Government Of West Bengal
Office Of The Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata - 16

Memo no.:FSR/0225186228700436

Date: 20-06-2022

From:
Director
Fire Prevention Wing,
West Bengal Fire & Emergency Services

To: SUDEB BARAL, Director of BARAL DEVELOPERS PVT. LTD.
028,258,VIVEKANANDA ROAD

Sub: Fire Safety Recommendation for a proposed B+G+6 storied residential building which will be constructed at premises no. 258, Vivekananda Road, Ward No.- 28, Borough No.- 4, Kolkata- 700006, under P.S.- Narkeldanga.

Application Reference : KMC (CAF-2022040007) received on 11-05-2022 regarding the Fire Safety Recommendation for a proposed B+G+6 storied residential building which will be constructed at premises no. 258, Vivekananda Road, Ward No.- 28, Borough No.- 4, Kolkata- 700006, under P.S.- Narkeldanga.

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 favor of the aforesaid building subject to the compliance of the following fire safety measure.

Recommendation:

CONSTRUCTION:

1.The construction of the proposed building shall be carried out as per approved plan drawings conforming the relevant building rules of local building rule and shall remain same as per approved plan of this Department.

2.Any deviation with regard to the construction shall be verified by the concerned building sanctioning authority.

3.Materials for rapid flame spread categories including untreated wood fiber board etc. shall be not use. The doors and windows preferably shall be made of metal.

4.The interior finish decoration of the building shall be made with the materials with low flame spread and low smoke/non-toxic gas generating categories conforming I.S. Specification.

5.Arrangement shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

6.Service ducts and shafts should be enclosed by a wall of 2 hours and doors of one hour fire rating. All such ducts shall be properly sealed and Fire stopped at all floor levels.

OPEN SPACE AND APPROACH:

1.The abutting road shall permit the accessibility and maneuverability of fire appliances.

space surrounding the building shall be kept clear open to sky and shall conform the relevant building rules as permit the easy accessibility and maneuverability of the Fire Appliances.

e width and height of the entry gate to the premises shall be 4.5m wide and 5.0m high respecting the abutting road.

3.The internal drive way shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.

5.No parking will be allowed on the Drive-Way.

STAIRCASE:

1.The staircase should have permanent vents at the top and openable sashes at each floor level in the external wall of the building.

2.Four hours Fire Rating wall at the common wall between staircases shall be provided.

3.Fire Check Doors shall be provided only at office floors. The F.C.D. shall be of at least one hour Fire resisting wire window glass fitted with self closing type and openable in the direction of escape.

4.Staircase shall be kept un-obstructed all the time.

5.Considering the staircases are only means of evacuation, emergency lighting arrangement directional exit sign etc. shall be made conforming the relevant I.S. Code in this regards.

6.Corridor/lobby of the building shall be kept un-obstructed all the time.

LIFT:

1.The walls of the lift enclosure of the building shall be at least two hours FIRE resisting type. Collapsible gate shall not be permitted.

2.In case of failure of normal electric supply, it shall automatically trip over to alternate supply. The lift shall be so wired that in case of power failure, it comes down at the ground level landing to stand still with door open.

3.The speed of the fire lifts in the building shall be such that it can reach the top from the ground floor within 1 minute in visual indications of floor numbers shall incorporated in the lift cars.

4.All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting to the Fire Control Room of the building.

BASEMENT:

1.Basement shall be used as per approved plan drawing.

2.Mechanical smoke venting arrangements shall be provided to the basement with auto and manual start facility conforming the I.S. Specification.

3.Mechanical extractors shall have an alternative source of power supply.

4.Mechanical extractor shall have an internal locking arrangement so that extracting shall continue to operate and supply fans shall stop automatically with the actuation of Fire Detectors.

5.The entire basement shall be protected with Auto Sprinkler system, Hose reel system, Hydrant system.

6.Suitable type of automatic fire detection system shall be provided.

ELECTRICAL INSTALLATION & DISTRIBUTION:

1.The electrical installation including Switch Gears, Main & Meters etc. and the distribution system of the premises shall be made satisfying the code of practice for Fire safety in general building as laid down in I.S. specification 1946-1982.

2.The vertical ducts shall be supply sealed at each floor level.

3.The electrical installation shall be adequately protected with CO2 / D.C.P.

4.Electrical distribution system of the building shall be made in the form of concealed wiring or in heavy gauge M.S.

ntinuously bonded to the earth. Cables shall be I.S. marked and preferably be of F.R.L.S. categories. M.C.B. e installed in electrical circuit to avoid electrical fire hazards.
echanical ventilation for Electrical Panel Room shall be provided.
6.Alternative power supply : Arrangement shall have to be made to supply power with the help of a generator to operate at least the Fire Pump, Fire Alarm System, etc. and also illuminating the staircase, corridors etc. and other assembly places of the building/premises in case of normal power failure.

FIRE FIGHTING WATER:

1.Underground Water Reservoir (Fire & Domestic) having water capacity of 50000 Lts. (as shown) shall be constructed and to be kept full at all time with suitable replenishment arrangement.
2.Exclusive Fire Over Head Water Reservoir having capacity 5299 Lts. (as shown) shall be constructed and shall be connected with down comer system through.
3.The Fire Water Reservoir shall have overflow arrangement with the domestic Water Reservoir as well as to avoid stagnancy of water. The fire fighting water reservoir shall be kept full at all time.
4.The deep tube well for the replenishment of the reservoirs shall be incorporated with the auto starting facility and shall also be connected with dual power supply units.
5.Provision of placing Fire Appliances near the underground water reservoir to be made to draw water in case of emergency. Provision of necessary manholes shall be made on the top of the reservoir as per specification.
6.Provision of Fire Service inlet shall be installed at suitable place.

HYDRANT SYSTEM :

1.The building shall be provided with Down Comer (100mm dia) with provision of single hydrant outlet in each floor of each building at the staircases landings/half landings as per suitability.
2.Hose Reel Unit:- Provision of hose reel units on swiveling drum in conjunction with wet riser near each landing valves shall be made at each floor level of the buildings.
3.Yard hydrant shall be provided maintaining relevant I.S. code.
4.Automatic sprinklers shall be provided at basement, ground floor, first floor and second floor areas.
5.All other requirements of the water base Fire Protection System shall be made as per I.S. Specification 3844-1989 (with up to date amendment).

TERRACE BOOSTER FIRE PUMP :

1.Terrace booster Fire Pump having discharge 900Lts. per minute giving a pressure not less than 0.3N/Sq.m.
2.A stand by pump of equal capacity shall preferably be provided.
3.To keep the water based system under pressurized condition, all the fire pump shall be kept auto starting mode. The running pressure shall not be less than 3.5Kgs/Sq.cm. All other requirements shall conform I.S. specification 3844-1989.
4.All other requirements shall conform I.S. specification 3844-1989.
5.All the pumps shall be incorporated with both manual and auto starting facility and with alternate power supply.

AUTO DETECTION AND ALARM SYATEM:

1.Manually operated Electrical Fire Alarm system with break glass type call boxes fitted with Hooters along with public address system at each floor connecting with audio-visual panel board shall be made in Control Room. The Control Room shall be located at the entrance of Ground Floor of the building, other requirements of the system shall be made

ming I.S. specification 2189-1988.

Auto Fire detection system with the help of addressable smoke/heat (as per suitability) detector shall be installed in ground floor, first floor and second floor establishments below and preferably above false ceiling. The other requirements of the system shall be made in accordance with I.S. specification 2189-1988.

3.CO sensor shall be provided in basement.

4.Hooter will be sounded in such a manner so that an operation of a Detector or Manual Call Point Hooters will sounded on the same floor and immediate alternate floor.

5.Public Address System: Public address system linked between all floors and Control Room shall have to be established.

AIR CONDITIONING SYSTEM:- (in case of Centralized Air Conditioning System)

1.The A.H.U. shall be separated for each floor with the system Air Ducts for individual floors.

2.Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the Air Conditioning system.

3.The system of auto shut down of A.H.U. shall be incorporated with the auto detection and alarm system.

4.The air handling units room shall not be used for storage of any combustible materials.

5. Escape route like staircase, common corridors, lift lobby etc. shall not be used as return air passage.

6.Wherever the ducts pass through Fire wall of floors, the opening surrounding the ducts shall be sealed with Fire resisting materials such as asbestos rope vermiculite concrete etc.

7.The metallic ducts shall be used even for the return air instead of space above the false ceiling.

8.The materials used for insulating the duct system (inside or outside) shall be of non- combustible materials glass wool shall not be wrapped or secured by any materials of combustible nature.

9.Air duct services main floor area, corridors etc. shall not pass through the staircase enclosures.

10.When the automatic Fire alarm operates the respective air handling units of the air conditioning system shall automatically switched off.

11.The air filters for air handling units shall be of non combustible materials.

12.Inspection panel shall be provided in the main trucking to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.

13.No combustible materials shall be fixed nearer than 15cm to any duct unless such duct properly enclosed and protected with non combustible materials (glass wool or Spun wool with neoprene facing enclosed and wrapped with aluminum sheeting) at least 3.2m thick and which would not readily conduct heat.

FIRST AID FIRE FIGHTING SYSTEM:

First Aid Fire fighting arrangement in the style of placing suitable type of portable Fire Extinguishers, Fire Buckets etc. in all floors and vulnerable locations of the premises shall be made in accordance with I.S. 2190-1992.

GENERAL RECOMMENDATIONS:

1.Fire License shall have to be obtained for proposed storing and processing with L.P.G. and other highly combustible articles.

2.Exit signage, Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.

3.All employees, residents and security staffs should have adequate knowledge of handing fire protection equipment, evacuation process in time of emergency and testing.

4.Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments installed in the building to keep them in perfectly good working conditions at all times.

crew of trained Fireman shall be maintained round the clock for safety of the building.

6.Haphazard indoor or outdoor storage shall be avoided.

7.Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.

8.Telephone numbers of all Emergency Services and Departments shall be hanged at conspicuous places of all floors and inside Office/Reception Counter.

9.Drill: Must be acquainted with evacuation passage of escape route by practicing as a drill with all residents, employees and security staffs as a drill every month as a special duty and records of which must be kept in their custody.

10.The Department of Fire & Emergency Services, Government of West Bengal shall not take any responsibility in respect of any legal dispute if pending or arises about the title of land/property.

On compliance of all the above Fire & Life Safety Recommendations, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of the installations, Fire Safety Certificate in favour of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B: Any deviation and changes the nature of use of the building in respect of the approved plan drawing without obtaining prior permission from this office, this fire safety recommendation will be treated as cancelled.

Signature Not Verified
Digitally signed by ABHIJIT PANDEY
Date: 2022.06.20 16:32:02 IST

Director
West Bengal Fire & Emergency Services