GOVERNMENT OF WEST BENGAL
OFFICE OF THE DIRECTOR GENERAL
WEST BENGAL FIRE & EMERGENCY SERVICES
13-D, Mirza Ghalib Street, Kolkata – 700 016.

Memo No. : WBFES/3026/14 /Kol-RB/893/14(893/14) Date: 18/08/14

From : Director (In-charge)
Fire Prevention Wing
West Bengal Fire & Emergency Services

To : The Director,
Rose Garden Complex (P) Ltd.,
14, Madan Chatterjee Lane,
K.M.C. Ward No. – 41, Borough No. - V
Kolkata – 700 007

Subject: Fire Safety Recommendation for Proposed construction of a B+G+V storied under group Residential Building at premises no. - 14, Madan Chatterjee Lane, K.M.C. Ward No. – 41, Borough No. – V, Kolkata – 700 007

This is in reference to your letter No. – Nil dated 25.07.2014 regarding Fire Safety Recommendation for Proposed construction of a B+G+V storied under group Residential Building at premises no. - 14, Madan Chatterjee Lane, K.M.C. Ward No. – 41, Borough No. – V, Kolkata – 700 007.

The plan drawings 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 office is issuing **Fire Safety Recommendation** in favour of the aforesaid building subject to the compliance of the following fire safety measure.

Enclo. :
1. One set of plan.
2. Recommendation.

18/8/14

Director (In-charge)
Fire Prevention Wing
West Bengal Fire & Emergency Services

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 Kolkata Municipal Corporation.
2. The floor area exceeds 750 Sq.Mts. shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
3. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
4. Provision of ventilation at the crown of the central core-duct of the building shall be provided.
5. Arrangements shall have to be made for sealing all the vertical and horizontal ducts by the materials of adequate Fire resisting capacity.

B. OPEN SPACE & APPROACH :

1. 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.
2. The approach roads 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 Mts. and 5 Mts respecting abutting the road.

C. STAIRCASE :

1. The staircase of the building shall be enclosed type. Entire construction shall be made of bricks/R.C.C. type having Fire resisting capacity not less than 4 hours.
2. The staircase of the building shall have permanent vents at the top and openable sashes at each floor level in the external wall of the building.
3. The width of the staircases shall be made as marked in the plan. Corridors and the exit doors shall conforming the relevant building rules with up to date amendment.
4. All the staircases shall be extended up to the terrace of the building and shall be negotiable to each other without entering into any room.
5. Fire and smoke doors at the entrances of all the staircase enclosures as marked in the plan at each floor level shall be provided. The F.C.D. shall be of at least one hour Fire resisting wire glass window fitted with self-closing type openable in the direction of escape.

D. LIFT :

1. The walls of the lift enclosure shall be at least two hours Fire resisting type. Collapsible gate shall not be permitted.
2. One of the lift shall be designed for Fire Lift. The word "FIRE LIFT" shall conspicuously written at ground floor.

E. BASEMENT:

1. The Basements shall be adequately ventilated.
2. Mechanical smoke venting arrangements shall be provided to the entire basement area conforming the I.S. Specification. The system shall be of such design as to operate on actuation of heat/smoke sensitive detector or sprinkling. It shall also have an arrangement to start it manually.
3. Additional Staircase from the open Air as shown in the drawing shall be constructed beside the ramp conforming relevant I.S. specification.
4. The entire basement shall be protected with Auto Sprinkler System / Hose Reel Hose conforming to I.S. 3844-1989.

F. FIRE FIGHTING WATER :

Underground water reservoir having water capacity at 40,000Ltrs. and overhead reservoir of 10,000Ltrs. capacity exclusively for Fire Fighting purpose with replenishing arrangement @ 1000 Ltrs./Min. preferably from two different sources of water supply shall be provided. The Fire Water Reservoir shall have overflow arrangement with the domestic Water Reservoir as well as to avoid stagnancy of water. The water reservoir shall be kept full at all time.

G. HYDRANT SYSTEM :

1. The building shall be provided with Wet Riser of 150 mm internal diameter pipe line with provision of landing valves at the staircase landing/half landings at the rate of one such riser for 1000 Sq.Mt. of floor area. The system shall be so designed that be kept charged with Water all the time under pressure and capable to discharge 2280 Ltrs./Min. at the ground floor level outlet and minimum 900 Ltrs./Min. at the top most outlet. In both cases the running pressure shall not be less than 3.5 Kgs./Sq.cm. All other requirements shall conform I.S. 3844-1989.
2. Provision for Hose Reel in conjunction with Wet Riser shall be made at each floor level conforming the relevant I.S. specification.
3. Yard Hydrant/Ring Main Hydrant with provision of two numbers Hydrant along with one number Fire Service inlet.
4. Proper replenishing arrangement shall have to be made to keep the O.H.W.R. full at all time.

H. SPRINKLER INSTALLATION :

The automatic Sprinkler installation shall be provided in basement and all floor areas except residential portion of the building as per I.S. 9972. Alarm gang to be incorporated along with the sprinkler system.

I. FIRE PUMP :

Provision of the Fire Pump 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 building. One such pump shall always be kept on Stand-by preferably be of diesel driven type.

A separate fire pump shall preferably be made for the total Sprinkler installation of the building. Provision of Jockey Pump 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.

J. 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 the I.S. specification 1946-1982.
2. The vertical and horizontal ducts shall be supply sealed at alternative floor level.
3. The electrical installation shall be adequately protected with CO2/D.C.P. or Medium Velocity Projector System.
4. Alternative Power Supply :
   Arrangements shall have to be made to supply power with help of a generator to operate at least the Fire Pump, Pump for deep Tube-well, Fire Alarm System, Fire Lift etc. and also for illuminating the Staircase, Corridors etc. and other places of assembly of the building incase of normal power failure.

K. DETECTION, ALARM AND SUPPRESSION SYSTEM :

1. Manually operated Electrical Fire Alarm System with at least three numbers of break glass type call boxes fitted with Hooters along with public address system, talk back 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.
2. Auto Fire Detection System with the help of heat and smoke detector shall be installed in all places of below and preferably above false ceiling of the building except residential portion. The system shall also be made in places of rooms where valuable articles have been kept. The other requirements of the system shall be made in accordance with I.S. 2189-1988.
3. The suppression system shall be made with fire extinguishers and total flooding system with Co_2 / F.M. – 200 particularly in computer and electrical processing and data room and also in a room of irreplaceable articles.
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.

L. AIR CONDITIONING SYSTEM : (if any)

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.

M. 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.

N. 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. Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
3. Floor numbers and directional sign of escape route shall be displayed prominently.
4. The employees and security staff shall be conversant with installed Fire Fighting equipments of the building and to operate in the event of Fire and Testing.
5. 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.
6. A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the building.
7. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of the building.
8. Disposable type B.A. musks to be kept always for emergency fire situation.

Each year a certificate is to be obtained from the **Director General, West Bengal Fire & Emergency Services** certifying about the satisfactory services, performances of all 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; Final N.O.C. 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 (In-charge)
FIRE PREVENTION WING
WEST BENGAL FIRE & EMERGENCY SERVICES