



**GOVERNMENT OF TELANGANA
STATE DISASTER RESPONSE & FIRE SERVICES DEPARTMENT
NO OBJECTION CERTIFICATE FOR OCCUPANCY**



From
The Director General
State Disaster Response and Fire Services,
Telangana, Hyderabad.

To,
Annamaneni Deepak,
Sy.No. 14/1 Part,
22 Part,
23 Part,
24 Part,
Maktha Mehaboobpet Village,
Serilingampally,
R.R.District.,

Ack. No. **154310002018** Dated: **04/08/2020**

Sir,

Sub:

TELANGANA STATE DISASTER RESPONSE & FIRE SERVICE DEPARTMENT –
Issue of No Objection Certificate for Occupancy to the Multi storeyed Building of **Sentia The Global School, Sy.No. 14/1 Part, 22 Part, 23 Part, 24 Part, Maktha Mehaboobpet Village, Serilingampally, R.R.District/-MAKTHA MAHABUBPET/Serilingampally/Rangareddy**, Hyderabad – Regarding.



Ref:

1. Acknowledgement No **154310002018**
2. This Office Provisional NOC Ack/RC No. **12154/E4/2006** dt. **11/01/2007**
3. Multi-Storeyed Building Inspection Committee Report, Hyderabad Ack. No. **154310002018**, dt. **04/08/2020**

The Multi Storeyed Building Inspection committee, vide reference cited (3) has inspected the Multi Storeyed Building of **Sentia The Global School, Sy.No. 14/1 Part, 22 Part, 23 Part, 24 Part, Maktha Mehaboobpet Village, Serilingampally, R.R.District/-MAKTHA MAHABUBPET/Serilingampally/Rangareddy** on **04/08/2020** and submitted the following report.

2) The builder was issued Provisional No Objection certificate vide reference cited (2) for construction of Multi Storeyed Building **1 Stilts, 5 Floors**, with for **EDUCATIONAL B-1 Schools up to senior secondary level**. Now the builder has constructed the Multi Storeyed Building with **1 Stilts, 5 Floors**, with a height of **17.80** Meters for **EDUCATIONAL B-1 Schools up to senior secondary level** Occupancy and requested for No Objection Certificate for Occupancy.

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

Sl.No	Side	Open space Required as per Provisional No Objection Certificate	Open space Provided
a 1	North	6.00	6.00
2	South	6.00	6.00
3	East	6.00	6.00
4	West	6.00	6.00

This is not stepped type building.

b	Sl. No	Gate Width As per NBC 2016	Required	Provided
	1	Entry gate width	4.50	5.00
	2	Entry Gate Head Clearance	5.00	5.00
	3	Exit Gate Width	4.50	5.00
	4	Exit Gate Head Clearance	5.00	5.00

6. Travel Distance

Sl. No.	Item / Description	Required (Not More than in Mtrs.)	Provided
1	Farthest point (Most Remote Point) With in a storey or a mezzanine floor to the door to an Exit.	30.00	28.80
2	The Dead end of the corridor length in exit access. (6 mtrs for Educational, Institutional and Assembly, 15mtrs for other Occupancies)	6.00	14.85

7. Stair Cases (As per NBC 2016)

Sl.no	Type of staircases	Width (In Mtrs)	No of staircases	Floors from	Floors to
1	Internal staircases	2.50	1	Stilt	Terrace
2	Internal staircases	2.50	1	Stilt	Terrace
3	External staircases	2.00	1	Stilt	Terrace
4	External staircases	1.50	1	Stilt	Terrace

8) Means of Escape Floor Wise Details

Sl.n o	Floor type	Buil-up Area in Sq.Mtrs	Type of Occupancy	Occupant Load	Means of escape required as per table 21 of NBC	Means of escape Provided
1	Stilt	2299.32	Parking	77.00	1.50	16.00
2	1st Floor	2299.32	EDUCATIONAL B-1 Schools up to senior secondary level	425.00	8.50	8.50
3	2nd Floor	2162.01	EDUCATIONAL B-1 Schools up to senior secondary level	425.00	8.50	8.50
4	3rd Floor	2162.01	EDUCATIONAL B-1 Schools up to senior secondary level	425.00	8.50	8.50
5	4th Floor	2162.01	EDUCATIONAL B-1 Schools up to senior secondary level	425.00	8.50	8.50
6	5th Floor	2162.01	EDUCATIONAL B-1 Schools up to senior secondary level	425.00	8.50	8.50

9). Fire Shaft as per clause 2.24 and ANNEX E (E-2) of part 4 NBC 2016.

Item / Description	Required	Provided
Fire Shaft / Fire Lift	2	1

10). Floor Wise details of Fire Fighting Installations:

Sl.n o	Floor Details	Fire Extinguisher	Hose Reel	Automatic Sprinklers System	Manually Operated Electronic Fire Alarm System	Automatic detection and alarm system
1	Stilt	12.00	3.00	0.00	3.00	0.00
2	1st Floor	12.00	3.00	0.00	3.00	0.00
3	2nd Floor	11.00	3.00	0.00	3.00	0.00
4	3rd Floor	11.00	3.00	0.00	3.00	0.00
5	4th Floor	11.00	3.00	0.00	3.00	0.00
6	5th Floor	11.00	3.00	0.00	3.00	0.00

11). Fire Fighting Installations as per Table 7 of NBC 2016 .

Fire Fighting System.	Required As per NBC	Provided
Fire Extinguishers	68.00	68
First Aid Hose Reel	18.00	18
Down Comer	3.00	3
Manually Operated Electronic Fire Alarm Systems	18.00	18
Terrace Tank over Respective Tower Terrace in Litres	25000.00	25000
Pump Capacity in LPM at the Terrace Tank Level with Minimum Pressure of 3.5 kg/cm ²	900.00	900

12). The builder has provided the following additional Fire Safety Requirements as per NBC of India 2016:

Sl.No	Fire safety Item
1.	<p>Floor Openings Fire Protection as per Clause 3.4.5.4</p> <p>a) Openings in Service ducts and shafts allowing building services like cables, Electrical wirings, Telephone 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.</p> <p>b) The inspection door for electrical shafts / ducts have fire resistance rating of 120 min</p> <p>c) Medium and low voltage wiring running in shafts / ducts are armoured type or run through metal conduits.</p> <p>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</p> <p>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</p>
2.	<p>Vertical openings Fire Protection as per Clause- 3.4.5.6</p> <p>a) Every vertical opening between the floors of a building is suitably enclosed or protected, as necessary, to provide the following: 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.</p> <p>b) Limitation of damage to the building and its contents.</p>
3.	<p>Electrical Installation as per Clause – 3.4.6</p> <p>(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.)</p> <p>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.</p> <p>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.</p> <p>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.</p>
4.	<p>Emergency power for fire and life safety systems as per Clause- 3.4.6.2</p> <p>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</p> <p>a) Fire pumps.</p> <p>c) Fire mans lifts (including all lifts).</p> <p>d) Exit signage lighting.</p> <p>e) Emergency lighting.</p> <p>f) Fire alarm system.</p> <p>g) Public address (PA) system (relating to emergency voice evacuation and annunciation).</p> <p>h) Magnetic door hold open devices.</p> <p>i) Lighting in fire command centre and security room</p> <p>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.</p> <p>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.</p> <p>l) The generator shall be capable of taking starting current of all the fire and life safety systems and equipment as above.</p> <p>m) Where parallel HV/LV supply from a separate substation fed from different grid is provided with appropriate transformer for emergency, the provision of generator may be waived in consultation with the Authority.</p> <p>n) The power supply to the panel/distribution board of these fire and life safety systems shall be through fire proof enclosures or circuit integrity cables or through alternate route in the adjoining fire compartment to ensure supply of power is reliable to these systems and equipment</p> <p>o) It shall be ensured that the cabling from the adjoining fire compartment is protected within the compartment of vulnerability. The location of the panel/ distribution board feeding the fire and life safety system shall be in</p>

	fire safe zone ensuring supply of power to these systems. Circuits of such emergency system shall be protected at origin by an automatic circuit breaker with its no-volt coil removed. Master switches controlling essential service circuits shall be clearly labeled.
	p) Cables for fire alarm and PA system shall be laid in metal conduits or armoured to provide physical segregation from the power cables
8.	Standby supply as per clause -3.4.6.4 a) Diesel generator set(s) shall not be installed at any floor other than ground/first basement. If the same are installed indoors, proper ventilation and exhaust shall be planned. The DG set room shall be separated by 120 min fire resistance rated walls and doors.
	b) The oil tank for the DG sets (if not in the base of the DG) shall be provided with a dyked enclosure having a volumetric capacity of at least 10 percent more than the volume of the oil tank. The enclosure shall be filled with sand for a height of 300 mm.
9.	Lightning protection of buildings as per clause – 3.4.6.5 Routing of down conductors (insulated or uninsulated) of lightning protection through electrical or other service shafts are not allowed as it can create fire and explosion during lightning. For details, see Part 8 .Building Services, Section 2 Electrical and Allied Installations’ of the Code.
10.	Escape Lighting and Exit Signage as per Clause 3.4.7 Exit access, exits and exit discharge shall be properly identified, with adequate lighting maintained in the elements of the egress systems so that all occupants shall be able to leave the facility safely.
11.	Lighting as per Clause – 3.4.7.1 a) The exit, exit access and exit discharge systems shall be illuminated continuously. The floors of the means of egress shall be illuminated at all points, including angles and intersections, in corridors and passageways, stairwells, landings of stairwells and exit. b) Emergency lighting shall be powered from a source independent of that supplying the normal lighting. c) Escape lighting shall be capable of, i) indicating clearly and unambiguously the escape routes; ii) providing adequate illumination along such routes to allow safe movement of persons towards and through the exits; and 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/m ² . 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/m ² . 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.
12.	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
13	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.
17.	<p>Fire Command Centre (FCC) as per Clause- 3.4.12</p> <p>a) Fire command centre shall be on the entrance floor of the building having direct access. The control room shall have the main fire alarm panel with communication system (suitable public address system) to aid floors and facilities for receiving the message from different floors.</p> <p>b) Fire command centre shall be constructed with 120 min rating walls with a fire door and shall be provided with emergency lighting. Interior finishes shall not use any flammable materials. All controls and monitoring of fire alarm systems, pressurization systems, smoke management systems shall happen from this room. Monitoring of integrated building management systems, CCTVs or any other critical parameters in building may also be from the same room.</p> <p>c) Details of all floor plans along with the details of firefighting equipment and installations (2 sets laminated and bound) shall be maintained in fire command centre.</p> <p>d) The fire staff in charge of the fire command centre shall be responsible for the maintenance of the various services and firefighting equipment</p>
18.	<p>General Exit Requirements as per clause – 4.2 4.2.3</p> <p>a) Every exit, exit passageway and exit discharge shall be continuously maintained free of all obstructions or impediments to full use in the case of fire or other emergency.</p> <p>4.2.7b) For non-naturally ventilated areas, fire doors with 120 min fire resistance rating shall be provided and particularly at the entrance to lift lobby and stair well where a 'funnel or flue effect' may be created, inducing an upward spread of fire, to prevent spread of fire and smoke.</p> <p>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). Over- head or sliding doors shall not be installed.</p> <p>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).</p> <p>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.</p> <p>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.</p>
19.	<p>Exit Access as per Clause – 4.4.1</p> <p>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.</p> <p>b) 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.</p> <p>c) Exit access shall not pass through storage rooms, closets or spaces used for similar purpose.</p>
28.	<p>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.</p>
29.	<p>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:</p> <p>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/down-comer 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 down-</p>

	comer 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 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.
37.	FIRE SAFETY REQUIREMENTS FOR LIFTS as per clause E-3 of Annexure E of part – 4 NBC of India 2016
39.	E-5 ELECTRICAL SERVICES a) The specific requirements for electrical installations in multi-storeyed buildings given in Part 8 .Building Services, Section 2 Electrical and Allied Installations of the Code and Section 7 of National Electrical Code 2011 to be complied.
40.	The builder submitted the compliance certificate by the respective technical consultant, Architect, structural, Electrical, HVAC Engineers and fire safety consultants.

13) In view of the above and as per recommendations of the multistoried building inspection Committee, the No Objection Certificate for Occupancy is issued to Multi Storied Building **Sentia The Global School,Sy.No. 14/1 Part, 22 Part, 23 Part, 24 Part, Maktha Mehaboobpet Village, Serilingampally, R.R.District/-MAKTHA MAHABUBPET/Serilingampally/Rangareddy** with a height of **17.80 Meters** for **EDUCATIONAL B-1 Schools up to senior secondary level**Occupancy subject to the following conditions,which also include the responsibilities of the Builder ,Management Body of the building, Occupants and fire and security personnel.

Sl No	Builder and Management Body	Occupant	Management Body and fire and security personnel
1	-a) All the fire protection arrangements shall be maintained in good condition as seen during inspection. -b) Do's and Don'ts in case of fire shall be prominently displayed in entire building	All the escape/exit roots shall not be kept locked/blocked or encroached	All the occupants must know the correct method of operation of the fire fighting systems installed.
2	Any loss of life or property due to non-functioning of fire safety measures and other installations shall be the responsibility of the management.	All occupants shall be trained to operate the fire safety equipment during emergency.	Mock drills should be conducted once in 3 months for initial two years. Thereafter, once in every 6 months.
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.	All security personnel shall be trained to operate the fire safety equipment during emergency and guiding the occupants in safe

		Thereafter, once in every 6 months.	evacuation. Call the fire Brigade by dialing 101.
4	This No objection Certificate for occupancy is valid for five year from the date of issue of this letter.	Raise the alarm if the fire cannot be controlled, evacuate the area completely at once from the nearest safe exit.	Attack the fire using available fire equipment only if you feel capable of controlling it. If not, take all steps to isolate the area by closing doors and windows.

14. Additional Fire Safety Measures Recommended by the Department:

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.

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