



PROJECT : NIMBUS THE EXPRESS PARK VIEW-II, PLOT NO- GH-03, SECTOR - CH-I, V. GREATER NODA, (U.P.)

DESIGN OF SEWER LINE

Population			
Total No. of Apartments	@ 4.5	=	1,968 Nos.
Total Permanent Population		=	8,856 Persons
Club & Floating Population		=	1,350 Persons
Staff		=	500 Persons
Total Water Demand			
Apartments	@ 135 lpcd	=	1,195,560 Liters
Club & Floating	@ 15 lpcd	=	20,250 Liters
Staff	@ 45 lpcd	=	22,500 Liters
Total Water Demand		=	1,238,310 Liters
By taking Interception factor	@ 90%	=	
Hence Total Sewage Load		=	1,114,479 Lit/day or 12.90 Lit/sec
By taking Peak Factor	@ 3	=	
Peak Sewage Generated (3 times of Avg. Flow)		=	38.70 Lit/sec
Sewer Pipe Design			
Final Sewage Pipe Dia Selected		=	350 mm
Slope (1 in ...)		=	400
Sewer Design as per Manning Formula			
$V = \frac{38 \times 10^{-3} \times D^{2/3} \times S^{1/2}}{n}$			
V =	n	0.90 m/sec	
D = Dia (mm)		350 mm	
S = Slope		400	
n = Manning Coefficient		0.011	
V = Velocity (m/sec)			
Actual Pipe Capacity (Q) =	$\frac{4}{\pi D^2} \times V$		
	0.086139	m ³ /sec	
Q =	86.14	Lit/sec	
Where -			
D = Dia (mm)		350 mm	
V = Velocity (m/sec)		0.90	
Q =		Pipe Capacity (at full flow)	
Q =		m ³ /sec	
Peak Sewage Generated (site peak discharge)		=	38.70 Lit/sec
Actual Pipe Capacity at 100% flow		=	86.14 Lit/sec
Site peak discharge is less than 50% of pipe capacity, hence 350 mm Pipe Dia is OK			

LEGEND :

S. No.	SYMBOL	DESCRIPTION
1.	M.H.	MANHOLE
2.		SEWER LINE
3.		BYPASS SEWER LINE
4.		BASEMENT LINE

Key Plan - EXPRESS PARK VIEW-II



NOTE: ALL DIMENSION & LEVELS ARE IN MM.

SERVICES CONSULTANT

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ARCHITECTS:

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ARCHITECT SIGNATURE :

CLIENT :
M/S. THE EXPRESS PARK VIEW-II,
313-315, VIKAS DEEP BUILDING, DIST.
CENTER, LAXMI NAGAR, DELHI-92
OWNER SIGNATURE :

SUBMISSION DRAWING

PROJECT :
THE EXPRESS PARK VIEW-II,
PLOT NO- GH-03, SECTOR - CH-I,
GREATER NODA, (U.P.)
DRAWING TITLE :

EXTERNAL SEWERAGE SYSTEM

JOB NO. : 2004
SCALE : 1 : 500
DATE : 10/07/2015
CHECKED BY :
DESIGN :
REVISION NO. :
APPROVED BY :

GREATER NODA AUTHORITY :-

ASSOCIATE ARCHITECT ARCHITECT CHIEF ARCHITECT