

LC-1845

SERVICE ESTIMATE

FOR

2.00 ACRES COMMERCIAL COLONY
VILLAGE – BADSHAPUR SECTOR-69
GURGAON MANESAR URBAN COMPLEX
GURUGRAM

LICENSE NO. 132 OF 2008 DATED 28.06.2008

SIRUR DEVELOPERS LLP

**ESTIMATE FOR BUILDING PLAN OF COMMERCIAL COLONY MEASURING 2.0 ACRES
AT VILLAGE BADHSHAHPUR, SECTOR-69, GURGAON, HARYANA BEING DEVELOPED
BY M/S SIRUR DEVELOPERS LLP (Formerly known as Sirur Developrs Pvt.Ltd),
LAJPAT NAGAR, NEW DELHI**

REPORT

Gurgaon is a leading financial and industrial city of India in the state of HARYANA, situated in the National Capital Region near the National Capital along the national highway No-8 at a distance of 32 kms south-west from New Delhi. Being in the national capital Region, the town has fast developing tendency and potential. Further, it has also started sharing the growing Industrial load of Delhi. In order to relieve the growing pressure of population in National Capital of Delhi, Haryana Urban Development Authority has already developed residential sector which are inhabited to an extent. Further to the increasing demand HSVP has planned to develop new sectors at outskirts of Gurgaon town. This report and estimate is for approved of building plan for commercial colony measuring 2.0 acres at Village Badhshahpur (License No. 132 of 2008 dated 28.06.2008) in Sector-69, Guragon being developed by Sirur Developers LLP (Formerly known as Sirur Developrs Pvt.Ltd), Lajpat Nagar, New Delhi.

WATER SUPPLY

The source of water supply shall be HSVP water supply connection. It has been proposed to construct underground tanks of capacity as per attached details, and at location for the purpose of domestic and fire protection. The proposed Colony has one tower, with 3 basements, one Ground and Mezzanine and four upper floors with underground tanks and with Centralized Sewage Treatment Plant. The under ground tank will be fed from HSVP supply, from there water will be pumped to O.H tanks on the roof.

DESIGN :

The scheme has been designed for population as given in attached sheet. The rate of water supply per head / day has been taken as 45 litres for office areas and 15 litres for Retail area, Cinema.

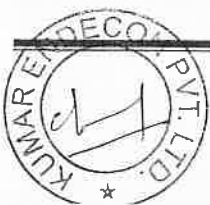
PUMPING EQUIPMENTS:

It has been proposed to install pumping set as described with standby of equal capacity. Standby electric power requirement is added to the main DG Sets in case of electricity failure and it shall be either provided separately or added to the capacity of main generator.

SEWERAGE SCHEME

Sewer by pass line from proposed STP of the development will be connecting to proposed HSVP Master Sewer. The sewerage system has been marked on the respective plans.

Sewer lines have been designed for 3.0 times average D.W.F in relation to water supply demand. It has been assumed that about 80% of the domestic water supply shall find its way into the proposed sewer. Sewer lines shall be laid to a gradient maintaining minimum 2.46 ft/sec (0.75 m/sec) self cleansing velocity. Sewer line up to 400 mm dia has been designed to run half full and above 400 mm dia has been designed to run three fourth full at peak flow. Necessary provision for laying S.W / RCC pipe sewer line, construction of required number of manholes etc. have been made in the estimate.



Necessary design statement for entire sewerage system has been prepared and attached with estimate.

STORM WATER DRAINAGE

We propose to lay under ground R.C.C pipe drains with required number of catch basins for disposal of RCP storm water which will be connected to the Proposed HSVP Master storm drain. The intensity of rain fall has been taken as 1/4" (6.25mm) per hour. Minimum dia of pipe has been taken as 400 mm dia.

SPECIFICATIONS

The work shall be carried out in accordance with the standard specifications of P.H as laid down by the Haryana Government / HSVP.

ROADS

Road estimate is prepared as per revised specifications adopted by HSVP.

STREET LIGHTING

Provision for streets lighting has been included.

HORTICULTURE

Estimates and details of plantation, landscaping, signage, etc., has also been included.

RATES

The estimate has been prepared based on the present market rates.

COST

The total cost of the scheme, including cost of all services works out to be ^{308.52} ~~252~~ lakhs (Rs. ~~Two hundred fifty two Lakhs Only~~) including 3% contingencies and @ 49% departmental charges, price escalation, unforeseen & admin charges etc.

For **SIRUR DEVELOPERS LLP**

For Sirur Developers LLP

Auth. Signature

Authorized signatory



I. DESIGN CALCULATION:
Total Water Demand (Domestic & Flushing)

PROJECT-PROPOSED BUILDING PLAN FOR COMMERCIAL AT SEC-69, GURUGRAM													
WATER CONSUMPTION SHEET													
S.NO.	DESCRIPTION	POPULATION/SQM.	AREA (SQM.)	TOTAL POPULATION	TOTAL WATER REQUIRED	FLUSH WATER REQUIRED				TOTAL GROSS WATER	WATER FLOW IN STP		
						LPD	LPD	LPD	LPD		FLUSHING	DOMESTIC	TOTAL WATER IN STP
WATER CONSUMPTION - RETAIL													
100% 85%													
1	VALENTANCE STAFF	L.S		50	45	20	1000	25	1250	2250	1000	1063	2063
2	RETAIL AREA (B1)												
A	FLOATING	3 SQM / PERSON X 90% OF TOTAL AREA	877	263	15	10	2631	5	1316	3947	2631	1118	3749
B	FIX	3 SQM / PERSON X 10% OF TOTAL AREA	877	29	45	20	584.67	25	731	1316	584.666667	621	1206
3	RETAIL AREAS (LEVEL-GR)												
A	FLOATING	3 SQM / PERSON X 90% OF TOTAL AREA	3621	1086	15	10	10863	5	5432	16295	10863	4617	15480
B	FIX	3 SQM / PERSON X 10% OF TOTAL AREA	3621	121	45	20	2414	25	3018	5432	2414	2565	4979
4	RETAIL AREAS (LEVEL-MEZZANINE)												
A	FLOATING	6 SQM / PERSON X 90% OF TOTAL AREA	1055	158	15	10	1583	5	791	2374	1583	673	2255
B	FIX	6 SQM / PERSON X 10% OF TOTAL AREA	1055	18	45	20	351.67	25	440	791	351.666667	374	725
5	RETAIL AREAS LEVEL-(1ST FLOOR)												
A	FLOATING	6 SQM / PERSON X 90% OF TOTAL AREA	3434	515	15	10	5151	5	2576	7727	5151	2189	7340
B	FIX	6 SQM / PERSON X 10% OF TOTAL AREA	3434	57	45	20	1144.7	25	1431	2576	1145	1216	2361
6	RETAIL AREAS LEVEL-(2nd FLOOR)												
A	FLOATING	6 SQM / PERSON X 90% OF TOTAL AREA	310	47	15	10	465	5	233	698	465	198	663
B	FIX	6 SQM / PERSON X 10% OF TOTAL AREA	310	5	45	20	103.33	25	129	233	103	110	213
7	INDOOR ENTERTAINMENT (2ND FLOOR)												
A	FLOATING	6 SQM/PERSON	600	100	15	10	1000	5	500	1500	1000	425	1425
B	FIX	10% OF POPULATION	600	10	45	20	200	25	250	450	200	213	413
8	RESTAURANT (2ND FLOOR)												
A	FLOATING	1.8 SQM / PERSON	300	167	70	15	2500	55	9167	11667	2500	7792	10292
B	FIX	10% OF POPULATION	300	17	45	20	333.33	25	417	750	333	354	688
9	FOOD COURT (2ND FLOOR)												
A	FLOATING	1.4 SQM / PERSON	750	536	35	10	5357	25	13393	18750	5357	11384	16741
B	FIX	10% OF POPULATION	750	54	45	20	1071.4	25	1339	2410.714	1071	1138	2210
10	MULTIPLEX (3RD FLOOR)												
A	FLOATING	TOTAL SEAT X 60% DIVERSITY X 1.2	1010 seat	727	15	10	7272	5	3636	10908	7272	3091	10363
B	FIX	4 PERSON / SCREEN	7 NOS	28	45	20	560	25	700	1260	560	595	1155
11	FOOD & MEAL	L.S							3000	3000		2550	2550
12	FLOOR MOPPING & BACKWASH								5000	5000			
TOTAL WATER						44585	365	54746	99330	44585	42284	86869	
SAYS IN KLD						45	55	99	45	42	87		

WATER STORAGE TANK (1.5 DAY S)	
UNDERGROUND STORAGE TANK	
FIRE WATER STORAGE TANK	200 KLD
RAW WATER STORAGE TANK	30 KLD
DOMESTIC WATER STORAGE TANK	30 KLD
FLUSHING WATER STORAGE TANK	45 KLD
UNDERGROUND STORAGE TANK	
FIRE WATER STORAGE TANK	20 KLD
DOMESTIC WATER STORAGE TANK	30 KLD
FLUSHING WATER STORAGE TANK	20 KLD
Total flow to sewer	86869 liters
	104242 liters
STP	110 KLD AS PER MOEF 20% extra



(i)	Total domestic and flushing requirement	=	90.17
	Total domestic water requirement	=	99.33 KLD
	Total flushing water requirement	=	59.0 54.74 KLD
	STP Capacity @ 85% of total water requirement	=	32.0 44.58 KLD
	PROVIDED	=	76.64 84.43 KLD
		=	110 KLD (20 %extra as per MOEF)
(ii)	Horticultural water requirement (Organized Green)		
a)	Total area 15% of total area of 6645.3 ie., 996.79 @ 25 KLD / Acre / day (from STP)	=	6.2 KLD
	SAY	=	6.50 KLD
(iii)	Fire Fighting requirement	=	(150+150) 300 KL
	TOTAL WATER DEMAND (i) & (ii) (Excluding fire fighting requirement)	=	90 + 7.5
	SAY	=	97.50 KLD
		=	100 KLD

II. Summary & Source of water

(i)	Domestic water (from HSVP)	=	59.0 52.699 KLD
(ii)	Flushing water (from STP)	=	32.0 41.369 KLD
(iii)	Horticulture (from STP)	=	6.500 KLD

III. Summary of UGT

(i)	Domestic water tank	=	(50+50) 100 KLD
(ii)	Fire fighting water tank	=	(150+150) 300 KLD
(iii)	Flushing & horticulture water tank (In STP)	=	50 KLD

Therefore it is proposed to construct under ground tank of Raw Water (25 x2) 50 KL Domestic treated water (25 x2) 50 KL and fire fighting tank 300 KL (150 x 2) nos as marked on site plan and flushing water 50 KL tank located in STP.

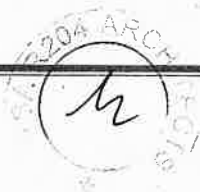
ESTIMATE FOR BUILDING PLAN OF COMMERCIAL COMPLEX @ GURGAON, HARYANA

(I) Total domestic water requirement

(A)	Total domestic water requirement	=	59 KL
(i)	Pumping @ 8 hours / day	=	122.916
	SAY	=	59 / 8 = 110.41
		=	110 lpm, 2 Nos (1 w+1 s)
		=	125

BOOSTING MACHINERY for DOMESTIC PUMP

(ii)	Gross working head	=	
(iii)	Suction lift	=	0.00 meter
(iv)	Friction loss	=	12.00 meter
(v)	Clear head required	=	30.35 meter
(vi)	Basement height	=	11.85 meter



TOTAL = 54.20 meter
 SAY = 60 M

(vi) HP of pump = $\frac{125}{110} \times 60 = 2.77$ HP
 SAY = 3.0
 2.5 HP

It is proposed to provide 2 Nos. pumping sets of ¹²⁵110 lpm @ 60 Mtr. Head, (1 Working + 1 Stand by) for Domestic Supply for south Block

(B) Total flushing water requirement = 32kl + 650kl for Hord.
 42 KL
 38.50

(i) Pumping @ 6 hours / day = 42 / 8 = 5.25 30.20 lpm
 SAY = 38.50 100 lpm, 2 Nos (1 w+1 s)

BOOSTING MACHINERY for FLUSHING PUMP

(ii) Gross working head
 (iii) Suction lift = 0.00 meter
 (iv) Friction loss = 12.00 meter
 (v) Clear head required = 30.35 meter
 (vi) Basement height = 11.85 meter

TOTAL = 54.2 meter
 SAY = 60.00M

(vi) HP of pump = $\frac{100 \times 60}{60 \times 75 \times 0.60} = 2.22$ HP,
 SAY = 2.5 HP

It is proposed to provide 2 Nos. pumping sets of 100 lpm @ 60 Mtr. Head, (1 Working + 1 Stand by) for Flushing Supply.

PUMPS FOR FIRE PROTECTION

S.NO	PARAMETERS	LOCATION	PUMP SETS		
			JOCKEY	MAIN	DIESEL
a)	Discharge in (LPM)	Pump room	180	2850	2850
b)	Head in (Meters)		85	85	85
c)	HP of Fire Pump		6.0	90	90
d)	Quantity in (Nos)		2	2	1



CAPACITY OF DG SETS.

S.NO	EQUIPMENT	QTY	HP	TOTAL HP
1	FIRE JOCKEY PUMPS	2	6.0	12.0
2	BOOSTER PUMPS (Domestic)	2(1+1)	3.0	3.0
3	BOOSTER PUMPS (Flushing)	2(1+1)	2.5	2.50 5.0
	TOTAL			19.50-22.0
				18.50 KW
				30.00 KVA

Add for lighting S.A.D

24.50 KVA

17.50 x 0.746 x 1.50

Say 30 KVA

It is proposed to add 30 KVA capacity for above said machinery to the main DG set.



PROPOSED COMMERCIAL COLONY AT GURGAON, HARYANA

Total Area	2.0	Acre
FINAL ABSTRACT OF COST		
S.No.	Descriptions	Amount in Rs. Lacs
SUB WORK NO. I	WATER SUPPLY SCHEME	122.32 51.45
SUB WORK NO. II	SEWERAGE SYSTEM	34.56 29.24
SUB WORK NO. III	STORM WATER DRINAGE	25.14 14.93
SUB WORK NO. IV	ROADS & FOOT PATHS	52.79 29.32
SUB WORK NO. V	STREET LIGHTING	7.67 3.00
SUB WORK NO. VI	PLANTATION & ROAD SIDE TRESS	1.58 3.26
SUB WORK NO. VII	MTC CHARGES & RESURFACING OF ROADS	64.46 32.82
TOTAL		308.52 164.00
ADD. CHARGES		
TOTAL		
Admin.		
TOTAL		
SAME		
Cost per acre	154.26	Lacs Per Acre
Cost	308.52	Lacs Per Acre

₹ 308.52 lacs
2.0 Acre

154.26 lacs
Per Acre
Gen.

For M/S SIRUR DEVELOPERS LLP

For Sirur Developers LLP

Auth. Signatory

AUTHORISED SIGNATORY

Executive Engineer
HSVP Division No. VI
Gurugram

Superintending Engineer
HSVP, Circle-II, Gurugram

Checked subject to comments
in forwarding letter No. 2.1.54.11
Dt. 17.12.16 and notes
attached with the estimate

Superintending Engineer (HQ)
for Chief Engineer 1 HSVP
Panchkula

Estimate
AUG 2018



PROPOSED COMMERCIAL COLONY AT GURGAON, HARYANA

Total Area	2.0	Acre
SUB WORK No. 1	Descriptions	Water Supply and Fire Fighting
Sub Head No. 01 02	Water Supply & Fire Fighting ^{Head works} Pumping Machinery	33,55,000.00 ₹. 62.75 lacs
Sub Head No. 03 04	Rising Main From HSVP, Water and water supply distribution lines (Domestic & Flushing)	₹ 7.75 lacs 4,52,000.00
Sub Head No. 04	Fire fighting Fire Rising Main	₹ 6.61 lacs 10,21,000.00
Sub Head No. 05	Water supply Irrigation System	₹ 2.60 lacs 3,16,650.00
TOTAL		<u>51,44,650.00</u>
SAY IN LAKHS		<u>51.45</u>

₹ 79.71 lacs

Add 3% Contingency & P.E. charges of 2.39 lacs

₹ 82.10 lacs

Add 49% depl't, price escalation
unforeseen, Admin. ₹ 40.22 lacs

₹ 122.32 lacs

C.O. to final abstract of cost



Sub-Work No. 1

Water Supply & Fire Fighting
Pumping Machinery

Sub-Head No. 02

SL. NO	Description	Unit	Qty	Rate	Amount
1	Provision for diesel engine generator set each for standby arrangements for Booster pump with following capacities complete in all respects.			(L.S)	3.00 lacs
(a)	30 KVA	Each	1	150000.00	1,50,000.00
2	Providing and installing pumping set for fire protection of following capacities including all accessories complete.				
(a)	180 lpm at 85m Head, 7.5 6.00 HP (Jockey Pump)	Each	2	200000.00	4,00,000.00
(b)	2850 lpm at 85m Head, 90 180 BHP (Diesel Pump)	Each	1	6.00 lacs 780000.00	6.00 lacs 7,80,000.00
(c)	2850 lpm at 85m Head, 90 180.0 HP (Electric Pump)	Each	(1+1) 2	750000.00	15,00,000.00
3	Providing and installing electricity driven pumping set for domestic and flushing water supply capable of delivering following capacities of water complete with motor, cable and other accessories complete.				
(a)	125 lpm at 60m Head, 2.5 3.0 HP (Dom. Pump)	Each	(1+1) 2	1.00 lacs 85000.00	2.00 lacs 1,70,000.00
(b)	100 lpm at 60m Head, 2.5 HP (Flush Pump)	Each	(1+1) 2	1.00 lacs 75000.00	2.00 lacs 1,50,000.00
4	Provision for chlorination plant complete.			1.00 lacs	1.00 lacs
(a)		Each	1	35000.00	35,000.00
5	Provision for making foundation and erection of pumping Machinery.			LS	2.00 lacs 60,000.00
6	Provision for pipes, valves and specials inside the pump chamber and boosting chamber.			LS	1.50 lacs 60,000.00
7	Provision for electric service connection including electrical fitting for boosting chamber etc. (lumpsum) including cost of transformor.			LS	2.50 lacs 50,000.00
8	Provision for carriage of material and other unforeseen items.			LS	1,50,000.00
	TOTAL COST				33,55,000.00

₹ 40.50 lacs



Sub -Work No. 1

Rising Main From HSVP and water supply distribution lines (Domestic & Flushing)

Sub -Head No. 03 & 04

SL.NO	Description	Unit	Qty	Rate	Amount
1	Providing , laying, jointing and testing of DI pipe lines including cost of excavation etc. complete in all respects.(HSVP LINE to UGT) (Rising main)				
(a)	100 mm dia HSVP Supply	Metre	100 mb	1250/- 900.00	1.25 lacs 90,000.00
2	Providing, fixing, jointing and testing of DI Pipe (Medium Class) conforming to IS:1239 with all fittings couplings, adapters including two or more coats of synthetic enamel paint over a coat of primer complete in all respect. (Water supply risers line to OHT from pump room / STP).				
(a)	25 mm	Metre	0	320.00	-0.00
(b)	32 mm	Metre	0	350.00	0.00
(c)	40 mm	Metre	0	645.00	0.00
(d)	50 mm	Metre	275	540.00	1,48,500.00
3	Providing and fixing Ball / Butterfly valves including cost of surface boxes and masonry chamber etc. completed in all respects.			1250/-	3.44 lacs
(a)	100 mm dia	Each	10	7500.00	15,000.00
(b)	80 mm dia	Each	2	6300.00	12,600.00
(c)	65 mm dia	Each	0	5700.00	0.00
(d)	50 mm dia	Each	4	4300.00	17,200.00
(e)	40 mm dia	Each	2	3850.00	7,700.00
(f)	32 mm dia	Each	0	3200.00	-0.00
3	Providing, fixing and testing of CI Non return valves (NRV) complete in all respects.			10000	0.20 lacs
(a)	100 mm dia	Each	2	8500.00	17,000.00
4	Providing and fixing indicating plates for valve and air Valves.				
(a)		Each	4	1000.00	4,000.00
5	Providing and fixing air release valve and scour valve.				
		Each	2	10000.00	20,000.00
6	Provision for carriage for materials and other unforeseen items .			LS	30,000.00
7	Provision for cutting of roads and making good to its original conditions.			LS	30,000.00
8	Provision for making connection with HSVP on Master road.			(L.S)	1.00 lacs
(a)	50 mm dia	Each	1		50,000.00
	TOTAL COST				7.75 lacs 4,52,000.00
S.No	Name of pipe line	Dia (MM)	Length		
1	HSVP line to UGT 1	100	85		
2	UGT 1 line to UGT 2	100	15		
3	P. Room to OHT-1(Dom)	100	100		
4	STP to OHT-1 (Flush)	100	175		



Sub -Work No. 1
Sub -Head No. 05

Fire fighting Fire Rising Main

SL. NO	Description	Unit	Qty	Rate	Amount
1	Providing, laying, jointing and testing M.S pipes conforming to IS : 1239 / 3589 (Heavy Class) including all fittings like anchor, fasteners, couplings, bends, elbows, tees, flanges, etc. lines including cost of anti corrosive bitumastic paint, excavation and refilling etc. complete in all respect.				1.65 / 05
(a)	100 mm	Metre	165	1000.00	3,13,500.00
(b)	100 mm 100 mm	Metre	50	2150.00	1,07,500.00 0.63
(c)	150 mm	Metre	150	2700.00	4,05,000.00
2	Providing & fixing valves including cost of surface boxes and masonry chambers etc. complete in all respects.			1575/-	2.36 / 05
(a)	150 mm	Each	2	14000.00	28,000.00 0.30 / 05
3	Providing and fixing indicating plates for valve and air valves.				
(a)	Each		2	1000.00	2,000.00
4	Providing and fixing external fire hydrants etc.				
(a)	Each		8	10000.00	80,000.00
5	Providing, fixing and testing of CI Non return valves (NRV) complete in all respects.				
(a)	150 mm dia	Each	2	12500.00	25,000.00
6	Provision for carriage for materials and other unforeseen items.			LS	35,000.00
7	Provision for cutting of roads and making good to its original conditions.			LS	25,000.00
	Total cost of Abstract of cost for Subwork No.1				10,21,000.00
	Material statement for Fire Line refer Annexure "C"				8-6.61 / 05



Sub -Work No. 1		Water supply Irrigation System			
Sub -Head No. 06					
SL .NO	Description	Unit	Qty	Rate	Amount
1	Providing, Laying, Jointing and testing uPVC pipe line of 6 kg/cm ² pressure rating Confirming to IS : 4985 including cost of excavation etc. complete in all respect. (Garden Hydrant Line)				
(a)	25 mm dia	Meter	0	320.00	0.00
(b)	32 mm dia	Meter	50	400.00	20,000.00
(c)	40 mm dia	Meter	135	600.00	81,000.00
(d)	50 mm dia	Meter	155	750.00	1,16,250.00
(E)	63 mm dia	Meter	0	900.00	0.00
2	Providing and fixing ball / butterfly valves including cost of surface boxes and masonry chambers etc. complete in all respect.				
(a)	25 mm dia	Each	12	750.00	9,000.00
(b)	50 mm dia	Each	2	5700.00	11,400.00
3	Providing and fixing air and scour valves including cost of masonry chambers complete in all respects.				
(a)	Each		2	1000.00	2,000.00
4	Providing and fixing indicating plates for sluice valve, air valve etc. complete.				
(a)	Each		2	1000.00	2,000.00
5	Provision for carriage of Material and other unforeseen Items.			LS	0.10 50,000.00
6	Provision for cutting of roads and making good to its original conditions.			LS	0.10 25,000.00
	TOTAL				3,16,650.00
	Material statement for GH Line refer Annexure-"D"				259850

Say 8 2.60 lacs



Sub -Work No. II		Sewerage System			
SL. NO	Description	Unit	Qty	Rate	Amount
1	Providing, jointing, cutting and testing "SW" pipe class "A" and lowering into trenches including cost of excavation, bed concrete, cost of manholes etc. complete in all respects.				
(a)	200 mm dia (S.W-PIPE)	Meter	200 m	1250/- 2100.00	2.50 lacs 4,20,000.00
2	Provision for MPC from STP outfall by pumping. (STP overflow) TO HSVP.				
(a)	150 dia DI PIPE	Meter	65	1575/- 1900.00	1.02 lacs 1,23,500.00
3	Provision for lighting and watching and temporary diversion of traffic.			LS	50,000.00
4	Provision for cutting of roads and making good to its original conditions.			LS	0.50 2,00,000.00
5	Provision for for timbering, sharing and carriage of Material and other unforeseen Items.			LS	1,00,000.00
6	Provision for making connection with HSVP Master sewer.			LS	50,000.00
7	Capacity of STP (110 KLD) upto tertiary level			(L.S)	15.00 lacs
8	Prv. for vent pipe as per P.H. reg. L (L.S)		110 KLD	18000.00	19,80,000.00
	TOTAL				29,23,500.00
	SAY IN LAKHS				29.24
	Material statement for Sewer Line refer Annexure-"E"				22.59 lacs

Add 3% Contingency & P.C. charges 0.68 lacs
 Rs 23.20 lacs

Add 49% defft, price escalation unforeseen, Admn 11.36 lacs
 Rs 34.56 lacs

c.o. to final abstract of cost



Sub -Work No. III		Storm Water System			
SL.NO	Description	Unit	Qty	Rate	Amount
1	Providing lowering, jointing, cutting R.C.C. NP-3 pipes and specials into trenches including cost of excavation, cost of manholes, ventilating chambers etc complete in all respects.				
(a)	400 mm dia	Metre	175	25000.00	4,37,500.00
2	Provision for Road gully chambers & connecting pipe. 300 mm dia			LS	1,00,000.00
3	Provision for rainwater harvesting arrangements @ Rs. 1.25 lacs per acre for approx 2 acres by providing recharging well.				
(a)	RWH Chamber	Acre	2.0	160000.00	3,20,000.00
4	Provision for carriage of Material			LS	50,000.00
5	Provision for watering and timbering drains & other unforeseen charges.			LS	1,00,000.00
6	Provision for lighting and watching and temporary diversion of traffic.			LS	1,00,000.00
7	Provision for cutting of roads and making good to its original conditions.			LS	1,00,000.00
8	Provision for making connection 1 Nos with HSVP line on Master road.			LS	50,000.00
9.	TOTAL				14,92,500.00
	SAY IN LAKHS			(2.5)	14.93
	Material statement for Storm Line refer Annexure-"F"				

₹ 4.38 lacs

2.50 lacs

5.00 lacs

2.50 lacs

₹ 16.38 lacs

Add 3% Contingency & Recharge 0.49 lacs

₹ 16.87 lacs

Add 49% deflt, price escalation
unforeseen, scheme charges

₹ 8.27 lacs

₹ 25.14 lacs

C. a. to final abstract of cost



Sub -Work No.IV			Roads and Footpaths		
Sl.No.	Road Width (In Mtr)	6.00	7.50	9.00	12.00
1	Total Length	310.0	0.0	0.0	0.0

(Area in mt²)

a)	Area of the road	6.00	M Width	1860.00 + 5% = 1953
b)	Area of the road	7.50	M Width	0.00
Total Road Area				1860.00

Total Road Length (Mtr)		310.00	(Refer Material statement)	
Total Road Area (Sq.m)		1860.00	Sq.m	
Add 5% for curves		15.50		
Total for Kerb & Channel		325.50	Mtr	
Parking =(5.0x2.5) = 12.5 m ² (Handicapped)		25	12.50	Sq.m
Grand Total		1872.50	Sq.m	
SAY		1928	1873.00	Sq.m

sq 2000 sqm

SL.NO	Description	Unit	Qty	Rate	Amount
1	Provision for leveling and earth filling : including providing good earth transportation from source to site, laying in layer, rolling & watering & compaction to the desired specification for road & bridge works Clause-305 for all leads and lift as per site conditions.				
a)	Block	Acre	2.0	150000.00	3,00,000.00
2	The necessary provision for construction of roads parking etc has been made in the estimate according to the HSVP norms the following specification has been proposed.				
(I)	Construction of road by providing GSB 300 mm as per MORT & H specifications conforming to clause 401 grading-II				
(II)	Providing, laying spreading & compacting graded stone aggregate as per Table 400-11 towet mix Macadem specification -406 MORT & H, IV, Revision. Including premixing the mixed materials with water to OMC in Mechanical mixer (Plug Mill) carriage of mixed material by tipper to site, laying in uniform layers using paver in sub base/base course, on a well prepared sub. base and compacting with power and vibratory roller to achieve desired density, including cost of material complete in all respects to the satisfaction of the engineer in charge. 25 mm stone aggregate				
(III)	Providing, laying and compaction of B.M (Bituminous Macadem) 50mm thick with grading 2 as per table No 500.10 and minimum 4.55 bitumen of 60/70 grade as per MORT & H specification for road & bridge works 2001 (Revision IV) clause 507.8 for all leads & lifts etc. complete in all respects to the satisfaction of the engineer in charge.				
a)	Sqm 25 mm thick B.C.		1873.00 2000	1200/- 1050.00	24.00 19,66,650.00



SL.NO	Description	Unit	Qty	Rate	Amount
3	Provision for kerbs and channels on both side of road of CC (1:2:4) including back filling etc. complete in all respects.				
(a)	Metre 325 x 2 = 650 front		488.25	600 850.00	3.90 / 4,15,012.50
4	Provision for making approach and pavement to building.			LS	2,00,000.00
5	Provision for Guide maps & road marking strips 7 post delineators.			LS	1,00,000.00
6	Provision for carriage of materials & other unforeseen items.			LS	50,000.00
	TOTAL				29,31,662.50
	SAY IN LAKHS				34.40 29.32
	Material statement for Road refer Annexure "G"				

Add 3% Contingency & P&C charges

₹ 1.03 lacs

₹ 35.43 lacs

Add 4% deflt, price escalation

₹ 17.36 lacs

unforeseen, Admin- charges

₹ 52.79 lacs

c.o. to final abstract of cost



Sub-Work No.V			Street Lighting		
SL.NO	Description	Unit	Qty	Rate	Amount
1	Supply, installation, testing and commissioning of street lighting GI poles, light fixtures, feeder pillars, cables & wires including cable and terminations and earthing station etc for ^{on roads} street lighting as per standard specification of HVPN. with CPL				
(a)	Acre		2.0	50000.00	500,000.00
	TOTAL		ACR	P. acre	500,000.00
	SAY IN LAKHS				2.00

Add 3% Contingency & PE charges

₹ 0.15 lacs

₹ 5.15 lacs

Add 49% depts, price escalation
unforeseen, Admin. charges

₹ 2.52 lacs

₹ 7.67 lacs

c.o. to final abstract of cost



Sub -Work No.VI		Plantation and road side trees			
SL.NO	Description	Unit	Qty	Rate	Amount
1	Development of lawn areas				
(a)	Trenching the ordinary soil up to dept of 60cm including removal and stacking serviceable material and disposing of by spreading and leveling within a lead of 50m and making up the trenches area to proper leads by filling with earth mixed with manure before and after flooding trench with water including cost of imported earth and manure.				
(b)	Rough dressing of turfed area				
(c)	Grassing including watering and maintenance of lawns free from weeds & fit for mowing in rows including hedges, shrubs & green belts (as per HSVP norms)				
(i)	Acres	996.79 Sem or 0.25 Acre	200	150000.00	3,00,000.00 0.38 lacs
2	Providing tress, guards and planting tress along road at 12.0 m internals for 6.0m, 7.50m, 9.0m and 12.0m wide road respectively.				
(a)	Total road length (Mtr)		318.00		
	Total No of Trees @ 12.0 mtr interval		25.83 27.08		
	SAY		26		
3	COST ANALYSIS OF PLANTING TREES				
a)	Excavation	\$ 60.00	50.00		
b)	Manure	\$ 90.00	60.00		
c)	Tree Plants	\$ 150.00	200.00		
d)	Tree Guards	\$ 1000.00	500.00		
d)	Total cost per Tree	\$ 1300.00	810.00		0.65 lacs
(a)	Total.No of Trees		26	1300.00	26,000.00
	TOTAL		50	1300	3,26,000.00
	SAY IN LAKHS				3.26

Add 3% Contingency & PE charges

\$ 1.03 lacs

\$ 0.03 lacs

\$ 1.06 lacs

Add 49% depl't, price escalation
unforseen, Admin charges

\$ 0.52 lacs

\$ 1.58 lacs

c.o. to final abstract of cost



Sub -Work No. VII		MTC & Resurfacing of Roads			
SL.NO	Description	Unit	Qty	Rate	Amount
1	Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, street light and horticulture etc. complete including operation & establishments charged as per HSVP norms after completion & resurfacing of roads after 5 years			7.50 /as	15.00 /as
(a)	Acres		2.0 Acres	100000.00 P. ACSE	8,00,000.00
2	Resurfacing of roads after 1st 5 Yrs, 50mm thick B.M & 25 mm thick premier carpet.		2000		12.00 /as
(a)	Sqm		1873.00	600.00	11,23,800.00
3	Provision for resurfacing of roads after 5 yrs. by providing 25mm thick premier carpet.			P. 51m 750	15.00 /as
(a)	Sqm		1873.00	725.00	13,57,925.00
			2000	P. 51m	
	TOTAL				32,81,725.00
	SAY IN LAKHS				42.00 32.82 /as

Add 3% Contingency & PE. charges 1.26 /as

₹ 43.26 /as

Add 49% deplt, price escalation

unforseen, Admin. charges ₹ 21.20 /as

₹ 64.46 /as

e.o. to final abstract of cost



PROJECT:- PROPOSED COMMERCIAL COLONY AT GURGAON, HARYANA

DESIGN CALCULATION for DOMESTIC WATER

S. NO	Reference line	Name of Tower	Pop. (In Nos)	Water Req. @ 25/5 LPD for Main DU	Total Requir. (In LPD)	Other Requir. (In LPD)	Total Water Requir. (In LPD)	Peak Req. @ 3.0 times of Water Requir. (In LPD)	Total Water Flow (In LPM)	Dia of Riser pipe (In MM)	Vel. m/sec	Length of Line (In Mtr)	Slope of pipe (In m/m)	Actual Head Loss of line (In Mtr)	Fitting Loss @ 10% (In Mtr)	Total Head Loss (In Mtr)	Cumun Head loss (In Mtr)	GR. I.VL. (In Mtr)	Tank height from GR. I.VL. (In Mtr)	Terminal Head (In Mtr)	Terminal Head (In Mtr)
<i>Part - I</i>																					
1	D1-To Shaft		25, 5 & 35, 20	52699.00	0.00	52699.00	158097.00	146.39	60	1.243	58	0.067	3.861	0.386	4.247	4.247	226.690	37.675	42.675	38.428	
2	Shaft to - Pump room		25, 5 & 35, 20	52699.00	0.00	52699.00	158097.00	146.39	60	1.243	42	0.067	2.796	0.280	3.075	3.075	226.690	38.850	43.850	40.775	



PROJECT:- COMMERCIAL COLONY AT GURGAON, HARYANA											
MATERIAL STATEMENT for DOMESTIC WATER											
S. No.	Reference Line	Dia of pipe (mm)	Length of Pipe (m)	Length of line In (m) G.I Pipe							
				20mm	32mm	40mm	50mm	65mm	80mm	100mm	150mm
Part - I											
1	D1-To Shaft	150	58	0	0	0	58	0	0	58	0
2	Shaft to -Pump room	150	42	0	0	0	42	0	0	42	0
	TOTAL		100.0	0.0	0.0	0.0	100.0	0.0	0.0	100	0.0
	SAY				0.0	0.0	100.0			100 ML	

Grand total
100 mm

Dum + R/wing
100 mm + 175 mm = 275 ML



PROJECT:- PROPOSED COMMERCIAL COMPLEX AT GURGAON, HARYANA

DESIGN CALCULATION for FLUSHING WATER

S. NO	Reference line	Name of Tower	Pop. (In Nos)	Water Req. @ 20 / 10 LPCD for Main DU	Total Requir. (In LPD)	Other Requir. (In LPD)	Total Water Requir. (In LPD)	Peak Req. @ 3.0 times of Water Requir. (In LPD)	Total Water Flow (In LPM)	Dia of Riser pipe (In MM)	Vel. m/sec	Length of Line (In Mtr)	Slope of pipe (In m/m)	Actual Head Loss of line (In Mtr)	Fitting Loss @ 10% (In Mtr)	Total Head Loss (In Mtr)	Cumun Head loss (In Mtr)	GR. L.VL (In Mtr)	Tank height from GR. L.VL. (In Mtr)	Terminal Head U. End (In Mtr)	L. End (In Mtr)
<i>Part - I</i>																					
1	E1-Shaft			20,10 & 15	41369.00	0.00	41369.00	124107.00	114.914	80	0.976	60	0.043	2.551	0.255	2.806	2.806	226.690	37.675	42.675	39.869
2	Shaft-STP			20,10 & 15	41369.00	0.00	41369.00	124107.00	114.914	80	0.976	115	0.043	4.890	0.489	5.379	5.379	226.690	38.850	43.850	38.471

175 mm



PROJECT : COMMERCIAL COLONY AT GURGAON, HARYANA

MATERIAL STATEMENT for FLUSHING WATER

S. No.	Reference Line	Dia of pipe (mm)	Length of Pipe (m)	Length of line In (m) G.I Pipe				
				25mm	32mm	40mm	50mm	65mm
1	F1-shaft	80	60	0	0	0	60	0
2	shaft-STP	80	115	0	0	0	115	0
	TOTAL		175.0	0.0	0.0	0.0	175.0	0.0
	SAY		175.0	0.0	0.0	0.0	175.0	0.0



PROJECT : COMMERCIAL COLONY AT GURGAON, HARYANA

MATERIAL STATEMENT for FIRE FIGHTING

S. No.	ReferenceLine	F.HYDRANTS	Dia of Pipe	Pipe Length (m)	Length of line In mtr. (MS Pipe)		
					80mm	100mm	150 mm
		EFH					
1	F-0 to F-1	No.1 TO 2	80	45	45	0	0
2	F-1 to F-3	No.2 TO Ring	100	4	0	4	0
3	F-2 to F-3	No.3 to Ring	80	21	21	0	0
4	F-3 to F-4	Main line	150	35	0	0	35
5	F-7 to F-6	No.4 TO Ring	80	14	14	0	0
6	F-8 to F-6	No.5 to Ring	80	30	30	0	0
7	F-6 to F-5	Main line	100	17	0	17	0
8	F-10 to F-9	No.6 Ring	80	10	10	0	0
9	F-11 to F-12	No.7 to 8	80	45	45	0	0
10	F-12 to F-9	No.8 to Ring	100	26	0	26	0
11	F-9 to F-5	Main line	150	73	0	0	73
12	F-5 to F-4	Main line	150	27	0	0	27
13	F-4 to PUMP ROOM		150	10	0	0	10
	TOTAL			357.0	165.0	47.0	145.0
	SAY			365.0	165.0	50.0	150.0

mt mt ml



PROJECT:- COMMERCIAL COLONY AT GURGAON, HARYANA

MATERIAL STATEMENT for GARDEN HYDRANT

S. No.	Reference Line	G.HYDRANTS	Pipe Length (m)	Length of line In mtr. (uPVC pipe of 6.0 kg/cm ²)				
				25mm	32mm	40mm	50 mm	63 mm
1	G-1 to G-2	GH No.1 TO 2	22	0	22	0	0	0
2	G-2 to G-3	No.2 TO 3	26	0	0	26	0	0
3	G-3 to G-4	No.3 TO 4	28	0	0	28	0	0
4	G-4 to G-5	No.4 TO 5	30	0	0	30	0	0
5	G-5 to G-6	No.5 TO 6	30	0	0	0	30	0
6	G-6 to G-7	No.6 TO 7	41	0	0	0	41	0
7	G7 to G-13	Main line	22	0	0	0	22	0
8	G12 to G-11	No.12 to 11	26	0	26	0	0	0
9	G-11 to G-10	No.11 to No.10	26	0	0	26	0	0
10	G-10 to G-9	No.10 to No.9	23	0	0	23	0	0
11	G-9 to G-8	No.9 to No.8	41	0	0	0	41	0
12	G-8 to G-13	No.8 to Ring	3	0	0	0	3	0
13	G-13 to STP	TO TANK	15	0	0	0	15	0
	TOTAL		333.0	0.0	48.0	133.0	152.0	0.0
	SAY		340.0	0.0	50.0	135.0	155.0	0.0



PROJECT:- PROPOSED COMMERCIAL COLONY AT GURGAON, HARYANA

DESIGN CALCULATION for SEWERAGE SYSTEM

S.No	Manhole	Average Discharge (Self)	Prev. Disch.	Ave. Disch.	Peak flow 3.0 times of Ave. Discharge	Ground water Infiltration @ 5000 ltr/km/day	TOTAL Disch.	FINAL Disch.	Length of line	Dia of Pipe	Slope of 1 IN	Total Fall	Vel.	Disch. Cap. of Pipe	Ground Elevation		Invert Elevation		Ave. Depth	Remarks
		(in kld)	(in kld)	(in kld)	(in kld)	(in kld)	(in kld)	(in kld)	(in lps)	(in m)	(in m)	(in m)	(in m/sec)	(in lps)	Upper End	Lower End	Upper End	Lower End	(in m)	
1	S1-S2	9.00	0.00	9.00	27.00	0.175	27.18	0.31	35	200	130	0.27	0.99	15.59	226.690	226.690	225.490	225.221	1.935	
2	S2-S3	8.50	9.00	17.50	52.50	0.140	52.64	0.61	28	200	130	0.22	0.99	15.59	226.690	226.690	225.221	225.005	2.312	
3	S3-S4	9.50	17.50	27.00	81.00	0.180	81.18	0.94	36	200	130	0.28	0.99	15.59	226.690	226.690	225.005	224.728	2.665	
4	S4-S5	18.00	27.00	45.00	135.00	0.225	135.23	1.57	45	200	130	0.35	0.99	15.59	226.690	226.690	224.728	224.382	3.115	
5	S5-S6	14.50	45.00	59.50	178.50	0.085	178.59	2.07	17	200	180	0.09	0.84	13.25	226.690	226.690	224.382	224.288	3.509	
6	S6-S7	12.50	59.50	72.00	216.00	0.055	216.06	2.50	11	200	180	0.06	0.84	13.25	226.690	226.690	224.288	224.227	3.634	
7	S7-S8	18.50	72.00	90.50	271.50	0.015	271.52	3.14	3	200	180	0.02	0.84	13.25	226.690	226.690	224.227	224.210	3.703	
8	S8-STP		90.50	90.50	271.50	0.090	271.59	3.14	18	200	180	0.10	0.84	13.25	226.690	226.690	224.210	224.110	3.770	
9	BY Pass Line From STP		0.00			0.00		0.00	65	100	0.00	0.00	0.00	0.00	226.690	226.690	0.000	0.000	340.035	



PROJECT:- COMMERCIAL COLONY AT GURGAON, HARYANA						
MATERIAL STATEMENT for SEWERAGE SYSTEM						
S.No	SW Line	Dia of Pipe (mm)	Length (mm)	Length of line In mtr. (SW Pipe)		
				150	200	100
1	S1-S2	200	35	0	35	0
2	S2-S3	200	28	0	28	0
3	S3-S4	200	36	0	36	0
4	S4-S5	200	45	0	45	0
5	S5-S6	200	17	0	17	0
6	S6-S7	200	11	0	11	0
7	S7-S8	200	3	0	3	0
8	S8-STP	200	18	0	18	0
9	BY Pass Line From STP	100 150 mm	65	0	0	0
TOTAL			193.0	0.0	193.0	0.0
SAY			200.0	0.0	200.0	0.0

150 mm ϕ DI PIPE = 65 m

200 mm ϕ S.W. PIPE = 193 m say 200 m



DESIGN CALCULATION for STORM WATER DRAINAGE SYSTEM

Sl. NO	Reference Line	AREA SERVED (IN sqmt)			Runoff Assuming @ 25 mm Per Hour	TOTAL Discharge	FINAL Discharge (q)	Dia of Pipe	Slope	Velocity	Carrying Capacity Of Pipe (Q)	Length Of Line	FALL	GROUND LEVEL		INVERT		LEVEL		DEPTH OF LINE		Ave. Depth	Remark	
		Self	Prev.	Total										IN m ³ /hr	IN m ³ /min	IN LPS	IN MM	IN M	ft/sec	m/sec	IN LPS			IN M
1	SD1-SD-2	1950.00	0.00	1950.00	31.688	0.528	8.802	400	350	2.91	0.89	111.248	25	0.071	226.690	226.690	225.490	225.419	225.419	225.419	1.20	1.27	1.236	
2	SD2-SD-3	1020.00	1950.00	2970.00	48.263	0.804	13.406	400	350	2.91	0.89	111.248	28	0.080	226.690	226.690	225.419	225.339	225.339	225.339	1.27	1.35	1.311	
3	SD3-SD-4	920.00	2970.00	3890.00	63.213	1.054	17.559	400	350	2.91	0.89	111.248	38	0.109	226.690	226.690	225.339	225.230	225.230	225.230	1.35	1.46	1.406	
4	SD4-SD-5	840.00	3890.00	4730.00	76.863	1.281	21.351	400	350	2.91	0.89	111.248	45	0.129	226.690	226.690	225.230	225.101	225.101	225.101	1.46	1.59	1.524	
5	SD6-SD-5	1825.00	0.00	1825.00	29.656	0.494	8.238	400	350	2.91	0.89	111.248	27	0.077	226.690	226.690	225.490	225.413	225.413	225.413	1.20	1.28	1.239	
6	SD5-DRAIN	90.00	6555.00	6645.00	107.981	1.800	29.995	400	450	2.56	0.78	98.111	10	0.022	226.690	226.690	225.101	225.079	225.079	225.079	1.59	1.61	1.600	



PROJECT:- COMMERCIAL COLONY AT GURGAON, HARYANA						
MATERIAL STATEMENT for STORM WATER DRAINAGE SYSTEM						
S.No	Reference Line	Dia of Pipe	Length	Length of line In mtr. (RCC Pipe)		
				300	400 mm	500mm
		(mm)	(mm)			
1	SD1-SD-2	400	25	0	25	0
2	SD2-SD-3	400	28	0	28	0
3	SD3-SD-4	400	38	0	38	0
4	SD4-SD-5	400	45	0	45	0
5	SD6-SD-5	400	27	0	27	0
6	SD5-DRAIN	400	10	0	10	0
TOTAL			173.0	0.0	173.0	0.0
SAY			175.0	0.0	175.0	0.0



PROPOSED COMMERCIAL COLONY AT GURGAON, HARYANA						
MATERIAL STATEMENT for ROAD						
S. No.	Road Name (m)	Road Length (m)	6.0 M WIDE	7.50 M WIDE	9.00 M WIDE	12.0 M WIDE
1	R1 to R2	46	46	0	0	0
2	R2 to R3	106	106	0	0	0
3	R3 to R4	45	45	0	0	0
4	R4 to R1	110	110	0	0	0
Total Length		307.0	307.0	0.0	0.0	0.0
SAY		310.0	310.0	0.0	0.0	0.0
Total Area		1860.00	1860.00	0.00	0.00	0.00

For Sirur Developers LLP

Auth. Signatory

