



NOTE:-
 250 Ø SEWER LINE 1:190 -----
 150 Ø SEWER LINE 1:100 -----
 100 Ø SEWER LINE 1:150 -----

AREA CALCULATIONS:-
 TOTAL PLOT AREA = 12250.70 SQ.M.
 NUMBER OF DWELLING UNITS = 571
 TOTAL POPULATIONS = 2570 PERSONS

SEWERAGE:-
 TOTAL POPULATION = 2570
 AVG. DISCHARGE @ 135 LIT/HEAD/DAY
 = 2570 X 135 = 3,46,950 LIT.
 PEAK DISCHARGE = 3 X 3,46,950 = 10,40,850 LIT.
 SUBSOIL FILTRATION = 45 X 2570 = 1,15,650 LIT.
 TOTAL = 11,56,500 LIT.
 = 11.56 x 10⁻³ m³ /sec.

CAPACITY OF 250 MM Ø SEWER :-
 $S = 1:190, m = \frac{2\sqrt{d^2}}{8\sqrt{xd}}, d/4 = 0.25 \text{ m}, n = 0.015$
 $v = \frac{1}{n} \times m \times \frac{5}{2} = \frac{1}{0.015} \times (0.0625)^{2/3} \times \frac{1}{190}$
 = 0.76 m/sec
 $c = \frac{av}{8} \times d \times 0.76 = \frac{\pi \times 0.25^2}{8} \times 0.76$
 = 0.0373 cu.m/sec. > 0.0038 cu.m/sec.
 • 250 mm Ø SEWER PIPE IS O.K.

S.NO.	PARTICULARS	F.A.R. %	AREA IN SQM.
1	TOTAL PLOT AREA		12250.700
2	PERMISSIBLE F.A.R. FOR HOUSING	3.5	42877.450
3	FAR FOR GREEN	5%	2143.873
4	TOTAL FAR		45021.323
5	PERMISSIBLE 15% FOR FACILITY OF TOTAL F.A.R. AREA	15%	6753.198
6	PERMISSIBLE GROUND COVERAGE 12250.70 @ 35%	35%	4287.745
7	PROPOSED TOTAL GROUND COVERAGE	14.106%	2261.777
10	TOTAL F.A.R. ACHIEVED	3.672	44989.988
11	ACHIEVED AREA FOR FACILITY PROPOSED AREA IN 15% FACILITY AREA FOR HOUSING = FIRE STAIRCASE AREA + LIFT LOBBY AREA + MUMITY AREA + MACHINE ROOM AREA + LIFT WELLS + CLIPBOARD + GUARD ROOM + OVERHEAD TANK + S.T.P.		6383.423
12	PERMISSIBLE UNITS AS PER DENSITY = 2100 PPH	@	571.699
13	PROPOSED UNITS		547
14	PERMISSIBLE DENSITY		2100 PPH
15	PROPOSED DENSITY		2100 PPH
16	FOR 547 UNITS = 547 x 4.5 x 10000 / 12250.70		2009.273
17	PERMISSIBLE SHOPPING @ 1%		428.775
18	ACHIEVED SHOPPING F.A.R.		428.768
19	REQUIRED GREEN		
20	50% OF OPEN AREA		4994.462
21	PROPOSED GREEN		6030.425
22	REQUIRED NO. OF TREES		
23	1 TREE PER 100 SQM. OF OPEN AREA		100
24	NO. OF TREES PROPOSED		125
25	STILTS AREA		2738.36
26	TOTAL BASEMENT AREA		
27	A) UPPER BASEMENT AREA		9454.580
28	B) LOWER BASEMENT AREA		9454.580
29	TOTAL (A+B)		18909.160
30	PARKING REQUIRED @ 1 ECS / 80 SQM OF FAR AREA		563
31	PROPOSED PARKING		653
32	A) TOTAL UPPER BASEMENT PARKING AREA = 8675.343 @ 30 SQM PER ECS		289
33	B) TOTAL LOWER BASEMENT PARKING AREA = 8675.343 @ 30 SQM PER ECS		289
34	C) STILTS PARKING AREA = 500 @ 25 SQM PER ECS		20
35	D) OPEN PARKING AREA = 1118.580 @ 20 SQM PER ECS		55
36	TOTAL PARKING (A + B + C + D)		653
37	TOTAL BUILT-UP AREA		72846.931
38	A) TOTAL FAR AREA	44989.988	
39	B) TOTAL NON FAR AREA	21473.52	
40	C) TOTAL FACILITY AREA	6383.423	
41	TOTAL A+B+C	72846.931	

SUBMISSION DRAWING
 PROJECT:-
PROPOSED GROUP HOUSING FOR MS. NIWAS PROMOTERS PVT. LTD. AT GH-01/D, SEC.-10, GREATER NOIDA, U.P.

DRG. TITLE:-
DRAINAGE PLAN
 SCALE:- 1:100
 DRG. NO.: 04
 DATE:- 27/07/2016

ARCHITECTS:-
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