/ 21 **Dated: 24.04.2025.**

Sub:- Provision of Fire Safety Measures for the proposed construction of the Residential Building **"Hamlet Tower – Block A, B, C & D** for M/s. VMZ Development One LLP on Plot bearing Survey No. 194/1-A-1 at Sancoale, Mormugao - Goa.

Ref: - 1. Your Online Application No. FES2501474, dt; 06.04.2025
2. Your email dated; 27.03.2025.
3. Your email dated; 28.04.2025.
4. This Office letter No.DFES/FP/HB/171/24-25/290, dated 28.03.2025

With reference to the above, the Architectural Plans and Fire Protection Plans for the proposed construction of the Residential Building **"Hamlet Tower – Block A, B, C & D** for M/s. VMZ Development One LLP on Plot bearing Survey No. 194/1-A-1 at Sancoale, Mormugao - Goa has been vetted by this office for in-built fire protection arrangements as per National Building Code Rules. Since the building comes under the category of **Group A – Residential Building,** necessary Active and Passive Fire Protection measures have to be incorporated in the building as stipulated in the Annexure 'A' enclosed herewith as per National Building Code of India 2016, Fire and Life Safety (Part-4). The Fire Safety Measures has been recommended specific to the Architectural Plan submitted to this Department.

In terms of section 15.2.2(d) of the Goa Land Development and Building Construction Regulations, 2010, you shall furnish an undertaking on Rs. 50/- stamp paper to abide by Fire Prevention and Fire Protection Measures recommended herewith in Annexure "A" as amended from time to time.

This Supersedes letter issued vide No. DFES/FP/HB/171/24-25/290, Dated 28.03.2025.

DIRECTORATE OF FIRE & EMERGENCY SERVICES GOVT. OF GOA PANAJI - GOA

(NITIN V. RAIKER)
DIRECTOR
FIRE & EMERGENCY SERVICES

Encl: - Annexure "A" & "B".

To,
Shri. Avez Azim Shaikh,
M/s. VMZ Development One LLP,
O-1, 1st Floor, Commerce Centre,
Next to Old Bus Stand,
Vasco da Gama, Goa.

ANNEXURE "A"

I. **APPROACH FOR FIRE APPLIANCE**:-The main entrance of the plot shall be of adequate width to allow easy access to the fire service vehicles and in no case it shall measures less than 6 meters. The entrance gate shall fold back against the compound wall of the premises, thus leaving the exterior access way within the plot free for movement of fire service vehicle. If the main entrance at the boundary wall is built over, the minimum clearance shall be 5 meters.

The width of the main street on which the building abuts shall not be less than 10 meters as per the requirements of Clause 15.1.2(a) of Goa Land Development and Building Construction (Amendment) Regulations, 2024

II. **SET BACKS**:-The open space around the building shall be kept free of obstructions and shall be motorable, no projections shall be allowed in the open space. The approach and side setbacks to be provided for proposed building shall fulfill the requirements of **Clause 15.1.2(b) of Goa Land Development and Building Construction (Amendment) Regulations, 2024**.

III. **EXIT STAIRCASE**: -

a) The Building **Block A, B, C & D** shall be provided with Exit Staircase with adequate landing on every floor in addition to the normal staircase as shown in the architectural plan submitted to this office vide letter dated; 24.02.2025.

i) The Exit Staircase shall be constructed of non-combustible material and the doorway leading to it shall have Fire Resistant Door (FRD) with Panic Bar of 2hours' fire resistance to prevent spread of fire and smoke. The Exit Staircase shall terminate on the Ground Floor.

ii) The Exit Staircases shall be placed remote from each other and shall be arranged to provide direct access in separate directions from any floor

iii) The Exit Staircase shall have flight not less than 125cms. wide with 25cms. Treads and Risers not more than 19 cms. and should be limited to12 per flight.

iv) The floor indication board of size not less than 300 mm x 200 mm, indicating the location/ designated number of staircase, respective floor number and direction to exit discharge shall be placed inside the staircase, on the wall nearest to the fire door. Individual floors shall be prominently indicated on the wall outside the staircase and facing it.

v) All staircases shall terminate at the level of Exit discharge. The access to the basement shall be by separate staircase, in case of separation of stairs leading from ground (exit discharge) to the upper floors and stairs leading to the basement by a fire protection wall and both the staircase highlight are accessible by separate entry.

DIRECTORATE OF FIRE & EMERGENCY SERVICES GOVT. OF GOA PANAJI GOA

Contd...2/-

IV. **DOOR WAYS**: -All Exit Doorways in **Block A, B, C & D** shall conform to the requirements of Clause 4.4.2.4.1 of National Building Code of India 2016, Fire & Life Safety (Part 4).

V. **ROOM ENTRANCE**: -The Room entrance and kitchen doors of **Block A, B, C & D** shall be of solid core with **fire resistance of not less than half hour** (solid wood of 35 mm Shutter) finished thickness and the same shall be of self-closing type.

VI. **LIFT**: -

a) The lift shall be provided in **Block A, B, C & D** with a minimum capacity for **Eight (8) Passengers** fully automated with emergency Switch on ground level and shall be equipped with inter communication equipments.

b) Wall enclosing lift shall have fire resistance of not less than 2 hours.

c) Shaft shall have permanent vents of not less than 0.2 sq. mtrs. in clear area immediately under machine room.

d) Landing doors and lift car doors of the **lift shall be of steel shutters of fire resistance of one hour**. No collapsible shutters / gates shall be permitted.

e) Grounding switch(es), at ground floor level, shall be provided on all the lifts to enable the fire service to ground the lifts. In case of emergencies the lift should cease at the ground floor.

f) A sign shall be posted and maintained on every floor at or near the lift indicating that in case of fire, occupants shall use the stairs.

g) All the requirements of the Lifts shall comply with Part 8 'Building Services', Section 5 Installation of Lifts, Escalator and Moving Walks, Subsection 5A Lifts of National Building Code of India, 2016, Fire & Life Safety (Part 4).

VII. **ELECTRICAL CABLE SHAFT AND ELECTRICAL METER ROOM**: -

a) Electrical cable shafts shall be exclusively used for electrical cables and should not open in the staircase enclosures.

b) Inspection doors for the shaft if provided shall have **two hours' fire resistance**.

c) Electrical shaft shall be sealed at each floor level with non-combustible material having **fire resistance rating of not less than 1 hour**.

d) Opening in walls or floors which are provided for the passage of all building services like cables, electrical wiring etc. shall be protected by enclosures in the form of Duct/Shaft with **fire resistance of not less than 2 hours. The door of the Shaft shall be of 2 hours' fire rating.**

DIRECTORATE OF FIRE & EMERGENCY SERVICES GOVT. OF GOA PANAJI - GOA

Contd...3/-

e) Electrical meter rooms shall be provided at ground floor level and they shall be adequately ventilated.

f) The electrical installation should conform **BIS: 1646:1997 Code of Practice for Fire Safety of Buildings (General) - Electrical Installation.**

g) All Electrical cables, particularly heavy cables should be coated with fire resistance paint. A band of fire resistance paint of 1m width at every 10m internal in horizontal plane; complete run of cable in vertical plane, 1m on either side of cable, when the cable is running from one room to another room through wall opening/conducts etc. should be provided.

VIII. **SERVICE DUCTS AND SHAFTS: -**All Openings in Separating Walls and Floors shall conform to the requirements of Clause 3.4.5.4 & 3.4.5.6 of National Building Code of India, 2016, Fire & Life Safety (Part 4).

IX. **ESCAPE ROUTE LIGHTING**: -Escape route lighting and Illumination of Means of Exit (Staircase and Corridor light) in the building **Block A, B, C & D** shall be as per Clause 3.4.7 to 3.4.7.2 of National Building Code of India 2016, Fire & Life Safety (Part 4). The exit arrangements shall comply with IS:1644/1989 Code of Practice for 'Fire Safety of Building (General), Exit Requirements and Personal Hazard'.

X. **MECHANICAL EXTRACTORS FOR SMOKE VENTING:** -Mechanical Extractors for Smoke Venting System from Basement coupled to the Fire Alarm System/ Sprinkler System shall be provided in **Block A, B, C & D** and conform to requirements of Clause 4.6.2 of National Building Code of India 2016, Fire & Life Safety (Part-4).

XI. **COMPARTMENTATION:-** The Basement of **Block A, B, C & D** shall be suitably compartmentalized so that fire / smoke remain confined to the area where fire incident has occurred and shall confirm to the requirements of **Clause 4.5.1 and 4.5.2 of National Building Code of India 2016, Fire & Life Safety (Part 4).**

XII. **LIGHTNING PROTECTION OF BUILDING:** The building **Block A, B, C & D** shall be protected from lightning as per Part 8 'Building Services, Section 2 Electrical and Allied Installations' Clause 11 of National Building Code of India 2016 and same shall conform to IS: 2309/1989.

Contd...4/-

XIII. **FIRE FIGHTING REQUIREMENTS**:- The Fire Protection Measures shall be provided in the building as incorporated in the Fire Fighting layout drawing No. HT-FF-01, HT-FF-02, HT-FF-03, HT-FF-04, HT-FF-05, HT-FF-06, HT-FF-07 HT-FF-08, HT-FF-09, HT-FF-10, HT-FF-11, HT-FF-12, HT-FF-13, HT-FF-14, HT-FF-15, HT-FF-16, HT-FF-17, HT-FF-18, HT-FF-19, HT-FF-20, HT-FF-21, HT-FF-22 & HT-FF-23 submitted to this office vide your letter dated; 24.02.2025.

a) **UNDERGROUND STATIC WATER STOARGE TANK**:-The existing RCC tank of 50,000 liters capacity shall be provided on ground level of the building exclusively for fire fighting.

b) **OVERHEAD (TERRACE WATER STORAGE TANK)**: 01 Nos. RCC tank of 25,000 liters' capacity shall be provided on top of the terrace level of the Building **Block A** and 02 No. RCC tank of 25,000 liters' capacity shall be provided on top of the terrace level of the Building **Block D** exclusively for fire fighting. The tank shall be connected to the Down Comer all through by a booster pump through a non-return valve and a gate valve.

c) **WET RISER:** 03 Nos. of Wet Riser of internal diameter of 10 cms. of GI 'C' class pipe shall be provided in **Block A**, 02 Nos. of Wet Riser each of internal diameter of 10 cms. of GI 'C' class pipe shall be provided in **Block B and Block C,** 04 Nos of wet riser of internal diameter of 10 cms. of GI 'C' class pipe shall be provided in **Block D** with landing valves on each floor along with the Hose Boxes and **Elastomeric coated Delivery Hoses** of 70 mm diameter having a length of 15 mtrs. each with hand controlled Branch pipe and 02 Nos. of Hose Reel Hose conforming to type 'A' 884-1985 on each floor in such a way as not to reduce the width of the corridor and no part of the floor is more than 6 mtrs. away from the nozzle when fully extended.

d) **WET RISER CUM DOWN COMER:** - 03 Nos. of Wet Riser cum Down Comer of internal diameter of 10 cms. of GI 'C' class pipe shall be provided in the duct of the building **Block A** and 04 Nos. of wet Riser cum Down Comer of internal diameter of 10 cms. of GI 'C' class pipe shall be provided in the duct of the building **Block D** on every floor with landing valve on each floors alongwith

DIRECTORATE OF FIRE & EMERGENCY SERVICES GOVT. OF GOA PANAJI, GOA

Contd....5/-

Hose Boxes and 2 Nos. of **Elastomeric Coated Delivery Hoses** of 70 mm diameter having a length of 15 mtrs. each with hand controlled Branch pipe and Hose Reel Hose of 30 mts length conforming to type 'A' 884-1985 on each floor in such a way as not to reduce the width of the corridor and no part of the floor is more than 6 mtrs. away from the nozzle when fully extended.

e) **COURTYARD HYDRANT:** -04 Nos. Courtyard Hydrants shall be located in the courtyard of the premises for Building **Block A & D** and 02 Nos. Courtyard Hydrants each shall be located in the courtyard of the premises for Building **Block B & Block C** with a minimum size of the main being not less than 100 mm. which shall be pillar post type with 63 mm single outlet conforming to BIS:908.

f) **FIRE SERVICE INLET CONNECTION**: -Two Way Fire Service Inlet Connection of 63 mm diameter standard coupling each shall be provided at the ground floor in the premises **Block A, Block B, Block C & Block D** to connect the mobile pump of the fire service to the Down Comer.

g) **SPRINKLER SYSTEM:** - Automatic Sprinkler System confirming to Bureau of Indian Standard should be installed in the **Basement Floor** of building **Block A, Block B, Block C & Block D and Multipurpose Hall on the First, Second, Third, Fourth, Fifth, Sixth and Seventh floor of the Building Block B.**

h) **FIRE PUMP**:-

i) 02 Nos. Electric Fire Pump of 900 LPM giving a pressure of not less than 3.5 kg/cm2 at the top most hydrant outlet of the Down Comer shall be provided at terrace level of the building **Block A.**

ii) 01 No. Electric Fire Pump of 900 LPM giving a pressure of not less than 3.5 kg/cm2 at the top most hydrant outlet of the Down Comer each shall be provided at terrace level of the building **Block B & C.**

iii) 03 Nos. Electric Fire Pump of 900 LPM giving a pressure of not less than 3.5 kg/cm2 at the top most hydrant outlet of the Down Comer shall be provided at terrace level of the building **Block D.**

iv) The Electric supply to these pumps shall be on independent circuit.

v) The Electric Main of the Terrace Pump shall be provided on the Ground Floor.

Contd....6/-

i) **FIRE DETECTION AND ALARM SYSTEM: -**

i) **MANUALLY OPERATED ELECTRIC FIRE ALARM SYSTEM**: The Building **Block A, B, C & D** shall be provided with the above system conforming to BIS:2189/1999 with the main control panel at ground floor and pill boxes, hooters at each side of the every floors. The Layout shall be in accordance with Indian Standard Specification.

ii) **SMOKE DETECTORS:-** Smoke Detectors of Optical type as per Indian Standarad Specification should be installed **in the Multipurpose Hall on the First, Second, Third, Fourth, Fifth, Sixth and Seventh floor of the Building Block B.**

iii) The entire building shall be provided with Analogue addressable type Automatic Fire Alarm system conforming to BIS:2189/1999.

iv) Visual Warning Arrangement through Visual Strobes/Beacons shall be installed in the building to ensure visual as well as alarm for persons with hearing impairment.

j) **GAS BASED DETECTION CUM SUPPRESSION SYSTEM:** All the Electrical Panels, Server Room and UPS / Battery Room shall be provided with Gas Based Detection cum Suppression System.

k) **ALTERNATE SOURCE OF POWER SUPPLY**: - Independent Secondary Circuit fed by Secondary source of Power supply with appropriate change over switch shall be provided for the Fire Protection Systems Viz. Corridor Lighting, Smoke Venting System, Fire Alarm system, Fire Pumps, Lift in the building **Block A, B, C & D.**

The installation of Alternate Source of Power Supply in the Premises shall conform to the requirements of Clause 3.4.6.4 of National Building Code of India 2016, Fire & Life Safety (Part-4).

l) **PORTABLE FIRE EXTINGUISHERS**: -The type/distribution of Fire Extinguishers shall be in accordance with BIS:2190/2010 in the building **Block A, B, C & D.** All Fire Extinguishers shall confirm to IS:15683/2006.

Contd....7/-

m) **DIRECTIONAL EXIT & FIRE SAFETY, BARRIER FREE ACCESS SIGNAGES**: -The Directional Exit, Fire Safety & Person with disability Signages shall be installed at appropriate places on all the floors of the building **Block A, B, C & D** the Signages shall correspond to the specimen and size enclosed in Annexure "B".

n) **BASEMENT (Block A, B, C & D):-**

i) Automatic Sprinkler system confirming to Bureau of India Standard should be provided in the Basement Parking Area.

ii) **All the requirements of the basement shall conform to Annex 'H', Clause H-4 'Enclosed Parking Structures' of National Building Code of India 2016, Fire & Life Safety (Part-4).**

(NITIN V. RAIKER)
DIRECTOR
FIRE & EMERGENCY SERVICES

ANNEXURE "B"

The colour of the Directional and Fire Safety signages shall be **RED** with Graphic symbol in **WHITE** colour and the colour of the Emergency escape signages shall be **GREEN** with Graphic symbol in **WHITE** colour as per IS 9457:2005.

Sr. No.	D E S C R I P T I O N	S I Z E (mm)	IMAGES
	Emergency Exit Signages (Photoluminescent)		
1	Exit Signage	100 X 300	
2	Staircase Identification Signage (Photoluminescent)	100 X 300	
3	Staircase Identification Signage (Photoluminescent)	100 X 300	
4	Fire Alarm Signage	200 X 250	
5	Fire Extinguisher Signage	200 X 250	
6	Hose Reel Hose Signage	200 X 250	
7	Assembly Point Signage	600 X 600	

The colour of the Signages will be **BLUE** with Graphic symbol in **WHITE** colour as per IS 9457:2005.

Sr. No.	D E S C R I P T I O N	S I Z E (mm)	IMAGES
	Signages (Photoluminescent)		
1	Access symbol	200 X 200	
2	Ramp	200 X 200	
3	Lift	200 X 200	
4	Parking	200 X 200	
5	Directional Signs	200 X 200	

(NITIN V. RAIKER)
DIRECTOR
FIRE & EMERGENCY SERVICES