



PROJECT - "HEMISPHERE" AT PLOT NO - REP 2, SECTOR -27, GREATER NOIDA									
WATER REQUIREMENT CALCULATIONS (PHASE-1)									
Sl. no.	Description	No. of units	Unit Population	Built up Area (Sq M)	Population (persons)	Unit Water Consumption (liters)	Total Water Required (liters)	Recycle Water Requirement (liters)	Total Recycle Water (liters)
1	Villas G Type	136	5		680	135	91800	45	30800
2	Villas F Type	56	5		280	135	37800	45	12600
3	Villas E Type	56	6		336	135	45360	45	15120
4	Villas D Type	78	6		468	150	70200	45	21060
5	Villas C Type	40	7		280	150	42000	45	12600
6	Villas B Type	18	7		126	150	18900	45	5670
7	Villas A Type	2	7		14	150	2100	45	630
8	Tower Sky Villas	441	4.5		1984.5	135	267907.5	45	89302.5
9	Club & Floating Population				600	15	9000	5	3000
10	Staff				200	45	9000	15	3000
11	Filter Backwash						10000		0
12	Make-up water for swimming pool						10000		0
	Horticulture (Green Area)			23801		4	95204	100%	95204
	Horticulture (Golf Area)			25535		6	153210	100%	153210
	total						7,70,682		4,11,397

SUMMARY OF WATER REQUIREMENT				
Total Permanent Population	=	3488.5	persons	
Total Domestic Water Requirement	=	7,70,682	lit/day	
Total Recycle Water Requirement	=	4,11,397	lit/day	
Net Domestic Water Requirement	=	3,59,285	lit/day	
Total Sewage Load (total domestic water required - horticulture - s.pool makeup - filter backwash)	=	5,02,268	lit/day	
Net Sewage Flow - 80% of total sewage load	=	4,01,814	lit/day	
Sewage Treatment Plant capacity required	=	400	KLD	
STP Capacity provided (by adding 20% as per MOEF)	=	480	KLD	
Say	=	500	KLD	250x2 KLD
Total recycle water required	=	4,11,397	liters	
Additional Water Required	=	(9,583)	liters	
UGT Capacity (for Domestic Use) = 16 hrs storage	=	2,39,523	liters	325 KL
UGT Capacity (for Fire Fighting)	=			320 KL
Total UGT Capacity (Domestic + Fire)	=			645 KL

Rev. No.	Date	No's OF Prints	Revision

LEGEND :

S. No.	SYMBOL	DESCRIPTION
1.	---	DOMESTIC WATER SUPPLY PIPE LINE.
2.	---	RECYCLED WATER SUPPLY PIPE LINE.
3.	---	RISING MAIN WATER PIPE LINE.
4.	---	MUNICIPAL WATER SUPPLY PIPE LINE.
5.	⊙	PROPOSED TUBE WELL.
6.	GH	GARDEN HYDRANT

LEGEND : FIRE SYSTEM

S.No.	SYMBOL	DESCRIPTION
1.	---	FIRE LINE
2.	YH	YARD HYDRANT 63 M.M. DIA. SINGLE HEADED HYDRANT VALVE WITH 2 NOS. 15 M. LONG, 63 M.M. DIA. FIRE HOSE PIPE & 1 NO. BRANCH PIPE WITH NOZZLE
3.	⊙	FIRE BRIGADE CONNECTION
4.	---	BUTTERFLY VALVE
5.	---	NONRETURN VALVE (CHECK VALVE)
6.	---	ISOLATING VALVE WITH MASONRY CHAMBER

project
HEMISPHERE
LIFE CREATORS

title
SITE PLAN

subtitle
EXTERNAL WATER SUPPLY SYSTEM

drawing released for
 APPROVAL SUBMISSION
 ADVANCE COPY CONSTRUCTION

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