MUNICIPAL CORPORATION OF GREATER MUMBAI
MUMBAI FIRE BRIGADE

Sub.: N.O.C. stipulating fire-fighting & fire protection requirements for the proposed construction of Low rise commercial cum residential building (Proposed redevelopment of existing building) on plot bearing C.T.S. No. 850/A of village Dahisar, at junction of L.T. Road & Y.R. Tawde Road, Tawde Wadi, Dahisar (W), Mumbai .

Ref: 1) Online submission from **Mr. MANISH MANHARLAL SHAH,** Architect.
2) Online File No. **CHE/WSII/4643/R/N/337(NEW)-CFO/1/New**

E.E.B.P.(W.S.)

This is a proposal for construction of low rise commercial cum residential building comprising of ground floor part on stilt + 1st & 2nd floor for commercial user + 3rd to 9th upper residential floors with a total height of 31.95 mtrs. measured from general ground level to terrace level as shown on the plan.

The details of floor wise users of the building will be as follows:

Floor level	Detail of usage/ tenements per floor
Ground floor part stilt	Entrance lobby + 05 nos. of shops + Three level duplex type shop (1st level) + 01 no. of Restaurant + 01 no. of duplex type Restaurant (lower level) + 01 no. of duplex type Bank (lower level) + 03 nos. of Space for electric meter + Space for fire panel + Five tier stack car parking in stilt area
1st floor	04 nos. of shops + Three level duplex type shop (2nd level) + 01 no. of duplex type Restaurant (upper level) + 01 no. of duplex type Bank (upper level) having common access through separate 1.50 mtrs wide open type staircase leading from ground floor + Part void for stack car parking in stilt on ground floor.
2nd floor	O1 no. of office + 01 no. of shop + Three level duplex type shop (3rd level) having common access through separate 1.50 mtrs wide open type staircase leading from ground floor + Part void for stack car parking in stilt on ground floor
3rd to 9th floor	05 nos. of Residential flat on each floor
Terrace	Open to sky (treated as refuge area)

DETAILS OF STAIRCASE:

No. of staircase	Width	From – To	Type of staircase
One	1.50 mtrs	Leading from ground floor to terrace level for residential user	Open type
One	1.50 mtrs	Leading from ground floor to 2nd floor for commercial user	Open type
The staircase is externally located and adequately ventilated to outside air as shown on the plan.			

DETAILS OF LIFTS:

No. of lifts	Type of lifts	Profile
02 Nos.	Passenger lifts	Each leading from ground floor to terrace level residential user
01 No.	Passenger lift	Leading from ground floor to 2nd floor for commercial user
One Passenger lift leading from ground floor to top floor shall be converted into fire lift. The lift lobby/ common corridor at each floor is directly ventilated to outside air.		

The plot abuts junction of two roads i.e. 18.30 mtrs wide Existing D.P. Road at North side & 18.30 mtrs wide Existing D.P. Road (L.T. Road) at East side as shown on the plan.

The side open spaces all around the Building are as under;

Sides	From Bldg. line to CTS plot boundary
North	3.00 mtrs + 18.30 mtrs wide Existing D.P. Road
South	3.70 mtrs to 6.75 mtrs (Including stack & cantilevered car parking)
East	3.00 mtrs + 18.30 mtrs wide D.P. Existing Road (L.T. Road)
West	3.60 mtrs to 4.10 mtrs

The terrace of the building shall be treated as Refuge area as the total height of building is below 32.00 mtrs.

The proposal has been considered favorably taking into consideration the following;-

i) The plot abuts junction of two roads i.e. 18.30 mtrs wide Existing D.P. Road at North side & 18.30 mtrs wide Existing D.P. Road (L.T. Road) at East side as shown on the plan.
ii) There shall be no compound wall at 18.30 mtrs wide Existing D.P. Road at North side & 18.30 mtrs wide Existing D.P. Road (L.T. Road) at East side of the building.
iii) The height of the building is less than 32.00 mtrs. Hence, terrace of building shall be treated as refuge area. (As per new DCPR 2034).
iv) Automatic sprinkler system shall be provided in car parking area on ground to 2nd floor covering each level of car parking, in each shop, restaurant, bank, office on ground to 2nd floor and the same shall be connected to the down comer as per relevant I.S. standards.
v) During construction stage and prior to final occupation party agreed to comply with additional requirements stipulated by Mumbai Fire Brigade Department.

In the view of the above, as far as this department is concerned, there would be no objection for the construction of low rise commercial cum residential building comprising of ground floor part on stilt + 1st & 2nd floor for commercial user + 3rd to 9th upper residential floors with a total height of 31.95 mtrs. measured from general ground level to terrace level, as per the details shown on plan signed in token of approval, subject to satisfactory compliances of the following requirements.

1) ACCESS :

There shall be no compound wall on road side at north & east side. However, removable bollards with chain link shall be permitted at road side at north & east side. The courtyards shall be flushed with the road level.

2) COURTYARDS :

a) The entire available courtyards on all the sides of the building shall be paved suitably to bear the load of fire engines weighting each up to 48 tones.
b) All the courtyards shall be in one plane.
c) The courtyard shall be kept free from obstruction at all time.
d) No structure of any type shall be permitted in courtyards of the building.

3) STACK CAR PARKING:

a) All the structural steel members of the car parking tower / block i.e. columns, beams, external cladding with coated steel sheets etc. shall be protected with the fire resisting / retardant materials and methods as stipulated under relevant I.S. specification.
b) The cars shall be separated by perfect partition of steel pallets between two Cars, to prevent spread of fire from one level to next level.
c) The 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 & 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 the pallet.
g) Lamps indicating whether system is ready to accept the car shall be installed at the entry point of the car.
h) Automatic sprinkler system conforming to the standards laid down by T.A.C. and relevant I.S. specification shall be provided covering each level of car parking. Same shall be coupled with down comer system of the building.
i) The car engine shall be shut off at ground level before parking at higher level.
j) Only trained operator certified by company installing car tower shall operate automatic car parking.

4) STAIRCASE :

a) The layout of the each staircase shall be of open type as shown in the plan throughout its height. The flight width of the each staircase shall not be less than 01.50 mtrs.
b) Permanent vent at the top equal to 5% of the cross sectional area of the staircase shall be provided.
c) Openable sashes or R.C.C. grills with clear opening of not less than 0.5 sq. mtrs. Per mid landing on the external wall of the staircase shall be provided.
d) Nothing shall be kept or stored in staircase / corridor/passage.

The staircase door shall be provided in the following manner:

a. The top half portion of the doors shall be provided with louvers.
b. The latch-lock shall be installed from the terrace side at the height if not more than 1 mtrs.

c. The glass front of 6 inch diameter with the breakable glass shall be provided just above the latch lock, so as to open the latch in case of an emergency by breaking glass.

5) LIFT :

a) Walls enclosing lift shaft shall have a fire resistance of not less than two hours.
b) Shafts shall have permanent vent of not less than 0.2 sq. mtrs in clear area immediately under the machine room.
c) Landing doors and lift car doors of the lifts shall be of steel shuttered with fire resistance of one hour. No collapsible shutter shall be permitted.
d) One lift of shall be converted into fire lift and shall be as per specifications laid down under the regulations.

6) FIRE LIFT:

a) To enable fire services personnel to reach the upper floors with the minimum delay, one fire lift shall be provided, and shall be available for the exclusive use of the firemen in an emergency.
b) The lift shall have a floor area of not less than 1.4 sq. mtrs. It shall have loading capacity of not less than 545 kg. (8 persons lift) with automatic closing doors of minimum 0.8 m. width.
c) The electric supply shall be on a separate service from electric supply mains in a building and the cables run in a route safe from fire, that is, within the lift shaft.
d) Light & fans in the elevators having wooden paneling or sheet steel construction shall be operated on 24 volt supply.
e) Fire lift should be provided with a ceiling hatch for use in case for emergency. So that when the car gets stuck up, it shall be easily openable.
f) In case of failure of normal electric supply, it shall automatically changeover to alternate supply. This changeover of supply could be done through manually operated changeover switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level and comes to stand- still with door open.
g) The operation of fire lift should be by a simple toggle or two – button switch situated in glass-fronted box adjacent to the lift at the entrance level. When the switch is on, landing call points will become inoperative and the lift will be on car control only or on a priority control device. When the switch is off, the lift will return to normal working. So this lift can be used by the occupants in normal times.
h) The words 'Fire lift' shall be conspicuously displayed in fluroscent paint on the lift landing doors at each floor level.
i) Fire lift shall be constructed as per prevailing Indian & International standard.

7) ENTRANCE & KITCHEN DOORS:

a) Flat entrance doors, kitchen door (if provided) shall be of solid core having fire resistance of not less than one hour (solid wood of 45 mm thickness.) Rolling shutters for shops shall have fire resistance of not less than one hour.
b) The fire resistance rating for staircase F.R.D., Lift lobby / protected lobby & the lift doors as per N.B.C. provisions.

8) Ventilation provided to the lift lobby/common passages shall not be bricked up or locked at any point of time in future.

9) ELECTRIC CABLE CONDUIT AND ELECTRIC METER PANEL:

a) Electric cables shall not pass through staircase enclosure and shall be taken in concealed manner.

b) Electric cables 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 duct.

c) Electric wiring/ cable shall be non-toxic, non-flammable, low smoke hazard having copper core for the entire building with provision of ELCB/MCB.

d) Electric meter panel shall be provided at location marked on the plan. They shall be adequately ventilated.

10) CORRIDOR FROM FLATS TO STAIRCASE:

The Corridor at each floor level shall be ventilated to outside air, as shown on the plan. Ventilation etc. shall be maintained uncovered at any time free from natural ventilation.

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) ESCAPE ROUTE LIGHTING:

Escape route lighting (staircase and corridor lighting) shall be on independent circuits as per rules

14) FIRE FIGHTING REQUIREMENTS:

A) OVERHEAD (TERRACE) WATER STORAGE TANK:

The building shall be provided with a tank of 30,000 liters capacity at the terrace level. The design shall be got approved from H.E.'s department prior to erection. The tank shall be connected to the down comer through a booster pump through a non return valve & gate valve.

B) DOWN COMER:

A down comer having internal diameter of 10 cms. of G.I. C class pipe shall be provided with single hydrant out let & hose reel on each floor in such a way as not to reduce the width of staircase. Pressure reducing discs or orifices shall be provided at lower level so as not to exceed the pressure of 5.5 Kgs/sq.cm. A fire service inlet on the external face of the building directly fronting courtyards shall be provided to connect the mobile pump of the fire service to the down comer & sprinkler system.

C) BOOSTER PUMP :

A booster pump of capacity of 900 lit/min & giving pressure of not less than 3.2 Kgs/sq.cm. at the top most hydrant outlet shall be connected to down comer. A two way starting switch shall be provided at ground & at terrace level. The booster pump shall be surface mounted. (Submersible pump shall not be permitted).

D) EXTERNAL HYDRANTS:

Courtyard hydrants shall be provided at distance of every 30.00 mtrs. around the building within the confines of the site of the Down comer.

E) HOSES & HOSE BOXES:

One Hose Box with two hoses of 15mts length of 63mm dia along with branch shall be provided near down comer landing valve on ground & on each floor.

F) FIRE EXTINGUISHERS:

a) One ABC type fire extinguisher of 09 Kgs. Capacity having BIS certification mark & one sand bucket shall be kept in each shop on ground floor, in each level restaurant, bank, shop, in office, in each electric meter panel & in lift machine room.

b) Two ABC type fire extinguishers of 09 Kgs. Capacity having BIS certification mark & two sand buckets shall be kept near stack car parking system.

G) AUTOMATIC SPRINKLER SYSTEM:

Automatic sprinkler system shall be provided in car parking area on ground to 2nd floor covering each level of car parking, in each shop, restaurant, bank, office on ground to 2nd floor and the same shall be connected to the down comer. Pressure switches shall be incorporated in the system to maintain the desired pressure by booster pump, in case of pressure drop of water in the down comer, on activation of sprinkler system as per relevant I.S. standards.

H) AUTOMATIC SMOKE DETECTION SYSTEM :

Automatic smoke detection system shall be installed in each shop, restaurant, bank, office on ground to 2nd floor, in lift machine room & in each electric meter panel as per IS specifications.

15) FIRE ALARM SYSTEM :

Entire building shall be provided with manual fire alarm system with main control panel at ground floor level and pillbox and hooters at each of the upper floors. The layout of the fire alarm system shall be in accordance with Indian Standard Specification

16) PUBLIC ADDRESS SYSTEM:

Public address system shall be provided in building with console panel at the ground floor level.

17) SIGNAGES:

Self-glowing/florescent exit signs in green color shall be provided, showing the means of escape for the entire building.

18) TRAINED OCCUPIER/ STAFF / SECURITY GUARDS:

The trained occupier / staff / Security guards having basic knowledge of fire-fighting & fix fire-fighting installation shall be provided / posted in the building. They will be responsible for the following;

a) Maintenance of all the first aid firefighting equipment's, fixed installations & other fire-fighting equipment's / appliance in good working condition at all times.

b) Imparting training to the occupants of the building in the use of fire-fighting equipment provided on the premises & to conduct the fire drills and evacuation drills.

19) FIRE DRILLS / EVACUATION DRILLS:

Fire Drills & Evacuation drills shall be conducted regularly in consultation with Mumbai Fire Brigade & log of the same shall be maintained

20) REFUGE AREA:

The terrace of the building shall be treated as refuge area and shall be provided as under:

a) The entrance door to the refuge area shall be painted or fixed with a sign painted in luminous paint mentioning "REFUGE AREA IN CASE OF EMERGENCY".
b) Adequate drinking water facility shall be provided in the refuge area.
c) Adequate emergency lighting facility connected to the electric circuit to the staircase, corridor / passage etc. lighting shall be provided

21) ELEVATION FEATURE / PERGOLA:

As shown on plan, elevation feature/Pergola treatment shall be given as per the MCGM guidelines & DCPR-2034 and circular u/no. Ch. Eng./D.P./30449/Gen. Dtd.03.01.2017

22) OTHER NOC / PERMISSIONS: -

Necessary permissions / N.O.C. for licensable trade, addition/ alteration, interior work, etc. shall be obtained from competent Municipal Authorities & CFO's Department.

This N.O.C. is issued subject to necessary approval of Hon'ble M.C. sir for the following:

1) Open space deficiency.

The Architect vide his letter dtd. 13/11/2020 has certified the total gross built-up area as 3500.00 sq. mtrs. for the said low rise building and party has paid scrutiny fees of Rs 1,95,000 vide online Challan No. : CHE/BP/45983/20 dtd. 14/11/2020.

However, E.E.B.P.(W.S) is requested to verify the gross built up area and inform this department if the same is found to be more for levying the additional scrutiny fees if any.

The width of the Abutting road / Access road, Open spaces mentioned in this N.O.C. are as per plans submitted by the Architect, attached herewith. E.E.B.P.(W.S) shall verify these parameters, civil work and all other requirement pertaining to Civil Engineering side including abutting road / access road width, open space, staircase, common corridor, floor occupancy/ floor wise users, height of building, lobby ventilation, travel distance etc as per DCPR 2034. If the same is not as per DCPR2034, this proposal shall be referred back to this department.

This N.O.C is issued for the proposed building from Fire Risk / Fire Safety point of view only. **The plans approved along with this N.O.C. are approved 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 / Developer's

responsibility to take necessary prior approval from all concerned competent authorities for the proposed construction of the building.

Note:

1) The Area Calculation submitted by the Architect in the plans shall be verified by E.E.B.P.(W.S) & if any change from the proposal shall be referred back to this department.
2) There shall be no tree or any obstruction allowed in the compulsory open spaces and the same shall be kept free of obstruction all times for maneuvering of fire-appliances. Further, necessary permissions shall be obtained from Sup. of Garden Dept./ Tree Officer & competent Municipal Authorities regarding shifting / replanting of the existing trees (if any) in the compulsory open space of the building.
3) The fire-fighting installation shall be carried out by approved Licensed Agency.
4) E.E.B.P.(W.S) shall verify civil work and all other requirement pertaining to Civil Engineering side including abutting road / access road width, open space, staircase, common corridor, floor occupancy/ floor wise users, height of building, lobby ventilation, travel distance etc as per DCPR 2034. If the same is not as per DCPR2034, this proposal shall be referred back to this department.
5) Architect has directly submitted documents and plans to this Department for obtaining N.O.C. from fire safety point of view but all the documents & plans should be scrutinized by E.E.(B.P.) and get it conformed, if anything wrong, refer back to this Department and actual width of Access Road in layout shall be scrutinized.
6) As this dept. is issuing N.O.C. as per request from Mr. Manish Manharlal Shah, Architect & plans are directly submitted to this department but not scrutinized by your department prior to submission. One copy of N.O.C. forwarded to you as competent authority for further approval & one copy to Mr. Manish Manharlal Shah, Architect but after your approval this department shall be intimated that whatever action is taken in this regards i.e. approval /rejection/ pending shall be intimated to this department with remarks. If no intimation is received to this department then it will be considered as authority is not willing to intimate this department. No any deviation is allowed by this department
7) This N.O.C. is subject to approval & verification of concerned authority of E.E.B.P.(W.S) till then further process shall not be permitted.
8) The plans are signed only from Fire Safety Point of view. No any violation, deviation, contravention, irregularities etc. are approved by this department.
9) This N.O.C is issued from Fire Safety Point of view only & without prejudice to legal matters pending in court of law, if any.

Divisional Fire Officer
(Scrutiny, NOC preparation
& Primary approval)

Deputy Chief Fire Officer
Final Approval