

PROJECT AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDAJY OVER AN AREA MEASURING 5.01875 ACRES (40 KANAL 3 MARLA) FALLING IN THE REVENUE ESTATE OF VILLAGE NAURANGPUR, SECTOR-78, TEHSIL- MANESAR DIST- GURUGRAM, HARYANA

TITLE :- STORM WATER DRAINAGE - HYDRAULIC DESIGN CHART.

TITLE :- STORM WATER DRAINAGE - HYDRAULIC DESIGN CRITERIA.																									
S.No	Line No.	Length in mtr.	self area in sqmtr.	Self Area (hec)	previous area in hec.	Total Area (hec)	Rain Fall mm/hr	Discharge @12.15 lps/hect	Pipe dia (mm)	Slope (mm) 1 in	Velocity m/sec.	Cap of pipe in lps.	Fall in line mtr.	Road level at Start	Invert Level at Start	Road level at End	Invert Level at End	Manhole Depth			Manhole Type				
																		Depth at Start	Depth at End	Average Depth	No. of Manhole	910 Dia upto 1.67m Type-A	1220 Dia upto 2.29m Type-B	1520 Dia From 2.29 to 4.18m	1820 Dia Above 4.19m
1	R-01	R-03	67	3153	0.315	0.000	0.315	6.25	3.83	400	450	0.923	116.07	0.15	200.05	198.65	200.05	198.50	1.40	1.55	1.47	5	5	0	0
2	R-02	R-03	58	3859	0.386	0.000	0.386	6.25	4.69	400	450	0.923	116.07	0.13	200.05	198.65	200.05	198.52	1.40	1.53	1.46	4	4	0	0
3	R-03	R-05	44	2548	0.255	0.701	0.956	6.25	11.62	400	450	0.923	116.07	0.10	200.05	198.50	200.05	198.40	1.55	1.65	1.60	3	3	0	0
4	R-04	R-05	67	3147	0.315	0.000	0.315	6.25	3.82	400	450	0.923	116.07	0.15	200.05	198.65	200.05	198.50	1.40	1.55	1.47	5	5	0	0
5	R-05	R-08	44	340	0.034	1.271	1.305	6.25	15.86	400	450	0.923	116.07	0.10	200.05	198.40	200.05	198.31	1.65	1.74	1.69	2	0	2	0
6	R-06	R-08	67	3172	0.317	0.000	0.317	6.25	3.85	400	450	0.923	116.07	0.15	200.05	198.65	200.05	198.45	1.40	1.60	1.50	5	5	0	0
7	R-07	R-08	31	987	0.099	0.000	0.099	6.25	1.20	400	450	0.923	116.07	0.07	200.05	198.65	200.05	198.58	1.40	1.47	1.43	2	2	0	0
8	R-08	R-10	42	277	0.028	1.721	1.748	6.25	21.25	400	450	0.923	116.07	0.09	200.05	198.31	200.05	198.21	1.74	1.84	1.79	3	0	3	0
9	R-09	R-10	14	518	0.052	0.000	0.052	6.25	0.63	400	450	0.923	116.07	0.03	200.05	198.65	200.05	198.62	1.40	1.43	1.42	1	1	0	0
10	R-10	R-11	41	1934	0.193	1.800	1.994	6.25	24.23	400	450	0.923	116.07	0.09	200.05	198.21	200.05	198.12	1.84	1.93	1.88	3	0	3	0
11	R-11	OUT	5	205	0.021	1.994	2.014	6.25	24.48	400	450	0.923	116.07	0.01	200.05	198.12	200.05	198.11	1.93	1.94	1.93	1	0	1	0



VIMAL BAJAJ
Architect CA/96/19791
938, Sector-14, Gurgaon

HYDRAULIC SEWER DESIGN SHEET																										Type of Manhole																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
S.No.	Line No.	Number of Inlets	Population at 12.5 km dia	Type of Building	Water Requirement (l/cap/day)	Sewage Flow (m ³ /day)	Sewage Flow (m ³ /hr)	Pipe Diameter (mm)	Pipe Length (m)	Pipe Material	Pipe Velocity (m/s)	Pipe Slope (%)	Pipe Depth (m)	Pipe Diameter (mm)	Pipe Length (m)	Pipe Material	Pipe Velocity (m/s)	Pipe Slope (%)	Pipe Depth (m)	Pipe Diameter (mm)	Pipe Length (m)	Pipe Material	Pipe Velocity (m/s)	Pipe Slope (%)	Pipe Depth (m)	Type of Manhole																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
																										910 Dia Round 1.0m	1275 Dia Round 1.25m	1575 Dia Round 1.5m	1875 Dia Round 1.75m																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
1	8-01	20	360	COMMUNITY CENTRE	12548	46800	4680	150	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146.00	0.56	1.13	1.70	200.00	146



VINAY BAJAJ
Architect CA/96/19791
938, Sector-14, Gurgaon

**PROJECT - AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 5.01875 ACRES (40 KANAL 3 MARLA)
FALLING IN THE REVENUE ESTATE OF VILLAGE NAURANGPUR, SECTOR-78, TEHSIL - MANESAR DIST - GURUGRAM, HARYANA**

S. No.	Name of Sewer Line	Number of Plots	Plots (DDJAY)			Water Requirement for Non Residential Plots					
			Population @ 18 persons / Plot.	Water Requirement @ 172.5 Ltr/ head / day	Other Type of Building	Other Water Requirement	Gross Water Requirement (Load on Line)	Sewage Flow (Self Load on Line)	Sewage Flow (Self Load on Line)		
	From To	Nos.	Nos.	lpd.		lpd.	lpd.	lpd.	Kid.		
1	S-01 S-03	20	18	172.5	PLOTS	Lumpsum		80%	1000		
2	S-02 S-03	9	162	27945	COMMUNITY CENTRE	0	62100	49680	49.68		
3	S-03 S-05	6	108	18630	PLOTS	0	18630	14904	14.90		
4	S-04 S-05	20	360	62100	PLOTS	0	62100	49680	49.68		
5	S-05 S-12	3	54	9315	PLOTS	0	9315	7452	7.45		
6	S-06 S-08	7	126	21735	COMMERCIAL +MB	7422	29157	23326	23.33		
7	S-07 S-08	4	72	12420	PLOTS	0	12420	9936	9.94		
8	S-08 S-11	0	0	0	PLOTS	0	0	0	0.00		
9	S-09 S-11	6	108	18630	PLOTS	0	18630	14904	14.90		
10	S-10 S-11	20	360	62100	PLOTS	0	62100	49680	49.68		
11	S-11 S-12	0	0	0	PLOTS	0	0	0	0.00		
12	S-12 S-13	0	0	0	PLOTS	0	0	0	0.00		
13	S-13 STP	0	0	0	PLOTS	0	0	0	0.00		



VIMAL BAJAJ
Architect CA/96/19791
938, Sector-14, Gurgaon

TITLE :- STORM WATER QTY. SHEET

S.No.	Line No.	Length (mtr.)	PIPE MATERIAL	Size of Pipe		Start (mtr.)	Depth		0-1.5mtr	EXCAVATION			Total No. of Manhole	Manhole			Extra Depth			Catch Basin (600x600)
				(mm)	(M)		End (mtr.)	Avg. (mtr.)		1.5-3.0 mtr	3.0-4.5 mtr	4.5- above		Type-A	Type-B	Type-C	Type-A	Type-B	Type-C	
1	R-01	67	RCC NP-2	400	0.400	1.40	1.55	1.48	67.0	0.0	0.0	0.0	5	5	0	0	2.825	0.000	0.000	-
2	R-02	58	RCC NP-2	400	0.400	1.40	1.53	1.47	57.5	0.0	0.0	0.0	4	4	0	0	2.220	0.000	0.000	-
3	R-03	44	RCC NP-2	400	0.400	1.55	1.65	1.60	0.0	44.0	0.0	0.0	3	3	0	0	2.070	0.000	0.000	-
4	R-04	67	RCC NP-2	400	0.400	1.40	1.55	1.48	67.0	0.0	0.0	0.0	5	5	0	0	2.825	0.000	0.000	-
5	R-05	44	RCC NP-2	400	0.400	1.65	1.74	1.70	0.0	43.5	0.0	0.0	2	0	2	0	0.000	0.050	0.000	-
6	R-06	67	RCC NP-2	400	0.400	1.40	1.60	1.50	0.0	67.0	0.0	0.0	5	5	0	0	2.953	0.000	0.000	-
7	R-07	31	RCC NP-2	400	0.400	1.40	1.47	1.44	30.5	0.0	0.0	0.0	2	0	0	0	1.050	0.000	0.000	-
8	R-08	42	RCC NP-2	400	0.400	1.74	1.84	1.79	0.0	41.5	0.0	0.0	3	0	3	0	0.000	0.360	0.000	-
9	R-09	14	RCC NP-2	400	0.400	1.40	1.43	1.42	14.0	0.0	0.0	0.0	1	1	0	0	0.505	0.000	0.000	-
10	R-10	41	RCC NP-2	400	0.400	1.84	1.93	1.89	0.0	41.0	0.0	0.0	3	0	3	0	0.000	0.645	0.000	-
11	R-11	5	RCC NP-2	400	0.400	1.93	1.94	1.94	0.0	5.0	0.0	0.0	1	0	1	0	0.000	0.265	0.000	-
Total		478							236	242	0	0	34.0	25.0	9.0	0.0	14.4	1.3	0.0	0.0
vation Depth																				
		(0.0 - 1.5)		(1.5 - 3.0)	(3.0 - 4.5)	(4.5-above)														
200 mm Dia pipe		0		0	0	0														
400 mm Dia pipe		236		242	0	0														
450 mm Dia pipe		0		0	0	0														
500 mm Dia pipe		0		0	0	0														
600 mm Dia pipe		0		0	0	0														
700 mm Dia pipe		0		0	0	0														
800 mm Dia pipe		0		0	0	0														

Station Depth (0.0 - 1.5) (1.5 - 3.0) (3.0 - 4.5) (4.5-above)

200 mm Dia pipe	0	0	0	0
400 mm Dia pipe	236	242	0	0
450 mm Dia pipe	0	0	0	0
500 mm Dia pipe	0	0	0	0
600 mm Dia pipe	0	0	0	0
700 mm Dia pipe	0	0	0	0
800 mm Dia pipe	0	0	0	0



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TITLE :- SEWAGE QTY. SHEET

S.No.	Line No.	Length	PIPE MATERIAL	Size of Pipe		Start	Depth		Excavation				Total No. of Manhole	Manhole				Extra Depth				Rectangle Manhole (900x800)	
				(mm)	(M)		End	Avg.	0.0-1.5mtr	1.5-3.0mtr	3.0-4.5mtr	4.5-6.0mtr		Type-A	Type-B	Type-C	Type-D	Type-A	Type-B	Type-C	Type-D		
1	S-01	S-03	80	DWC SN-8	200.00	0.200	1.20	1.75	1.48	80.0	0.0	0.0	0.0	6	6	0	0	0	3.390	0.000	0.000	0.000	-
2	S-02	S-03	44	DWC SN-8	200.00	0.200	1.20	1.50	1.35	44.0	0.0	0.0	0.0	3	3	0	0	0	1.320	0.000	0.000	0.000	-
3	S-03	S-05	44	DWC SN-8	200.00	0.200	1.75	2.06	1.91	0.0	44.0	0.0	0.0	3	0	3	0	0	0.000	0.705	0.000	0.000	-
4	S-04	S-05	80	DWC SN-8	200.00	0.200	1.20	1.75	1.48	80.0	0.0	0.0	0.0	6	6	0	0	0	3.390	0.000	0.000	0.000	-
5	S-05	S-12	21	DWC SN-8	200.00	0.200	2.06	2.20	2.13	0.0	21.0	0.0	0.0	2	2	0	2	0	0.000	0.920	0.000	0.000	-
6	S-06	S-08	29	DWC SN-8	200.00	0.200	1.20	1.40	1.30	28.5	0.0	0.0	0.0	2	2	0	0	0	0.680	0.000	0.000	0.000	-
7	S-07	S-08	15	DWC SN-8	200.00	0.200	1.20	1.30	1.25	14.5	0.0	0.0	0.0	2	2	0	0	0	1.260	0.000	0.000	0.000	-
8	S-08	S-11	41	DWC SN-8	200.00	0.200	1.40	1.68	1.54	0.0	41.0	0.0	0.0	1	1	0	0	0	0.350	0.000	0.000	0.000	-
9	S-09	S-11	17	DWC SN-8	200.00	0.200	1.20	1.32	1.26	17.0	0.0	0.0	0.0	6	6	0	0	0	3.390	0.000	0.000	0.000	-
10	S-10	S-11	80	DWC SN-8	200.00	0.200	1.20	1.75	1.48	80.0	0.0	0.0	0.0	1	0	1	0	0	0.000	0.155	0.000	0.000	-
11	S-11	S-12	22	DWC SN-8	200.00	0.200	1.75	1.90	1.83	0.0	21.5	0.0	0.0	2	0	2	0	0	0.000	1.220	0.000	0.000	-
12	S-12	S-13	24	DWC SN-8	200.00	0.200	2.20	2.36	2.28	0.0	23.5	0.0	0.0	1	0	1	0	0	0.000	0.000	0.080	0.000	-
13	S-13	STP	2	DWC SN-8	200.00	0.200	2.36	2.38	2.37	0.0	2.0	0.0	0.0	0	0	0	1	0	0.000	0.000	0.080	0.000	-
Total			497							344	153	0	0	37.0	28.0	8.0	1.0	0.0	14.6	3.0	0.1	0.0	0.0
Excavation Depth		(0.0 - 1.5)		(1.5 - 3.0)	(3.0 - 4.5)	(4.5 - Above)																	
150 mm Dia pipe		0		0	0	0																	
200 mm Dia pipe		344		153	0	0																	
250 mm Dia pipe		0		0	0	0																	
300 mm Dia pipe		0		0	0	0																	

Excavation Depth		(0.0 - 1.5)	(1.5 - 3.0)	(3.0 - 4.5)	(4.5 - Above)
150 mm Dia pipe	0	0	0	0	0
200 mm Dia pipe	344	153	0	0	0
250 mm Dia pipe	0	0	0	0	0
300 mm Dia pipe	0	0	0	0	0



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938, Sector-14, Gurgaon

PROJECT- AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 5.01875 ACRES (40 KANAL 3 MARLA) FALLING IN THE REVENUE ESTATE OF VILLAGE NAURANGPUR, SECTOR-78, TEHSIL - MANESAR DIST- GURUGRAM, HARYANA

TITLE :- WATER SUPPLY QTY FLUSHING WATER LINE

S.NO	Line No		Length of Pipe	Dia of Pipe	Butterfly valve	PIPE MATERIAL
	From	To	MTR.	MM	Each	
1	STP	F-01	34	180	1	HDPE PE-80
2	F-01	F-02	8	180	0	HDPE PE-80
3	F-02	F-03	69	180	1	HDPE PE-80
4	F-02	F-04	43	180	0	HDPE PE-80
5	F-04	F-05	69	180	1	HDPE PE-80
6	F-04	F-06	57	180	1	HDPE PE-80
7	F-01	F-07	35	180	0	HDPE PE-80
8	F-07	F-08	69	180	1	HDPE PE-80
9	F-07	F-09	30	180	0	HDPE PE-80
10	F-07	F-10	42	180	1	HDPE PE-80
11	F-10	F-11	11	180	0	HDPE PE-80
12	F-10	F-12	30	180	0	HDPE PE-80
	TOTAL	180 MM	495		6	

5000 500 mm



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TITLE :- WATER SUPPLY QTY DOMESTIC WATER LINE

S.NO	Line No		Length of Pipe	Dia of Pipe	Sluice valve	PIPE MATERIAL
	From	To	MTR.	MM	Each	
1	UGT	D-01	62	100	1	DI K-7
2	D-01	D-02	8	100	0	DI K-7
3	D-02	D-03	69	100	1	DI K-7
4	D-02	D-04	43	100	0	DI K-7
5	D-04	D-05	69	100	1	DI K-7
6	D-04	D-06	57	100	1	DI K-7
7	D-01	D-07	35	100	0	DI K-7
8	D-07	D-08	69	100	1	DI K-7
9	D-07	D-09	30	100	0	DI K-7
10	D-07	D-10	42	100	1	DI K-7
11	D-10	D-11	11	100	0	DI K-7
12	D-10	D-12	30	100	0	DI K-7
	TOTAL	100 MM	525		6	



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TITLE: FLUSHING WATER SUPPLY HYDRAULIC CHART FOR RING LINES

S.No	Line No		PLOTS (GENERAL)					Water Requirement for Non Residential Plots.					PLOTS (COMMERCIAL)					Water Requirement for Residential Plots.								
	From	To	Nos.	Population @ 18 persons / Plots	Water Requirement @ 172.5 ltr/head / day	Commercial Area in Acre	TYPE OF BUILDING	Basis of Water Requirement in LPD	OCF	Total Water Requirement in LPD	LPD	Gross Water Requirement (Load on Line)	Average Demand	Peak Demand @ 2.5 Times	Flow Rate	Length of Pipe	Head Loss Mtr	Total Head Loss	Velocity	Dia of Pipe	Road LVL at start	Hydraulic LVL at start	Head LVL at End	Hydraulic Head at End		
				18	60.38																					
1	STP	F-01	95	1710	103241	0.2007	COMMERCIAL + MB	2598	4392	6999	9410	119641	120	289	208	34	0.0061	0.20	0.688	80	195.05	240.05	45.00	200.05	239.85	39.80
2	F-01	F-02	56	1044	63032		PLOTS	0	4392	4392	0	67423	67	169	117	8	0.0021	0.02	0.388	80	200.05	239.85	39.80	200.05	239.83	39.78
3	F-02	F-03	20	360	21735		PLOTS	0	0	0	0	21735	22	54	38	69	0.0003	0.02	0.125	80	200.05	239.83	39.78	200.05	239.81	39.76
4	F-02	F-04	38	684	41297		PLOTS	0	4392	4392	0	45688	46	114	79	43	0.0010	0.04	0.283	80	200.05	239.83	39.78	200.05	239.78	39.74
5	F-04	F-05	20	360	21735		PLOTS	0	0	0	0	21735	22	54	38	69	0.0003	0.02	0.125	80	200.05	239.79	39.74	200.05	239.77	39.72
6	F-04	F-06	10	180	10868		PLOTS	0	4392	4392	0	15259	15	38	26	57	0.0001	0.01	0.088	80	200.05	239.79	39.74	200.05	239.76	39.73
7	F-01	F-07	37	666	40210	0.2007	COMMERCIAL + MB	2598	0	2598	928	43733	44	109	76	35	0.0009	0.03	0.262	80	200.05	239.85	39.80	200.05	239.81	39.76
8	F-07	F-08	20	360	21735		PLOTS	0	0	0	0	21735	22	54	38	69	0.0003	0.02	0.125	80	200.05	239.81	39.76	200.05	239.80	39.75
9	F-07	F-09	6	108	6521		PLOTS	0	0	0	0	6521	7	16	11	30	0.0000	0.00	0.038	80	200.05	239.81	39.76	200.05	239.81	39.76
10	F-07	F-10	11	198	11954	0.2007	COMMERCIAL + MB	2598	0	2598	926	15479	15	39	27	42	0.0001	0.01	0.089	80	200.05	239.81	39.76	200.05	239.81	39.76
11	F-10	F-11	4	72	4347		PLOTS	0	0	0	0	4347	4	11	8	11	0.0000	0.00	0.025	80	200.05	239.81	39.76	200.05	239.81	39.76
12	F-10	F-12	7	126	7607	0.2007	COMMERCIAL + MB	2598	0	2598	926	11131	11	28	19	30	0.0001	0.00	0.064	80	200.05	239.81	39.76	200.05	239.81	39.76



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PROJECT - AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 5.01875 ACRES (40 KANAL 3 MARLA) FALLING IN THE REVENUE ESTATE OF VILLAGE NAURANGPUR, SECTOR-8, TEHSIL - MANESAR DIST- GURUGRAM, HARYANA																						
TITLE :- DOMESTIC WATER SUPPLY HYDRAULIC CHART FOR RING LINES.																						
S.No	Line No	PLOTS (GENERAL)			Water Requirement for Non Residential Plots.				Gross Water Requirement (Load on Line)	Average Demand	Peak Demand @ 2.5 Times	Flow Rate	Length of Pipe	Head Loss Mtr/	Total Head Loss	Velocity	Dis. at Pipe	Road Lvl. at start	Hydraulic Lvl. at start	Head at Lvl. at End	Hydraulic Lvl. at End	
From	To	Nos.	Population @ 18 persons / Plot	Water Requirement @ 1172.5 Ltr/ head / day	Commercial Area in Acre	TYPE OF BUILDING	Basis of Water Requirement in Commercial LPD	OCF	Total Water Requirement in LPD	LPD	KLD	KLD	LPM	MTR.	MTR.	M/SEC	MM	MTR.	MTR.	MTR.	MTR.	
			18	112.13																		
1	UGT D-01	95	1710	191734	0.2007	COMMERCIAL+ MB	4825	8156	12980	204714	205	512	355	62	0.0063	0.39	0.754	100	195.05	240.05	200.05	239.66
2	D-01 D-02	58	1044	117059		PLOTS	0	8156	8156	125214	125	313	217	8	0.0025	0.02	0.461	100	200.05	239.66	200.05	239.64
3	D-02 D-03	20	360	40365		PLOTS	0	0	0	40365	40	101	70	69	0.0003	0.02	0.149	100	200.05	239.64	200.05	239.62
4	D-02 D-04	38	684	76694		PLOTS	0	8156	8156	84849	85	212	147	43	0.0012	0.05	0.312	100	200.05	239.64	200.05	239.59
5	D-04 D-05	20	360	40365		PLOTS	0	0	0	40365	40	101	70	69	0.0003	0.02	0.149	100	200.05	239.59	200.05	239.57
6	D-04 D-06	10	180	20183		PLOTS	0	8156	8156	28338	28	71	49	57	0.0002	0.01	0.104	100	200.05	239.59	200.05	239.58
D-01	D-07	37	666	74675	0.2007	COMMERCIAL+ MB	4825	0	4825	79500	79	199	138	35	0.0011	0.04	0.293	100	200.05	239.66	200.05	239.62
8	D-07 D-08	20	360	40365		PLOTS	0	0	0	40365	40	101	70	69	0.0003	0.02	0.149	100	200.05	239.62	200.05	239.60
9	D-07 D-09	6	108	12110		PLOTS	0	0	0	12110	12	30	21	30	0.0000	0.00	0.045	100	200.05	239.62	200.05	239.62
10	D-07 D-10	11	198	22201	0.2007	COMMERCIAL+ MB	4825	0	4825	27025	27	68	47	42	0.0001	0.01	0.100	100	200.05	239.62	200.05	239.62
11	D-10 D-11	4	72	8073		PLOTS	0	0	0	8073	8	20	14	11	0.0000	0.00	0.030	100	200.05	239.62	200.05	239.62
12	D-10 D-12	7	126	14128	0.2007	COMMERCIAL+ MB	4825	0	4825	18952	19	47	33	30	0.0001	0.00	0.070	100	200.05	239.62	200.05	239.61



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GARDEN IRRIGATION LINE				CITY WATER SUPPLY LINE		
SL NO.	DIA OF PIPE IN MM	LENGTH IN M	GARDEN HYDRANT	SL NO.	PIPE DIA IN MM	LENGTH IN M
1	25	20	4	1	100	170
2	32	4				
TOTAL				BOREWELL WATER SUPPLY LINE		
			4	SL NO.	PIPE DIA IN MM	LENGTH IN M
				1	100	15



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Discription	Type	Number	Dimension		Calculation	Area in	UNIT		
			Length	Height	Breadth	Sqm			
A	Triangle	1	2.57	X	5.50	1/2XLength X breadth	7.068	SQ.MT	
B	Rectangle	1	57.78	X	5.50	Length X breadth	317.790	SQ.MT	
C	Rectangle	1	23.49	X	5.50	Length X breadth	129.195	SQ.MT	
D	Rectangle	1	177.69	X	5.50	Length X breadth	977.295	SQ.MT	
E	Rectangle	3	73.20	X	5.50	Length X breadth	1207.800	SQ.MT	
Total Addition			335				2639	SQ.MT	
ADD 5 % FOR CURVED ROAD			17				132	SQ.MT	
Total Mettalic Road Area			351				2771	SQ.MT	



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