THE BASIC REQUIREMENTS FOR FIRE PROTECTION OF HIGH-RISE BUILDING IN AMC AND AUDA AREA

1. HYDRANT SYSTEM:

ON/OFF switches located near the hose reel hose or hydrant outlet, at each floor for the main-Fire Pump at the underground water tank with a capacity to discharge 900 litres per minute at 3 bar pressure as measured at the hotrace level should be installed.
The Fire Pump should be capable of operating at a rate of 900 litres per minute height should not be of less than 100 mm. Internal diameter. The riser should be so arranged to fix bottom of the hotrace tank with a stop valve and a NRV to act as a Down-comer.
One riser is required for every 1000 sq. metres floor area and if the building is divided into, two or more parts then each part should have a separate riser with all the fittings at each floor level. Each floor should have one hydrant outlet with a coupling for attaching a 63 mm. dia. hose & 25 mm. bore three-reel hose with 8 mm. SS. Disk-off nozzle at each floor landing. The length of the hose reel hose should be enough to reach the farthest corner of the floor. Hose-box with 15 meters long 63 mm. dia. hose and 12.5 mm. bore nozzle at alternate floors. Hose-box should be installed at a point near the riser.
Fire-service inlet should be installed at a point near the entry to the premises where a Fire service vehicle can approach easily.
A permanent hydrant point comprising of 63 mm dia size 2nos of hydrant valves should be installed at the terrace level.
Overhead tank Refilling hydrant connection could be done at The terrace level.
The Overhead tank shall be of a capacity of not less than 20,000 litres. The Underground tank shall be of not less than 1,00,000 litres.

2. FIRE LIFT:

The Fire Lift and all the lifts should have a provision to prevent automatically in case of electricity failure. Each building should have at least one lift as a Fire Lift and if the building is divided into two or more parts then each part should have a Fire Lift. Lift well should have provisions to pressurize the lift well so as to prevent the smoke that if will automatically operate where alarm call point is operate, so that it prevents that lift well getting cookie logged.

3. FIRE ALARM:

Fire alarm call point to be installed at each floor within travelers capable of being heard all throughout the building.

4. FIRE EXTINGUISHERS:

One Carbon Dioxide (CO2) type extinguisher of 4.5 kg. with ISI mark. and one extinguisher of 5kg. Dry Chemical Powder (DCP) type extinguisher with ISI mark to be installed on each floor in case of commercial building.
One Carbon Dioxide (CO2) type extinguisher of 4.5 kg. with ISI mark. OR Two Carbon Dioxide (CO2) type extinguisher of 2 kg. with ISI mark and one extinguisher of 5kg. Dry Chemical Powder (DCP) with ISI mark type extinguisher on alternate floors in case of residential buildings.
If the building is divided into two or more parts then each part should have these extinguishers installed.

5. STAIRCASE:

The staircases has to be open from at least one or two sides but if the staircase is in the centre core of the building it has to be pressurized to prevent it transporting smoke logged.
The Riser / Down-comer should be located in the staircase or close to is to make it easily approachable in case of Fire from the floor below.

6. BASEMENT:

The basement of 200 sq. metres or more should be protected with Automatic Sprinkler system with at least one sprinkler head for actual Car parking space.
Additionally be protected by a Hydrant outlet and two 25 mm. bore Hose-reel hoses with 8 mm. bore nozzles at each basement level.

7. LIGHTNING ARRESTER :

A lightening arrester should also be installed and be properly earthed to prevent damage to the building when the lightening strikes.

8. PARTS (UNMATCHED AUTO SLIDING SPRINKER):

If the building falls in a confined area or if it has an inclosed staircase or is not well lit-up on the inside, then alongside grills/ventilators/ / side glass / signages should be displayed at each floor / landing / pathway / dead-end and along all exit routes leading to the ground level. The signage should indicate fire fighting, fire safety, first aid and other safety equipment present on the respective floors/landing/pathway/road end and along all exit routes leading to the ground level.

9. ELECTRIC POWER SUPPLY TO THE ENTIRE FIRE SAFETY SYSTEM

Electricity supply to the fire pumps, fire alarm system, staircase pressurization system and the lift would be made available from the main Electrical supplay. (i.e. from Electrical power-supply of the company) This is to ensure availability of power-supply to the Fire Protection & Safty systems even after the main-electrical supplay to the building is switched off at the time of fire.

V - IMPORTANT INSTRUCTION

After inspection at a low-rise building by the fire service authority, if the fire officer consent that the building is safe and fire safety measures are adequate, the fire service authority permit or equipment (i.e. Passive system / Suppression system / Fire alarm - Wireless / Detection systems / Active system / Sprinkler / Drencher etc.) as per Fire load / Fire risk / Public gathering Potential / Occupancy / Confined area, those additional measures / equipment have to be implemented / installed.

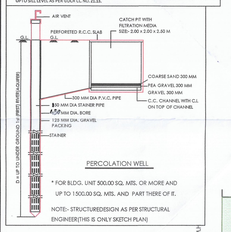
10. FIRE ALARM CALL POINTS:

EACH FLOOR HAVE A FIRE ALARM CALL POINT INSTALLED.

SYMBOL	DESCRIPTION
	FIRE HYDRANT EXTERMPIT.
	D.C.B. OR C.P.L.
	ON SINGLE HEADED HYDRANT VALUE
	SLUICE VALUE
	NON RETURT VALVE
	TWO WAY STORESE CONNECTION
	RISE ON DROP
	REDUCER
	FIRE HOUSE REE.
	FIRE HOUSE BOX
	EXCIPT FIRE HYDRANT VALVE
	LANDING HYDRANT VALVE
	AIR RELEASE VALVE

NOTES:-

- IT IS CERTIFIED THAT PLOT UNDER REFERENCE IS SURVEYED BY MY AND THE DIMENSIONS OF ALL SIDES OF PLOT AND PLOT AREA AS SHOWN IN PLANS ARE MEASURED BY ENGINEER ON RECORD AND IN CASE ANY DEFECT IS FOUND I AM/WE ARE RESPONSIBLE
- ENGINEER IS FULLY RESPONSIBLE FOR LEAVING OPEN SPACE AND MARGIN.
- THE DEPTH AND POSITION OF EXISTING MUNICIPAL MAINHOLE IS VERIFIED ON SITE AND PREMISES CONNECTION WILL BE GIVEN BY AMC.
- IT IS CERTIFY THAT ACCORDING TO CGDCR 2017, ALL REQUIREMENTS OF THE BUILDING ARE CHECKED AND NECESSARY ACTIONS ARE TAKEN.
- DESIGN OF STRUCTURE IS ACCORDING TO THE CLAUSE NO. 3.3.3 OF THE CGDCR 2017, THE STRUCTURE OF THE BUILDING IS DESIGN AS PER THE NORMS OF THE INDIAN STANDARD.
- DESIGN OF STAIRCASE AND RAILING IS PROVIDED AS PER THE PROVISION OF THE CLAUSE NO. 2.11.12 OF CGDCR 2017 AND NBC PART 4 1970.
- PEDESTRIAN RAMP IS PROVIDED AS PER THE PROVISION OF THE CLAUSE NO. 2.11.5 OF CGDCR2017.
- LIFT IS PROVIDED AS PER THE PROVISION OF THE CLAUSE NO. 2.11 AND 2.5.2OF CGDCR 2017.
- SEPARATE TOILET IS PROVIDED AS PER THE PROVISION OF THE CLAUSE NO. 2.5.1 OF CGDCR 2017.
- SEPARATE LETTER BOX IS PROVIDED AT GROUND LEVEL FOR EACH UNIT.
- WATER TANK FOR FIRE SAFETY REQUIREMENT PROVIDED AS PER CHAPTER NO. 12.21 OF CGDCR 2017.
- SEPARATE SEWAGE LINE AND SEPTIC TANK PROVIDED AS PER THE CLAUSE NO. 2.5.3 OF CGDCR 2017.
- DRINKING WATER FACILITY FOR DISABLED PERSONS IS PROVIDED AS PER THE CLAUSE NO. 2.5.6.3 OF CGDCR 2017.
- PARKING FACILITY IS PROVIDED AS PER THE CLAUSE NO. 2.11.0OF CGDCR 2017.
- SHRADES OF THE PARKING PLACE TO BE PROVIDED AS PER THE CLAUSE NO.11.7 OF THE CGDCR 2017.
- ENTRANCE OF THE BUILDING IS PROVIDED AS PER THE CLAUSE NO. 21.1.7 OF CGDCR 2017.
- THE STRUCTURE OF BUILDING UNITS/TWIN PLOT AS PER THE PROVISION OF THE CLAUSE NO. 2.5.4 OF CGDCR 2017.
- THE STRUCTURE OF THE BUILDING IS DESIGNED AS PER THE NORMS SPECIFIED IN THE INDIAN STANDARD
- RAINWATER HARVESTING SYSTEM IS PROVIDED AS PER THE CLAUSE NO. 2.5.5 OF CGDCR 2017.
- RAIN WATER STORAGE TANK AND RAIN WATER HARVESTING SYSTEM IS PROVIDED AS PER THE CLAUSE NO. 20.2 OF CGDCR 2017.
- SOLID WASTE MANAGEMENT PROVIDED AS PER THE PROVISION OF THE CLAUSE NO.2.5.OF CGDCR 2017.
- TREE PLANTATION IS PROVIDED AS PER THE CLAUSE NO.20.OF CGDCR 2017.
- FIRE SAFTY SYSTEM IS PROVIDED AS PER CHAPTER NO. 22.OF CGDCR 2017.
- FIRE SAFTY MEASURES ARE PROVIDED AS PER THE GUJARAT PROVISION OF SAFETY MEASURES REGULATION-2012 AND FIRE PREVENTION AND LIFE SAFETY MEASURES ACT-2013
- MAINTENANCE AND UPGRADATION OF BUILDING IS AS PER. CHAPTER NO.37.OF CGDCR 2017.
- SOLAR WATER HEAT ENERGY INSTALLATION & GENERATION SHALL BE PROVIDED AS PER CLAUSE NO. 25.6.3 OF CGDCR 2017.
- THE GLAZED SURFACE AREA OF THE EXTERNAL FACADE SHALL BE NON REFLECTIVE AND PROVIDED UPTO 40% OF THE TOTAL AREA OF THE EXTERNAL FACADE IF EACH FACADE WITH THE PROVISION OF SAFETY RAILING UPTO SILL LEVEL AS PER CGDCR CL. NO. 25.5.8.



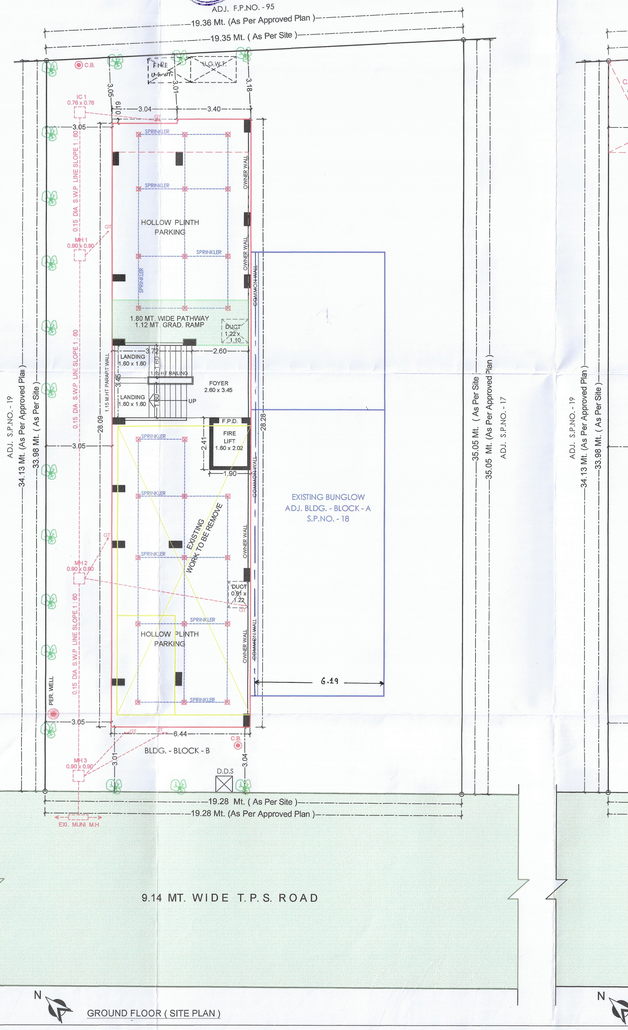
* FOR BLDG. UNIT 500.00 SQ. MTS. OR MORE AND UP TO 1,500.00 SQ. MTS. AND PART THERE OF IE.

NOTE:- STRUCTUREDESIGN AS PER STRUCTURAL ENGINEER(THIS IS ONLY SKETCH PLAN)

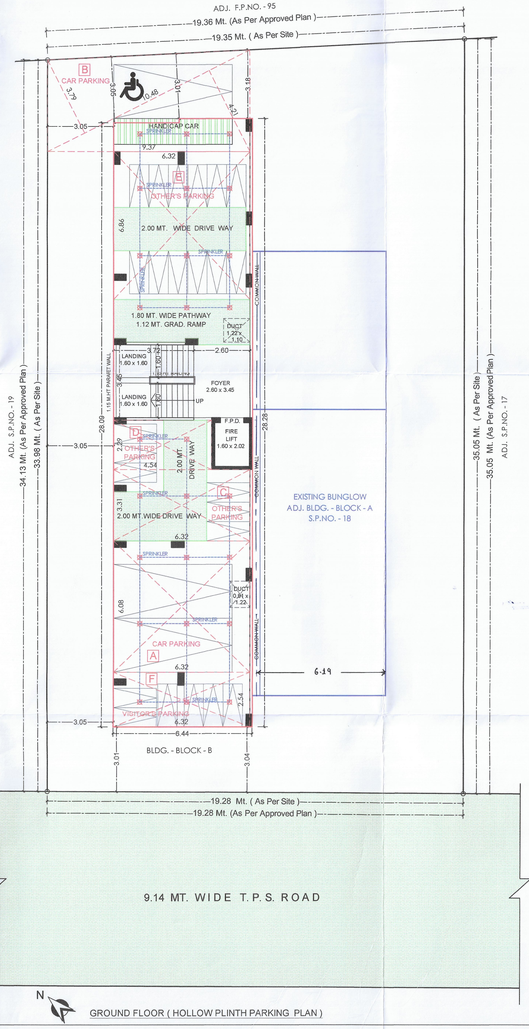
CUTTING LVL	0.75		0.88		1.11		1.26		1.30		
INVERT LVL	29.25	29.25	29.14		28.89		28.74	28.74	28.70		
GROUND LVL	30.00	30.00	29.92		30.00		29.92	29.74	30.00		
DISTENCE	0.00	6.63		21.72		30.48	36.00	28.78			
				28.48	36.00	28.78					

VERT 1.00 CM = 1.00 MT
HORI 1.00 CM = 5.00 MT

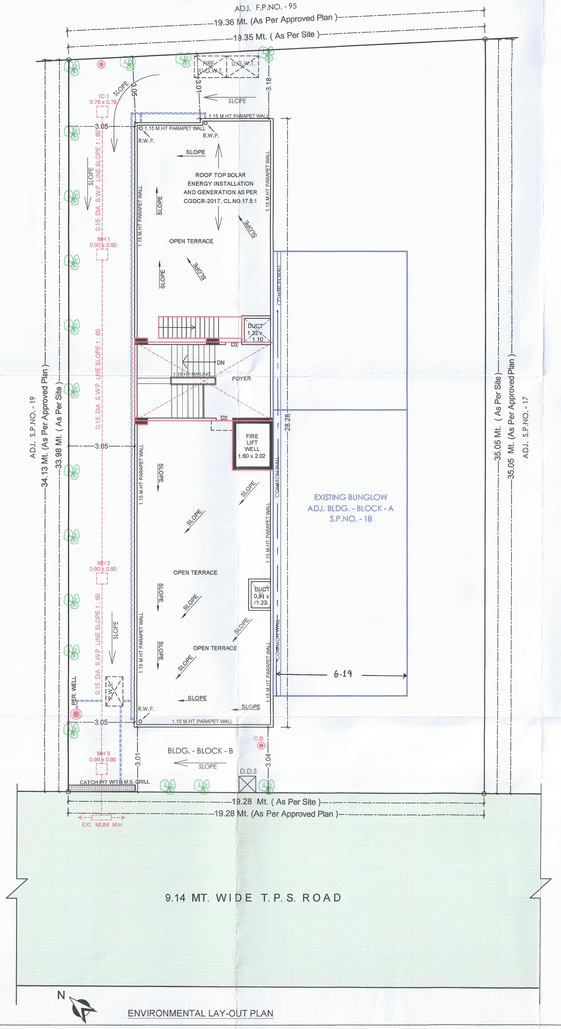
LONGITUDINAL DRAINAGE SECTION



GROUND FLOOR (SITE PLAN)



GROUND FLOOR (HOLLOW PLINTH PARKING PLAN)



ENVIRONMENTAL LAY-OUT PLAN

PARKING AREA CALCULATION			
PARKING REQUIRED @ 20 % i.e OF USTILISED F.S.I. 763.55 sqmt. i.e.= 152.71 smt.			
NO. OF VEHICALS		REQD. SQMT.	PROVIDED SMT.
CARS	50%	76.36	80.35
OTHERS & SCOOTER	40%	61.08	74.68
VISITOR	10%	15.27	16.05
TOTAL		152.71	171.08

PARKING PROVIDED ON G.F.

CAR PARKING

A.	6.32 x 6.08	=	38.43
B.	3.79 + 4.21 / 2 x 10.48	=	41.92
	TOTAL CAR PARKING	=	80.35 SMT.

OTHER'S PARKING

C.	6.32 x 3.31	=	20.92
D.	4.54 x 2.29	=	10.40
E.	6.32 x 6.86	=	43.36
	TOTAL OTHER'S PARKING	=	74.68 SMT.

VISITOR'S PARKING

F.	6.32 x 2.54	=	16.05
	TOTAL VISITOR'S PARKING	=	16.05 SMT.

CONTAINER BIN CALCULATION (RESIDENCE)

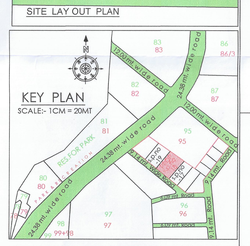
TOTAL NOS OF UNIT = 10 NOS
CONT REQ = 1 UNIT = 1 NOS. (10 LTRS CAP)
MAXIMUM CAPACITY OF CONTAINER = 80 LTRS.
80 LTRS = 8 UNIT = 1 CONT (80 LTRS CAP)
= 10 NOS UNITS / 8
= 2 CONTAINER REQUIRED
SAY = 2 NOS CONTAINER REQUIRED
2 NOS CONTAINER PROVIDED OF 80 LTR CAP.

PERCOLATING WELL CALC

PLOT AREA OF S.P.NO. - 18 = 670.55 Smt.
4000.00 SMT = 1 NO PER WELL
= 670.55 / 4000
= 0.17 NOS PER WELL REQD
SAY 1 NOS PER WELL PROVIDED

TREE PLANTATION CALCULATION

PLOT AREA OF S.P.NO. - 18 = 670.55 Smt.
200.00 SMT = 5 NO TREES REQD
= 670.55 / 200 x 5
= 16.76 NOS TREES REQD
= 17 NOS TREES PROVIDED



SITE LAY OUT PLAN

SCRUTINIZE COPY
NO. 1429 DT. 02/11/2021
TDO, BPSP, AMC

(SHEET NO. - 1 / 2)

PLAN SHOWING PROPOSE RESIDENTIAL BUILDING ON BLOCK - B
(C.S.NO. - 182/P,183) OF F.P.NO. - 96/2 OF S.P.NO.-18 , (C.T.S. - 183,182)
T.P.S. NO.- 04 (MANIPUR) (2nd VARIED-FINAL), TA : MANINAGAR, DIST: A'BAD.

SCALE : 1.00 CM = 1.00 MT. ZONE : - RESIDENCE - I (R1) USE : - RESIDENTIAL

AREA TABLE IN SMT.	BLOCK. A	BLOCK. B	TOTAL
PLOT AREA OF S.P. 18 (AS PER APPR. PLAN)	--	345.28	670.55
PLOT AREA OF BLOCK - 18/B (AS PER PROPETY CARD)	--	323.02	--
PROP. BUILT UP AREA ON GROUND FLOOR. (H.P)	--	181.54	--
PROP. BUILT UP AREA ON FIRST FLOOR.	--	181.54	--
PROP. BUILT UP AREA ON SECOND FLOOR.	--	181.54	--
PROP. BUILT UP AREA ON THIRD FLOOR.	--	181.54	--
PROP. BUILT UP AREA ON FOURTH FLOOR.	--	181.54	--
PROP. BUILT UP AREA ON FIFTH FLOOR.	--	181.54	--
PROP. BUILT UP AREA ON STAIR CABIN	--	32.29	--
PROP. BUILT UP AREA ON O.H.W.T.	--	21.89	--
TOTAL BUILT UP AREA	--	1143.42	--
OPEN PLOT AREA	--	153.74	--

F.S.I. AREA TABLE IN SMT.	BLOCK. A	BLOCK. B	BLOCK. B
PLOT AREA OF S.P. 18 (AS PER APPR. PLAN)	--	--	670.55
PLOT AREA OF BLOCK - 18/B (AS PER PROPETY CARD)	--	323.02	--
PERMI. F.S.I. @ 1: 8 (323.02 x 1.8)	--	581.44	--
PERMI. CHARGABLE F.S.I. @ 0.9% (323.02 x 0.90)	--	290.72	--
TOTAL PERMSSIBLE + CHARGABLE F.S.I.	--	872.19	--
PROP. F.S.I. AREA ON FIRST FLOOR.	--	152.71	--
PROP. F.S.I. AREA ON SECOND FLOOR.	--	152.71	--
PROP. F.S.I. AREA ON THIRD FLOOR.	--	152.71	--
PROP. F.S.I. AREA ON FOURTH FLOOR.	--	152.71	--
PROP. F.S.I. AREA ON FIFTH FLOOR.	--	152.71	--
TOTAL UTILISED F.S.I. AREA	--	763.55	--
UTILISED CHARGABLE F. S. I. (581.44 - 763.55)	--	182.11	

EQ.TENAMENT & FLOOR AREA TABLE

FLOOR	USE	EQ.TENA (NOS.)	FLOOR AREA
GR. FLR.	PARKING	----	----
FIRST FLR.	RESI.	02	152.71
SECOND FLR.	RESI.	02	152.71
THIRD FLR.	RESI.	02	152.71
FOURTH FLR.	RESI.	02	152.71
FIFTH FLR.	RESI.	02	152.71
TOTAL	RESI.	10	763.55

SHEDULE OF OPENING

D = 1.07 x 2.13 W = 2.00 x 1.52
D1 = 0.91 x 2.13 W1 = 0.92 x 0.90
D2 = 0.76 x 2.13
V = 0.61 X 0.61

R.C.C STAIR DETAIL

WIDTH = 1.60 MT.
TREAD = 0.25 MT.
RISER = 0.17 MT

COLOUR NOTES

S.P. BOUNDARY
PROP. WORK
PROP. DR-LINE
ROAD
COMM.BIN
TREES
PER.WELL
SPRINKLER
WORK TO BE REMOVE

REF. CASE NO. - CR/1118/50 , RAJKCHITTHI NO. - 99 DATE - 06/01/1990

NOTE : - PERMISSIBLE BUILDING HEIGHT AS PER ASI NOC : -22.80 MT. HT.

RAMESH A. PARIKH
NAVNEET A. PARIKH
CO.OWNER

ધિરેન્દ્ર અરવિંદભાઇ પટેલ
અરૂણ અરવિંદભાઇ પટેલ
મે. કુલપુત્રનાથ
અનીષભાઇ ચીમનભાઇ પટેલ
OWNER

MIHIR A. PATEL B.E. (CIVIL)
A.M.C. 001/81110/2/6108/4
J/8/44, Patrakar Colony (Part-1)
Vijaynagar, Naranpura
Ahmedabad-380013
S.O.R.

UNITED ASSOCIATE
22, Teachers Society, Sonal Cinema Road,
Vejalpur, Ahmedabad-380051.
AMC REV Lic. No. 001/01/2042/10439
DEVELOPER

RAJESH P. PATEL
AMC/SD/001/SE/011/2/5003/38
101, AVARNYA APARTMENTS,
PRABHA COLONY,
NR USHMANPURA UNDER BRIDGE
USHMANPURA A'BAD
STRU. ENGINEER

AKASH J. PATEL
111, Sinjal Vihar Society,
P.O. Pandva College Road, Smriti Mandir
Dholakar, AHMEDABAD.
AMC ENG. LIC. No. 001/EN/2002/5/10063
AMC CON. LIC. No. 001/CN/2002/5/10061
(Grade-II)
ENGINEER & C.O.W

અંતરે વિકાસ કર્યા પહેલાં રૂડાનિયમો વિરુદ્ધના ન કરશે ને.
પરવાનાનંબર(કાચી) તા-૪૭-૧૧-૨૦ ના ના અનુસાર બાંધકામ
કામકાજ મોડા આવે જુનવટો લાવવા બાંધકામની તમા વિગતે કરીને જે
ખાતે મુકવામાં રાખે.

Ahmedabad Municipal Corporation
Zone: SOUTH
...ge No.: BLNTS/SZ/051021/CGDCR/A5229/RB/M1
...ran Approved as per terms and conditions mentioned in ...e Commencement Certificate
...uja Chithi Number : 05471/051021/A5229/RB/M1
...ate : 03/11/2021

T.D. Sub Inspector(B.P.S.P.) | T.D. Inspector (B.P.S.P.) | Asst. T.D.O. (B.P.S.P.) | T.D.O. (B.P.S.P.)
03-11-2021
AUTHORITY