

BRIHANMUMBAI MUNICIPAL CORPORATION

MUMBAI FIRE BRIGADE

**Office of Dy. Chief Fire Officer, Wadala Regional Command Centre No. II,
Wadala Fire Station, 1st Floor, Shaikh Mistry Dargah Road, C.G.S. Colony,
Antop Hill, Wadala, Mumbai - 400 037, Tel No.: 24132060.**

SUB: -Fire Protection and Fire-fighting Requirements for the amended plans under regulation 33(9) of DCPR 2034 for construction of High-rise Residential Building on plot bearing C.S. No. 1/62 of Dadar Naigaon Division, situated at B.T. Deorukhkar Marg and Dr. B. A. Road, Parel, Mumbai

REF:-i)Online proposal by Mr. Milind Devendra Changani, Architect, of M/s B.N. Shah & Associates, Mumbai.

ii)Online File No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON F/S/CFO/1/ Amend.

EARLIER FSRL:-

P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New, dated 30.05.2021

MR. MILIND DEVENDRA CHANGANI,

ARCHITECT,

M/S B.N.SHAH & ASSOCIATES,

In this case please refer to the Fire safety requirement letter issued U/No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated 30.05.2021 for the construction of High-rise Residential buildings having 5 Wings i.e. Wing -A, Wing -B, Wing -C, Wing -D & Wing -E, wherein Wing -A comprising of Ground floor for shops and double height entrance lobby+ 1st floor for shops & offices + 2nd to 20th (pt) upper residential floors with total height of wings of 64.10 Mtrs. from general ground floor to terrace level. Wing -B comprising of Basement (- 5.15 Mtrs.) for services RWH tank, pump rooms and U.G. Tanks + Ground floor for shops and double height entrance lobby +1st floor for shops + 2nd to 22nd upper residential floors with total height of wing 69.90 Mtrs. from general ground floor to terrace level. Wing -C comprising of Basement (- 3.90 Mtrs.) for services RWH tank ,STP and U.G. Tanks + Ground floor for shops and entrance lobby + 1st floor for commercial user +2nd to 4th car parking floor, service floor + 5th to 22nd (pt) upper residential floor with total height of wing 69.65 Mtrs. from general ground floor to terrace level. Wing -D comprising of Basement common for Wing D & E (- 5.75 Mtrs.) for services like D.G. set room, STP, RWH tank, pump rooms and U.G. Tanks + Ground floor for stilt, prayer room, substation, meter room, panel room, common toilets and stack car parking + 1st to 18th upper residential floor with total height of wing 58.35 Mtrs. from general ground floor to terrace level. Wing-E comprising of Basement common for wing D & E (- 5.75 Mtrs..) for services like D.G. set room, STP, RWH tank, pump rooms and U.G. Tanks + Ground floor for stilt , substation, meter room and stack car parking + 1st to 18th upper residential floor with total height of 58.35 Mtrs. from general ground floor to terrace level and Automated mechanized car parking tower proposed of height 64.96 Mtrs.. in Wing-B from general ground level to top of car parking tower and Automated mechanized

car parking towers proposed in between Wing A & Wing - E of height 35.70 from general ground level upto top of car parking tower as shown on the approved plans.

I. NOW, THE ARCHITECT HAS UPLOADED AMENDED BUILDING PLANS UNDER REGULATION 33(9) OF DCPR & PROPOSED AMENDMENTS MENTIONED AS FOLLOWING:

1. Architect has proposed the proposal under regulation 33 (9) of DCPR 2034 instead of earlier approved Reg. 33(7) of DCPR 2034.
2. Architect has proposed High-rise residential buildings having 5 wings i.e. Wing -A, Wing -B, Wing -C, Wing -D & Wing -E as shown on uploaded plan.
3. Architect has now proposed **Wing 'A' and Wing 'B'** comprising of single level basement (- 5.00 Mtrs.) for services + Ground floor for shops & entrance lobby + 1st floor for shops + 2nd to 9th Car parking floor by way of 06.00 Mtrs. wide two way ramp + 10th floor as amenity floor + 11th to 24th upper residential floor + Service floor (1.80 Mtrs.) + 25th to 42nd (pt) upper residential floor with total height 141.85 Mtrs. from general ground level upto terrace level.
4. Architect has now proposed Basement (-5.55 Mtrs.) instead of earlier approved Basement (-3.90 Mtrs.) in Wing C as shown on the uploaded plan.
5. Architect has now Basement (-4.95 Mtrs.) instead of earlier approved Basement (-5.75 Mtrs.) in Wing D & E as shown on the uploaded plan.
6. Architect has deleted Automated Mechanized Car parking tower in Wing A, B, E as shown on uploaded plan.
7. Architect has proposed internal changes and floor wise users in Wing C, D, & E as shown on uploaded plan.
8. Architect has now proposed minor changes in height of Wing C, D & E as shown on uploaded plan.

By virtue of the above amendments the said High rise Residential building is now having 5 wings i.e. Wing A, B, C, D & E. Wherein

Wing 'A' and Wing 'B' comprising of single level basement (- 5.00 Mtrs.) for services + Ground floor for shops & double height entrance lobbies + 1st floor for shops + 2nd to 9th Car Parking floor by way of 06.00 Mtrs. wide two way ramp + 10th floor as amenity floor + 11th to 24th upper residential floor + Service floor (1.80 Mtrs.) + 25th to 42nd (pt) Upper Residential floors with total height 141.85 Mtrs. from general ground level upto terrace level.

Wing 'C' comprising of single level basement (-5.55 Mtrs.) for services + Ground floor for shops + 1st floor for shops with separate staircase + 2nd to 4th Car parking floor by way of 02 Nos. of Car lifts + Service floor (1.45 Mtrs.) + 5th to 22nd (pt) Upper Residential floor with total height of 69.95 Mtrs. from general ground level upto terrace level.

Wing 'D' and Wing 'E' comprising of Common single level basement (-4.95 Mtrs.) for services + ground floor + 1st to 18th upper residential floor with total height of 59.025 Mtrs. from general ground level upto terrace level as shown on the proposed uploaded plan.

II. THE FLOOR-WISE USER AS SHOWN ON THE PLANS IS AS UNDER :-

a) WING 'A' & WING 'B':

Floor	WING 'A'	WING 'B'
Basement (-5.00 Mtrs.)	Pump room + BMS room + Underground water tanks.	
Ground floor	17 Nos. Shops with mezzanine + 06 Nos. of lower duplex shops with spiral staircase + 02 Nos. of lower duplex shops with internal lift + 05 Nos. of shops + 02 Nos. of double height entrance lobby + OWC room + Fire control room + space for meter panel for commercial.	
1 st floor.	21 Nos. Shops + 06 Nos. of upper duplex shops with spiral staircase + 02 Nos. of upper duplex shops with internal lift + Gent's toilet + Ladies toilet.	
2 nd Car Parking floor	Panel room + ELV room + Meter room + Drivers toilet + Surface car parking by way of 06.00 Mtrs. wide two way ramp.	
3 rd to 9 th Car Parking floor	Driver's toilet + Surface car parking by way of 06.00 Mtrs. wide two way ramp.	
10 th floor (Amenity floor)	Fitness centre + Cafeteria + Society office + Gent's & ladies changing room + Swimming pool open to sky + Additional Refuge area + Terrace open to sky	
11 th (1 st Habitable floor & 18 th floor Refuge floor	03 Nos. of residential flats on each floor.	03 Nos. of residential flats on each floor.
Common Refuge area		
12 th 17 th & 19 th to 24 th floor	04 Nos. of residential flats on each floor.	04 Nos. of residential flats on each floor.
Service floor (1.80 Mtrs.) (below 25 th floor)	02 Nos. Break pressure tank of Cap 25,000 liters each + Area for Services	
25 th & 32 nd floor Refuge floor	03 Nos. of residential flats on each floor.	03 Nos. of residential flats on each floor.
Common Refuge area		
26 th to 31 st ,34 th to 38 th & 40 th to 41 st floor	04 Nos. of residential flats on each floor.	04 Nos. of residential flats on each floor.
39 th floor Refuge floor	04 Nos. of residential flats.	03 Nos. of residential flats.
Common refuge area		
42 nd floor	02 Nos. of residential flats + terrace open to sky.	03 Nos. of residential flats + terrace open to sky.
Terrace	LMR, OHT & Terrace open to sky	

b) WING 'C':

Floor	USER
Basement (-5.55 Mtrs.)	OWC + STP + Pump room + Underground water tanks.
Ground floor	14 Nos. Shops with mezzanine + 06 Nos. of shops + Entrance lobby + Fire control room + Meter room.

1 st floor.	04 Nos. Shops + Fitness centre.
2 nd Car Parking floor	Driver's toilet + Surface car parking by way of 02 Nos. of car lifts.
3 rd & 4 th Car Parking floor	Surface car parking by way of 02 Nos. of car lifts.
Service floor (1.45 Mtrs.) (below 5 th floor)	Area for Services
5 th & 6 th , 8 th to 13 th , 15 th to 17 th & 19 th to 21 st floor	04 Nos. of residential flats on each floor.
7 th & 14 th floor	03 Nos. of residential flats + Refuge area on each floor.
18 th floor	02 Nos. of residential flats + Fitness center + Society office.
22 nd floor	04 Nos. of residential flats + terrace open to sky.
Terrace	LMR, OHT & Terrace open to sky

c) WING 'D' & WING 'E':

Floor	WING 'D'	WING 'E'
Basement (-4.95 Mtrs.)	OWC + STP + Pump room + Underground water tanks.	
Ground floor	Sub-Station + 02 Nos. of meter rooms + fire control room + panel & ELV room + Gents toilet + Ladies toilet + Part stilt for surface car parking & part stilt for Two tier stack car parking.	
1 st floor	03 Nos. of residential flats + MP room + society office.	02 Nos. of residential flats + fitness centre.
2 nd to 6 th , 8 th to 13 th & 15 th to 17 th floor	04 Nos. of residential flats on each floor.	04 Nos. of residential flats on each floor.
7 th floor	03 Nos. of residential flats	03 Nos. of residential flats
	Common refuge area	
14 th floor	03 Nos. of residential flats	03 Nos. of residential flats + society office.
	Common refuge area	
18 th floor	03 Nos. of residential flats + fitness centre.	04 Nos. of residential flats.
Terrace	LMR, OHT & Terrace open to sky	

III. DETAIL OF OPEN SPACES AS SHOWN ON THE PLAN :-

The site abuts on 48.76 Mtrs.. Wide Dr. Babasaheb Ambedkar Road including setback towards West side of the plot & 15.24 Mtrs.. Wide B. J. Devrukhkar Road towards South side of the plot & 12.20 Mtrs. Wide S. M. Jadhav Road towards East side of the plot.

a) WING 'A' & WING 'B':

Sides	From Building line to Compound wall
North	6.01 Mtrs.. to 6.05 Mtrs..
South	3.01 Mtrs. to 3.10 Mtrs.. + 15.24 Mtrs. wide B. J. Devrukhkar Road
East	7.80 Mtrs. Driveway + Adjoining Wing 'C'.
West	4.58 Mtrs.. to 6.46 Mtrs.. + 48.76 Mtrs.. Wide Dr. Babasaheb Ambedkar Road

b) WING 'C':

Sides	From Building line to Compound wall
North	1.00 Mtrs. + Amenity open space & 6.12 Mtrs. + Adjoining Wing 'D'.
South	3.14 Mtrs. to 3.22 Mtrs. + 15.24 Mtrs. wide B. J. Devrukhkar Road
East	3.00 Mtrs. to 3.19 Mtrs. + 12.20 Mtrs. Wide S. M. Jadhav Road
West	7.80 Mtrs. Driveway + Adjoining Wing 'B'.

c) WING 'D' & WING 'E':

Sides	From Building line to Compound wall
North	6.18 Mtrs. to 6.30 Mtrs.
South	Adjoining LOS & 6.12 Mtrs. + Adjoining Wing 'C'.
East	2.24 Mtrs. to 2.25 Mtrs. + Amenity space.
West	3.05 Mtrs. + Adjoining Wing 'A'.

IV. THE DETAILS OF STAIRCASE AS SHOWN ON THE PLAN :**a) WING 'A' & WING 'B':**

Type	Staircase	Width	Nos. of staircase	Type
Main Staircases	Leading from ground to terrace level.	2.00 Mtrs.	02 Nos.	Enclosed type
Staircase	Leading from ground to 1 st floor.	1.50 Mtrs.	01 No.	Enclosed type
Staircase	Leading from ground to 1 st floor.	1.50 Mtrs.	01 No.	Open type
Staircase	Leading from ground to basement.	2.00 Mtrs.	01 No.	Enclosed type

The proposed staircases as shown on the plans are enclosed type and are externally located & adequately ventilated to outside air above ground level.

b) WING 'C':

Type	Staircase	Width	Nos. of staircase	Type
Main Staircase	Leading from basement to terrace level.	1.50 Mtrs.	01 No.	Enclosed type
Staircase	Leading from ground to 1 st floor.	1.50 Mtrs.	01 No.	Enclosed type

The proposed staircases as shown on the plans are enclosed type and are externally located & adequately ventilated to outside air above ground level & staircase leading to basement is provided with FRDs & diverted at ground level as shown on the plan.

c) WING 'D':

Type	Staircase	Width	Nos. of staircase	Type
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Main Staircase	Leading from basement to terrace level.	1.50 Mtrs.	01 No.	Enclosed type
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The proposed staircases as shown on the plans are enclosed type and are externally located & adequately ventilated to outside air above ground level & staircase leading to basement is provided with FRDs & diverted at ground level as shown on the plan.

d) WING 'E':

Type	Staircase	Width	Nos. of staircase	Type
Main Staircase	Leading from basement to terrace level.	1.50 Mtrs.	01 No.	Enclosed type

The proposed staircases as shown on the plans are enclosed type and are externally located & adequately ventilated to outside air above ground level & staircase leading to basement is provided with FRDs & diverted at ground level as shown on the plan.

V. THE DETAILS OF LIFT AS SHOWN ON THE PLAN :

a) WING 'A' & WING 'B':

Type	Profile	Nos.
Passenger lift	Leading from Ground to terrace floor.	02 Nos.
Stretcher lift	Leading from Ground to terrace floor.	02 Nos.
Fire lift	Leading from Ground to terrace floor.	02 Nos.
Fire man evacuation lift	Leading from 10 th floor to terrace floor.	01 No.

The lift lobby & common corridor at each floor level is directly ventilated to outside air above ground level as shown on the plan.

b) WING 'C':

Type	Profile	Nos.
Passenger lift	Leading from Ground to terrace floor.	01 No.
Fire lift	Leading from Ground to terrace floor.	01 No.
Passenger lift	Leading from Ground to 4 th Car Parking floor.	01 No.

The lift lobby & common corridor at each floor level is directly ventilated to outside air above ground level as shown on the plan.

c) WING 'D':

Type	Profile	Nos.
Passenger lift	Leading from Ground to top most floor.	01 No.
Fire lift	Leading from Ground to top most floor.	01 No.

The lift lobby & common corridor at each floor level is directly ventilated to outside air above ground level as shown on the plan.

d) WING 'E':

Type	Profile	Nos.
Passenger lift	Leading from Ground to top most floor.	01 No.
Fire lift	Leading from Ground to top most floor.	01 No.

The lift lobby & common corridor at each floor level is directly ventilated to outside air above ground level as shown on the plan.

VI. DETAILS OF PROPOSED REFUGE AREA :-**a) WING 'A' & WING 'B':**

Floor	Refuge area required	Refuge area provided	At the height from Ground Level
11 th floor (1 st habitable)	158.55	161.12	37.65 Mtrs.
18 th floor	158.55	161.12	60.05 Mtrs.
25 th floor	158.55	161.12	84.25 Mtrs.
32 nd floor	158.55	161.12	106.65 Mtrs.
39 th floor	80.30	83.93	129.05 Mtrs.

Architect has proposed additional Refuge area in case of emergency on 10th Amenity floor at the height 33.30 Mtrs. same is considered herewith Also the Terrace above 42nd (pt) floor shall be treated as Refuge area. Excess refuge area beyond 4.25% shall be counted towards FSI.

b) WING 'C':

Floor	Refuge area required	Refuge area provided	At the height from Ground Level
7 th floor	94.75	97.07	23.55 Mtrs.
14 th floor	90.60	95.84	43.85 Mtrs.

As per rule 3rd Refuge area shall be provided on 21st floor, but the Architect has uploaded hardship stating that there is only one floor i.e. 22nd (Pt) floor as the top-most floor & the calculated refuge area is very small and Architect has included the same area in the calculation of Refuge area on 14th floor & requested not to insist 3rd refuge area on 21st floor, same is considered herewith. Also the Terrace above 22nd floor shall be treated as Refuge area. Excess refuge area beyond 4.25% shall be counted towards FSI.

c) WING 'D' & WING 'E':

Floor	Refuge area required	Refuge area provided	At the height from Ground Level
7 th floor	110.29	114.86	24.225 Mtrs.
14 th floor	74.46	77.66	44.525 Mtrs.

Also the Terrace above 18th floor shall be treated as Refuge area. Excess refuge area beyond 4.25% shall be counted towards FSI.

VII. THE PROPOSAL HAS BEEN CONSIDERED FAVOURABLY TAKING INTO CONSIDERATION THE FOLLOWING:-

- i. The proposal falls under Reg. 33(9) of DCPR 2034.

- ii. The site abuts on 48.76 Mtrs.. Wide Dr. Babasaheb Ambedkar Road towards West side of the plot & 15.24 Mtrs.. Wide B. J. Devrukhkar Road towards South side of the plot & 12.20 Mtrs. Wide S. M. Jadhav Road towards East side of the plot.
- iii. This department has already issued F.S.R.L. Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated 30.05.2021.
- iv. E.E.B.P. has issued IOD u/No. P-6841/2021/(1/62)/F/South/DADARNAIGAON-F/S/IOD/1/Amend, dated 21.10.2022 and issued CC upto Plinth level Dated 07.011.2022 accordingly the construction is in progress
- v. Architect has proposed natural as well as mechanical ventilation to the all the basements.
- vi. Advanced inbuilt fixed fire-fighting system such as wet riser cum down comer, hydrant system, fire alarm & fire detection system, sprinkler system, public address system, drencher system, smoke detection system, voice evacuation system, public address system etc is recommended for all the wings.
- vii. Automatic sprinkler system is recommended in the all the buildings including all basement, lift lobby/common passage on each floor level, all fitness centers, all society offices, each habitable flat on each floor level, each NR, car parking floor etc.
- viii. Automatic Smoke Detection System is recommended in the entire building including all Electric meter room, all lift machine room, all Fitness Centers, all Pump rooms, each NR, Lift lobby/Common passage on every floor level as well as in each electrical duct with response indicator at every floor level.
- ix. Drencher system is recommended on the periphery of the building for each car parking floors.
- x. The stand by pumps for wing 'A' and wing 'B' to all the fire fighting systems is recommended along with regular fire, sprinkler, jockey and booster pump.
- xi. The fire resistance rating for staircase FRD, lift lobby & the lift doors are recommended as per NBC provisions.
- xii. Electrical cables in electrical shaft are recommended to be of low smoke hazard type & fire resistant.
- xiii. IOT based Microprocessor device for Electrical installations & Bus-bar system is recommended for all the buildings.
- xiv. Architect has proposed fireman's evacuation lift with smoke check lobby at staircase mid-landing level in wing 'A' and wing 'B'.
- xv. Wing 'A' and Wing 'B' is provided with break pressure tank of capacity 25,000 liters each on service floor.
- xvi. Architect has uploaded demonstrable Hardship stating that the Fireman Evacuation Lift is provided at the mid-landing from 10th Amenity floor to Terrace floor in Wing A & B due to planning constraints on Ground to 9th floor due to car parking drive ways. Further Architect has proposed additional Refuge area in case of emergency on 10th Amenity floor. Architect has also provided 02 Nos. of Fireman Lifts from Ground to Terrace floor in addition to Fireman Evacuation Lift and hence the same hardship is considered herewith.
- xvii. Regulation 48(8)(a) (i) is reproduced herewith that, (a)(i) The refuge area shall be preferably provided within building line at floor level. (ii) In case of high rise buildings having height more than 32m, first refuge area shall be provided at 24m or at 1st habitable floor, whichever is higher. Thereafter, the refuge area shall be provided at

every 7th habitable floor. The refuge area shall be 4% of the habitable floor area it serves, and will be free of FSI. With the permission of Commissioner due to planning constraints it may be allowed to be exceeded up to maximum limit of 4.25%. If it exceeds 4.25% the excess area shall be counted in FSI. Here Architect has proposed additional refuge area on 10th floor in addition to refuge area on 11th floor, same is accepted favorably at this stage. E.E.(B.P) shall verify & confirm the same & if it is not approvable, then proposal shall be refer back to this department for fresh remark. Prior approval from Hon. M.C. Sir, shall be obtained for the same.

- xviii. Architect has uploaded hardship stating that, in Wing C as per rule 3rd Refuge area shall be provided on 21st floor, but as there is only one floor i.e. 22nd (Part) floor as the top-most floor & the calculated refuge area is very small and the same is included in the calculation of Refuge area on 14th floor & has requested not to insist 3rd refuge area on 21st floor and same is considered herewith.
- xix. Architect has submitted letter along-with Undertaking from Developer/Owner regarding assurance for payment of Revise Fire and Emergency Service fees as per the MFP&LSM, (Amendment), Act 2023. However as the circular from BMC with regards to levying the Fire and Emergency Service Fess is awaited, the Developer/Owner has assured to pay the Revise Fire and Emergency Service Fees as per revised schedule before the future amendment or prior to obtaining Final Safety Compliance, which-ever is earlier or whenever this department demands for payment of the same. Architect has requested to issue FSRL on basis of Fire service fees paid as per old Fire service fees structure. The same is considered herewith, however the challan w.r.t. the Revise Fire and Emergency Service fees as per the MFP&LSM, (Amendment), Act 2023 is generated.

Architect is requested to get scrutinized the plans as per DCPR 2034 & get verified the civil work and all other requirements pertaining to civil Engineering side including open spaces, corridors, staircases, height, refuge area in Sq. Mtrs. & Floor occupancy of the building from competent Municipal Authority and if these plans, given open space is not approvable then this Fire Safety Requirement Letter shall be treated as cancelled & referred back to this department for revised Fire Safety Requirement Letter also till then further process of C.C. shall not be permitted by the competent Municipal Authority.

In view of above as far as this department is concerned, the fire-fighting & fire-protection requirements, for the proposed plans for proposed construction of High rise Residential High- rise residential building is now having 5 wings i.e. Wing -A,B,C,D & E. Where **Wing 'A' and Wing 'B'** comprising of single level basement (-5.00 Mtrs.) for services + Ground floor for shops & double height entrance lobbies + 1st floor for shops + 2nd to 9th car Parking floor by way of 06.00 Mtrs. wide two way ramp + 10th floor as amenity floor + 11th to 24th upper residential floor + service floor (1.80 Mtrs.) + 25th to 42nd (pt) Upper Residential floors with total height 141.85 Mtrs. from general ground level up to terrace level.

Wing 'C' comprising of single level basement (-5.55 Mtrs.) for services + Ground floor for shops + 1st floor for shops with separate staircase + 2nd to 4th Car parking floor by way of 02 Nos. of Car lifts + service floor (1.45 Mtrs.) + 5th to 22nd (pt) Upper Residential floor with total height of 69.95 Mtrs. from general ground level upto terrace level.

Wing 'D' and Wing 'E' comprising of Common single level basement (-4.95 Mtrs.) for services + ground floor + 1st to 18th upper residential floor with total height of 59.025 Mtrs. from general ground level upto terrace level as shown on the proposed uploaded plan, signed in token of approval, for satisfactory compliance are as follows

- 1) All the fire protection & fire-fighting requirements stipulated in earlier Fire Safety requirements vide no.P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated 30.05.2021 shall be strictly adhered to along with the following modified fire safety requirements & additional Fire Protection & Firefighting requirements have been stipulated according to the amendments in the building plans.
- 2) Modified Requirement No. 8 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New, dated :- 30.05.2021, i.e. **ELECTRIC CABLE SHAFTS, SERVICES & METER PANEL** shall be read as :-
 - i) Electric meter room/cabin/panel shall be provided at location marked on the plan. It shall be adequately ventilated.
 - ii) Electrical cable shaft if provided shall be exclusively used for electric cables or shall be laid in concealed manner, however in any case should not open in staircase enclosure.
 - iii) Inspection door for the shaft shall have two hours fire resistance.
 - iv) Electrical shafts shall be sealed at each floor level with non-combustible material such as vermiculite concrete. No storage shall be permitted in electric cabin or shaft.
 - v) Electric wiring / cable shall be of non-toxic, non-flammable, low smoke hazard having copper or aluminum core / fire resistance for the entire building with provision of ELCB/MCB.
 - vi) Electric meter room shall be provided at location marked on the plans. It shall be adequately ventilated & easily accessible.
 - vii) Electric wiring shall be having copper core having the fire resistance and low smoke hazard cables for the entire building with provision of ELCB/MCB.
 - viii) Low and medium voltage wiring running in shaft and in false ceiling should run in separate conduits.
 - ix) Water mains, telephone lines, intercom lines, gas pipes or any other services should not be laid in the duct for electric cable; use of bus bar/solid rising mains instead of cables is preferred.
 - x) Separate circuits for fire-fighting pumps, lifts, staircases and corridor lighting and blowers for pressurizing system shall be provided directly from the main switch gear panel and these circuits shall be laid in separate conduit pipes so that fuse in one circuit will not affect the others. Such circuits shall be protected at origin by an automatic circuit breaker with its no-volt coil removed.
 - xi) Master switches controlling essential service circuit shall be clearly labeled & provide in the lobby for emergency operations.
- 3) Modified Requirement No. 13 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New, dated :- 30.05.2021, i.e. **CAR PARKING** shall be read as :-
 - i) Car parking shall be permitted in the designated area.

- ii) Drainage of the car parking area of all the levels shall be laid independent from that of the buildings & it shall be provided with catch pit & fire trapped before connecting the building drainage or Municipal drainage.
 - iii) Drainage of the car parking areas at all the levels shall be so laid as to prevent any overflow in the staircase, lift shaft etc.
 - iv) Repairing / servicing of cars, use of naked light shall not be permitted in the car parking areas.
 - v) Dwelling, use of naked light / flame, repairing / maintenance of vehicles shall be strictly prohibited in the parking area.
 - vi) The driveways shall be properly marked and maintained unobstructed, proper illuminated signage shall be provided for escape route.
 - vii) **Two AVD type (Aqueous Vermiculite Dispersion) or F-500 (Encapsulation agent fire extinguishers of 9 litres capacity near parking area at easily accessible location (Electric vehicles).**
- 4) Modified Requirement No. 14 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New, dated :- 30.05.2021, i.e. **CAR PARKING FLOORS** shall be read as :-
- i) All the sides of the stilted / covered Scooter parking shall be kept open except parapet walls of not more than 1.20 meters height OR Parking floors shall not be enclosed except for parapet walls.
 - ii) Automatic sprinkler system shall be provided on the entire parking floor.
 - iii) Automatic drencher system shall be provided on the periphery at the top of parking floor.
 - iv) The driveways shall be properly marked and maintained unobstructed, proper illuminated signage's shall be provided for escape route, ramps etc. at prominent locations.
 - v) Scooter parking at parking level floor shall not be enclosed expect for parapet walls.
 - vi) The drive way shall be designed suitably to bear the point load of 10 kgs / cm².
 - vii) Repairing / servicing of cars, use of naked light shall not be permitted in the car parking areas.
 - viii) Dwelling, use of naked light / flame, repairing / maintenance of vehicles shall be strictly prohibited in the parking area.
 - ix) The drainage of the scooter parking areas shall be separate from that of the building and shall be provided with catch pit before connecting to Municipal sewer.
- 5) Modified Requirement No. 15 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New, dated :- 30.05.2021, i.e. **STACK-CAR PARKING** shall be read as (FOR WING 'C' & WING 'D'):-
- i) Structural design: The SA-FAMCP shall be constructed of structural steel construction
 - ii) Vertical deck separation for SA-FAMCP having multi-car parking level, vertical separation between the upper & lower decks by using the non-perforated and non-combustible materials (Structural steel plate) shall be provided. This is to minimize direct impingement of flame to the car in the upper deck and also to prevent dripping of any possible leaking fuel to the lower deck.
 - iii) The drainage of the car parking areas shall be separate from that of the building and shall be provided with catch pit with fire trap before connecting to Municipal Sewer.

- iv) Repairing / servicing of cars, use of naked light shall not be permitted in the car parking areas.
 - v) The parking area shall not be used for dwelling purpose and repairing / maintenance of vehicles, storage, trade activity etc, at any time and use of naked light / flame shall be strictly prohibited.
 - vi) Stack car parking shall be protected with Medium Velocity Water Spray Projector.
 - vii) Elements of the stack car parking structure shall have 01 hr. fire resistance.
 - viii) Each car parking deck shall have 01 hr. fire resistance.
 - ix) Parking area shall be accessible by trained staff when carrying out the maintenance work. The parking system shall be ceased during the maintenance operation.
- 6) Modified Requirement No. 17 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. BASEMENT shall be read as :- {Wing 'A' and wing 'B' (- 5.00 Mtrs.) ,Wing 'C' (-5.55 Mtrs.) & Wing 'D' and Wing 'E' (-4.95 Mtrs.)}
- i) The basement shall be provided with natural/mechanical ventilations through the ventilators, open cut outs as shown in the plan.
 - ii) The basement shall be used for designated purpose only as shown in the plan.
 - iii) The basement beyond building line shall be paved, suitably to bear the load of fire engines weighing upto 55 m. tones each with point load of 15 kgs./sq. cms.
 - iv) The staircases of the basement shall be of enclosed type and entry to basement areas shall be through two hours fire resistance self-closing door provided in the enclosed wall of the staircase.
 - v) The ventilation requirement of the basement shall be in accordance with prevailing norms. Certificate to that effect from the approved MEP consultant shall be produced at the time of obtaining compliance remarks of this department.
 - vi) Exhaust duct, mechanical ventilation duct should not pass through exit or entry.
 - vii) Ventilation system shall start automatically on actuation of detector provided in the basement area.
 - viii) The ducts of the mechanical ventilations system shall be of substantial metal gauge as per the relevant I.S. standard.
 - ix) The operating switches of the mechanical ventilation shall be located in the Security cabin or Reception area. At ground floor level, with appropriate zonal indications.
 - x) Exhaust duct shall be provided to draw out exhaust at ground level of the basement.
 - xi) The certificate of approval for entire mechanical ventilation systems in the entire building issued by MCGM's "M & E" department shall be produced at the time of obtaining compliance of fire safety requirements by this department.
 - xii) Suitable signages shall be provided in the basement showing exit direction, way to exits etc.
 - xiii) Automatic sprinkler system shall be provided in entire basement. These systems shall be installed as per the standard laid down by T.A.C. and relevant I.S. specifications.
 - xiv) Staircase and lift lobby shall have illuminated by inverter operated exits signs with IP 54 enclosure. Luminance of the signages shall be such that they are visible from a distance of 12 to 16 meters.
 - xv) Two Dry Chemical Powder fire extinguisher ABC type of 06 kgs. capacity each having B.I.S. mark shall be kept for every 100 sq. Mtrs. area in each basement.

VENTILATION TO THE BASEMENTS:

xvi) Natural ventilation is provided through side ventilators and through cut-outs for all basement. In addition to this mechanical ventilation shall also be provided to if required.

- 7) Modified Requirement No. 20 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. ALTERNATE SOURCE OF POWER SUPPLY shall be read as :-

Alternate source of L.V./H.V. supply from a separate electric substation as well as D. G. Set with appropriate change over switch shall be provided for fire pumps, sprinkler pump booster pump, jockey pump, staircase and corridor lighting circuits, manual fire alarm system & fire detection system. It shall be housed in a separate cabin.

- 8) Modified Requirement No. 21(A) of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. UNDER GROUND WATER STORAGE TANK shall be read as :-

A. (COMMON FOR WING 'A' & WING 'B')

An underground water storage tank of 3,50,000 litres capacity shall be provided at locations marked on the plan, as per the 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.

B. (FOR WING 'C')

An underground water storage tank of 1,50,000 litres capacity shall be provided at locations marked on the plan, as per the 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.

C. (COMMON FOR WING 'D' & WING 'E')

An underground water storage tank of 1,50,000 litres capacity shall be provided at locations marked on the plan, as per the 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.

- 9) Modified Requirement No. 21(B) of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. OVERHEAD TERRACE WATER STORAGE TANK shall be read as :-

A. (COMMON FOR WING 'A' & WING 'B')

A tank of 50,000 litres capacity shall be provided at terrace level on each staircase. The layout of same shall be got approved from H.E.'s department prior to erection. The tank shall be connected to wet risers through booster pump, through non return valve and gate valve.

B. (FOR WING 'C')

A tank of 30,000 litres capacity shall be provided at terrace level on staircase. The layout of same shall be got approved from H.E.'s department prior to erection. The tank shall be connected to wet risers through booster pump, through non return valve and gate valve.

C. (COMMON FOR WING 'D' & WING 'E')

A tank of 30,000 liters capacity shall be provided at terrace level on each staircase. The layout of same shall be got approved from H.E.'s department prior to erection. The tank shall be connected to wet risers through booster pump, through non return valve and gate valve.

10) Modified Requirement No. 21(G) of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. FIRE PUMP, BOOSTER PUMP, SPRINKLER PUMP AND JOCKEY PUMP shall be read as :-

A. FIRE PUMPS, SPRINKLER PUMPS , JOCKEY PUMPS & BOOSTER PUMPS (Low zone fire-fighting system) (FOR WING 'A' & WING 'B):-

- i) Wet-riser shall be connected to a fire pump at ground level having capacity not less than 3200 liters/min. capable of giving a pressure of not less than 3.2 kgs / sq. cms. at the top most hydrant.
- ii) Booster pump of 900 liters/min. capacity giving a pressure of not less than 3.2 kgs./ sq. cms. at the top most hydrant out let of the wet-riser shall be provided at the terrace level.
- iii) Separate jockey pump shall be provided to Wet riser system to keep system pressurized at all the time.
- iv) Sprinkler pump of suitable capacity along with jockey pump shall be provided for automatic sprinkler system.
- v) Electric supply (normal) to these pumps shall be on independent circuit.
- vi) Operating switches for booster pumps shall also be provided in glass fronted boxes in lift lobbies on each floor.
- vii) Operating switches of fire pumps shall be also provided in glass fronted boxes at ground floor.
- viii) Only surface mounted or vertical turbine pumps shall be installed.

B. FIRE PUMPS, SPRINKLER PUMPS, JOCKEY PUMPS & BOOSTER PUMPS (high zone fire-fighting system) (FOR WING 'A' & WING 'B):-

- i) Wet-riser shall be connected to a fire pump at intermediate/upper level having capacity not less than 3200 liters/min. capable of giving a pressure of not less than 3.2 kgs / sq.cms. at the top most hydrant.
- ii) Booster pump of 900 liters/min. capacity giving a pressure of not less than 3.2 kgs./ sq. cms. at the top most hydrant out let of the wet-riser shall be provided at the terrace level.
- iii) Separate jockey pump shall be provided to Wet riser system to keep system pressurized at all the time.
- iv) Sprinkler pump of suitable capacity along with jockey pump shall be provided for automatic sprinkler system.
- v) Electric supply (normal) to these pumps shall be on independent circuit.
- vi) Operating switches for booster pumps shall also be provided in glass fronted boxes in lift lobbies on each floor.
- vii) Operating switches of fire pumps shall be also provided in glass fronted boxes at ground floor.
- viii) Only surface mounted or vertical turbine pumps shall be installed.

C. FIRE PUMPS, SPRINKLER PUMPS, JOCKEY PUMPS & BOOSTER PUMPS (FOR WING 'C') :-

- i) Wet-riser shall be connected to a fire pump at ground level having capacity not less than 2400 liters/min. capable of giving a pressure of not less than 3.2 kgs / sq.cms. at the top most hydrant.
- ii) Booster pump of 900 liters/min. capacity giving a pressure of not less than 3.2 kgs./sq.cms. at the top most hydrant out let of the wet-riser shall be provided at the terrace level.
- iii) Separate jockey pump shall be provided to Wet riser system to keep system pressurized at all the time.
- iv) Sprinkler pump of suitable capacity along with jockey pump shall be provided for automatic sprinkler system.
- v) Electric supply (normal) to these pumps shall be on independent circuit.
- vi) Operating switches for booster pumps shall also be provided in glass fronted boxes in lift lobbies on each floor.
- vii) Operating switches of fire pumps shall be also provided in glass fronted boxes at ground floor.
- viii) Only surface mounted or vertical turbine pumps shall be installed.

D. FIRE PUMPS, SPRINKLER PUMPS, JOCKEY PUMPS & BOOSTER PUMPS (COMMON FOR WING 'D' & WING 'E')

- i) Wet-riser shall be connected to a fire pump at ground level having capacity not less than 2400 liters/min. capable of giving a pressure of not less than 3.2 kgs / sq.cms. at the top most hydrant.
- ii) Booster pump of 900 liters/min. capacity giving a pressure of not less than 3.2 kgs./sq.cms. at the top most hydrant out let of the wet-riser shall be provided at the terrace level.
- iii) Separate jockey pump shall be provided to Wet riser system to keep system pressurized at all the time.
- iv) Sprinkler pump of suitable capacity along with jockey pump shall be provided for automatic sprinkler system.
- v) Electric supply (normal) to these pumps shall be on independent circuit.
- vi) Operating switches for booster pumps shall also be provided in glass fronted boxes in lift lobbies on each floor.
- vii) Operating switches of fire pumps shall be also provided in glass fronted boxes at ground floor.
- viii) Only surface mounted or vertical turbine pumps shall be installed.

11) Modified Requirement No. 21(H) of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. STAND BY PUMP shall be read as :- (FOR WING 'A' AND WING 'B').

A Set fire pump, sprinkler pump and jockey pump pumps shall be kept as stand by pump.
Or Diesel operated stand pump shall be provided as per N.B.C.

12) Modified Requirement No. 21(K) of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. PORTABLE FIRE EXTINGUISHERS shall be read as :- (EACH WING).

- i) Dry Chemical Power (ABC type) fire extinguishers of, 06 Kgs. Capacity having ISI certification mark and two bucket filled with dry, clean sand shall be kept in Electric meter as well as Lift Machine Room.

- ii) Dry Chemical Power (ABC type) fire extinguishers of, 06 Kgs. Capacity having ISI certification mark shall be kept on each floor level at prominent place and each refuge area , car parking area.
- iii) F-500 (Encapsulating Agent) type fire extinguishers of, 09 Kgs. Capacity having ISI certification mark shall be kept near car parking area at prominent places for every 100 sq. Mtrs.. (Electric vehicles) .
- iv) One AVD type (Aqueous Vermiculite Dispersion) fire extinguishers of 9 liters capacity having ISI certification mark shall be kept near car parking area & at prominent places for every 100 sq. Mtrs.. (Electric vehicles).

13) Modified Requirement No. 24 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. REFUGE AREA shall be read as :-

Refuge area provided for on (10th Amenity floor, 11th, 18th, 25th, 32nd & 39th floor of wing 'A' & wing 'B') (7th, 14th floor of wing 'C') & (7th, 14th floor of wing 'D' & wing 'E').

A. MANNER OF REFUGE AREA:-

- i) The refuge area shall be so located that it shall preferably face the wider openspace on the side of the building perpendicular to the main access road.
- ii) The refuge area shall be provided with railing/ fire rated glass / parapet of 1.20 mt.
- iii) The refuge area shall have a door which 'shall be painted or fixed with a sign inluminous paint mentioning "REFUGE AREA".
- iv) The lift/s shall not be permitted to open into the refuge areas.
- v) The refuge area provided within building line shall be accessible from commonpassage/ staircase.

B. USE OF REFUGE AREA:-

- i) The refuge area shall be earmarked exclusively for the use of occupants as temporary shelter and for the use of Fire Brigade Department or any other organization dealing with fire or other emergencies when occur in the building and also for exercises/drills if conducted by the Fire Brigade Department.
- ii) The refuge areas shall not be allowed to be used for any other purpose and it shall be the responsibility of the owner/occupier to maintain the same clean and free of encumbrances and encroachments at all times.
- iii) Adequate emergency lighting facility shall be provided.

C. TERRACE FLOOR AS REFUGE AREA:-

- i) The necessary facilities such as emergency lighting, drinking water etc shall be provided.
- ii) The access door/s from the enclosed staircase/s to the terrace floor shall have louvers at top half portion of the door. The entrance doors to the terrace shall be painted or fixed with sign painted in luminous paint mentioning "REFUGE AREA".

D. EXCESS REFUGE AREA (above 4.25 %) shall be counted in FSI

14) Modified Requirement No. 16 of earlier Fire Safety Requirements Vide No. P-6841/2021/(1/62)/F/South/DADAR-NAIGAON-F/SCFO/1/New dated :- 30.05.2021, i.e. **AUTOMATED MECHANIZED CAR PARKING TOWER** shall be treated as cancelled :-

15) Additional requirement :-

A. RAMP (For WING 'A','B' & 'C'):-

- i) The gradient of the ramp shall not be steeper than 1:10.
- ii) The access provided to the car parking floor shall be kept unobstructed.
- iii) Water curtains shall be provided at the entry/exit of ramp at each floor level.

B. IOT BASED DEVICES MICRO CONTROLLER DEVICES (FOR EACH WING):-

- i) IOT based micro controller devices shall be provided in the electrical installations of the building as per the requirement stipulated in Circular No.CEI2021/P.No.114/Energy-5.
- ii) The IOT based Micro Controller Devices shall be tested and verified by NABL accredited testing agency/laboratory in accordance with the recognized IS: 732-2019 code for practice for Electrical wiring installation.
- iii) The complete installation of IOT based Micro controller Devices shall be checked and certified by the Chief Electrical Inspector, Govt. of Maharashtra and certificate to that effect shall be obtained before applying for compliance certificate of this department.
- iv) The data and the alert generated by IOT based Micro controller Devices shall be monitored by building management system and necessary corrective measures shall be taken by the Owner, Occupier immediately.
- v) The data generated by IOT based Micro controller Devices shall be made available to fire brigade department as and when required to investigate the cause of fire.

C. FIREMAN'S EVACUATION LIFT (FOR WING 'A' & WING 'B'):-

- i) All high-rise buildings having height more than 70 M will have at least one lift i.e. 'Firemen Evacuation Lift' other than regular passenger lifts and fire lift/s. The requirement of 'Firemen Evacuation Lift' shall be decided on the basis of travel distance in line with requirement of number of staircases as per prevailing DCPR / NBC.
- ii) Capacity of 'Fireman Evacuation Lift' shall be of 845 to 1000 kg / 8-15 persons and it shall be terminated on ground floor or podium where facility of the assembly of evacuations is available in case of emergency and shall not communicate to the basement.
- iii) 'Fire Evacuation Lift' shall be housed in a separate core having smoke check lobby with opening on each floor and shall be attached with one of the enclosed staircase and required access to the staircase on each landing through fire resistance door of 02 hrs rating. Alternatively Firemen evacuation lift shall be provided on every mid-landing of one of the enclosed staircase of the building and the said staircase shall be protected with smoke check lobby by means of Fire resistance door / Fire curtain / Fire resistance Glass having 2 hrs fire resistances.
- iv) The 'Fire Evacuation Lift' along with the enclosed staircase shall be marked as 'Fire Escape Lift / Staircase' at each landing door terminating to the lobby.
- v) All the requirements pertaining to civil and electrical aspects mentioned in National Building Code for 'Fire Lift' shall be applicable for 'Firemen Evacuation Lift'. In addition to that following fire safety measures shall be incorporated.

- vi) 'Firemen Evacuation Lift' car doors and landing doors shall have at least two hours fire resistance and shall have provision of Glass vision for both doors of minimum 1 feet x 2 feet and the glass should also have two hours fire resistance.

D. STRETCHER LIFT (FOR WING 'A' & WING 'B') :-

- i) The stretcher lift shall accommodate ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (A hospital shaped elevator allowing the stretcher to roll straight into the elevator, which meets other handicap requirements, will be acceptable.
- ii) The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both side soft the hoist way door frame
- iii) Landing doors and lift car doors of the lifts shall be of steel shuttered with fire resistance of two hours. No collapsible shutter shall be permitted.
- iv) One hour FRD shall be provided to stretcher lift with the vision glass & shall increase beyond NBC provisions by half an hour after every 70 Mtrs.. Height of the building.

E. BREAK PRESSURE WATER STORAGE TANKS (FOR WING 'A' & WING 'B') :-

Two Nos. of Break pressure tank of cap. 25,000 ltrs. Each shall be provided on service floor between 24th & 25th floor. The layout of which shall be got approved from H.E.'s department prior to erection. This tank shall be connected to low zone firefighting system with booster pump of 900 LPM.

F. PANEL BOARD OF FIRE FIGHTING SYSTEM (FOR WING 'A' & WING 'B') :-

Fire alarm system, public address system, smoke detection system, voice evacuation system, integrated system, alternate supply etc. panel boards shall be installed on ground floor & which shall be manned 24 hrs.

G. L.P.G./P.N.G. DETECTOR SYSTEM (FOR WING 'A' & WING 'B'):-

L.P.G./P.N.G. detector system shall be installed in Kitchen of every flat.

H. AUTOMATIC DRENCHER SYSTEM (COMMON FOR WING 'A' & WING 'B' & SEPARATE FOR WING 'C'):-

Automatic drencher system shall be provided on the periphery at external wall of the top of each car parking floors/car parking floors & shall be connected to the main Sprinkler pump. The automatic drencher system shall be installed as per the standard laid down by T.A.C. & relevant I.S. specifications.

I. FIRE-FIGHTING REQUIREMENTS AT THE CONSTRUCTION STAGE OF THE BUILDING (FOR WING 'A' & WING 'B'):-

Following fire protection arrangement shall be provided with the following fire-fighting requirements shall be provided & same shall be maintained in good working condition at all the times.

- i) Dry riser of minimum 15 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 200 liters capacity filled with water & two fire buckets shall be kept of each

floor.

- 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.

J. DISASTER MANAGEMENT PLAN (FOR WING 'A' & WING 'B'):-

- i) Disaster management plan for fire & other emergency shall be prepared and kept ready at the Fire Control room.
- ii) The mock drill with the designated fire marshal for any operation of disaster management plan shall be carried out regularly after occupation as per National building code.
- iii) Emergency exit route plan framed in glass shall be displayed in the common corridor, cross passages, staircase/lift lobbies of each floor level.

K. BREATHING APPARATUS SETS (FOR WING 'A' & WING 'B'):-

Two Self contained Compressed Air Breathing Apparatus sets of 45 minutes duration each shall be kept in the fire control room & two Self contained Compressed Air Breathing Apparatus sets of same capacity shall be kept in refuge area in consultation with C.F.O.

L. VOICE EVACUATION SYSTEM (FOR WING 'A' & WING 'B'):-

The voice evacuation system shall be integrated to Fire Alarm system so as to facilitate the co-ordination activities in case of fire emergencies. The actuation of the fire alarm control panel shall automatically activate the Voice Evacuation system. A pre-recorded message shall be broadcast on the affected floor, one floor below & two floors above the affected floor.

M. INTEGRATED SYSTEM (FOR WING 'A' & WING 'B'):-

The entire fire-fighting system shall be of the type "Integrated Building Automation System" combining all the systems. Flasher light shall be installed at the top of the building which will be switched on in case of incident of fire in that building to indicate involvement of building in fire. It will also help the incoming fire brigade appliances to reach the spot in time without delay.

N. FIRE CONTROL ROOM (FOR WING 'A' & WING 'B'):-

- i) Separate Fire Control room as marked in plan, with well qualified man power shall be established on Ground floor/as shown on the plan.
- ii) Plan of each floors indicating means of egress as well escape shall be maintained.
- iii) Control panel of fire safety system shall be located in the Control room.
- iv) The size of the Control room shall be in accordance with the MEP consultant for the project.
- v) The location of Control room shall be close to the main entrance gate for directing fire appliances responding to any emergency.
- vi) The entire building should be provided with intelligent & properly designed/programmed building management system having its main control at ground floor level.

O. BUILDING MANAGEMENT SYSTEM (FOR WING 'A' & WING 'B'):-

- i) The entire building should be provided with intelligent and properly designed / programmed building management system having the main control at the location

shown on the plan.

- ii) Addressable wireless system with connectivity to nearby fire station shall be provided.

P. TRAINED FIRE OFFICER / SECURITY GUARDS (FOR WING 'A' & WING 'B'):-

- i) A qualified full time fire officer with experience of not less than 3 years shall be appointed who will be available on the premises at all times. Alternative full time qualified fire officers working in shift duty system shall be placed round the clock on the premises.
- ii) The trained security / fire supervisor along with trained security guards having basic knowledge of fire-fighting & fix fire-fighting installation shall be provided / posted in the building.
- iii) Maintenance of all the first aid fire-fighting equipment's, fixed installations & Other fire-fighting equipment's/appliance in good working condition at all times.
- iv) Imparting training to the occupants of the building in the use of firefighting equipment provided on the premises & kept them informed about the fire & other emergency evacuation procedures.
- v) To liaise with the City Fire Brigade on regular & continual basis.

Q. MEDIUM VELOCITY WATER SPRAY PROJECTOR SYSTEM (FOR WING 'E' & WING 'D') :-

Medium velocity Water spray projector system shall be provided for the Stack Car-parking area as per the standard laid down by T.A.C. or relevant I.S. specification. The same shall be installed as per the standard laid down by T.A.C. & relevant I.S. specifications.

R. SERVICE DUCT (EACH WING):-

- i) All electrical and fire service ducts shall have 2 hr. fire resistance.
- ii) Inspection door of electrical & fire service ducts shall have 2 hr. fire resistance.
- iii) Duct for water service, drainage line, shall be separate from that of electrical cable duct.
- iv) All electrical and fire service duct shafts shall be sealed at each floor level with non-combustible materials such as vermiculite concrete. No storage of any kind shall be done in the shaft.

S. GARBAGE DUCT (IF PROVIDED):

- i) It should be made M.S. / Non-combustible material.
- ii) It should have opening with fire resistance door of half an hour fire resistance.
- iii) It should be fitted with smoke detector at 1st floor level of building.

T. SERVICE FLOOR (WING 'A' & WING 'B' - 1.80 MTRS. & WING 'C' – 1.45 MTRS..):

- i) Service floor shall be provided at every 70.00 Mtrs. height of the building.
- ii) Service floor shall be open on all sides which serves as fire separation floor
- iii) Service floor shall be properly accessible from common areas.
- iv) Service floor shall not be allowed to be used for any other purpose and it shall be the responsibility of the owner / occupier to maintain the same clean and free of encumbrances and encroachments at all times.

v) Periphery of the Service floor shall not be enclosed.

vi) Fire Drenchers shall be provided at the periphery of the each Service floor externally.

U. RATE OF RISE DETECTORS:

Rate of rise detectors shall be installed in the hot areas i.e. kitchen, pantry, etc and same shall be connected to main console at ground floor level.

THE CONCERNED PARTY HAS PAID SCRUTINY FEES AS MENTIONED BELOW:

Sr. No	Type of Proposal	Total Gross built up area in sq. Mtrs..	Scrutiny fee paid	CFC Receipt No./ Online Receipt No./SAP Doc. No.	Date
<u>Scrutiny Fees:-</u>					
1.	Proposal	44665.12	2,903,230/-	CHE/BP/54547/21	20/05/2021
2.	Amendment	73001.84	2,042,584/-	17/3/2023/001633	07/03/2023
			8,76,099/-	CHE/CFO/13113/24	01/02/2024
<u>Fire service fee:-</u>					
1.	Proposal	6739.90	1,095,030/-	CHE/CFO/13112/24	01/02/2024
2.	Amendment	44665.12	99,46,499	CHE/CFO/13115/24	UNPAID
Architect has submitted letter along-with Undertaking from Developer/Owner regarding assurance for payment of Revise Fire and Emergency Service fees as per the MFP&LSM, (Amendment),Act 2023.However as the circular from BMC with regards to levying the Fire and Emergency Service Fess is awaited, the Developer/Owner has assured to pay the Revise Fire and Emergency Service Fees as per revised schedule before the future amendment or prior to obtaining Final Safety Compliance, which-ever is earlier or whenever this department demands for payment of the same. Architect has requested to issue FSRL on basis of Fire service fees paid as per old Fire service fees structure. The same is considered herewith					

However, Architect/L.S. shall get verified the total gross built-up area from competent Municipal Authority after the completion of construction work and inform this department, if the same is found to be more for the purpose of levying additional scrutiny fees, if required.

This Fire safety requirement Letter is issued for the proposed building from Fire Risk / Fire Safety point of view only. The plans approved along with this Fire safety requirement Letter are approved from Fire Risk / Fire Safety point of view only. Approval of this plan does not mean in any way allowing of construction of the building. It is Licensed Surveyor's / Developer's responsibility to take necessary prior approval from all concerned competent authorities for the proposed construction of the building.

NOTE:-

a) The fire-fighting installation shall be carried out only from Government approved licensed agency only.

- b) The width of abutting road & open spaces are as mentioned in plans submitted by the Architect/L.S. and these parameters shall be certified by the concerned Architect/L.S.
- c) The schematic drawings/plans of automatic sprinkler system, automatic smoke detection system, wet riser system, public address system, manual fire alarm system shall be submitted to CFO.
- d) The area, size, etc. for the sprinkler system, detection system, fire alarm system, wet riser system, public address system, Fire duct, electrical duct etc. to be verified & examined by MEP Consultant.
- e) Separate necessary permission and license under section 390/394 for any licensable activity shall be obtained from concerned authorities of BMC/CFO's department, till then shall not be allowed to use.
- f) There shall be no any tree located in the compulsory open spaces or in the access way.
- g) This Requirement letter is issued only from Fire Protection & Fire-Fighting requirements point of view on behalf of the online application from Architect/L.S. If any matter pertaining to authenticity or legality shall be cleared by concerned Owner/Occupier/Developer/ Architect/L.S., etc. However, any type of inadequacy, default in the construction of the building other than approved plan is not under purview of this department.
- h) The plans approved along with this Fire safety requirement letter are issued from Fire Risk & Life Safety point of view only. Approval of these plans does not mean in any way of allowing construction of the building. It is Architect/Developers responsibility to take necessary prior approval from all concerned competent authorities for the proposed construction of the building.
- i) As per section 3 of Maharashtra Fire Prevention and Life Safety Measures Act-2006, it is the liability of Owner/Occupier to provide & maintain the Fire Prevention & Life Safety Measures in good repair and efficient condition all the time in accordance with the provisions of Maharashtra Fire Prevention and Life Safety Measures Act or the rules.
- j) This approval is issued without prejudice to legal matters pending in court of law, if any.

KISHORE
DNYANDEO
GHADIGAONKAR

Digitally signed by
KISHORE DNYANDEO
GHADIGAONKAR
Date: 2024.02.08
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**VERIFIED & PROPOSED BY
DIV. FIRE OFFICER
MUMBAI FIRE BRIGADE**

**APPROVED BY
DY. CHIEF FIRE OFFICER
MUMBAI FIRE BRIGADE**

Copy to:-

Ch. Eng.(D.P.)
E.E. (B.P) -City