

MUNICIPAL CORPORATION OF GREATER MUMBAI
MUMBAI FIRE BRIGADE

No.: FB/HRC/R-V/67
Date: 25.10.2019

Sub: Fire protection & fire-fighting requirements for proposed construction of high rise residential sale building developed under SRA scheme 33(10) on plot Bearing C.T.S. No. 1A (pt), Survey No. 93 (pt), Plot No. 49, Road No. 5 & 6 of village Deonar, Tal. Kurla at Shivaji Nagar, Govandi (E), Mumbai - 400 043 for "Devkrupa (Federation) CHS Proposed".

Ref.: i) Letter submitted by M/s. Consultants Combined, Architects, Mumbai.
ii) M.F.B. No.: HRC/R-V/67 date - 22.10.2019.

E.E.(S.R.A.).

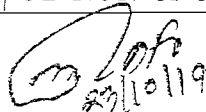
In this case, please refer to the NOC issued by this office vide No. FB/HR/R-V/64 dated 16/08/2017 stipulating fire protection and firefighting requirements for the construction of high rise residential sale building comprising of three wings i.e. wing A,B & C. where all the three wings are having common basement (-04.20 mtrs.) + stilt on ground + 1st to 21st upper residential floors + 22nd floor for fitness center & society office & pergola with a total height of 69.20 mtrs. Measured from general ground level up to terrace level.

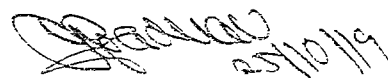
Now, architect has submitted revised plans are as follows:

Architect has proposed high rise residential sale building comprising of three wings i.e. wing A, B & C. Wing A & C having common ground floor for shops + 1st floor partly for commercial use & partly for residential use + 2nd to 23rd upper residential floors with a total height of 69.99 mtrs. Measured from general ground level up to terrace level. Wing B having common ground floor for shops + 1st floor for commercial use + 2nd floor for N.R. Unit + 3rd floor as girder beam + 4th to 34th upper residential floors with a total height of 101.90 mtrs. Measured from general ground level up to terrace level & proposed 03 Nos. of automated mechanized car parking tower within building line with height 69.50 mtrs. from ground level with separate M.S. staircase of 0.75 mtrs. width having platform & Railing on every alternate parking level as shown on enclosed plan.

FLOOR WISE USER OF WING 'A' & 'C' ARE AS FOLLOWS:

Floors	Wing A	Wing C
Ground floor	Horizontal car parking + 02 Nos. of shops + meter room	Horizontal car parking + 02 Nos. of shops + meter room + STP
1 st floor	02 Nos. of offices + 02 Nos. of	02 Nos. of offices + 02 Nos. of





	residential flats	residential flats + meter room
2 nd to 7 th , 9 th to 14 th , 16 th to 23 rd floor	04 Nos. of residential flats on each floor	04 Nos. of residential flats on each floor
8 th & 15 th floor	03 Nos. of residential flats + refuge area	03 Nos. of residential flats + refuge area
22 nd floor	04 Nos. of residential flats + refuge area	04 Nos. of residential flats + refuge area
Terrace	Open to sky (treated as refuge area)	

FLOOR WISE USER OF WING 'B' ARE AS FOLLOWS:

Floors	Wing B
Ground floor	24 Nos. of shops with loft having internal staircase + meter room
1 st floor	24 Nos. of shops + meter room
2 nd floor	24 Nos. of N.R. Unit
3 rd floor	Girder Beam
4 th to 7 th , 9 th to 14 th , 16 th to 23 rd , 25 th to 28 th & 30 th to 34 th floor	08 Nos. of residential flats on each floor
8 th , 15 th & 22 nd floor	06 Nos. of residential flats + refuge area
24 th floor	06 Nos. of residential flats
29 th floor	09 Nos. of residential flats + refuge area
Terrace	Open to sky (treated as refuge area)

THE DETAILS OF STAIRCASES: (FOR WING A, B & C)

No. of staircase	Type of staircase	Width	From - to
One in each wing A & C	Enclosed type	01.50 mtrs.	Leading from ground floor to terrace level
Two in wing B	Enclosed type	02.00 mtrs.	Leading from ground floor to terrace level
One for commercial shops	Enclosed type	01.50 mtrs.	Leading from ground floor to 1 st floor
One for car parking tower	Open M.S. Type	0.75 mtrs.	Leading from ground floor to top of car parking tower

The staircases are externally located and adequately ventilated to outside air in Wing A & C as shown on the plan. The staircase of Wing B is mechanically ventilated through pressurization. NOC from E.E. (M & E) department shall be obtained for mechanical ventilation point of view & same shall be submitted before full occupation of building as shown in the enclosed plans.

LIFTS: (FOR WING A, B & C)

No. of lifts	Type of lifts	Profile
02 Nos. of lifts in each wing A & C	Passenger lifts	Leading from ground floor to top floor level
04 Nos. of lifts in wing B	Passenger lifts	Leading from ground to top floor level
01 No. of lift in wing B	Fireman evacuation lift	Leading from ground to top floor level
01 No. of lift for shops	Passenger lifts	Leading from ground to 2 nd floor level

One passenger lift leading from ground floor to top floor, in each wing will be converted into fire lift. The lift lobby/common corridor at each floor level in each wing are ventilated to outside air as shown in the enclosed plans

THE OPEN SPACES: (FOR WING A, B & C)

The site abuts on 18.30 mtrs. wide Existing Road on South side & 09.30 mtrs. Existing Road on East & West side as shown on plan by architect. The side open spaces around the building are as under:

Side	building line to plot boundary
North	12.00 mtrs. Wide Joint open space between rehab & proposed building
South	01.50 mtrs. + 18.30 mtrs. wide Existing Road
East	01.50 mtrs. to 03.00 mtrs. + 09.30 mtrs. Existing Road
West	01.50 mtrs. to 03.00 mtrs. + 09.30 mtrs. Existing Road

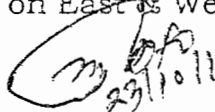
REFUGE AREA: (FOR WING A, B & C)


Wing	Refuge floor	Refuge area (required)	Refuge area (proposed)	At the height of refuge floor from ground level.
Wing A	8 th floor	53.28 sq. mtrs.	57.06 sq. mtrs.	23.60 mtrs.
	15 th floor	53.28 sq. mtrs.	57.06 sq. mtrs.	43.90 mtrs.
	22 nd floor	15.04 sq. mtrs.	16.54 sq. mtrs.	64.20 mtrs.
Wing B	8 th floor	107.04 sq. mtrs.	115.00 sq. mtrs.	23.60 mtrs.
	15 th floor	107.04 sq. mtrs.	115.00 sq. mtrs.	43.90 mtrs.
	22 nd floor	107.54 sq. mtrs.	115.00 sq. mtrs.	64.20 mtrs.
	29 th floor	107.04 sq. mtrs.	115.00 sq. mtrs.	84.50 mtrs.
Wing C	8 th floor	53.25 sq. mtrs.	57.06 sq. mtrs.	23.60 mtrs.
	15 th floor	53.25 sq. mtrs.	57.06 sq. mtrs.	43.90 mtrs.
	22 nd floor	15.04 sq. mtrs.	16.54 sq. mtrs.	64.20 mtrs.

In addition to above, terrace of each wing will be treated as refuge area. Refuge area calculation shall be verified by E.E.(S.R.A.). Excess refuge area shall be counted in FSI.

The proposal is considered favorably as:

- i) The site abuts on 18.30 mtrs. wide Existing Road on South side & 09.30 mtrs. Existing Road on East & West side as shown on plan by architect


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- ii) The party has obtained LOI from CEO (SRA) under no. SRA/ENG/2807/ME/MCGM/LOI Dated 24.04.2019 also, obtained IOA from EE (SRA) under no. SRA/ENG/3834/ME/MCGM/AP dated 09.05.2019.
- iii) The party has obtained Plinth CC for Sale building From EE (SRA) under no. SRA/ENG/3833/ME/MCGM/AP dated 03.01.2018 & obtained Further CC dated 16.07.2019 for construction work of wing A & C up to 17th floor. Accordingly construction work of Wing A & C carried out up to 9th floor & Construction work of wing B carried out up to plinth level.
- iv) Architect has been directed to provide automatic sprinkler system in entire building including in each shop, each N.R. unit, each flat, in each lift lobby/common corridor at each floor level of each wing & in car parking area on ground floor & in car parking tower covering each car parking level of the building.
- v) Architect has been directed to provide automatic smoke detection system in each shop, each N.R. unit, each electric meter room & in each lift machine room of each wing of the building.
- vi) 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 proposed construction of high rise residential sale building comprising of three wings i.e. wing A, B & C. Wing A & C having common ground floor for shops + 1st floor partly for commercial use & partly for residential use + 2nd to 23rd upper residential floors with a total height of 69.99 mtrs. Measured from general ground level up to terrace level. Wing B having common ground floor for shops + 1st floor for commercial use + 2nd floor for N.R. Unit + 3rd floor as girder beam + 4th to 34th upper residential floors with a total height of 101.90 mtrs. Measured from general ground level up to terrace level & proposed 03 Nos. of automated mechanized car parking tower within building line with height 69.50 mtrs. from ground level with separate M.S. staircase of 0.75 mtrs. width having platform & Railing on every alternate parking level as shown on enclosed plan, signed in token of approval, subject to satisfactory compliances of the following requirements:

N.O.C. issued earlier Under no. FB/HR/R-V/64 dated 16/08/2017 issued by this office, shall be treated as cancelled.

1. ACCESS :

There shall be no compound wall on 18.30 mtrs. wide Existing Road on South side and the courtyards shall be flushed with the road level. However, removable bollard chain link may be permitted.

2. COURTYARDS :

- 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.

3. STAIRCASE : (FOR EACH WING)

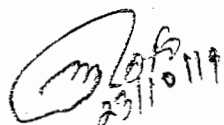
- i) The layout of the staircase shall be enclosed type as shown in the plan throughout its height and shall be approached (gained) at each floor level through at least half an hour fire resistant self closing door (45 mm. thickness) placed in the enclosed wall of the staircase at landing.
- ii) The flight width of the staircase shall not be less than 01.50 mtrs. In wing A & C and shall not be less than 02.00 mtrs. In wing B throughout its height.
- iii) Permanent vent at the top equal to 5% of the cross sectional area of the staircase shall be provided.
- iv) Openable 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.
- vi) The staircase of Wing B is mechanically ventilated through pressurization. NOC from E.E. (M & E) department shall be obtained for mechanical ventilation point of view & same shall be submitted before full occupation of building

The terrace door shall be provided in the following manner.

- 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.

4. PRESURIZATION: (FOR WING B)

- a. The proposed smoke management system for the shall be a x zoned utilizing clustered air handling unit (AHU) located at Terrace and Fire check floor level. The system shall be included separate fans and AHU's that will provide elevator pressurization, as well as lift lobby pressurization and exhaust, when smoke or a fire is detected by the fire alarm system as per the NBC code a minimum positive pressure between 25 and 30 pa shall be maintained in the lobby and a positive pressure of 50 pa shall be maintained in the lift shaft.
- b. Smoke/Fire dampers shall be provided in accordance with NFPA within supply air ducts and return air ducts at AHU's room wall crossing whenever provided, at fire rated wall crossing and at walls between adjoining fire zones. Smoke detectors shall be provided in return air duct to the AHU's and shall be shut down the AHU's serving the floor space upon smoke detection.
- c. Air quantity will be calculated for 12 ACPH and simultaneously operation of 03 floors.


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5. SMOKE MANAGEMENT SYSTEM: (FOR WING B)

- a. Escape route like staircase common corridor lift lobbies etc shall not be used as return air passages.
- b. Direct expansion system shall be used.
- c. The ducting shall be constructed of substantial gauge/metal in accordance with IS:655:1983 metal air duct(devised)
- d. Whenever the duct pass through fire walls or floors, the opening around the duct shall be sealed with fire resisting material such as vermiculite concrete or glass wool. A.C. ducting shall not pass through staircase wall.
- e. Metallic duct shall be used even for return air instead of space above false ceiling.
- f. The material used for insulating the duct(inside or outside) shall be of non combustible type such as glass wool or spun glass with neoprene facing etc.
- g. A.H.U's shall be provided (if used) of adequate size and shall be separate for each floor and air ducts for each floor shall be separate and in no way inter connected with the ducting of any other floor.
- h. Automatic fire dampers shall be provided at the inlet of fresh air duct and the return air duct of each compartment on every floor. They shall be so arranged as to close by gravity in the direction of air movement and remain tightly closed upon operation of smoke detector.
- i. Air filters of A.H.U's (if used) shall be of non combustible material.
- j. A.H.U (if used) room shall be not used for storage of any combustible material and shall be provided with half an hour fire resistance door.
- k. Inspection panel shall be provided in main trunking to facilitate the cleaning of the duct of accumulated duct and to obtain access for maintenance of fire dampers.
- l. No combustible material shall be fixed nearer than 15 cms. To any duct unless such duct is properly enclosed and protected with non combustible material(glass wool) or spun glass with neoprene facing wrapped with aluminum foil of at least 3.2 mm thick and which does not readily conduct heat.
- m. The A.H.U's system shall be switch off automatically when either sprinkler system or detector system operate.

6. CORRIDOR / LIFT LOBBY : (FOR EACH WING)

- i) Corridor / lift lobby at each floor level shall be naturally ventilated.
- ii) The common corridor / lift lobby at each floor level shall be kept free from obstructions at all times.
- iii) Proper signage's 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.

7. **ELECTRIC CABLE SHAFT AND ELECTRIC METER ROOM: (FOR EACH WING)**

- 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 room 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.
- viii) Separate circuits for firefighting pumps, lifts, staircases and corridor lighting 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.
- ix) Master switches controlling essential service circuits shall be clearly labeled.

8. **ESCAPE ROUTE LIGHTING: (FOR EACH WING)**

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

9. **FLATS, SHOP, N.R. UNIT ENTRANCE, KITCHEN DOOR AND EXIT/ENTRANCE STAIRCASE: (FOR EACH WING)**

- i) Flat, Shop, N.R. Unit entrance, kitchen doors (if provided) shall be of solid core having fire resistance of not less than one hour (solid wood of 45 mm thickness.)
- ii) The fire resistance rating for staircase F.R.D., Lift lobby / protected lobby & the lift doors as per N.B.C. provisions.

10. **LIFT : (FOR EACH WING)**

A. **PASSENGER LIFT**

- i) Walls enclosing lift shaft shall have a fire resistance of not less than two hours.
- ii) Shafts shall have permanent vent of not less than 0.2 sq. mtrs in clear area immediately under the machine room.

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- iii) 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.
- iv) One of the lift in each wing shall be converted into fire lift and shall be as per specifications laid down under the regulations.
- v) Threshold of non combustible material shall be provided at the entrance of each landing door.

B. FIRE LIFT :

- i) To enable fire services personnel to reach the upper floors with the minimum delay, One lift in each wing shall be provided, and shall be available for the exclusive use of the firemen in an emergency.
- ii) 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. Light & fans in the elevators having wooden paneling or sheet steel construction shall be operated on 24 volt supply.
- iii) 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.
- iv) In case of failure of normal electric supply, it shall automatically changeover to alternate supply. For apartment houses, 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.
- v) 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.
- vi) The words 'Fire lift' shall be conspicuously displayed in fluorescent paint on the lift landing doors at each floor level.
- vii) The speed of the fire lift shall be such that it can reach the top floor from ground level with in one minute.
- viii) Fire lift shall be constructed as per prevailing Indian & International standard.

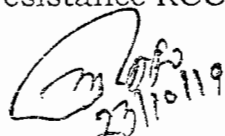
11. CAR PARKING :

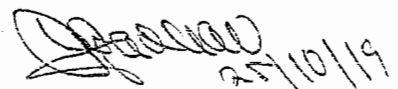
- i) Car parking shall be permitted in the designated area.
- ii) Drainage of the car parking area of all the levels shall be laid independent from that of the buildings & it shall be provided with catch pit & fire trapped before connecting the building drainage or Municipal drainage.
- iii) Drainage 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) The parking area shall not be used for dwelling purpose & repairing / maintenance purpose, at any time. Dwelling use of naked light/flame, repairing / maintenance of vehicles shall be strictly prohibited in the parking area.

- v) Repairing / servicing of cars, use of naked light shall not be permitted in the car
Parking areas.
- vi) The drive way shall be properly marked & maintained unobstructed.
- vii) The Automatic Sprinkler System provided to the entire car parking area.

12. AUTOMATED MECHANISED CAR PARKING TOWER:

- i) All the structural steel members of the mechanized car parking block i.e. columns, beams shall be protected with the fire resisting / retardant materials and methods as stipulated under relevant I.S. specification. A certificate to that effect that the fire resistance protection has been provided as above shall be furnished from the chartered Structural Engineer.
- ii) The cars shall be separated by perfect partition of 4.50 mm thick steel pallets between two cars to prevents spread of fire from one level to next level.
- iii) 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.
- iv) The electrical cables used internally shall be fire retardant, and heat resistant of 105 degree centigrade.
- v) 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.
- vi) Stopper shall be installed on each pallet for the maximum position to which the car can be driven onto the pallet.
- vii) Blue and Red display lamps indicating whether system is ready to accept the car shall be installed at the entry point of the car. When the red lamp is on, car should not enter into the tower.
- viii) Automatic sprinkler system conforming to the standard 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.
- ix) Fire detectors (Heat) shall be installed below each pallet to detect any increased temperature beyond 80 degrees centigrade Control Panel on the ground floor.
- x) A Wet -riser of internal dia. of 10 cm. G.I. 'C' Class pipe shall be provided on external platform with staircase on alternate car cage level with single hydrant outlet and connected to the fire service outlet on the external face of the building directly fronting the courtyards shall be provided to connect the mobile pump of the fire service to the wet riser-cum-down comer.
- xi) The car engine shall be shut off at ground level before parking at higher level.
- xii) Only trained operator certified by company installing car towers shall operate car parking.
- xiii) The proposed mechanized car parking towers & building is segregated by 04 hours fire resistance RCC wall without any openings.


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13. ELECTRIC SUB-STATIONS (DRY TYPE) :

- i) Only dry type substation/transformers shall be installed.
- ii) Entire installation of substation including switchgear room, capacitors, transformer etc. shall be confirmed to the Indian Electric Act/Rules in practice.
- iii) Cables in the cable trenches shall be coated with fire retardant material.
- iv) Automatic built-in circuit breakers shall be provided in the substation/transformer.
- v) The door of the sub-station shall be of two hours fire resistance.
- vi) The capacity of the sub-station shall be as per service provider's requirement.
- vii) All parts of switch gear and transformer are to be examined frequently and carefully for signs of overheating, tracking etc.
- viii) The substation/transformer area shall be kept prohibited and no unauthorized person shall be allowed to enter in the area.
- ix) Ventilation shall be provided at the ceiling level.
- x) H.V./L.V. cable ducts shall be as per Indian Electricity Rules.
- xi) The danger signage on the substation with the electric voltage load.
- xii) Two dry chemical power type (Class ABC type) fire extinguishers of 09 kgs. Capacity each with BIS certification mark coupled with four buckets filled with dry clean sand and shall be kept on the sub-station.

14. D.G. SET:

- a) Entire Installation of D.G. Set shall be conforming to the Indian Electrical Act / Rules in practice.
- b) A deep tray shall be kept under the fuel tank of the D.G. Set to collect the spillage and the same shall be disposed off daily without fail.
- c) 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.
- d) The capacity of the D.G. Set shall be as per Indian Electrical Act / Rules in practice.
- e) Adequate ventilation for Switchgear Room is essential to prevent condensation.
- f) The D.G. set shall be properly grounded.
- g) Exhaust of the D.G. set shall not be directed into the exit/entrance or any adjoining structures.
- h) Sand bed of at least 6inch thickness shall be provided below the D.G set.
 - i) Electric cable of the D.G set shall be of FRLS type.
 - j) Proper ventilation shall be provided to the D.G set.
- k) Not more than 30litres of spare diesel shall be stored in its original container near the D.G set away from electric switches or source of ignition.
- l) Electric cable laid in the cable trench shall be coated with fire retardant material.
- m) Automatic built-in circuit breaker shall be provided to the D.G set.
- n) Rubber pad shall be provided to the D.G. Set for absorb vibration, if any.

- o) The D.G. Set area shall be kept prohibited and no unauthorized persons shall be allowed to enter in the area.
- p) Two Dry Chemical Powder (ABC) type fire extinguishers of 6 kgs. Capacity each with ISI certification mark coupled with four buckets filled with dry, clean sand shall be kept in the D.G. Set area.

15. FALSE CEILING (if provided) : (FOR EACH WING)

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.

16. MATERIALS FOR INTERIOR DECORATION/FURNISHING: (FOR EACH WING)

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

17. FIRE FIGHTING REQUIREMENTS :

A) UNDERGROUND WATER STORAGE TANK: (COMMON FOR WING A, B & C)

An underground water storage tank of 3,00,000 liters capacity common for wing A, B & C shall be provided at location marked on the plan as per design specified in the rules with baffle wall and fire brigade collecting breaching. The design shall be got approved from H.E.'s department prior to erection.

B) OVERHEAD WATER STORAGE TANK: (FOR EACH WING)

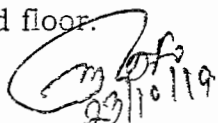
A tank of 30,000 liters capacity for wing A & C also a tank of 50,000 liters capacity for wing B shall be provided at the top of each staircase shaft of the building. The design shall be got approved from H.E.'s department prior to erection. The tank shall be connected to the wet riser through a booster pump through a non return valve and gate valve.

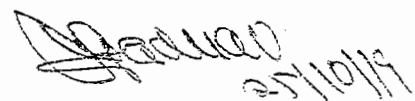
C) WET RISER: (FOR EACH WING)

Wet riser of internal diameter of 15cms. of G.I. 'C' class pipe shall be provided at lift lobby as shown on the enclosed plan, with double hydrant outlet and hose reel on each floor in such a way as not to reduce the width of the passage. Pressure reducing discs or orifices shall be provided at lower level so as not to exceed the pressure of 5.5 kgs/sq.cm.

D) FIRE SERVICE INLET : (FOR EACH WING)

- i) A fire service inlet on the external face of the building near the tank directly fronting the courtyards shall be provide to connect the mobile pump of the fire service independently to (a) The wet riser, (b) Sprinkler system.
- ii) Breeching connection inlet shall be provided to refill U.G. tank,
- iii) Operating switches of fire pumps shall be also provided in glass fronted boxes at ground floor.





E) AUTOMATIC SPRINKLERS SYSTEM: (FOR EACH WING)

Automatic sprinkler system shall be provided in entire building including in each shop, each N.R. Unit, each flat, lift lobby/common corridor at each floor level of each wing & in car parking area on ground floor & in car parking tower covering each car parking level of the building. The automatic sprinkler system shall be installed as per the standard laid down by T.A.C. and relevant I.S. specifications.

F) FIRE PUMP, SPRINKLER PUMP, JOCKEY PUMP (COMMON FOR WING A, B & C) & BOOSTER PUMP (SEPARATE FOR EACH WING):

- i) Wet riser shall be connected to a fire pump at ground level of 2400 litres / min capacity giving a pressure of not less than 3.2 kgs / sq.cms. at the topmost hydrant along with jockey pump of a suitable size.
- ii) Booster pump of capacity of 900 liters / min. having a pressure of not less than 3.2 kgs. / sq.cms. at the hydrant outlets of the wet riser shall be provided at the terrace level of the building.
- iii) An independent sprinkler pump of suitable capacity along with jockey pump shall be provided for automatic sprinkler system.
- iv) Electric supply (normal) to these pumps shall be on independent circuit.
- 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 on top three floors, at terrace level, ground floor as well as on refuge area of wing.

G) EXTERNAL HYDRANTS:

Courtyard hydrants shall be provided within the confines of the site of the wet riser on ground floor for every 30.00 mtrs. distance around the building. Hose box with two non percolating BIS marked hoses (length not less than 15 mtrs) & branch shall be equally distributed on ground floor.

H) ALTERNATE SOURCE OF POWER SUPPLY:

An alternate source of LV/HV supply from a separate substation as well as 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: (FOR EACH WING)

- 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 room 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 floor near car parking area for every 100 sq. mtrs. area.
- iii) One dry chemical powder type fire extinguisher of 6 kgs capacity having B.I.S. certification mark shall be provided on each floor.

18. STAND BY PUMPS : (FOR WING B)

Separate diesel operated stand by pumps shall be provided at site which shall be used as a alternatively.

19. FIRE ALARAM SYSTEM / FIRE DETECTION SYSTEM : (FOR WING B)

- a. The building shall be provided with fire alarm system with microprocessor based main control panel at ground floor level and addressable call points and hooters at each floor level. The design of fire alarm system shall be in accordance with I.S. specification and based on NFPA 72 guidelines (as per 2010 edition).
- b. The addressable fire alarm system shall be equipped with the latest evacuation features such as digital voice evacuation capabilities; fire fighters telephone system, directional sounders etc. Appropriate fire detection system shall be installed in lift lobby & common corridor.
- c. Access control system, close circuit cameras shall be installed in the entire building & connected to B.M.S. control at ground.
- d. Trained security staff & fire staff shall be posted on duty at strategic location around the clock.
- e. Security / fire staff shall be trained in evacuation procedure & use of fire-fighting equipment.
- f. The entire building floors shall be provided with proper standard signage.

20. MANUAL FIRE ALARM SYSTEM : (FOR EACH WING)

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.

21. AUTOMATIC SMOKE DETECTION SYSTEM: (FOR EACH WING)

Automatic smoke detection system shall be installed in each shop, each N.R. unit, each electric meter room & in each lift machine room of each wing of the building as per IS specifications with main console panel at ground floor level.

22. SIGNAGES : (FOR EACH WING)

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

23. PUBLIC ADDRESS SYSTEM: (FOR EACH WING)

The building shall be provided with public address system as per the rules with main control operator at console panel at ground floor.

24. FIRE DRILLS / EVACUATION DRILLS:

Fire Drills and evacuation drills shall be conducted regularly in consultation with Mumbai Fire Brigade and log of the same shall be maintained.

25. VOICE EVACUATION SYSTEM: (FOR 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.

26. BREATHING APPARATUS SETS: (FOR WING B)

Two Self-contained Compressed Air Breathing Apparatus sets of 45 minutes duration each shall be kept in the fire control room & each refuge area.

27. INTEGRATED SYSTEM: (FOR WING B)

The entire firefighting 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.

28. RATE OF RISE DETECTORS: (FOR WING B)

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

29. FIREMAN EVACUATION LIFT: (FOR WING B)

- i) Capacity of Fireman Evacuation Lift shall be of 845 to 1000 kgs. /8 to 15 persons and it shall be terminated on ground floor or podium where facility of assembly or evacuation is available in case of emergency.
- ii) Fireman 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 staircases and required access to the staircase on each landing through fire resistance of two hours rating. Alternatively, firemen evacuation lift shall be provided on every mid-landing of one of the enclosed staircases of the building and the staircase shall be protected with smoke check lobby by means of fire resistance door/ fire curtain or fire resistance glass having two hours rating.
- iii) All the requirements pertaining to civil and electrical aspects mentioned in NBC for Fire Lift shall be applicable for Fireman Evacuation Lift.
- iv) Fireman Evacuation Lift car doors and landing doors shall have two hours fire resistance and shall have provision of glass vision for both doors of

minimum 1 ft. X 2 ft. And the glass shall also have two hours fire resistance.

- v) Fireman Evacuation Lift shall have emergency operation switch which will be only operated by fire brigade personnel. On actuation of the switch the Fireman Evacuation Lift will operate from inside and the lift car door shall not open automatically but shall have control from inside to open it. The emergency operation switch shall also be provided in the ground floor lobby.
- vi) The backup electric supply shall be through UPS for at least 30 min and it shall be supported online by another regular and alternate emergency supply.
- vii) Two-way communication systems shall be provided in Fireman Evacuation Lift car as well as at every landing level including lobby at ground floor.
- viii) All the electrical cable shall be fire retardant with low smoke hazard complying relevant BIS standards.
- ix) Fireman Evacuation Lift car shall be of made of non-combustible material including interior having minimum two hours resistance.
- x) Lift maintenance shall be carried out only by Lift Manufacturing or Installation Company.
- xi) Fireman Evacuation Lift and the staircase attached to it shall be clearly marked mentioning FIRE ESCAPE LIFT/STAIRCASE at each landing door at each floor level.

30. FIRE CONTROL ROOM: (FOR WING B)

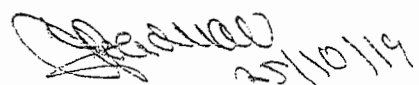
- i) Fire Control rooms as marked in plan, with well qualified man power shall be established on ground floor.
- ii) Plan of each floors indicating means of egress as well escape shall be maintained.
- iii) Control panel of fire safety system shall be located in the control room.
- iv) The size of the control room shall be in accordance with the MEP consultant for the project.
- v) The location map of control rooms shall be kept at the main entrance gate to direct fire appliances responding to any emergency

31. TRAINED FIRE STAFF/SECURITY GUARDS: (FOR WING A,B & C)

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

- i) Maintenance of all the first aid firefighting equipment's, fixed installations & other firefighting equipment's / appliance in good working condition at all times.
- ii) Imparting training to the occupants of the building in the use of firefighting equipment provided on the premises & to conduct the fire drills and evacuation drills.
- iii) To liaise with the City Fire Brigade on regular & continual basis.

 23/10/19

 25/10/19

32. **REFUGE AREA: (FOR EACH WING)**

Refuge area provided in each wing level shall be conforming to the following requirements:

i) Manner of refuge area:

- a) The refuge area shall be so located that it shall preferably face the access road /wider open space of the building.
- b) The refuge area shall be provided with railing / parapet of 1.20 mt.
- c) The refuge area shall have a door which 'shall be painted or fixed with a sign in luminous paint mentioning "REFUGE AREA"
- d) The lift/s shall not be permitted to open into the refuge areas.
- e) The refuge area provided within building line shall be accessible from common passage/ staircase.
- f) The cantilevered portion of the refuge area shall be provided with R.C.C. sloping roof.

ii) Use of refuge area :

- a. 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.
- b. 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) Facilities to be provided at refuge area

Adequate emergency lighting facility shall be provided.

iv) Terrace floor as a refuge floor:

- a. The necessary facilities such as emergency lighting, drinking water etc. shall be provided.
- b. 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".

33. Elevation features for entire building shall be as per circular issued by Hon. M.C's Under No. CHE/DP/5440/GEN Dated 28/12/2016, as per shown on the enclosed plans.

Earlier, party has paid Scrutiny Fees of Rs. 6,16,663/- vide receipt SAP No. 4126383 & 4126384 SAP No. 1003013297 dated 14.07.2017 on the total gross built up area of 14,341.00 Sq. mtrs. as certified by the Architect.

Now, party has paid Scrutiny Fees of Rs.9,28,976/- vide receipt No. 1203148/149/150 SAP No. 1003605733 dated 14.06.2019 on the total gross built up area of 29163.00 Sq. mtrs. as certified by the Architect

However, E.E.(S.R.A.) is requested to verify the gross built up area and inform this Department if it is more.

Note To, E.E.(S.R.A.)/Architect:

- i) The fire-fighting installation shall be carried out by licensed approved agency.
- ii) The area calculation shown in the enclosed plan shall be checked by the E.E.(S.R.A.)
- iii) E.E.(S.R.A.) 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 NOC
- iv) If any matter of NOC violate DCPR 2034 then this NOC shall be refer back to this department with remarks.
- v) The width of the abutting road, open spaces, refuge area, occupancy, height of the building etc. mentioned in plans as submitted by the Architect attached herewith. These parameters shall be verified by E.E.(S.R.A.) before granting any permission (I.O.D./C.C./further C.C.) If found any contradiction, the proposal shall be referred back to this Department.
- vi) 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.
- vii) This NOC is issued only from Fire Protection & Fire-Fighting requirements point of view & issued on the request letter from Architect & without prejudice to legal matters pending in court of law, if any.
- viii) This NOC is subject to approval from High rise technical committee. If, required.

— ed —

Dy. Chief Fire Officer
Mumbai Fire Brigade

✓ Copy to: M/s. Consultants Combined,
Architects, Mumbai


27/10/19

Dy. Chief Fire Officer
Mumbai Fire Brigade

PROFORMA - A	SO. MT.
1	4423.95
2	88.95
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17	88.95

CONFIRMED THAT I HAVE SURVEYED THE PLOT UNDER REFERENCE ON 17/06/2016 AND MEASURED THE AREA WORKED ON THE PLOT AND THE AREA AS SHOWN IN THE PLOT AREA CALCULATION AND THE PLOT AREA AS SHOWN IN THE PLOT AREA CALCULATION. I HAVE ALSO MEASURED THE AREA STATED IN THE DOCUMENT OF OWNERSHIP & R. SCHEME RECORDS.

SIGNATURE OF ARCHITECT

AREA STATEMENT	SO. MT.
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REHAB BLDG	CONST. AREA	REHAB. AREA	NET B.L.A. OF REHAB. F.S.I.
1	16861.17	1175.71	1175.71
2	20711.42	5208.55	5208.55
3	1485.57	91.69	91.69
4	6860.38	803.80	803.80
5	14117.71	66.89	66.89
6	167.14	71.52	167.14
7	167.14	71.52	167.14
8	167.14	71.52	167.14
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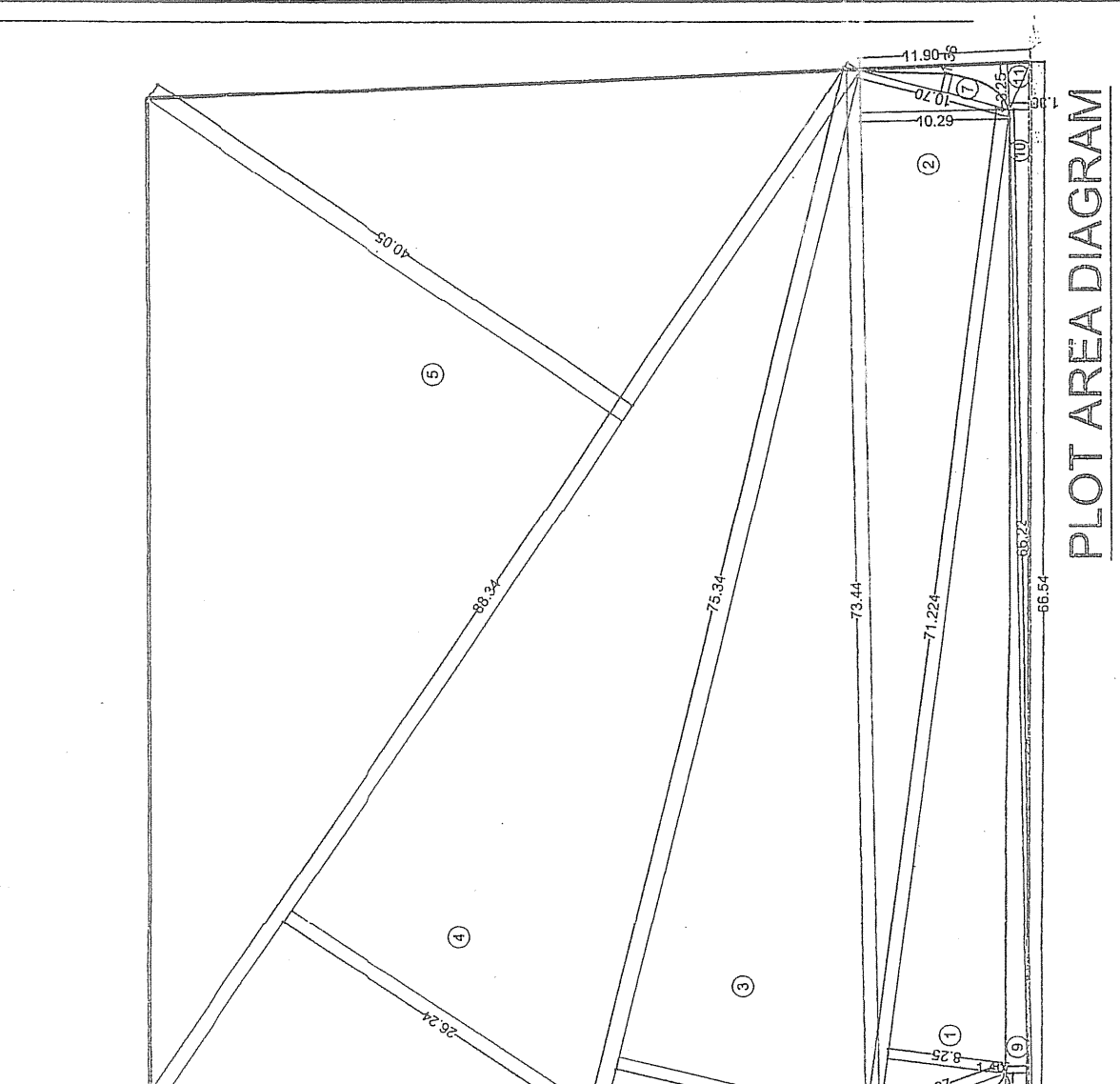
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PLOT AREA CALCULATION	
1	1/2 X 71.224 X 18.25 X 1 NO = 650.86 SQ.MT.
2	1/2 X 75.34 X 18.55 X 1 NO = 698.76 SQ.MT.
3	1/2 X 88.34 X 28.24 X 1 NO = 1159.02 SQ.MT.
4	1/2 X 88.34 X 40.05 X 1 NO = 1789.01 SQ.MT.
5	1/2 X 9.27 X 0.92 X 1 NO = 4.26 SQ.MT.
6	1/2 X 10.70 X 1.36 X 1 NO = 7.28 SQ.MT.
7	1/2 X 10.70 X 1.36 X 1 NO = 7.28 SQ.MT.
SETBACK AREA CALCULATION	
8	1/2 X 10.31 X 3.27 X 1 NO = 16.86 SQ.MT.
9	1/2 X 82.22 X 1.40 X 1 NO = 43.55 SQ.MT.
10	1/2 X 66.54 X 1.38 X 1 NO = 45.91 SQ.MT.
11	1/2 X 11.90 X 3.25 X 1 NO = 19.54 SQ.MT.
DEDUCTIONS	
1	1/2 X 9.33 X 0.93 X 1 NO = 4.34 SQ.MT.
2	1/2 X 10.76 X 1.37 X 1 NO = 7.37 SQ.MT.
TOTAL SET-BACK AREA = 113.95 SQ.MT. - B	
TOTAL PLOT AREA = (A + B) = 4423.95 SQ.MT.	

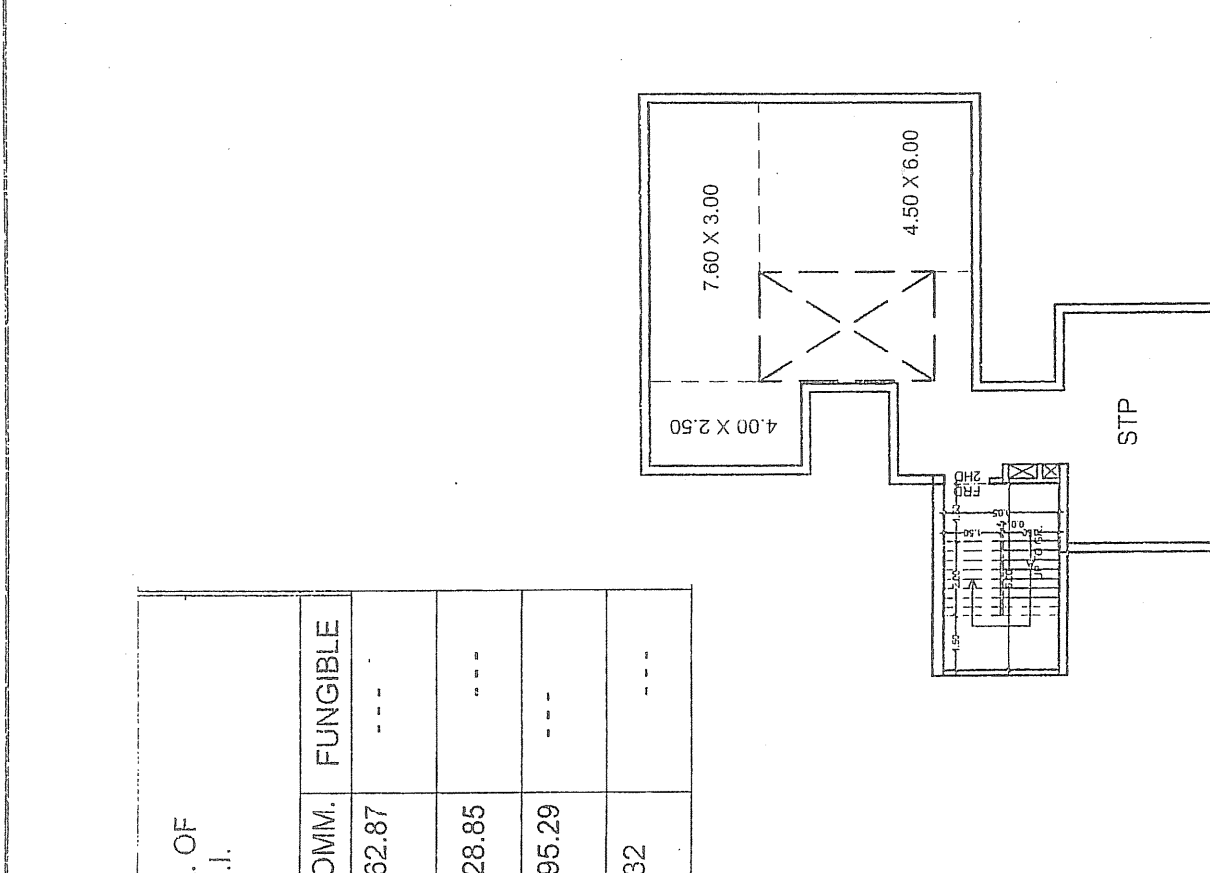
PROFORMA - B
CONTENTS OF SHEET
LAYOUT PLAN, BLOCK PLAN & LOCATION PLAN BASEMENT PLAN
PLOT AREA DIAGRAM & CALCULATION
PHY. E.G. AREA DIAGRAM & CALCULATION
STAMP OF DATE OF RECEIPT OF PLANS

STAMP OF DATE OF APPROVAL OF PLANS
TO BE SUBMITTED TO THE LOCAL AUTHORITY FOR APPROVAL OF PLANS
DATE: 15-10-2019

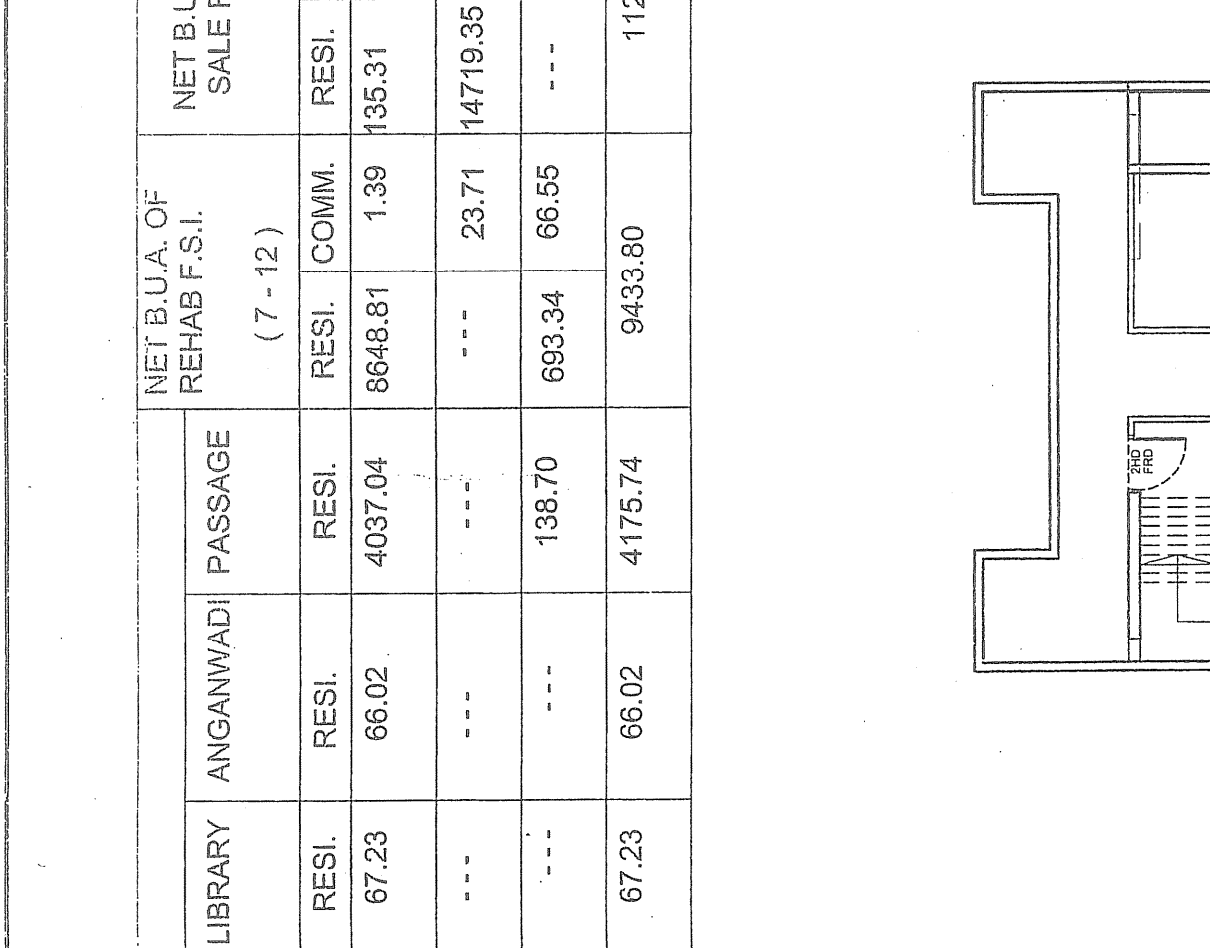
NAME OF DEVELOPER
MRS. RATNAKAR, SHELTERS LLP.
DESCRIPTION OF PROPOSAL AND PROPERTY
PROPOSED S.R. SCHEME ON PLOT BEARING C.T.S. NO. 1A (PART), SURVEY NO. 93 (PT) NO. 49, ROAD NO. 5/6 OF VILLAGE DEONAR, TA - KURLA AT SHIVAJI NAGAR, GOVANDI (E) (MUMBAI 400043).

PROJ. NO.	DRN BY	DATE
15-10-2019	VIRAS K.	15-10-2019
CHKD BY	CONV. COM.	AS SHOWN
DRG. NO.	REMARKS	

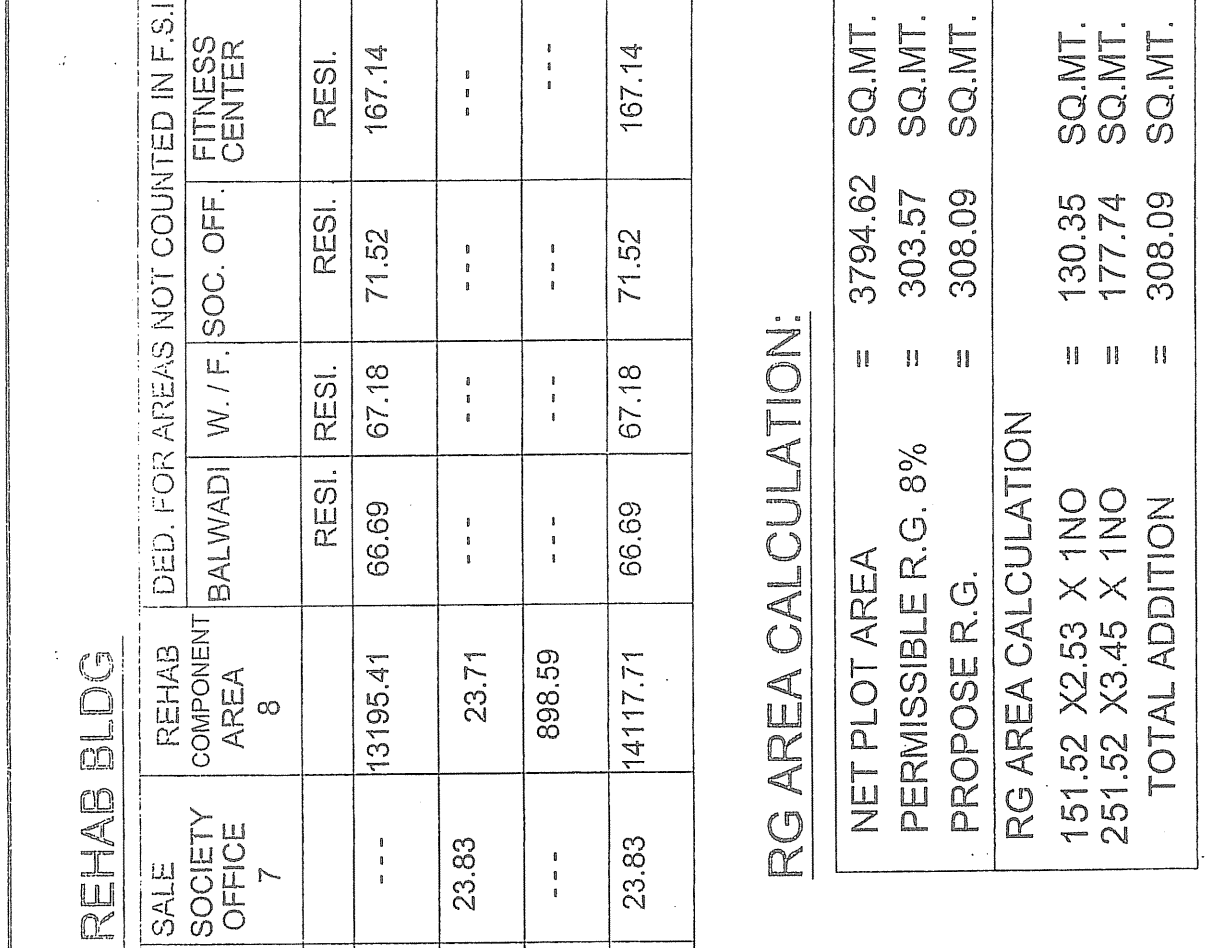
NAME & ADDRESS OF ARCHITECT
CONSULTANTS
COMBINED ARCHITECTS
B-101, Nankh Kurla (Maharashtra), D-5 B, Poo Road, Loharwadi, Mumbai - 400032.
TEL : +91 22 4709 2470 4015
FAX : +91 22 4709 2470



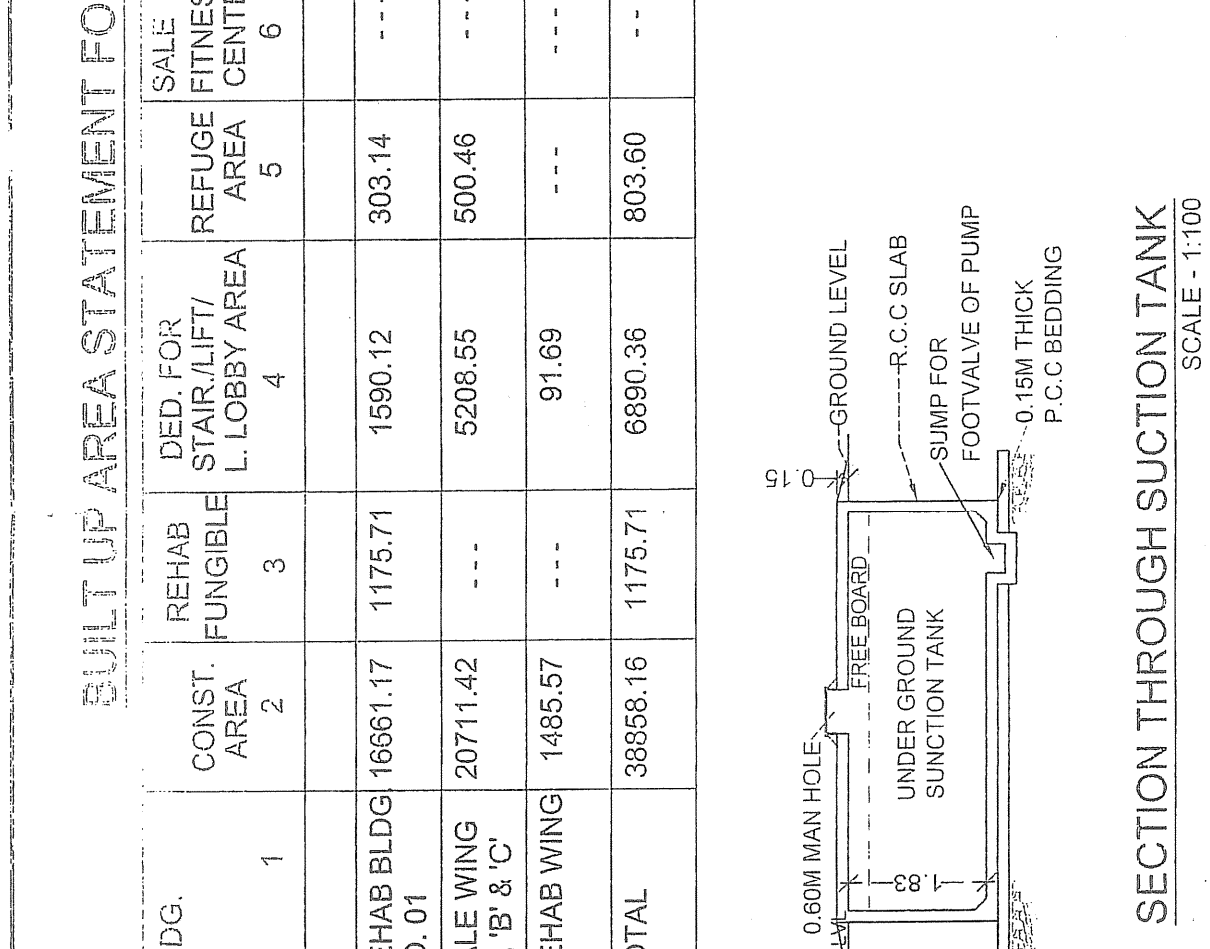
RG AREA CALCULATION:
NET PLOT AREA = 3794.62 SQ.MT.
PERMISSIBLE R.G. 8% = 303.57 SQ.MT.
PROPOSE R.G. = 308.09 SQ.MT.
RG AREA CALCULATION
151.52 X 2.53 X 1 NO = 130.35 SQ.MT.
251.52 X 3.45 X 1 NO = 177.74 SQ.MT.
TOTAL ADDITION = 308.09 SQ.MT.



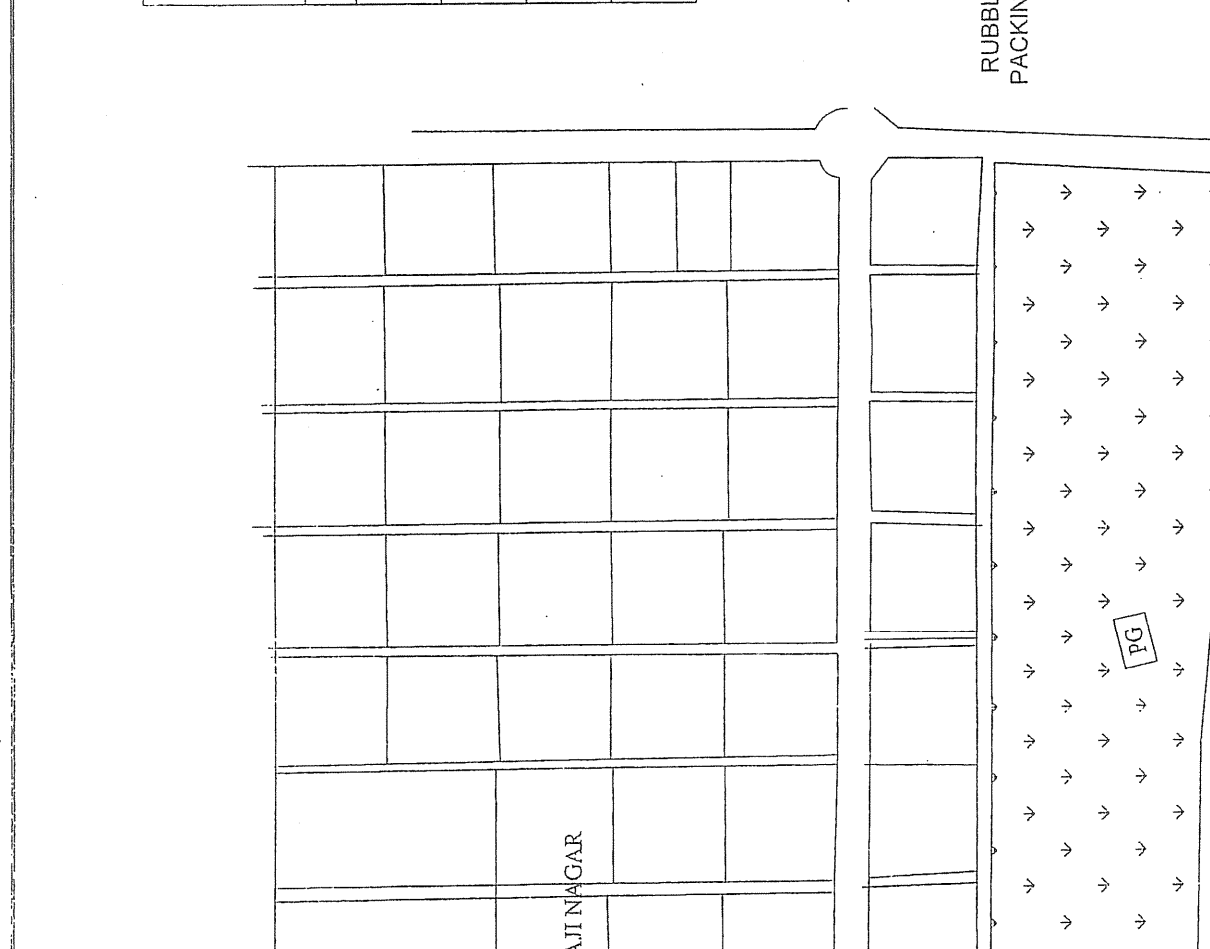
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SCALE: 1:100



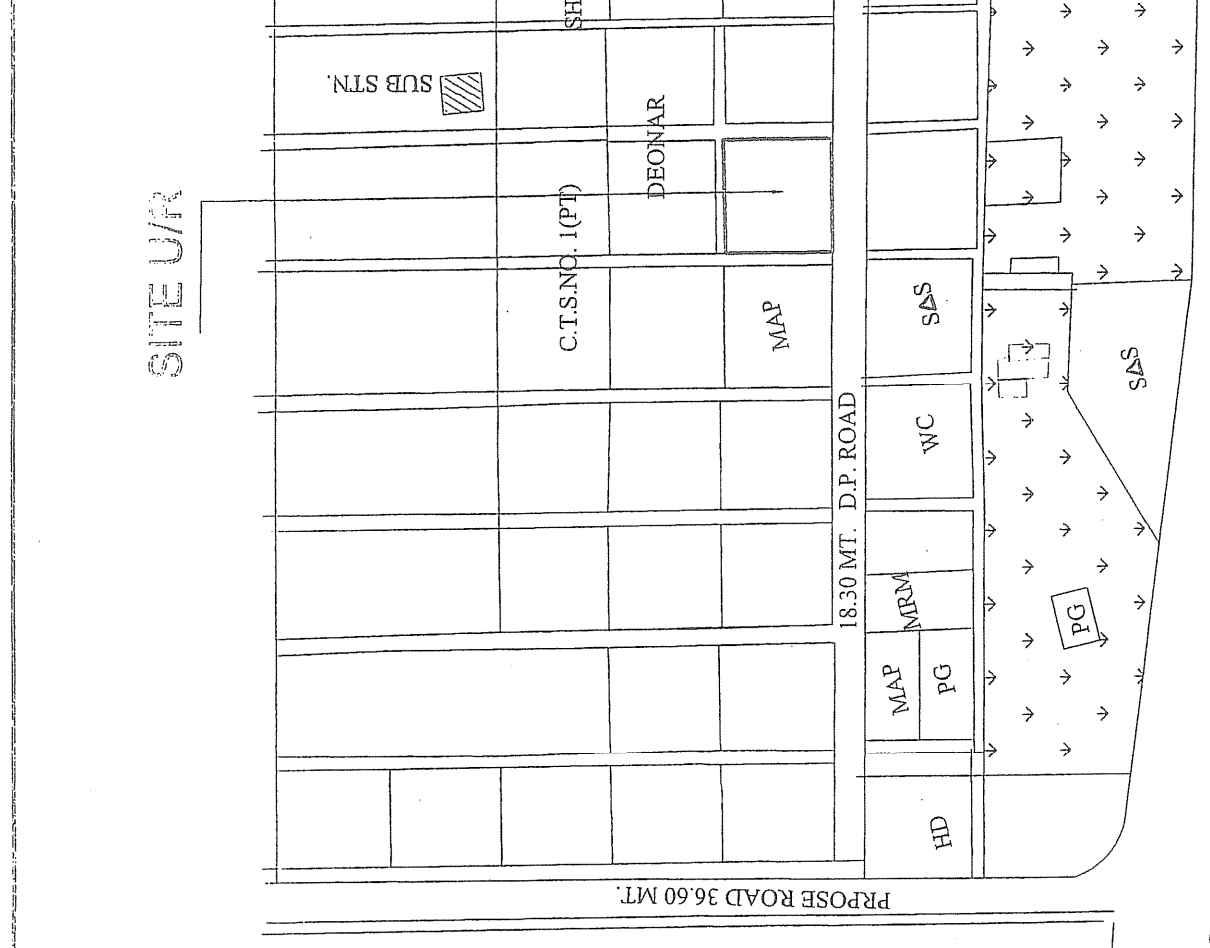
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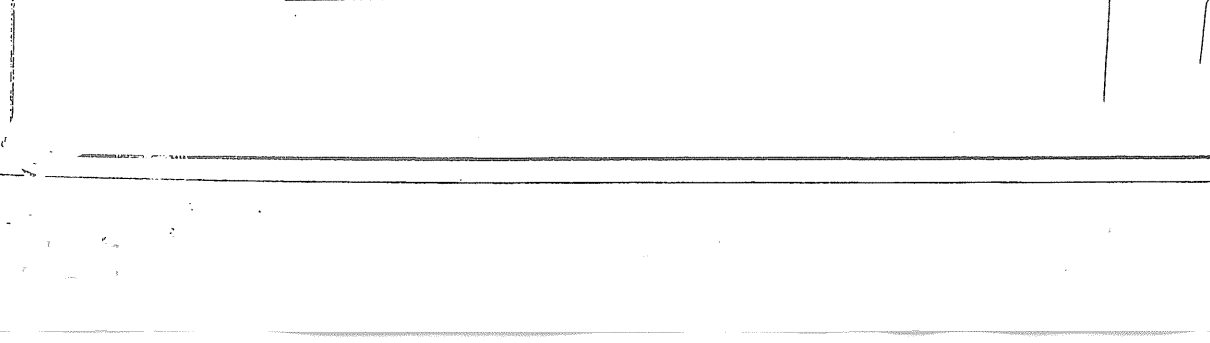
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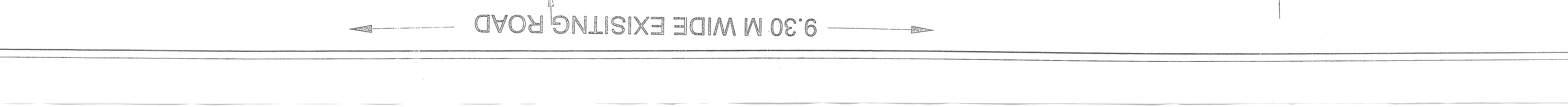
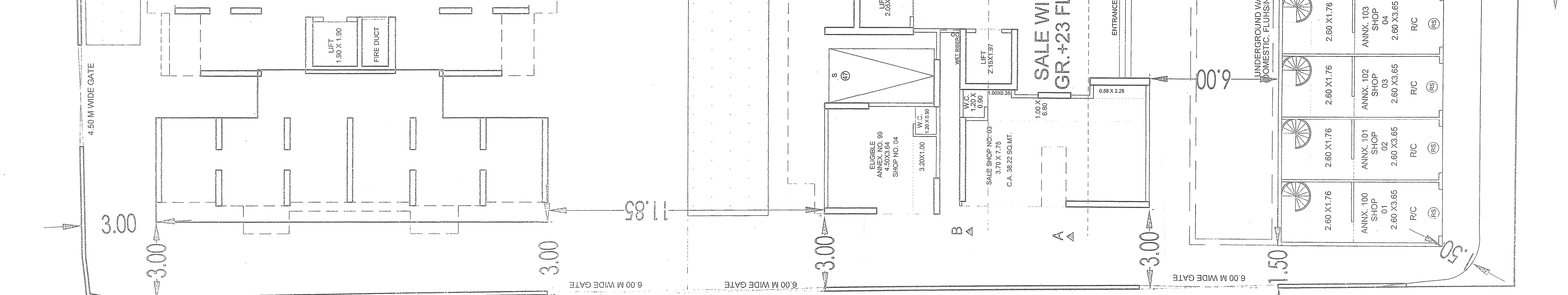
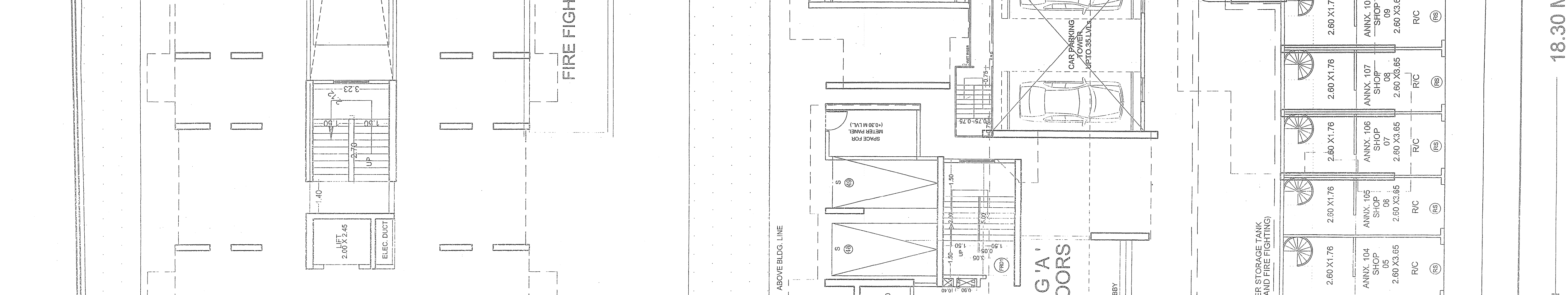
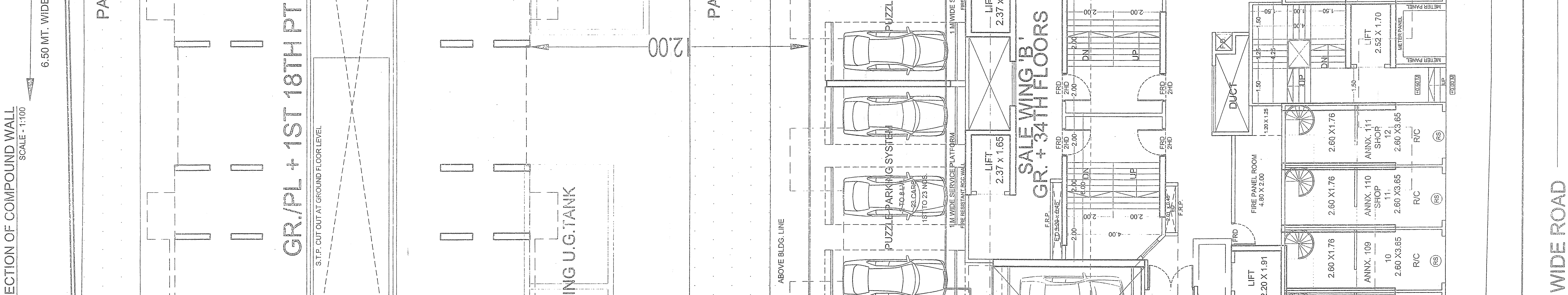
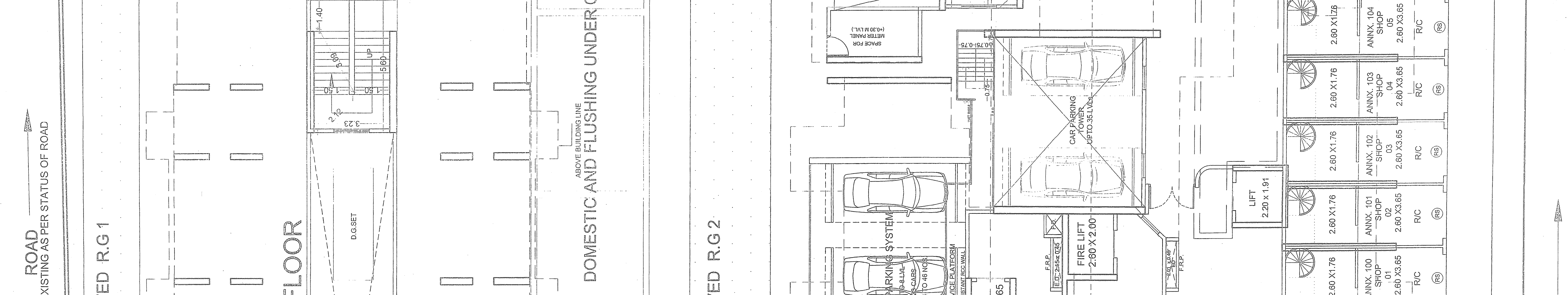
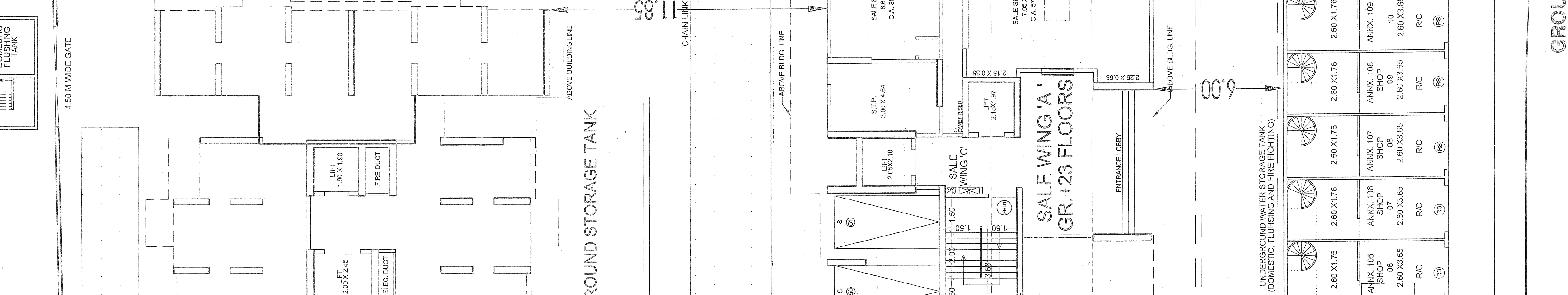
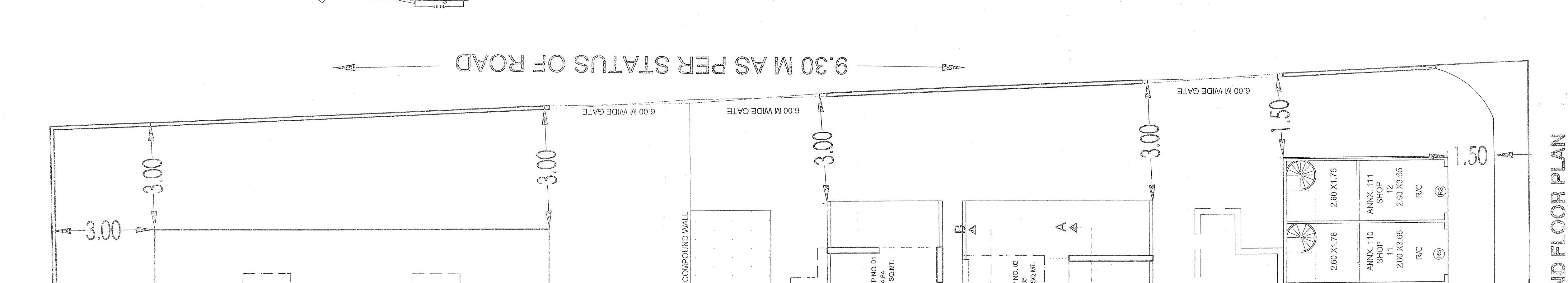
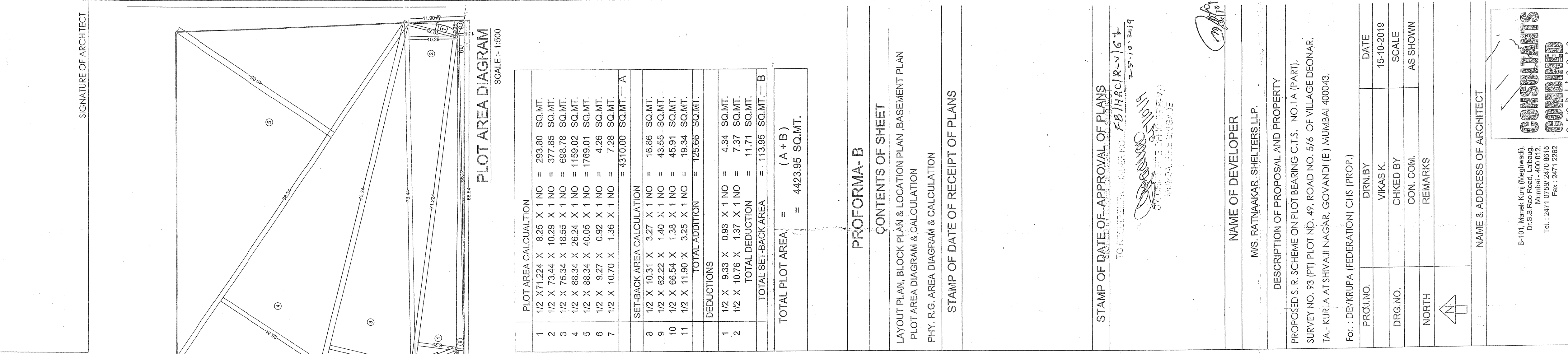
SECTION THROUGH SUCTION TANK
SCALE: 1:100



SECTION THROUGH SUCTION TANK
SCALE: 1:100



SECTION THROUGH SUCTION TANK
SCALE: 1:100



GROUND FLOOR PLAN
SCALE: 1:100

18.30 M WIDE ROAD

9.30 M WIDE EXISTING ROAD

9.30 M WIDE EXISTING ROAD

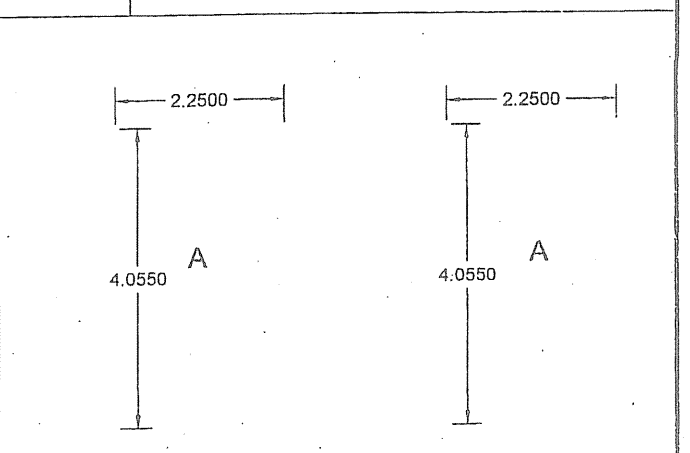
9.30 M WIDE EXISTING ROAD

9.30 M WIDE EXISTING ROAD

9.30 M WIDE EXISTING ROAD

9.30 M WIDE EXISTING ROAD

SALE BLDG. GROUND FLOOR PLAN 1ST FLOOR PLAN



CARPET AREA CALCULATION
REHAB WING COMM.

LIVING	2.60 X 6.75	=	17.55 sq.m.
ALCOVE	2.60 X 2.75	=	7.15 sq.m.
W.C.	1.40 X 2.00	=	2.80 sq.m.
	1.10 X 1.95	=	2.15 sq.m.
TOTAL		=	29.65 sq.m.

METER ROOM AREA CALCULATION
GROUND FLOOR

A 2.25' X 4.06' X 2 NOS = 18.27 SQ.MT.
TOTAL ADDITION = 18.27 SQ.MT. X

CAR PARKING STATEMENT

SALE BUILDINGS

DESCRIPTIONS	NO. OF TENEMENTS	NO. OF PARKING
ONE PARKING TO 40 Sq.mt. FOR COMMERCIAL AREA	183.12 SQ.MT	4.58 NOS.
25% VISITORS PARKING	0.46 CONSIDERED MINIMUM 2.00	
4 TENEMENTS HAVING CARPET AREA UP TO 45 Sq.mt.	208 NOS.	52.00 NOS.
2 TENEMENTS HAVING CARPET AREA 45.00 TO 60.00 Sq.mt.	198 NOS.	99.00 NOS.
1 TENEMENTS HAVING CARPET AREA 60.00 TO 80.00 Sq.mt.	NIL	NIL
1/2 TENEMENTS HAVING CARPET AREA EXCEEDING 80.00 Sq.mt.	NIL	NIL
TOTAL PARKING		157.58 NOS.
25% VISITORS PARKING		39.40 NOS.
TOTAL PARKING REQUIRED		197.20 NOS.
TOTAL PARKING PROVIDED		197.00 NOS.

BUILT UP AREA CALCULATION
GROUND FLOOR REHAB WING AREA CALC.

A 69.35 X 8.46 X 1 NO = 586.70 SQ.MT.
TOTAL ADDITION = 586.70 SQ.MT. X

DEDUCTIONS

1 32.45 X 1.41 X 2 NOS = 91.51 SQ.MT.
TOTAL DEDUCTION = 91.51 SQ.MT. X

CONSTRUCTED AREA :-
(X) - (Y1) = (B)
586.70 - 91.51 = 495.19 SQ.MT. (B)

STAIRCASE AREA CALCULATION

ST1 4.45 X 1.41 X 1 NO = 6.27 SQ.MT.
ST2 4.25 X 7.05 X 1 NO = 29.96 SQ.MT.
TOTAL REHAB BUA :- = 36.23 SQ.MT. Y2

(B) - (Y2) = (C)
495.19 - 36.23 = 458.96 SQ.MT. (C)

REHAB COMMERCIAL AREA CALC.
C1 2.60 X 7.05 X 3 NOS = 54.99 SQ.MT.

PROFORMA - B
STAMP OF DATE OF RECEIPT OF PLANS

STAMP OF DATE OF APPROVAL OF PLANS
SIGNED IN TORQUE OF APPROVED SUBJECT
TO REQUIREMENT UNDER NO. 13/1987/R-1/67
25-10-19
BY: CHIEF FIRE OFFICER (R-V)
MUMBAI FIRE BRIGADE

NAME OF DEVELOPER
M/S. RATNAKAR SHELTERS LLP

DESCRIPTION OF PROPOSAL AND PROPERTY
PROPOSED S. R. SCHEME ON PLOT BEARING C.T.S. NO. 1A (PART), SURVEY NO. 99 (PT) PLOT NO. 49, ROAD NO. 5/6 OF VILLAGE DEONAR TA - KURLA AT SHIVAJI NAGAR, GOVANDI (E) MUMBAI 400043.

For: DEVKRUPA (FEDERATION) CHS (PROP.)

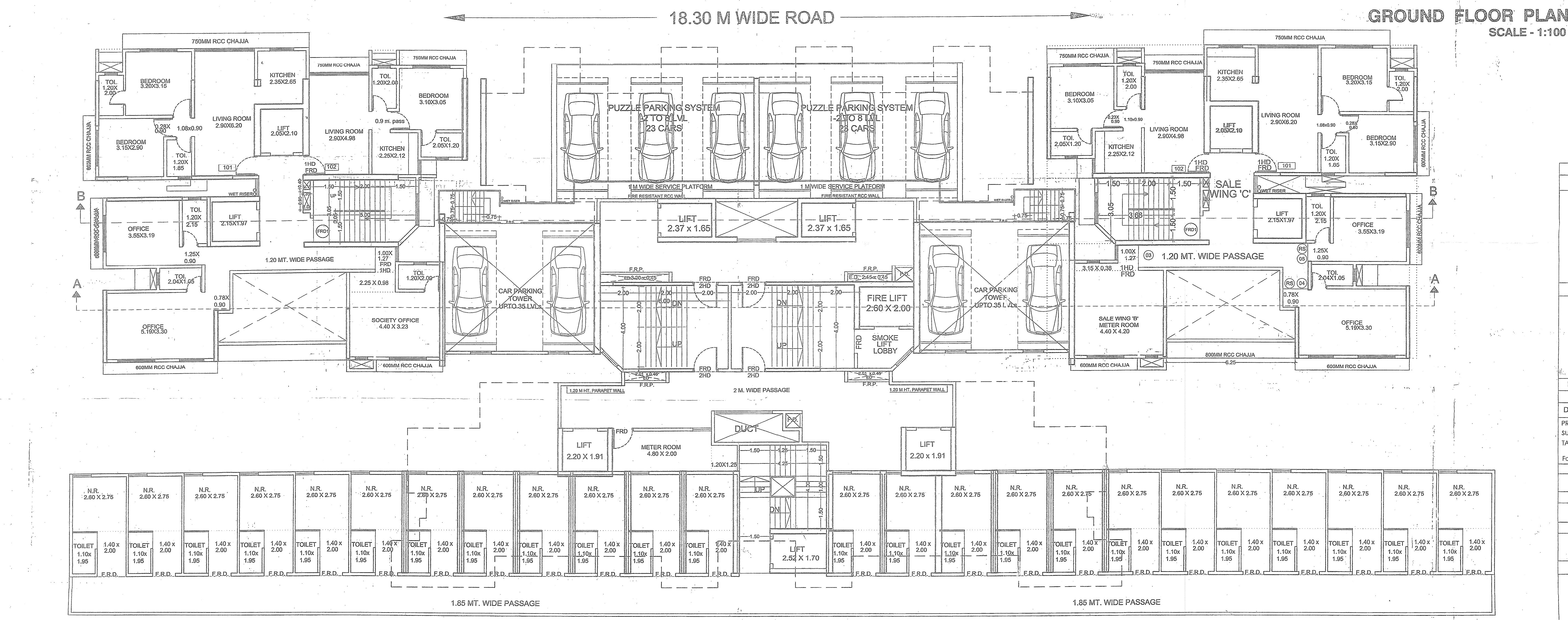
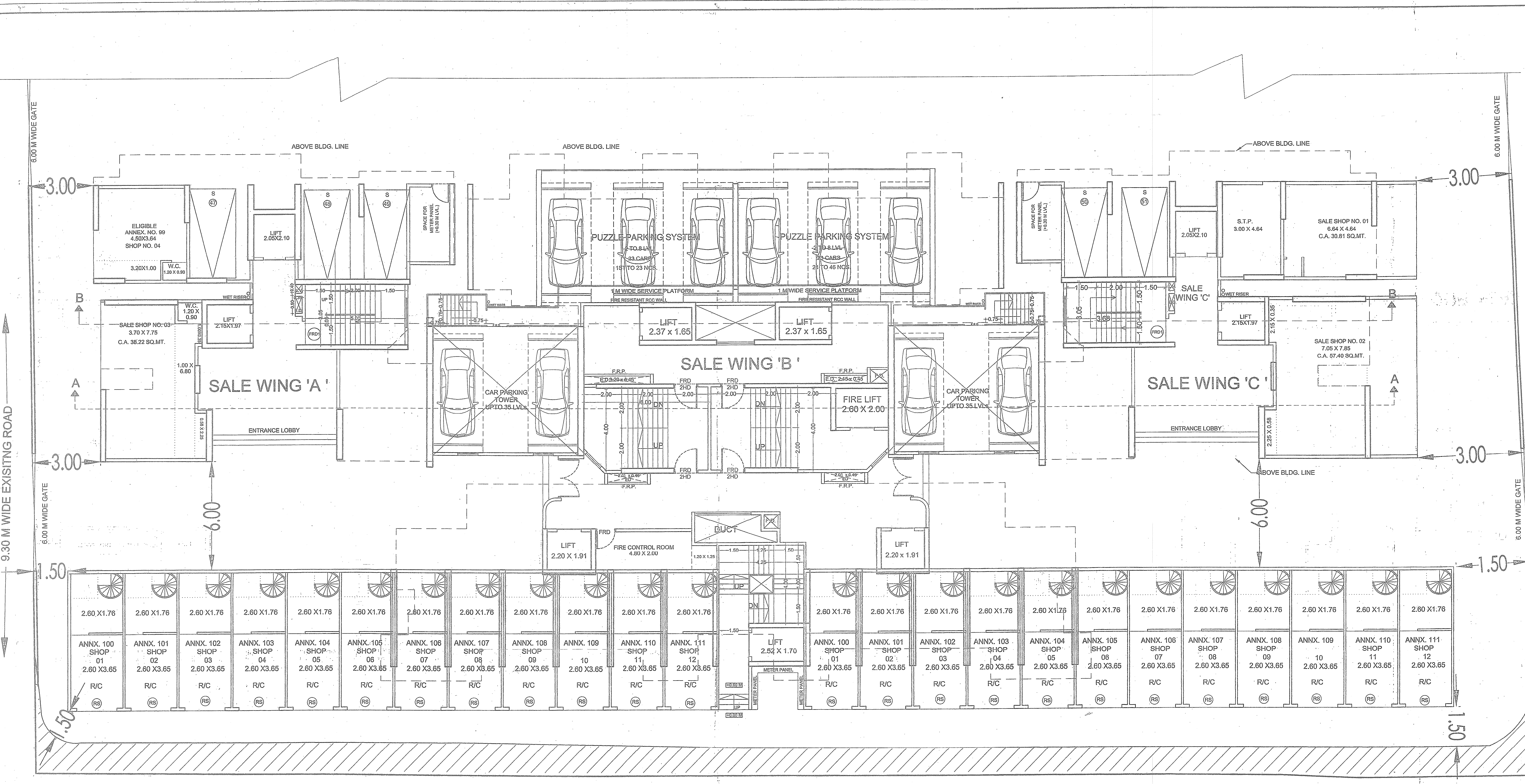
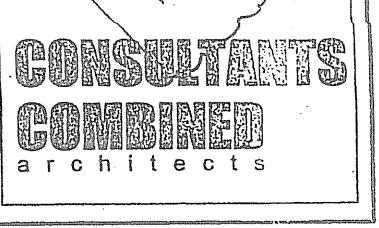
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	VIKAS K.	15-10-2019
DRG.NO.	CHKD BY	SCALE
	CON COM	1:100

NORTH

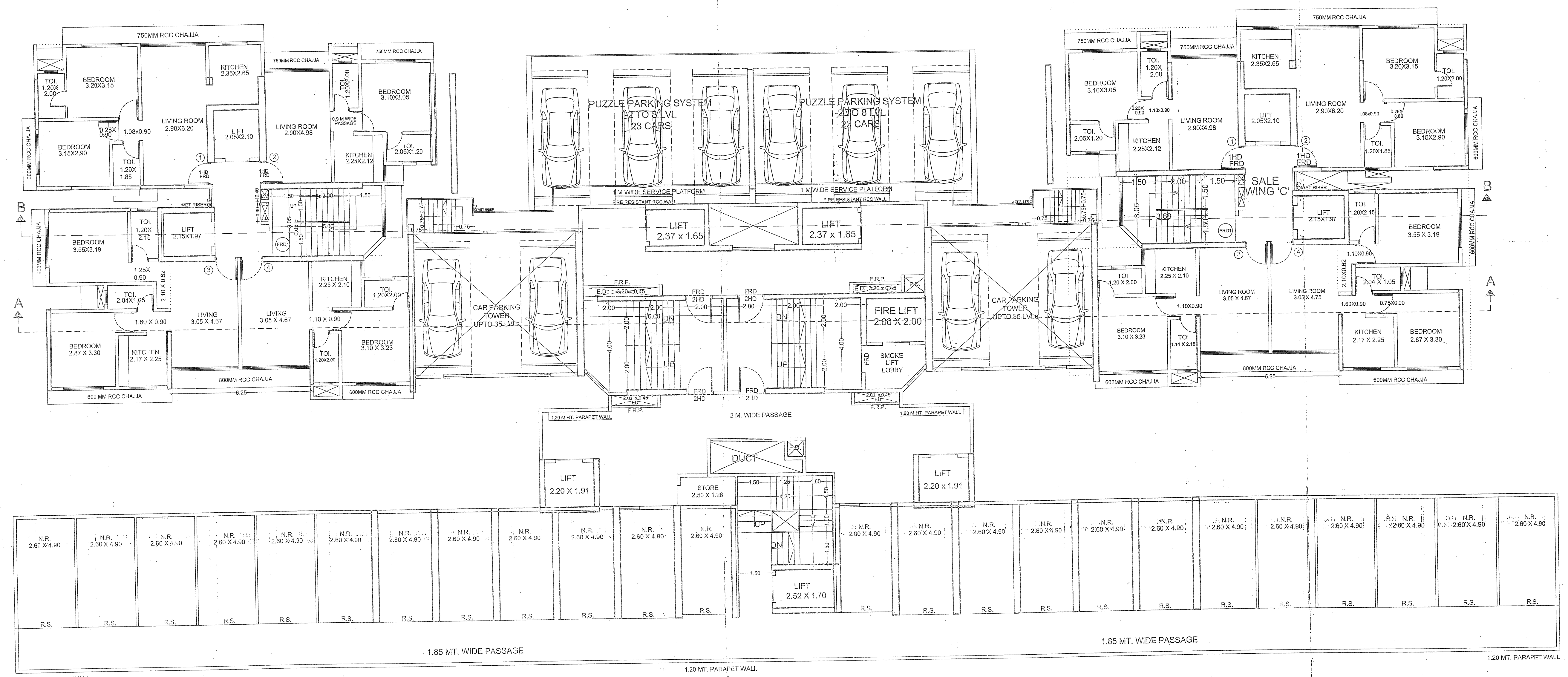
REMARKS

NAME & ADDRESS OF ARCHITECT

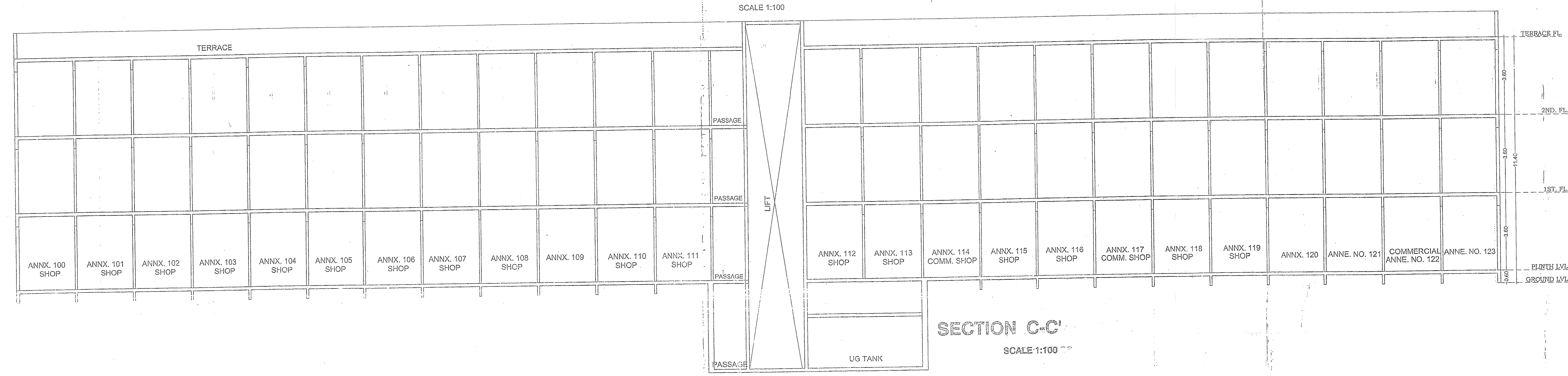
B-101, Manak Kunj (Meghwal), D-55/56 Road, Lohans, Mumbai - 400 012.
Tel.: 2471 0789/2470 8015 Fax: 2471 2282
Email: info@concom.co.in Website: concom.co.in



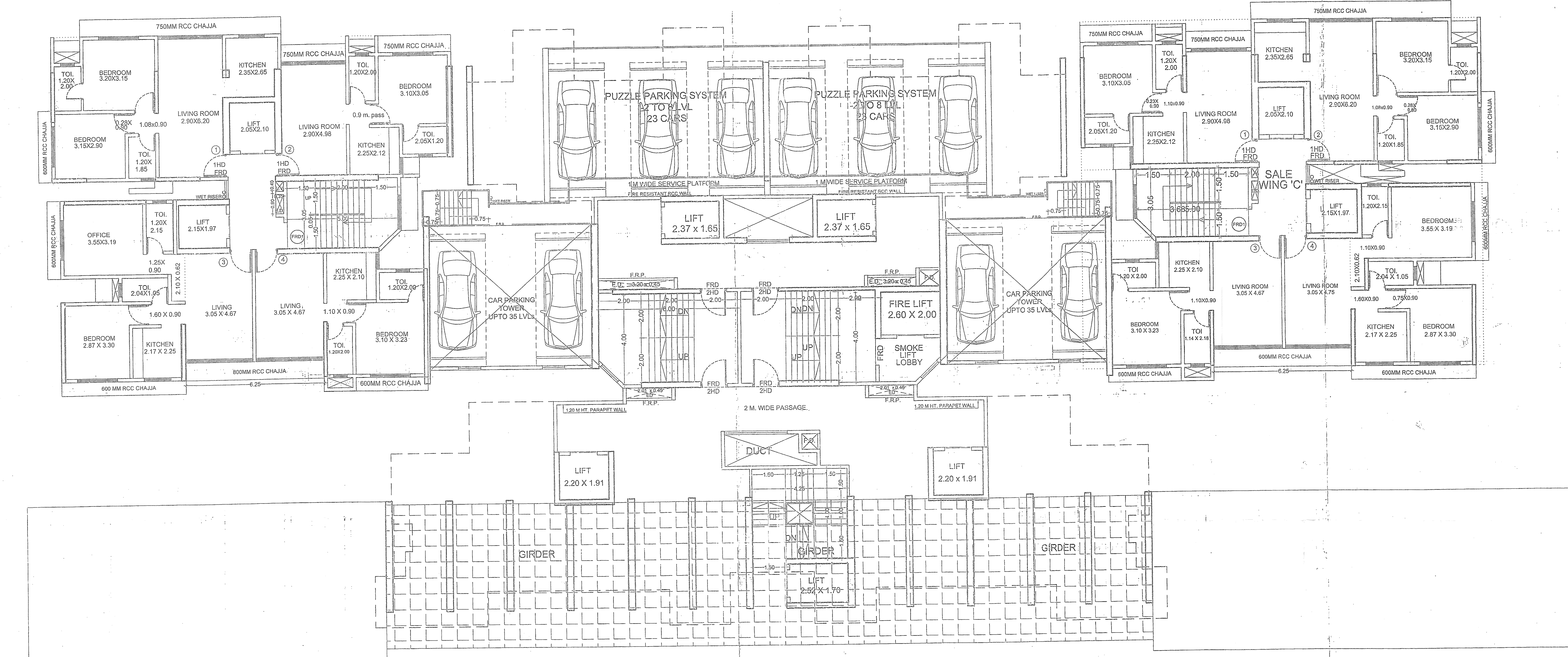
FIRST FLOOR PLAN
SCALE - 1:100



SECOND FLOOR PLAN
 SCALE - 1:100



SECTION C-C
 SCALE 1:100



THIRD FLOOR PLAN
 SCALE - 1:100

PROFORMA - B
 STAMP OF DATE OF RECEIPT OF PLANS

STAMP OF DATE OF APPROVAL OF PLANS
 SIGNED IN TOKEN OF APPROVED SUBJECT TO REQUIREMENT UNDER NO. F.A.M.A.R-1/61
 DT. CHIEF FIRE OFFICER (R-V)
 MUMBAI FIRE BRIGADE

NAME OF DEVELOPER
 M/s. RATNAKAR SHELTERS LLP.

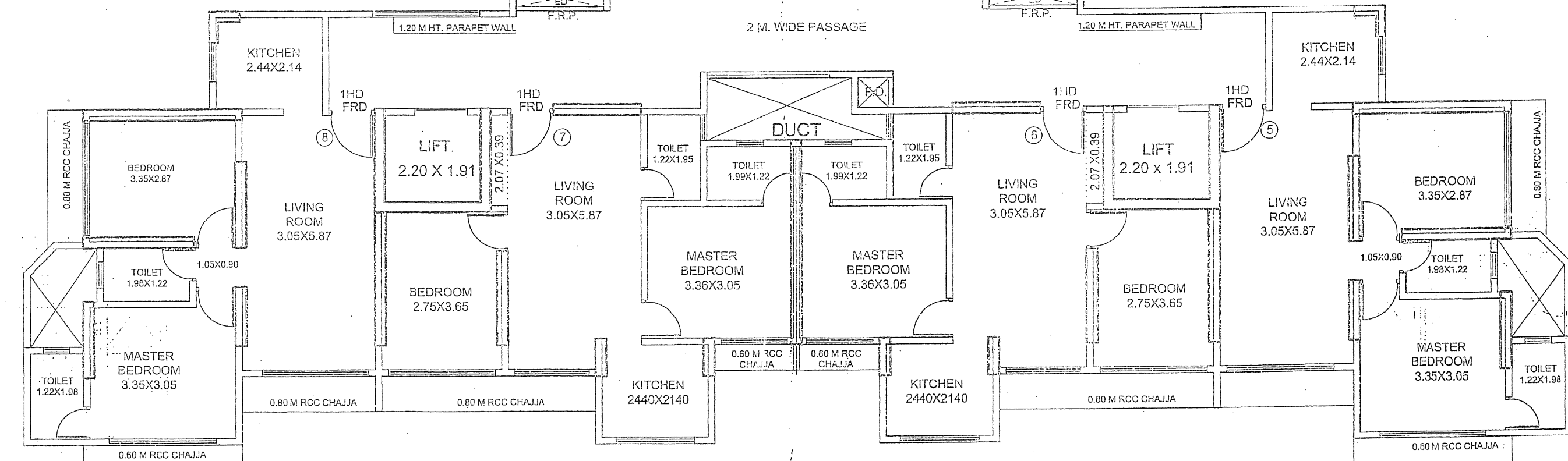
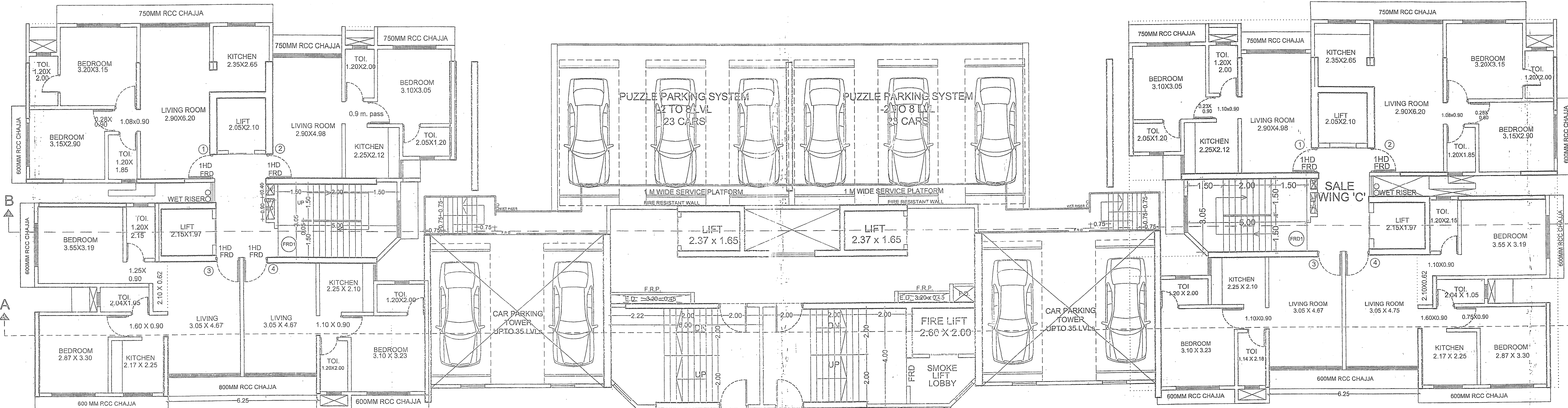
DESCRIPTION OF PROPOSAL AND PROPERTY
 PROPOSED S. R. SCHEMION PLOT BEARING C.T.S. NO. 1A (PART), SURVEY NO. 93 (P) PLOT NO. 49, ROAD NO. 5/6 OF VILLAGE DEONAR TA. - KURLA AT SHEVAJI NAGAR, GOVANDI (E) MUMBAI 400043.
 For : DEVKrupa (FEDERATION) CHS (PROP.)

PROJ. NO.	DRN BY	DATE
	VIKAS K.	15-10-2019
DRG. NO.	CHKD BY	SCALE
	CON COM	1:100
NORTH		
NAME & ADDRESS OF ARCHITECT		
B-101, Marol Kunj (Meharod), Dr. S. S. Rao Road, Lathwadi, Mumbai - 400 016. Tel. : 2471 0700/2471 8818 Fax : 2471 0282 Email : info@concom.co.in Website : concom.co.in		

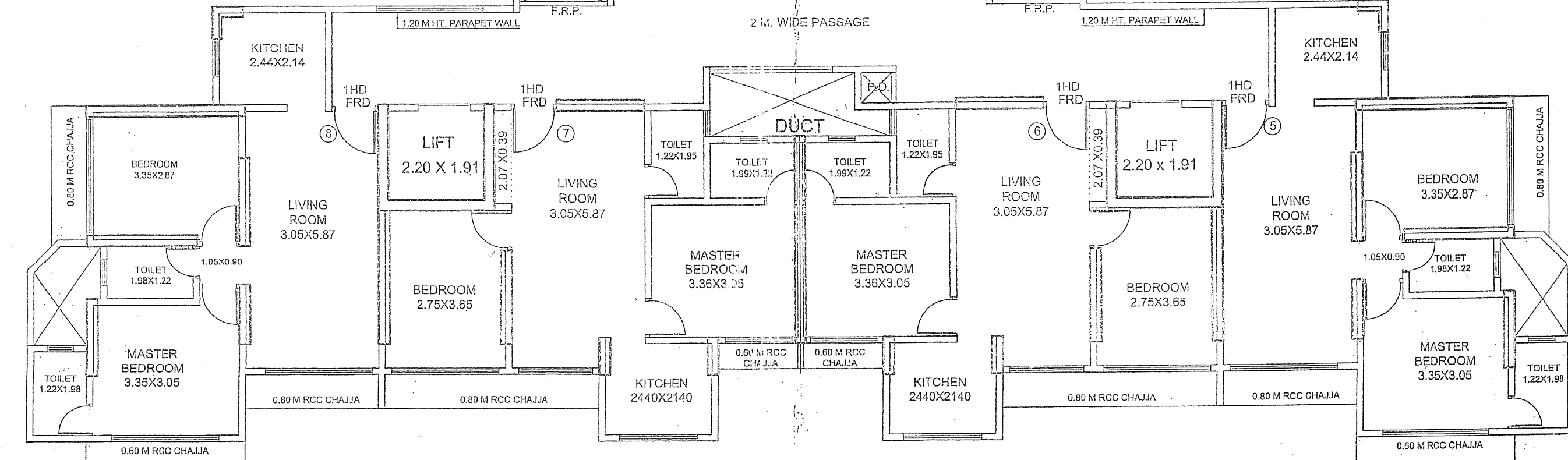
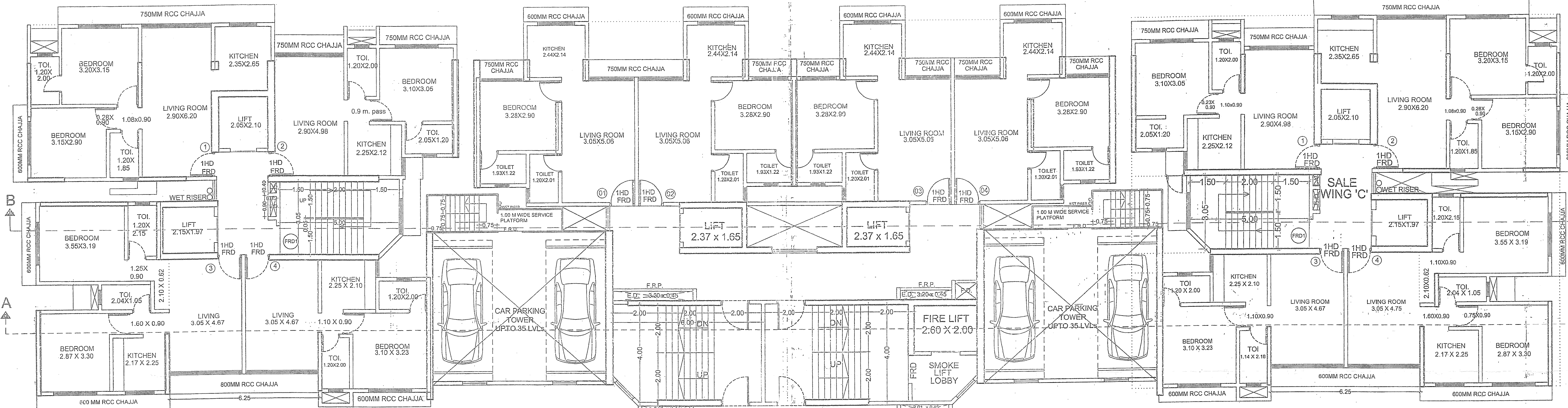
CONSULTANTS
 CONCOMBINED
 ARCHITECTS

SALE BLDG.	TYP. 4TH TO 6TH FLOOR PLAN TYP. 7TH, 9TH TO 14TH & 16TH TO 21ST & 23RD FLOOR PLAN		
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WING	CONS. AREA	STIR. AREA	BUA AREA
'A'	234.46	36.15	198.31
'B'	411.67	178.60	233.17
'C'	234.46	36.15	198.31
TOTAL	880.59	250.80	629.79



TYPICAL 4TH TO 6TH FLOOR PLAN
SCALE - 1:100



TYPICAL 7TH, 9TH TO 14TH & 16TH TO 21ST & 23RD
FLOOR PLAN
SCALE - 1:100

PROFORMA-B

STAMP OF DATE OF RECEIPT OF PLANS

STAMP OF DATE OF APPROVAL OF PLANS

SIGNED IN TOKEN OF APPROVED SUBJECT TO REQUIREMENT UNDER NO. *FD/HRC/R-164* 25-10-10

[Signature]
DY. CHIEF FIRE OFFICER (R-V)
MUMBAI FIRE BRIGADE

NAME OF DEVELOPER
M/s. RATNAAKAR SHELTERS LLP.

DESCRIPTION OF PROPOSAL AND PROPERTY
PROPOSED S. R. SCHEME ON PLOT BEARING C.T.S. NO. 1A (PART), SURVEY NO. 93 (P1) PLOT NO. 49, ROAD NO. 5/6 OF VILLAGE DEONAR TA. KURLA AT SHIVAJI NAGAR, GOVANDI (E) MUMBAI 400043.
For : DEVKRUPA (FEDERATION) CHS (PROP.)

PROJ. NO.	DRN BY	DATE
	VIKAS K.	15-10-2019
DRG. NO.	CHKD BY	SCALE
	CON COM	1:100
NORTH	REMARKS	
NAME & ADDRESS OF ARCHITECT		

B-101, Manek Kurl (Meghwal), D.S.S. Road, Lohrup, Mumbai - 400 012
Tel. : 2471 0758/2470 8815 Fax : 2471 2282
Email : info@concom.co.in Website : concom.co.in

CONSULTANTS COMBINED architects

SALE BLDG.	TYP. 8TH, 15TH REFUGE FLOOR PLAN
	22ND REFUGE FLOOR PLAN

WING	CONS. AREA	STIR. AREA	REFUGE AREA	BUA AREA
'A'	234.46	36.41	57.34	0.78 + 140.97
'B'	574.87	176.15	115.00	1.27 + 283.72
'C'	234.46	36.41	57.34	0.78 + 140.97
TOTAL	1043.79	248.97	229.68	568.49

= 4% of [283.72 + (398.72 X 6)]
 = 2676.04 X 4% = 107.04 SQ.MT.
 PERMISSIBLE REFUGE AREA (4.25%) = 113.73 SQ.MT.
 REFUGE AREA PROPOSED = 115.00 SQ.MT.
 EXCESS AREA OF REFUGE FLOOR = 1.27 SQ.MT.

= 4% of [282.06 + 397.06 + 234.08 + (437.33 X 4)]
 = 2862.52 X 4% = 114.50 SQ.MT.
 PERMISSIBLE REFUGE AREA (4.25%) = 113.16 SQ.MT.
 REFUGE AREA PRO. = 115.00 SQ.MT.
 EXCESS AREA OF REFUGE FLOOR = 1.84 SQ.MT.

= 4% of [177.76 + 198.31]
 = 376.07 X 4% = 15.04 SQ.MT.
 PERMISSIBLE REFUGE AREA (4.25%) = 15.98 SQ.MT.
 REFUGE AREA PRO. = 20.55 SQ.MT.
 EXCESS AREA OF REFUGE FLOOR = 4.57 SQ.MT.

= 4% of [140.97 + (198.31 X 6)]
 = 1330.83 X 4% = 53.23 SQ.MT.
 PERMISSIBLE REFUGE AREA (4.25%) = 66.66 SQ.MT.
 REFUGE AREA PRO. = 67.34 SQ.MT.
 EXCESS AREA OF REFUGE FLOOR = 0.78 SQ.MT.

PROFORMA - B

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SIGNED IN TOKEN OF APPROVED SUBJECT TO REQUIREMENT UNDER NO. *P.B.H.R.C./R-167*
 25-10-2019
 DT. CHIEF FIRE OFFICER (R-V)
 MUMBAI FIRE BRIGADE

NAME OF DEVELOPER

M/s. RATNAKAR SHELTERS LLP.

DESCRIPTION OF PROPOSAL AND PROPERTY

PROPOSED S. R. SCHEME ON PLOT BEARING C.T.S. NO.1A (PART), SURVEY NO. 93 (PT) PLOT NO. 49, ROAD NO. 5/4 OF VILLAGE DEONAR TA. - KURLA AT SHIVAJI NAGAR, GOVANDI (E) MUMBAI 400043, For : DEVKRUPA (FEDERATION) CHS (PROP.)

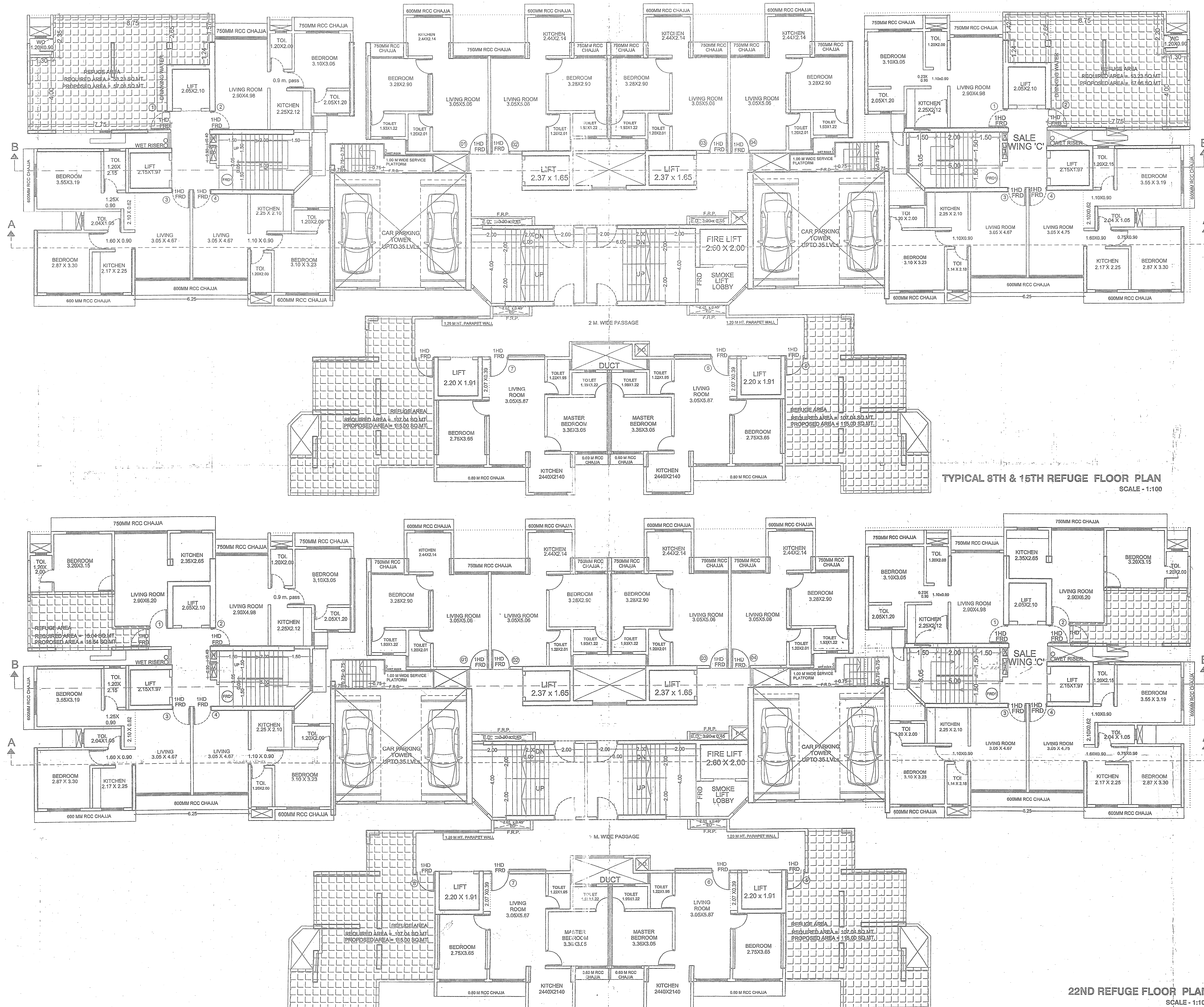
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	VIKAS K.	15-10-2019
DRG. NO.	CHKD BY	SCALE
	CON COM	1:100
NORTH	REMARKS	

NAME & ADDRESS OF ARCHITECT

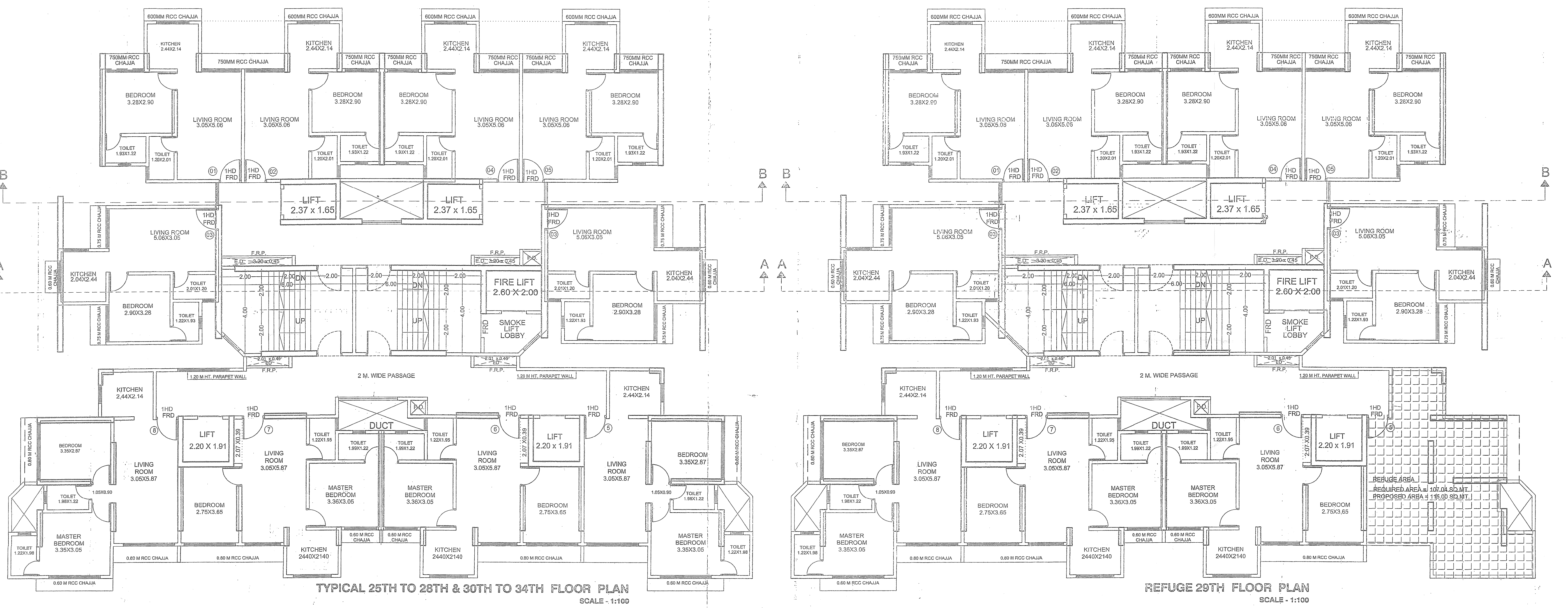
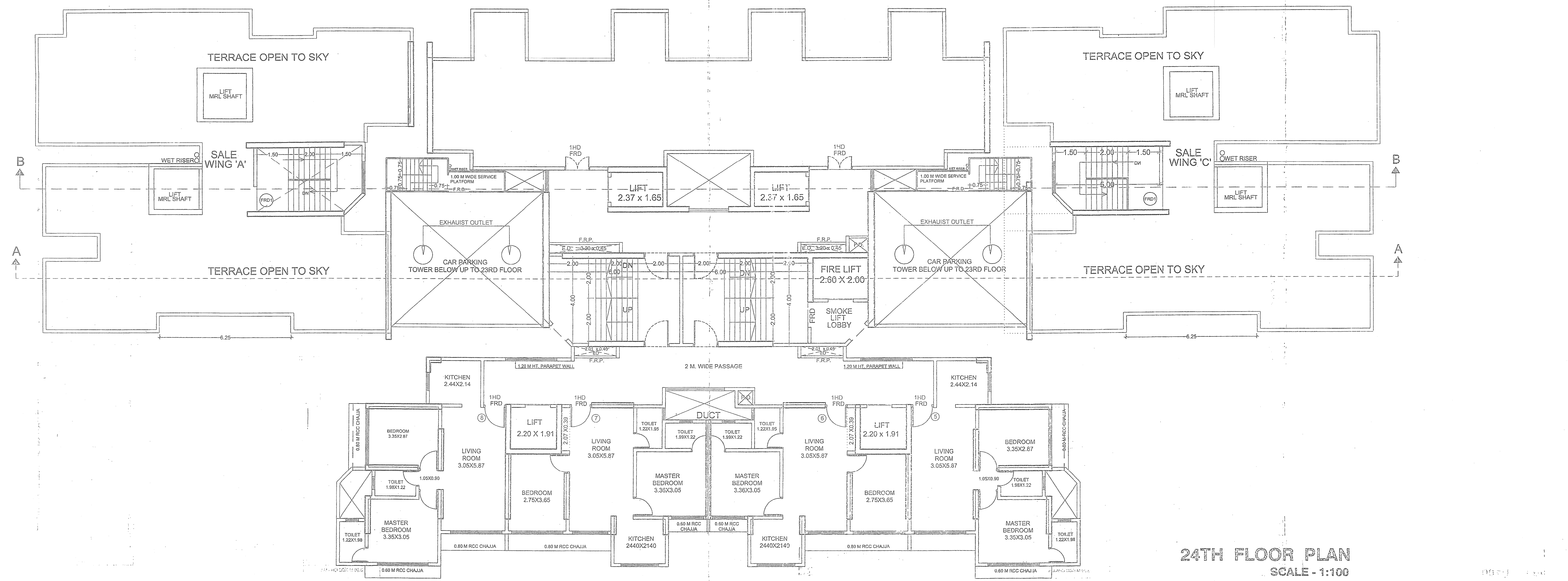
B-101, Manek Kurni (Meghwal), Dr. S.S. Rao Road, Labaug, Mumbai - 400 012. Tel : 2471 0768/2470 8916 Fax : 2471 2282 Email : info@concom.co.in Website : concom.co.in



22ND REFUGE FLOOR PLAN SCALE - 1:100



TYPICAL 8TH & 15TH REFUGE FLOOR PLAN SCALE - 1:100



PROFORMA- B

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 SIGNED IN TOKEN OF APPROVED SUBJECT
 TO REQUIREMENT UNDER NO. 25-10-25-19
 CHIEF FIRE OFFICER (R-V)
 MUMBAI FIRE BRIGADE

NAME OF DEVELOPER
 M/s. RATNAKAR SHELTERS LLP.

DESCRIPTION OF PROPOSAL AND PROPERTY
 PROPOSED S. R. SCHEME ON PLOT BEARING C.T.S. NO.1A (PART),
 SURVEY NO. 93 (PT) PLOT NO. 49, ROAD NO. 5/6 OF VILLAGE DEONAR
 TA.-KURLA AT SHIVAJI NAGAR, GOVANDI (E) MUMBAI 400043.
 For.: DEVKRIPA (FEDERATION) CHS (PROP.)

PROJ.NO.	DRN.BY	DATE
	VIKAS K.	15-10-2019
DRG.NO.	CHKED BY	SCALE
	CON COM	1:100
NORTH	REMARKS	
NAME & ADDRESS OF ARCHITECT		
B-101, Manek Kurl (Meghwadi), Dr. S.S. Rao Road, Lalbaug, Mumbai - 400 912 Tel. : 2471 0758/2470 8615 Fax : 2471 2262 Email : info@concom.co.in Website : concom.co.in		

**CONSULTANTS
 COMBINED
 architects**



SECTION A - A
 SCALE - 1:100

PROFORMA - B
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STAMP OF DATE OF APPROVAL OF PLANS
 SIGNED IN TOKEN OF APPROVED SUBJECT
 TO REQUIREMENT UNDER NO. EB/HR/2-4/17
 25-10-2019
 BY: CHIEF FIRE OFFICER (R-V)
 MUMBAI FIRE BRIGADE

NAME OF DEVELOPER: M/S. RATNAKAR SHELTERS LLP.

DESCRIPTION OF PROPOSAL AND PROPERTY
 PROPOSED S. R. SCHEME ON PLOT BEARING C.T.S. NO.1A (PART),
 SURVEY NO. 93 (P1) FLOT NO. 49, ROAD NO. 5/6 OF VILAGE DEONAR,
 TA. KURLA AT BHIVANDI MARG, COVANCHI (E) MUMBAI 40005.

For: DEVIKUPA PESTERATION CHE (PROJ.)

PROJ. NO.	DRN BY	DATE
	VIKAS K.	15-10-2019

DRG. NO.	CHKD BY	SCALE
	CON COM	1:100

NORTH

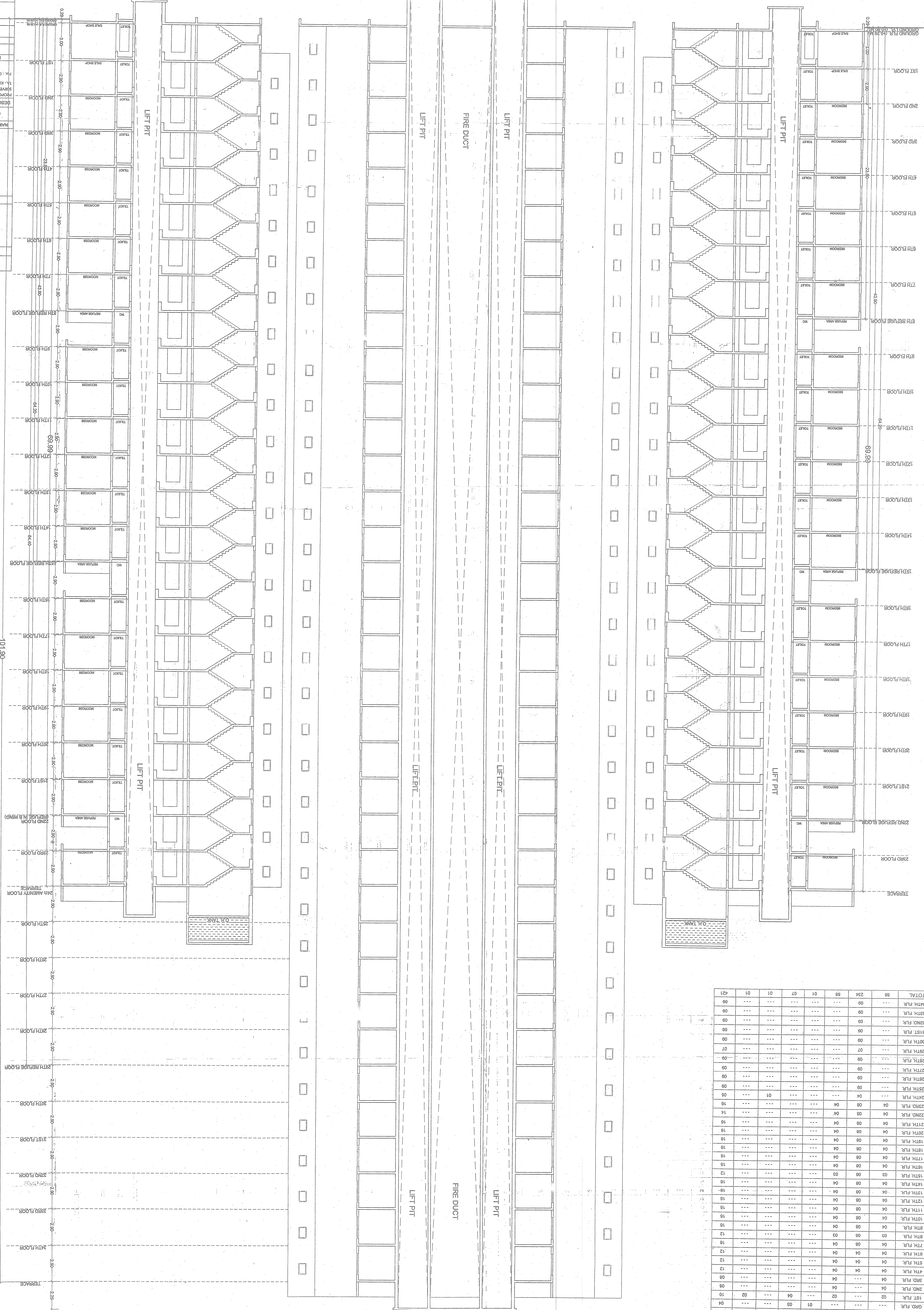
NAME & ADDRESS OF ARCHITECT

CONSULTANTS
COMBINED
 ENGINEERS

B-107, Marol Neri, (Borivli),
 Dist. Sion Road, Andheri,
 Mumbai - 400 052
 Tel. : 247 0788, 247 0813
 Fax : 2471 2285
 Email : info@comcon.com
 Website : comcon.com

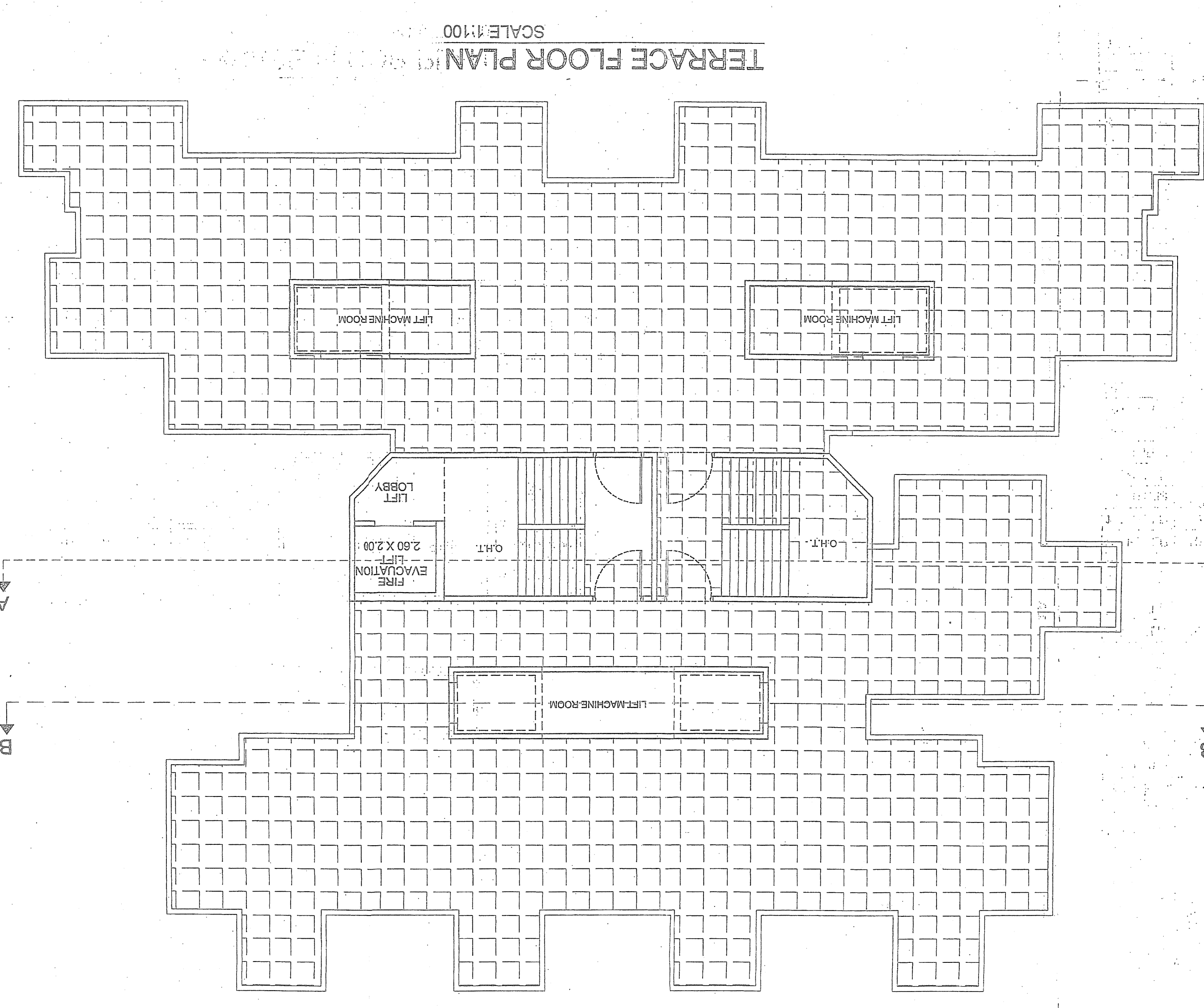
NAME & ADDRESS OF ARCHITECT	
REMARKS	
DATE	
CHECKED BY	
SCALE	
PROJECT NO.	
DRAWN BY	
DATE	
PROJECT NO.	
CHECKED BY	
SCALE	
PROJECT NO.	
DRAWN BY	
DATE	

SECTION B - B
SCALE - 1:100



FLOOR	NO.	AREA	PRICE	TOTAL
1ST FLOOR	01	...	...	...
2ND FLOOR	02	...	...	...
...
34TH FLOOR	34	...	...	...
TOTAL		...	...	...

FLOOR	NO.	AREA	PRICE	TOTAL
1ST FLOOR	01	...	...	...
2ND FLOOR	02	...	...	...
...
34TH FLOOR	34	...	...	...
TOTAL		...	...	...



CONTENTS OF SHEET
SECTION BB
BUILDING & TENEMENT STATEMENT