

Regd.
To

Planet Earth Estates Pvt. Ltd.
(now known as Vatika Sovereign Park Pvt. Ltd.)
7th floor, Vatika Triangle, Sushant Lok-1,
Block-A, MG Road, Gurugram

Memo No. LC-2684-B-JE(MK)-2018/²⁵²³³ Dated: 28-08-2018

Subject: Approval of Service Plan/Estimates for Group Housing Colony over an area measuring 10.43125 acres under licence No. 65 of 2013 dated 20.07.2013 in Sector 99, Gurugram being developed by Planet Earth Estates Pvt. Ltd.

Kindly refer your application on the subject noted above.

The Service Plans/Estimates in respect of Licence no. 65 of 2013 dated 20.07.2013 granted for setting up Group Housing colony over an area measuring 10.43125 acres falling in Sector 99, Gurugram Manesar Urban Complex have been checked and corrected wherever necessary by the Chief Administrator, HUDA & are hereby approved subject to the following terms and conditions:-

1. That you will have to pay External Development Charges as a full and no deduction on account of any services proposed from other Department/from own sources by the colonizer for the time being, as EDC works for a town as a whole will have to be got executed in view of overall planning, proposed area also covered/to be covered in EDC, Gurugram Town, which is under finalization.
2. The category wise area shown on the plans and proposed density of population thereof has been treated to be correct for the purpose of services only.
3. That you are liable to maintain the licensed area for ten years or as per HUDA norms till such time, the colony is taken over by the local authority/State Govt.
4. The wiring system of street lighting will be under ground and the specifications of the street lighting fixture etc. will be as per relevant standard of HYPNL. LED lamps shall be provided to met the requirement of HYPNL and as well environment.
5. It is made clear that appropriate provision for fire-fighting arrangement as required in the NBC/ISI should also be provided by you and fire safety certificate should also be obtained from the competent authority before undertaking any construction. You shall be sole responsible for fire safety arrangement.
6. All technical notes and comments incorporated in the estimates in two sheets will also apply. A copy of these is also appended as Annexure-A.
7. The correctness of the levels of the colony will be sole responsibility of the owner for integrating the internal sewer/ storm water drainage of the colony by gravity with the master services.
8. That level/extent of external services to be provided by HUDA will be in accordance with EDC deposited. The colonizer will be fully responsible to meet the demand, to dispose of effluent and rain water till these services are provided by HUDA.
9. You shall be sole responsible for disposal of sewage of your colony as per requirement of HSPCB/Environment Deptt. till such time the external services are made available as per the proposal of the town. All the link connections with the external services shall be made by you at your own cost after seeking approval from competent authority. There should be no pollution due to disposal of sewerage of the colony. The disposal of the effluent should be accordance to the standard norms fixed by Haryana State Pollution Board/Environment Department.

For Vatika Sovereign Park Pvt. Ltd.


Authorized Signatory

10. The estimate does not include the provision of electrification of the colony. However, it is clear that the supervision charges and O&M charges shall be paid by you directly to the HYPNL.
11. That you shall be solely responsible to lay the services upto the external services laid/to be laid by HUDA or any developing agency on Sector dividing road at respective locations/points
12. You have proposed to utilize recycled water for flushing purposes and provision of separate flushing line, storage tank, metering system, pumping system and plumbing has been made. Therefore, it is clarified that no tap or outlet of any kind will be provided from the flushing lines/plumbing lines for recycled water except for connection to the cistern of flushing tanks and any scouring arrangement. Even ablution taps should be avoided.
 - (i) Two separate distribution systems, independent to each other, will be adopted, one for potable water supply and second for recycled water. Every Home/Office/business establishment will have access to two water pipe lines.
 - (ii) Potable water and recycled water supply lines will be laid on opposite berms of road. Recycled water lines will be above sewer lines. Wherever unavoidable and if all pipes are required to be laid on same side of road, these will be located from the ground surface in order of descending quality. Potable water shall be above recycled water which should be above sewer. Minimum clear vertical separation between a potable water line and a recycled water line shall be one ft, if it not possible then readily identifiable sleeve should be used.

To avoid any accidental use of recycled water for potable purposes all:-

 - (a) Recycle water pipes, fitting, appurtenances, valves, taps, meters, hydrants will be of Red Colour or painted red.
 - (b) Sign and symbols signifying and clearly indicating "Recycle Water" "Not fit for Drinking" must invariably be stamped/fixed on outlets, Hydrants Valves both surface and subsurface, Covers and at all conspicuous places of recycle distribution system.
 - (c) Detectable marker tapes of red colour bearing words "Recycle Water" should be fixed at suitable interval on pipes.
 - (d) Octagonal covers, red in colour or painted red and words "Recycle Water-Not fit for Drinking" embossed on them should be used for recycled water.
13. That it shall be mandatory to provide dual/two button or lever flushing system in toilets.
14. You shall be sole responsible for the construction of various structures such as RCC underground tank etc. according to the standard specification good quality and its workmanship. The structural stability responsibility will entirely rest upon you.
15. In case some additional structures are required to be constructed and decided by HUDA/development agency at a later stage, the same will be binding upon you. Flow of control valves will be installed preferably of automatic type on water supply connection with main water supply line, laid by developing agency or HUDA.
16. The formation level of internal road should match with sector roads. Similar other services like water supply, sewerage and SWD level etc. should be fixed in integration of levels of EDC services of water supply, sewerage and SWD etc, which shall be ensured by you.
17. In case it is decided by Govt. that HUDA/Govt. will construct 24 m wide road and will extend master services on 24 m wide internal circulation road, then additional amounts at rates as decided by the authority/Govt. will be recoverable over and above EDC.

18. Since, the construction of master plan is yet to take place, you will get the road level/formation level of your service fixed from the concerned Superintending Engineer, before execution.
19. This estimate does not include the common services like water supply, storage tank on the top of the building block, the plumbing works etc. will part of the building works.
20. You will have to ensure that the sewer/storm water drainage to be laid by you will be connected with the proposed existing master services by gravity. If it is not possible to connect the services by gravity, it will be your sole responsibility to make the pumping arrangement and maintenance thereof for all the time to come.
21. That you shall not make any connection with the master services i.e. water supply, sewerage, storm water drainage, without prior approval of the competent authority in writing.
22. That the detailed technical proposal/scheme shall be got approved from this office before execution of work at site.
23. The firm will provide solar water heating system as per the guidelines issued by Haryana Govt./Ministry of Environment/Govt. of India.
24. It is made clear that roof top rain harvesting system shall be provided by you as per Central Ground Water Authority norms/Haryana Govt. Notification and the same shall be kept operational/maintained all the time. The arrangement for segregation of first rain water not to be entered into the system shall also be made by you.
25. That you shall transfer the land under master plan road as well as service road to Govt./HUDA for construction of road/service road free of cost and proportionate cost for construction of service road shall also be paid by you.

NOTE(1):-

In order to implement the directions given by National Green Tribunal dated 26.11.2014, 04.12.2014 and 19.01.2015 in original Application No. 21 of 2014 in the matter of Vardhman Kaushik V/s Union of India and Ors, the following instruction issued vide letter No. 2613 dated 5.3.2015 be incorporated for implementation at site as under:-

- i) It shall be ensured that there should be no hot mixing on the road side. During construction and maintenance of road, it shall be also ensure that coal tar, bitumen and asphalt is brought in molten condition and same is neither burnt nor fire is put to melt these substances on open roads.
- ii) The demolition material and construction material is transported with proper coverage and precautions, in order not to be cause serious air pollution.
- iii) No Govt. authority, contractor, builders would be permitted to store and dump construction material or debris on the metalled road.
- iv) Such storage does not cause any obstruction to the free flow of traffic and/ or inconvenience to the pedestrians. Every builder, contractor or person shall ensure that the construction material is completely covered by tarpaulin. To ensure that no dust particles are permitted to pollute the air quality as a result of such storage.
- v) The builder/contractor will be responsible and ensure that their activity does not cause any air pollution during the course of the construction and/or storage of material or construction activity. Defaulter shall be liable to be prosecuted under the law in force.
- vi) All trucks or vehicles of any kind which are used for construction purposes and/or are carrying construction materials like cement sand and other allied material shall be fully covered dust free and/or other precautions would be taken to ensure that enroute their destination, the dust, sand or other particles are not permitted to be released in the air and/or contaminate air. Any truck which is not complying with these directions would not be permitted to enter in the NCR region.

NOTE(2):-

Implementation of instruction used by Hon'ble NGT during hearing held on 28.4.2015 in OA No. 21 of 2014 and OA No. 95 of 2014 in the matter of Vardhman Kaushik V/s Union of India and Ors, the following instruction issued vide letter No. CEIEE-

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For Valika Sovereign Park Pvt. Ltd.

W/CHD(G)/4971-89 dated 30.4.2015 shall be complied with in the construction work as under:-

- a. All the direction contained in our order dated 4th December, 2014 shall continue to be in force and the Authorities concerned would carry out the said directions in their true spirit and substance.
- b. There shall be complete prohibition of burning of any kind of garbage leave, waste plastic, rubber, self-moulding compound and such other materials in the open. Any person affected or concerned would have a right to make a complaint in writing.
- c. NGT further directed that all the Corporations of concerned states falling in NCR would notify on their websites, address and Mobile Number to which such complaint can be made/sent.
- d. Immediately upon receipt of such complaint, the concerned Authority and for Authorities the designed Officers would proceed to take action in accordance with law.
- e. For every incident of burning of any such above stated material, the person who is found actually burning such and/ or responsible for or abating such burning would be liable to pay compensation in terms of the Section 15 of the Nation Green Tribunal Act, 2010 for polluting the environment and would be liable to pay a sum Rs. 5000/- (to be paid instantaneously).
- f. In the event such offender refuses to comply with the directions of the Authorized Officers, the Authorized Officers would be at liberty to serve a notice upon him for appearing before the Tribunal and to show cause why the person burning, abating or responsible for such burning materials afore indicated, be not directed to pay compensation as may be determined by the Tribunal in accordance with law.
- g. The orders of the NGT are to be complied with as a decree / order of the Civil Court. All these Authorities and the Police are duty bound to carry out the directions/orders of the Tribunal in accordance with law. The money so collected, shall be maintained by the Corporation and / or any Authority as a separate fund to be utilized for improvement, restoration and restitution of the environmental degradation resulting from such activity or otherwise.
- h. The payment of such compensation shall not absolve the offender of other liabilities that such person may incur under different laws in force including other provisions of the National Green Tribunal Act, 2010.
- i. NGT has directed that there is no burning of leaves or horticulture residue, all the Corporations, Authorities and the State Governments to ensure that there is proper composting pits area-wise prescribed within one week from today (28.04.2015). The composting will be only at those sites and all the Corporations, Authorities and the State Governments shall be responsible to provide due space for collection and deposit of horticulture waste including leaves for composting purposes at these sites.
- j. Each officer under whose jurisdictions the area would fall, would be personally responsible for imposition of compensation and costs.
- k. The composition sites should be provided nearer to the places where there is large numbers of trees, gardens and compost bits which also convert into self-manure should be used for horticulture purposes to ensure that the burden on the site does not increase beyond its capacity.
- l. Decision in regard the land fill sites should be taken expeditiously as possible. Such adequate number of sites if not earmarked, should be identified by the respective corporations and authorities if not done so far.

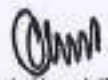
For Vatika Sovereign Park Pvt. Ltd.


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- m. No one would permit the building of plastic and allied products in NCR area. if authorities notice any burning of such materials they would not only ensure that such activity does not persist, but even would be entitled to seize the entire material which is illegally and unauthorized stored/held by a person who does not possess of a license or authorization for dealing with such products in accordance with the plastic waste Management and Handling Rules, 2011. Upon seizure of such material, the authorities would take a direction from Hon'ble NGT and dispose of the same by giving it to the authorized dealer in accordance with the directions issued.
- n. You shall get revised the Service Plan/Estimates after approval of revised building plan.

A copy of the approved service plan/estimates is enclosed herewith. You are requested to supply three additional copies of the approved service plan/estimates to the Chief Administrator, HUDA, Panchkula under intimation to this office.


DA/As above


(Rajesh Kaushik)
District Town Planner (HQ)
For Director, Town & Country Planning
Haryana, Chandigarh

Endst. No LC-2684-B-ATP(SN)-2018/

Dated :

A copy is forwarded to the Chief Engineer-I, HUDA, Panchkula with reference to his memo No. CE-I/SE(HQ)/SDE(W)/2018/80877 dated 25.04.2018 for information and necessary action please.


(Rajesh Kaushik)
District Town Planner (HQ)
For Director, Town & Country Planning
Haryana, Chandigarh

For Vatika Sovereign Park Pvt. Ltd.


Authorized Signatory

GROUP HOUSING SCHEME MEASURING 10.43125

AT SEC.99, GURGAON (HR.)

SERVICE ESTIMATE, DESIGN REPORT AND CALCULATION OF INTERNAL DEVELOPMENT WORKS



DEVELOPED BY



M/S VATIKA LIMITED

For Vatika Sovereign Park Pvt. Ltd.

[Signature]
Authorized Signatory

Service Estimate, Design report, calculation and measurement sheet of internal development works
for Group housing scheme measuring 10.43125 Acres at Sector 99, Gurgaon
DEVELOPED BY Vatika Group

Gurgaon town of Haryana State is situated on Delhi - Jaipur National Highway No.8 at a distance of 30 kms from 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 fully inhabited to an extent. Further to the increasing demand HUDA has planned to develop new sectors at outskirts of Gurgaon town.

This report and estimate is for approval of for Group housing scheme measuring 10.43125 Acres at Sector 99, Gurgaon

WATER SUPPLY

At present the source of water supply in this area is HUDA and optional bore well. As the underground water is potable provision for 1 number of bore well have been made in this estimate. It has been proposed to construct underground tanks of capacity as per attached details and at location for domestic purpose and for fire protection. The underground tanks will be fed from the bore wells and HUDA supply, from there water will be supplied by set of variable frequency pump to all towers. The water supply system has been designed as per the Hazen William formula.

DESIGN

The scheme has been designed for population considering 5 person for each apartment and 2 person for EWS. The rate of water supply per head/day has been taken as $(150+15\%)$ i.e. 172.5 liters per head per day.

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.

SEWERAGE SCHEME

Sewer lines have been designed for three 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 self-cleaning velocity. Sewer line up to 400mm dia has been designed to run half full and above 400mm dia has been designed to run three fourth full at peak flow. Necessary provision for laying S.WRCC pipe sewer line, construction of required number of manholes etc., has been made in the estimate.

Necessary design statement for entire sewerage system has been prepared and attached with estimate. Manning's formula has been used on the design of sewerage system.

STORM WATER DRAINAGE

We proposed to lay underground R.C.C. pipe drains with required number of catch basins, manholes and rainwater recharge pits with over flow to the Proposed HUDA storm drain on sector Road. The intensity of rain fall has been taken as $\frac{1}{4}$ " per hour. R.C.C storm water line will be designed as per Manning's formula.

SPECIFICATIONS

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

ROADS

Roads have been provided to above zones and estimate is prepared as per revised specifications adopted by HUDA

STREET LIGHTING

Provision for streets also has been made

HORTICULTURE

Estimates of plantation, landscaping, signage, etc., have 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
Per Acres - Including 3% Contingencies @

101950000/-
Rs. 85,049,137.40
49% Departmental
OR 97,75000/-

For Vatika Sovereign Park Private Limited
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For Vatika Sovereign Park Pvt. Ltd.

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Project: Group housing colony for Vatika Group at sector 99, Gurgaon
DAILY WATER DEMAND & PUMPING SYSTEM (Annexure - 1)

S No.	Building	Height	Unit		Population @5 Person/Unit & @2 Person/Unit for service personnel and EWS	Water Req. @ 172.5 lpcd		Water Req. Flushing 33% Domestic 67%	
			Main	Ser.		In LPD	In KLD	In KLD	In KLD
1	Tower A (G+35)	130.5 Mtr.	68		340	58650	58.65	19	39
2	Tower B (G+36)	124.15 Mtr.	69		345	59513	59.51	20	40
3	Tower C (G+36)	124.15 Mtr.	70		350	60375	60.38	20	40
4	Tower D,H (G+10)	37.45 Mtr.	40		200	34500	34.50	11	23
5	Tower E,G,L (G+12)	44.65 Mtr.	69		345	59513	59.51	20	40
6	Tower F,J,K,M (G+10)	44.65 Mtr.	84		420	72450	72.45	24	48
7	EWS Unit	20.25 Mtr.	71		142	24495	24.50	8	16
8	Club Building	3.5 Mtr.			0	25000	25.00	8	17
10	Filter back wash					10000	10.00	N/A	10
11	Swimming pool					10000	10.00	N/A	10
12	DG Cooling					20000	20.00	20	N/A
13	10% of total population as visitors @ 15lpcd		47.1			707	0.71	0	0
Total			471	0	2189.1	435201.50	435.20	150.42	284.79
i Horticulture total area of 3.459 acres @ 25000 / Acre from STP					59,450		59	60	KL
ii Fire demand 100 * (P in thousand) ^{1/2} only for Underground static Reservoir					147,856		148	450	KL
iii STP capacity 80% of daily domestic and flushing water					348,161.20			350	KLD
2	Under ground water tank					Req.	Provided		
i	Daily fresh water demand					285	200	KL	
ii	Daily flushing water demand					150	100	KL	
iii	For Fire Fighting Static demand					148	450	KL	
iv	Total under ground Tank Capacity					583	750	KL	
						Say	750	KL	
Therefore it is proposed to construct under ground water tank of									
Fire Reserve					200 X 3	600	KL		
Raw Water Tank					75 X 1	75	KL		
Domestic Tank					150 X 1	150	KL		
Flushing Tank					100 X 1	100	KL		
Total						925	KL		
3A	Fresh Water Transfer Pumpset for A,B,C								
a)	Pump Capacity								
i	Total Domestic Demand for Main (i)					120		KLD	
ii	Daily Working Hrs for pumping					8.0		Hrs	
iii	Required Pumping Capacity					249		LPM	
iv	Proposed pump set (1 W + 15)				Say	280		LPM	
b)	Pump Head								
i	Suction lift					0		Mtr	
ii	Elevation Height					140		Mtr	
iii	Residual Head					15		Mtr	
iv	Friction Head Loss					4.72			
v	Total pump head required				Say	160		Mtr	
c)	Pump HP								
i	Power Required each pump (Lpm*head (m)/4500*.65(eff))				Say	15.3		HP	
						15.5		HP	
3B	Fresh Water Transfer Pumpset for D,H,F,E,G,L,J,K,M,EWS,Retail & Club								
a)	Pump Capacity								
i	Total Domestic Demand for Main (i)					165		KLD	
ii	Daily Working Hrs for pumping					8.0		Hrs	
iii	Required Pumping Capacity					344		LPM	
iv	Proposed pump set (1 W + 15)				Say	350		LPM	
b)	Pump Head								
i	Suction lift					0		Mtr	
ii	Elevation Height					55		Mtr	
iii	Residual Head					15		Mtr	
iv	Friction Head Loss					4.82			
v	Total pump head required				Say	75		Mtr	
c)	Pump HP								
i	Power Required each pump (Lpm*head (m)/4500*.65(eff))				Say	9.0		HP	
						6.5		HP	

4A Flushing Water Transfer Pumpset for A,B & C

a) Pump Capacity

i Total Flushing Demand for Main (l)

59

KLD

ii Daily Working Hrs for pumping

8

Hrs

iii Required Pumping Capacity

123

LPM

iv Proposed pump set (1 W + 1S)

Say

100

LPM

b) Pump Head

i Suction lift

0

Mtr

ii Elevation Height

140

Mtr

iii Residual Head

15

Mtr

iv Friction Head Loss

1

v Total pump head required

156

Mtr

Say

160

Mtr

c) Pump HP

i Power Required each pump (Lpm*head (m)/4500*.65(effi)

5.5

HP

Say

5.5

HP

4B Flushing Water Transfer Pumpset for D,H,F,E,G,L,J,K,M,EWS,Retail & Club

a) Pump Capacity

i Total Flushing Demand for Main (l)

71

KLD

ii Daily Working Hrs for pumping

8

Hrs

iii Required Pumping Capacity

149

LPM

iv Proposed pump set (1 W + 1S)

Say

200

LPM

b) Pump Head

i Suction lift

0

Mtr

ii Elevation Height

55

Mtr

iii Residual Head

15

Mtr

iv Friction Head Loss

3.00

v Total pump head required

73

Mtr

Say

70

Mtr

c) Pump HP

i Power Required each pump (Lpm*head (m)/4500*.65(effi)

4.8

HP

Say

4.0

HP

5 Irrigation Water Transfer Pumpset

a) Irr. water Pump Capacity

i Total Irr. Demand (l)

59

KLD

ii Daily Working Hrs for pumping

3

Hrs

iii Required Pumping Capacity

330

LPM

iv Proposed pump set (1 W + 1S)

Say

400

LPM

b) Pump Head

i Suction lift

0

Mtr

ii Elevation Height

35

Mtr

iii Residual head

25

Mtr

iv Friction Head Loss

10

v Total pump head required

70

Mtr

Say

70

Mtr

c) Pump HP

i Power Required each pump (Lpm*head (m)/4500*.65(effi)

9.6

HP

Say

6

HP

6 Fire Pumpset

i Wet Riser Pump (Electric operated)

2,850

LPM

ii Sprinkler pump (Electric operated)

2,850

LPM

iii Diesel pump (Diesel operated)

4,500

LPM

iv Jockey pump (Electric operated)

180

LPM

v Jockey pump (Electric operated)

180

LPM

vi Curtain pump (Electric operated)

2,280

LPM

a1) Pump Head (for main electrical pumps)

i Suction lift

0

Mtr

ii Elevation Height

140

Mtr

iii Residual head

35

Mtr

iv Friction Head Loss

15

v Total pump head required

190

Mtr

Say

190

Mtr

a2) Pump HP (for main electrical pumps)

i Power Required each pump (Lpm*head (m)/4500*.65(effi)

185.1

HP

Say

185

HP

b1) Pump Head (for jockey electrical pumps)

i Suction lift

0

Mtr

ii	Elevation Height				140		Mtr	
iii	Residual head				35		Mtr	
iv	Friction Head Loss				10			
v	Total pump head required				185		Mtr	
				Say	190		Mtr	
b2) Pump HP (for Jockey electrical pumps)								
i	Power Required each pump (Lpm*head (m)/4500*.65(eff))				11.7		HP	
				Say	12		HP	
c1) Pump Head (for Curtain electrical pumps)								
i	Suction lift				0		Mtr	
ii	Elevation Height				20		Mtr	
iii	Residual head				15		Mtr	
iv	Friction Head Loss				15			
v	Total pump head required				50		Mtr	
				Say	50		Mtr	
c2) Pump HP (for Curtain electrical pumps)								
i	Power Required each pump (Lpm*head (m)/4500*.65(eff))				39.0		HP	
				Say	31		HP	
7	Borewell Number & Pumping machinery (borewells will be installed of authorities Permits)							
a)	Number of borewell							
i	Yield / Borewell				12.0		KL/Hr	
ii	Operation Borewell per day				8.0		Hrs	
iii	Half Day Requirement				75.2		KL	
iv	Required number of Borewell				0.8		Nos	
v	Add 10% as standby				0.1		Nos	
vi	Total Number of bore well				0.9		Nos	
			Bore well Required	Say	1.0		Nos	
			Bore well Provided		1.0		Nos	
b) Pumping Machinery for Borewell								
i	Gross working head				80		Mtr	
ii	Average Fall in S.L.				5		Mtr	
iii	Depression Head loss				5		Mtr	
iv	Friction Loss in main				10		Mtr	
v	Total Head Required				80		Mtr	
vi	Power Required each pump (Lpm*head (m)/4500*.65(eff))				5.47		HP	
				Say	6.0		HP	
Note:-Entire Water to the proposed development is to be supplied by HUDA from the canal filtration scheme and therefore it is proposed to install one borewell as standby.								
8	CAPACITY OF DG SET							
	Equipment Description	No of Pump	Each power cons (HP)		Total Power Cons		Unit	
i	Dom. Water Transfer Pumps A,B,C (Working)	1	15.5		16		HP	
ii	Dom Water Transfer Pumps D,E,F,G,H,J,K,L,EWS (Working)	1	6.5		7		HP	
iii	Bore wells	1	6.0		6		HP	
iv	Flu. Water Transfer Pumps A,B & C (Working)	1	5.5		6		HP	
v	Flu. Water Transfer Pumps D,E,F,G,H,J,K,L,EWS (W	1	4.0		4		HP	
vi	Irr. Water Transfer Pumps (Working)	1	5.5		6		HP	
vii	Total HP Required				43.0		HP	
viii	DG KVA Required (HP*.8)				34		KVA	
	DG Capacity				40		KVA	
9	HUDA Water Supply Line (for domestic water use)							
	Total Water Demand LPD	Line	Flow LPM	Proposed Dia mm	Length of Line Mtr.	Fractional Head Loss Mtr./ Mtr.	Velocity Mtr./Sec.	Total Head Loss Mtr.
i	284785.01	A - Tank	237.32	100	80	0.00586	0.6040	0.445

For Vatika Sovereign Park Pvt. Ltd.


Authorized Signatory

Description	Total of sub work	3% Contingencies and	TOTAL	45% departmental charges	Grand Total
Sub Work-1	16268520	488056	16756576	9210742	26967318
Water Supply	13,832,535	414,975	14,247,511	8,981,280	23,228,791
Sub Work-2	4213900	126417	4340317	2126735	6467052
Sewerage	4,025,000	129,777	4,154,777	2,034,872	6,189,649
Sub Work-3	59210000	172630	6093630	2988329	9086959
Drainage	5,071,000	152,130	5,223,130	2,550,334	7,773,464
Sub Work-4	16140000	484200	16624200	8145858	24770058
Road Works	13,493,000	404,790	13,897,790	6,800,917	20,701,707
Sub Work-5	2116000	63650	2179650	1067945	3247595
Street Lighting	1,773,000	53,100	1,826,100	894,835	2,720,935
Sub Work-6	1715600	51450	1767050	865560	2632610
Plantation	1,466,000	35,040	1,501,040	739,400	2,240,440
Sub Work-7	20050000	60500	20110500	10149335	30259835
Services & Resurfacing of road	16,054,000	491,000	16,545,000	8,100,454	24,645,454
TOTALS	Rs. 56,417,433.00	Rs. 1,662,530.05	Rs. 57,079,963.05	Rs. 27,009,179.44	Rs. 84,089,142.49
Total Cost	Rs. 65,049,137.39				101941610

10/941615

say Rs 101950000/-

For:

For Vatika Sovereign Park Private Limited

Authorized Signatory

Cost For ACB Rs 101950000 = 97.74
10.43125

Executive Engineer
HUDA Division No. III
Gurgaon

Superintendent Engineer
HUDA Circle No. I,
Gurgaon

For Vatika Sovereign Park Pvt. Ltd.

Authorized Signatory

SUB WORK No. 1

WATER SUPPLY

S No.	Heads	Description	Amount
1	Sub Head 01	WATER SUPPLY	4443500 / Rs. 3,943,500.00
2	Sub Head 02	HUDA Rising Mains	636000 / Rs. 270,500.00
3	Sub Head 03	Pumping and Machinery	Rs. 5,785,000.00
4	Sub Head 04	Water Supply and distribution	3620250 / Rs. 2,374,050.00
5	Sub Head 05	Flushing/Irr. System	1783810 / Rs. 1,450,405.00
TOTAL			16268560 / Rs. 13,832,535.00

For Vatika Sovereign Park Pvt. Ltd.


 Authorized Signatory

SUB WORK No. 1		WATER SUPPLY
Sub Head 01		Bore well & rising Main
S No.	Description	Amount
1	Boring and installing 510 mm i/d Bore well with reverse rotary rig complete with pipe and strainer to a depth of about 120 meter	
	1 Nos. @ Rs. 500,000 each.	Rs. 500,000.00
2	Provision for rising mains, connecting Bore wells with water main and bye-pass arrangements for tank feeding (CILA Pipe)	
a)	80 mm dia 35 Mtr. @ Rs. 1,600	Rs. 56,000.00
b)	100 mm dia 0 Mtr. @ Rs. 2,100	Rs. 0.00
3	Construction of UG Tank (In total) 925 KL @ Rs. 3,500 /-KL	Rs. 3,237,500.00
4	Provision of unseen items/carriage of materials	Rs. 50,000.00
5	Provision for construction of pump chamber of Size 1.5 x 5 x 1.5 m for Housing	
	Bore wells 1 Nos. @ Rs. 100,000	Rs. 100,000.00
Total of Sub Head 01 Carried over to summary of Sub work - 1		Rs. 3,943,500.00

Material statement for Bore well refers to Water demand chart & Design chart Dom.

For Vatika Sovereign Park Pvt. Ltd.

Authorized Signatory

SUB WORK No. 1				WATER SUPPLY	
Sub Head 02				HUDA Rising Mains	
S No.	Description			Amount	
1	1. Providing, laying, jointing and testing CILA pipe lines from HUDA mains to water tank				
a)	100 mm dia pipe	80 Mtr.	@ Rs. 2,100	Rs. 168,000.00	
2	Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects			Rs. 4,000.00	
a)	100 mm dia	1 Nos.	@ Rs. 4,000	Rs. 4,000.00	
3	Providing and fixing indicating plates for sluice valve and air valves			Rs. 800.00	
a)	1 Nos.	@ Rs. 500	each	Rs. 500.00	
4	Provision for carriage for materials and other unforeseen items (US)			Rs. 25,000.00	
5	Provision for cutting of roads and making good to its original conditions (US)			Rs. 25,000.00	
6	Provision for making connection with HUDA (US)			Rs. 50,000.00	
Total of Sub Head 02 Carried over to summary of Sub work - 1				Rs. 279,500.00	
Material statement for HUDA Rising mains refers to Water demand chart					
Sub Head 03				Pumping and machinery	
S No.	Description			Amount	
1	Providing and installing electricity driven submersible pumping set capable of delivering about 14 KJ/Hr of water against a total head of 80m complete with motor and other accessories			Rs. 100,000.00	
2	Providing & installing following capacity for Water supply Booster Pumps				
a)	Capacity 280 LPM @ 140 mtr. Head (A,B,C)	2 Nos. @	Rs. 180,000.00 each	Rs. 360,000.00	
b)	Capacity 200 LPM @ 55 mtr. Head (D,H,F,E,G,L,J,K,M,EWS,RETAIL Etc.)	2 Nos. @	Rs. 225,000.00 each	Rs. 450,000.00	
3	Providing & installing pumping set of following capacity for Flushing Pumps				
a)	Capacity 150 LPM @ 140 mtr. Head (A,B,C)	2 Nos. @	Rs. 125,000.00 each	Rs. 250,000.00	
b)	Capacity 200 LPM @ 55 mtr. Head (D,H,F,E,G,L,J,K,M,EWS,RETAIL Etc.)	2 Nos. @	Rs. 150,000.00 each	Rs. 300,000.00	
4	Providing & installing pumping set of following capacity for Multistage Fire Pumps				
a)	Capacity 2850 LPM @ 55/140 mtr. Head (Main)	2 Nos. @	Rs. 480,000.00 each	Rs. 960,000.00	
b)	Capacity 180 LPM @ 140 mtr. Head (Jockey)	1 Nos. @	Rs. 110,000.00 each	Rs. 110,000.00	
c)	Capacity 180 LPM @ 90 mtr. Low Head (Jockey)	1 Nos. @	Rs. 110,000.00 each	Rs. 110,000.00	
d)	Capacity 2280 LPM @ 20 mtr. Head (Curtain)	1 Nos. @	Rs. 275,000.00 each	Rs. 275,000.00	
e)	Capacity 4500 LPM @ 140 mtr. Head (diesel)	1 Nos. @	Rs. 850,000.00 each	Rs. 850,000.00	
5	Providing & installing pumping set of following capacity for Irrigation Pumps				
a)	Capacity 400 LPM @ 35 mtr. Head	2 Nos. @	Rs. 80,000.00 each	Rs. 160,000.00	
6	Provisions for chlorination plant complete			1 Nos. @	Rs. 60,000.00 each
7	Provision for making foundations and erection of pumping machinery			Rs. 25,000.00	
8	Provision for pipes, valves and specials inside the boosting chamber			Rs. 25,000.00	
9	Provision for electric service connection including electrical fittings for boosting pumps. 10 Set @ Rs. 75,000.00			Rs. 750,000.00	
10	Provision for carriage of material and other unforeseen items etc. US			Rs. 100,000.00	
11	Provision for diesel engine Gen set each for standby arrangements for booster pump complete with gear head arrangements of 40 KVA capacities - 1 No.			Rs. 1,000,000.00	
Total of Sub Head 03 Carried over to summary of Sub work - 1				Rs. 5,785,000.00	

For Vatika Sovereign Park Pvt. Ltd.

Authorized Signatory

SUB WORK No. 1	WATER SUPPLY
Sub Head 04	Water supply and distribution (Domestic)

S No	Description	Amount
1	Providing, laying, jointing and testing GI pipe lines including fittings etc. complete in all respects.	
a)	50 mm Pipe 300 Mtr @ Rs. 550 1000 /	R 3,00,000 / Rs. 1,65,000
b)	65 mm Pipe 439 Mtr @ Rs. 750 1250 /	R 5,48,750 / Rs. 3,29,063
c)	80 mm Pipe 171 Mtr @ Rs. 550 1400 /	R 2,29,400 / Rs. 94,188
d)	100 mm Pipe 130 Mtr @ Rs. 750 2200 /	R 2,86,000 / Rs. 97,500
2	Providing, laying, jointing and testing MS pipe lines including fittings etc complete in all respects.	
a)	80 mm Pipe 294 Mtr @ Rs. 1,600 /	Rs. 4,70,400
b)	150 mm Pipe 276 Mtr @ Rs. 2,800 /	Rs. 7,72,800
3	Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects.	
a)	50 mm 3 Each @ Rs. 3,200 9500 /	Rs. 9,600 28500
b)	65 mm 5 Each @ Rs. 4,000 12500 /	Rs. 20,000 62500
c)	80 mm 3 Each @ Rs. 6,500 16000 /	Rs. 19,500 48000
d)	100 mm 1 Each @ Rs. 9,000 21000 /	Rs. 9,000 21000
4	Providing and fixing External Fire Hydrants	
27 Nos @ Rs. 14,000 18000 /		Rs. 2,07,000 486000
5	Providing and fixing air release valve	
8 Nos @ Rs. 5,000 2000 /		Rs. 40,000 96000
7	Provision for carriage of materials and other unforeseen items	Rs. 50,000
Total of Sub Head 04 Carried over to summary of Sub work - 1		Rs. 2,374,050.00
		3620230

For Vatika Sovereign Park Pvt. Ltd.


 Authorized Signatory

Material statement for EFH

For Vatika Sovereign Park Pvt. Ltd.

Authorized Signatory

Project - SOVEREIGN PARK SECTOR- 99, GURGAON

Design Statement for Domestic Water supply

S No	Line No	Length m	Self Load	Total person	Daily water consumption liters	Others Facilities water consumption liters	Self Cumulative LPM	LPM	Mtr.	Dia mm	Velocity m/sec	Frictional head loss mtr.	Elevation height	Loss in Riser	Total Frictional head losses in Mtr.	Remarks
1	A	35	21	105	16270	12241	28.5	43.75	50	0.760	0.003	44.000	0.117	0.231	0.23	
2	B1	37	21	105	16270	12241	28.5	46.25	50	0.280	0.003	44.850	0.117	0.337	0.24	
3	B2	26	23	115	20010	13407	27.9	32.5	55	0.168	0.004			0.087	0.27	
4	B3	27		0	0	0	25648	53.5	65	0.322	0.003			0.087	0.36	
5	B	35		0	0	0	37682	79.8	65	0.475	0.006	130.500	0.770	1.073	1.07	
6	C1	20	21	105	16270	12241	28.5	43.75	50	0.280	0.003			0.114	0.38	
7	C	32		0	0	0	50129	104.4	80	0.415	0.004	124.150	0.447	0.581	0.59	
8	E	52	20	100	17400	11658	24.3	65	80	0.097	0.000	124.150	0.030	0.046	0.05	
9	F1	42	23	116	20010	13407	27.9	52.5	100	0.071	0.000			0.006	0.05	
10	F2	30	71	355	51170	41346	88.2	37.5	80	0.343	0.003	37.400	0.095	0.168	0.18	
11	F3	28		0	0	0	54793	114.2	80	1.162	0.042			1.262	1.41	
12	F	23		0	0	0	65481	138.4	80	0.661	0.006			0.175	0.36	
13	G1	41	21	105	16270	12241	28.5	51.25	50	0.260	0.003	3.500	0.008	0.143	0.14	
14	G	47		0	0	0	78662	163.9	65	0.988	0.023	0.000	0.000	1.341	1.34	
15	H1	30	23	115	20010	13407	27.9	37.5	80	0.284	0.003			0.116	1.45	
16	H	3		0	0	0	92085	181.8	50	1.553	0.110			1.087	2.55	
17	I	26	20	100	17400	11658	24.3	35	50	0.247	0.002			0.084	2.54	
18	I	30		0	0	0	103756	216.2	37.5	65	1.302	0.036		1.422	4.07	
19	D	62		0	0	0	153556	320.8	77.5	100	0.816	0.010		0.752	4.82	
20	D	25		0	0	0	129580	261	31.25	65	1.514	0.050		1.575	4.71	
TOWER- A,B,C																
1	A	75	68-	340	59160	39637	63	93.75	65	0.487	0.006	130.500	0.837	1.426	1.44	
2	B	37		0	0	0	39637	63	65	0.487	0.006	124.150	0.798	1.083	1.08	
3	C1	18	68	345	60030	40220	84	22.5	65	0.505	0.007			0.148	1.24	
4	C	8		0	0	0	18507	156	10	1.002	0.023	124.150	2.913	3.147	3.15	
5	D1	50	70	350	60800	40803	80	62.5	65	0.512	0.007			0.423	1.68	
6	D	25		0	0	0	129580	261	31.25	65	1.514	0.050		1.575	4.71	

Material Sheet for Domestic

1	50 mm	303 Mtr.
2	65 mm	433 Mtr.
3	80 mm	171 Mtr.
4	100 mm	133 Mtr.

Values
3
5
2
4

For Vastu Sovereign Park Pvt. Ltd.

Authorized Signatory

SUB WORK No. 1				WATER SUPPLY	
Sub Head 05				Water supply and distribution (Flushing/Irr. System)	
S No.	Description				Amount
1	Providing, laying, jointing and testing GI pressure pipe lines conforming to IS:4985 including cost.complete in all respects.				
a)	50	mm OD	331 Mtr @	Rs. 450 - 600/ Flu.	Rs. 148,725
b)	63	mm OD	170 Mtr @	Rs. 550 - 690/ Flu.	Rs. 93,590
c)	75	mm OD	138 Mtr @	Rs. 650 - 850 Flu.	Rs. 89,700
d)	90	mm OD	47 Mtr @	Rs. 650 - 1000 Flu.	Rs. 30,950
2	Providing, laying, jointing and testing HDPE pressure pipe lines conforming including cost.complete in all respects.				
a)	32	mm OD	210 Mtr @	Rs. 450 Irr.	Rs. 94,500
b)	40	mm OD	116 Mtr @	Rs. 560 Irr.	Rs. 64,960
c)	50	mm OD	85 Mtr @	Rs. 650 Irr.	Rs. 55,250
d)	63	mm OD	75 Mtr @	Rs. 800 Irr.	Rs. 60,000
e)	90	mm OD	110 Mtr @	Rs. 1,080 Irr.	Rs. 118,800
f)	110	mm OD	300 Mtr @	Rs. 1,200 Irr.	Rs. 360,000
3	Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects.				
a)	40	mm	10 Each @	Rs. 2,500	Rs. 25,000
b)	50	mm	3 Each @	Rs. 3,200	Rs. 9,600
c)	65	mm	1 Each @	Rs. 4,000	Rs. 4,000
c)	80	mm	1 Each @	Rs. 4,000	Rs. 4,000
4	Providing and fixing Garden Hydrant Chamber including valve				
	55 Nos.	@	Rs. 4,500 each		Rs. 247,500.00
5	Providing and fixing air release valve				
	2 Nos.	@	Rs. 5,000 each		Rs. 10,000.00
6	Provision for carriage of materials and other unforeseen items				Rs. 25,000.00
TOTAL CO to SUB WORK - 1					Rs. 1,450,485.00

For Vatika Sovereign Park Pvt. Ltd.

Authorized Signatory

Project - SOVEREIGN PARK SECTOR- 55, GURGAON
Design Statement for Flushing Water supply

TOWER- D,H,E,G,L,K,M,EWS,Retail & Club																					
S No	Line No	Length	Self Load	Total person		Daily water @172.5 liters per consumption	Others Facilities water consumption	Flushing Water supply calculation				EM Length (1.25%)	Dia proposed	Velocity m/Sec	Frictional head loss	Elev. height	Loss in Filter	Total Frictional head losses in Mtr	Remarks		
				Main visitors	10%			LPD	LPD	Self	Cumulative									LPM	Mtr.
1	From	To	Mtr		Others																
1	A	B	33	21		105	10.5	18270		6029	6029.1	13	43.75	40	0.200	0.002	44.650	0.093	0.194	0.19	
2	B1	B2	38	21		105	10.5	18270		6029	6029.1	13	46.875	40	0.200	0.002	44.650	0.093	0.191	0.19	
3	B3	B2	26	23		116	11.5	20010		6803	6803.3	14	32.5	40	0.219	0.002	44.650	0.110	0.191	0.19	
4	B2	B	27			0	0	0		0	12632	26	33.75	50	0.208	0.003	44.650	0.124	0.217	0.21	
5	B	C	32			0	0	0		0	18682	39	40	50	0.398	0.006	44.650	0.255	0.483	0.48	
6	C1	C	36	21		105	10.5	18270		6029	6029	13	43.75	40	0.200	0.002	44.650	0.093	0.184	0.19	
7	C	E	34			0	0	0		0	24891	51	42.5	40	0.310	0.003	44.650	0.118	0.233	0.23	
8	E1	E	24	20		100	10	17400		5742	5742	12	26.25	40	0.190	0.002	20.250	0.039	0.088	0.09	
9	E	F	25			0	0	0		0	30433	63	31.25	40	0.302	0.004	3.500	0.014	0.137	0.14	
10	F1	F	40	23		115	11.5	20010		6803	6803.3	14	50	40	0.219	0.002	0.000	0.000	0.123	0.12	
11	F	G	41			0	0	0		0	37038	77	51.25	40	0.465	0.006	0.000	0.000	0.290	0.29	
12	G1	G	30	21		105	10.5	18270		6029	6029.1	13	37.5	40	0.200	0.002	0.000	0.000	0.078	0.08	
13	G	H	8			0	0	0		0	43085	90	10	40	0.540	0.007	0.000	0.000	0.075	0.07	
14	H1	H3	15	23		115	11.5	20010		6803	6803.3	14	18.75	40	0.083	0.000	0.000	0.000	0.004	0.00	
15	H2	H3	5	71		355	35.5	61770		20384	20384.1	42	7.5	50	0.432	0.007	0.000	0.000	0.050	0.05	
16	H3	H	15			0	0	0		0	28987.4	56	18.75	40	0.309	0.003	0.000	0.000	0.059	0.06	
17	H	I	14	20		100	10	17400		5742	5742	12	23.75	40	0.580	0.007	0.000	0.000	0.159	0.16	
18	I	STP	26			0	0	0		0	75794.4	158	35	80	0.628	0.008	0.000	0.000	0.033	0.03	
TOWER- A,B,C																					
Flushing Water supply calculation																					
S No	Line No	Length	Self	Total person		Main	10%	Daily LPD	Others LPD	Total	Cumulative	LPM	EM Length Mtr.	Dia mm	Velocity m/Sec	Frictional Mtr./Mtr.	Elev. Mtr.	Loss in Mtr.	Total Self	Cumulative	Remarks
1	A	B	72	66		340	34	59160		19523	19522.6	54	90	40	0.383	0.031	0.000	0.000	2.818	2.82	
2	B1	B	20	69		345	34.5	60030		19810	19805.9	55	25	40	0.375	0.032	0.000	0.000	0.804	0.80	
3	B	C	27			0	0	0		0	38333	109	33.75	60	1.112	0.038	0.000	0.000	1.304	2.11	
4	C1	C	78	70		350	35	60900		20097	20097	56	97.5	50	0.588	0.011	0.000	0.000	1.087	1.09	
5	C2	C	78			0	0	0		0	0	0	97.5	51	0.588	0.011	0.000	0.000	1.087	1.09	
6	C	STP	35			0	0	0		0	59430	165	43.75	51	1.615	0.075	0.000	0.000	3.297	3.30	

For Vatika Sovereign Park Pvt. Ltd.

Material Sheet for Domestic

1	40 mm	331 Mtr.
2	50 mm	170 Mtr.
3	65 mm	138 Mtr.
4	80 mm	47 Mtr.

Valves	10
	3
	1
	1

For Vatika Sovereign Park Pvt. Ltd.

Authorized Signatory

SUB WORK No. 2

SEWERAGE SCHEME

S No.	Description	Amount
1	Providing, jointing, cutting and testing SW pipe and lowering into trenches including	
a)	150 mm dia 0 Mtr. @ Rs. 2,900 CILA Class (Bye Pass Line)	Rs. 0
b)	200 mm dia 889 Mtr. @ Rs. 1,100 SW Pipe	Rs. 977,900
c)	250 mm dia 20 Mtr. @ Rs. 1,400 SW Pipe	Rs. 28,000
2	Provision for carriage of material (L.S.)	Rs. 100,000
3	Provision for making connection with HUDA sewer	Rs. 100,000
4	Provision for cutting of roads & making good to its original condition (L.S.)	Rs. 10,000
5	Provision for lighting and watering (L.S.)	Rs. 10,000
6	Providing STP of 350 KLD Rs. 8,000 per KLD	Rs. 2,800,000
TOTAL CO to FINAL ABSTRACT OF COST		Rs. 4,025,900

42,139.00

SUB WORK No. 3

STORM WATER DRAINAGE

S No.	Description	Amount
1	Providing, laying, RCC pipe class NP-2 manholes etc. complete in all respects	
a)	400 mm dia 758 Mtr. @ Rs. 2,800	Rs. 2,121,000
b)	500 mm dia 0 Mtr. @ Rs. 3,000	Rs. 0
2	Provision for lighting and watching	Rs. 50,000
3	Provision for road gullies & connecting pipe L.S.	Rs. 500,000
4	Provision for rainwater harvesting arrangements	
	Rs. 200,000.00 per set Soak Pit with desilting chamber (Size 4 M Dia x 3 M DIA X 3.5 M Deep) 10 Nos.	Rs. 2,000,000
5	Provision for timbering & shoring (L.S.)	Rs. 150,000
6	Provision for watering and timbering drains & other unforeseen charges	Rs. 150,000
7	Provision for making connection with HUDA Mains.	Rs. 500,000
TOTAL CO to FINAL ABSTRACT OF COST		Rs. 5,071,000

59,210.00

For Vatika Sovereign Park Pvt. Ltd.


 Authorized Signatory

For Vatika Sovereign Park Pvt. Ltd.

Authorized Signatory

Project - SOVEREIGN PARK SECTOR- 99, GURGAON						
Material Statement for Sewerage scheme						
S No.	From	To	Length	Dia		
1	1	2	95	200		
2	2	3	55	200		
3	3	4	145	200		
4	4A	4C	42	200		
5	4B	4C	45	200		
6	4C	4	23	200		
7	4	8	131	200		
8	5	6	132	200		
9	6	7	117	200		
10	7	8	104	200		
11	8	STP	20	250		
			200 Dia Pipe	889	Mtr.	
			250 Dia Pipe	20	Mtr.	
			STP	350	KL	
			STP BYEPASS 150 dia CILA Pipe		Mtr.	

For Vatika Sovereign Park Pvt. Ltd.


 Authorized Signatory

Design Statement for Drainage scheme																			
S No	Line Root	Length	Area (Trench)	Area (Open)	Area (Hard)	Drainage calculation													
						Total area to be drained	Area in acre	Rise fall intensity in m/sec	Downslopes Slope	Curves	Flow Discharge	Flow Discharge	Flow Discharge	Flow Discharge	Flow Discharge	Flow Discharge	Flow Discharge	Flow Discharge	Flow Discharge
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	25	450	82	1300	1300	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
2	2	175	880	850	1700	1700	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
3	3	12	0	800	800	800	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
4	4	30	300	300	1450	1450	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
5	5	280	230	400	590	590	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
6	6	21	220	110	220	220	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
7	7	22	35	200	430	430	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
8	8	23	120	120	400	400	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
9	9	17	0	150	250	250	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10	10	8	0	120	120	120	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11	11	43	300	1300	2000	2000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
12	12	24	150	870	2670	2670	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
13	13	28	260	350	2000	4080	1.000	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484	2.484
14	14	35	0	720	245	1270	0.314	2.758	2.758	2.758	2.758	2.758	2.758	2.758	2.758	2.758	2.758	2.758	2.758
15	15	27	0	200	200	750	0.183	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853	1.853
16	16	37	325	180	2800	2875	0.735	3.873	3.873	3.873	3.873	3.873	3.873	3.873	3.873	3.873	3.873	3.873	3.873
17	17	35	0	390	915	1000	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265	0.265
18	18	47	420	910	1220	2360	0.578	0.578	0.578	0.578	0.578	0.578	0.578	0.578	0.578	0.578	0.578	0.578	0.578
19	19	21	0	125	914	708	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175	0.175
20	20	2	84	280	790	2860	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714
21	21	48	280	340	2700	2820	0.687	1.680	1.680	1.680	1.680	1.680	1.680	1.680	1.680	1.680	1.680	1.680	1.680
22	22	21	0	470	1874	2044	0.879	0.879	0.879	0.879	0.879	0.879	0.879	0.879	0.879	0.879	0.879	0.879	0.879
23	23	16	0	700	1738	2048	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830
24	24	38	200	98	867	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
25	25	19	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
26	26	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
27	27	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
28	28	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
29	29	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
30	30	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
31	31	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
32	32	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
33	33	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
34	34	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
35	35	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
36	36	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
37	37	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
38	38	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
39	39	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
40	40	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
41	41	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
42	42	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
43	43	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
44	44	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
45	45	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
46	46	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
47	47	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
48	48	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
49	49	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
50	50	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
51	51	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
52	52	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
53	53	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
54	54	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
55	55	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
56	56	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
57	57	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
58	58	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
59	59	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
60	60	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
61	61	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
62	62	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
63	63	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
64	64	16	0	250	987	1377	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345	0.345
65	65	16	0	250	98														

For Vastika Sovereign Park Pvt. Ltd.

Authorized Signatory

	Sub -Work No.IV			Roads and Footpaths	
Statement for Roads					
Sl.No.	Road No.	Road width (m)	Length (m)	Area (Sqm)	
1	1 ~ 2	6	9.120	54.720	
2	2~ 3	6	2.834	17.004	
3	3 ~ 4	6	82.110	492.660	
5	4 ~ 5	6	5.320	31.920	
6	5 ~ 6	6	161.125	966.750	
7	6 ~ 7	6	19.760	118.560	
8	7 ~8	6	270.500	1623.000	
9	8 ~ 9	6	234.350	1406.100	
10	9~ 10	6	15.250	91.500	
11	9~3	17.75	26.365	467.979	
12	3 ~12	6	36.420	218.520	
13	12~ 11	6	221.100	1326.600	
14	12~ 4	6	57.950	347.700	
15	11 ~ 8	6	17.520	105.120	
16	11 ~ 13	6	23.290	139.740	
17	13 ~ 14	6	21.850	131.100	
18	13 ~ 5	6	59.000	354.000	
19	14 ~ 6	6	98.115	588.690	
20	14 ~ 7	6	169.785	1018.710	
21	15 ~ 15	6	136.345	818.070	
	Total		1668.109	10318.443	
			1668	10318	
Total area under all Roads					10318
Add 5% for Curves					516
Total area required for Roads					10834
No. of Car parking on surface					46
Area required for Car parking ((5x2.5=12.5)					575
Total area required for Roads & Car Parking					11409
Length of Kerb = 1668x 2 + 10% for approach Roads					3670
SL.NO	Description	Unit	Qty	Rate	Amount
1	Provision for leveling and earth filling as Per site condition,				
a)	Block	Acre	10.43125	100000	1,043,125.00
2	The necessary provision for construction of roads parking etc has beeb made in the estimate according to the HUDA norms the follwing specification has been proposed.				

(I)	Constriction of roads by providing granular sub base 300 mm as per MORT & H specifications conforming to clause 401 grading -II 400.1			
(II)	Providing, laying, spreading and compacting hand broken/crushed stone aggregate to wet mix conforming to physical requirement laid in 400 of MORT & H specification n in two layers (Compacting to 250mm (125+125mm) by taking material 1:32 times of the (thickness of the layer) including premixing of material with water in mechanical mixer.			
(III)	50mm thick B.M			
(IV)	20mm thick mix seal surfacing			
(a)	Sqm	11409 ✓	1000/- 850 ✓	11409000 9,697,650.00
3	Provision for kerbs and channels			
(a)	Metre	3670 ✓	245 600	232750 2,201,760.00
4	Provision for making approach and pavement to building.		LS	500,000.00
5	Provision for carriage of materials & other unforeseen ltmes.		LS	50,000.00
	TOTAL			13,492,535.00
	SAY IN LAKHS			161399.35
				161.40 Lakhs

For Vatika Sovereign Park Pvt. Ltd.


 Authorized Signatory

	Sub -Work No.V			Street Lighting	
SL.NO	Description	Unit	Qty	Rate	Amount
1	Providing Street lighting on roads as per standard specification of HVPN.			125000/-	224063/-
(a)	Acre		17.7285	100000	1,772,850.00
	TOTAL			125000	1,772,850.00
	SAY IN LAKHS				17.73 21.96 Lakhs

For Vatika Sovereign Park Pvt. Ltd.


 Authorized Signatory

Sub -Work No.VI		Plantation and road side trees			
SL.NO	Description	Unit	Qty	Rate	Amount
1	Development of lawn areas			150000/-	1564688
(i)	Acres		10.43125	100000	1,043,125.00
(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 with "Doob Grass" including watering and maintenance of lawns for 30 days till the grass forms a thick lawn, free from weeds and fit for moving in rows 7.5 m Apart in either direction including provision for hedges and barbed wire fencing around park 3.00 Acres @ 70000 per acre.				
2	Providing tress, guards and planting tress along road at 6.0 m internals for 6.0m wide road Total road length = 1668M No of Tress = 1668/12 = 139 nos. Say = 139 <u>Cost Analysis of Planting Trees</u> Excavation = 30.00-40.00 Manure = 50.00 60.00 Tree plants = 60.00 120.00 Tree guards = 750.00 850.00 Total = Rs. 900 per tree 1070/-				
(a)	Each		139	900	125,100.00
	TOTAL				1775438
	SAY IN LAKHS				17.75

For Valika Sovereign Park Pvt. Ltd.


 Authorized Signatory

Sub -Work No. VII		MTC. Charges & Resurfacing of Roads			
SL.NO	Description	Unit	Qty	Rate	Amount
1	Provision for MTC charges for water supply, sewerage storm water drainage, roads, street light and horticulture complete in all respect.				
(a)	Acres		10.43125	500000.00	5,215,625.00
2	Resurfacing of roads after 1st 5 Yrs, 50mm thick B.M & 25 mm thick premier carpet.				
(a)	Sqm		11409	350.00	3,993,150.00
3	Provision for resurfacing of roads after 10 yrs. by providing 25mm thick premier carpet.				
(a)	Sqm		11409	600.00	6,845,100.00
					20047325
	TOTAL				16,054,175.00
	SAY IN LAKHS				160.54

200.50 Lakhs

For Valika Sovereign Park Pvt. Ltd.


 Authorized Signatory

