

SEWAGE TREATMENT PLANT
CAP. 115 KLD

U.G. TANK & PUMP HOUSE
DOMESTIC. 140 KL
FIRE. 200 KL
TOTAL CAP. 340 KL

PROJECT - ROCK ONE SQUARE AT VILLAGE NOOR NAGAR, GHAZIABAD (U.P.)

RUN OFF COEFFICIENT CALCULATION

Average Run off coefficient calculation

Breakup of areas

Group housing (Roof Top) area, A1	=	1295 sq.m.
Road area, A2	=	1943 sq.m.
Green area, A3	=	200 sq.m.
Parking Area, A4	=	179 sq.m.
Total catchment area, A	=	$A_1+A_2+A_3+A_4$
	=	3617 sq.m.

By taking run off coefficient for,

Group housing (Roof Top) area, C1	=	0.85
Road area, C2	=	0.80
Green area, C3	=	0.10
Parking Area, C4	=	0.30

Average run off coefficient, C	=	$(A_1XC_1+A_2XC_2+A_3XC_3+A_4XC_4)/A$
	=	0.77

LEGEND :

S. No.	SYMBOL	DESCRIPTION
1.	C.P.	CATCH PIT
2.	—□—	UNDER GROUND DRAIN

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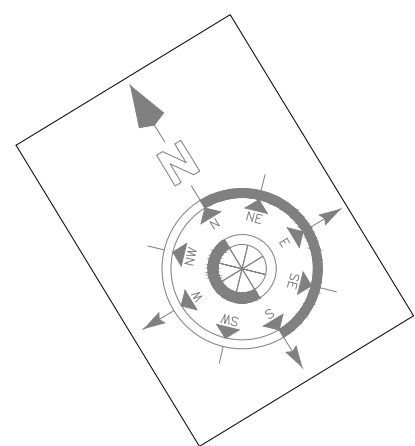
RAIN WATER HARVESTING CALCULATION

The capacity of recharge pit is designed to retain runoff for at least 15 minutes of rain fall of the peak intensity.

Peak Rainfall in one hour	=	about 40 mm / hr
Peak Rainfall in 15 minutes, R	=	40 / 4 mm
	=	10 mm = 0.01 m
Total catchment area, A	=	3617 sq.m.
Average run off coefficient, C	=	0.77
Hence total combined capacity of recharge pit required,	=	$A \times R \times C$
	=	28
Providing Recharge Pit of size	=	5 x 2 x 2 m. effective depth
Capacity of Recharge Pit of given size (Cu.m.), a	=	20
	SAY	= 20
Therefore no. of recharge pit required	=	$(A \times R \times C) / (a)$
	=	1.4 nos.
	Say,	= 2 nos.

Hence, 2 nos. sets of rechrg pit are required of following size :

Recharge pit	=	5 x 2 x 2 m. effective depth
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Project :
ROCK ONE SQUARE
AT VILLAGE NOOR NAGAR GHAZIABAD (U.P.)

Title :
LAYOUT PLAN

Subtitle :
EXTERNAL DRAINAGE SYSTEM

Drawing Released For :
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☐ ADVANCE COPY ☐ CONSTRUCTION

Drg. No : Riviera / Rera / ES -03

Scale : 1:150

Drawn By : MANU

Date : February 2026

Design By :

Ckd By :

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