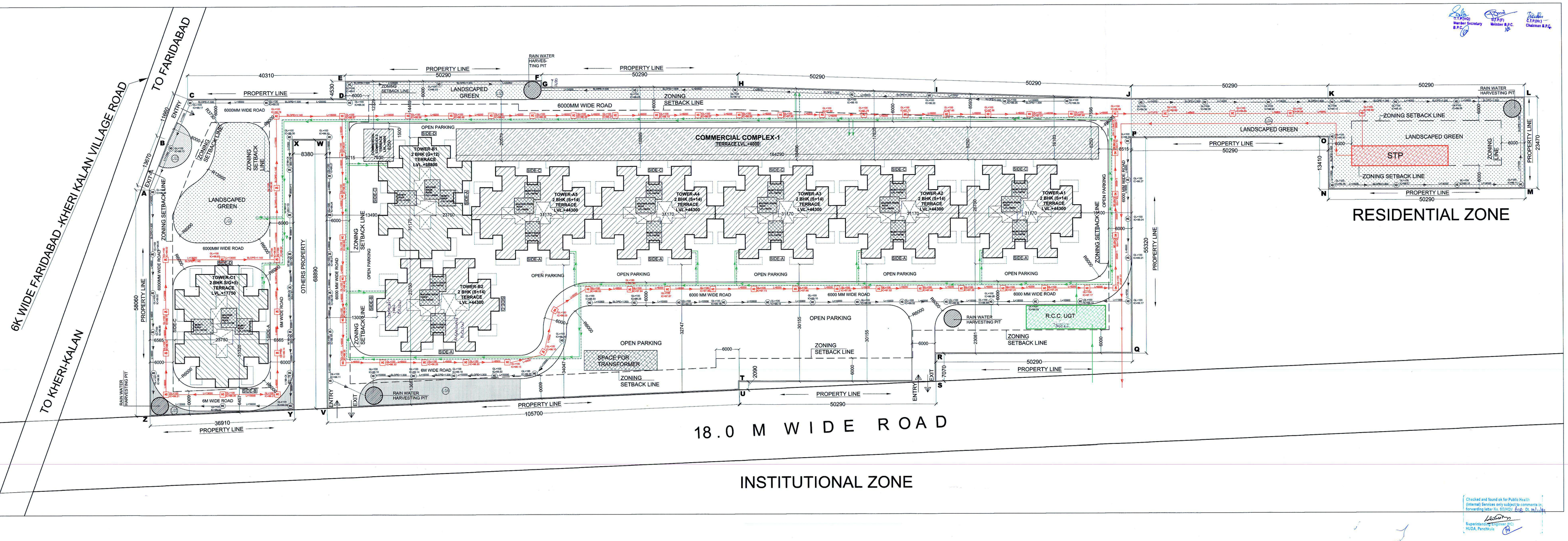
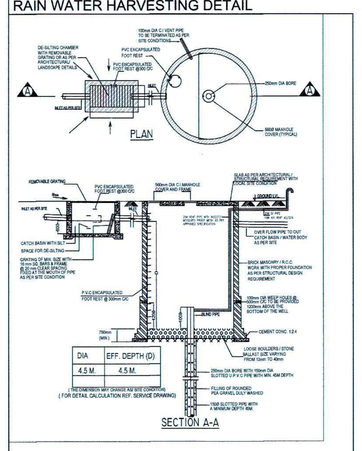


RAIN WATER HARVESTING DETAIL



LEGEND FOR PLUMBING

- MH — MANHOLE FOR DRAINAGE
- MS — MANHOLE FOR SEWERAGE
- G.L. ..... GROUND LEVEL.
- I.L. ..... INVERT LEVEL.
- C.L. ..... CONNECTION LEVEL.
- M. ..... METRE
- L. ..... LENGTH
- B.F.V. ..... BUTTER FLY VALVE
- C.V. ..... CHECK/NON–RETURN VALVE

NOTE:-

1) WATER HARVESTING
Certified that the building shall satisfy the water harvesting requirements as well as minimum anticipated discharge of water.Water more than 10,000 ltrs. or above per day shall incorporate waste water recycling system. Recycled water should be used for Horticulture purpose.

2.) STRUCTURE STABILITY
Certified that the structural parts of the building have been designed by us onthe basis of calculations and are considered safe and in accordance with the permissible stresses and slendemess ratio laid down by the bye-laws. The building is quite safe from earthquake point of view.

3) FIRE SAFETY
We shall provide proper fire safety measures as per the rules of 1965 / NBC
4) SOLAR WATER HEATING
We shall provide solar water heating system as per norms specified by hareda

CALCULATION FOR UNDER GROUND AND FIRE FIGHTING TANK

TOTAL NO. OF FLATS = 818 NOS.
@ 5 PERSONS PER FLAT = 4090 PERSONS

TOTAL NO. OF POPULATION = 4090 PERSONS
@ 157 LITERS PER DAY = 4090 X 157 = 6,42,130 LITERS / DAY

FOR HALF DAY CAPACITY =3,21,065 LITERS / DAY
FOR FIRE FIGHTING CAPACITY = 1,60,532 LITERS / DAY

TOTAL REQUIREMENT OF WATER = 4,81,597 LITERS / DAY

PROPOSED AREA OF TANK = 486 SQ.M.
DEPTH OF TANK = 4M

CAPACITY OF WATER SUPPLY & FIRE TANK = 20.25 X 6 X 4
= 486 CU.M.
@1000 LITRE PER CU.M. = 486 X 1000 =4,86,000 LITERS

LEGEND

1	150 MM Ø SWP
2	100 MM Ø WVP
3	150 MM Ø RWP
4	50 MM Ø GIP
5	50 MM Ø GIP UP
6	32 MM Ø GIP DN
7	200 MM Ø RCC MAIN SEWER PIPE
8	300 MM Ø RCC RAIN WATER PIPE

AREA STATEMENT

	SQM	ACRES
TOTAL SITE AREA AVAILABLE	**20262.3351**	**5.00694**
SITE AREA FOR RESIDENTIAL AS/ ZONING	**19451.842**	**4.8066624**
PERMISSIBLE F.A.R. FOR RESIDENTIAL	**2.25**	
PERMISSIBLE F.A.R. AREA FOR RESIDENTIAL	**43766.644**	
SITE AREA FOR COMMERCIAL AS/ ZONING	**810.493**	**0.2002776**
PERMISSIBLE F.A.R. FOR COMMERCIAL	**1.750**	
PERMISSIBLE F.A.R. AREA FOR COMMERCIAL	**1418.363**	
PROPOSED F.A.R. AREA FOR RESIDENTIAL @225	43739.079	2.249 AGAINST 2.25
PROPOSED F.A.R. AREA FOR COMMERCIAL @175	1418.339	1.74999982 AGAINST 1.75
PERMISSIBLE GROUND COVERAGE @ 50% OF SITE AREA	10131.168	
PROPOSED GROUND COVERAGE	**5095.576**	**25.15%**
REQUIRED OPEN GREEN @ 15% OF SITE AREA	3039.350	
PROPOSED OPEN GREEN	**3075.878**	**15.18%**
MINIMUM COVERED AREA REQUIRED FOR COMMUNITY HALL	185.810	
PROPOSED COVERED AREA FOR COMMUNITY HALL	185.936	
MINIMUM COVERED AREA FOR ANGANWADI CUM CRECHE	185.810	
PROPOSED COVERED AREA FOR ANGANVADI CUM CRECHE	185.919	

CALCULATION FOR F.A.R.

FLOORS	2 BHK TOWERS TOWER - A1 TO A5 S+14 SQ.M.	2 BHK TOWERS TOWER - B1 G+12 FLOORS SQ.M.	2 BHK TOWERS TOWER - B2 STILT/ANGANVADI+COMMUNITY+14 FLOOR SQ.M.	2 BHK TOWERS TOWER - C1 G/S+5 SQ.M.
STILT	30.634 X 5 = 153.170	437.542 X 1 = 437.542	34.090 X 1 = 34.090	135.297 X 1 = 135.297
1ST FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	425.428 X 1 = 425.428
2nd FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	425.428 X 1 = 425.428
3rd FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	425.428 X 1 = 425.428
4th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	425.428 X 1 = 425.428
5th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	425.428 X 1 = 425.428
6th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	
7th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	
8th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	
9th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	
10th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	
11th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	
12th FLOOR	425.540 X 5 = 2127.700	425.540 X 1 = 425.540	425.540 X 1 = 425.540	
13th FLOOR	425.540 X 5 = 2127.700		425.540 X 1 = 425.540	
14th FLOOR	425.540 X 5 = 2127.700		425.540 X 1 = 425.540	
TOTAL	**29940.970**	**5544.022**	**5991.650**	**2262.437**
TOTAL F.A.R. AREA OF MAIN DWELLING UNITS		=		**43739.079**

CALCULATION OF DWELLING UNIT

FLOORS	2 BHK TOWERS TOWER - A1 TO A5 S+14	2 BHK TOWERS TOWER - B1 G+12	2 BHK TOWERS TOWER - B2 S+14	2 BHK TOWERS TOWER - C1 G/S+5	TOTAL
STILT	PARKING	8 X 1 = 8	PARKING/ANGANWADI+COMMUNITY	2 X 1 = 2	10
1ST FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8	8 X 1 = 8	64
2nd FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8	8 X 1 = 8	64
3rd FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8	8 X 1 = 8	64
4th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8	8 X 1 = 8	64
5th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8	8 X 1 = 8	64
6th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8		56
7th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8		56
8th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8		56
9th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8		56
10th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8		56
11th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8		56
12th FLOOR	8 X 5 = 40	8 X 1 = 8	8 X 1 = 8		56
13th FLOOR	8 X 5 = 40		8 X 1 = 8		48
14th FLOOR	8 X 5 = 40		8 X 1 = 8		48
TOTAL	**560**	**104**	**112**	**42**	**818**

CALCULATION FOR GROUND COVERAGE

STILT AREA	3477.237	SQ.M.
COMMERICAL AREA	1418.339	SQ.M.
SPACE FOR TRANSFORMER	200.000	SQ.M.
GRAND TOTAL	**5095.576**	SQ.M.

CALCULATION FOR COVERAGE ON TYPICAL FLOOR

TOWER - A1 TO A5	2127.700	SQ.M.
TOWER - B1	425.540	SQ.M.
TOWER - B2	425.540	SQ.M.
TOWER - C1	425.428	SQ.M.
TOTAL	**3404.208**	SQ.M.

CALCULATION OF DENSITY

TOTAL NO OF FLATS	=	818
NO. OF OCCUPANTS IN MAIN D.U. AT 5 PERSONS PER D.U.	=	4090
SITE AREA FOR RESIDENTIAL IN ACRES	=	4.8066624
ACHIEVED DENSITY - PERSONS PER ACRE	=	851

CALCULATION OF MUMTY & MACHINE ROOM COVERED AREA

TOWER - A1 TO A5	43.693	X	5	=	218.465
TOWER - B1	43.693	X	1	=	43.693
TOWER - B2	43.693	X	1	=	43.693
TOWER - C1	42.727	X	1	=	42.727
TOTAL		=			348.578

CALCULATION OF COVERED AREA IN SQ.M.

F.AR. AREA OF RESIDENTIAL	+	F.A.R. AREA OF COMMERCIAL	+	NET COVERED AREA OF STILT	+	COVERED AREA OF MUMTY & MACHINE ROOM	+	COVERED AREA OF COMMUNITY HALL	+	COVERED AREA OF ANGANWADI CUM CRECHE
43739.079	+	1418.339	+	2532.543	+	348.578	+	185.936	+	185.919
TOTAL	=	48410.394								

NET COVERED AREA CALCULATION FOR STILT

TOTAL COVD. AREA OF STILT	-	COVD. AREA OF COMMUNITY HALL	-	COVERED AREA OF ANGANWADI CUM CRECHE	-	F.AR. AREA OF TOWER-B1 AT STILT FLOOR LVL.	F.AR. AREA OF TOWER-C1 AT STILT FLOOR LVL.	TOTAL
3477.237	-	185.936	-	185.919	-	437.542	135.297	2532.543

AREA CALCULATION FOR LANDSCAPING GREEN PARKS

SITE AREA AVAILABLE	20262.3351	SQM.
REQUIRED OPEN GREEN @ 15% OF SITE AREA	3039.350	SQM.
GREEN AREA PROVIDED		
LG1	567.870	SQM.
LG2	57.310	
LG3	510.520	
LG4	1631.580	
LG5	67.663	
LG6	240.935	
TOTAL	3075.878	SQM.
	15.18%	

AREA CALCULATION OF STILT COVERED AREA

TOWER - A1 TO A5	433.537	X	5	=	2167.685
TOWER - B1	437.542	X	1	=	437.542
TOWER - B2	438.584	X	1	=	438.584
TOWER - C1	433.426	X	1	=	433.426
TOTAL		=			3477.237

PARKING CALCULATION

TOTAL NO OF FLATS	=	818	NOS.
REQUIRED PARKING @ 0.5 ECS	=	409	NOS.
TOTAL NO. OF CARS REQUIRED	=	409	NOS.

PARKING CALCULATION

NET STILT AREA UNDER TOWER	=	2532.543	SQM.
ECS IN STILT	=	30	NOS.
NO. OF CARS THAT CAN BE PARKED IN STILT UNDER TOWER	=	84.418	NOS.
NO. OF CARS PROVIDED IN STILT UNDER TOWER	=	84	NOS.
TOTAL PLOT AREA	=	20262.3351	SQM.
PROPOSED GROUND COVERAGE AREA	=	5095.576	SQM.
PROPOSED GREEN AREA	=	3075.878	SQM.
PROPOSED INTERNAL ROAD AREA	=	1620.986	
BALANCE AREA LEFT	=	10469.895	SQM.
AREA AVAILABLE FOR OPEN PARKING	=	10469.895	SQM.
ECS IN OPEN SURFACE	=	25.000	SQM.
NO. OF CARS THAT CAN BE PARKED IN OPEN SURFACE	=	418.796	NOS.
NO. OF CARS PROVIDED IN OPEN SURFACE	=	325	NOS.
TOTAL NO. OF CARS PROVIDED	=	409	NOS.

SANCTIONED
To be read in conjunction with memo no. 34-ESN dt 21/8/14

Checked and found ok for Public Health (Internal) Services only subject to comments in forwarding letter No. 8594/G Dtd. 21.11.14
Superintending Engineer (HQ) HUDA, Panchkula

drg. title: SITE PLAN

project: PROPOSED AFFORDABLE GROUP HOUSING SCHEME MEASURING 5.00694 ACRES (LICENSE NO. 146 OF 2014 DATED 01/09/2014) IN SECTOR - 87,FARIDABAD .

client: DEVELOPED BY SRS RETREAT SERVICES LTD. AND OTHERS.

architects: GAUTAM & GAUTAM ASSOCIATES
ARCHITECTS, INTERIOR DESIGNERS & VALUERS
PLOT NO:- 1132, SECTOR-19, FARIDABAD.
PHONE:- 0129-4046461, 4046462. FAX:- 0129-4046463
E-MAIL:- gautam1132@gmail.com

ARCHITECT'S SIGNATURE:-
AJAY GAUTAM (ARCHITECT)
GAUTAM & GAUTAM ASSOCIATES
ARCHITECT - ENGINEERS - VALUERS
1132, SECTOR-19, FARIDABAD-121002
CA/91/13814

OWNER SIGNATURE:-

drg. no: 01

scale: 1:350

date: OCT.-2014