



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

Memo no.:FSR/0225186238700637

Date: 14-08-2023

**From:**  
**Divisional Fire Officer**  
**Fire Prevention Wing,**  
**West Bengal Fire & Emergency Services**

**To: HARSH VARDHAN KAJARIA**  
**097,109,NETAJI SUBHAS CHANDRA BOSE ROAD**

**Sub: Fire Safety Recommendation for proposed construction of G+X storied under group of Residential Building at the premises no. 109, Netaji Subhash Chandra Bose Road, P.S. Regent Park, Ward no. 97, Borough X, Kolkata 700040 within Kolkata Municipal Corporation, U/s 393A, of KMC Act 1980 & KMC Building Rules.**

Application Reference : KMC (CAF-2023100085) received on 22-06-2023 regarding the Fire Safety Recommendation for proposed construction of G+X storied under group of Residential Building at the premises no. 109, Netaji Subhash Chandra Bose Road, P.S. Regent Park, Ward no. 97, Borough X, Kolkata 700040 within Kolkata Municipal Corporation, U/s 393A, of KMC Act 1980 & KMC Building Rules.

**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:**

**A.CONSTRUCTION:**

- 1.The whole construction of the proposed building shall be carried out as per approved plan drawings conforming the relevant building rules of local Municipal Body.
- 2.The interior finish decoration of the building shall be made of low flame spread materials conforming to I.S. specifications.
- 3.Provision of ventilation at the crown of the central core-duct of the building shall be provided.
- 4.Arrangements shall have to be made for sealing all the vertical & horizontal ducts by the materials of adequate Fire resisting capacity & the doors of service ducts / shafts of 2hr. Fire rating.

**B.OPEN SPACE & APPROACH:**

- 1.The open spaces surrounding the building shall conform the relevant building rules as well as permit the accessibility and manoeuvrability of Fire Appliances with turning facility.
- 2.The approach road shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
- 3.The width and height of the access gates into the premises shall not be less than 4.5 and 5 M respecting abutting the

road.

#### C.STAIRCASE:

- 1.The staircases of the building shall be enclosed type, entire construction shall be made of brick / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.
- 2.The width of the staircases and corridor and travel distance of different categories of occupancies shall have to conform the relevant building rules.
- 3.Fire check doors at each the entrances of all the Staircase enclosures at each floor level shall be provided as shown in the plan drawing. The F.C.D. shall be of at least two hour Fire resisting type open able in the direction of escape.
- 4.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.

#### D.LIFT:

- 1.The walls of the lift enclosure of the building shall be at least two hours FIRE resisting type and lift shaft shall be pressurized as pre-existing norms and provision of NBC Part IV, 2016.
- 2.All the lifts of the building shall be designed as high speed "FIRE LIFT" and shall be conspicuously indicated / marked.
- 3.The Electric power shall be from separate supply mains in the building and cables run with in the lift shafts, light and fans in the lift cars shall be operated from 24 volts, supply on emergency in case of failure of normal power supply lift shall automatically trip over alternate power supply.

#### E.REFUGE AREA:

- 1.The Refuge areas shall be provided on the external wall as cantilever projection for this Building as shown in plan drawings.
- 2.The refuge areas shall be of Fire resisting construction and protected with self-closing F.C.D. at the entrance from the corridor or the staircase landings.
- 3.The position of refuge Areas shall be such that they are negotiable by the Fire service Aerial Ladder from the ground floor.

#### F.FIRE FIGHTING WATER :

Under Ground Water Reservoir of 75,000 ltrs capacity and Over Head Water Reservoir of 7,500 ltrs capacity exclusively for firefighting purpose with replenishing arrangements @1000 ltrs/min. preferably from two different sources of water shall have to be provided. The water reservoirs shall have overflow arrangement with the domestic water reservoir as well as to prevent stagnancy of water. The water reservoirs shall be kept full at all time.

#### G.WATER LAYOUT SYSTEM:

- 1.The building shall be provided with Wet Riser for hydrant of 150 mm. internal diameter Pipe Line with provision of landing valves at the Staircase landings / half landings at the rate of one such riser for 1000 Sq. m. of floor area in each block. The system shall be so designed that shall be kept charged with Water all the time under pressure and capable to discharge 2850 lts/min. at the ground floor level outlet and minimum 900 lts/min. at the top most and farthest outlet. In both cases the running pressure shall not be less than 3.5 Kgs/Sq.cm. All other requirements shall be conforming I.S. 3844 – 1989.
- 2.Provision for Hose Reel units in conjunction with Wet Riser shall be made near each landing valves.
- 3.Yard Hydrant / Ring Main Hydrant with provision of adequate numbers of Pillar type Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.
- 4.Provision of suitable Fire Service Inlet shall be made as per relevant I.S specification.

#### H.FIRE PUMP:

- i. Provision of the Fire Pump of 2850LPM shall have to be made to supply water at the rate-designed pressure and discharge into the Water based system which shall be installed in the respective pump room.
- ii. One such pump shall always be kept on stand-by of 2850LPM of diesel driven type.
- iii. Provision of Jockey Pump of 180 LPM shall also have to be made to keep the Water based suppression systems i.e. hydrant system under pressurized condition at all the time.

All the pumps shall be incorporated with both manual and auto starting facilities. The suction of pumps shall preferably of positive type or in case of negative suction the system shall be wet riser-cum-down comer with suitable terrace pump with overhead tank. The Fire Pumps shall be multi stage and multi outlet creating pressure zones. The Number and type of fire pumps shall be as per provision of N. B. C. Part – IV, 2016.

#### I. Electrical Installation & Distribution:

1. The electrical installation including transformers, 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. Electrical distribution system shall conform all the requirements as laid in I. S. 1646-1982.

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

#### 4. Alternative Power Supply :

Arrangements shall have to be made to supply power with the help of a generator to operate at least the Fire Pumps, Pump for deep Tube-well, Fire Alarm System, lifts, etc. and also for illuminating the Staircase, corridors etc. and other places of assembly of the building incase of normal power failure.

#### J. DETECTION AND ALARM SYSTEM:

1. Manually operated Electrical Fire Alarm system with at least one number of break glass type call boxes fitted with Hooters at each floor in each block connecting with audio-visual panel board shall be made conforming I.S. 2189 – 1988.

2. 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.

3. Fire Control Room / Security Room: (i) A well designed control room with C.C.T.V. surveillance system and Fire Control Panel and monitoring 24X7. (ii) There is need to have a clear policy and proper implementation of emergency evacuation measures.

#### K. FIRTAID FIRE FIGHTING SYSTEM:

First Aid firefighting 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. 2190-92.

#### L. GENERAL RECOMMENDATIONS:

1. Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.

2. Floor numbers and directional sign of escape route shall be displayed prominently.

3. The occupancy and security staff shall be conversant with installed Fire Fighting equipments of the building and to operate in the event of Fire 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.

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

6. The certificate has to be obtained from the Director General, West Bengal Fire & Emergency Services certifying about the satisfactory services, performance of all the Life and Fire Safety arrangements and installation of the building.

On compliance of all the above Fire and Life safety recommendations, the Director General, West Bengal Fire & Emergency Services shall be approached for necessary inspection and testing of the installation, 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 drawings, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

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