M/s YASHVI HOMES PVT. LTD. DDJAY PLOTTING IN VILLAGE & TEHSIL – FARUKHNAGAR, SECTOR - 3, FARUKHNAGAR, GURUGRAM, HARYANA.

EXTERNAL SERVICE ESTIMATE

ARCHITECT

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PROJECTS

M/S YASHVI HOMES PVT. LTD. Affordable Plotted Colony Project Under Deen Dayal Jan Awas Yojna-2016 Vide Licence No. 161 of 2023 dated 11 / 08 / 2023 on area measuring 12.28750 Acres at Village & Tehsil – Farrukhnagar, Sector - 3, Farrukhnagar, Distt – Gurugram, Haryana

SUBJECTS

PROJECT REPORT / ESTIMATES FOR PROVIDING EXTERNAL SERVICES (WATER SUPPLY, FIRE, SEWERAGE & STORM WATER DRAINAGE, GARDEN HYDRANT & STREET LIGHTING)

Farrukhnagar is a small town and municipality in farrukhnagar tehsil of gurugram district in the indian state of haryana. It is situated 21 kilometres (13 mi) from gurgaon and shares its border with jhajjar district. It is part of the ahirwal region.

It was established in 1732 by faujdar khan, the first nawab of farrukhnagar and a governor of the mughal emperor farrukhsiyar. Farrukhnagar flourished due to its salt trade until the late 19th century, and was abandoned in the early 20th century, during the british raj. Today monuments such as sheesh mahal, baoli and jama masjid built by faujdar khan are popular visitor attractions. The town is connected to garhi harsaru, south of gurugram, by the railway line. The sultanpur national park is situated in farrukhnagar tehsil on the road to gurgaon. Pataudi palace, 12 kilometres (7.5 mi) from the town, is the nearest palace.

Farrukhnagar became a municipality in 1967. Efforts to revive the salt mining by the government failed, after a massive flood in 1978 brought down the saline level in the wells.

The area saw steep rise in land prices starting from the 1990s onwards due to rapid urbanisation and industrialisation in the Gurgaon district, as a result small section large landowners amassed great wealth in short period, which also encouraged public splurging. The population of Farrukhnagar municipality and town was 13,513 in As of 2011 census. The population of the entire Farrukhnagar tehsil was 113,493 in As of 2011 census.

Water Supply

1. Source

The source of water supply in this area is tube well as underground water is sweet and fit for human consumption, moreover, the water is available at reasonable depth, and the average yield of Tube wells, with approximate 60 to 80-meter depth will be about 15 KL per hour. 2 No. Tube wells are required to meet with the daily requirement of water till to city supply made available.

2. Tube wells

The proposed tube wells shall be 510 mm bore drilled with reverse rotary rig and installed with 80 mm i/d housing pipe and 50 mm i/d slotted tube as strainer. The provision taken in the estimate under the sub-head tube well includes the cost of pea gravel packing. The lift of tube well is limited due to incrustation and rusting of strainer. Therefore, out of these tube wells the drilling of tube wells will be done

for 2 Nos. tube wells and further tube wells will be drilled as the demand develops till the scheme is handed over the department.

3. Pump Chambers and Pumping Machinery

It is proposed to occupy each tube well with an electricity driven pumping set-submersible pump capable of delivering about 15000 Liters per hour. It has been proposed to install pumping set as described with standby of equal capacity.

4. Under Ground Storage

Underground tank 60% storage of one day storage of total daily demand of water supply have been proposed at one location in the scheme. The same shall be fed by Tube well at present and shall be later augmented through HSVP mains canal supply at later date.

6. Distribution System

The distribution system for this development is has been designed for 172.5 Liters per person per day @3.0 times the average rate of flow on "Hazen Williams" formula with C-100. Necessary provision for laying D.I. pipes only conforming to relevant IS standards along with valves and specials has been made in this Estimate.

7. Rising Main

Rising mains from HSVP water main on sector road to water works have also been designed and provision for D.I. pipe line has been made in this estimate

8. Sewerage

The internal sewer lines have also been designed for three times average D.W.F in relation to water supply demand. It has been assumed that about 90 % of the domestic water supply shall find its way into the proposed sewer. All the SW pipes, sewer has been designed to run half/full/three fourth full.

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

Necessary provision for laying SW pipes sewer lines and manholes etc. has been made in this estimate.

9. Storm water drainage

It has been proposed to lay underground RCC-NP3 pipe drains on the road widths 9.0 M. to lay underground drains. The intensity of rain fall has been taken as ¼th inch per hour. The internal storm water drains will be jointed into external storm water drainage to be laid by HSVP on sector dividing roads. Necessary provision for curves and channels has been made in the estimate. The estimate for these closed drains has been included as sub work no. III A minimum size of 400 mm RCC storm water line will be provided.

10. Specifications

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

11. Roads

Cost of road has been taken in the estimate

12. Street Lighting

Provision for street lighting on surrounding area has been made.

13. Horticulture

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

14. Specifications

The work will be carried out in accordance with the standard specifications of PH as laid down by the HSVP Haryana Government.

15. Rates

The estimate has been based on the present market rates and probable escalation in prices.

16. Cost

The total cost of the Scheme including cost of all services works out to **Rs. 748.47 lakhs** including 3% contingencies and 49% departmental charges, unfrozen, price escalation and admin charges.

-:-

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT: FINAL ABSTRACT OF COST

		Amount in Rs. Lacs
SUB WORK NO. I	WATER SUPPLY SCHEME	185.42
SUB WORK NO. II	SEWERAGE SCHEME	147.92
SUB WORK NO.III	STORM WATER DRAINAGE	77.81
SUB WORK NO.IV	ROADS & FOOT PATHS	203.30
SUB WORK NO.V	STREET LIGHTING	47.14
SUB WORK NO. VI	HORTICULTURE (PLANTATION & ROAD SIDE TREES)	5.34
SUB WORK NO. VII	MTC CHARGES INCL RESURFACING OF ROADS AFTER 1st 5 YEARS AND 2nd YEAR OF MTC AS/HUDA	81.53
	TOTAL	748.47

TOTAL :	(Rupees Seven Crores Fourty Eight Lacs and Four Thousand Seven Hundred Only)/-
Cost Per Acre = 748.47 Lakh / 12.28750 acres = 60.913 Lakh per acre.	

AUTHORISED SIGNATORY

SUB WORK No. 1 (Abstract of Cost)		**Water Supply & Fire Fighting**	
1	Sub Head No. 01	Head Works	6275000.00
2	Sub Head No. 02	Pumping Machinery	1720000.00
3	Sub Head No. 03	Rising Main	415500.00
4	Sub Head No. 04	Distribution System	3671625.00
		TOTAL	**12082125.00**
		Add 3% contingencies & PH Charges	362463.75
		TOTAL	**12444588.75**
		Add 49% Departmental charges + Price escalation	**6097848.49**
		TOTAL	**18542437.24**
		Say in lacs	**185.42**

Sub Work No. 1 **Water Supply**

Sub Head No. 01 **Head Works** ***Amount in Rs.***

1. Boring and installing tube well with reverse Rotary Rig Complete with pipe and strainer to a depth of about 120 meter in all respect **2 Nos.** for For overall **12.28750** Acre Site Area Total **–2 No.** @ Rs. 10,00,000/- each.	Rs.20,00,000.00
2. Provision for rising mains, connecting tube wells with UGT Tanks including Valve & NRV a) 100 mm dia **– 160 m** @ Rs. 1250/-	Rs.2,00,000.00
3. Providing Tube well Submersible Pumps : Capacity 15000 LPH at 88 M head , **2 Nos.** @ Rs. 200,000/-each	Rs.4,00,000.00
4. Construction of UG Tanks **450 KL** @ Rs. 3500/KL	Rs.15,75,000.00
5. Provision of Construction of Tube well Chambers of Size 1.5X1.5X1.5 m tube well - 2 **Nos** @ Rs.100000 each	Rs.2,00,000.00
6. Provision for Carriage of material & other unforeseen items	Rs.1,00,000.00
7. Provision for footpath, lawn, boundary wall around tubewell & waterworks (L.S)	Rs.3,00,000.00
8. Construction of boosting chamber (L.S.)	Rs.5,00,000.00
9. Provision for staff offices & for maintenance staff	Rs.10,00,000.00
TOTAL (C/O To Abstract of Cost for Sub work No.1)	**Rs.62,75,000.00**

Sub Work No. 1	**Water Supply**	*Amount in Rs.*
Sub Head No. 02	**Pumping Machinery**	

1A. Providing and installing electricity driven Domestic Transfer pumping Set capable of delivering about 600 LPM of water against a total Head of 35 M complete with motor and other accessories including Valve (7.20 HP) & NRV. **2 Nos.** @ 110000/- Each	Rs.2,20,000.00
1B. Providing and installing electricity driven Flushing & Garden pumping Set capable of delivering about 400 LPM of water against a total Head of 35 M complete with motor and other accessories including Valve (5.20 HP) & NRV. **2 Nos.** @ 150000/- Each	Rs.3,00,000.00
2. Provision for making foundations and erection of Pumping Machinery: - Lump Sum	Rs.1,00,000.00
3. Provision for electric service connection including electrical Fittings for tube-well and boosting chamber etc. - Lump Sum	Rs.2,50,000.00
4. Provision for pipes, valves and specials inside boosting chamber. (L.S)	Rs.2,00,000.00
5. Provision for carriage of material	Rs.50,000.00
6. Provision for formation of plant etc	Rs.1,00,000.00
7. Provision for diesel engine generator set each for stand by arrangement for tubewell is boosting pump craft etc.(35 kVA)	Rs.5,00,000.00
TOTAL	**Rs.17,20,000.00**

(C/O To Abstract of Cost for Sub work No.1)

Sub-Work No. 1 **Water Supply**

Sub Head No. 03 **Rising Main from HSVP**

		Amount in Rs.
1. Providing , laying , jointing and testing pipe lines including Cost of excavation etc. complete in all respects. 100 mm dia. G.I. Pipe **142 m** @ Rs. 1250/M-		Rs.1,77,500.00
2. Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respects. 100 mm i/d 1 No. @ Rs. 12000/-		Rs.12,000.00
3. Providing and fixing indicating plates for sluice valve and air Valves. - 1 @ Rs. 1000/- each		Rs.1,000.00
4. Provision for carriage for materials (Lump Sum)		Rs.25,000.00
5. Making Water Supply Connection,including road cut with HSVP master line.		Rs.1,00,000.00
6. Provision for roads cut and make up good condition		Rs.1,00,000.00
	TOTAL	**Rs.4,15,500.00**

Sub Work No. 1 **Water Supply**

Water Distribution System (Domestic And Flushing)

Sub-Head No. 04

	Amount in Rs.
1. Providing , Laying , jointing and testing D.I pipe line including Fittings, valves, cost of excavation etc. complete in all respect.	
D.I Pipe 100 mm , **2405 M @ Rs.1250/-** per meter	Rs.30,06,250.00
D.I Pipe 150 mm , **25 M @ Rs.1575/-** per meter	Rs.39,375.00
2. Providing and fixing 20 mm dia. irrigation hydrant Valve,Chamber & Cover Etc. complete in all respect. **14 Nos.** @ Rs. 3500/ each	Rs.56,000.00
3. Provision for carriage of materials (Lump Sum)	Rs.2,00,000.00
4. Provision for cutting of road and making its good condition	Rs.1,00,000.00
5. Provision for air valve 4 No. and sluice valve complete with masonry chamber (L.S)	Rs.2,00,000.00
6. Providing & Fixing indicating plates for sluice valve,air valve (L.S)	Rs.20,000.00
7. Providing & Fixing fire hydrant complete with masonry chamber(L.S)	Rs.50,000.00
Total	**Rs.36,71,625.00**

(C/O To Abstract of Cost for Sub work No.1)

Sub-Work No. II	**SEWERAGE SCHEME**	
		Amount in Rs.
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 respect		
a) SW pipe 200 to 250 mm i/d avg. depth 1.60 - 2.70 M **1289 M** @ Rs. 1500/M		Rs.19,33,500.00
2. Rising main from STP to MH		
a) 200 mm dia **100 m** @ Rs. 2150/m		Rs.2,15,000.00
3. STP Cap. **530 KLD** upto tertiary level (L.S)		Rs.68,90,000.00
4. Provision for making HSVP Connection on main line (L.S)		Rs.1,00,000.00
5. Provision for watering & lighting		Rs.1,00,000.00
6. Provision for vent pipe as per		Rs.2,00,000.00
7. Provision for cutting of roads and making good condition		Rs.1,00,000.00
8. Provision for timbering & shovering (L.S)		Rs.1,00,000.00
Total		Rs.96,38,500.00
Add 3% contingencies & PH charges		Rs.2,89,155.00
Total		Rs.99,27,655.00
Add 49% Price Escalation,Departmental charges		Rs.48,64,550.95
TOTAL		**Rs.1,47,92,205.95**
	SAY IN LACS	**147.92**

(Cost to Final abstract of cost)

Sub-Work No. III	**STORM WATER SCHEME**	
		Amount in Rs.
1. Providing and laying R.C.C. pipe drain class NP-3 With cement joint ,Catch Basins & Road Gullies, manholes excavation etc complete in all respect.		
a) 400 mm dia. **1260 M** @ Rs. 2000/m		Rs.25,20,000.00
b). Providing Rain Harvesting arrangements **7 Nos** @ Rs 150,000		Rs.10,50,000.00
2. Provision for Carriage of Material (L.S)		Rs.2,00,000.00
3. Provision for watering & timbering and unforeseen (L.S)		Rs.1,00,000.00
4. Provision for connection with HSVP line		Rs.50,000.00
5. Provision for Road gullies and cement (L.S)		Rs.5,00,000.00
6. Provision for watering & lighting		Rs.1,00,000.00
7. Provision for temporary disposal arrangements till HSVP services are provided.		Rs.5,50,000.00
	Total	Rs.50,70,000.00
	Add 3% for contingencies and PH charges	Rs.1,52,100.00
	Total	Rs.52,22,100.00
	Add 49% Departmental charges	Rs.25,58,829.00
	TOTAL (Cost to Final abstract of cost)	**Rs.77,80,929.00**
	SAY IN LACS	**Rs.77.81**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT: WATER DEMAND CALCULATIONS

S. No.	Unit Type	Category as per latest NBC	Total No. of Plots	Total Area (in Sqm)	Persons considered per plot as per HSVP norms	Total Population	LPCD Factor for Potable Water Req.	LPCD Factor for Flushing Water Req.	Potable Water Requirement (LPD)	Flushing Water Requirement (LPD)	Total Water Requirement (LPD)
I.	**DOMESTIC WATER DEMAND**										
1	**Plots**	Residential	253		13.5	3416	115.6	56.9	394729.3	194444.4	5,89,174
2	**Commercial BlocK**	Business		1913.50 or 0.47284 ac	32000 Ltr./Acre				10137.7	4993.2	15,131
4	**Common Facilities**			4972.80 or 1.22881 ac	25000 Ltr./Acre				20582.6	10137.7	30,720
				Total					**425449.6**	**209575.3**	**635025**
				Grand Total					**4,25,450**	**209575**	**6,35,025**
	Say in Cum/day								**426**	**210**	**635**
II.	**HORTICULTURAL WATER DEMAND**										
	For approx. 20 % of Total site area approx. 12.28750 Acre @ 25000 litre/ Acre(say)										61437.5
	Total, Say (in Cu.m. per day)										**62**
	TOTAL WATER REQUIREMENTS FOR ALL PURPOSES										**697**
III.	**TUBE WELLS**										
(a)	**Yield**									**15**	**KL/Hr**
(b)	**Working Hours per Day**									**16**	**Hours per Day**
	Discharge per Tube well									**240**	
(c)	**Total Fresh water demand**									**426**	**m^3/day**
(d)	**Number of Tube wells required.**									**1.77**	
	(Water Demand/Discharge/Hours working per day)										
(e)	**Add 5% as standby**									**0.09**	
	Total									**1.86**	**Nos.**
	Say									**2.00**	**Nos.**

(Water to the proposed development is to be supplied by HSVP and it is proposed to install the tube-wells for augmentation/standby purposes).

IV.	**PUMPING MACHINERY FOR TUBEWELLS**		
(a)	**Gross Working Head**	**60**	**Meters**
(b)	**Average fall in S.L**	**2**	**Meters**
(c)	**Depression Head**	**6**	**Meters**
(d)	**Friction loss in main**	**10**	**Meters**
	Total	**78**	**Meters**
(e)	**Discharge**	**15000**	**LPH**
(f)	**Horse Power**	**7.22**	**HP**
	HP = (15000 X 78 X 1)/(60 X 60 X 75 X 0.6)		
	Say	**10.00**	**HP**
V.	**UNDER GROUND TANK**		
(a)	**Total water demand (Daily for Domestic purposes)**	**426**	**m^3/day**
	Capacity of U.G. tank @60 % 426		
(b)	**Proposed capacity of underground tanks (Raw + Domestic) for domestic use. (25+33%) =58% (SAY 60%) storage (One day Storage) = 0.6 X 426 = 255.6**	**255.6**	**m^3**
(C)	**Proposed capacity of underground static tank for fire =100X sqroot of 3416/1000 = 184.80 KL (SAY 185 KL)**	**185**	**m^3**
	TOTAL	**441**	**m^3/day**
	Say	**450**	**m^3/day**
VI. (A)	**BOOSTING MACHINERY (Water Supply Pumps)**		
(a)	**Daily Domestic Water Demand**	**426**	**m^3/day**
(b)	**Discharge per hour @ 6 hr. pumping/ day**	**70.92**	**m^3/Hour**
	Say	**1190.0**	**LPM**
(c)	**No. of Working pump (1 working + one standby)**	**2.0**	
(d)	**Proposed Pump discharge (Working)**	**595.00**	**LPM**
	Say	**600.00**	**LPM**
	Gross Working Head		
(a)	**Suction lift – positive suction**	**6**	**Meters**
(b)	**Frictional Loss in Mains & Specials**	**9**	**Meters**
(c)	**Max Clear Head required**	**20**	**Meters**
	Total	**35**	**Meters**
(g)	**H.P. of each pump required**	**7.18**	**HP**
	Pump H.P.		
	Say	**7.20**	**HP**

VI.(B)	**BOOSTING MACHINERY (Flushing & Garden Supply Pumps from STP)**		
(a)	**Daily Flushing & Horticultural Water Demand.**	**271**	**m^3/day**
(b)	**Discharge per hour @ 6 hr. pumping/ day**	**45.18**	**m^3/Hour**
	Say	**760.00**	**LPM**
(c)	**No. of Working pump**	**2**	
(d)	**Proposed Pump discharge (Working)**	**380.00**	**LPM**
	Say	**400.00**	**LPM**
	Gross Working Head		
(e)	**Suction lift – positive suction**	**6**	**Meters**
(f)	**Frictional Loss in Mains & Specials**	**9**	**Meters**
(g)	**Max Clear Head required**	**20**	**Meters**
	Total	**35**	**Meters**
(h)	**H.P. of each pump required (Pump H.P.)**	**5.19**	**HP**
	Say	**5.20**	**HP**
VII.	**GENERATING SETS**		
1	**HP of Tube well pump**	**10.00**	
2	**HP of Domestic water supplyPump**	**14.40**	
3	**HP of Flushing water supply Pump**	**10.40**	
4	**Add for lighting**	**10.00**	
	Total	**44.80**	**HP**
	in KVA	**32.46**	**KVA**
	SAY	**35**	**KVA**
VIII.	**STP CAPACITY**		
1	**Total water required Domestic + Flushing**	**635**	**KL**
2	**Water go to STP @75%**	**476.325**	
3	**Add for 10% for margin**	**47.6325**	
	TOTAL	**523.9575**	
	SAY	**530.00**	**KL**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : SEWERAGE SYSTEM DESIGN SHEET

S. No.	Sewer Line		No. of Plots	Population / PLOT	Total Population	Water Supply	Total Water Requirement	Sewage Discharge (LPD)			Average Sewage Discharge	Peak Sewage Discharge		Size of Pipe	Velocity		Design Discharge	Length of Line	Slope	Fall in Meters		Ground level		Invert Level		Depth of MH		Average depth of pipe
						LPCD	LPD	Self	Branch	Total	LPS	LPS	Cu sec	mm	feet/ sec	M/S	Cu sec	Meters		As per slope	As Per Gradient	Start	End	Start	End	Start	End	
1	2	3	4	5	6	7	5	6	7	8	9	10	11	12	13		14	15	16	18	19	20	21	22	23	25	26	28
	From	To																										
1	1	2	17	13.5	229.5	172.5	39589	29 692		29 692	0.344	1.03	**0.04**	200	2.42	0.74	**0.41**	119	200	0.595	0.000	100.00	100.00	98.80	98.21	1.20	1.80	1.50
2	3	2	3	13.5	40.5	172.5	6986	5 240		5 240	0.061	0.18	**0.01**	200	2.42	0.74	**0.41**	16	200	0.080	0.000	100.00	100.00	98.80	98.72	1.20	1.28	1.24
3	2	4	35	13.5	472.5	172.5	81506	61 130	34 931	96 061	1.112	3.34	**0.12**	200	2.42	0.74	**0.41**	128	200	0.640	0.000	100.00	100.00	98.21	97.57	1.80	2.44	2.12
4	8	7	32	13.5	432	172.5	74520	55 890		55 890	0.647	1.94	**0.07**	200	2.42	0.74	**0.41**	114	200	0.570	0.000	100.00	100.00	98.80	98.23	1.20	1.77	1.49
5	9	7	6	13.5	81	172.5	13973	10 479		10 479	0.121	0.36	**0.01**	200	2.42	0.74	**0.41**	40	200	0.200	0.000	100.00	100.00	98.80	98.60	1.20	1.40	1.30
6	7	5	6	13.5	81	172.5	13973	10 479	66 369	76 849	0.889	2.67	**0.09**	200	2.42	0.74	**0.41**	40	200	0.200	0.000	100.00	100.00	98.23	98.03	1.77	1.97	1.87
7	6	5	32	13.5	432	172.5	74520	55 890	76 849	1 32 739	1.536	4.61	**0.16**	200	2.42	0.74	**0.41**	112	200	0.560	0.000	100.00	100.00	98.80	98.24	1.20	1.76	1.48
8	5	4	10	13.5	135	172.5	23288	17 466	1 32 739	1 50 204	1.738	5.22	**0.18**	200	2.42	0.74	**0.41**	78	200	0.390	0.000	100.00	100.00	98.03	97.64	1.97	2.36	2.17
9	12	11	6, COMMUNITY FACILITY	13.5	81	172.5	13973	10 479		10 479	0.121	0.36	**0.01**	200	2.42	0.74	**0.41**	28	200	0.140	0.000	100.00	100.00	98.80	98.66	1.20	1.34	1.27
10	13	11	7	13.5	94.5	172.5	16301	12 226		12 226	0.142	0.42	**0.01**	200	2.42	0.74	**0.41**	62	200	0.310	0.000	100.00	100.00	98.80	98.49	1.20	1.51	1.36
11	11	10	40	13.5	540	172.5	93150	69 863	22 705	92 568	1.071	3.21	**0.11**	200	2.42	0.74	**0.41**	165	200	0.825	0.000	100.00	100.00	98.49	97.67	1.51	2.34	1.92
12	4	10	3	13.5	40.5	172.5	6986	5 240	2 46 265	2 51 505	2.911	8.73	**0.31**	200	2.42	0.74	**0.41**	48	200	0.240	0.000	100.00	100.00	97.57	97.33	2.44	2.68	2.56
13	15	14	48	13.5	648	172.5	111780	83 835		83 835	0.970	2.91	**0.10**	200	2.42	0.74	**0.41**	156	200	0.780	0.000	100.00	100.00	98.80	98.02	1.20	1.98	1.59
14	16	14	2	13.5	27	172.5	4658	3 493		3 493	0.040	0.12	**0.00**	200	2.42	0.74	**0.41**	14	200	0.070	0.000	100.00	100.00	98.80	98.73	1.20	1.27	1.24
15	14	10	4	13.5	54	172.5	9315	6 986	87 328	94 314	1.092	3.27	**0.11**	200	2.42	0.74	**0.41**	48	200	0.240	0.000	100.00	100.00	98.02	97.78	1.98	2.22	2.10
16	10	17		13.5	0	172.5	0		3 45 819	3 45 819	4.003	12.01	**0.42**	250	2.51	0.77	**0.66**	35	250	0.140	0.000	100.00	100.00	97.33	97.19	2.68	2.82	2.75
17	18	17	2	13.5	27	172.5	4658	3 493	3 45 819	3 49 313	4.043	12.13	**0.42**	200	2.42	0.74	**0.41**	25	200	0.125	0.000	100.00	100.00	98.80	98.68	1.20	1.33	1.26
18	17	19		13.5	0	172.5	0		3 49 313	3 49 313	4.043	12.13	**0.42**	250	2.51	0.77	**0.66**	12	250	0.048	0.000	100.00	100.00	97.19	97.14	2.82	2.86	2.84
19	20	19	COMMERCIAL	13.5	0	172.5	0				0.000	0.00	**0.00**	200	2.42	0.74	**0.41**	24	200	0.120	0.000	100.00	100.00	98.80	98.68	1.20	1.32	1.26
20	19	STP		13.5	0	172.5	0		3 49 313	3 49 313	4.043	12.13	**0.42**	250	2.51	0.77	**0.66**	25	250	0.100	0.000	100.00	100.00	97.14	97.04	2.86	2.96	2.91

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : SEWERAGE SYSTEM SHEET

S.No.	Sewer Line		Size of Pipe	Length of Line
	From	To	MM	Meters
1	1	2	200	119
2	3	2	200	16
3	2	4	200	128
4	8	7	200	114
5	9	7	200	40
6	7	5	200	40
7	6	5	200	112
8	5	4	200	78
9	12	11	200	28
10	13	11	200	62
11	11	10	200	165
12	4	10	200	48
13	15	14	200	156
14	16	14	200	14
15	14	10	200	48
16	10	17	250	35
17	18	17	200	25
18	17	19	250	12
19	20	19	200	24
20	19	STP	250	25
Total 200 Dia Pipe (Avg depth 1.20 - 2.70 M)				**1217**
Total 250 Dia Pipe (Avg depth 1.20 - 2.70 M)				**72**
Total				**1289**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : DRAINAGE SYSTEM DESIGN SHEET

S. No.	LINE NO.		Self Area (m2)	Self Area (Acre)	Branch Area (Acre)	Total Area (Acre)	Total Area (Hectare)	Rain Fall mm/hr	Discharge @17.36 LPS/Hectare	Length in m	Pipe dia in mm	Slope 1 in	Velocity m/sec.	Cap of pipe in lps	Fall in line m	Ground Level		Invert Level		Depth		
	FROM	TO														Start	End	Start	End	Start	End	Average
1	1	2	3056.12	0.76		0.76	0.31	6.25	**5.31**	103.00	400	500	0.64	**80.75**	0.21	100.00	100.00	98.80	98.59	1.20	1.41	1.30
2	3	2	534.08	0.13		0.13	0.05	6.25	**0.93**	18.00	400	500	0.64	**80.75**	0.04	100.00	100.00	98.80	98.76	1.20	1.24	1.22
3	2	4	3234.15	0.80	0.89	0.89	0.36	6.25	**6.23**	109.00	400	500	0.64	**80.75**	0.22	100.00	100.00	98.59	98.38	1.41	1.62	1.52
4	8	7	2996.78	0.74		0.74	0.30	6.25	**5.20**	101.00	400	500	0.64	**80.75**	0.20	100.00	100.00	98.80	98.60	1.20	1.40	1.30
5	10	9	1246.19	0.31		0.31	0.12	6.25	**2.16**	42.00	400	500	0.64	**80.75**	0.08	100.00	100.00	98.80	98.72	1.20	1.28	1.24
6	9	7	1364.87	0.34	0.31	0.65	0.26	6.25	**4.53**	46.00	400	500	0.64	**80.75**	0.09	100.00	100.00	98.72	98.62	1.28	1.38	1.33
7	7	5	1275.86	0.32	1.39	1.70	0.69	6.25	**11.95**	43.00	400	500	0.64	**80.75**	0.09	100.00	100.00	98.60	98.51	1.40	1.49	1.45
8	6	5	2996.78	0.74		0.74	0.30	6.25	**5.20**	101.00	400	500	0.64	**80.75**	0.20	100.00	100.00	98.80	98.60	1.20	1.40	1.30
9	5	4	1839.61	0.45	2.44	2.90	1.17	6.25	**20.35**	62.00	400	500	0.64	**80.75**	0.12	100.00	100.00	98.51	98.39	1.49	1.61	1.55
10	4	11	1483.55	0.37	2.90	3.26	1.32	6.25	**22.92**	50.00	400	500	0.64	**80.75**	0.10	100.00	100.00	98.38	98.28	1.62	1.72	1.67
11	16	14	445.07	0.11		0.11	0.04	6.25	**0.77**	15.00	400	500	0.64	**80.75**	0.03	100.00	100.00	98.80	98.77	1.20	1.23	1.22
12	15	14	890.13	0.22		0.22	0.09	6.25	**1.55**	30.00	400	500	0.64	**80.75**	0.06	100.00	100.00	98.80	98.74	1.20	1.26	1.23
13	14	13	4480.33	1.11	0.33	1.44	0.58	6.25	**10.10**	151.00	400	500	0.64	**80.75**	0.30	100.00	100.00	98.74	98.44	1.26	1.56	1.41
14	17	13	474.74	0.12		0.12	0.05	6.25	**0.82**	16.00	400	500	0.64	**80.75**	0.03	100.00	100.00	98.80	98.77	1.20	1.23	1.22
15	13	11	1008.82	0.25	1.55	1.80	0.73	6.25	**12.67**	34.00	400	500	0.64	**80.75**	0.07	100.00	100.00	98.44	98.37	1.56	1.63	1.60
16	12	11	4272.64	1.06	5.07	6.12	2.48	6.25	**43.01**	144.00	400	500	0.64	**80.75**	0.29	100.00	100.00	98.80	98.51	1.20	1.49	1.34
17	11	18	1246.19	0.31	6.12	6.43	2.60	6.25	**45.17**	42.00	400	500	0.64	**80.75**	0.08	100.00	100.00	98.28	98.19	1.72	1.81	1.77
18	19	18	712.11	0.18		0.18	0.07	6.25	**1.24**	24.00	400	500	0.64	**80.75**	0.05	100.00	100.00	98.80	98.75	1.20	1.25	1.22
19	18	20	3026.45	0.75	6.61	7.36	2.98	6.25	**51.66**	102.00	400	500	0.64	**80.75**	0.20	100.00	100.00	98.19	97.99	1.81	2.01	1.91
20	20	Disposal	741.78	0.18	7.36	7.54	3.05	6.25	**52.95**	25.00	400	500	0.64	**80.75**	0.05	100.00	100.00	97.99	97.94	2.01	2.06	2.04

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : DRAINAGE SYSTEM SHEET

S. No.	Line No.		Pipe dia.	Length
	From	To	mm	Meters
1	1	2	400	103.00
2	3	2	400	18.00
3	2	4	400	109.00
4	8	7	400	101.00
5	10	9	400	42.00
6	9	7	400	46.00
7	7	5	400	43.00
8	6	5	400	101.00
9	5	4	400	62.00
10	4	11	400	50.00
11	16	14	400	15.00
12	15	14	400	30.00
13	14	13	400	151.00
14	17	13	400	16.00
15	13	11	400	34.00
16	12	11	400	144.00
17	11	18	400	42.00
18	19	18	400	24.00
19	18	20	400	102.00
20	20	Disposal	400	25.00
Total 400 Dia Pipe				**1258**
SAY				**1260**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : DOMESTIC WATER SUPPLY DESIGN SHEET

S. No.	Line Designation		No. of Plot	Water Requirements (in KLD)	Self Water requirement (in KLD)	Branch Water requirement (in KLD)	Total Water Requirements (in KLD)	Discharge per Hour considering 8 Hours Pumping	Size of Pipe Provided	Velocity in ft/sec.	Velocity in m/sec.	Head Loss per 1000m	Loss of head as per pipe length	Length of pipe (in meters)	Ground Level		Hydraulic Level		Terminal Head
	FROM	TO					Total	KL/Hr	mm						Start	End	Start	End	
1	WTP	1		0.00	0	412	412	51.537	150	2.66	0.81	8	0.123	15	100.00	100.00	135.000	134.877	34.877
2	1	2		0.00	0	412	412	51.537	100	5.99	1.83	59	0.710	12	100.00	100.00	135.000	134.290	34.290
3	2	3	4	6.24	6	78	84	10.534	100	1.23	0.37	3	0.129	41	100.00	100.00	135.000	134.871	34.871
4	3	4	48	74.91	75		75	9.364	100	1.09	0.33	3	0.371	147	100.00	100.00	135.000	134.629	34.629
5	3	5	2	3.12	3		3	0.390	100	0.05	0.01	0	0.000	12	100.00	100.00	135.000	135.000	35.000
6	2	6	40	62.42	62	20	83	10.339	100	1.20	0.37	3	0.479	158	100.00	100.00	135.000	134.521	34.521
7	6	8	6	9.36	9		9	1.170	100	0.14	0.04	0	0.002	46	100.00	100.00	135.000	134.998	34.998
8	6	7	7	10.92	11		11	1.366	100	0.16	0.05	0	0.004	53	100.00	100.00	135.000	134.996	34.996
9	1	9	5	7.80	8	238	245	30.664	100	3.57	1.09	23	0.883	39	100.00	100.00	135.000	134.117	34.117
10	9	10	10	15.61	16	139	155	19.349	100	2.25	0.69	10	0.667	69	100.00	100.00	135.000	134.333	34.333
11	9	15	33	51.50	51	31	83	10.339	100	1.20	0.37	3	0.349	115	100.00	100.00	135.000	134.651	34.651
12	15	16	17	26.53	27		27	3.316	100	0.39	0.12	0	0.040	109	100.00	100.00	135.000	134.960	34.960
13	15	17	3	4.68	5		5	0.585	100	0.07	0.02	0	0.000	15	100.00	100.00	135.000	135.000	35.000
14	10	11	32	49.94	50		50	6.242	100	0.73	0.22	1	0.125	105	100.00	100.00	135.000	134.875	34.875
15	10	12	6	9.36	9	80	89	11.156	100	1.30	0.40	3	0.150	43	100.00	100.00	135.000	134.850	34.850
16	12	13	32	49.94	50		50	6.242	100	0.73	0.22	1	0.125	105	100.00	100.00	135.000	134.875	34.875
17	12	14	6, Common Facilities	29.95	30		30	3.743	100	0.44	0.13	0	0.012	26	100.00	100.00	135.000	134.988	34.988
18	1	18		0.00	0	13	13	1.657	100	0.19	0.06	0	0.004	39	100.00	100.00	135.000	134.996	34.996
19	18	19	2	3.12	3		3	0.390	100	0.05	0.01	0	0.000	20	100.00	100.00	135.000	135.000	35.000
20	18	20	Commercial	10.14	10		10	1.267	100	0.15	0.04	0	0.002	31	100.00	100.00	135.000	134.998	34.998

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : DOMESTIC WATER SUPPLY SHEET

S. No.	Line Designation		Size of Pipe Provided	Length of pipe
			mm	metres
1	WTP	1	150	25
2	1	2	100	12
3	2	3	100	41
4	3	4	100	147
5	3	5	100	12
6	2	6	100	158
7	6	8	100	46
8	6	7	100	53
9	1	9	100	39
10	9	10	100	69
11	9	15	100	115
12	15	16	100	109
13	15	17	100	15
14	10	11	100	105
15	10	12	100	43
16	12	13	100	105
17	12	14	100	26
18	1	18	100	39
19	18	19	100	20
20	18	20	100	31
TOTAL FOR 100 DIA				**1185**
TOTAL FOR 150 DIA				**25**
TOTAL PIPING				**1210**
SAY				**1210**
MUNICIPAL LINE				
1	1a -- UGT		**100**	**142**
		TOTAL PIPE 100 DIA (SAY)		**142**
TUBEWELL LINE				
1		TW1-1	**100**	**20**
2		TW1-2	**100**	**140**
		TOTAL PIPE 100 DIA (SAY)		**160**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : FLUSHING & GARDEN WATER SUPPLY DESIGN SHEET

S. No.	Node No.		No. of Plot	Flushing Water Requirement In KLD	Branch Water	Total KLD	Discharge per Hour considering 8 Hours Pumping	Size of Pipe Provided	Velocity		Head Loss per 1000 m	Loss of head as per pipe length	Length of pipe (in meters)	Ground level		Hydraulic Level		Terminal Head
	From	To					kl/hr	mm	in ft/sec.	in m/s				Start	End	Start	End	
														in m	in m	in m	in m	in m
1	STP	1		0	217	217	27.144	100	3.16	0.96	19	0.472	25	94.00	100.00	129.00	128.53	28.53
2	1	20	Commercial	5	212	217	27.144	100	3.16	0.96	19	0.321	17	101.30	101.30	136.30	135.98	34.68
3	1	18		0	212	212	26.520	100	3.08	0.94	18	0.162	9	101.30	101.30	136.30	136.14	34.84
4	18	19	2	2		2	0.192	100	0.02	0.01	0	0.000	25	101.30	101.30	136.30	136.30	35.00
5	18	2		0	211	211	26.328	100	3.06	0.93	18	0.036	2	101.30	101.30	136.30	136.26	34.96
6	2	3	3	2	39	41	5.185	100	0.60	0.18	1	0.028	41	101.30	101.30	136.30	136.27	34.97
7	3	5	3	2		2	0.288	100	0.03	0.01	0	0.000	19	101.30	101.30	136.30	136.30	35.00
8	3	4	48	37		37	4.609	100	0.54	0.16	1	0.084	154	101.30	101.30	136.30	136.22	34.92
9	2	6	40	31	10	41	5.089	100	0.59	0.18	1	0.105	158	101.30	101.30	136.30	136.20	34.90
10	6	8	6	5		5	0.576	100	0.07	0.02	0	0.000	35	101.30	101.30	136.30	136.30	35.00
11	6	7	7	5		5	0.672	100	0.08	0.02	0	0.001	61	101.30	101.30	136.30	136.30	35.00
12	2	9	4	3	125	128	16.054	100	1.87	0.57	7	0.231	35	101.30	101.30	136.30	136.07	34.77
13	9	15	34	26	8	34	4.225	100	0.49	0.15	0	0.053	115	101.30	101.30	136.30	136.25	34.95
14	15	17	3	2		2	0.288	100	0.03	0.01	0	0.000	22	101.30	101.30	136.30	136.30	35.00
15	15	16	7	5		5	0.672	100	0.08	0.02	0	0.001	121	101.30	101.30	136.30	136.30	35.00
16	9	10	9	7	85	92	11.445	100	1.33	0.41	3	0.235	70	101.30	101.30	136.30	136.06	34.76
17	10	11	16	12		12	1.536	100	0.18	0.05	0	0.007	112	101.30	101.30	136.30	136.29	34.99
18	10	12	43	33	39	72	9.045	100	1.05	0.32	2	0.090	43	101.30	101.30	136.30	136.21	34.91
19	12	13	32	25		25	3.073	100	0.36	0.11	0	0.027	112	101.30	101.30	136.30	136.27	34.97
20	12	14	6, Common Facilities	15		15	1.843	100	0.21	0.07	0	0.004	41	101.30	101.30	136.30	136.30	35.00

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : FLUSHING & GARDEN WATER SUPPLY SHEET

S. No.	Line Designation		Size of Pipe Provided	Length of pipe
			mm Dia	
1	STP	1	100	25
2	1	20	100	17
3	1	18	100	9
4	18	19	100	25
5	18	2	100	2
6	2	3	100	41
7	3	5	100	19
8	3	4	100	154
9	2	6	100	158
10	6	8	100	35
11	6	7	100	61
12	2	9	100	35
13	9	15	100	115
14	15	17	100	22
15	15	16	100	121
16	9	10	100	70
17	10	11	100	112
18	10	12	100	43
19	12	13	100	112
20	12	14	100	41
TOTAL PIPE OF 100 DIA				**1217**
TOTAL PIPE				**1217**
Say				**1220**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : ROAD WORKS

S. No.	Description	Unit	Qty	Rate (in Rs.)	Amount (in Rs.)
1	Provision for leveling & earth filling as per site conditions	Acre.	12.28750	1,50,000.00	18,43,125.00
2	Construction of Roads 200mm granular surface, 250mm water mix macadam, 50mm DBM, 25mm BC.	Sqm	7,425.00	1,200.00	89,10,000.00
3	Provision for Kerbs & channels of CC 1:2, 5:5.complets in all respect	Metre	2,700.00	600.00	16,20,000.00
4	Provision for Pavement in commercial area and pavements. (50% OF AREA)	Sqm	956.75	600.00	5,74,050.00
5	Provision for Parking arrangement	LS			1,00,000.00
6	Provision for carriage of materials, Guid map Plot indecater etc.	LS			2,00,000.00
	Sub Total				1,32,47,175.00
	Add 3% contingencies & PH charges				3,97,415.25
	Sub Total				1,36,44,590.25
	Add 49% Departmental Charges , Price escalation, unforseen & Admin. Charges				66,85,849.22
	Total				**2,03,30,439.47**
	Say Rs in Lakhs (C/O to Final abstract of cost)				**203.30**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : ROAD AREA

S. NO	ROAD NO	ROAD LENGTH IN M	ROAD WIDTH (CARPETED) IN M	AREA N SQM
1	1 - 16	114.00	5.50	627.0
2	2 - 3	41.00	5.50	225.5
3	3 - 4	21.00	5.50	115.5
4	3 - 5	158.00	5.50	869.0
5	5 - 6	21.00	5.50	115.5
6	2 - 7	158.00	5.50	869.0
7	7 - 5	41.00	5.50	225.5
8	7 - 11	43.00	5.50	236.5
9	2 - 8	43.00	5.50	236.5
10	8 - 12	115.00	5.50	632.5
11	12 - 13	22.00	5.50	121.0
12	12 - 14	70.00	5.50	385.0
13	14 - 15	43.00	5.50	236.5
14	9 - 14	115.00	5.50	632.5
15	10 - 15	115.00	5.50	632.5
16	8 - 9	70.00	5.50	385.0
17	9 - 10	43.00	5.50	236.5
18	10 - 11	46.00	5.50	253.0
19	16 - 2	42.00	5.50	231.0
20	16 - 17	29.00	5.50	159.5
21	**TOTAL**	**1350.00**		**7425.0**

LENGTH OF KERB STONE	**2700**	**RM**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT: EXTERNAL LIGHTING

S.No.	Discription	UM	Qty.	Rate	Amount
1	Providing and installing street light on roads as for standard specification of DHVPN with LED	Acre	12.28750	250000	3071875.00
2	Contigency and Frieght Charges @ 3%				92156.25
	TOTAL				3164031.25
3	ADD 49% Deptt charges, price escalation unforseen & dmin charges				1550375.313
4	**TOTAL**				4714406.563
	Say Rs in Lakhs (C/O to Final abstract of cost)				**47.14**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT: PLANTATION & ROAD SIDE TRESS

S.No.	Description	Unit	Qty	Rate (in Rs.)	Amount (in Rs.)
1	Development of organised lawn green area.	Acre	0.92530	1,00,000.00	92,530.00
a	Trenching of ordinary soil upto depth of 60 cm i/c removal & stacking of serviceable material & disposing by spreading and levelling within a lead of 50 M and making up the trench area for proper levels by filling with earth or earth mixed with manure before and after flooding trench with water i/c cost of imported earth and manure.				
b	Rough dressing of turfed area.				
c	Grassing with "DOOB GRASS" i/c watering and maintenance of lawns for 30 days till the grass forms a thick lawn , free from weeds and fit for mowing in row 7.5 cm part in either direction.				
2	Providing and planting trees along boundary @ 12 m interval = (1350/12) X 2	Nos.	225	1,150.00	2,58,750.00
	Cost Detail				
	Excavation	50.00			
	Manure	100.00			
	Tree Plant	100.00			
	Tree Guard	900.00			
	Total	**1150.00**			
	Sub Total				3,51,280.00
	Add 3% contingencies.				10,538.40
	Sub Total				3,61,818.40
	Add 49% Departmental charges				1,72,127.20
	Total				5,33,945.60
	Say Rs in Lakhs (C/O to Final abstract of cost)				**5.34**

PROJECT: M/S YASHVI HOMES PVT.LTD.

SUBJECT : SERVICES & RESURFACING OF ROADS

S.No.	Description	Unit	Qty	Rate (in Rs.)	Amount (in Rs.)
1	Provision of MTC charges for W/S, SWD & Sewarage, Roads, Street Lighting, Horticulture etc.				
a.	Complete in all aspect, including operational and establishment charges as per HSVP norms for 10 years completion.	Acre	12.28750	1,00,000	12,28,750.00
2	Provision of resurfacing of roads MTC one layer of 100 mm thick WBM compacted to 75 mm thick with 25mm thick premix carpet with seal coat.				
a	Resurfacing of road after 5 years of MTC .	Sqm	7,425.00	225	16,70,625.00
b	Resurfacing of road after 10 years of MTC.	Sqm	7,425.00	325	24,13,125.00
	Sub Total				53,12,500.00
	Add 3% contingencies.				1,59,375.00
	Sub Total				54,71,875.00
	Add 49% Departmental charges				26,81,218.75
	Total				81,53,093.75
	Say Rs in Lakhs (C/O to Final abstract of cost)				**81.53**