

**GOVERNMENT OF WEST BENGAL
OFFICE OF THE DIVISIONAL FIRE OFFICER
WEST BENGAL FIRE & EMERGENCY SERVICES**

Memo No : IND/WB/FES/20192020/71307

DATE: 31/10/2019

From :

The Divisional Fire Officer
Fire Prevention Wing,
West Bengal Fire & Emergency Services.

To :

HIMALAYAN BUILDERS AND DEVELOPERS FOR G+4 TYPE KANCHANJUNGH
APARTMENT
NEW ALIPURDUAR ROAD,W NO.4
Alipurduar F.S., Alipurduar,
Alipurduar - 736121 .

Sub :Fire Safety Recommendation for a proposed construction of G + 4 storied
building under group Residential at the premises no.- NEW ALIPURDUAR ROAD,W
NO.4, Alipurduar, Alipurduar - 736121

This is in reference to your Application No. IND/WB/FES/20192020/71307,dated 31/10/2019,
regarding the Fire Safety Measure for a proposed construction of G + 4 storied building
under group Residential at the premises no.- NEW ALIPURDUAR ROAD,W NO.4,
Alipurduar, Alipurduar - 736121.

The plan submitted by you was scrutinized and marked as found necessary from Fire Safety
point of view. In returning one set of plan with recommendation, this is issuing Fire Safety
Recommendation in favour of the aforesaid building subject to the compliance of the
following fire safety measure.

Recommendation:

1.

Himalayan Builders & Developers

Sajal Kumar Nayak
Partner

Recommendations: FOR G+ 4 Residential -As per NBC/FIRE RISK ASSESSMENT

A) Construction Part:-

- i) The whole construction of the proposed building shall be carried out as per approved plan of the Municipality/local authority & conforming the relevant building rules of Govt. of W.B.
- ii) The floor area exceeds 500 sq.miter shall be suitably compartmented by separation walls up to ceiling level having at least two hrs fire resisting capacity.
- iii) The interior finish decoration of the building shall be made of low flame spread materials conforming I.S Specification.
- iv) All construction materials should be of four hrs. Fire resisting type.
- v) Doors & windows should be of at least 2 hrs of fire resisting type.
- vi) All opening of services ducts, void, gap, joints etc. should be sealed with fire check materials.

B) Open Space & approach:-

- i) The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of fire appliance with turning facility.
- ii) The approach roads shall be sufficiently strong to withstand the load of fire engine weighting up to 45 M.T.
- iii) The width and height of the access gates into the premises shall not be less than 4.5 miters & 5 miters respectively abutting the road.

C) Means of escape: -

- i) The Staircases of the building shall be enclosed type & construction shall be made of bricked/RCC type having fire resistance capacity not less than 4 hrs.
- ii) Time of evacuation should be as per I:S 1644-1988 i.e. 2.5 minutes.
- iii) The width of the staircases shall be 1.25 miters. Corridors of the building and the exit doors shall conforming the relevant building rules.
- iv) All the staircases shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.
- v) The staircase of the building shall have permanent vents at the top and open able sashes at each floor level in the external wall of the building.
- vi) Travel distance shall be within 22.5 meters

D) Electrical Installation: 1946:1982:-((I:S-694)

- i) All electrical installation should be done in accordance with National Electrical code & part -viii "Building Service" section -2 "Electrical installation" good practice.[4(10)].
- ii) All cable should be of FRLS type & all wiring should be done by the cuppers wire along with appropriate gauge such as 1.2 esq. mm for light , fan, bulbs etc. 2.5 esq. mm for freeze , TV & 4 esq. for geezer, washing machine etc.
- iii) Electrical installation shall be tested by the licensed Electricians.

E) Ventilation:

- i) Sufficient ventilation to be provided in all rooms, corridors etc .places.

Himalayan Builders & Developer
Sajal Barua
Partner

F) Alternate power supply :-Arrangement shall be made to supply power with the help of a Generator to operate at least the fire pump, pump for deep tube-well, Fire alarm system, illumination of stairs, corridors, means of escape etc. in case of normal power failure.

G) Fire Fighting Water: -The building should be provided with 50000 liters capacity of underground stored water with replenishing arrangement @ 1000 liters of water per minutes preferably from two different sources. The height of the reservoir should not be exceeding 30 cm from the ground level. Fire water reservoir shall have overflow and connected with the domestic water reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all times.

ii) The location of the underground reservoir should be such so that the Fire Service vehicle may get access to the site of the reservoir with a view to draw the waters from said reservoir.

H) Down Comer:-The down comer four inch ms pipe from the terrace tank to the ground floor of the building fitted with inlet valve in the ground floor along with landing valves/D.hoses/Branch /hose boxes etc. at each landing position.

I) Terrace Tank:-One Terrace Tank of capacity Minimum 2500 liter should be installed in the building along with suitable terrace pump & wet riser cum down comer system.

J) Hose Reel System:-IS 884-1985, the Hose reel hose system should be provided at each floor of the building. The internal dia of the said hose reel shall be 19 mm to 32 mm and the discharge capacity not less than 22.5 LPM. While the length of the hose reel not more than 36.50 meters. The distance of such

Installation should be in such a way that no part of the floor is more than 6 meters distance from a hose nozzle when fully extended.

K) Pumps for firefighting Installation.IS-12469-1988. i)The pump should be installed and arranged in such manner so that it will start automatically due to fall in pressure as prefixed in the installation by installing a Jockey pump.

ii) All the pumps shall be so designed as to supply water at the designed pressure and discharge into the water based system which shall be installed in the building.

iii) One such pump shall always be kept on stand by preferably be of diesel driven type.

iv) Provision of Jockey pump shall also be made to keep the water based system under pressurized condition at all times

v)All the pumps shall be incorporated with both normal and auto starting facilities, the suction of the pump shall preferably of positive type or in case of negative suction the system shall be wet riser- cum- down comers with suitable terrace pump fitted with over head tank.

L) Small gears:-IS 903-1993:- Hose box, 15 meters permoline Delivery hose /CRL TYPES & Gun metal Short branch half inch dia @ one set each at or near all the pillar hydrant, landing valve on all floors of the building should be installed.

M) Detection & Alarm System IS 2189-1988. i) Sufficient Nos. of manually operated electrical fire alarm system of break glass type call boxes and alarm like Hooters shall be provided.

Himalayan Builders & Developers

Sajal K. Nij
Partner

N) Internal Hydrant System:-IS:3844:1989:- Pressurized wet riser of 100 mm dia should be provided at each staircases with provision of landing valve at each landing and half landing @ one such riser for each 1000 sq.meters of floor area of the building or as per the vulnerability of the area. This system shall be designed in such a manner that it should be kept charged with water at all time and capable of discharge 2850 liters of water per minutes at the ground level & minimum 900 liters per minutes at the top most outlets. In both the cases, the running pressure at the ground level shall be 3.5 kg/esq.cm & 2.5 kg/esq.cm at the top most landing valves should be ensured or Down comer from the terrace tank to the ground floor consisting of terrace pump with landing valve and connector at the ground level should be provided as per NBC.

(FOUR external hydrant points with gears and delivery hoses etc. shall also be provided surrounding the building as per fire risk assessment)

O) First aid fire fighting system:-IS 2190-1992.(15683) Sufficient Nos. of Portable fire extinguishers of ABC type, Water type and Sand and water bucket should be provided at different places of the building and it should be within the reach of all concern as stated in the IS Code i.e. one no.@ 1000 esq. meters floor area. OR AS PER THE VULNARABILITY.

P) TOTAL PARKING AREA OF THE BUILDING NEEDS TO BE PROTECTED BY THE SPRINKLER SYSTEM TO REDUCE THE RISK FACTORS.

Q) Lighting Protection of the Building: - This protection for buildings shall be provided as given in Part-VIII building services, Section-2 Electrical installation.

R) General recommendations: -

- i) A register for the recording of mock fire drill, evacuation drill, testing and checking of whole fire fighting installation, electrical installation should be maintained & shall be liable to produce the same to the authorized Officer of this department on demand.
- ii) Fire notice should be provided and shall be displayed at all places of the building as per clause 5.5 of N.B.C.
- iii) All the occupants and other peoples shall be conversant with the installed fire fighting equipments of the building so that they can operate the same in case of exigency.
- iv) Arrangement shall be made for regular checking, testing and proper maintenance of all fire fighting equipments and keep them in good working condition at all time it should be written in the Register.
- v) Good house keeping should be maintained.
- vi) Mock fire drill and evacuation drill should be done periodically with participation of all occupants.

Himalayan Builders & Developers

Sajal K. N. S.
Partner

Divisional Fire Officer
West Bengal Fire & Emergency Services

Signature valid
Digitally signed by UTTAM
KUMAR KHANNA
Date: 2019.10.31 15:19:49 IST

Himalayan Builders & Developers
Sajal W Nig
Partner