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Government of West Bengal
Office of the Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata – 16

Memo No.: FSR/0125186218700300 **Date : 22-01-2025**

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

To :
CHOWRINGHEE PLANNERS LLP
NEW PROPOSED

Sub : Revised Fire Safety Recommendation for Proposed 2B+G+ Intermediate + XXXXII storied Residential Project at the premises no. 54 Chowringhee Road, Ward No-63, Borough- VII, PS- Shakespeare Sarani under KMC, Kolkata-700071..

Memo No.: FSR/0125186218700300

This is in reference to your AIN 211882406300001225 dated 16-Dec-2024 regarding the Revised Fire Safety Recommendation for Proposed 2B+G+ Intermediate + XXXXII storied Residential Project at the premises no. 54 Chowringhee Road, Ward No-63, Borough- VII, PS- Shakespeare Sarani under KMC, Kolkata-700071..

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 office is issuing Revised Fire Safety Recommendation in favor of the aforesaid building subject to the compliance of the

Recommendation :

This Revised Fire Safety Recommendation is issued subject to the compliance of all the fire safety measures as per the previously issued Revised Fire Safety Recommendation vide Memo no. FSR/0125186218700300 Dt. 09/10/2024 which shall remain same and strictly to be followed.

AMBA HIGHRISE PRIVATE LIMITED

Director

Signature valid
Digitally Signed.
Name: ABHIJIT PANDEY
Date: 22-Jan-2025 14:26:52
Reason: D-Sign
Location: E-Dist 2.0

Director
West Bengal Fire and Emergency Services

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Government of West Bengal
Office of the Director General
West Bengal Fire & Emergency Services
13D, Mirza Ghalib Street, Kolkata – 16

Memo No.: FSR/0125186218700300 **Date : 09-10-2024**

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

To :
CHOWRINGHEE PLANNERS LLP
ADDITION OF 2B+G+46 STORIED RESIDNETIAL BUILDING

Sub : Revised Fire Safety Recommendation in favour of proposed 2B+G+46 storied Residential Building and existing B+G+IV storied Institutional Building at 54, Chowringhee Road, Ward No- 63, Borough- VII, PS- Shakespeare Sarani under KMC, Kolkata- 700071..

Memo No.: FSR/0125186218700300

This is in reference to your AIN 211882406300000689 dated 14-Aug-2024 regarding the Revised Fire Safety Recommendation in favour of proposed 2B+G+46 storied Residential Building and existing B+G+IV storied Institutional Building at 54, Chowringhee Road, Ward No- 63, Borough- VII, PS- Shakespeare Sarani under KMC, Kolkata- 700071..

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 office is issuing Revised Fire Safety Recommendation in favor of the aforesaid building subject to the compliance of the

Recommendation :

CONSTRUCTION:
1. The whole construction of the proposed Residential Building shall be carried out as per approved plan drawings conforming the relevant building rules of KMC.
2. The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
3. Arrangements shall have to be made for sealing of all the vertical & horizontal ducts by the materials

AMBA HIGHRISE PRIVATE LIMITED

Director

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of adequate Fire resisting capacity at each floor.

OPEN SPACE & APPROACH:

1. The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and manoeuvrability of Fire appliance including Aerial Ladders with turning facility.
2. The approach roads, internal road / driveway and dedicated clear open space for placing of Fire Service Aerial Ladder of areas 9 M X 15 M as shown in plan, shall be sufficiently strong to withstand the load of Fire Engine weighing up to 45 M.T.
3. The width and height of the access gate into the premises shall not be less than 6M & 6 M (width & height) respecting the abutting road.

STAIRCASE:

1. Both the principal staircases of 1.5 M width of flight each of residential building shall be of pressurised Type. A positive pressure of 25-30 pa. shall be maintained inside the staircases.
2. One of the principal staircase of 1.5 M width of flight of residential building shall conform all criteria of Fire Fighting Shaft as per NBC Part-4 2016.
3. The staircases of the buildings 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.
4. The main staircases of the buildings shall have permanent vents at the top equal to 5% of the cross sectional area of the staircase enclosures and open able sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.
5. All the principal staircase of the building (1.5M) shall be negotiable to each other in each floor without entering into any room and shall be extended up to respective terrace. The roof of the stair wall shall be 1M above the surrounding roof area.
6. The width of the staircases and corridor and travel distance of different categories of occupancies shall have to conform the relevant building rules.
4. Fire and Smoke check doors at each the entrances of all the Staircases of both the buildings enclosures marked in the plan at each floor level shall be provided. The F.C.D. shall be of at least two hours Fire resisting wire glass window fitted with self closing type open able in the direction of escape.
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.

LIFT:

1. The walls of the lift enclosure of the buildings shall be at least two hours FIRE resisting type and all the lift shafts shall be pressurized as per existing norms and provision of NBC Part 4, 2016.
2. The lifts of the residential building shall be designed at high speed "FIRE LIFT" and shall be conspicuously indicated / marked.

Memo No.: PSR/012318621875/0300

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, lifts shall automatically trip over alternate power supply.
4. Emergency and Alternate arrangements (in case of failure of pressurization system) shall be provided for extraction of smoke in all the lift shaft & Lobbies by incorporation smoke venting system designed to permit 30 Air changes per hour in case of Fire and shall be of such design as to operate on actuation of Sprinkler or Fire Alarm. In case of failure of normal electric supply, it shall automatically trip to alternate supply.
5. Exit doors of the lift lobby shall be through a self- closing smoke stop door of 2 hours fire resistance for buildings.
6. The speed of the fire lifts in the building shall be such that it can reach the top from the ground floor within 2 minutes in visual indications of floor numbers shall incorporated in the lift cars.
7. A positive pressure of 25 to 30 Pa. shall be maintained inside the lift wall and lift lobby.
8. All Lift Lobbies shall be enclosed type and pressurized as per existing norms and relevant I.S. specification. The Lifts runs towards basements shall be pressurized. A positive pressure of 25 to 30 Pa. shall be maintained inside the lift wall and lobby as per provision of NBC Part 4, 2016.
9. The fixed glass at the lift lobby on the East side of the residential building shall be of two hours FIRE resisting type.
10. 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.

FIREFIGHTING SHAFT:

1 no Pressurized Fire fighting Shaft will have to be provided as per NBC Part-4, 2016 Clause 2.24 in the

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residential building.

REFUGE AREA:

1. The Refuge areas shall be provided in the residential building on the external wall as cantilever projection from the building, as shown in plan drawings at the half landings of 3rd & 4th floor (25.53 M); 7th & 8th floor (40.65 M); 11th & 12th floor (55.65 M); 15th & 16th floor (70.65 M); 19th & 20th floor (85.65 M); 23rd & 24th floor (99.95 M); 27th & 28th floor (116.9 M); 31st & 32nd floor (131.9 M); 35th & 36th floor (146.9 M); 39th & 40th floor (161.9 M); 43rd & 44th floor (176.9 M);of area not less than 15 sq m each.
2. The refuge areas shall be of Fire resisting construction and protected with self-closing F.C.D. at the entrance from the staircase half landings.
3. The position of refuge Areas shall be such that they are negotiable by the Fire service Aerial Ladder from the ground floor.

BASEMENTS: (Lower & Upper)

1. Basements shall not be used other than Car Parking.
2. The Basements 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.
3. Mechanical smoke venting arrangements shall be provided to all the basements conforming the I.S. Specification.
4. The exit from the basement shall be form open Air and from any points the travel distance shall not be exceeded.
5. Both the basements shall be protected with Automatic Sprinkler System with Hydrants and Hose Reel Hoses conforming to I.S. 3844-1989.
6. Heat detector/CO sensor will have to be provided at basement.
7. 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 positions that smoke from any Fire in the basement shall not obstruct any exit having the ground upper floor of the building.
8. Mechanical extractors shall have an alternative source of supply.
9. 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/co sensors.
10. The Lifts runs towards basement shall be pressurized. A positive pressure of 25 to 30 Pa. shall be maintained inside the lift well and lobby. The pressurization shall be maintained round the clock.

MULTI LAYER AUTOMATED MECHANIZED CAR PARKING SYSTEM: (8 layer)

1. M.L.C.P. shall be constructed of structural steel construction.
2. M.L.C.P. having Multi Car Parking level, vertical Fire separation between the upper and lower decks by using non-perforated and non-combustible materials (Structural Steel Plate) shall be provided.
3. Proper drainage system shall have to be provided for accidental leaking of oil from the Car and sand bed shall be provided at the Ground level.
4. Access way shall be provided for the Fire Engine to gain access to the entrance and exit of car parking.
5. Fire hydrants are to be provided in accordance with the provision of NBC Part 4, 2016 and relevant I.S. specification.
6. Each car parking deck shall be provided with at least 50% external ventilation openings of the perimeter wall areas and uniformly distributed.
7. Open Type Sprinkler along with detectors shall be provided in all M.L.C.P. areas as per relevant I. S. Specification.
8. Cross zone wise Sprinkler system shall have to be implemented.
9. MLCP shall have to be provided with both Mechanical and Manual type operating system.

FIRE FIGHTING WATER:

1. Under Ground Water Reservoir for FIRE having 2,00,000 L capacity shall be provided as shown in plan drawing.
2. Over Head Water Reservoir for FIRE having 20,000 L capacity as shown in the plan drawings shall be kept full at all time.
3. Intermediate Static Water Storage Tank of 1,00,000 L capacity (Half of the capacity of Under Ground Water Reservoir) shall be provided at any floors at 160 M to 180 M as per suitability.
4. Provision of replenishment of Under Ground Water Reservoir at the rate of at least 3000 lts./min. from

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two separate sources of water supply shall be made.
5. Intermediate Static Water Storage Tank shall be supplemented with water supplies through one working & one stand by pump of capacity 2850 lts./min. with two risers at alternate locations feeding to such fire water static storage tank.
6. The deep tube wells for the replenishment of the reservoirs shall be incorporated with auto starting facility with actuation of auto detection and suppression arrangement of the premises and shall also be connected with duel power supply units.
7. Under Ground & Over Head Water Reservoirs shall have overflow arrangement with the domestic water reservoirs as well as to avoid stagnancy of water.
8. Provision of necessary manhole shall be made on the top of the reservoirs as per specification.
9. Provision of placing Fire Appliances near the underground water reservoir to be made to draw water in case of emergency.

FIRE PUMP: (AT LOWER BASEMENT)
1. Provision of 2850 LPM capacity multi stage multi outlet / variable frequency Fire Hydrant Pump for creating different pressure zones 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.
2. Provision of separate 2850 LPM capacity multi stage multi outlet/ variable frequency Fire Pump for creating different pressure zones for Sprinkler system shall have to be made to keep the Water based system under pressurized condition at all the time.
3. One common diesel driven multi stage multi outlet/ variable frequency type pump of 2850 LPM capacity for creating different pressure zones shall always be kept on stand-by.
4. Provision of 2 nos multi stage multi outlet Jockey Pumps (Hydrant & Sprinkler) for creating different pressure zones shall also be provided to keep the Water based system under pressurized condition at all the time.
5. 2 nos pumps of 2850 LPM capacity shall be provided for replenishment of Intermediate Static Water Storage Tank.
6. All the pumps shall be incorporated with both manual and auto starting facilities.
7. 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.

FIRE PUMP: (FOR INTERMEDIATE FIRE WATER STORAGE TANK)
1. Provision of 2850 LPM capacity Fire Hydrant Pump shall to be provided to supply water at the rate-designed pressure and discharge into the Water based system.
2. Provision of separate 2850 LPM capacity Fire Pump for Sprinkler system shall have to be made to keep the Water based system under pressurized condition at all the time.
3. One common electric driven pump of 2850 LPM capacity for creating shall always be kept on stand-by.
4. Provision of 2 nos Jockey Pumps (Hydrant & Sprinkler) for creating pressure zones shall also be provided to keep the Water based system under pressurized condition at all the time.
5. All the pumps shall be incorporated with both manual and auto starting facilities.

Memo No: ESS/2025186218700300

WATER LAYOUT SYSTEM:
1. The buildings shall be provided with Wet Riser of 200/150 mm. internal diameter Pipe Line with provision of landing valves at the Staircase landings / half landings of both the buildings at the rate of one such riser for 1000 Sq.m. of floor area. 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 furthest outlet. In both cases the running pressure shall not be less than 3.5 Kgs/Sq.cm. All other requirements shall conforming I.S. 3844 – 1989.
2. Hydrant risers of the residential building will have to be divided in different pressure zones.
3. Provision for Hose Reel units on swivelling drum in conjunction with Wet Riser shall be made near each lading valves.
4. Ring Main with provision of adequate numbers Pillar type Hydrant shall be installed covering both the buildings and in the vicinity of MLCP in accordance with relevant I.S. specifications.
5. Provision of three/four way collecting head for uses of Fire Services must be provided at the entrance of the premises.
6. Pressure gauge & Air release valve at the top of each riser will have to be provided.

SPRINKLER INSTALLATION:
1. The automatic Sprinkler installation shall be provided in both the buildings in all floor areas including both the basements and inside the apartments of the residential building, as per I.S. 15105 and alarm gong

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to be incorporated along with the sprinkler system.
2. The sprinklers of the residential building shall be fed from main & an alternative/stand by riser with suitable isolation valves.
3. Sprinkler risers of the residential building will have to be divided in different pressure zones.
4. Drain line from each floor of each sprinkler riser will have to be provided to avoid stagnancy of water in the sprinkler line.
5. A test line with atleast two nos of sprinkler head from each sprinkler riser connected with ON/OFF valve at terrace level of both buildings will have to be provided for periodical checking & testing.
6. Pressure gauge & Air release valve at the top of each sprinkler riser of both buildings will have to be provided.

ELECTRICAL INSTALLATION & DISTRIBUTION:

1. The electrical installation including Dry type transformers, Switch Gears, L. T., H. T. Rooms, panel rooms , 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 electrical installation shall be adequately protected with automatic fire detection and suppression system as per provision of N. B. C. Part– 4, 2016 and relevant I. S. specification.
3. High Velocity Water Projector system shall have to be provided for protection of oil cooled type Transformer, if any.
4. The vertical & horizontal ducts shall be sealed at all floor level by approved fire resisting materials.
5. Alternative Power Supply :

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

INTELLIGENCE ANALOGUE SYSTEM:

1. Auto Fire Alarm System with analogue addressable smoke / heat detectors/CO Sensors as per suitability (below & above false ceiling) shall be installed in all floor areas including both basements & inside the apartments of the building.
2. Addressable analogue manual call boxes incorporating with sounders shall be installed in all floors area of the building in such a manner that maximum travel distance shall not be more than 22.5 m in order to reach any of the call point.
3. LPG leak detectors shall be provided at every usage points of the residential building and shall also be integrated with main Fire panel of the buildings. The cables used for signaling shall be circuit integrity cables.
4. Micro Processor based fire alarm panel shall be installed and all shall also be connected with main panel at the Fire Command Centre of the premises having direct dialing facility to the local fire service unit.
5. Both way public address & talk back systems linked between all floors including Fire pump rooms and Fire Command Centre shall have to be established.
6. All the installations shall also be satisfy the I.S. specifications 2189 (as amended) and the code of practice as laid down in the N.B.C. Part-4, 2016.
7. C. C. Camera & Public Address System :

Public address system linked between all floors and Fire Control Room shall have to be established.

FIRE COMMAND CENTRE (FCC) :

1. A Fire Command Centre conforming all requirements as per clause 3.4.12 of NBC Parrt-4, 2016 shall be established.
2. A clear policy for emergency evacuation plan will have to be prepared.

AIR CONDITIONING SYSTEM (IF ANY):

1. The AHU 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 AHU 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 a rounding 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

Memo No.: FSR/012518821870306

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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. The air handling units shall be separation for each floor, and air ducts for every floor shall be separated and in no way interconnected with the ducting of any other floor.
11. If the air handling units serve more than 1 floor, the recommendation given above shall be complied with in addition to the conditions given below:-
i. Proper arrangements by way of automatic fire dampers working on fuse able link for isolating all ducting at every floor from the main riser shall be made.
ii. When the automatic fire alarm operates the respective air handling units of the air conditioning system shall automatically switched off.
12. The vertical shaft for treated fresh air shall be of masonry construction.
13. The air filters for air handling units shall be of non-combustible materials.
14. Inspection panel shall be provided in the main trucking to facility the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.

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 (if any).
2. The LPG lines shall not be installed through any electrical shafts, escape routes, refuge areas/refuge floors.
3. Necessary sanction and approval for such construction and occupancy of this project must be obtained from competent authorities.
4. Lightning arrestor shall have to be installed as per existing norms and relevant IS specification.
5. Fire Notice for Fire Fighting and evacuation from the building shall be prepared and be displayed at all vulnerable places of the building.
6. Floor numbers and directional sign of escape route shall be displayed prominently.
7. The employees and security staff shall be conversant with installed Fire Fighting equipment of the building and to operate in the event of Fire and Testing.
8. 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.
9. This Fire Safety Recommendation cannot be treated in any case of regularizations of any unauthorized construction.
10. The management of the organization / building, as the case may be, shall maintain the fire prevention and safety measures in good repair and in efficient condition at all the times, which are installed in the building for use at the time of fire or other emergencies.
11. A crew of trained Fireman under an experienced officer shall be maintained round the clock for safety of the building.
12. Mock Fire practice and evacuation drill shall be performed periodically with participation of all occupants of building.
13. Earlier issued Fire Safety Recommendation vide this office memo no. FSR/0125186218700300 Dt. 29.06.2021 will be treated as cancelled.
14. Accordingly, 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.
15. 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 buildings in respect of the approved plan drawing, without obtaining prior permission from this office, this Fire Safety Recommendation shall be treated as cancelled.

AMBA HIGHRISE PRIVATE LIMITED

Director

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Memo No.: FSR/0125186218700300

AMBA HIGHRISE PRIVATE LIMITED

Director

Signature Not Verified

Digitally Signed.
Name: ABHIJIT PANDEY
Date: 09-Oct-2024 13:34:00
Reason: D-Sign
Location: E-Dist 2.0

Director

West Bengal Fire and Emergency Services

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