10.5310 ACRES RESIDENTIAL PLOTTED COLONY UNDER DDJAY IN SECTOR 36, SOHNA

M/S SIGNATURE GLOBAL HOMES PVT LTD

ESTIMATE FOR PROVIDING WATER SUPPLY.SEWERAGE. STORM WATER DRAINAGE, ROADS,STREET LIGHTING AND HORTICULTURE IN RESPECT OF 10.5310 ACRES RESIDENTIAL PLOTTED COLONY IN SECTOR 36,SHONA

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PROJECT REPORT/ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STROM WATER DRAINAGE, ROADS, STREET LIGHTING AND HORTICULURE IN RESPECT OF 10.5310 ACRES RESIDENTAIL PLOTTED COLONY IN SECTOR 36 SOHNA

The Haryana Government has prepared a master plan for development of Residential/Industrial/ Commercial urban estate SHONA. M/S SIGNATURE GLOBAL HOMES PVT LTD has desided to develop a part of the area in this master plan and has named this part as 10.5310 Acres Residential plotted colony. This scheme is located in sector-36 of Haryana Urban Development Authority SHONA.

Water Supply

1 **Source**

The source of water supply in this area is tubewells at present as the underground water is potable and fit for human consumption. Moreover water is available at reasonable depth. The average yield of tubewell with 40-45 ft strainers will be about 20,000 litre per hour. The recharging of underground water table in this belt is stated to be good. However still we shall resort to rain water harvesting system to keep up the recharging system. The number of tubewells required for the above area has been worked out and the tubewells will be bored in tune with growth of demand to avoid absolence of the tubewells. The ultimate requirement of tubewells includes provisions of 10% stand by. Ultimately, water shall be supplied to the Project by HARYANA URBAN DEVELOPMENT AUTHORITY, SHONA,

2 **Design**

The scheme has been designed for approved population of **2736 persons**. The rate of water supply per head per day has been taken as 155.25 litres (135+15%)as per NBC 2016 / HUDA norms. in addition to above necessary provision of water for community area, shopping centres, parks etc. have been taken into account for calculating the maximum quantity of water requirement..

3 **Pump Chambers and Pumping Machinery**

It is proposed to equip each tubewell with an electrically driven set ejecto type or submersible pump capable of delivering of 20,000 litre per hour. It is also proposed to equip required Nos pumping sets with stand by diesel engins /gen set for operation during failure of electricity.

4 Under Ground Storage

Underground storage tank provision has been made for **360KL** capacity, in 6 compartments, which caters for the domestic as well as for firefighting requirement. The water for domestic water compartment shall overflow the fire compartment so that the water in the fire compartment also remains fresh.

5 Boosting Station

The boosting is being planned near UGSR catering to the above requirement.

6 Distribution System

The distribution system for this development has been designed to supply @ 155.25 litre per head her day @ 3 times the average rate of flow on Hazen william formula. Necessary provision for laying CI/DI pipes conforming to relevent IS standards along with valves and specials has been made in the project. The minimum terminal head at any point will be more than 27.00 meters so thet it can serve the stilt and four floors stories construction envisaged in the plan. Minimum pipe dia for distribution is kept as 100 mm dia. Drinking water supply and 100mm dia for flushing cum irrigation water supply.

7 Rising Mains

Rising mains from HUDA water main or sector road to water works have also been proposed and provision has been made in this estimate.

8 Sewerage

The sewer lines have been designed for 3 times average DWF in relation to the water supply demand assuming that 75% of the domestic water supply shall find its way into the propoesd sewer. SW/RCC pipe sewers have been proposed and designed to run half full. The sewers have been designed on 0.77 M per second minimum velocity i.e. self cleansing velocity Necessary provision for laying S.W./R.C.C. pipes manholes etc. has been made in this estimate.

9 Storm Water Drainage

suitable provisions are contemplated in our scheme to ensure better recarging of underground water table in the area R.C.C. Hume pipes drain with minimum 400mm dia is proposed in this area.

10 Roads

The roads in the colony have been planned 9m wide. The following specification have been adopted which are reproduced below.

(i) 200 mm GSB

(ii) 250 mm stone aggregate

(iii) 50 mm thick ~~B.M.~~ DBM

(iv) 25mm ~~MSS~~ BC

The above construction shall be done on well compacted sub grade as per specification .complete work will be carried out as per Ministry of Road Transport and highways (MORTH) specification, IRC guide lines or HUDA specification, which ever applicable.

11 Street Lighting

The provision has been made on lump sum basis

12 Horticulture

The usual provision of road side plantation of tree guards has been made for all roads.The parks shall be developed by providing lawns etc.

13 Specifications :

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

14 Rates

Estimate for providing services in this pocket has been preoared on the recent market rates.

15 Cost

The total cost of development in this project including various P.H. and B & R services works out to **Rs ~~1152.42~~ Lacs**. 947.90 The cost per gross acre for the phase works out to be **Rs.~~109.43~~ Lac** 90.00 which covers the provision of services like water supply, sewerage, storm water drainage, roads, street lighting and plantation including maintenance thereof as well as escalation, administrative departmental and unforeseen charges.

The cost per gross acre for this phase works out to **Rs. 109.43 Lacs/acre** which covers the provision of services like water supply, sewerage, storm water drainage, roads, street lighting and plantations including plantations maintenance thereof as well as future expansion whatsoever indicated.

DESIGN CALCULATION

Daily Water Requirement

			For 10.5310 Acres	Unit
	Total No. of Plots (Deen Dayal Awas)		152	Nos
	Total No. of EWS Plots		0	Nos
	Population per plot (Deen Dayal Awas)		18	Person/Plot
	Population per plot (EWS)		9	Person/Plot
1	Therefore population (Deen Dayal Awas)		2736	Persons
	Therefore population(EWS)		0	Persons
	Total Population		2736	Persons
		SAY	2736	Persons
	Total daily Water requirement for plots (135 Lpcd + 15%)	@	155.25	Lpcd
			424764.00	Lpd
		Or Say	**424.77**	**KLD (1)**
2	**Non residential building water requirement**			
a	Area of commercial		1	Nos
	Daily water requirement	@	32000	Ltrs/Acre
	Area of commercial		0.38334	Acre
	Therefore daily water requirement		12266.94	lit/day
		Or Say	**12.27**	KLD
b	Area of community center		1	Nos
	Daily water requirement	@	25000	lit/day
	Therefore daily water requirement		25000	lit/day
		Or Say	**25**	KLD
	Total 2 (a+b)		**37.27**	**KLD (2)**
3	Area under Parks		0.80	Acre
	Daily water requirement	@	25000	lit/acre/day
			20044.8	lit/day
			20.04	KLD
4	Area under Roads		4.03	Acre
	Daily water requirement	@	5000	lit/acre/day
			20172.58	lit/day
			20.17	KLD
		Total	**40.22**	**KLD**
I	**Total daily requirement**			
a.)	For (1+2) Dom. Use = 424.77+37.27 KL =		462.04	KLD
b.)	Under Road+ Parks (4+5) 20.40 + 20.17 KL		40.22	KLD
	Total Daily Requirement		502.25	KLD
		Or Say	**510.00**	**KLD**
	Assuming requirement for flushing as 1/3 of total domestic demand and therefore daily requirement for flushing 1/3 x 462.04		154.01	KLD
	Or Say		155.00	KLD
	Daily requirement of portable drinking water supply 462.04 − 154.01		308.02	KLD
	Or Say		**310.00**	**KLD**
II	**Tubewell**			
	Assuming working hours of tubewells		**16**	Hours
	Assuming discharge/hour of each tubewell		**20**	KL/Hours
	Total domestic water requirment		**310**	**KLD**
	No. of tubewells required		0.97	
	~~Add 10% standby~~		~~0.10~~	
		Total	~~1.07~~ 0.97	
		Proposed	**1.00**	~~(1W+1S)~~

Will be met from treated effluent

So it is proposed ~~2~~ one nos of tubewell. The provision of 2 one no of tubewell has been made in the estimate because the water demand for horticulture and the flushing purpose is to be met from re circulated after treatment at STP and ultimate water supply is to be provided by HUDA.

III	**Pumping machinery for tubewell**				
a	Gross working load		=	45.00	m
b	Average Fall in S.L		=	3.00	m
c	Depression head		=	9.00	m
d	Friction loss		=	3.00	m
			=	60.00	m
		Say	=	60.00	m
	BHP = 20000x60x1/60x60x75x0.6		=	7.40	BHP
	With 60% efficiency	**Proposed**		7.50	**BHP**

It is proposed to install ~~2~~ one **no. Submersible pumping set** with a discharge of **20000 ltr./hour (335 lpm) driven with 7.5 HP** electric motor each

IV	**Underground Tank(Drinking water supply)**				
	Daily requirement for domestic use and other except fire fighting		=	**308.02**	KL
	Fire Tank Capacity (100Ö P= 100Ö5.76)		=	165.41	KL
	1/3 req.	**Say**	=	~~170.00~~ 100.00	**KL** 55.14 KL
	Capacity of under ground tank 60% day except fire fighting		=	184.81	KL
		Say	=	200 KL ~~190.00~~	**KL**
	Fire water storage		=	100 KL ~~170.00~~	**KL**
		Total		300 ~~360~~	**KL**

It is proposed to provide 1 no. under ground tank of capacity 300 ~~360~~ **KL** which also includes 100 ~~170~~ **KL** capacity for **fire fighting**.

Tank will have six compartments, two for fire, two for raw and the other two for domestic use. The water first enters the fire compartment, then over flows to the raw water use compartment so that the water in the fire compartment shall remain fresh.

V	**BOOSTING MACHINERY (Drinking water)**				
	UG. Tank				
	Daily requirement for domestic use		=	308.02	KL
	Assuming 8 hours running 2 pumps (with one standby)				
	Discharge/hour		=	19.25	KL/HR
			Or Say	20.00	KL/HR
			=	333.33	LTRS / MIN
			Or Say	~~333.33~~ 350	LTRS / MIN
	Head of pump				
	i) Suction lifts		=	4.0	m
	ii) Friction loss in M<main & specials		=	4.0	m
	iii) Clear head		=	31.0	m
			=	39.0	m
	Say		=	40.00	m
	BHP of motor (~~20*1000*40~~)/(4500*75*0.6) 350x40 / 4500x0.60	SAY	=	~~3.951~~ 5.18 7.50	HP HP

VI **Over Head Services Resorver (Deleted) Direct pumping system adopted)**

VII	**Gen Set**	Nos.	HP			
	Pumps for UG. Tank	2	7.5	=	15	HP
	Pumps for flushing	1	7.5	=	7.5	HP
	Tubewell	1	7.5	=	7.5	HP
	Lighting			=	15	HP
					45	HP
		or 45 x 0.746 x 1.50			50.4	KVA
		Say			~~63~~ 50	**KVA**

V	**BOOSTING MACHINERY (Flushing water supply)**				
	Daily requirement for flushing use		=	154.01	KL
	Add for horticulture and roads		=	40.22	KL
	TOTAL		=	194.23	KL
	Assuming 8 hours running 1 pumps (with one standby)				
	Discharge/hour		=	24.28	KL/HR
			Or Say	25.00	KL/HR
	Discharge/min		=	416.67	LTRS / MIN
			Or Say	~~416.67~~ 420	LTRS / MIN
	Head of pump				
	i) Suction lifts		=	4.0	m
	ii) Friction loss in M<main & specials		=	4.0	m
	iii) Clear head		=	31.0	m
			=	39.0	m
	Say		=	**40.00**	m
	BHP of motor (417*40)/(60*75*0.6) 420X40 / 4500X0.60			~~6.173~~ 6.22	HP
		SAY	=	7.5	HP
	Capacity of STP				
4	**Sewage load 75 % of total daily water requirement** 462.04 X 0.75			**346.53**	**KLD**
	Add 5% for				
	Grand Total For 10.5310 Acre			**346.53**	KLD
				17.32	
	STP Capacity (Or Say)			~~350.00~~ 363.85	KLD

Say 365 KLD

FINAL ABSTRACT OF COST

	Amount (Lacs.) For 10.5310 Ac
Sub Work 1 Water Supply	~~209.00~~ Rs. 173.88 lacs
Sub Work 2 Sewerage	~~294.42~~ Rs. 98.61 lacs
Sub Work 3 S.W. Drainage	~~93.528~~ Rs. 116.25 lacs
Sub Work 4 Roads	~~215.36~~ Rs. 239.96 lacs
Sub Work 5 Street Lighting	Rs. 40.40 lacs
Sub Work 6 Horticulture	~~2.09~~ Rs. 6.15 lacs
Sub Work 7 Maintenance charges for 10 years i/c resurfacing of roads after 1st 5 years & 2nd 5 years.	~~297.61~~ Rs. 272.62 lacs
	~~1152.42~~ Rs. 947.87 lacs
COST / Acre	~~109.43~~ Say Rs 947.90 lacs

Dev. Cost Per Acre = Rs. 947.90 lacs / 10.5310 Acre = Rs. 90.00 lacs

Executive Engineer
HSVP Divn. No. VI
Gurugram

Checked with reference to comments in forwarding letter No. 7723 Dt. 21.07.2020. and notes attached with the estimate

Superintending Engineer (HQ)
for Chief Engineer HSVP
Panchkula
21/7/2020

Superintending Engineer,
HSVP Circle-II, Gurugram

Addl. Chief Engineer
HSVP, Gurugram

C/S

Director
Town and Country Planning,
Haryana, Chandigarh

WATER SUPPLY HEAD		Amount (Lacs.) For 10.5310 Ac
Sub Head 1 Head Works		~~65.40~~ Rs. 41.88 lacs
Sub Head 2 Pumping Machinery		~~28.00~~ Rs. 29.00 lacs
Sub Head 3 Distribution System(Drinking) & Rising main		~~21.89~~ Rs 22.50 lacs
Sub Head 4 Distribution System flushing cum irrigation		~~20.31~~ Rs. 19.93 lacs
Total		~~135.60~~ Rs. 113.31 lacs
Add 3% Contingencies & PE Charge		~~4.07~~ Rs. 3.40 lacs
Add 49% Departmental Charges, Unforseen price excalation Admn.		~~139.67~~ 116.70 lacs ~~68.44~~ Rs. 57.18 lacs
(CO to final abstract of cost)	Total Say	~~208.11~~ Rs. 173.88 lacs ~~209.00~~

Sub Head I

Water Supply Head Works
Rs.(lakhs)

S. No.	Description	Unit	Qty	Rate	Amount
1	Boring and installing 300X200 mm i/d tubewells with reverse/direct rotary rig complete with pipe strainer to a depth of about 150 m. complete.	Nos.	1	1000000.00	~~14.00~~ Rs. 10.00 lacs
2	Constructing pump chambers as per standard design of PWD PH/HUDA of size 4.90x4.25 m.	Nos.	1	200000.00	2.00
3	Construction of boundary wall gate around the Tubewell site.				
a)	Water Works	Nos	1	100000.00	1.00
b)	Tubewells	Nos	(LS) 2	~~120000.00~~	2.00
4	Provision of footpath hodges and lawns at tubewell.	Nos	(LS) 2	100000.00	2.00
5	Construction of boosting chambers of suitable size along with under ground tank of capacity 300 KL pumping machinery and generating set etc. complete in all respects. Details of boosting station				
i)	construction of boosting chamber	LS		-	3.00
ii)	UG tank ~~360~~ 350 **KL** capacity incl. **170 KL** for fire fighting, domestic, raw & fire tank in six compartments & 125KL for flushing near STP	kl.	~~360~~ 425	~~10000.00~~ 3500/KL	~~36.00~~ 14.88 lacs
7	Provision for carriage of material and other unforeseen items	LS			2.00
8	Provision for staff quarters for Maintenance.				5.00 ~~4.00~~
i)	350 sft	Nos.	LS	~~400000.00~~	Rs. 41.88 lacs
ii)	~~440 sft~~	Nos.			
iii)	~~770 sft~~	Nos.			
	(C.O. to abstract of cost of Sub-work No.I)			**Total**	**65.40**
				Say	**65.40**

Sub Work I
Sub Head No. II

Water Supply
Pumping Machinery
Amount (Rs.)
(in Lakhs)

S. No.	Description	Unit	Qty	Rate	
1	Providing and installing electricity driven electro or submersible pumping set capable of delivering about 20 KL water per hour against a total head of 60 M complete with motor and other accessories. (7.5HP)	Nos.	1	~~200000.00~~ 10.00 lacs	~~4.00~~ Rs. 10.00 lacs
2	Provision for diesel engine genset stand bye arrangements for Tubewells.	Nos.	1	200000.00	2.00
3	Provision for cheap pressure type chlorination plant complete.	Nos.	1	100000.00	1.00
4	Provision for making foundations & erection of pumping machinery.	LS			Rs. ~~2~~.00
5	Provision for pipes, valves & specials inside the pump chamber.	Nos.	2	(L.S) ~~200000.00~~	Rs. 1.50 lacs ~~4.00~~
6	Provision for electric services connection including electric fittings for tubewells chambers complete. Including cost of trasfermer.	LS			Rs. 2.50
7	Providing and installing centrifugal boosting pumping set, capable of delivering water at 40M head complete in all respects. (7.5HP) (2 working + 1 standby)	Nos.	(2+1) 3	1~~0~~0000.00	3.00 lacs ~~4.50~~
8	Providing and installing centrifugal boosting pumping set, capable of delivering water at 40M head complete in all respects. (7.5HP) (1 working + 1 standby)	Nos.	(1+1) 2	1~~0~~0000.00	2.00 lacs ~~3.00~~
9	Providing Gen set ~~63~~ 50 KVA.	LS			~~4.00~~ 5.00 lacs
10	Provision for carriage of materials and other unforeseen items.	LS		-	1.0 lacs
	(C.O. to abstract of cost of Sub-work No.I)			**Total**	~~29.00 lacs~~ ~~28.00~~
				Say	~~28.00~~

Sub Work I
Sub Head No. III

Water Supply
Distribution System/Rising Main
(Domestic)

S. No.	Description	Unit	Qty	Rate	IN LACS
1	Providing, laying, jointing & testing D.I. pipes including cost of excavation complete as per ISI marked.				
i)	150 mm dia	M	11	1575.00	0.17
ii)	100 mm dia	M	791	~~1250.00~~	~~9.89~~
iii)	80 mm dia	M	36	~~1000.00~~ 1250/m	~~0.36~~ 11.78 lacs
iv)	65 mm dia	M	115	900.00	~~1.04~~
			942 m		
2	Providing and fixing sluice valves including cost brick masonary chambers complete in all respects.				
i)	150 mm i/d	Nos.	1	15000.00	0.15
ii)	100 mm i/d	Nos.	14	~~12000.00~~	~~1.68~~
iii)	80 mm i/d	Nos.	1	~~10000.00~~ 12000/-	~~0.10~~ 2.16 lacs
iv)	65 mm i/d	Nos.	3	9000.00	~~0.27~~
			18		
4	Providing and fixing 150 mm dia NRV including cost of brick masonry chamber.	Nos.	3	10000.00	0.30
5	Providing and fixing ~~80 mm dia~~ air valves and scour valves including cost of brick masonry chamber.	Nos.	(L.S) ~~2~~	~~10000.00~~	0.20
6	Providing and fixing fire hydrants complete with masonary chambers.	Nos.	13	10000.00	1.30
7	Providing and fixing indicating plates for sluice valve, air valve etc.	Nos.	21	1000.00	0.21
8	Provision for carriage of material & other unforseen	LS	(L.S)	~~100000.00~~	1.00
10	Provision for rising main from tubewells to UG Tank				
i)	100 mm	M	180	1250.00	2.25
11	Provision for rising main from main Water supply line to UG Tank (DI Pipe)				
i)	100 mm	M	238	1250.00	2.98
	(C.O. to abstract of cost of Sub-work No.I)		**Total**		~~21.89~~
			Say		Rs. ~~22.00~~ lacs ~~21.89~~

Sub Work I
Sub Head No. IV

Water Supply
Flushing and Irrigation

S. No.	Description	Unit	Qty	Rate	IN LACS
1	Providing, laying, jointing & testing D.I. pipes including cost of excavation complete as per ISI marked.				
i)	100 mm dia	M	841	1250.00	~~10.51~~
ii)	~~80~~ mm dia	M	36	~~1000.00~~ Mtr	~~0.36~~ 12.04 lacs
iii)	~~65~~ mm dia	M	86	900.00	~~0.77~~
			963 M		
2	Providing, laying, jointing & testing HDPE (SH80) pipes including cost of excavation complete as per ISI marked.				
i)	~~110 mm dia~~	M	~~0~~	~~1250.00~~	0.00
ii)	75 mm dia	M	522 ~~522~~	~~715.00~~ 750/-	~~3.73~~ 3.91 lacs
iii)	~~63 mm dia~~	M	0	~~618.00~~	0.00
iv)	~~50 mm dia~~	M	~~86~~	415.00	~~0.15~~
v)	~~40 mm dia~~	M	~~186~~	310.00	~~0.58~~
vi)	32 mm dia	M	118	240.00 450/-	~~0.28~~ 0.53 lacs
vii)	25 mm dia] for irrigation	M	11	~~120.00~~ 350/-	~~0.01~~ 0.04 lacs
2	Providing and fixing sluice valves including cost brick masonary chambers complete in all respects.				
i)	100 mm i/d	Nos.	15	12000.00	1.80
ii)	80 mm i/d	Nos.	3	10000.00	0.30
iii)	65 mm i/d	Nos.	3	9000.00	0.27
3	Providing and fixing 80 mm dia air valves and scour valves including cost of brick masonry chamber.	Nos.	3	10000.00	0.30
4	Providing and fixing indicating plates for sluice valve, air valve etc.	Nos.	24	1000.00	0.24
5	Provision for carriage of material	LS		~~100000.00~~	0.50 ~~0.05~~ ~~1.00~~
	(C.O. to abstract of cost of Sub-work No.I)		**Total**		~~20.31~~ 14.93 lacs
			Say		~~20.31~~

Sub Work II — **Sewerage Scheme**

S. No.	Description	Unit	Qty	Rate	in Lacs
1	Providing, lowering, jointing, cutting salt glazed stone ware/RCC NP^3 pipes and specials into trenches including cost of excavation, bed concrete lot of manholes complete.				
i)	**200 mm i/d stone ware**				
a)	**Average depth upto 1.5 m**	M	484	1250.00	Rs. 6.05
b)	**Average depth 1.5 m to 4.5 m**	M	209	~~1600.00~~ 1500/-	~~3.34~~ Rs. 3.14 lacs
ii)	**250 mm i/d stone ware**				
a)	**Average depth 1.5 m to 4.5 m**	M	25	1800.00	Rs 0.45
2	Provision for providing oblique junctions	LS		-	Rs 2.0
3	Provision for temporary timbering etc.	LS		-	Rs 1.0
4	Provision for providing and fixing vent shaft at suitable places as per PH requirements	LS			Rs 2.0
6	Provision for cutting of roads and carriage of materials etc. and other unforsean charges	LS		-	Rs. 3.0
7	Provision for connection with HUDA Sewer lines on master Road (L.S)				Rs 1.0
8	Provision of STP ~~350~~ 365 KLD upto tertiary level Complete	LS		(L.S)	Rs. 45.62 lacs ~~175~~ 191.84 64.26 lacs
	Add 3% contingencies & PE charges				~~5.75532~~ 1.92 lacs ~~197.60~~ 66.18 lacs
	Add 49% Deptt. Charges, price excalation unforseen, Admn.			**Total**	~~96.82~~ 32.43 lacs ~~294.42~~ 98.61 lacs
	(C.O. to abstract of cost of Sub-work No. 2)			**Say**	~~294.42~~

Sub Work III — **Storm water drainage**

S. No.	Description	Unit	Qty	Rate	In Lacs
1	Providing, lowering, jointing, cutting RCC NP^3 pipes and specials into trenches including cost of excavation cost of manholes, ventilating chambers etc. complete in all respects.				
i)	**400 mm i/d**				Rs. 24.73 lacs
a)	Average depth upto 1.5 m	M	989	~~500.00~~ 2700	~~14.835~~ 4.02 lacs
b)	Average depth 1.5 m to 4.5 m	M	149	~~1750.00~~ 2700	~~2.61~~ 4.02 lacs
2	Provision for road gullies i.e. single and double. Es pipe connection (L.S)	LS		-	2.00 2.50 lacs
3	Provision for lighting, watching and temporary diversion of traffic.	LS		-	1.00
4	Provision for cutting of roads and carriage of materials etc. and other unforseen items.	LS		-	1.00
5	Provision for temporary disposal arrangements/ Re-charge pit. (at selected Places)	Nos	~~2~~	~~1500000.00~~	30.00
6	Provision for connection with HUDA. SWD line on master Road (L.S)	~~LS~~			1.00
7	Provision for timbering and shoring	LS		-	~~1.50~~
8	Providing for temprorary disposal arrengment till HUDA service are provided LS	LS		-	~~1.00~~ 50
					Rs. ~~60.94~~ 75.75 lacs
	Add 3% contingencies Es PE Charges				~~1.83~~ 2.27 lacs
					~~62.77~~ 78.02 lacs
	Add 49% Deptt. Charges, price excalation, unforseen Admn.				~~30.76~~ 38.23 lacs
				Total	~~93.53~~
	(C.O. to abstract of cost of Sub-work No. 1 final)			**SAY**	~~93.528~~ 116.25 lacs

Sub Work IV — **Road Work**

S. No.	Description	Unit	Qty	Rate	In Lacs
	Site Clearance				
1	Clearing and grubbing road land including uprooting rank vegetation grass bushesh shrubs saplings and trees girth upto 300mm removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials to be used or auctioned upto a lead of 1000mm including removable and disposal of top soil not exceeding 150mm thickness by manual means in area of light jungle as per drwing and clause 201 of morth specifications	hectare	1.63	50000.00	0.82 → 0.82 lacs
	Earth Works				
2	Provision for levelling and earth filling as per site conditions.	Acre	4.03 → 10.53125	150000.00	6.05 → 15.80 lacs
3	Provisions for				
	200 mm GSB				
	250 mm thick stone aggregate layer				
	50 mm thick B.M. → DBM				
	20 mm th M.S.S. → BC				
	Total	Sq. M	7530 → 8514	1200.00	90.36 lacs → 102.17
4	Miscellaneous items				
(a)	Providing for Kerbs & Channels	RMT	1892 → 2740	600.00	11.35 → 16.44 lacs
	for 10.5310 ACRES				
	9M wide road 946 x 2 = 1892 RM +45% = 2740 → 1304				
(b)	Provision of foot path of precast conc.	Sq. M	2270.4 → 3130	600.00	13.62 → 18.78 lacs
	for 10.5310 acres (9m)				
	9 wide road 946 x 1.2x 2 = 2270.4 SQM → 1304 → 3130sqm				
4	Provision for indicate plate / guide map/ demarcation burji etc./ traffic light etc.	LS			0.50
	Provision for plot indicators LS				1.00
	Provision for demarcating burgies LS				2.00
	Provision for traffic arrangment				1.00
	Provision for carriage of material LS & other unforseen items (LS) 1:1½:3 (CC)				5.00
	Construction of pavement in shopping area 88+48=136 sqm → 776 Sqm	sqm	136	600.00	0.82 → 4.66 lacs
				Rs.	140.33 → 156.36 lacs
	Add 3% contingencies & PE charges				4.21 → 4.69 lacs
	Add 49% Deptt. Charges, Price excalation, unforseen Admn.				144.54 → 161.05 lacs
				Total	70.823 → 78.91 lacs
	(C.O. TO FINAL ABSTRACT OF COST) SUB WORK -			**SAY**	215.36 → 239.96 lacs

Sub Work V

Street Lighting

S. No.	Description	Unit	Qty	Rate	In Lacs
1	Providing street lighting on roads as per standerd specification complete in all respect				
	Provision made on L.S. cost @ Rs. 25,0000.00 per acre	L.S.	10.531	250000.00	26.33
					26.33
	Add 3% contingencies Es PE charges				0.79
					Rs 27.12
	Add 49% Deptt. Charges, Price Excalation, Unforseen Admn				13.29
				Total	**40.40**
	(C.O. TO FINAL ABSTRACT OF COST ~~SUB WORK - V~~)			**SAY**	Rs **40.40** lacs

Sub Work VI

S. No.	Description	Unit	Qty	Rate	Amount In Lacs
1	Development of lawn area				
a)	Trenching the ordinary soil upto depth of 60 cm. including removal and apcking of servicable material and disposing at the lead of 50m and making upto the tranched area to prope level by filling with earth mixed with manure before and after flooding trenches with water including cost of imported earth and manure.				
b)	Rough dressing of trenched area.				~~0.74~~
c)	Grassing with(doop grass) including watering and maintenance of lawns free from weds and fit for moving in rows 7.5 cm in either direction including for hedges and grill andbarred wire fencing around park and green belt (as per hudda Norms) 0.802 Acres @ Rs. 1.50 lacs/Acre			=	1.20 lacs
2	Planting of trees with tree guards on roads at ~~40~~ 12M intervals total length of roads = 946 mtr No of trees @ 40m c/c = ~~946x2/40 = 47.3 nos~~ say = ~~48 nos~~ 1304/12 = 108 Nos X 2 = 216 No. Cost of the tree Excavation rs 60/- Manure rs 90/- Tree plant rs 150/- Tree gaurds rs 1000/- Total = 1300 x ~~40~~ 216				2.18 lacs
					~~0.624~~
	TOTAL				Rs. 4.01 lacs
	Add 3% contingencies ~~1.36~~ Es PE charges				~~0.04~~ 0.13 lacs.
					~~1.40~~ 4.13 lacs
	Add 49% Deptt. Charges, price excalation, unfoseen Admn. charges.				~~0.69~~ 2.02 lacs
				Total	~~2.09~~ 6.15 lacs
	(C.O. TO FINAL ABSTRACT OF COST ~~SUB WORK - VI~~)			**SAY**	~~2.09~~

Mtr. charges incl. Resurfacing of Road

Sub Work VII — Maintenance

S. No.	Description	Unit	Qty	Rate	In Lacs
1	Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, street light, horticulture etc. complete including operation and establishment charges as per HUDA norms after completion and resurfacing of roads after 10 years or 1st phase.	Acre	10.531	750000.00	Rs. 78.98
2	Provision for resurfacing of roads after 1st five years of maintenance (as per details attached). Area in Sqm. @600/sqm	Sq. M	~~8514~~ 7530	600.00	~~51.08~~ Rs. 45.18 lacs
3	Provision for resurfacing of road after 10 years @ Rs.750/- per sqm.	Sq. M	~~8514~~ 7530	750.00	Rs 56.48 lacs ~~63.86~~
					Rs. ~~193.92~~ 177.66 lacs
	Add 3% contingencies & PE charges				~~5.82~~ 5.32 lacs
	Add 49% Deptt. Charges / Price excalation, unforseen Admn.				~~199.74~~ ~~97.87~~ 182.96 lacs
				Total	~~297.61~~ 89.66 lacs
	(C.O. TO FINAL ABSTRACT OF COST ~~SUB WORK - VII~~)			**SAY**	Rs. ~~297.61~~ 272.62 lacs