

GOVERNMENT OF TELANGANA STATE DISASTER RESPONSE & FIRE SERVICES DEPARTMENT



From

The Regional Fire Officer Central Region, State Disaster Response and Fire Services, Telangana, Hyderabad. To.

Sarala,

Kennedy High The magnet School, {Run by kennedy educational academy}. Pl.no. 14 to 22, Mytrinagar, Behind metro cash n Carry,

Kukatpally Mandal Medchal Malkajgiri District.

| | Ack, No.345370002022 Dated:26/04/2022 | | |
|------|--|--|--|
| Sir, | | | |
| Sub: | TELANGANA STATE DISASTER RESPONSE & FIRE SERVICE DEPARTMENT –Kukatpally Division No Objection Certificate for Occupancy to the Multi storeyed Building of – Kennedy High The magnet School, {Run by kennedy educational academy}. Pl.no. 14 to 22, Mytrinagar, Behind metro cash n Carry, Kukatpally Mandal Medchal Malkajgiri District., Regarding. | | |
| Ref. | Acknowledgement No 345370002022 This Office NOC for Occupancy Ack/RC No.130 dt.26/04/2022 Multi storeyed Building Inspection Committee Report, Ack. No. 345370002020, dt. 26/04/2022 | | |

 The Multi storeyed Building Inspection committee, vide reference cited (3) has inspected the Multi storeyed Building of Kennedy High The magnet School, {Run by kennedy educational academy}. Pl.no. 14 to 22 Mytrinagar, Behind metro cash n Carry, Kukatpally Mandal, Medchal Malkajgiri district.

***** ***** ****

- 2) The above said building was issued No Objection certificate vide reference cited (2) for Multi storeyedBuilding with 1 Ground, 4 Floors, with a height of 14.90 Meters for EDUCATIONAL B-1 School Up to senior secondary leval Occupancy.
- 3) Now the Builder/Authorized person has requested to issue of No Objection Certificate for Occupancy to the Multi storeyed Building with 1 Ground, 4 Floors, with a height of 14.90 Meters for EDUCATIONAL B-1 School Up to senior secondary leval Occupancy.

Open Spaces: The builder provided the following open spaces all around the building.

| | SLNo | Side | Open spaces as per Noc occupancy | Open spaces provided now |
|---|--------|---------------------------------|----------------------------------|--------------------------|
| 3 | 1 | North | 6.00 | 6.00 |
| | 2 | South | 6.00 | 6.00 |
| | 3 | East | 6.00 | 6.00 |
| | 4 | West | 6.00 | 6.00 |
| Ь | Sl. No | Gate Width As per Occupancy NOC | as per Noc occupancy | provided now |
| | 1 | Entry gate width | 4,50 | 6 |
| | 2 | Entry Gate Head Clearance | 5.00 | 5 |
| | 3 | Exit Gate Width | 4.50 | 6 |
| | 4 5 | S va Gate Head Cearange | 5.00 | Aco |

KENNEDY HIGH the megnet School Mythri Negar, Kukatpally, Hyderabad-72.

KENNEDY HIGH-the magnetischoolivided Mythri Nagar, Kukatpally, Hydecahad 500 072 w

Floor Openings Fire Protection as per Clause 3.4.5.4 a) Openings in Service ducts and shafts allowing building services like cables, Electrical wirings, Telephone 1. cables, plumbing pipes etc., shall be protected by enclosure in the form of ducts / shaft having a fire resistant's not less than 120 min. b)The inspection door for electrical shafts / ducts have fire resistance rating of 120 min c)Medium and low voltage wiring running in shafts / ducts are armoured type or run through metal conduits. d)The space between the electrical cables/conduits and the walls/slabs are filled in by a fire stop material having fire resistance rating of not less than 120 min. This shall exclude requirement of fire stop sealing for low voltage services shaft. For plumbing shafts in the core of the building, with shaft door opening inside the building, the shafts shall have inspection doors having fire resistance rating not less than 30 min e)For plumbing shafts in the core of the building, with shaft door opening inside the building, the shafts shall have inspection doors having fire resistance rating not less than 30 min Vertical openings Fire Protection as per Clause- 3.4.5.6 a) Every vertical opening between the floors of a building is suitably enclosed or protected, as necessary, to provide the following: 2. Reasonable safety to the occupants while using the means of egress by preventing spread of fire, smoke, or fumes through vertical openings from floor to floor to allow occupants to complete their use of the means of egress. Further it shall be ensured to provide a clear height of 2 100 mm in the exit access. b) Limitation of damage to the building and its contents. Electrical Installation as per Clause - 3.4.6 (For requirements regarding installations from the point of view of fire safety, reference may be made to good practice [4(6)] and 8. Building Services, Section 2 Electrical and Allied Installations. Of the Code.) 3: a) In general, it is desirable that the wiring and cabling are with flame retardant property. Medium and low voltage wiring running in shafts and within false ceiling shall run in metal conduit. Any 230 V wiring for lighting or other services, above false ceiling, shall have 660 V grade insulation. b) The electric distribution cables/wiring are laid in a separate shaft. The shaft is sealed at every floor with fire stop materials having the same fire resistance as that of the floor. High, medium and low voltage wiring running in shaft and in false ceiling shall run in separate shaft/conduits. c) Water mains, gas pipes, telephone lines, intercom lines or any other service line shall not be laid in the duct for electrical cables; use of bus ducts/solid rising mains instead of cables is preferred. Emergency power for fire and life safety systems as per Clause- 3.4.6.2 Emergency power supplying distribution system for critical requirement for functioning of fire and life safety system and equipment planned for efficient and reliable power and control supply to the following systems and equipment is provided a) Fire pumps. b) Pressurization and smoke venting, including its ancillary systems such as dampers and actuators. c) Fire mans lifts (including all lifts). d) Exit signage lighting. e) Emergency lighting. f) Fire alarm system. g) Public address (PA) system (relating to emergency voice evacuation and annunciation). h) Magnetic door hold open devices. i) Lighting in fire command centre and security room j) Power supply to these systems and equipment shall be from normal and emergency (standby generator) power sources with changeover facility. If power supply, is from HV source and HV generation, the transformer should be planned in standby capacity to ensure continuity of power to such systems. k) Wherever transformers are installed at higher levels in buildings and backup DG sets are of higher voltage rating, then dual redundant cables shall be taken to all transformers. The generator shall be capable of taking starting current of all the fire and life safety systems and equipment as above.

Authority.

As alwayager

School from a separate substation fed from difficult is provided with the magnet school appropriate transformer for emergency, the provision of the magnet school from the magnet sc

I Die concretor stall be capable of taking starting current of all the fire and life wety systems and equipment

œ.

- iii) ensuring that fire alarm call points and firefighting equipment provided along the escape routes can be readily located.
- d) The horizontal luminance at floor level on the centreline of an escape route shall not be less than 10 lumen/m2. In addition, for escape routes up to 2 m wide, 50 percent of the route width shall be lit to a minimum of 5 lumen/m2. In auditoriums, theatres, concert halls and such other places of assembly, the illumination of floor exit/access may be reduced during period of performances to values not less than 2 lux.
- e) Required illumination shall be arranged such that the failure of any single lighting unit, such as the burning out of one luminaire, will not leave any area in darkness and does not impede the functioning of the system further.
- f) The emergency lighting shall be provided to be put on within 5 s of the failure of the normal lighting supply. Also, emergency lighting shall be able to maintain the required illumination level for a period of not less than 90 min in the event of failure of the normal lighting even for smaller premises.
- g) Battery pack emergency lighting, because of its limited duration and reliability, shall not be allowed to be used in lieu of a diesel engine driven emergency power supply.
- h) Escape lighting luminaires should be sited to cover the following locations: i) Near each intersection of corridors.
- ii) At exits and at each exit door,
- iii) Near each change of direction in the escape route,
- iv) Near each staircase so that each flight of stairs receives direct light,
- v) Near any other change of floor level,
- vi) Outside each final exit and close to it,
- vii) Near each fire alarm call point,
- viii) Near firefighting equipment, and
- ix) To illuminate exit and safety signs as required by the enforcing authority.
- i) The luminaires shall be mounted as low as possible, but at least 2 m above the floor level.
- j) Signs are required at all exits, emergency exits and escape routes, which should comply with the graphic requirements of the relevant Indian Standards.
- Exit passageway Provided as per clause 3.4.7.2. (at ground) and staircase lighting is to be connected to alternative supply. The alternative source of supply may be provided by battery continuously trickle charged from the electric mains
- Suitable arrangements as per clause 3.4.7.3 Installation of double throw switches to ensure that the lighting installed in the staircase and the corridor does not get connected to two sources of supply simultaneously.

Double throw switch shall be installed in the service room for terminating the stand-by supply.

Air Conditioning, Ventilation and Smoke Control as per clause – 3.4.8 Air conditioning and ventilating systems shall be so installed and maintained as to minimise the danger of spread of fire, smoke or fumes from one floor to other or from outside to any occupied building or structure. Wherever batteries are provided, the same shall be segregated by 120 min fire rated construction. Ventilation to the room shall be provided as per manufacturer's instructions.

Air handling unit as per Clause -3.4.8.2

a) From fire safety point of view, separate air handling units (AHU) for each floor shall be provided so as to avoid the hazards arising from spread of fire and smoke through the air conditioning ducts. The air ducts shall be separate from each AHU to its floor and in no way shall interconnect with the duct of any other floor. Within a floor it would be desirable to have separate air handling unit provided for each compartment.

Air handling unit shall be provided with effective means for preventing circulation of smoke through the system in the case of a fire in air filters or from other sources drawn into the system, and shall have smoke sensitive devices for actuation in accordance with the accepted standard [4(8)] and control.

b) As per Clause 3.4.8.2.2 Shafts or ducts, if penetrating multiple floors, shall be of masonry construction with fire damper in connecting ductwork or shall have fire rated ductwork with fire dampers at floor crossing. Asserticely, the fire and equipment may be installed in room having wills, do and fire damper in duct exiting entering the room of 120 min fire resistance rating. Such shafts and those shall have all passive fire

exiting entering the room of T20 min fire resistance rating. Such shafts and those shall have all passive fire KENNEDY HIGH the modern Settle and Representation of the floor from Mythri Nagapa Kalantoelly Abysters 1806 Floors through shaft/KENNEDY HIGH-the magnet school

c) As per Clause 3.4.8.2.3 The air filters of the air hands the hand are made of non-combustible materials.

- 4.2.9c) Doors in exits shall open in the direction of exit. In case of assembly buildings (Group D) and institutional buildings (Group C-1), exit door shall not open immediately upon a flight of stair and all such entries to the stair shall be through a landing, so that such doors do not impede movement of people descending from a higher floor when fully opened (see Fig. 4A). While for other occupancies, such doors shall not reduce the pathway in the landing by more than half the width of such staircase (see Fig. 4B). Overhead or sliding doors shall not be installed.
- 4.2.11d) Unless otherwise specified, all the exits and exit passageways to exit discharge shall have a clear ceiling height of at least 2.4 m. However, the height of exit door shall be at least 2.0 m (see Fig. 5).
- 4.2.16e) Suitable means shall be provided so that all access controlled exit doors, turnstiles, boom barriers and other such exits shall automatically operate to open mode during emergencies like fire, smoke, acts of terrorism, etc, so that people can safely and quickly egress into safe areas outside. If required, a master controlling device may be installed at a strategic location to achieve this.
- 4.2.17f) Penetrations into and openings through an exit are prohibited except those necessary like for the fire protection piping, ducts for pressurization and similar life safety services. Such openings as well as vertical passage of shaft through floors shall be protected by passive systems.

Exit Access as per Clause - 4.4.1

- a) In order to ensure that each element of the means of egress can be effectively utilized, they shall all be properly lit and marked. Lighting shall be provided with emergency power back-up in case of power failures. Also, exit signs of adequate size, marking, location, and lighting shall be provided so that all those unfamiliar with the location of the exits may safely find their way.
 - Exit access to fireman's lift and refuge area on the floor shall be step free and clearly signposted with the international symbol of accessibility.
 - c) Exit access shall not pass through storage rooms, closets or spaces used for similar purpose.
- Smoke control of exits as per Clause 4.4.2.5 The pressure difference for staircases shall be 50 Pa. Pressure differences for lobbies (or corridors) shall be between 25 Pa and 30 Pa. Further, the pressure differential for enclosed staircase adjacent to such lobby (or corridors) shall be 50 Pa. For enclosed staircases adjacent to nonpressurized lobby (or corridors), the pressure differential shall be 50 Pa.
- The normal air conditioning system and the pressurization system shall be designed and interfaced to meet the

requirements of emergency services. When the emergency pressurization is brought into action, the following changes in the normal air conditioning system shall be effected:

- a) Any re-circulation of air shall be stopped and all exhaust air vented to atmosphere.
- b) Any air supply to the spaces/areas other than exits shall be stopped.
- c) The exhaust system may be continued provided.
- i) The positions of the extraction grills permit a general air flow away from the means of egress;
- ii) The construction of the ductwork and fans is such that, it will not be rendered inoperable by hot gases and smoke; and
- iii) There is no danger of spread of smoke to other floors by the path of the extraction system which can be ensured by keeping the extraction fans running.
- For pressurized stair enclosure systems, the activation of the systems shall be initiated by signalling from fire alarm panel.
- Pressurization system shall be integrated and supervised with the automatic/manual fire alarm system for actuation
- 24. Wherever pressurized staircase is to be connected to unpressurized area, the two areas shall be segregated by 120 min fire resistant wall.
- 25. Fresh air intake for pressurization, shall be away (at least 4 m) from any of the exhaust outlets/grille.

Smoke Control as per clause - 4.6

- a) Smoke Exhaust and Pressurization of Areas Above Ground Corridors in exit access (exit access corridor) are created for meeting the requirement of use, privacy and layout in various occupancies. These are most often noted in hospitality, health care occupancies and sleeping accommodations.
 - b) Exit access corridors of guest rooms and indoor patient department/areas having patients lacking self preservation and for electrical accommodations such as apartments, customal, people and mental institutions, etc. ALANAGER ded with 60 min fire resistant wall and 20 min self-closed the doors along with all fire stop

Mythri Nagar, Kukatpally, Hyderabad-72.

Mythri Nagar, Kukatpally, Hyderabad-72.

C) Smoke exhaust system having make-up air and exhaust nagar, Kukatpally, Hyderabad-600 072 stem with supply air system for these exit access corridors shall be required.

4

 Smoke exhaust system having make-up air and exhaust air system for areas other than car parking shall be required for common areas and exit access corridor in basements/underground structures and shall be completely separate and independent of car parking areas and other mechanical areas. m) Supply air shall not be less than 5 m from any exhaust discharge openings. Fire Drills and Fire Orders are ensured as per clause - 4.11 Provided Fire notices/orders shall be prepared to fulfil the requirements of firefighting and evacuation from the buildings in the event of fire and other emergency. The occupants shall be made thoroughly conversant with their action in the event of emergency, by displaying fire notices at vantage points and also through regular training. Such notices should be displayed prominently in bold lettering. For guidelines for fire drills and evacuation procedures for high rise buildings, see Annex D. Fire Extinguishers/Fixed Firefighting Installations as per clause - 5.1 5.1.1 All buildings depending upon the occupancy use and height shall be protected by fire extinguishers, hose reels, wet riser, down-comer, yard hydrants, automatic sprinkler installation, deluge system, high/medium velocity water spray, foam, water mist systems, gaseous or dry powder system, manual/automatic fire alarm system, etc, in accordance with the provisions of various clauses given below, as applicable: a) These fire extinguishing equipment and their installation shall be in accordance with accepted standards [4(17)]. The extinguishers shall be mounted at a convenient height to enable its quick access and efficient use by all in the event of a fire incidence. The requirements of fire extinguishers/yard hydrant systems/wet riser/downcomer installation and capacity of water storage tanks and fire pumps, etc, shall be as specified in Table 7. The requirements regarding size of mains/risers shall be as given in Table 8. The typical arrangements of downcomer and wet riser installations are shown in Fig. 13. The wet riser shall be designed for zonal distribution ensuring that unduly high pressures are not developed in risers and hose-pipes. b) First-aid firefighting appliances shall be provided and installed in accordance with good practice [4(18)]. The firefighting equipment and accessories to be installed in buildings for use in firefighting shall also be in accordance with the accepted standard [4(17)] and shall be maintained periodically so as to ensure their perfect serviceability at all times. c) Valves in fixed firefighting installations shall have supervisory switch with its signalling to fire alarm panel or to have chain(s), pad lock(s), label and tamper-proof security tag(s) with serial number to prevent tampering/unauthorized operation. These valves shall be kept in their intended open position. d) In addition to wet riser or down-comer, first- aid hose reels shall be installed in buildings (where required under Table 7) on all the floors, in accordance with accepted standard [4(19)]. The first-aid hose reel shall be connected directly to the riser/down-comer main and diameter of the hose reel shall not be less than 19 mm. e) Wet risers shall be interconnected at terrace level to form a ring and cut-off shall be provided for each connection to enable repair/ maintenance without affecting rest of the system. f) Pressure at the hydraulically remote hydrant and at the highest hydrant shall not be less than 3.5 bar. The pressure at the hydrants shall however not exceed 7.0 bar, considering the safety of operators. It may be planned to provide orifice plates for landing valves to control pressure to desired limit especially at lower levels; this could also be achieved through other suitable means of pressure reducing devices such as pressure controlled hydrant valves. g) Hydrants for firefighting and hose reels shall be located in the lobby in firefighting shaft. Those hydrants

28.

29.

g) Hydrants for firefighting and hose reels shall be located in the lobby in firefighting shaft. Those hydrants planned to be provided near fire exit staircase on the floor shall be within 5 m from exit door in exit access. Such hydrant cabinet may finish with doors to meet interior finishes with requirement of glass panel to provide visibility to the installations inside and inscribed with the word: FIRE HOSE CABINET of letter size 75 mm in height and 12 mm in width. Such door of the fire hose cabinet need not be fire resistant rated. The location of such cabinets shall be shown on floor plan and duly displayed in the landing of the respective fire exit staircase.

Static water storage tanks as per clause – 5.1.2.1

a) firefighting shall always be available in the form of underground/terrace level static storage tank with capacity specified for each building with arrangements or replenishment.

b) Water for the hydrant services shall be stored in an easily accessible surface/underground lined reservoir or alove ground tanks of steel, concrete or masonry. The effective capacity of the reservoir above the top of the pump casing (flooded species) for various types of occupancies shall be a surfaced in Table 7.
KENNEDY WIGH Transping shall be stored in two or more interconnected company and size to facilitate

KENNEDY HIGH the magnet School fored in two or more interconnected compresses of equal size to facility the magnetic achool Mythri Nagar, Kukatpally, Hyderabad-500 072

- e) In areas having height 17 m or above such as in atria, sprinkler installations may be rendered ineffective and hence may be avoided.
- f) Pressure in sprinkler system shall not exceed 12 bar or else high pressure sprinkler to be installed for above 12 bar operations.
- g) The maximum floor area on any one floor to be protected by sprinklers supplied by any one sprinkler system riser from an installation control valve shall be based on system protection area limitations considering maximum floor area on any one floor to be 4 500 m2 for all occupancies except industrial and hazardous occupancies, where Authorities shall be consulted for advice based on type and nature of risk.
- h) Sprinkler installation control valves, shall be installed inside the fire pump room.
- i) For industrial buildings, such installation control valves may be installed outside the building and Authorities shall be consulted in situations where it is not possible to locate them inside the buildings. It is advisable to provide lectrically operated siren for each valve outside the buildings in addition to water gongs in such case.
- i) The sprinkler flow switches provided shall be monitored by fire alarm panel.
- k) It is essential to make provisions for avoiding water from sprinkler/hydrant operation entering lifts and electrical rooms.
- 1) Ramps at all levels shall be protected with sprinklers.

Automatic High Velocity and Medium Velocity Water Spray Systems as per clause 5.1.4 Automatic high velocity water spray or emulsifying system shall be provided for protection of outdoor and/or indoor oil-cooled transformers as applicable in accordance with good practice [4(21)] where applicable (see Annex E). Also, medium velocity water spray system shall be provided for tankage (where applicable), conveyors, cable galleries and other occupancies listed in good practice [4(21)].

Fire Fighting shaft as per E-2 of Annexure E of part 4 NBC of India 2016 EGRESS AND EVACUATION STRATEGY

- a) One firefighting shaft shall be planned for each residential building/tower, in an educational building/ block, and for each compartment of institutional, assembly, business and mercantile occupancy types. For other occupancy types, requirement of fire fighting shaft shall be ascertained in consultation with the local fire authority. The firefighting shaft shall necessarily have connectivity directly to exit discharge or through exit passageway (having 120 min fire resistance walls) to exit discharge.
 - b) Staircase and fire lift lobby of a firefighting shaft shall be smoke controlled as per 4.4.2.5 and Table 6.
 - c) It is recommended that the pressurization requirement for staircase in firefighting shaft and for other fire exit staircases in buildings greater than 60 m in height be evaluated to limit the force required to operate the door assembly (in the direction of door opening) to not more than 133 N to set the door leaf in motion. The aspect of pressurization, door area/width and door closure shall be planned in consideration to the above.
- 35. E-2 EGRESS AND EVACUATION STRATEGY The firefighting shafts have connectivity directly to exit discharge or through exit passageway (having 120 min fire resistance walls) to exit discharge.
- Smoke control as per clause 4.4.2.5 Staircase and fire lift lobby of a firefighting shaft shall be smoke controlled as per 4.4.2.5 and Table 6. The pressurization requirement for staircase in firefighting shaft and for other fire exit staircases in buildings greater than 60 m in height be evaluated to limit the force required to operate the door assembly (in the direction of door opening) to not more than 133 N to set the door leaf in motion. The aspect of pressurization, door area/width and door closure shall be planned in consideration to the above.
- FIRE SAFETY REQUIREMENTS FOR LIFTS as per clause E-3 of Annexure E of part 4 NBC of India 2016
 - E-4 HORIZONTAL EXITS/REFUGE AREA Horizontal exits are through a fire door of 120 min rating in a fire resistant wall High rise apartment buildings with apartments having balcony, need not to be provided with refuge area; however apartment buildings without balcony shall provide refuge area as given above. Refuge areas for apartment buildings of height above 60 m while having balconies shall be provided at 60 m and thereafter at every 30 m. The refuge area shall be an area equivalent to 0.3 m2 per person for

accommodating occupants of two consecutive floors, where occupant load shall be derived on basis of 12.5 m2 of gross floor area and additionally 0.9 m2 for accommodating wheel chair requirement or shall be 15 m2, whichever is higher

weichever is higher E-5 ELECTRICAL SERVICES

KENNED THISH the magnet school electrical installations in multi-storeyed by the page iven in Part 8. Building Mythri Nagari Kukahsaliyu Hyderasal 1979 Allied Installations of the Negari Rukahsaliyu Hyderasal 1979 Allied Installations of the Negar, Kukahsaliyu Hyderasad 500 072

12

38.

| 3 | Addition / alteration, if any in the building may be verified by building authority. | Mock drills should be conducted once in 3 months for initial two years. Thereafter, once in every 6 months. | All security personnel shall be trained to operate the fire safety equipment during emergency and guiding the occupants in safe evacuation. Call the fire Brigade by dialing 101. |
|---|--|---|---|
| 4 | This No objection Certificate for occupancy is valid for Five year from | Raise the alarm if the fire cannot be controlled, | Attack the fire using available fire equipment only if you feel capable of |
| | the date of issue of this letter. | evacuate the area completely at once from the nearest safe exit. | |

This No Objection Certificate for Occupancy is valid for Five years from the date of issue of this letter. It is the responsibility of the builder to apply for renewal NOC, duly remitting the user charges as per G.O. Ms. No. 71, Home (Prison – A) Department, dated 01-04-2010, two months before expiry of this No Objection Certificate.

Yours Sincerely, Regional Fire Officer Central Region, Response & Fire Services, Telangana,

Hyderabad. Copies to:

The Management

Multi storeyed Building Inspection Committeeiii) Copy submitted to Regional Fire officer iv) Copy submitted to DG fire services

"THIS IS COMPUTER GENERATED DOCUMENT AND DO NOT REQUIRE ANY STAMP OR SIGNATURE"

Sarow

MANAGER
KENNEDY HIGH the magnet School
Mythri Nagar, Kukatpally, Hyderabad-72.

Principal

KENNEDY HIGH-the magnet school Mythri Nagar, Kukatpally, Hyderabad-500 072