

LEGEND FOR FIRE FIGHTING.		FIRE REFERENCES:		SCHEDULE OF DW OPENING						
1) FIRE RESISTANT DOOR		SYMBOL	DESCRIPTION	S.NO.	TYPE	SIZE	SILL LVL.	LINTEL LVL.	REMARK	
2) FIRE HYDRANT WET			FIRST AID KIT	DOOR SCHEDULE						
3) HOSE REEL				1.	D1	1.00 x 2.10	0.0	2.10	DOOR	
4) FIRE EXTINGUISHER				2.	D2	0.90 x 2.10	0.0	2.10	DOOR	
5) SPRINKLER (DN CC)			EMERGENCY LIGHT	3.	D3	0.75 x 2.10	0.0	2.10	DOOR	
6) OPTICAL SMOKE DETECTOR				4.	RS	2.10 x 2.50	0.00	BEAM BOTTOM	SHUTTER	
7) MANUAL CALL POINT				WINDOW SCHEDULE						
8) ILLUMINATED EXIT DIRECTIONAL SIGN			SPRINKLER PIPE LINE	5.	W1	1.50 x 1.60	0.90	BEAM BOTTOM	WINDOW	
9) RAMESE CONNECTION				6.	W2	0.90 x 1.50	1.00	BEAM BOTTOM	WINDOW	
10) EMERGENCY LIGHT				7.	V1	0.60 x 0.40	2.10	BEAM BOTTOM	VENTILATER	
11) P.A SYSTEM			JOCKEY PUMP	8.	SW	1.50 x 1.60	0.90 (from landing)	BEAM BOTTOM	Staircase Window (Typical Floor)	
12) AUTOMATIC INDICATOR PANEL				MAIN PUMP						
13) UNDERGROUND WATER TANK OF 100K Ltrs. WITH 500 LPS PUMP FOR FIRE FIGHTING WITH MINIMUM PRESSURE OF 2 Kg/cm ²				DIESEL GENERATOR PUMP						
14) OVERHEAD FIRE WATER TANK			FIRE BRIGADE CONNECTION							

PROPOSED COMMERCIAL BUILDING AT KOTAHARA GHAT ROAD, HAJIPUR	
PLOT NO: 431, 459, 460, 461	
KHATA NO- 196, 201, 317	
TAUZI NO- 320	
THANA NO- 164, WARD NO - 07	
MAUZA -BAAGTAAZ KHAN & POKHARA	
DIST.- VAISHALI	

SCALE	NORTH	SHEET NO
NOT TO SCALE		01
NAME OF LAND OWNERS		

PROPOSED COMMERCIAL BUILDING AT
KONAHARA GHAT ROAD, HAJIPUR
PLOT NO.- 431, 459, 460, 461
KHATA NO.- 196, 201, 317
TAUZI NO.- 320
THANA NO.- 164, WARD NO.- 07
MAUIZA-SAAGTAZ KHAN & POKHARA
DIST.- VAISHALI

SCALE NOT TO SCALE	NORTH	SHEET NO 01
-----------------------	-------	----------------

NAME OF LAND-OWNERS
RATAN LAL CHOUDHARY, AVINASH KUMAR
S/O.- LT. BHOLA CHOUDHARY &
MR. MADHUKAR, S/O - SRI RAJ KISHOR PRASAD
NAME OF BUILDER/ DEVELOPER
RAM MERTIYA DEVELOPERS

AREA STATEMENT
TOTAL PLOT AREA (as per deed) = (139+20+2.275) = 161.275 Decimal = 6525.968 Sqmt
NET SITE AREA = 6366.64 Sqmt

FLOOR	BUILT UP AREA	DEDUCTION AREA	NET BUILT UP AREA
BASEMENT - 01 BUILT UP AREA	4073.34 SQ MTS	3978.75 SQ MTS	94.59 SQ MTS
GROUND FLOOR BUILT UP AREA	2466.51 SQ MTS	63.21 SQ MTS	2435.30 SQ MTS
FIRST FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
SECOND FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
THIRD FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
FORTH FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
FIFTH FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
SIXTH FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
SEVENTH FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
EIGHTH FLOOR BUILT UP AREA	2676.52 SQ MTS	295.98 SQ MTS	2380.54 SQ MTS
TOTAL	28192.35 SQ MTS	45919.87 SQ MTS	22272.48 SQ MTS

PERMISSIBLE F.A.R. = 3.5
F.A.R. = $\frac{\text{TOTAL BUILT UP AREA}}{\text{TOTAL PLOT AREA}} = \frac{22272.48}{6366.64} = 3.49$

OCCUPANT LOAD (COMMERCIAL)
TOTAL COMMERCIAL AREA = 22272.48 SQ MT
10 SQM / 1PERSON
NUMBER OF PERSON = $\frac{22272.48}{10} = 2227.24 = 2228$ PERSON

WATER TANK REQUIREMENT FOR COMMERCIAL BUILDING
60 LTRS./PERSON / DAY WATER CONSUMPTION
60 X 2228 = 1,33,680 LTRS (135 M3)
25000 LTRS FOR FIRE FIGHTING
TOTAL= 160 M3 (Required)
WATER TANK SIZES PROVIDED
8.23M X 4.59M X 2.10M = 79.32 M3 X 3 NOS. = 237.96 M3 (PROVIDED)

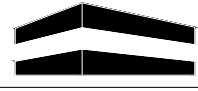
SEPTIC TANK REQUIREMENT FOR COMMERCIAL BUILDING
0.04M3/PERSON/DAY
SEPTIC TANK CAPACITY
0.045 X 2228 = 100.26 M3 (Required)
TOTAL TANK REQUIREMENT = 100.26 M3
4.5 X 3.0 M X 2 M = 31.5 M3 X 4 NOS = 126.00M3 (Provided)

PARKING CALCULATION
PARKING AREA TO BE PROVIDED AS A 35%
OF TOTAL BUILT UP AREA
TOTAL BUILT UP AREA = 22272.48 SQ M
REQUIRED PARKING AREA = 7795.36 SQ M
BASEMENT - 01 PARKING AREA = 3978.75 SQMT
TERRACE PARKING = 2400.01 SQMT
OPEN PARKING AREA = 1395.73 SQMT
TOTAL AREA PROVIDED FOR PARKING = 7834.49 SQ MTS

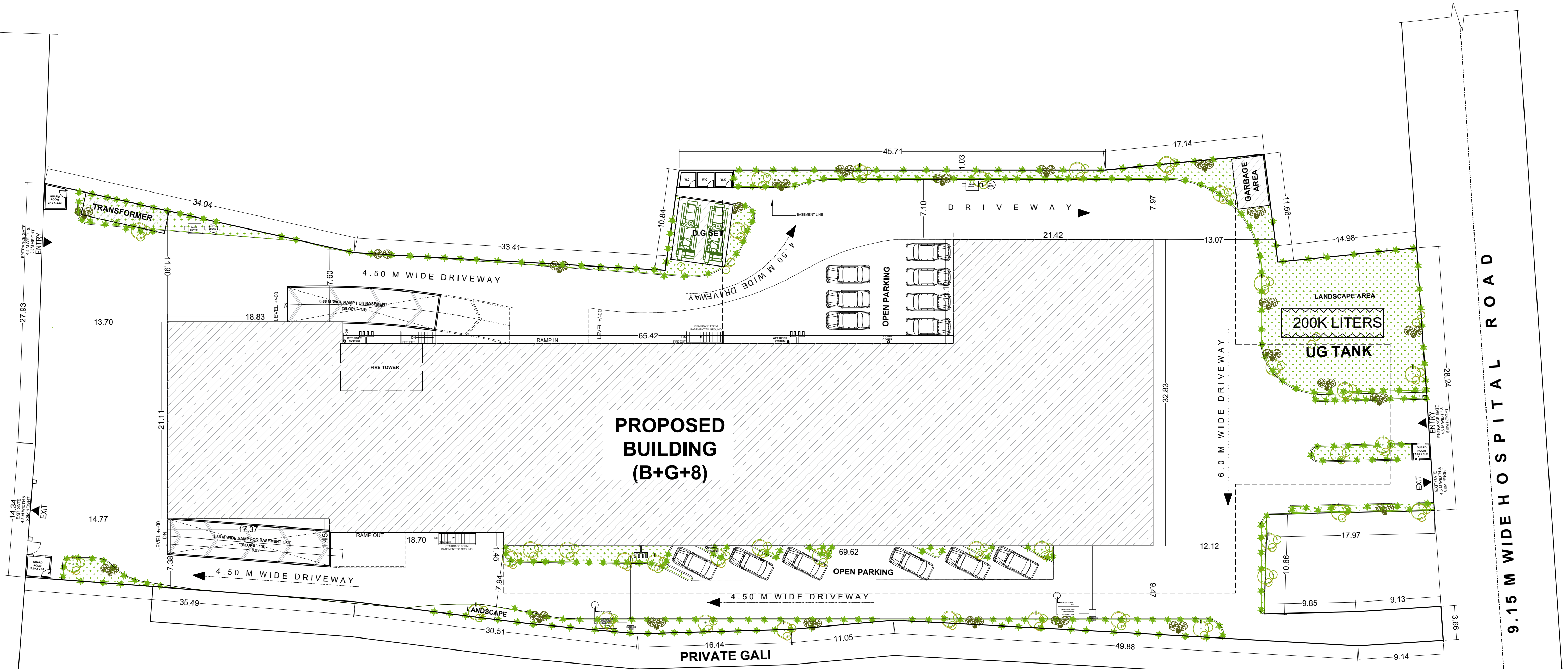
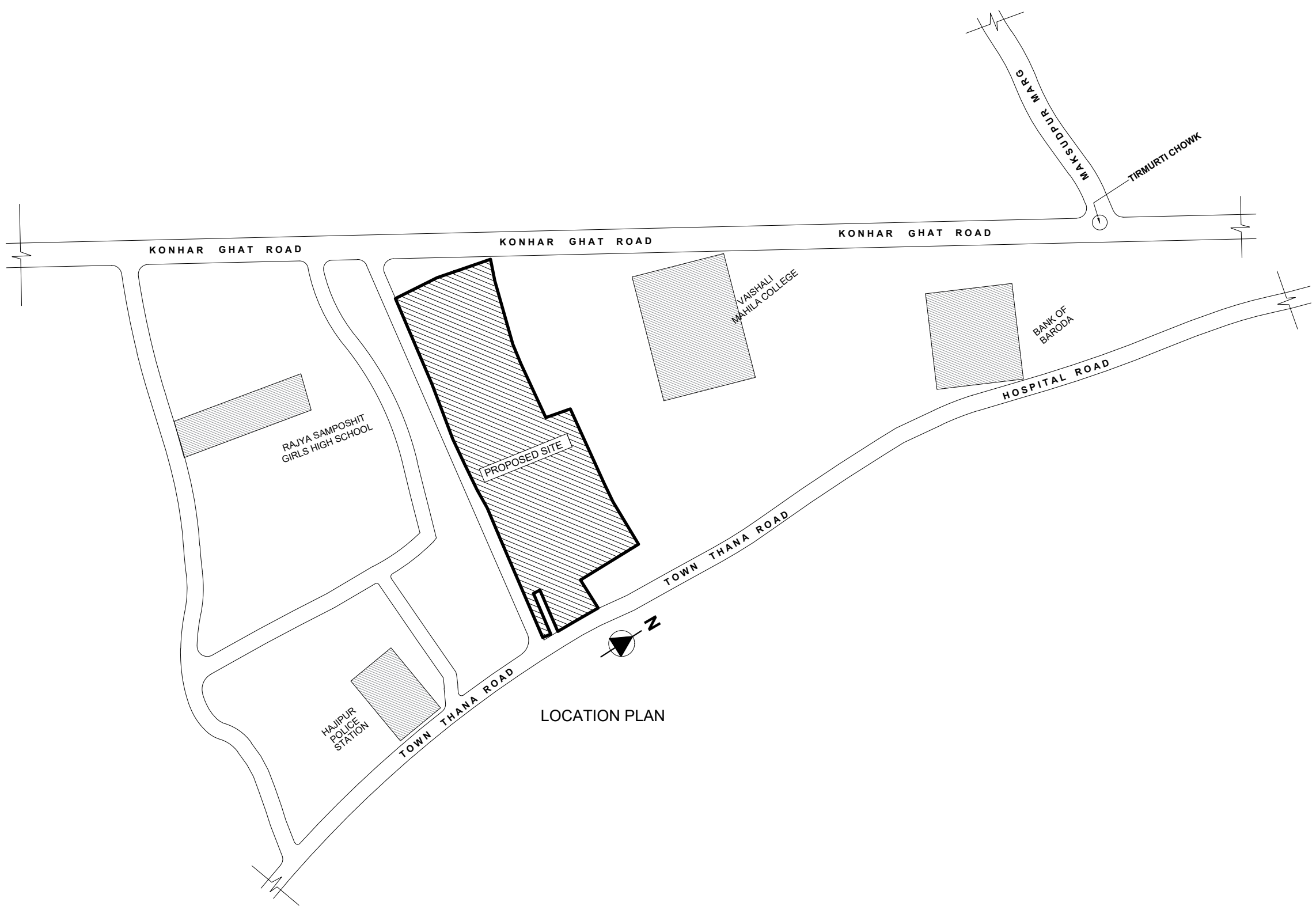
RAIN WATER HARVESTING CALCULATION
TERRACE FLOOR AREA IN COMMERCIAL BUILDING = 2747.18 SQ MT
RAIN WATER HARVESTING SUMP REQD 6 CUM PER 100 SQ M TERRACE AREA
REQ. CAPACITY FOR 2747.18 SQ MT = $\frac{2747.18 \times 0.06}{100} = 164.83$ CUM
PROVIDED TANK SIZE= 6 X 4 X 2 = 48 CUM. X 4 NOS. = 192 M3
TOTAL VOLUME OF SLUMP = 192 CUM

REQUIRED GREEN AREA
15% OF TOTAL PLOT AREA
= 0.15 X 6366.64 = 954.99 SQ MT
PROVIDED GREEN AREA ON SITE = 963.08 SQ MT

SIGNATURE OF OWNER	SIGNATURE OF ENGINEER	SIGNATURE OF ARCHITECT
		AR.SOORAJ BHARTI CA201163761



bharti architects & design consultants
architecture—interiors—landscape—urban planning
Address: Ground Floor, Vasudeo City,
Benibabu Bagicha,Rajendar Path, Near
Ashiana Hyundai, Lalji Tola, Patna.
E-mail: bharthisooraj@gmail.com Ph:9431215740



SITE PLAN