

CONCEPTUAL PLAN

“SPLS AWASIYA YOJNAUNDER SAMAJWADI AWASIYA YOJNA”

The Proposed Group Housing Complex project will have proposed FAR= 91627.39 SQM
Total Built Up Area = **121540.625** SQM including Basements and the area statement for the
Proposed Group Housing, project is as follows;

S. NO.	PARTICULARS	SQMT.
1	TOTAL PLOT AREA	40000
2	Equivalent space left for chak road& nali	668.90
3	AREA IN ROAD WIDENING	53.35
	PLOT AREA AFTER DEDUCTING ROAD WIDENING	
4	NET PLOT AREA DEDUCTION i.e. 40,000 – (688.90+35.53)	39277.75
5	15% GREEN OF NET PLOT AREA = 15% OF 39277.75	5891.66
6	PERMISSIBLE GROUND COVERAGE =@ 50% OF 39277.75	19638.87
7	PROPOSED GROUND COVERAGE (28.35%)	9565.33
8	PERMISSIBLE BASEMENT AREA	27507.97
9	PROPOSED BASEMENT AREA	24863.30
10	PERMISSIBLE F.A.R. AREA (2.50) =39277.75 *2.50	98194.37
11	PROPOSED RESIDENTIAL F.A.R. AREA	91627.39
12	PROPOSED COMMUNITY FACILITIES	422.85
13	PROPOSED CONVENIENT SHOP	436.25
14	PROPOSED NURSURY SCHOOL	3114.155
15	STILT AREA	1076.68
16	TOTAL BUILT-UP AREA	121540.625
17	TOTAL NO. OF BLOCKS	6
18	NO. OF TOWERS	A to N
19	NO. OF FLOORS	G+18
20	TOTAL NO. DWELLING UNITS	1626
21	TOTAL HEIGHT Of Building	

Water Consumption:

During the construction stage, water will be sourced primarily through tankers arranged by the contractor. It is estimated that water demand during the construction phase may vary from 10 to 20 KLD to be fulfilled by tankers

During the project operational stage, water shall be primarily sourced through Bore wells (ground water)/ Municipal water. The total water demand of the Proposed Project will be around 1146 KLD. The fresh water requirement will be 802 KLD. The water demand estimated for the Proposed Group Housing project shown in table below.

1 No. of bore wells of 25,000 -30,000 Liters / Hr (each) yield are proposed to be developed (after obtaining statutory permission and approval), to meet the daily potable domestic water requirement.

The water draw from each tube well shall be limited to a maximum of 5 to 8 hours operation per day. Potable tanker supply shall be resorted only if bore well yield is not sufficient to meet the water requirement.

Table 2: Water Requirement Details

S.No.	Item Description	Domestic water(94.5L/D)	Flushing water (40.5 L/D)	Total water Requirement (KLD)
A.	Resident (8130)	768 KLD	329 KLD	1097 KLD
B	Club and staff (LS)	8.4 KLD	3.6 KLD	12 KLD
C	Commercial (LS)	14 KLD	6 KLD	20 KLD
D	SCHOOL(LS)	11.2 KLD	4.8 KLD	16 KLD
	Total			1146 KLD
	Horticulture			30 KLD
	Road wash			31 KLD
	Quantity of Sewage disposal/day @80% of total demand			917 KLD
	Treated water available @80% of sewage generation			734 KLD

	Requirement of Treated Waste Water From STP (Flushing ,Horticulture & Road washing)			405 KLD
	Extra Treated water disposed to public sewer			329 KLD

Wastewater:

During the operation stage, wastewater generation from Group Housing project will be 917 KLD, which will be discharged in the in GDA SEWER LINE if project is completed after laying down sewer facility OR the developer will provide sewage treatment plant of capacity 1000 KLD base on FAB & MBBR process for treatment of sewage & sullage water The treated effluent shall be of a quality suitable for make up for Air Conditioning & DG Cooling towers, flushing and for horticulture for external areas.

Power Requirement:

The electrical load for Group Housing is estimated at approximately 5933 kVA

Description	Demand Load (kW)
Total electric Load	5933 kVA
DG Set Selection	2 No. 1000 kVA each

Parking

For the Group Housing Complex project parking space in the basements & ground will be provided. Total Parking space for Residents 755 ECS will be provided.

Rain Water Harvesting

The concept of rain water harvesting requires systematic collection and reuse at time of need. The offshoot of harvesting is ground water recharging whereby the roof top rain water is collected and diverted to the recharge pits located at regular interval within the plot boundary. As surface water sources fail to meet the rising demands of water supply in urban areas, ground water reserves are being increasingly tapped and overexploited thereby resulting in decline of ground water levels and simultaneous deterioration of ground water quality.

Since the rain in Northern India is highly seasonal and only sporadic downpours are encountered in other seasons, hence recharging the rain water into ground offers a solution whereby the water quantity and quality can be improved at the time of rain.

Storm Water Drainage

Separate and independent rain water drainage system shall be provided for collecting rain water from terrace, paved area, lawns and roads. Independent rain water down takes of appropriate size and number shall be provided in close coordination with Architect. The storm water runoff from the basement ramp shall be separately collected and connected to sump at basement. It shall be ensured to have electrical supply for all sump pump panel from electrical panel located at the basement. Emergency supply shall also be made available to the sump pump electrical panel. It is also proposed to provide standby diesel engine pump for storm water drainage in inventory in case of extreme emergency. The final disposal shall be to rain water harvesting pit with overflow connection to municipal storm water drain.

Drain channel shall be provided in the basement level car parking and plant room areas within the floor fill above the raft. Drain channels shall be provided with adequate slope to affect self cleaning velocity and shall terminate in sumps. For each sump, 2 nos. submersible pumps (1 working + 1 standby) shall be provided for disposal of collected run-off. Pumps shall be installed in identified sumps and shall be operated by Hi-Lo level switches with automatic changeover between both pumps.

Storm / rain water drainage system from the roof terrace and various levels of the building, including balcony drains, planter drains and fountain drains by means of draining and surface run-off water to rain water recharge pits for ground water recharging.

The entire site is provided with planned underground drainage system with final disposal to a natural drainage system of the area providing protection of the site from flooding, water logging and preventing soil erosion.

1. Rainwater from the entire complex is proposed to be harvested separately from Roof and from surface and landscape areas.
2.
 - a) The Roof top harvested rainwater will be directly used for makeup for toilet flushing by storing the RW from roofs in the flushing water tanks
 - b) Rainwater harvested from surface areas, roads and driveways and landscape will be first filtered in filter chambers having gravel and coarse sand as filter media .The RW will be connected to six recharge wells constructed as per the specifications of the central ground water board.

Estimated Quantities of Solid Waste Generated during Operational Phase

As per the manual or municipal solid waste prescribe by Central Public Health and Environmental Engineering Organization (CPHEEO), the quantity of solid waste generated varies between 0.2 – 0.6-kg/capita/ day. The solid waste will comprise biodegradable waste e.g. domestic waste, food waste, horticultural waste etc. and recyclable waste, like plastic, paper, tin, glass etc. For estimating the quantum of waste following assumption are taken into consideration:

Description	Population/Area	Per capita solid waste generation (kg/day)	Total solid waste generation(kg/day)
Total	8130 Nos.	0.6	4878

PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers having IS mark of 4.5 Kg Carbon Dioxide (CO₂), 9 Litres water CO₂, 9 Litres mechanical foam and 5 Kg dry powder and larger size CO₂ & mechanical will be located at suitable places in the entire complex.

All lifts and stair cases will be segregated with a fire check door of 2 hours rating in the basement and one hour rating at upper floors.

All lift lobbies and internal stair cases will be pressurized as per National Building Code 2005.

ENVIRONMENTAL MANAGEMENT SYSTEM

The Environmental Management System constitutes provision of an Environmental Division, which should be staffed by an Environmental Engineer / Officer, an Environmental Assistant

and other assistant (miscellaneous works). The task assigned should include supervision and co-ordination of studies, monitoring and implementation of environmental mitigation measures.

ENVIRONMENTAL COSTS

All cost involved in Environmental Mitigating measures and Management to be put on the account proposed project are summarized in **Table** below.

Overall Cost Estimate

S. No.	Item	Amount (in Rs. Lakhs per Annum)
1	Provision for Rain Water Harvesting	Included in project cost*
2	Provision for Sewage Treatment Plant	50
3	Provision of Storm Water Drainage System	Included in project cost*
4	Provision for Green Belt Development	Included in project cost*
5	Provision of Waste Management	Included in project cost*
6	Health Environment and Safety measures	5
7	Environmental Monitoring	1
	Total	56