



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

Memo no.:FSR/0125186221100216

Date: 26-05-2022

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

To: MANISH SHARMA, THE DESIGNATED DIRECTOR and AUTHORISED SIGNATORY or, REPRESENTATIVE OF
Messrs PUSHPAK INFRA STRUCTURE Private Limited
DAG NO. 209, 210, 211, 212, 213, 530, 531, MOUZA SADARPUR, J .L. NO. 32, P. S. BARASAT, W. B.

Sub: Fire Safety Recommendation in favour of Proposed 02 Nos. Block Ground + Seven Storied Under Group Residential Building Situated at Premises no.- R.S. Dag No.- 209, 210, 211, 212, 213, 530 & 531, Mouza: Sadarpur, J.L. No.- 32, P.S.- Barasat, District- North 24 Parganas.

This is in reference to your application no. 0125186221100216 dated 01-04-2022 regarding the Fire Safety Recommendation in favour of Proposed 02 Nos. Block Ground + Seven Storied Under Group Residential Building Situated at Premises no.- R.S. Dag No.- 209, 210, 211, 212, 213, 530 & 531, Mouza: Sadarpur, J.L. No.- 32, P.S.- Barasat, District- North 24 Parganas.

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:

- 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.
- The floor area exceeds 750 m² shall be suitable compartmented by separation walls up to ceiling level having at least Two hours Fire resisting capacity.
- The interior finish decoration of the building shall be made of low flame spread materials conforming to I.S. specifications.
- Provision of ventilation at the crown of the central core-duct of the building shall be provided.

- 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:

- The open spaces surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire Appliances with turning facility.
- The approach road shall be sufficiently strong to withstand the load of Fire Engine weighting up to 45 M.T.
- 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:

- The staircase of the building shall be enclosed type. Entire construction shall be made of bricks / RCC type having Fire Resisting Capacity not less than 4 hours.
- 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.
- The width of the Staircase shall be made as shown in the plan. Corridors and the exit doors shall conforming the relevant building rules and well as rules of the cinematograph act. with up to date amendments.
- All the staircases shall be extended up to terrace of the building and shall be negotiable to each other without entering into any room.

(D) LIFT :--

- The walls of the lift enclosure shall be at least two hours Fire Resisting type.
- Collapsible gate shall not be permitted.
- In case of failure of normal electric supply, it shall automatically trip of alternate supply and also shall have manually operated change over facility. Alternatively, the lift shall be so wired that in case of power failure, it comes down at ground level stands still with door open.
- All other requirements shall confirm the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.

(E) FIRE FIGHTING WATER :

- Under Ground Water Reservoir 100000 Ltrs. O.H.W.R. of Block-A = 25000 Ltrs, Block-B = 10000 Ltrs capacity exclusively for firefighting purpose as Shown/marked in the plan drawing shall be kept full at all time.
- The Fire water reservoir shall have overflow arrangement with the domestic water reservoir as well as to avoid stagnancy of water.
- Separate piping system from Underground water reservoir for fire to Over Head Water reservoir with required pump for replenishing water at the rate of at least 900 LPM shall have to be provided.
- Provision of replenishment at the rate of at least 1000 lts./min. from two separate source of water supplies shall be made.

(F)WATER LAYOUT SYSTEM:

- The building shall be provided with wet riser at 150 mm. internal diameter Pipe Line with provision of Hose Reel Hose at the Staircase landings / half landings. The system shall be so designed that shall be kept charged with Water all the time under pressure All other requirements shall conforming I.S. 3844 – 1989.
- Provision for Hose Reel units on swiveling drum in conjunction with Wet Riser shall be made near each landing valves.
- Ring Main Hydrant with provision of adequate numbers Hydrant shall be installed surrounding the building in accordance with relevant I.S. specifications.
- Two fire service inlet near the entry or exit of the premises facing to the abutting road shall have to be provided.

(G) AUTO Matic SPRINKLER INSTALLATION:--

Showrooms and Car Parking area of the both block shall be suitably protected by automatic sprinkler installation conforming the grade as per I.S. Specification.

(H)FIRE PUMP:

- Provision of the Fire Pump shall have to be made to supply water at the rate designed pressure(2280 LPM) and discharge into the water based system, which shall be installed in the building. One such pump shall always be kept on Standby preferably be of diesel driven type.
- Separate Sprinkler system with Sprinkler pump shall have to be provided.
- Provision of Jockey Pump and stand by fire pump and a booster fire pump at terrace level with the wet riser cum down comer shall also have to be made to keep the Water based 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.
- 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.

(I) ELECTRICAL INSTALLATION & DISTRIBUTION:

- 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.
- Electrical distribution system shall conform all the requirements as laid in I. S. 1646-1982.
- The electrical installation shall be adequately protected with automatic CO2/D.C.P.
- All electrical installation viz. Transformer Switch Gear L. T., H. T. rooms shall be protected with both auto detection and suppression systems as per suitability.

(J) Alternative Power Supply :

a. Arrangements 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 for illuminating the Staircase, corridors etc. and other places of assembly of the building in case of normal power failure.

(K) DETECTION AND ALARM SYSTEM:

- Manually operated Electrical Fire Alarm system at each floor level with at least three numbers of 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 conforming I.S. 2189 – 1988.
- Showrooms & Car parking area of the both block respectively shall have to be provided with Alarming and detection system.
- 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.

(L) FIRST AID 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.

(M) AIR CONDITIONING SYSTEM (if any) :--

- The A.H.U. shall be separated for each floor with the system .Air ducts for individual floors.
- Arrangement shall be made for isolation at the strategic locations by incorporating auto dampers in the air conditioning system.

- The system of Auto shut down of A.H.U. shall be incorporate with the auto detection and alarm system.
 - Escape route like staircase, common corridors lift lobby etc. shall not be used as return air passage.
 - The A.H.U. room shall not be used for storage of any combustible materials.
 - Arrangements shall be made for isolation at the strategic location by incorporating auto dampers in the Air Conditioning System.
 - Wherever the ducts pass through Fire Wall of Floors, the opening around the ducts shall be sealed with fire resisting materials such as asbestos etc.
 - The metallic ducts shall be used even for the return air instead of space above the false ceiling.
 - The material used for insulating the duct system (inside or outside) shall be of non-combustibl materials .Glass wool shall not be wrapped or secured by any materials of combustible nature . If the air handling unit serve more than one floor, the recommendation given above shall be complied with in addition as below:---
- (a) proper arrangement by way of automatic fire dampers working on fusible link for isolating all ducts at every floor from main riser shall be made.
 - (b) The vertical shafts for treated fresh air shall be of masonry construction.
 - (c) The air filter for A.H.U. shall be of non-combustible materials.
 - (d) The A.H.U. room shall not be used for storing any combustible material.
 - (e) Inspection panel shall be provided in the main trunk to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.

FIRE DAMPER:--

- Fire dampers shall be located in conditional air ducts and return air ducts/passagage at the following points:--
- 1)at the fire separation wall.
 - 2) there ducts/passagage enter the central vertical shaft.
 - 3) where the ducts pass through floors.
 - 4) at the inlet of supply air duct and the return air duct of each compartment in every floor.
 - 5) The damper shall operate automatically and shall simultaneously switch off the air Handling fans. Manual operation facilities shall also be provided.
 - 6) Automatic Fire Dampers Shall be so arranged so as to close by gravity in the direction of air movement and to remain rightly closed open operation of a fusible link.

(N)GENERAL RECOMMENDATIONS:

- Disposable type B. A. Musk to be kept always for emergency fire situation.
- Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
- Floor numbers and directional sign of escape route shall be displayed prominently.
- 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.
- 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.
- A crew of trained Fireman under an experienced officer shall be maintained round the clock for safety of the building.
- Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
- Each year a certificate is 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 drawing, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.

Director
West Bengal Fire & Emergency Services