

MUNICIPAL CORPORATION OF GREATER MUMBAI**MUMBAI FIRE BRIGADE**FD HR/R-VI/28
02103119

Sub: Fire protection and fire-fighting requirements for the proposed construction of High Rise Residential Building No. 130 (MHADA Layout) on F.P. No. 314 (pt.) & 315(pt.) of T.P. scheme. Ghatkopar III, bearing CTS No. 5675 (pt.) & 56756(pt.) of village Ghatkopar Kirol at Pant Nagar.

Ref: i) letter dated 28.02.2019 from R.P. Asundaria, Architect, Mumbai.
ii) M.F.B. No. HR/R-VI/28 dated 28.02.2019

E.E.(B.P.) Cell/MHADA Greater Mumbai.

This is a proposal for the construction of high rise residential building under regulation 33(5) of DCPR-2034, having ground floor partly for stilt & partly for society office + 1st to 16th upper residential floors with a total height of 49.60 mtrs. from general ground level up to terrace level, as shown on plans.

Car Parking Tower:

Architect has proposed Mechanical Car Parking Tower having height of 49.80 mtrs. from ground floor up to height of car lift machine room & separated with 04 hour fire resistance wall North-west corner of the building which is accessible from mid-landing of the enclosed staircase, as shown on plans. The mechanized car parking tower & proposed building is segregated by 04hrs. fire resistance RCC wall as shown on plans.

The floor-wise user of the building is as under.

Floors	Users
Ground floor	Society office + Meter Panel + Wall mounted fire alarm system + 02 Pump room (domestic/fire + U.G. Tank & Mechanical Carparking tower.
1 st floor	02 nos. offices with separate staircase + 01 no. of flat
2 nd to 16 th residential floors	03 nos. of flats on each floor

REFUGE AREA:

Refuge area proposed as follows & as shown on the plans.

Building has been provided with refuge area of 10.00 sq. mtrs. in the form of R.C.C. cantilever on alternate floor at mid-landing level of the staircase in between 8th-9th, 10th-11th, 12th-13th & 14th-15th floors. 1st refuge area at the height of 24.95mtrs. from ground level. In addition to that, terrace of the building will be treated as refuge area. Excess Refuge area shall be counted in F.S.I.

OPEN SPACES:

The proposed building abuts on 12.20mtrs. wide Existing Road on East side & 18.30 wide Existing Road on West side

The open spaces around the building at ground level are as under.

Sides	From building line to plot boundary
North	1.50mtrs.(from parking tower) to 03.60mtrs.
South	03..60mtrs.
West	03..60mtrs. + 18.30 wide Existing Road
East	03..60mtrs. + 12.20 wide Existing Road

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- ii) A certificate to that effect that the fire resistance protection has been provided as above shall be furnished from the Structural Engineer as the time of application for occupying the building.

3. COURTYARDS/OPEN SPACES :

- i) The entire available courtyards on all the sides of the building shall be paved suitably to bear the load of fire engines weighing up to 48 m. tones each with a point load of 10 Kgs. per sq.cms.
- ii) The courtyards shall be kept free from obstruction at all times.
- iii) No structure of any kind shall be permitted in courtyards of the building.

4. STAIRCASE :

- i) The layout of the staircase shall be enclosed type as shown in the plan throughout its height and shall be approached (gained) at each floor level through at least half an hour fire resistant self closing door (45 mm. thickness) placed in the enclosed wall of the staircase at landing.
- ii) The flight width of the staircase shall not be less than 01.50 mtrs. throughout its height.
- iii) Permanent vent at the top equal to 5% of the cross sectional area of the staircase shall be provided.
- iv) Open able sashes or R.C.C. grills with clear opening of not less than 0.5 sq.mtrs. per landing on the external wall of the staircase shall be provided.
- v) Nothing shall be kept or stored in staircase / corridor/passage.

5. CORRIDOR / LIFT LOBBY :

- i) Corridor / lift lobby at each floor level shall be naturally & Mechanically ventilated as per I.S. Standard.
- ii) The common corridor / lift lobby at each floor level shall be kept free from obstructions at all times.
- iii) Proper signages for way to staircase, escape routes, staircase, floor nos. etc. shall be provided at each floor of building.
- iv) Portable lights / insta lights shall be provided at strategic locations in the staircase and lift lobby.

6. ELECTRIC CABLE SHAFT AND ELECTRIC METER PANEL:

- i) Electric cable shaft shall be exclusively used for electric cables and should not open in staircase enclosure.
- ii) Electric cable shaft shall be sealed at each floor level with non combustible materials such as vermiculite concrete. No storage of any kind shall be done in electric shaft.
- iii) Electric wiring/ cable shall be non-toxic, non-flammable, low smoke hazard having copper core / fire resistance for the entire building with provision of ELCB/MCB.
- iv) Electric meter panel shall be provided at ground floor level. It shall be adequately ventilated & easily accessible.
- v) Electric wiring shall be having copper core having the fire resistance and low smoke hazard cables for the entire bldg., with the provision of ELCB/MCB.
- vi) Low and medium voltage wiring running in shaft and in false ceiling should run in separate conduits;
- vii) Water mains, telephone lines, intercom lines, gas pipes or any other service line should not be laid in the duct for electrical cables; use of bus bar/solid rising mains instead of cables is preferred.

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will return to normal working. This lift can be used by the occupants in normal times.

- h. The words 'Fire lift' shall be conspicuously displayed in florescent paint on the lift landing door at each floor level & Threshold of non combustible material shall be provided at the entrance of each landing door.
- i. Fire lift shall be constructed as per prevailing Indian & International standard.

10. MECHANICAL CAR PARKING TOWER:

- a. All the structural steel members of the 15 layer mechanized car parking block i.e. columns, beams external cladding with the coated steel sheets etc. shall be protected with fire resisting/retardant materials & methods as stipulated under IS 1942 -1960 as application for residential building. A certificate to that effect that the fire resistance protection has been provided as above shall be furnished from the chartered structural Engineer at the time of application for occupying the building.
- b. The cars shall be separated by perfect partition of 4.5 mm thick M.S. steel pallets between two cars to prevent spread of fire from one level to next level.
- c. The mechanized car parking block has door at the bottom and covered opening at the top to create natural drafts to prevent spreading of fire.
- d. The electrical cables used internally shall be fire retardant and heat resistant of 105 degree centigrade.
- e. Emergency stop switch shall be installed inside the auto parking system at the top of the tower near the driving unit outside the tower on operation panel and on the main control panel for activation in case of any emergency for the power cut off to the main motor and all operations to stop.
- f. Stopper shall be installed on each pallet for the maximum position to which the car can be driven onto pallet.
- g. Automatic sprinkler system conforming to the standards laid down by T.A.C. and relevant I.S specification shall be provided with sprinkler head at each level below each pallet on engine side.
- h. The car's engine shall be shut off at ground level before parking at higher level.
- i. Only trained operators certified by company installing car tower shall operate automatic car parking.

11. FALSE CEILING (if provided):

False ceiling if provided in the building shall be of non-combustible material. Similarly, the suspenders of the false ceiling shall be of no combustible materials.

12. MATERIALS FOR INTERIOR DECORATION/FURNISHING:

The use of materials which are combustible in nature and may spread toxic fume/gases should not be used for interior decoration/furnishing, etc.

13. FIRE FIGHTING REQUIREMENTS :

A) UNDERGROUND WATER STORAGE TANK:

An underground water storage tank of 1,50,000 liters capacity shall be provided as per design specified in the rules with baffle wall and fire brigade collecting breaching. The layout of which shall be got approved from H.E.'s department prior to erection. The tanks shall be connected to sprinkler system.

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- v) Two hose boxes, each with two hoses of length 50 feet standard size and branch shall be equally distributed near wet riser landing valve in ground floor area.
- vi) Only surface mounted pump or vertical turbine pump shall be installed for firefighting system.
- vii) Switch of booster pump shall be provided at terrace level, ground floor as well as on each refuge area of building.
- G) EXTERNAL HYDRANTS:**
Courtyard hydrants shall be provided at distance of 30.00 mtrs each within the confines of the site of the wet riser-cum-down comer. Hose box with two non percolating ISI marked hoses (length not less than 15 mtrs) & branch shall be equally distributed on ground floor, podium floor, as well as on each floor near the wet riser outlet.
- H) ALTERNATE SOURCE OF POWER SUPPLY:**
An alternate source of LV/HV supply from a separate substation or from a D.G. set with appropriate changeover switch shall be provided for fire lifts, fire pumps, booster pump, sprinkler pump, jockey pump, staircase and corridor lighting circuits and fire alarm system. It shall be housed in separate cabin.
- I) PORTABLE FIRE EXTINGUISHERS:**
- i) One dry chemical powder type fire extinguisher of 6 kgs. capacity having B.I.S. certification mark and two bucket filled with dry clean sand shall be kept in each electric meter panel as well as in each lift machine room.
- ii) One dry chemical powder type fire extinguisher of 6 kgs capacity having B.I.S. certification mark and one buckets filled with dry clean sand shall be kept at ground level.
- iii) One dry chemical powder type fire extinguisher of 6 kgs capacity having B.I.S. certification mark shall be provided on each floor.
- J) FIRE FIGHTING REQUIREMENTS AT THE CONSTRUCTION STAGE OF BUILDING:**
Following fire protection arrangement shall be provided with the following fire protection measures shall be provided & same shall be maintained in good working condition at all the times.
- i) Dry riser of minimum 10 cm diameter pipe with hydrant outlets on the floor constructed with fire service inlet to boost the water in the dry riser & maintenance should be in accordance with good practice.
- ii) Drums of 2000 liters capacity filled with water & two fire buckets shall be kept of each floor for every 100 sq. mtrs area.
- iii) Water storage tank of minimum 20,000 liters capacity shall be kept at site ready to use in case of emergency, which may be used for other construction purpose also.
- K) MANUAL FIRE ALARM SYSTEM :**
The building shall be provided with manual fire alarm system with main control panel at ground floor level and pill-boxes and hooters at each upper floor level in accordance with B.I.S. specification.

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- A. The top of portion of the doors shall be provided with louvers.
- B. The single latch lock shall be installed from the terrace side at the height of not more than one mtr.
- C. The glass front of 6 inch diameter with the breakable glass shall be provided just above the single latch lock, so as to open the latch in case of an emergency by breaking glass.
- D. The door shall either be fitted with magnetic lock or shall be synchronize with fire detection and alarm system.

The party has paid scrutiny fee of Rs.2,68,800/- vide receipt no. No. : 1568973/974/975 (SAP. DOC No. 1003531504) dated 28.02.2019, on the total built up area of 5600.0 sq. mtrs. as certified by the Architect.

However, E.E.(B.P.) is requested to verify the total built-up area and inform this department, if the same is found to be more for the purpose of levying additional Scrutiny fees, if required.

Note for E.E.(B.P.) Cell/MHADA Greater Mumbai & Architect:

- i) The area calculation shown in the enclosed plan shall be checked by the **E.E.(B.P.) Cell/MHADA Greater Mumbai.**
- ii) The fire fighting installation shall be carried out by approved licensed agency.
- iii) **E.E.(B.P.) Cell/MHADA Greater Mumbai** shall verify the proposal in context with Hon. M.C.'s circulars issued u/n. Ch.E./32545/DP-Gen dated 24/02/2015 & u/no. Ch. E/34194/DP/Gen dated 10/03/2015 and verify the compliance as per the above said circulars. If the same is not complied with, this proposal shall be referred back to this department for issuing fresh N.O.C..
- iv) If any matter of N.O.C. violate DCPR-2034 then this N.O.C. shall be refer back to this department with remarks.
- v) There shall be no tree located in compulsory open spaces.
- vi) This N.O.C.is issued without prejudice to legal matters pending in court of law, if any.
- vii) No any addition/alteration shall be done in the structure of the building without the previous consent of all the concerned/occupier as per the provision of Section 7 of MOFA.
- viii) This N.O.C.is issued only from Fire Protection & Fire-Fighting requirements point of view & issued on the request letter from M/s. R. P. Asundaria but not given approval to any unauthorized /illegal construction. Any unauthorized or legal matter shall be cleared by Owner/ Occupier/ Developer/ Architects etc.
- ix) The width of the abutting road/Access road, open spaces mentioned in this N.O.C.is as per plans submitted by the Architect, attached herewith. These parameters shall be verified by E.E.(B.P.) before granting any permission (I.O.D./C.C./further C.C.). If found any contradictions, the proposal shall be referred back to this department.
- x) This N.O.C.is issued for the proposed building from fire risk / fire safety point of view only. Approval of this plan does not mean in any way of allowing construction of the building. It is the Architect/Developers responsibility to take necessary prior approval from all concerned competent authorities for the proposed construction of the building.
- xi) This N.O.C. is issued from fire risk/fire safety point of view only. The schematic drawings/plans of Sprinkler system, smoke detection System, wet