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No. GBC(1) 209/2010(Part)

08-08-2015

To

The Commissioner,
Bruhath Bangalore Mahanagara Palike,
N.R. Square,
Bangalore-560002.

Sir,

Sub: Issue of No Objection Certificate for the construction of 4 High Rise Residential Buildings i.e. Tower-4, Tower-5, Tower-6 & Tower-7 at Phase-2, Municipal New No. 01/1, City Sy. No. 2699/1, (Old No. 42 to 47, 10, 11, 12 & 32), PID No. 31-42-1/1 Hosakere Road, Binnypet, Ward No. 121 (BBMP), Bangalore-560 023 -- reg.

Ref: Letter dated 24-04-2015 of the Authorized Signatory,
M/s Relationship Properties Pvt. Ltd, No. 1049, Mariya Arcade,
4th M Block, Dr. Rajkumar Road, Rajajinagar, Bangalore-560 010

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With reference to the letter of the Authorised Signatory, M/s. Relationship Properties Pvt. Ltd., cited above, the Regional Fire Officer, EPMS Unit, Bangalore of this department has inspected the site of proposed 4 High Rise Residential Buildings i.e. Tower-4 with 3 Wings -- joined together, Tower-5, Tower-6 and Tower-7 at Phase-2, Municipal New No. 01/1, City Sy. No. 2699/1, (Old No. 42 to 47, 10, 11, 12 & 32), PID No. 31-42-1/1 Hosakere Road, Binnypet, Ward No. 121 (BBMP), Bangalore-560 023 on 08-05-2015 with reference to the drawings, submitted by the applicant and has furnished the details as follows :-

A. Details of the premises,

1. Address of the premises.

Phase 2,
Municipal New No. 01/1,
City Sy. No. 2699/1,
(Old No. 42 to 47, 10, 11, 12 & 32),
PID No. 31-42-1/1,
Hosakere Road,
Binnypet, Ward No.121 (BBMP),
Bangalore-560023.

2. Number of Buildings : 4 Towers i.e. Tower-4 with 3 Wings – joined together, Tower-5, Tower-6 & Tower-7.
3. Number of floors
- Tower-4 : 2 common basements, ground & 31 upper floors.
- Tower-5 & 6 : Each of 2 common basements, ground & 32 upper floors.
- Tower-7 : Common basement, ground & 24 upper floors.
4. Type of Occupancy : Residential.

5. Floor wise details of the occupancy :-

Tower-4, 5 & 6

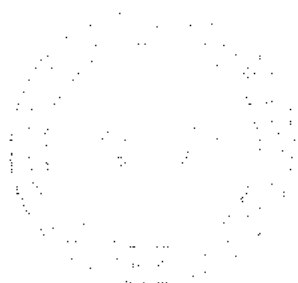
Common lower Basement : For parking 700 Cars, 1 Pump Room & 1 D.G. Room.

Tower-4, 5, 6 & 7

Common upper Basement : For parking 998 Cars, 4 Electrical Rooms, 1 D.G. Room & 1 Pump Room.

Tower – 4

- Ground floor : 14 flats, 1 Entrance lobby, 1AV Room & 1 Display Area.
- 1st floor : 16 flats
- 2nd floor to 12th floor : 18 flats on each floor x 11 floors = 198 flats
- 13th floor : 8 flats, 2 Rooms, 2 Pantry Rooms, 1 Outdoor Gym, 1 Aerobics, 1 Multipurpose Hall, 1 Pavilion, 2 Meeting /Dining Rooms, 1 Meditation Hall/T.V. Room, 1 Library/Reading Room & 1 Business Centre
- 14th floor : 16 flats.
- 15th floor to 27th floor : 18 flats on each floor x 13 floors = 234 flats.



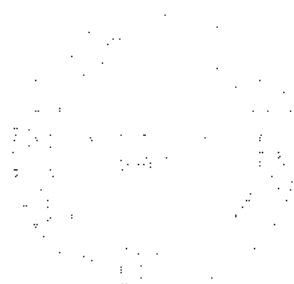
28 th floor	:	18 flats, out of which 2 flats are duplex type.
29 th floor	:	16 flats & upper portion of 2 duplex flats.
30 th floor	:	18 flats, out of which 2 flats are duplex type.
31 st floor	:	14 flats & upper portion of 2 duplex flats.

Tower – 5

Ground floor	:	6 flats, 1 Entrance lobby, 1 Club/Association office, 1 Lounge & 1 Library.
1 st floor	:	6 flats, 1 Children Section & 1 Office.
2 nd floor to 10 th floor	:	8 flats on each floor x 9 floors = 72 flats.
11 th floor	:	4 flats, 1 Sports & Bar lounge, 1 Pantry, 1 Office, 1 Fitness Spa, 1 Outdoor Gym, 1 Sky Gym, 1 Kids Splash Pool, 1 Spa & Steam, Spa Lounge and 1 Yoga Room.
12 th floor to 21 st floor	:	8 flats on each floor x 10 floors = 80 flats.
22 nd floor	:	4 flats, 1 Community Hall/Function Hall, TV Rooms, 2 Sky Lounge, 1 Snooker Pool, 1 Board Games, 1 Library, 1 Creche, 1 Pantry, 1 Games Station, 1 Play Zone and 1 Business Centre.
23 rd floor	:	4 flats.
24 th floor to 31 st floor	:	8 flats on each floor x 8 floors = 64 flats.
32 nd floor	:	8 flats.

Tower – 6

Ground floor	:	6 flats, 1 Entrance lobby, 1 Association/Board Room & Lounge.
1 st floor	:	6 flats.
2 nd floor to 12 th floor	:	8 flats on each floor x 11 floors = 88 flats.



13th floor : Community Hall/Dance Hall, 1 TV Room, 1 Function Hall, 1 Sky Lounge, 1 Snooker, 1 Board Games, 1 Business Centre, 1 Library, 1 Games Room, 1 Play Zone, 2 Pantry, 1 Hall, 1 Spa & Steam, Spa Lounge, 1 Yoga Room, 1 Sports & BAR Lounge, 1 Outdoor Gym, 1 Fitness Spa and 1 Office.

14th floor to 30th floor : 8 flats on each floor x 17 floors = 136 flats.

31st floor : 6 flats, out of which 2 flats are duplex type.

32nd floor : 4 flats & upper portion of 2 duplex flats.

Tower - 7

Ground floor : 6 flats, 1 entrance lobby, 1 Association Board Room & Lounge.

1st floor : 6 flats.

2nd floor to 5th floor : 8 flats on each floor x 4 floors = 32 flats.

6th floor : 7 flats, Aerobics, Physiotherapy, 1 Locker & 1 Gym.

7th floor : 7 flats, 1 Locker & 1 Yoga Room.

8th floor to 12th floor : 8 flats on each floor x 5 floors = 40 flats.

13th floor : 7 flats, Office & Activity Room, 1 Pantry and 1 Play Area

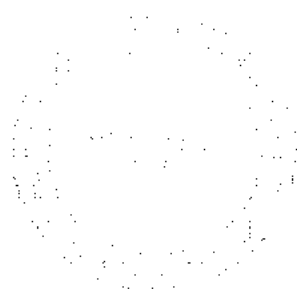
14th floor : 7 flats, 1 office & Hobby Room.

15th floor to 19th floor : 8 flats on each floor x 5 floors = 40 flats.

20th floor : 7 flats, Lobby, Party Hall & Multipurpose Hall

21st floor : 7 flats, Lobby & Meeting Room.

22nd floor : 8 flats.



23 rd floor	:	6 flats, out of which 4 flats are duplex type.
24 th floor	:	2 flats & upper portion of duplex flats.
Total	:	1,228 flats.

6. Height of the Building

Tower-4	:	98.40 mtrs.
Tower-5 & 6	:	Each of 101.45 mtrs.
Tower-7	:	76.65 mtrs.

7. Site Area	:	2,13,808.52 Sq. mtrs.
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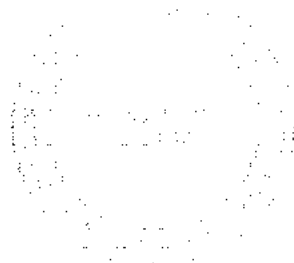
8. Built-up area of each floor :-

Tower-4, 5, 6 & 7

Common lower Basement	:	28,347.47 Sq. mtrs.
Common upper Basement	:	41,616.89 Sq. mtrs.

Tower-4

Ground floor	:	2,216.28 Sq. mtrs.
1 st floor	:	1,975.78 Sq. mtrs.
2 nd floor to 5 th floor (2,214.22 Sq. mtrs. on each floor x 4 floors)	:	8,856.88 Sq. mtrs.
6 th floor to 12 th floor (2,215.68 Sq. mtrs. on each floor x 7 floors)	:	15,495.76 Sq. mtrs.
13 th floor	:	2,408.07 Sq. mtrs.
14 th floor	:	1,984.93 Sq. mtrs.
15 th floor to 27 th floor (2,213.68 Sq. mtrs. on each floor x 13 floors)	:	28,777.84 Sq. mtrs.



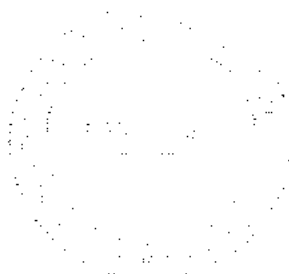
28 th floor	:	2,230.21 Sq. mtrs.
29 th floor	:	2,151.58 Sq. mtrs.
30 th floor	:	2,204.28 Sq. mtrs.
31 st floor	:	2,034.37 Sq. mtrs.

Tower-5

Ground floor	:	1,619.28 Sq. mtrs.
1 st floor	:	1,425.65 Sq. mtrs.
2 nd floor to 4 th floor (1,633.69 Sq. mtrs. on each floor x 3 floors)	:	4,901.37 Sq. mtrs.
5 th floor to 10 th floor (1,625.69 Sq. mtrs. on each floor x 6 floors)	:	9,754.14 Sq. mtrs.
11 th floor	:	1,811.04 Sq. mtrs.
12 th floor to 21 st floor (1,625.69 Sq. mtrs. on each floor x 10 floors)	:	16,256.90 Sq. mtrs.
22 nd floor	:	1,725.32 Sq. mtrs.
23 rd floor	:	977.50 Sq. mtrs.
24 th floor to 31 st floor (1,625.69 Sq. mtrs. on each floor x 8 floors)	:	13,005.52 Sq. mtrs.
32 nd floor	:	1,550.63 Sq. mtrs.

Tower-6

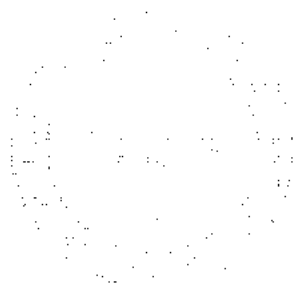
Ground floor	:	1,196.61 Sq. mtrs.
1 st floor	:	989.11 Sq. mtrs.



2 nd floor to 4 th floor (1,195.72 Sq. mtrs. on each floor x 3 floors)	:	3,587.16 Sq. mtrs.
5 th floor to 12 th floor (1,189.81 Sq. mtrs. on each floor x 8 floors)	:	9,518.48 Sq. mtrs.
13 th floor	:	1,527.76 Sq. mtrs.
14 th floor to 30 th floor (1,189.81 Sq. mtrs. on each floor x 17 floors)	:	20,226.77 Sq. mtrs.
31 st floor	:	1,201.83 Sq. mtrs.
32 nd floor	:	1,083.09 Sq. mtrs.

Tower-7

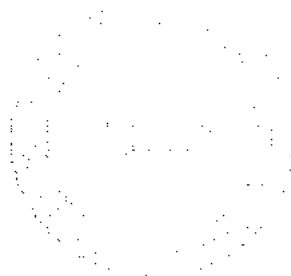
Ground floor	:	1,195.58 Sq. mtrs.
1 st floor	:	988.65 Sq. mtrs.
2 nd floor to 4 th floor (1,195.97 Sq. mtrs. on each floor x 3 floors)	:	3,587.91 Sq. mtrs.
5 th floor	:	1,188.76 Sq. mtrs.
6 th floor	:	1,224.23 Sq. mtrs.
7 th floor	:	1,151.41 Sq. mtrs.
8 th floor to 12 th floor (1,188.76 Sq. mtrs. on each floor x 5 floors)	:	5,943.80 Sq. mtrs.
13 th floor	:	1,224.04 Sq. mtrs.
14 th floor	:	1,151.98 Sq. mtrs.
15 th floor to 19 th floor (1,188.76 Sq. mtrs. on each floor x 5 floors)	:	5,943.80 Sq. mtrs.



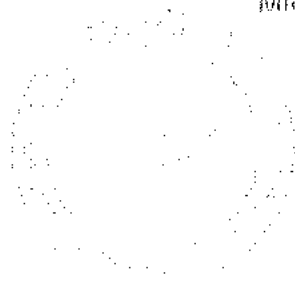
20 th floor	:	1,224.88 Sq. mtrs.
21 st floor	:	1,151.25 Sq. mtrs.
22 nd floor	:	1,188.76 Sq. mtrs.
23 rd floor	:	1,210.67 Sq. mtrs.
24 th floor	:	1,043.45 Sq. mtrs.
9. Total Built-up area	:	2,62,163.61 Sq. mtrs.
10. <u>Surrounding properties:-</u>		
East	:	24.00 mtrs. wide Hosakere Road and Commercial Building of 2 Basements, ground & 5 upper floors.
West	:	Residential Area & Vacant land.
North	:	12.00 mtrs. wide New Binnypet Road.
South	:	Residential Area & Vacant land

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

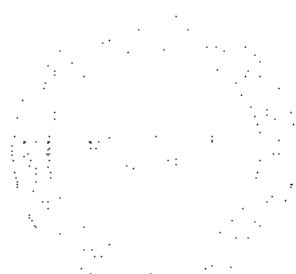
Details (1)	Existing (2)
1. Width of the road to which the building abuts and whether it is hard surfaced to carry the weight of 45,000 kgs.	The premises is abutting 24.00 mtrs. wide Hosakere Road through 12.00 mtrs. wide approach Road, located on the eastern side & 12.00 mtrs. New Binnypet Road, located on the northern side. Both the roads are hardened to carry the weight of 45,000 kgs
2. Number of entrances and width of each	Proposed to provide 3 entrances, one of 12.00 mtrs. width & one of 8.00 mtrs. width from 24.00 mtrs. wide Hosakere Road, located on the eastern side and another of 12.00 mtrs. width from 12.00 mtrs. wide internal road, located on the northern side.



(1)	(2)
3. Height clearance over the entrance	: No arch or any other constructions has been proposed over the entrances.
4. Width of open space (Setbacks):-	
<u>Tower – 4</u>	
Front (South)	: Minimum 16.36 mtrs.
Rear (North)	: Minimum 55.90 mtrs.
Side (East)	: Minimum 51.39 mtrs.
Side (West)	: Minimum 16.00 mtrs.
<u>Tower – 5</u>	
Front (North)	: Minimum 24.25 mtrs.
Rear (South)	: Minimum 55.90 mtrs.
Side (East)	: Minimum 53.13 mtrs.
Side (West)	: Minimum 16.00 mtrs.
<u>Tower – 6</u>	
Front (North)	: Minimum 24.25 mtrs.
Rear (South)	: Minimum 77.56 mtrs.
Side (East)	: Minimum 76.76 mtrs.
Side (West)	: Minimum 53.13 mtrs.
<u>Tower – 7</u>	
Front (North)	: Minimum 24.25 mtrs.
Rear (South)	: Minimum 38.92 mtrs.
Side (East)	: Minimum 16.00 mtrs.
Side (West)	: Minimum 76.76 mtrs.



(1)	(2)
5. Arrangement for parking the Cars :	Provision has been made to park 700 Cars at common lower Basement parking area & 998 Cars at common upper Basement parking area and 120 Cars on the open space available all around the Building. This open space parking shall be after leaving 8.00 mtrs. wide driveway from the Building line. Proposed to provide 8 ramps for each basement for the Cars & two wheelers to reach each basement parking area
6. <u>Number of staircases</u>	
Tower-4 :	6 (2 in each Wing).
Tower-5 :	2.
Tower-6 :	2.
Tower-7 :	2.
7. Location of the staircases :	All the staircases have been designed to abut one of its side to the wall and are terminated at ground floor level. 24 separate staircases have been proposed to reach the common lower Basement parking area from the ground floor. Further provision has been made to enclose all the staircases of each Tower at each floor level.
8. <u>Staircase size:-</u>	
(a) Width of the staircases :	Each of 1.20 mtrs.
(b) Width of treads :	30 Cms
(c) Height of riser :	15 Cms.
(d) Number of risers in a flight :	Maximum 10 risers per flight
(e) Height of hand rails :	1.00 mtr. As proposed, the hand rails should be provided at a height of 1.00 mtr. The gap between two verticals should not exceed 15 Cms.
(f) Head room clearance :	2.70 mtrs.



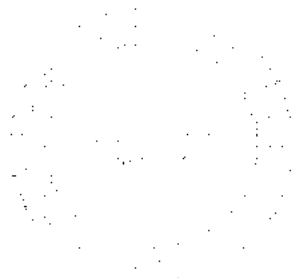
(1)	(2)
9. Travel distance from the farthest : point and from dead-end of the corridor to the staircase.	Maximum 31.00 mtrs. from the farthest point to staircases in basements.
Tower-4	Maximum 28.00 mtrs. from the farthest point and maximum 15.00 mtrs. from the dead end of the corridor to the staircases in upper floors.
Tower-5, 6 & 7	Maximum 32.00 mtrs. from the farthest point and maximum 15.50 mtrs. from the dead end of the corridor to the staircases in upper floors.
	Increased travel distance both from the farthest point & dead end of the corridor are acceptable as all the floors of all the Towers are proposed to be covered with automatic sprinkler system.

10. Number of lifts and capacity

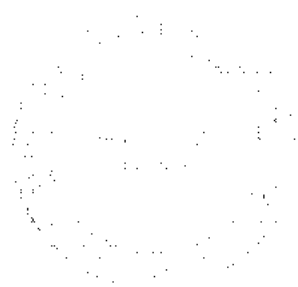
Tower-4	:	12 lifts (4 in each Wing), each of 16 passengers capacity.
Tower-5	:	4 lifts, each of 13 passengers capacity.
Tower-6	:	4 lifts, each of 13 passengers capacity.
Tower-7	:	4 lifts, each of 13 passengers capacity.

C. While constructing the building the following fire safety measures should be incorporated:-

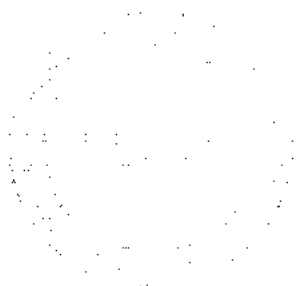
Details (1)	Existing (2)	Recommendation (3)
i. Condition of the open space.	-	Out of the required and allowed setbacks of minimum 16.00 mtrs. all around each Tower, the setbacks to an extent of 8.00 mtrs. from each Building line should have a RCC slab of 200 mm thickness to carry the load of 45,000 kgs., being the weight of a fire unit. This driveway all around each building, should always be kept free and clear. It would be advantageous to the builders



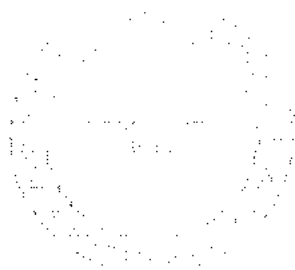
(1)	(2)	(3)
		and the users to elevate this portion by a few inches and even provide for a different colour, so that people are aware that this is the emergency route for fire fighting vehicles, ambulances etc. The total setbacks shall be at even level without any structure and projections up to a height of 5.50 mtrs. These setbacks shall be always kept free from any construction or utilization like garden, landscaping parking etc.
2. Structural materials.	---	RCC materials and brick walls of not less than two hours fire resistance should be used for the construction of structures. Only fire resistant materials or materials treated with fire retardant chemicals, should be used for interior decoration work. While attending the interior decoration the fixed fire fighting systems like sprinklers/risers etc., should not be covered or shifted from their original location.
3. Design of the staircases.	Not indicated	All the staircases should be constructed with non-combustible materials and should be completely enclosed at each landing to prevent smoke and fire traveling from the lower floors to the 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 two hours fire resistance capacity. The staircase area should be without glazing or glass brick walls to avoid reflections. Any area of dwelling or storage should not open directly to the staircase.
4. Specification of lift	Not indicated	The brick walls, enclosing the lift shafts, should be of 90 mm thickness and have a fire resistance of not less than two 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.



(1)	(2)	(3)
		Landing doors of lift enclosures should open into a ventilated lobby having one hour fire resistance. Lift car doors should be of metal finish, operating automatically and should have fire resistance capacity of one hour. Exit from the lift lobby should be through a self closing smoke stopping door of 15 mm thickness, having one hour fire resistance capacity. This is to prevent smoke and fire traveling from the lower floors to the upper floors. The lift machine rooms should be separate and no other machinery should be installed therein. Each lift should be connected to an alternative source of power (generator). Grounding switches at the ground floor level to enable the Fire & 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 common lower 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.
5. Service ducts/shafts.	---	Service ducts should be enclosed by walls of 100 mm. thickness to have at least two hrs 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 two hours fire resistance capacity. Water mains, telephone lines, intercom lines or any other service 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 two hours fire resistance capacity.



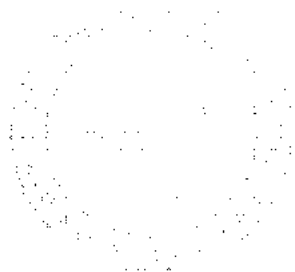
(1)	(2)	(3)
6. Basements Ventilation	Not indicated	Each basement shall be separately ventilated. Vents with cross-sectional area (aggregate) not less than 2.5% of the floor area spread evenly round the perimeter of the basement shall be provided in the form of grills, or breakable stall board lights or pavement lights or by way of shafts. Alternatively, a system of air inlets shall be provided at basement floor level and smoke outlets at basement ceiling level. Inlets and extracts may be terminated at ground level with stall board or pavement lights as before, but ducts to convey fresh air to the basement floor level have to be laid. Stall board and pavement lights should be in positions easily accessible to the fire brigade and clearly marked 'SMOKE OUTLET' or 'AIR INLET' with an indication of area served at or near the opening. In multi-storey basements, intake ducts may serve all basement level, but each basement levels and basement compartment shall have separate smoke outlet duct or ducts. Ducts so provided shall have the same fire resistance rating as the compartment itself. Fire rating may be taken as the required smoke extraction time for smoke extraction ducts. Mechanical extractors for smoke venting system from lower basement levels shall also be provided. The system shall be of such design as to operate on actuation of heat / smoke sensitive detector or sprinklers, if installed, but shall have a considerably superior performance compared to the standard units. It shall also be an arrangement to start it manually. Mechanical extractors shall have an internal locking arrangement, so that extractors shall continue to operate and supply fan shall stop automatically with the actuation of fire detectors. Mechanical extractors shall be designed to permit 30 air changes per hour in case of fire or distress call.



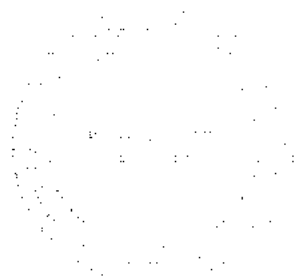
(1)	(2)	(3)
		Mechanical extractors shall have an alternative source of supply. Ventilating ducts shall be integrated with the structure and made out of brick masonry or reinforced cement concretes as far as possible and when this duct crosses the transformer area or electrical switchboard, fire dampers shall be provided. Use of basements for kitchens working on gas fuel shall not be permitted, unless air conditioned. If cut outs are provided from basements to the upper floors or to the atmospheres, all sides cut out openings in the basements shall be protected by sprinkler head at close spacing so as to form a water curtain in the event of a fire.
7. Escape route.	Not indicated	Direction 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 marking should be in luminous paint.

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

Details (1)	Existing (2)	Recommendation (3)
1. Electric power supply.	---	Circuits for water pumps, lifts, staircase lighting in in the building should be by separate line and independently connected so that they can be operated by one switch installed the ground floor. Dual operated switches should be installed in the service room for terminating the standby supply. As proposed 5 standby generators, each of 500 KVA capacity shall be installed at common upper Basement to supply alternative power for staircase lighting, corridor lighting, fire fighting systems, lifts etc., in the event of failure of electricity supply, in the buildings.

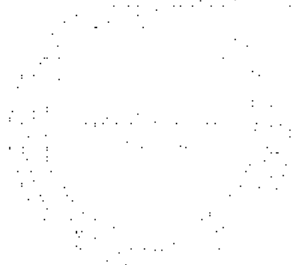


(1)	(2)	(3)
2. Wet riser-cum-down comer.	Proposed to provide 9 Wet riser-cum-down comer systems (3 in Tower-4, 2 in Tower-5, 2 in Tower-6 & 2 in Tower-7).	As proposed 9 Wet Riser-cum-down comer systems (3 in Tower-4, 2 in Tower-5, 2 in Tower-6 & 2 in Tower-7), near the staircases shall be provided. Each should be of 150 mm internal diameter and of G.I. 'C' class pipe. From the riser double hydrant outlets should be provided at each landing. Hose reel hose of minimum 19 mm size 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. A minimum of 2 external hydrants at a suitable locations (adjacent to the compound wall) with adequate space between them should also be provided from the each system. Adequate B.I.S. 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 two fire service inlets to boost the water in the riser directly from the mobile pump should also be provided. These inlets should be located at an easily accessible position, preferably near the entry point to the premises. Each Wet riser-cum-down comer system of Tower-4 & 5 should be connected to an overhead tank of 25,000 litres capacity and an underground tank of 1,00,000 litres capacity. One diesel driven pump and 2 nos. electrically driven pumps (one for hydrant & one for sprinkler system), each capable of delivering 2280 litres of water per minute at 0.3N/mm² pressure and an jockey pump with a capacity of 180 LPM shall be installed near the combined underground tank at the rate of 1 set of pumps for every 4 risers (total 2 set of pumps). The impeller of all the pumps should be made of bronze.



(1)	(2)	(3)
		Similarly each Wet riser-cum-down comer system of Tower- 6 & 7 of should be connected to an overhead tank of 25,000 litres capacity and an underground tank of 1,00,000 litres capacity. One diesel driven pump and 2 nos. electrically driven pumps (one for hydrant & one for sprinkler system), each capable of delivering 2280 litres of water per minute at 0.3N/mm2 pressure and an jockey pump with a capacity of 180 LPM shall be installed near the combined underground tank. The impeller of all the pumps should be made of bronze.
3. Manually operated fire alarm system	Proposed to provide manually operated electrical fire alarm system with call boxes near each staircase landing of each Tower.	Manually operated electrical fire alarm system should be installed with call boxes located near each staircase landing of each Tower. The call boxes should be of "break glass" type, where the call is transmitted automatically to the control room when the glass of the system is broken. This system should also be connected to an alternative source of power supply (diesel generator). The call boxes should be so installed that their location can be easily noticed from either direction and should be at a height of one meter from the floor level.
4. Automatic fire detection system	Proposed to provide automatic fire detection system with smoke detector heads & heat detector heads as indicated below:-	As proposed automatic smoke detection system shall be provided with its console at ground floor level.

Tower	Floor	Smoke detector heads	Heat detector heads
Tower-6, 5, 6 & 7	Common lower Basement	11	03
	Common upper Basement	30	07
	Ground floor	62	14
Tower-4	1 st floor	68	16

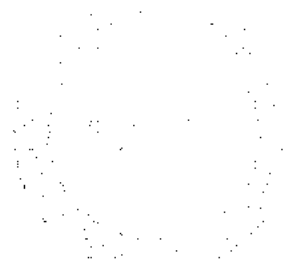


(1)

(2)

(3)

	2 nd floor to 12 th floor	68 on each floor	18 on each floor
	13 th floor	60	09
	14 th floor	67	16
	15 th floor to 27 th floor	68 on each floor	18 on each floor
	28 th floor	66	18
	29 th floor	72	10
	30 th floor	66	18
	31 st floor	72	16
Tower-5	Ground floor	42	06
	1 st floor	49	06
	2 nd floor to 5 th floor	49 on each floor	18 on each floor
	6 th floor to 10 th floor	49 on each floor	08 on each floor
	11 th floor	51	05
	12 th floor to 21 st floor	49 on each floor	08 on each floor
	22 nd floor	29	05
	23 rd floor	51	06
	24 th floor to 31 st floor	49 on each floor	02 on each floor
	32 nd floor	49	08
Tower-6	Ground floor	31	06
	1 st floor	37	06
	2 nd floor to 12 th floor	38 on each floor	08 on each floor
	13 th floor	45	02
	14 th floor to 30 th floor	38 on each floor	08 on each floor
	31 st floor	39	00
	32 nd floor	43	04
Tower-7	Ground floor	31	03
	1 st floor	37	06
	2 nd floor to 5 th floor	38 on each floor	06 on each floor



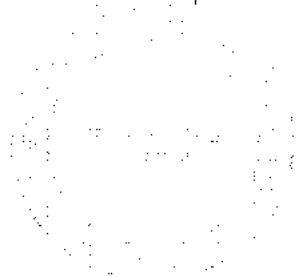
(1)	(2)	(3)	
	6 th floor	39	07
	7 th floor	40	07
	8 th floor to 12 th floor	38 on each floor	8 on each floor
	13 th floor	38	08
	14 th floor	39	08
	15 th floor to 19 th floor	38 on each floor	08 on each floor
	20 th floor	40	07
	21 st floor	41	07
	22 nd floor	38	08
	23 rd floor	38	06
	24 th floor	46	02

5. Automatic sprinkler system.

Proposed to provide automatic sprinkler system with sprinkler heads as indicated below:-

Adequate. Separate water for sprinkler system to use 10% of the sprinkler system for about 30 minutes shall be provided.

Tower	Floor	Sprinkler heads
Tower-4, 5, 6 & 7	Common lower Basement	2,553
	Common upper Basement	3,705
Tower-4	Ground floor	118
	1 st floor	133
	2 nd floor to 12 th floor	119 on each floor
	13 th floor	131
	14 th floor	126
	15 th floor to 27 th floor	119 on each floor
	28 th floor	115
	29 th floor	121
	30 th floor	115
	31 st floor	121

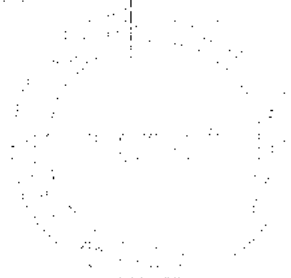


(1)

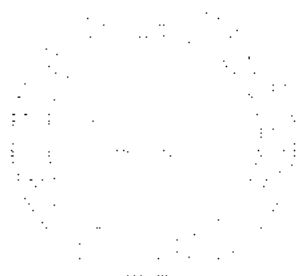
(2)

(3)

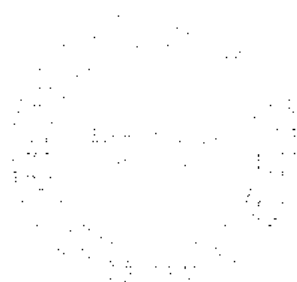
Tower	Floor	Sprinkler heads
Tower-5	Ground floor	77
	1 st floor	99
	2 nd floor to 5 th floor	88 on each floor
	6 th floor to 10 th floor	88 on each floor
	11 th floor	112
	12 th floor to 21 st floor	88 on each floor
	22 nd floor	54
	23 rd floor	113
	24 th floor to 31 st floor	88 on each floor
	32 nd floor	88
Tower-6	Ground floor	53
	1 st floor	74
	2 nd floor to 12 th floor	64 on each floor
	13 th floor	104
	14 th floor to 31 st floor	64 on each floor
Tower-7	32 nd floor	66
	Ground floor	53
	1 st floor	74
	2 nd floor to 5 th floor	64 on each floor
	6 th floor	67
	7 th floor	71
	8 th floor to 12 th floor	64 on each floor
	13 th floor	68
	14 th floor	72
	15 th floor to 19 th floor	64 on each floor
	20 th floor	68
	21 st floor	70
	22 nd floor	64
	23 rd floor	62
	24 th floor	64



(1)	(2)	(3)
6. Automatic water Curtains.	Not indicated.	Automatic water curtains shall be provided in each floor of each building at the rate of two per floor to create smoke stop and fire barrier compartmentation in the event of fire accident.
7. Automatic Fire & Smoke Control Curtains.	Not indicated.	Automatic Fire and Smoke control curtains shall be provided in each floor at the rate of two per floor to create smoke stop and fire barrier compartmentation in the event of fire accident, their by safeguarding elevator area, lobby area, stair area etc. It shall be of minimum 2 hours rating.
8. Public address system.	Proposed to provide public address system with two way communication facility.	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.
9. Assembly Area.	Not marked.	An area at an appropriate place in the allowed/ required setbacks shall be earmarked with a proper board as 'ASSEMBLY AREA' for the occupants to assemble after evacuation during practice drill and in an emergency.
10. Portable fire extinguishers.	Proposed to provide suitable type of portable fire extinguishers as per the requirements.	a) One ABC Powder extinguisher of 6 kgs. capacity for every 8 Cars at each Basement parking area and also on the open space parking area under shelter. b) One ABC extinguisher of 2 kgs. capacity should be provided near the entrance to each main switch board room, inside each lift machine room and inside each kitchen. c) One ABC Powder extinguisher of 6 kgs. capacity should be provided near the transformer, if installed and near the entrance to the D.G. Room.



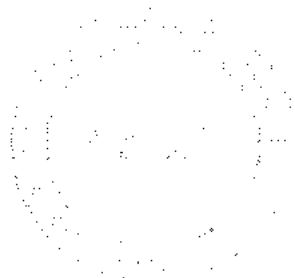
(1)	(2)	(3)
		d) One ABC Powder extinguisher of 6 Kgs. capacity should be kept near each staircase landing on every floor of each Tower. e) All the extinguishers suggested above should be with B.I.S. markings and should be located at an easily accessible position without obstructing the normal passage.
11. Fire safety plan.	--	A Fire safety plan for preventing and extinguishing any accidental fire in each Tower and action to be taken by the occupants in case of such fire should be prepared in advance and got approved by the Director, Karnataka Fire & 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 and employees in each Tower and should be displayed on every floor. A Fire Command Station should be established in the lobby of each Tower on the entrance floor and 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 Tower. 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 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 & Emergency Services department.



(1)	(2)	(3)
12. Multi Entry Fire Escape Chutes.	Proposed to provide 6 Fire Chutes in Tower-4 & 2 Fire Chutes in each Tower i.e. Tower-5, 6 & 7.	As proposed multi entry fire escape chutes (6 in Tower-4 & 2 in each Tower i.e. Tower-5, 6 & 7) should be installed in every floor of each Tower for immediate evacuation in case of an emergency. The evacuation rate shall be upto 30 persons per minute.
13. Helipad	Proposed to provide one Helipad on the terrace of each Tower (4 Helipads).	As proposed one Helipad on the terrace of each Tower (total 4 Helipads) shall be provided with all fire prevention and fire fighting measures as per the specifications.
14. Training	Not indicated	40% of the occupant/employees should be got trained in fire prevention & fire fighting at the R.A. Mundkur Fire & Emergency Services Academy, Bannerghatta Road, Bangalore – 560 029 within 6 months from the date of occupation of the building. For this purpose, before approaching this department for final clearance certificate, the applicant should give an undertaking in the form of an affidavit regarding the maintenance of the fire prevention and fire fighting measures suggested above and arranging training of 40% of the occupants in fire prevention and fire fighting within 6 months from the date of issue of the clearance certificate.

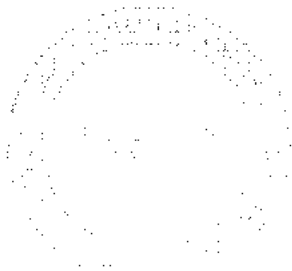
E. General:-

- 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, except limited quantity required for each kitchen.
- 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.
- 9) Apart from the above, the building shall be constructed by following all the norms / measures stipulated in Part-3 & Part-4 of National Building Code and as per local Zoning Regulations strictly, failing which the NOC issued will not be valid.
- 10) The NOC is issued from the Fire Prevention and Fire Fighting point of view. Karnataka State Fire & Emergency Services Department will not endorse the ownership of the premises and not responsible for any disputes which may arise in due course.

Subject to the strict adherence to the conditions laid down as above, issue of license for the construction of 4 High Rise Residential Buildings i.e. Tower-4 with 3 Wings -- joined together, Tower-5, Tower-6 and Tower-7 at Phase-2, Municipal New No. 01/1, City Sy. No. 2699/1, (Old No. 42 to 47, 10, 11, 12 & 32). PID No. 31-42-1/1 Hosakere Road, Binnypet, Bangalore-560 023 may please be considered.



Yours faithfully,

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

Copy to:

- 1) The Authorised Signatory, M/s. Relationship Properties Pvt. Ltd., No. 1049, Mariya Arcade, 4th Block, Dr. Rajkumar Road, Rajajinagar, Bangalore-560 010.
- 2) The Regional Fire Officer, EPMS Unit, Fire and Emergency Services Academy, Bangalore.