

PROVISIONAL FIRE NOC - GREENWOOD NEST

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/ 6714/16 /24Pgs.(N)-RB/1151/16(1151/16) Date: 18.10.16

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

To : The GM - Electric
Bengal Shrachi Housing Development Ltd.
686 Anandapur, Shrachi Tower
Kolkata - 700 107



Subject : Fire Safety Recommendation for proposed construction of a Residential Complex comprising 2 nos. B+G+XII storied HIG, 1 no.G + XII storied HIG, 2 nos. G + XII storied MIG, 1 no. G + XII storied LIG & 2 nos. G + IV storied LIG Buildings under group Residential Building at the Premises No. - R.S. / L.R. Dag No. - 3085, R.S. Khatian No. - 1215, Mouza - Ghuni, J.L. No.- 23, P.S. - New Town, District - 24 Pgs.(N).

This is in reference to your letter No. - Fire /GWN/218 dated 07.09.2016 regarding Fire Safety recommendation for proposed construction of Residential Complex comprising 2 nos. B+G+XII storied HIG, 1 no.G + XII storied HIG, 2 nos. G + XII storied MIG, 1 no. G + XII storied LIG & 2 nos. G + IV storied LIG Buildings under group Residential Building at the Premises No. - R.S. / L.R. Dag No. - 3085, R.S. Khatian No. - 1215, Mouza - Ghuni, J.L. No.- 23, P.S. - New Town, District - 24 Pgs.(N).

The plan drawings submitted by you were 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.

Encl. :

1. One set of plan.
2. Recommendation.

← Refers with Shri Sandip Paul.

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

RECOMMENDATION

A. CONSTRUCTION :

1. The whole construction of the building shall be carried out as per approved plan drawings conforming the relevant building rules of The New Town Kolkata Planning Area (Building) Rules.
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 with 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 & the doors of service ducts / shafts of 2 hr. fire rating.

B. OPEN SPACE & APPROACH :

1. The open space surrounding the building shall be kept clear open to sky and shall conform the relevant building rules as well as permit the easy accessibility and manoeuvrability of Fire appliances with turning facility.
2. The approach roads & internal drive ways 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 of each building shall be designed for Fire Lift. The word "FIRE LIFT" shall conspicuously written at ground floor.
3. All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.
4. Alternate source of power supply shall be provided for all lifts through manually operated change over switch.

E. REFUGE AREA :

1. Refuge area is not less than 15sqm. or an area equivalent to 0.3 m² per person to accommodate the occupants of two consecutive floors, whichever is higher, shall be provided on the external wall with cantilever projection or other suitable means at the height of 23.325 mts. level for Block -1 to 5 & 24.492 mts. level for Block - 8 buildings as shown in the drawing.
2. The refuge area shall be of Fire Resisting construction and protected with self closing F.C.D. at the entrance from the corridor or the staircase lobbies.
3. The position of Refuge areas shall be such that they are negotiable by the fire service ladder in such a manner for easy operation of hydraulic platform from the ground level.

F. HALL :

1. The doors/aisles/gangway/cross gangways/sitting arrangements in hall etc. shall be made as per good practice of N.B.C. part-IV fire protection.

G. BASEMENT:

1. The Basement shall be adequately ventilated with aggregate cross sectional area of not less than 2.5% of the area spread evenly round the perimeter of the basement shall be provided in the form of grills.
2. Mechanical extractor for smoke venting arrangements shall be provided to the entire basement 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. The entire basement shall be protected with Auto Sprinkler System / Hose Reel Hose conforming to I.S. 3844-1989.
4. The staircase of basement shall be of enclosed type having Fire resistance of not less than 4 hrs. and shall be situated at the periphery of the basement to be entered at ground level only from the open air and in such position that smoke from any Fire in the basement shall not obstruct any exit having the ground & upper floor of the building.
5. Mechanical extractors shall have an alternative source of supply.
6. 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 / sprinklers.



7. Mechanical extractors shall be designed to permit 30 Air changes per hour in case of Fire or distress call.
8. If cut-outs are provided from basement, all side cut-outs openings in the basement shall be protected by sprinklers at close spacing as per N.B.C. Part- IV.

H. FIRE FIGHTING WATER :

1. Underground Water Reservoir exclusively for Fire Fighting operation minimum 2,50,000 lts. & 25,000 lts. O.H.W.R. as shown in the plan to be kept full at all time.
2. The Fire water reservoir shall be have overflow arrangement with the domestic reservoir to avoid stagnancy of water.
3. Provision of necessary manhole shall be made on the top of the reservoir as per specification.
4. Provision of replenishment at the rate of at least 1000 lts./min. from two separate source of water supplies shall be made.
5. The deep tube wells for the replenishment of the reservoir shall be incorporated with dual power supply units.
6. Provision of placing Fire Appliances on the underground water reservoir to be made to draw water in case of emergency.

I. WATER LAYOUT SYSTEM :

a. Ring Main Hydrant System :

1. 200 mm dia Ring Main water layout arrangement along with adequate nos. 3 way Fire Service inlet covering the entire premises of the project with provision of pillar type yard hydrants with door hose boxes to be installed conforming I. S. 3844 – 1989 as amended up to date.
2. The system shall be so designed that shall always be kept charged with water under pressure and capable to discharge min. 2850 lts. / min. at the pressure 3.5kg /cm² at terrace level..

b. Wet Riser & Hose Reels System :

1. The buildings shall be provided with 150 mm dia Wet Riser provision of outlets in each floor at the staircases landings / half landings with door hose boxes as per suitable at the rate of one such Wet Riser and Hose Reel per 1000sq.m. of floor area.
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. All other requirements of the water base Fire Protection System shall be made as per I. S. Specification 3844 – 1944 (with up to date amendment).

J. SPRINKLER INSTALLATION :

1. The automatic Sprinkler installation shall be provided in basement areas and all floor areas of the Community Hall areas, Gymnasium area as per I.S. 9972. Alarm gang to be incorporated along with the sprinkler system.



K. FIRE PUMP :

1. 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.
2. Separate Fire Pump shall be made for the total Sprinkler installation of the buildings. 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 be of positive type.

L. 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 electrical ducts shall be supply sealed at all 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 in case of normal power failure.

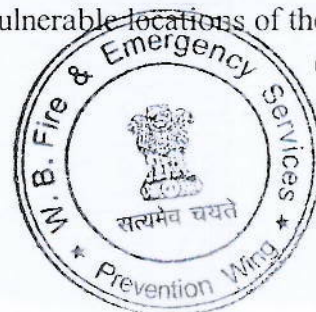
M. INTELLIGENCE ANALOGUE SYSTEM :

1. Auto Fire Alarm System with analogue addressable smoke / heat detectors as per suitability shall be installed in basement areas and all floor area of Community Hall areas, Gymnasium & Lobby areas of the Residential building except Block – 6 & 7 including the spaces above false ceiling.
2. Addressable analogue manual call boxes incorporating with sounders shall be installed in all the floor area of the buildings in such a manner that maximum travel distance shall not be more than 22.5m in order to reach any of the call point.
3. Micro Processor based fire alarm panel shall be installed and all shall also be connected with main panel at the Fire Control Room of the premises.
4. Both way Public address system linked between all floors and Control Room shall have to be established.
5. All the installation shall also satisfy the I.S. Specification 2189 as amended and the code of practice as laid down in N.B.C. part- IV.

N. 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

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made in accordance with I.S. 2190-1992.

O. 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. Lightning protection for buildings shall be provided as per Part 8 'Building Services', Section 2 Electrical installations.
3. Fire Notice for Fire Fighting and evacuation from the buildings shall be prepared and be displayed at all vulnerable places of the buildings.
4. Floor numbers and directional sign of escape route shall be displayed prominently.
5. 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.
6. Arrangement shall be made for regular checking, testing and proper maintenance of all the Fire Safety installation and equipments installed in the buildings to keep them in perfectly good working conditions at all times.
7. A crew of trained Fireman under the experienced Officer shall be maintained round the clock for safety of the buildings.
8. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of the buildings.
9. Close circuit T.V. shall have to be provided for the entire floor area including the basement area of the buildings.
10. Disposable type B. A. musks to be kept always at all floor levels for emergency fire situation.
11. After obtaining Fire Safety Certificate, 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 Fire Safety arrangements and installation of the building.

On compliance of all the above Fire Safety recommendations, the **Director General, West Bengal Fire & Emergency Services** shall be approached for necessary inspection and testing of the installation before occupancy of the buildings; 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 buildings.

N.B. : Any deviation and changes the nature of use of the buildings in respect of the approved plan drawings, without obtaining prior permission from this office, this Fire Safety Recommendation will be treated as cancelled.



[Signature]
DIRECTOR(In-Charge)
FIRE PREVENTION WING
WEST BENGAL FIRE & EMERGENCY SERVICES