Office of the Director General of Police
Commandant General, Home Guards &
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No.GBC(1) 558 / 2012

10 -05-2013

To,
The Commissioner,
Bengaluru Development Authority,
T.Chowdaiah Road,
Bengaluru -560 020.

Sir,

Sub : Issue of N.O.C. for the construction of High Rise Residential Buildings (2 blocks) at Khatha Nos. 320 & 320 /5, (Old Sy. No.11 / 2) of Deevitige - Ramanahalli village, Ward No.157, Kengeri Hobli, Bangalore South Taluk, Mysore Road, Bangalore.

Ref : Letter dated 29-8-2012 of the Authorised Signatory, M/s.Pride & Expert Properties Pvt. Ltd., G-2, Pride Elite, No.10, Museum Road, Bengaluru – 560 001.

With reference to letter of the Authorised signatory, Pride and Expert properties Pvt. Ltd., cited above, the Chief fire officer, Bangalore west of this Department has inspected the site of proposed High Rise Residential Buildings at Khatha Nos. 320 & 320 /5, (Old Sy. No.11 / 2) of Deevitige Ramanahalli village, Ward No.157, Kengeri Hobli, Mysore Road, Bangalore South Taluk on 29-9-2012 with reference to the drawings submitted by the applicant and has furnished the details as follows;

A. Details of premises / site :-

01.	Address of the premises	:	Khatha Nos. 320 & 320 /5, (Old Sy. No.11 / 2), Deevitige Ramanahalli Village, Ward No.157, Kengeri Hobli, Mysore Road, Bangalore South Taluk,
02.	Number of Buildings		2 Blocks ie., Block-A with 4 wings – joined together and Block-B with 4 wings- joined together.

03. Number of floors .

Block-A	-	Common Basement, Ground & 14 upper floors.
Block -B	-	Common Basement, Ground & 14 upper floors.

04. Type of occupancy - Residential.

05. Floor-wise details of the occupancy:-

Block-A & B		
Common basement	:	For parking 419 cars, pump room & sumps.
Block – A	:	
Ground floor		For parking 26 cars, 6 flats, 1 Club House, 1 D.G. Room & 1 Electrical Room.
1st floor to 14th floor		16 flats in each floor x 14 floors = 224 flats.
	:	
Block – B		
Ground floor	:	For parking 8 flats, for parking 26 Cars, 1 D.G. Room & 1 Electrical Room.
1st floor to 14th floor		16 flats in each floor x 14 floors = 224 flats.

06. Height of the building

Block-A	:	44.95 Mtrs.
Block-B	:	44.95 Mtrs.

07. Site area : 18,438.75 Sq.Mtrs.

08. Built-up area of each floor:-

Block-A & B		
Common Basement floor	:	16,426.65 Sq.Mtrs.
Block-A		
Ground floor to 14th floor (2,042.84 sq.mtrs. on each floor x 15 floors)	:	30,642.60 Sq.Mtrs.
Block-B		
Ground floor to 14th floor (2,042.84 sq.mtrs. on each floor x 15 floors)	:	30,642.60 sq.mtrs.

09. Total Built-up area **77,711.85 Sq.Mtrs**.

10. Surrounding of the premises:-

East	:	Private Houses.
West	:	29.30 mtrs. wide Mysore Road. and private houses.
North	:	Private houses.
South	:	Private property, path-way, private houses and 9.00 Mtrs. wide road.

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

No.	Details		Existing
01.	Width of the road to which the site abuts and condition of the road (hard surfaced or not)	:	The site is abutting 29.30 Mtrs. wide Mysore road, located on the north-west corner. The road is hardened to carry the weight of 45,000 kgs.

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(1)		(2)
02. Number of entrances and width of each entrances to the site	:	Proposed to provide 2 entrances each of 6.00 mtrs. width from 29.30 mtrs. wide Mysore Road, located on the North-West corner.
03. Height clearance over the entrance	:	No arch or any other constructions have been proposed over the entrance / exits.
04. Width of open space (setbacks) :-		
Block-A		
West (Front)	:	Minimum 13.00 Mtrs.
East (Rear)	:	Minimum 23.00 Mtrs.
North (Side)	:	Minimum 18.00 Mtrs.
South (Side)	:	Minimum 13.00 Mtrs.
Block – B		
West (Front)	:	Minimum 23.00 Mtrs.
East (Rear)	:	Minimum 13.00 Mtrs.
North (Side)	:	Minimum 13.00 Mtrs.
South (Side)	:	Minimum 14.30 Mtrs.
05. Arrangement for parking the cars	:	Provision has been made to park 419 cars at the common basement parking area, 56 cars at ground floor parking area of Block-A, 26 cars at ground floor parking area of Block-B and 40 cars on the setbacks available all around the Buildings. Parking on the open space (setbacks) shall be after leaving driveway of 8.00 Mtrs. all around from the Building line.

(1)		(2)
		Proposed to provide 4 ramps, 2 on the northern side and 1 ramp each on southern and western sides for the cars to reach the common basement parking area.
06. Number of staircases		
Block-A	:	4 (one in each wing with common terrace)
Block-B	:	4 (one in each wing with common terrace)
07. Location of the staircases. to basement or terminated at the ground floor level ?)	:	All the staircases are designed to abut one of its sides to external wall and are terminated at the ground floor level. 10 separate staircases have been proposed to reach the common Basement parking area from the ground floor. Further provision has been made to enclose all the staircases at each floor level.
08. Staircase sizes :-		
a. width of the staircases	:	Each of 1.50 Mtrs.
b. width of treads	:	30 Cms.
c. Height of risers	:	15 Cms.
d. Number of risers / flight	:	10 risers per flight.
e. Height of the handrails	:	1.00 Mtr. As proposed the handrails should be provided at a height of 1.00 Mtr. The gap between 2 vertical should not exceed 15 cm.
f. Head room clearance	:	2.40 Mtrs.
09. Travel distance from the farthest point & from the dead end of the corridor to the staircases	:	Maximum 22.50 Mtrs. from the farthest point and maximum 6.00 Mtrs. from the dead end of the corridor to staircases in both the blocks.

(1)	(2)

10. Number of lifts and capacity

Block-A	:	1 of 8 passengers capacity & 1 of 12 passengers capacity in each wing (total 8 lifts).
Block-B	:	1 of 8 passengers capacity & 1 of 12 passengers capacity in each wing (total 8 lifts).

C. While construct the building following fire safety measures should incorporated.

Sl. No.	Details	existing	Recommendations
01.	Condition of open space	--------	Out of allowed & required setback of minimum 13.00 Mtrs. all around, each Block, setbacks to an extent of 8.00 Mtrs from the each 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 any structure and projections upto a height of 5.00 Mtrs. These setbacks shall always be kept free from any constructions or utilization like garden, landscaping, parking to an extent of **8.00 Mtrs.** from building line.

(1)	(2)	(3)
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 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 staircases 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 $^1/_2$-an-hr 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 the lifts	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 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. This is to prevent smoke and fire travelling from the lower floors to upper floors.

(1)	(2)	(3)
		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 (generator). 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. All the lifts, extended up to the basement, shall be terminated at the ground floor level or the lift lobby at the basement level shall be enclosed and pressurized with positive pressure.
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 and any other opening to the shafts should be provided with airtight doors of at-least 2 hours fire resistance capacity.

(1)	(2)	(3)
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 guide during evacuation. These should be in luminous paint.

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

No.	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 standby power supply. As proposed 2 generators, each of 120 KVA capacity, shall be installed at the ground floor area to supply alternate power for staircase lighting, corridor etc; in the event of failure of electricity supply in the building.
02.	Wet-riser cum-down-comer systems	Proposed to provide 8 wet riser cum down comer systems (4 in each Block).	As proposed 8 wet-risers cum down comer systems (4 in each Block) should be provided 4 in each Block. Each riser shall be of 100 mm internal dia. and made of G.I. class 'C' pipe. From each riser single headed outlets shall be provided at each landing. Hose reel hose of minimum 12mm size and of adequate length to reach the farthest point of each floor, should 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.

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(1)	(2)	(3)
		At least 2 fire service inlets to boost the water in the down-comers directly from mobile pump should also be provided. Each wet-riser cum down comer system should be connected to an overhead tank of 10,000 litres capacity and an under-ground tank of 75,000 Ltrs. Capacity . One electrically driven pump and one diesel driven pump, each capable of delivering 1620 Litres of water per minute at 0.3 N/ mm^2 pressure and a jockey pump of 180 LPM discharge capacity shall be provided near the combined under-ground tank at the rate of one set of pumps for every 4 risers (total 2 set of pumps). 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 staircase landings at each floor.	Manually operated electrical fire alarm should installed with call boxes located near each staircase landing of each Block. The call boxes should 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 1.00 Mtr. from the floor level at each floor.

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(1)	(2)	(3)
04.	automatic sprinkler system	Proposed to provide 754 sprinklers at the basement parking area and 29 sprinklers at the ground floor parking area of Block-A & 29 sprinkler heads at ground floor parking area of Block-B.	Adequate. Separate water and pump for sprinkler system to use 10% of the sprinkler system for about 30 minutes shall be provided.
05.	Public address system	Proposed to provide P.A. system with 2 way communication	As proposed a P.A. system with 2 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 this building.
06.	Portable fire extinguisher	Proposed to provide suitable fire extinguisher as per the req.	a) ABC extinguisher of 5 kgs. Capacity should be provided for every 8 car at basement / ground floor parking areas. b) 1 ABC powder extinguisher of 2 kgs. capacity should be provided near the entrance to each main switch board room, inside each kitchen and inside each lift machine room. c) 1 ABC type fire extinguisher of 5 kgs. capacity should be provided near the entrance to each D.G. Room near the transformer if installed. d) 1 ABC powder Exginguisher of 5 Kgs capacity should be kept near each staircase landing on every floor. e) All extinguishers suggested above should be with BIS markings and should be located at an easily accessible position without obstructing the normal passage.

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(1)	(2)	(3)
07. Fire safety plans	---------	A fire safety plan for preventing and extinguishing any accidental fire in each block and action to be taken by the occupants in case of such fire should be prepared in advance and 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 ie; 101, 22971500,22971550 and 22971600. The plan should be distributed to all the occupants employees in each block and should displayed on every floor. A fire command station should be established in the lobby of each block on the entrance floor & such command station should be adequately illuminated. The main control of the public address system and fire alarm system should be at the fire command station. A **Fire Safety Director** should be nominated for each block. 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.
08. Assembly 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.

(1)	(2)	(3)
09. Training	----	40% of the occupants should be got trained in fire prevention and fire fighting and evacuation measures at R.A. Mundkur Fire and Emergency Services Academy, Banneru-ghatta 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 and fire fighting within 6 months from the date of issue of the clearance certificate.

E. General:-

1) All the fire prevention, fire fighting and evacuation measures suggested / recommended in B, C & D shall be strictly adhered to adopted.

2) Hazardous materials such as petroleum products, explosives, chemicals etc. should not be stored on any floor of the building.

3) Refuse dumps or storage should not be permitted in any of the floors.

4) Liquefied petroleum gas should not be stored in the building.

5) Plan & occupancy should not be changed without informing the Fire & Emergency Services and without taking clearance.

6) The occupancy certificates should not be issued without obtaining the clearance certificate from the Fire & Emergency Services department as per Chapter 3.16 (v) of the Zoning Regulation 2007 of the Bangalore Development Authority.

7) 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.

8) All the metal fittings of wet riser system and all the extinguishers suggested above should have B.I.S markings.

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Subject to the strict adherence to the conditions laid down as above, issue of licence for construction of an High-rise Residential buildings (2 blocks) , each with common basement, ground floor and 14 upper floors at Khatha Nos. 320 & 320 /5, (Old Sy. No.11 / 2) of Deevitrige - Ramanahalli village, Ward No.157, Kengeri hobli, Bangalore south taluk, Mysore 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, M/s.Pride & Expert Properties Pvt. Ltd., G-2, Pride Elite, No.10, Museum Road, Bengaluru – 560 001. Sri. Krishna Reddy,Panathur village, Varthur Hobli, Bangalore-East Taluk.
2) The Chief Fire Officer, Bangalore West Zone.