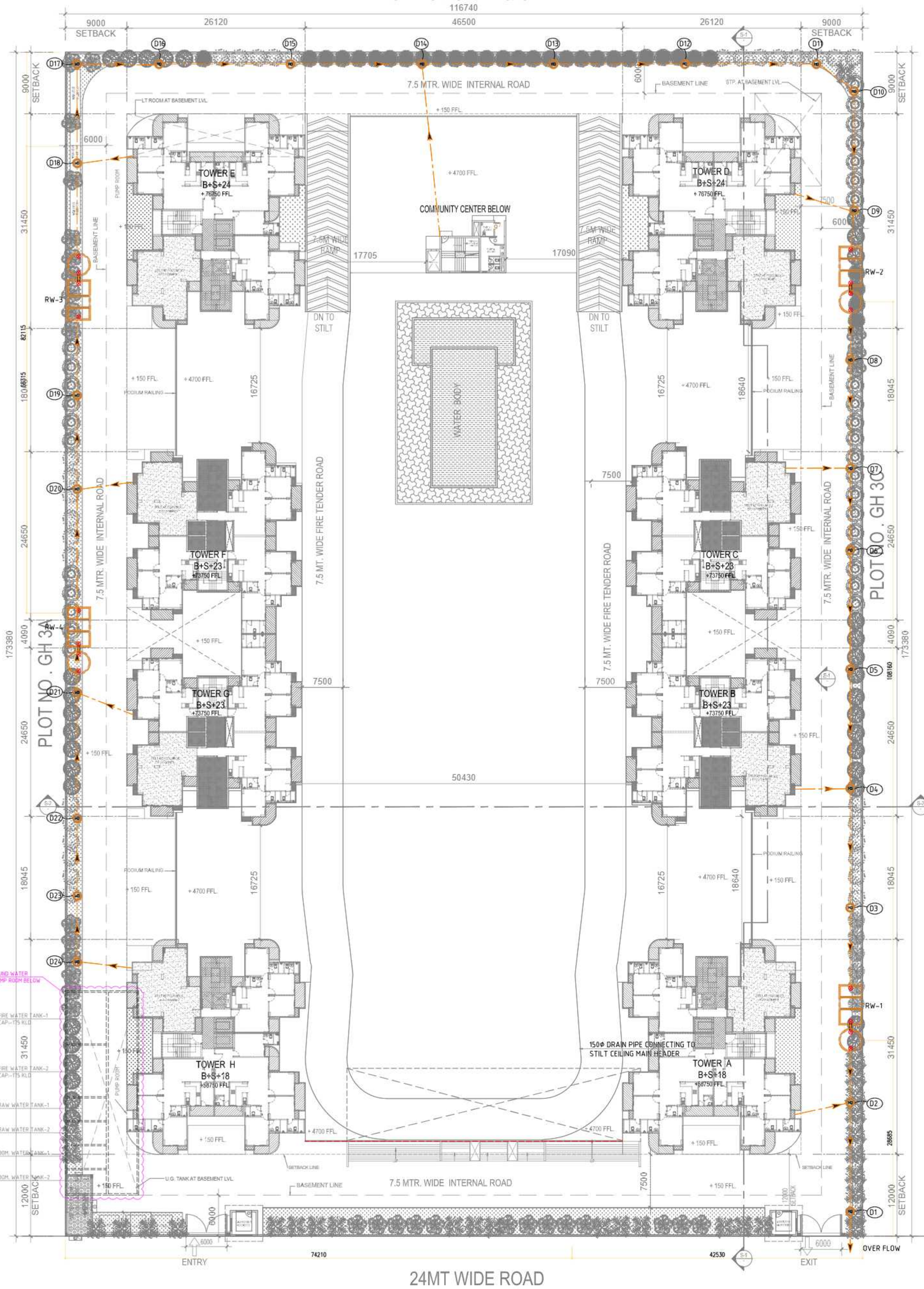
PLOT NO . GH 4A & GH4B



DESIGN OF DRAINAGE SYSTEM											
S.No	Line No.		Length	Pipe Dia	Slope (1in)	Ground Level(m)		Invert Level(m)		Depth(m)	
	From	To			1 in	Start	End	Start	End	Start	End
1.	D1	D2	19.0	200	200	0.150	0.150	-0.750	-0.845	0.900	0.995
2.	D2	D3	26.0	200	200	0.150	0.150	-0.845	-0.975	0.995	1.125
3.	RW-1	D8	7.0	300	300	0.150	0.150	-0.750	-0.773	0.900	0.923
4.	D3	D4	30.0	200	200	0.150	0.150	-0.975	-1.125	1.125	1.275
5.	D4	D5	16.0	250	250	0.150	0.150	-1.125	-1.189	1.275	1.339
6.	D5	D6	12.0	250	250	0.150	0.150	-1.189	-1.237	1.339	1.387
7.	D6	D7	21.5	250	250	0.150	0.150	-1.237	-1.323	1.387	1.473
8.	D7	RW-1	6.0	300	300	0.150	0.150	-1.323	-1.343	1.473	1.493
9.	D8	D9	16.0	300	300	0.150	0.150	-0.773	-0.827	0.923	0.977
10.	RW-2	D14	8.0	450	450	0.150	0.150	-0.750	-0.768	0.900	0.918
11.	D9	D10	16.0	300	300	0.150	0.150	-0.827	-0.880	0.977	1.030
12.	D10	D11	18.0	300	300	0.150	0.150	-0.880	-0.940	1.030	1.090
13.	D11	D12	14.0	300	300	0.150	0.150	-0.940	-0.987	1.090	1.137
14.	D12	D13	17.5	450	450	0.150	0.150	-0.987	-1.026	1.137	1.176
15.	D13	RW-2	11.5	450	450	0.150	0.150	-1.026	-1.051	1.176	1.201
16.	D14	D15	16.0	450	450	0.150	0.150	-0.768	-0.803	0.918	0.953
17.	D15	D16	29.0	450	450	0.150	0.150	-0.603	-0.668	0.953	1.016
18.	D17	D18	10.0	200	200	0.150	0.150	-0.750	-0.800	0.900	0.950
19.	D18	D19	11.0	200	200	0.150	0.150	-0.800	-0.855	0.950	1.005
20.	RW-3	Q-FLOW	10.0	450	450	0.150	0.150	-0.750	-0.772	0.900	0.922
21.	D19	D20	18.5	200	200	0.150	0.150	-0.855	-0.948	1.005	1.098
22.	D20	RW-4	10.5	200	200	0.150	0.150	-0.948	-1.000	1.098	1.150
23.	RW-4	D21	10.0	200	200	0.150	0.150	-0.750	-0.800	0.900	0.950
24.	D21	D22	11.0	200	200	0.150	0.150	-0.800	-0.855	0.950	1.005
25.	D22	D23	16.0	250	250	0.150	0.150	-0.855	-0.919	1.005	1.069

Calculations for storm water load

Roof-top area = Ground Coverage = 4910.546 m^2

Run off Load

Roof-top Area = $4910.546 \times 0.045 \times 0.8$

= $176.78 m^3/hr$

Total Runoff Load – 176.78 m

Taking 15 minutes Retention Time, Total volume of storm water = 176.78/4

= $44.195 m^3$

Taking the effective diameter and depth of a Recharge pit 3 m and 3 m respectively, Volume of a single Recharge pit – $\pi d^2h/4 - 3.14 \times 3 \times 3 \times 3 / 4 - 21.19 m^3$

Volume of a single Desilting Chamber = l x b x h = $3.5 \times 1.2 \times 1 = 4.2 m^3$

Total Volume of a single Recharge pit & Desilting Chamber = 21.19 + 4.2 m^3

= 25.39 m3

Hence No. of pits required = 44.195/25.39 = 1.74 or say **2 Pits.**

No. of pits Proposed = **4 Pits.**

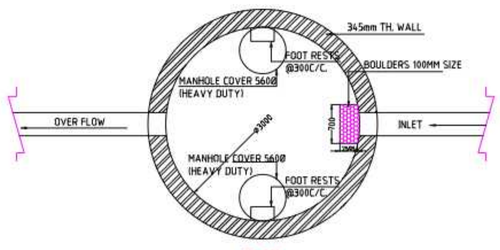
Sno.	DRAINAGE LEGEND :	SYMBOL
1.	DRAINAGE MANHOLE	MD
2.	RECHARGE WELL	RW
3.	DRAINAGE LINE	
4.	DISILTING CHAMBER	

SIZE OF MANHOLE WITH REFERENCE TO DEPTH	
DEPTH	SIZE OF M.H.
0.91m TO 1.65m	900mm DIA
1.66m TO 2.30m	1200mm DIA
2.31m TO 9.0m	1500mm DIA
× SIZE OF MANHOLE SHALL BE WITH RESPECT TO DEPTH	

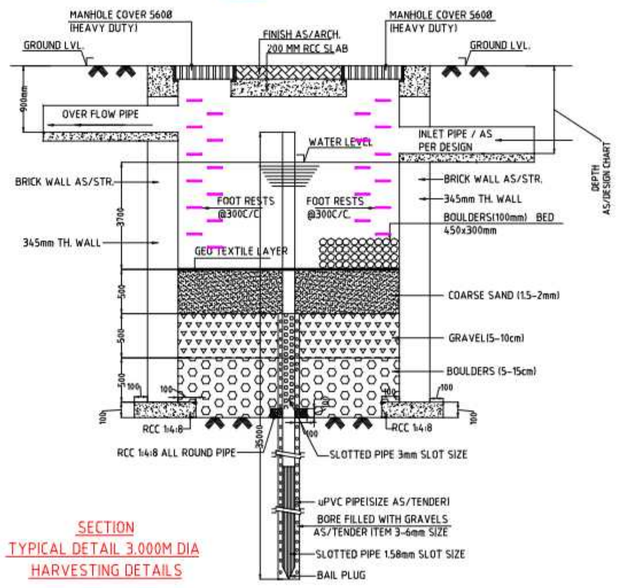
900Ø MANHOLE
SECTION A-A

PLAN

CIRCULAR MANHOLE 900 DIA
(CPWD SPECIFICATIONS–1977 CLAUSE – 20.4 FIG.107)



PLAN



SECTION
TYPICAL DETAIL 3.000M DIA
HARVESTING DETAILS

PROJECT NAME & ADDRESS :

M/S SUBLIME REALTECH PVT.LTD

PLOT NO. GH-3B SECTOR-12,
GREATER NOIDA WEST (UP)

PRINCIPAL ARCHITECT/ DESIGN CONSULTANT NAME & ADDRESS :

ARCHITECT CONSULTANT & PLANNERS
C-56/5, 3rd FLOOR, SECTOR-62, NOIDA - 201301
e-mail:- acplconsultant@gmail.com
Mo:- 09818061269

SUBMISSION DRAWING

OWNER'S SIGNATURE & SEAL:	ARCHITECT'S SIGNATURE & SEAL:
BUILDING/BLOCK/FLOOR/PART :	NORTH :
DRAWING TITLE : RAIN WATER HARVESTING LAYOUT	
DEALT :	CHECKED :
SCALE :	DATE :
DRAWING NO./CAD FILE NAME:	SHEET NO. : S-02