

Office of the Director General of Police
Commandant General, Home Guards &
Director of Civil Defence and
Director General Karnataka State Fire &
Emergency Services

No. 1, Annaswamy Mudaliar Road
Bangalore - 560 042



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No.GBC(1)199/ 2011

17-09-2011.

To
The Commissioner,
Bruhat Bengaluru Mahanagara Palike,
N.R.Square,
Bangalore – 560 002.

Sir,

Sub: Issue of No Objection Certificate for the construction of
High Rise Residential Building at Sy.Nos.26/3, 26/3-1, 26/3-2,
26/3-3 and 26/3-4, Abshot Layout, Sankey road, Bangalore.

Ref : Letter dated 17-06-2011 of the Authorised Signatory, Nitesh
Estates Limited, 7th Floor, Nitesh Timesquare, No.8, M.G.Road,
Bangalore – 560 001.

With reference to the letter of the Authorised Signatory, Nitesh Estates Ltd., cited above, the Chief Fire Officer, Bangalore West has inspected the site of proposed High Rise Residential building at Sy.Nos.26/3, 26/3-1, 26/3-2, 26/3-3 and 26/3-4, Abshot layout, Sankey Road, Bangalore on 02-07-2011 with reference to the drawings submitted by the applicant and has furnished the details as follows;

A. Details of premises.

- | | |
|--------------------------------------|--|
| 01. Address of the premises | : Sy.No. 26/3, 26/3-1, 26/3-2, 26/3-3
and 26/3-4,
Abshot Layout,
Sankey Road,
Bangalore. |
| 02. Number of Buildings | One. |
| 03. Number of floors in the building | 2 Basements, ground floor and 41 upper floors. |
| 04. Type of occupancy | Residential. |

05. Floor wise details of the occupancy:-

Lower basement : For parking 32 cars, 2 generators, pump room, services and sumps.

Upper basement : For parking 32 cars, services and fire control room.

Ground floor : For parking 4 cars, electrical panel room and 2 lounges.

1st floor to 3rd floor [3 floors] : 2 duplex flats.

4th floor to 6th floor [3 floors] : 2 duplex flats.

7th floor to 9th floor [3 floors] : 2 duplex flats.

10th floor to 12th floor [3 floors] : 2 duplex flats.

13th floor to 15th floor [3 floors] : 2 duplex flats.

16th floor to 18th floor [3 floors] : 2 duplex flats.

19th floor to 21st floor [3 floors] : 2 duplex flats.

22nd floor to 24th floor [3 floors] : 2 duplex flats.

25th floor to 27th floor [3 floors] : 2 duplex flats.

28th floor to 30th floor [3 floors] : 2 duplex flats.

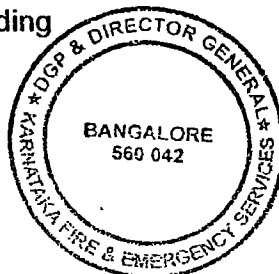
31st floor to 33th floor [3 floors] : 2 duplex flats.

34th floor to 36th floor [3 floors] : 2 duplex flats.

37th floor to 39th floor [3 floors] : 2 duplex flats.

40th floor to 41st floor [2 floors] : 1 duplex flat.

06. Height of the building : 139.10 Mtrs.



07. Site area : 2,509.53 Sq.Mtrs.

08. Floor wise details of occupancy :-

Lower basement : 146.47 Sq.Mtrs.

Upper basement : 146.47 Sq.Mtrs.

Ground floor : 285.75 Sq.Mtrs.

1st floor : 272.75 Sq.Mtrs.

2nd, 5th, 8th, 11th, 14th, 17th, 20th, 23rd, : **298.73 Sq.Mtrs. x 14 floors**

26th, 29th, 32nd, 35th, 38th & 41st floor : 4,182.22 Sq.Mtrs.

3rd, 4th, 6th, 7th, 9th, 10th, 12th, 13th, : **306.69 Sq.Mtrs. x 26 floors**

15th, 16th, 18th, 19th, 21st, 22nd, : 7,973.94 Sq.Mtrs.

24th, 25th, 27th, 28th, 30th, 31st,

33rd, 34th, 36th, 37th 39th & 40th floor

09. Total Built-up area **13,007.12 Sq.Mtrs.**

10. Surrounding of the premises:-

West [Front] : 45.00 Mtrs.wide Sankey main road.

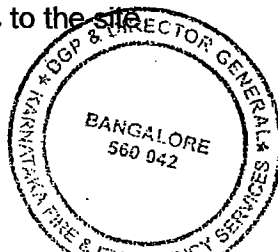
East [Rear] : 9.20 Mtrs.wide Abshot layout cross road.

North [Side] : Residential buildings.

West [Side] : 9.00 Mtrs.wide Abshot layout main road.

B. The plan shows following structural details indicating the fire prevention, fire fighting and evacuation measures. These are considered adequate as follows:-

Details	Existing
01. Width of the road to which the condition of the road [hard surfaced or not ?]	The site is abutting to 45.00 Mtrs. wide Sankey main road, located on the western side. The road is hardened to carry the weight of 45,000 kgs.
02. Number of entrances & width of of each entrances to the site	Proposed to provide an entrance of 6.00 Mtrs. width from western side and an exit of same 6.00 Mtrs. width at south-east side.



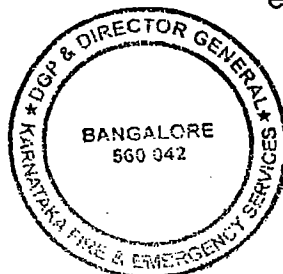
Details	Existing
03. Height clearance over the entrance.	: No arch or any other constructions have been proposed over the entrance.
04. <u>Width of open space (setbacks) :-</u>	: - West [Front] : Average 16.20 Mtrs. - East [Rear] : Average 16.20 Mtrs. - North [Side] : Average 16.20 Mtrs. - South [Side] : Minimum 16.00 Mtrs.
05. Arrangement for parking the cars	: Proposed to park 32 cars at the lower basement parking area, 32 cars at the upper basement parking area, 4 cars at the ground floor parking area and the remaining 24 cars will be parked at the setback area on western and northern sides.
	Parking on the open space [setbacks] shall be after leaving driveway of 10.00 Mtrs. all around from the Building line. Provision has been made to provide 2 ramps on eastern, western and southern sides for the vehicles to reach each basement parking areas.
06. Number of staircases.	: 2.
07. Location of the staircases. to basement or terminated at the ground floor level ?)	: Both the staircases are abutting one of its side to the external wall and are terminated at the ground floor level and separate staircases will be provided to reach each basement area.
08. <u>Staircase size:</u>	
a) Width of the staircases.	: 1.40 Mtrs.
b) Width of treads.	: 25 cms.
c) Height of riser.	: 19 cms.
d) Number of risers in the flight	: 10 risers per flight.



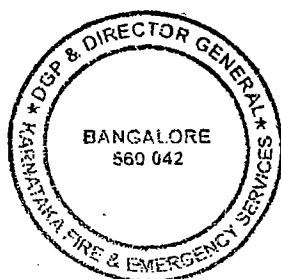
Details	Existing
e) Height of the handrails.	: 1.00 Mtr. As proposed the handrails should be provided at an height of 1.00 Mtr. The gap between 2 verticals should not exceed 15 cms.
f) Head room clearance.	: 2.30 Mtrs.
09. Travel distance from the farthest point & from the dead end of the corridor to the staircases	: Maximum 26.00 Mtrs.from the farthest point and maximum 6.00 Mtrs.from the dead end of the corridor to the staircases.
10. Number of lifts & capacity.	: Proposed to provide 2 passengers lifts, one of 8 passengers capacity and another of 13 passengers capacity.

C. While construct the Building following fire safety measures should be incorporated.

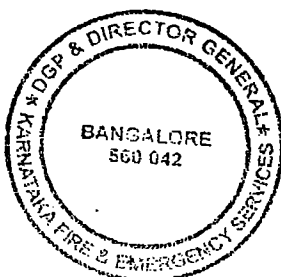
Details	Existing	Recommendations
01. Condition of the open space.	-----	Out of required setback of minimum 16.00 Mtrs. all around, setbacks to an extent of 10.00 Mtrs from the building line should be with an RCC slab of 200 mm thickness to carry the load of 45,000 kgs. being the weight of a fire unit. This driveway all around the building should always be kept free & clear it would be advantage to the builders & the users to elevate this portion by few inches and even provide for a different colour, so that people are aware that this is emergency route for fire fighting vehicles, ambulances etc. The total setbacks all around shall be at even level without structures & projections upto a height of 5.00 Mtrs. These setbacks shall always kept free from any constructions or utilization like garden, landscaping, parking to an extent of 10.00 Mtrs. from building line.



Details	Existing	Recommendations
02. Structural materials	Not indicated	RCC material and brick walls of not less than 2 hours fire resistance should be used for the construction of structures. Only fire resistant material or material treated with fire retardant chemicals, should be used for interior decoration work. While attending the interior decoration, fixed fire fighting systems like sprinklers / risers etc., should not be shifted from original location.
03. Design of the staircases.	Not indicated	All the staircase should be constructed with non-combustible material and should be completely enclosed at each landing to prevent smoke and fire travelling from lower floors to upper floors. Enclosures to staircases should be provided with self-closing smoke stopping swing door, fitted with door closing devices at the exit to the lobby. These doors should have at least half-an-hour fire resistance capacity. The staircase area should be without glazing or glass brick walls to avoid reflections. Any area of dwelling or storage shouldn't open directly to staircase area.
04. Specification of lift.	Not indicated	The brick walls, enclosing the lift shafts should be of 90 mm thickness and have fire resistance of not less than 2 hours. Shaft should have permanent vent of not less than 0.2 Sq.Mtrs. clear area, immediately under the machine room. Lift motor rooms should be preferably located at the top of the shaft and separated by the enclosing wall of shaft or by the floor of the machine room. Landing doors of lift enclosures shall open into ventilated lobby, having one hour fire resistance. Lift car doors should be of metal finish, operating automatically and should have a fire resistance capacity of 1 hour. Exits from the lift lobby should be through a self closing smoke stopping door of 15 mm thickness, having 1 hour fire resistance.

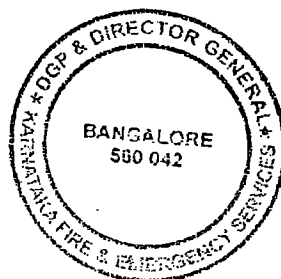


Details	Existing	Recommendations
		This is to prevent smoke and fire travelling from the lower floors to upper floors. The lift machine rooms should be separate and no other machinery should be installed therein. Each lift should be connected to an alternate source of power (generators). Grounding switches at the ground floor level, to enable the Fire and emergency services personnel to ground all the lift cars and use them as 'FIRE LIFT' in an emergency, should be provided.
05. Service ducts / shafts	---	Service ducts should be enclosed by the walls of 100 mm. thickness to have at least two hours fire resistance capacity. A vent opening at the top of the service shafts, should be provided between one fourth and half of the area of the shafts. The electrical distribution cables and wiring should be laid in a separate duct. All the ducts should be sealed at every alternate floor with non-combustible metal doors having at least 2 hours fire resistance capacity. Water mains, telephone lines, intercom lines or any other services lines should not be laid in the duct, meant for electric cables. The inspection panel doors & any other opening to the shafts should be provided with airtight doors of atleast 2 hours fire resistance capacity.
06. Escape routes	Not indicated	Directions in which the inmates should have to move in the event of any emergency have to be indicated in the corridor / passage on each floor as a Directions in which the inmates should have to move in the event of any emergency have to be indicated in the corridor / passage on each floor as a guide during evacuation. These should be in luminous paint.

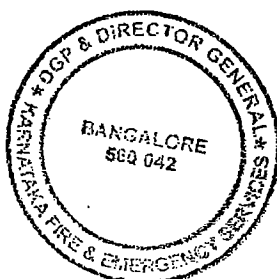


D. The Builder should arrange for following fire fighting & evacuation measures:-

Details	Existing	Recommendations
01. Electric power supply.	-----	Circuits for water pumps, lifts, staircase lightings and corridor lighting in the Building should be by separate line and independently connected so that they can be operated by one switch installed at the ground floor. Dual operated switches should be installed in the service room for terminating the standby power supply. As proposed 2 generators, each of 500 KVA capacity shall be installed at the lower basement area to supply alternate power for staircase lighting, corridor, lifts, etc; in the event of failure of electricity supply in the building.
02. Wet riser cum-down-comer systems	Proposed to provide 1 wet-riser system.	Proposed to provide 1 wet-riser system near the main staircase. The riser is of 150 mm internal dia. and made of G.I. class 'C' pipe. From the riser, single headed hydrant valves will be provided at each landing. An hose reel hose of minimum 12 mm size and of adequate length to reach the farthest point of each floor of each building shall be provided with a shut off branch having a nozzle of 5 mm size. The hose reel hose should be connected at each landing by means of an adaptor. Adequate BIS marked reinforced rubber lined delivery hoses of 63 mm size to reach the farthest point of the floor/ setbacks from the system should be provided with a branch pipe near each hydrant outlet in a proper box to protect it from withering. At least 2 fire service inlets to boost the water in the down comer directly from the mobile pump should also be provided.



Details	Existing	Recommendations																
		The wet-riser system should be connected to a under-ground tank of 1,00,000 ltrs. storage capacity and an over-head tank of 25,000 ltrs. capacity and connected to 2 electrically driven pumps and a diesel driven pump each capacity of delivering 2280 litres of water per minute at 0.3N / mm ² pressure & a jockey pump of 180 LPM discharge capacity near the combined under-ground tank. The impeller of the pump should be made of bronze.																
03. Manually operated fire alarm system	Proposed to provide manually operated electric fire alarm system with call boxes near the staircases landings.	Manually operated electrical fire alarm should installed with call boxes located near each staircase landing of the building. The call boxes should be be of 'break the glass' type, where the calls will be transmitted automatically to the control room when the glass of system is broken. This system should also be connected to alternate source of power supply [generator]. The call boxes should be so installed that their location can be easily noticed from either direction and should be at an height of 1 Mtr. from the floor level at each floor.																
04. Automatic fire detection system	Proposed to provide automatic detection system with detectors from Ground floor to 41 st floor.	As proposed automatic fire detection system shall be provided with its 'console' at the ground floor level. <table><tr><th>Sl. No.</th><th>Details of floors</th><th>Smoke detectors</th><th>Heat detectors</th></tr><tr><td>01.</td><td>Ground floor</td><td>2</td><td>-----</td></tr><tr><td>02.</td><td>1st floor</td><td>4</td><td>1</td></tr><tr><td>03.</td><td>2nd, 5th, 8th, 11th, 14th, 17th, 20th, 23rd, 26th, 29th, 32nd, 35th, 38th and 41st floor.</td><td>6 each</td><td>-----</td></tr></table>	Sl. No.	Details of floors	Smoke detectors	Heat detectors	01.	Ground floor	2	-----	02.	1 st floor	4	1	03.	2 nd , 5 th , 8 th , 11 th , 14 th , 17 th , 20 th , 23 rd , 26 th , 29 th , 32 nd , 35 th , 38 th and 41 st floor.	6 each	-----
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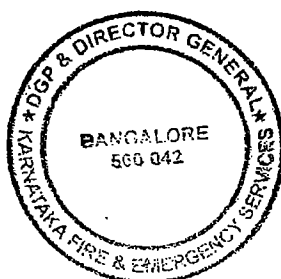
Details	Existing	Recommendations
04.	3 rd , 4 th , 6 th , 7 th , 9 th , 10 th , 12 th , 13 th , 15 th , 16 th , 18 th , 19 th , 21 st , 22 nd , 24 th , 25 th , 27 th , 28 th , 30 th , 31 st , 33 rd , 34 th , 36 th , 37 th , 39 th & 40 th floor [26 floors].	4 each 1 each

05. Automatic sprinkler system.

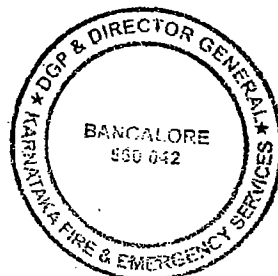
Proposed to provide sprinkler system as indicated below;

Adequate. Separate water and pump for sprinkler system to use 10% of sprinklers for about 30 minutes shall be provided In this building.

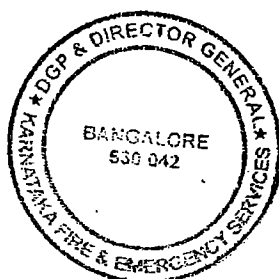
Sl. No.	Details of floors	Pendent sprinklers	Side-throw sprinklers
01	Lower basement	72	-----
	Upper basement	72	-----
01.	Ground floor	06	-----
02.	1 st floor	01	05
03.	2 nd , 5 th , 8 th , 11 th , 14 th , 17 th , 20 th , 23 rd , 26 th , 29 th , 32 nd , 35 th , 38 th and 41 st floor.	1 each	6 each
04.	3 rd , 4 th , 6 th , 7 th , 9 th , 10 th , 12 th , 13 th , 15 th , 16 th , 18 th , 19 th , 21 st , 22 nd , 24 th , 25 th , 27 th , 28 th , 30 th , 31 st , 33 rd , 34 th , 36 th , 37 th , 39 th & 40 th floor [26 floors].	1 each	5 each



Details	Existing	Recommendations
06. Public address system	Proposed to provide P.A. system with 2-way communication.	As proposed a public address system with two way communication facility should be provided at each floor near each staircase landing with its 'console' at the control room located on the ground floor of the Building.
07. Portable fire extinguishers	Proposed to provide suitable fire extinguisher as per the req.	a) 1ABC extinguisher of 5 kgs. capacity & 2 fire buckets filled with clean dry fine sand should be provided for every 8 car at basement / ground floor parking area. b) 1 CO₂ extinguisher of 2 kgs. capacity should be provided near the entrance to each main switch board room, inside each kitchen and inside each lift room. c) 1 ABC type fire extinguisher of 5 kgs. capacity should be provided near each generator room and the transformers, if installed. d) 1 water pressure type extinguisher of 9 Ltrs. capacity should be kept near each staircase landing on every floor. e) All extinguishers suggested above should be with BIS markings & should be located at an easily accessible position without obstructing the normal passage.



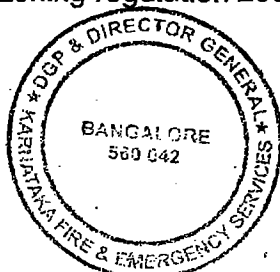
Details	Existing	Recommendations
08. Fire safety plans	-----	A fire safety plan for preventing and extinguishing any accidental fire in the Building and action to be taken by the occupants in case of such fire should be prepared in advance & got approved by the Director General, Karnataka Fire and Emergency Services. The fire safety plan, so approved, should contain the telephone numbers of the nearest fire control i.e; 101, 22971500, 22971550 and 22971600. The plan should be distributed to all the occupants employees in the building and should be displayed on every floor. A fire command station should be established in the lobby of the Building on the entrance floor & such command station should be adequate illuminated. The main control of the public address system & fire alarm system should be at the fire command station. A Fire Safety Director should be nominated for the building. He should conduct fire and evacuation drills periodically. He should nominate a Fire warden for each floor and ensure that no individual of the building does anything which causes or stimulates an accidental fire and in case of lapses in respect of accidental fire and in case of lapses in respect of fire prevention measures, he should take action as deemed fit to ensure the safety from the fire point of view. If the action is beyond his capacity he should inform the Fire and Emergency Services Department.
09. Assembling point / area	Not indicated	An area at an appropriate place in the allowed / required setbacks shall be ear-marked with a proper board as 'ASSEMBLY AREA' for the occupants to assemble after the evacuation during the practice drill and in an emergency in the building.



Details	Existing	Recommendations
10. Training	---	40% of the occupants should be got trained in fire prevention & fire fighting & evacuation measures at R.A. Mundkur Fire & Emergency Services Academy, Bannerughatta road, Bangalore within 6 months from the date of occupation of the Building. For this purpose before approaching the Department for the final clearance certificate, the applicant should give an undertaking in the form of an affidavit regarding maintenance of the fire prevention fire fighting measures suggested above and arranging training of 40% of occupants in fire prevention & fire fighting within 6 months from the date of issue of the clearance certificate.
11. Helipad	-----	A helipad shall be provided on the terrace of the building with all fire prevention and fire fighting measures.

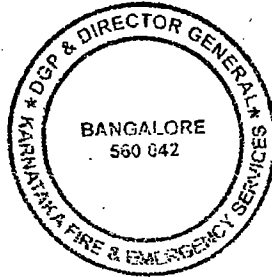
E.General :-

01. All the fire prevention, fire fighting and evacuation measures suggested / recommended in para B, C and D shall be strictly adhered to be adopted.
02. Hazardous materials such as petroleum products, explosives, chemicals etc. should not be stored on any floor of the Building.
03. Refuse dumps or storage should not be permitted in any of the floors.
04. Liquefied petroleum gas should not be stored in the Building except the limited quantity required for each kitchen.
05. Plan & occupancy should not be changed without informing the Fire & Emergency Services & without taking clearance.
06. The occupancy certificates should not be issued without obtaining the clearance certificate from the Fire & Emergency Services department as per clause 3.16 (v) of Zoning regulation 2007 of the Bangalore Development Authority.



07. Such reasonable changes/modifications as may be found necessary, after the building is fully constructed, will have to be agreed to be done by the Builder/ occupants of the Building.
08. All the metal fittings of wet riser system & all the extinguishers suggested above should have B.I.S markings.

Subject to the strict adherence to the conditions laid down as above, issue of licence for the construction of a High Rise Residential Building of 2 basements, ground floor and 41 upper floors at Sy.No.26/3, 26/3-1, 26/3-2, 26/3-3 and 26/3-4, Abshot Layout, Sankey Road, Bangalore city may please be considered.



Yours faithfully,


Director General of Police
and Director General,
Karnataka Fire & Emergency Services.

- Copy to: 1) The Authorised Signatory, Nitesh Estates Ltd., No.8, M.G.Road,
Bangalore - 560 001.
2) The Chief Fire Officer, Bangalore West.