

EXTERNAL DEVELOPMENT WORKS DESIGN & COST ESTIMATES

FOR

**PROPOSED BUILDING PLAN OF COMMERCIAL COLONY
MEASURING LAND UNDER TOD POLICY OVER AN AREA
MEASURING 3.356 ACRES (LICENSE NO. 99) & 3.375
ACRES (LICENSE NO. 98) OF 2010 DATED 19TH
NOVEMBER 2010, IN SECTOR -111, DISTT. GURGAON
BEING DEVELOPED BY M/S PURI CONSTRUCTIONS PVT.
LTD.**

IN

**SECTOR – 111,
AT GURUGRAM, HARYANA**

DEVELOPED BY

Puri Constructions Pvt. Ltd.



For Puri Construction Pvt. Ltd.

Authorised Signatory



REPORT

1. Water Supply Source

The source of water supply shall be HUDA water supply connection. It has been proposed to construct underground tank will be filled up from the riser and then pumped to the overhead water tank of each tower.

2. Pumping Equipment

It has been proposed to install pumping set as described with standby of equal capacity.

The provision for standby generating set has been provided in case of any electricity failure. Generator will be provided separately or added to the capacity of main generator.

3. Sewerage

The scheme is designed for sewer connection to the proposed sewerage treatment. The sewerage system has been marked on the respected plans.

The sewer line has been designed for 3 times average DWR in relation to the water supply demand assuming that 80% for the domestic water supply shall finds its way into the proposed sewer SW pipe/DWC sewer have been proposed to run half full. The sewer has been designed on 2.5 ft per second velocity i.e. self-cleaning velocity.

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

4. Storm water Drainage

The storm water drain is being designed to carry 6.35 mm rainfall per hour. Also, suitable provisions are contemplated in our scheme to ensure better recharging of underground water table in area HDPE DWC SN-8 pipe drain with minimum 400 mm dia. is proposed in this area.

5. Roads

Cost of road has been taken in the estimate.

6. Street lighting

Provisions of street lighting on surrounding area has been made.

7. Horticulture

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

8. Specification

The work will be carried out in accordance with the standard specifications of PH is laid down by the HUDA/ Haryana government

9. Rates

Estimate for providing services in this site has been prepared on the recent market rates.

10. Cost

The total cost of development in this revised project including various PH & B & R services work to Rs.

~~394.15~~ Lacs which include 3% contingencies and PE charges and 49% department charge also.

587.56

Approval for proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

(Authorized Signatory)



For Puri Construction Pvt. Ltd.

Authorised Signatory



Project: Approval for proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

DESIGN CALCULATION

1. WATER REQUIREMENT

(WATER DEMAND BASIS AS PER NBC)

Occupancy	No. of occupants	Water Requirement (LPCD)
Office (As per NBC)	10 Sqm / Person	
Staff	90%	45
Visitors	10%	15
F & B (As per NBC)	1.4 Sqm / Person	
Staff	10%	45
Visitors	90%	35
Restaurant (As per NBC)	1.4 Sqm / Person	
Staff	10% of Total	45
Visitors	90% of Total	55
Retail Area at ground (As per NBC)	3 Sqm / Person	
Retail Staff	10% of Total	45
Retail Visitors	90% of Total	15
Gym (60% of total occupancy), Auditorium & Business centre (As per NBC)	1.4 Sqm / Person	
Staff	10% of Total	45
Visitors	90% of Total	15

Note:

172.5 LPCD = 65% Domestic (112.125 LPCD) and 35% Flushing (60.375 LPCD)

a) Office (1.25 shift)

i) Total area = 28245 sqm.
Population @10sqm/per person = (28245/10) *1.25

Total population = 3530 persons

Office Employees

Staff (90% of Population) = 3175 persons

Total water requirement @ 45 lpcd = 3175 x 45

= 142875 liter's/day

= 145 KL/Day

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Office Visitors

Visitors (10% of Population)	=	355 Nos.
Total water requirement @ 15 lpcd	=	355 x 15
	=	5325 liter's/day
	=	5 KL/Day
Total water requirement Office	=	145+5= 150 KL/Day

b) F & B

i) Total area	=	1165 sqm.
Population @ 1.4sqm/per person	=	1165/1.4
Total population	=	830 persons

F & B Employees

Staff (10% of Population)	=	85 persons
Total water requirement @ 45 lpcd	=	85 x 45
	=	3825 liter's/day
	=	5 KL/Day

F & B Visitors

Visitors (90% of Population)	=	745 nos.
Total water requirement @ 35 lpcd	=	745 x 35
	=	26075 liter's/day
	=	25 KL/Day
Total water requirement F & B	=	5+25= 30 KL/Day

c) Restaurants & Pub

i) Total area	=	505 sqm.
Population @ 1.4sqm/per person	=	505/1.4
Total population	=	360 persons

Restaurants & Pub Employees

Staff (10% of Population)	=	35 persons
Total water requirement @ 45 lpcd.	=	35 x 45
	=	1575 liter's/day
	=	2 KL/Day



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Restaurants & Pub Visitors

Visitors (90% of Population)	=	325 nos
Total water requirement @ 70 lpcd	=	325 x 70
	=	22750 liter's/day
	=	23 KL/Day
Total water requirement Restaurants & Pub	=	2+23= 25 KL/Day

d) Shops, Gym & Business Center

i) Total area shops	=	90 sqm
Population @3 sqm/per person	=	90/3
Total population	=	30 persons

ii) Total area of Gym (125 sqm), Business center & Auditorium

Population @1.4 sqm/per person	=	625/1.4
Total population	=	415 persons 446
Employees		
Staff (10% of Population)	=	44 persons 44
Total water requirement @ 45 lpcd	=	40 x 45
	=	1980 liter's/day
	=	2 KL/Day

Visitors

Visitors (90% of Population)	=	405 nos. 405
Total water requirement @ 15 lpcd	=	405 x 15
	=	6075 liter's/day
	=	6 KL/Day
Total water requirement	=	5+5= 10 KL/Day 2+6= 8 KL say 10 KL
Total Water Requirement	=	(a) + (b) + (c) + (d)

$$= 150\text{KL} + 30\text{KL} + 25\text{KL} + 10\text{KL}$$

$$= 215 \text{ KL}$$



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2. Horticulture Water Requirement

Total area = 660 sqm
 = 0.16309 Acres
 Therefore, daily water @ 25000 liter/Acre = 0.16309 X 25000 Liter
 Requirement = 4077 Liter
 = 4.07 KL
SAY = 5.0 KL..... (ii).

3. Soft Water Requirement = 100 KL

As per NBC, Table No. 7, fire water demand = 300 KLD

Total water requirement (excluding Fire water Demand) = 215KL + 5KL + 100 KL
 = ~~320~~ ²¹⁵ KLD

Hence Domestic Water Requirement = ~~(320 X 65%)~~ ²¹⁵
 = ~~208~~ ^{139.75} KL/Day **Say 150 KL**

Proposed domestic water Requirement = ~~130~~ ⁷⁵ KL/Day

Hence Flushing, Soft & Irrigation Water Requirement = ~~(320 X 35%)~~ ²¹⁵
 = ~~112~~ ^{75.25} KL/Day

Proposed Flushing, Soft & Irrigation Water Requirement = ~~195~~ KL/Day

Flushing Water Requirement ^{75.25 X 0.50} = ~~195~~ ^{37.62} KL **Say 40 KL**
taking 1/2 day storage

Underground Storage Tank

Daily water requirement for domestic = ~~130~~ ⁷⁵ KL

Daily water requirement for flushing = ~~90~~ ⁴⁰ KL

Soft water requirement = 100 KL

Fire Fighting water requirement = 300 KL

It is proposed to construct underground tank of ~~70~~ ³⁵ KL for raw water in two compartment, ~~70~~ ⁴⁰ KL for domestic use in two compartment, ~~40~~ ⁴⁰ KL of non-potable water in two compartment and 300 KL (for firefighting purpose) in two compartments as the locations shown in the plan i.e. **total 570 KL.** **(proposed 570 KL)**

Domestic water tank	35 KL + 35 KL	= 70 KL
Raw water tank	35 KL + 35 KL	= 70 KL
Flushing & Irrigation water tank	65 KL	= 65 KL
Soft water tank	65 KL	= 65 KL
Fire water	200 KL + 100 KL	= 300 KL
Total		= 570 KL.



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Boosting machinery (Drinking water)

Daily requirement for domestic use

$$= 140 \text{ KL}$$

Assuming 8 hours running 2 pumps (with one stand by)

$$= 140 / 2 \times 8 = 8.75 \text{ KL/HR}$$

$$= 135.5 \text{ LPM}$$

Say $= 150 \text{ LPM}$

Head of pump

i) Suction Lift

$$= 9.0 \text{ M}$$

ii) Friction loss in main and special

$$= 15.0 \text{ M}$$

iii) Clear Head

$$= 126.4 \text{ M}$$

$$= 150.4 \text{ M}$$

Say $= 155.0 \text{ M}$

HP of Morte

$$= 150 \times 155 / 60 \times 75 \times 0.60$$

$$= 7.75 \text{ HP}$$

Say $= 10.0 \text{ HP Each}$

It is proposed to provide 1 no. of pumping set of 150 liters per minutes at a total load of 155.0 m (2working + 1 standby).

Underground storage tank (Flushing & Soft water)

Daily water requirement for flushing at STP

$$= 75 \text{ KL}$$

Boosting machinery for flushing water supply

Assuming 8 hours running 1 pump (with one stand by)

$$= 75 / 1 \times 8 = 9.375 \text{ KL/HR}$$

$$= 156.25 \text{ LPM}$$

Say $= 160 \text{ LPM}$

Head of pump

i) Suction Lift

$$= 9.0 \text{ M}$$

ii) Friction loss in main and special

$$= 19.0 \text{ M}$$

iii) Clear Head

$$= 130.6 \text{ M}$$

$$= 158.6 \text{ M}$$

Say $= 160.0 \text{ M}$

HP of the pumps

$$= 160 \times 160 / 60 \times 75 \times 0.60$$

$$= 9.48 \text{ HP}$$

Say $= 10.0 \text{ HP Each}$

It is proposed to provide 1 no. of pumping set of 160 liters per minutes at a total load of 160.0 m (1working + 1 standby).



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Daily water requirement for cooling tower at STP = 100 KL

Boosting machinery for soft water supply

Assuming 8 hours running 1 pump (with one stand by) = $100 / 1 \times 8 = 12.5$ KL/HR
 = 208.33 LPM
 Say = 210 LPM

Head of pump

i) Suction Lift = 9.0 M
 ii) Friction loss in main and special = 19.0 M
 iii) Clear Head = 130.6 M
 = 158.6 M
 Say = 160.0 M

HP of the pumps = $210 \times 160 / 60 \times 75 \times 0.60$
 = 12.44 HP
 Say = 12.5 HP Each

It is proposed to provide 1 no. of pumping set of 210 liters per minutes at a total load of 160.0 m (1 working + 1 standby).

Capacity of the STP = ~~230~~ ²¹⁵ KL / day
 Flow to STP 80% = ~~190~~ ¹⁷² KLD
 20% extra as per MOEF = ~~190~~ ¹⁷² X 20% = ~~228~~ ^{206.40} KLD,
 But We Proposed Capacity of the STP = 230 KL

Boosting machinery for Irrigation water supply = 5 KL

Assuming 4 hours running 1 pump (with one stand by) = $5 / 1 \times 4 = 1.25$ KL/HR
 = 20.83 LPM
 Say = 25 LPM

Head of pump

iv) Suction Lift = 9.0 M
 v) Friction loss in main and special = 15.0 M
 vi) Clear Head = 35.0 M
 = 59.0 M
 Say = 60.0 M

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BHP of the pumps = $25 \times 60 / 60 \times 75 \times 0.60$
 = 0.55 HP
 Say = 1 HP Each

It is proposed to provide 1 no. of pumping set of 25 liters per minutes at a total load of 60.0 m (1 working + 1 standby)



Multistage and Multioutlet pumps For Fire Protection

S.NO	Parameters	Location	Pumps set		
			Main	Diesel	Jockey
1	Discharge in LPM	Pump Room	2850 LPM	2850 LPM	180 LPM
2	Head in Meters	Pump Room	175-130-80	175-130-80	175-130-80
3	HP	Pump Room	200 HP	200 HP	12.5 HP
4	Quantity in Nos	Pump Room	2	1	2
5	Water curtain pump	Pump Room	900 LPM (1no.)	900 LPM (1no.)	
6	Water curtain pump head	Pump room	45 M	45 M	

Rating of generator set

Pumps 4 Nos.

Capacity of generator set

Add 10 % extra

Total

Say

~~= 521 HP~~

2x10

1x10

1x12.50

existing (L.S.)

20.0

10.0

12.50

20.0

62.50

~~62.50 X 0.746 X 1.50~~~~= 521 X 0.746 X 1.50 KVA~~~~= 582.99 KVA~~~~= 583 KVA~~~~= 58.3 KVA~~~~= 645.0 KVA~~

75 KVA



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ESTIMATE FOR DEVELOPMENT OF INTERNAL SERVICES

PROJECT :- BUILDING PLAN OF COMMERCIAL COLONY MEASURING LAND UNDER TOD POLICY OVER AN AREA MEASURING 3.356 ACRES (LICENSE NO. 99) & 3.375 ACRES (LICENSE NO. 98) OF 2010 DATED 19TH NOVEMBER 2010, IN SECTOR -111, DISTT. GURGAON BEING DEVELOPED BY M/S PURI CONSTRUCTIONS PVT. LTD.

FINAL ABSTRACT OF COST

Sl.No.	Head No.	Particular	Amount in Lacs
1	SUB WORK No. I	WATER SUPPLY & FIRE FIGHTING	205.69 279.65
2	SUB WORK No. II	SEWERAGE SCHEME	64.65 71.45
3	SUB WORK No. III	STORM WATER DRAINAGE	59.74 64.07
4	SUB WORK No. IV	ROADS & FOOTPATH	49.97 90.81
5	SUB WORK No. V	STREET LIGHTING	0.98 6.40
6	SUB WORK No. VI	HORTICULTURE	1.42 1.82
7	SUB WORK No. VII	MAINTENANCE CHARGES (INCLUDING RESURFACING OF ROADS FOR 10 YEARS AS PER NORMS)	11.70 73.36
		Total	394.15 587.56
		Say (Lacs)	394.00 587.56
	Cost per Acre		236.01 587.56 1.67 Acre
	Net Cost Per Acre		236 351.83 236 Lacs

AUTHORISED SIGNATORY

Checked subject to Comments
In forwarding letter No. 194214
Dt. 29/6/2018 and notes
Attached with the estimate

Executive Engineer (M)
for Chief Engineer-I
HSVP, Panchkula



Executive Engineer
HSVP Division No. V
Gurugram

Director
Town & Country Planning
Haryana, Chandigarh

Superintending Engineer,
HSVP, Circle-I, Gurugram

For Puri Construction Pvt. Ltd.

Authorised Signatory





हरियाणा शहरी विकास प्राधिकरण

**HARYANA SHEHARI
VIKAS PRADHIKARAN**

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Panchkula**

C.E.I-No.
Dated:
Annexure-A

SUB:- Approval of service plan estimate for Commercial Colony (under TOD Policy) over an area measuring 1.6759 acres out of total area 6.731 acres (Licence no. 98 of 2010 dated 19.11.2010 & 99 of 2010 dated 19.11.2010) in Sector-111, Gurugram developed by M/s Natureville Promoters Pvt. Ltd. in collaboration with M/s Puri Construction Pvt. Ltd.

Technical note and comments:-

1. All detailed working drawings would have to be prepared by the colonizer for Integrating the internal services proposals with the master proposals of town.
2. The correctness of the levels will be the sole, responsibility of the colonizer for the integration of internal proposals, with the master proposals, of town and will be got confirmed before execution.
3. The material to be used shall the same specifications as are being adopted by HSVP and further shall also confirm to such directions, as issued by Chief Engineer, HSVP from time to time.
4. The work shall be carried out according to Haryana PWD specification or such specifications as are being followed by HSVP. Further it shall also confirm to such other directions, as are issued by Chief Engineer, HSVP from time to time.
5. The colonizer will be fully responsible to meet the demand of water supply and allied services till such time these are made available by State Government/ HSVP. All link connections with the State Government/ HSVP system and services will be done by the colonizer. If necessary extra tube-wells shall also be installed to meet extra demand of water beyond the provision according to EDC deposited.
6. Structural design & drawings of all the structures, such as pump chamber, boosting chamber, RCC OHSR underground tanks quarters, manholes chamber, sections of RCC pipes sewer and SW pipes, sewer, ventilating shafts for sewerage and Masonry Ventilation Chamber for Chamber for storm water drainage, temporary disposal/ arrangement etc. will be as per relevant I.S codes and PWD specifications; colonizer himself will be responsible for structural stability of all structures.
7. Potability of water will be checked and confirmed and the tube-wells will be put into operation after getting chemical analysis of water tested.



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8. Only D.I pipes will be used in water supply and flushing system, UPVC/ HDPE pipe for irrigation purposes.
9. A minimum 100 & 150mm i/d/D.I (K-7), 200mm i/d SW and 400mm id RCC NP-3 pipes will be used for water supply, sewerage and storm water drainage respectively.
10. Standard X-section for S.W. pipes sewer, RCC pipes sewer etc. will be followed as are being adopted in Haryana Public Health Engineering Deptt. or HSVP. If needed, the same may be sought by the colonizer from concerned Executive Engineer of HSVP.
11. The developer may be directed to get the Sewage Treatment Plant (STP) got designed from a Govt. Institute like IIT, NIT etc. so as to ensure that the technology adopted by him is appropriate. He must take this action before construction of STP and submit documentary proof for the same at the time of grant of occupation certificate. The efficacy of such STP shall be checked randomly by the concerned Regional Officer of HSPCB.
12. The X-section, width of roads, will be followed as approved by the Chief Town Planner, Haryana, Chandigarh. The kerbs and channels will also be provided as per approved X-section and specifications. If needed, the same may be sought by the colonizer from concerned Executive Engineer of HSVP.
13. The specifications for various roads will be followed as per IRC/MORTH specifications.
14. The wiring system of street lighting and specifications of street lighting fixture will be as per relevant standards.
15. This shall confirm to such other conditions as are incorporated in the approved estimate and the letter of approval.


Executive Engineer (M),
For Chief Administrator, HSVP,
Panchkula.

Sub Work No. IWater Supply & Fire Fighting

Project :-Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

Abstract of Cost for Water Supply & Fire Fighting Works

Sl.No. Head No.	Particular	Amount in Lacs
1 SUB HEAD No. 01	HSVP RISING MAIN <i>Head Head Works & Pumping machinery</i>	9.26 <i>158.05</i>
2 SUB HEAD No.02	PUMPING MACHINERY <i>Rising main</i>	110.60 <i>9.22</i>
3 SUB HEAD No.03	DISTRIBUTION SYSTEM <i>(Dom-ces Flushing)</i>	7.39 <i>6.81</i>
4 SUB HEAD No.04	FIRE RISING MAIN	6.78 <i>8.14</i>
	Total	134.03 <i>182.22</i>
	Add 3 % contingencies & PE charges.	4.02 <i>5.46</i>
	Total	138.05 <i>187.68 lacs</i>
	Add 49 % Departmental charges, Price escalation,unforseen,Admin. Charges.	67.64 <i>91.97 lacs</i>
	Total	205.69 <i>279.65</i>
	C/O. to final abstract of cost (say in Lacs)	205.69 <i>lacs</i>



For Puri Construction Pvt. Ltd

Authorised Signatory



Sub Work No. I

Sub Head No. 01

Water Supply & Fire Fighting

Pumping Machinery

Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

Sl.No.	Description	Unit	Qty.	Rate	Amount in Rs.
150	1 Providing and installing (Domestic water hydropneumatic transfer pump) electricity driven pumping Set capable of delivering about 135 LPM of water against a total Head of 155 M complete with motor and other accessories (10 HP). 1 Set.(2W+1SB) 10.11P	No.	3	2.00 3,50,000	6.00 3,50,000 /as
160	2 Providing and installing (Flushing water hydropneumatic transfer pump) electricity driven pumping Set capable of delivering about 190 LPM of water against a total Head of 160 M complete with motor and other accessories (12.5 HP). 1 Set.(1W+1SB) 10.0	No.	2	2,50,000 2,00,000 /as	2,50,000 4.00 /as
	2 Providing and installing (Soft water hydropneumatic transfer pump) electricity driven pumping Set capable of delivering about 210 LPM of water against a total Head of 160 M complete with motor and other accessories (12.5 HP). 1 Set. (1W+1SB) (12.50 HP)	No.	1	2,50,000	2,50,000
	3 Providing and installing (Irrigation water hydropneumatic pump) electricity driven pumping Set capable of delivering about 25 LPM of water against a total Head of 60 M complete with motor and other accessories (1 HP). 1 Set. (1W+1SB)	No.	1	2,00,000 1,75,000	6.20 1,75,000 /as
	4 Providing and installing Fire pumping set of following capacities.				
	i). Main Electric Hydrant & Sprinkler pump 2850 lpm at 175 M head	No.	2	8,50,000 25.0	17,00,000 50.0
	ii). Main Electric Jockey Pump 180 lpm at 175 M head	No.	2	3,00,000	6,00,000
	iii). Diesel Pump for Hydrant & Sprinkler 2850 lpm at 175 M head	No.	1	12,00,000 30.5 /as	12,00,000 30.0 /as
	iv). 900 lpm at 35 M head (Water Curtain Diesel pump)	No.	1	7,00,000	7,00,000
	v). 900 lpm at 35 M head (Water Curtain Electric pump)	No.	1	4,50,000	4,50,000
	vi). 900 lpm at 35 M head (Terrace Booster pump)	No.	1	1,50,000	1,50,000
	5 Provision for boosting chamber as per PH requirement of suitable size.	L.S		5,00,000	5,00,000
	6 Provision for chlorination plant complete.	No.	1	2,00,000	2,00,000
	7 Provision for making foundations and erection of Pumping Machinery:	L.S		5,00,000	5,00,000
	8 Provision for pipes, valves and specials inside boosting chamber.	L.S		4,00,000	4,00,000
	9 Construction of U.G. tanks 570 KLD (300 KLD Fire+70 KLD Raw+ 70 KLD Domestic+65KLD Flushing+65KL Soft water) (Civil Works)	KLD	570	5,500	31,35,000
	10 Provision for carriage of material and other unforeseen Items etc.	L.S		5,00,000	5,00,000
Total Cost					1,10,60,000 158.05 /as
C/O To Abstract of Cost for Sub work No. I (in Lacs)					110.60



For Puri Construction Pvt. Ltd.

Authorised Signatory



Sub Work No. I

Sub-Work No. I

Water Supply & Fire Fighting

Sub Head No. 02

(Rising Main)

Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector - 111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

Sl.No.	Description	Unit	Qty.	Rate	Amount in Rs.
1	Providing , laying , jointing and testing pipe lines including Cost of excavation etc. complete in all respects.				
a)	100 mm dia. HDPE pipe	Meter	265	1,460	3,86,900
2	Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respects.				
a)	100 mm dia.	No.s	2	20,000	40,000
3	Providing and fixing indicating plates for sluice valve and air Valves.	No.s	2	2,000	4,000
4	Providing and fixing air release valve and scour valve .	No.s	2	10,000	20,000
5	Provision for carriage for materials and other unforeseen items.	L.S			75,000
6	Making Water Supply Connection with HUDA line including water meter.	L.S			2,00,000
7	Provision for cutting of roads and making good to its original Conditions.	L.S			2,00,000

Total Cost**C/O To Abstract of Cost for Sub work No. I (in Lacs)**

₹ 9.22 Lacs
9,25,900

₹ 9.26 Lacs
₹ 9.22 Lacs



For Puri Construction Pvt. Ltd.

Authorised Signatory



Sub Work No. I

Sub Work No. I
Sub-Head No. 03

Water Supply & Fire Fighting
Distribution System
(Domestic & Flushing water)

Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

Sl.No.	Description	Unit	Qty.	Rate	Amount in Rs.
1	Providing , Fixing , jointing and testing D.P pipe line running at basement ceiling level including Fittings, valves, etc. complete in all respect. (water supply).				
a)	150 mm dia.	Meter	0	1,700	-
b)	100 mm dia.	Meter	0	1,250	-
c)	100 80 mm dia.	Meter	125	950 1475	1,18,750 1,84,375
d)	65 mm dia.	Meter	0	800	-
e)	100 80 mm dia.	Meter	175	750 1475	1,31,250 2,57,125
f)	40 mm dia.	Meter	0	580	-
g)	32 mm dia.	Meter	0	450	-
h)	25 mm dia.	Meter	0	350	-
2	Provision for carriage of materials and other unforeseen items.	L.S		1,00,000	1,00,000
3	Providing and fixing valves including chamber complete in all respects.				
a)	100 mm dia.	No.s	0	12,000	-
b)	100 80 mm dia.	No.s	2	10,000 20,000	20,000 40,000
c)	65 mm dia.	No.s	0	8,500	-
d)	100 80 mm dia.	No.s	2	7,000 12,000	14,000 24,000
4	Providing and fixing air release valve and scour valve including carriage of brick mansary.	L.S		2,00,000	2,00,000 0.20
5	Providing, laying, jointing and testing uPVC pipe line conforming to I.S 4985 including cost of excavation etc., complete in all respects.				
a)	32 mm dia.	Meter	200	575 450	1,15,000 90,000
b)	25 mm dia.	Meter	55	250 300	13,750 16,500
6	Providing and fixing Irrigation hydrant valve complete in all respect.	Nos.	6	2,000	12,000 0.30
7	Providing & fixing ball valve 25 mm	Nos.	6	250	1,500
8	Providing & fixing sluice/ Butterfly valve complete with chamber.				
a)	32 mm dia.	Nos.	2	6,500	13,000
Total Cost					7,39,250 6.81 lacs
C/O To Abstract of Cost for Sub work No. I (in Lacs)					7.39 7.39



Sub Work No. I**Sub Work No. I****Water Supply & Fire Fighting****Sub-Head No. 04****External Fire Hydrant**

Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

Sl.No.	Description	Unit	Qty.	Rate	Amount in Rs.
1	Providing , Laying , jointing and testing M.S. pipes lines for fire rising main including cost of fittings, valves, connection etc. complete in all respect. (Along the basement out side retaining wall)				
a)	150 mm dia.	Meter	165	2500 L 2,040	4.13 lacs 3,36,600
b)	100 mm dia.	Meter	20	1,550 2150	31,000 0.43
c)	80 mm dia.	Meter	60	1,000 1800	60,000 1.08 lacs
2	Providing & fixing Fire brigade Inlet and draw out connection complete in all respect				
a)	150 mm dia.	No.s	2	15,000	30,000
b)	100 mm dia.	No.s	1	15,000	15,000
3	Providing & fixing sluice/Butterfly valve complete in all respect.				
a)	150 mm dia.	No.s	3	15,000	45,000
4	Providing & fixing Fire Hydrant complete in all respect.	No.s	5	15,000	75,000
5	Providing for carriage of material as other unforeseen items.	L.S			75,000
6	Providing and fixing indicating plates for sluice valve and air Valves.	No.s	5	2,000	10,000

Total Cost**C/O To Abstract of Cost for Sub work No. I (in Lacs)****For Puri Construction Pvt. Ltd.**

Authorised Signatory


Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

SUBJECT :MATERIAL STATEMENT OF DOMESTIC WATER SUPPLY SYSTEM

Sl. No.	Name of the Node	Length in Meter		Dia. of Pipe		150 mm dia.	100 mm dia.	80 mm dia.	65 mm dia.	50 mm dia.	40mm dia.	32 mm dia.	25 mm dia.
		m	mm	m	mm	m	m	m	m	m	m	m	m
1	2	3	4	5	6	7	8	9	10	11	12		
1	PLANTROOM-DWS-1	7	80	-	-	7	-	-	-	-	-	-	-
2	DWS-1 - DWS-2	20	80	-	-	20	-	-	-	-	-	-	-
3	DWS-2 - DWS-3	7	80	-	-	7	-	-	-	-	-	-	-
4	DWS-3 - DWS-4	7	80	-	-	7	-	-	-	-	-	-	-
5	DWS-4 - DWS-5	11	80	-	-	11	-	-	-	-	-	-	-
6	DWS-5 - Fire Tank	4	80	-	-	4	-	-	-	-	-	-	-
7	Fire Tank - DWS-6	9	100	-	9	-	-	-	-	-	-	-	-
8	DWS-6 - Domestic Tank	60	100	-	60	-	-	-	-	-	-	-	-
	TOTAL	125		0	69	56	0	0	0	0	0	0	0



For Puri Construction Pvt. Ltd.

Authorised Signatory



Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

SUBJECT : HYDRAULIC DESIGN CHART FOR DOMESTIC WATER SUPPLY SYSTEM

Sl. No.	Name of the Node	Length in Meter	Average Daily water Demand			Peak water demand = 3x Avg. Daily Water		Design of Pipe			Residual head		
			Self	Previous	LPD	LPD	Total Water Demand	Total Water Demand	Size of pipe (dia)	Head Loss in	Velocity	Start	End
1	2	m	LPD	LPD	LPD	LPD	m ³ /hr	m	mm	m	m/sec	m	m
1	PLANTROOM-DWS-1	3	4	5	6	7	8	10	9	12	11	13	13
1	PLANTROOM-DWS-1	7		7000	7000	21000	8.75	0.05	60	160	0.48	159.95	159.95
2	DWS-1 - DWS-2	20		7000	7000	21000	8.75	0.13	60	160	0.48	159.87	159.87
3	DWS-2 - DWS-3	7		7000	7000	21000	8.75	0.05	60	160	0.48	159.95	159.95
4	DWS-3 - DWS-4	7		7000	7000	21000	8.75	0.04	60	160	0.48	159.96	159.96
5	DWS-4 - DWS-5	11		7000	7000	21000	8.75	0.07	60	160	0.48	159.93	159.93
6	DWS-5 - Fire Tank	4		7000	7000	21000	8.75	0.01	100	160	0.31	159.99	159.99
7	Fire Tank - DWS-6	9		7000	7000	21000	8.75	0.02	100	160	0.31	159.98	159.98
8	DWS-6 - Domestic Tank	60	7000	0	7000	21000	8.75	0.14	100	160	0.31	159.86	159.86





For Puri Construction Pvt. Ltd.


Authorised Signatory



Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.											
SUBJECT :MATERIAL STATEMENT OF FLUSHING WATER SUPPLY SYSTEM											
Sl. No.	Name of the Node	Length in Meter		Dia. of provided	100 mm dia.		80 mm dia.		65 mm dia.		25 mm dia.
		m	mm		m	m	m	m	m	m	
1	2	3	4		5	6	7	8	9	10	11
1	STP-FWS-1	5	150		-	-	-	5	0	-	-
2	FWS-1 - FWS-2	18	150		-	-	-	18	0	-	-
3	FWS-2 - FWS-3	7	150		-	-	-	7	0	-	-
4	FWS-3 - FWS-4	8	150		-	-	-	8	0	-	-
5	FWS-4 - FWS-5	18	150		-	-	-	18	0	-	-
6	FWS-5 - FWS-6	60	150		-	-	-	60	0	-	-
7	FWS-6 - Tank	4	150		-	-	-	4	0	-	-
	TOTAL	120			0	0	0	120	0	0	0




For Puri Construction Pvt. Ltd.



Authorised Signatory



Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.													
SUBJECT : HYDRAULIC DESIGN CHART FOR FLUSHING WATER SUPPLY SYSTEM													
Sl. No.	Name of the Node	Length in Meter	Average Daily water Demand			Peak water demand = 3x Avg. Daily Water demand		Design of Pipe			Residual head		
			Self	Previous	Total	Total Water Demand	LPD	m ³ /hr	Size of pipe (dia)	Head Loss in	Velocity	Start	End
1	2	m	LPD	LPD	LPD	LPD	7	8	mm	m	m/sec	m	m
1	STP-FWS-1	5	4	5	6	30000	90000	3.75	50	0.07	0.53	160.00	159.93
	FWS-1 - FWS-2	18		30000	30000	90000	90000	3.75	50	0.25	0.53	160.00	159.75
3	FWS-2 - FWS-3	7		30000	30000	90000	90000	3.75	50	0.10	0.53	160.00	159.90
4	FWS-3 - FWS-4	8		30000	30000	90000	90000	3.75	50	0.11	0.53	160.00	159.89
5	FWS-4 - FWS-5	18		30000	30000	90000	90000	3.75	50	0.25	0.53	160.00	159.75
6	FWS-5 - FWS-6	60		30000	30000	90000	90000	3.75	50	0.82	0.53	160.00	159.18
7	FWS-6 - Tank	4	30000		30000	90000	90000	3.75	50	0.05	0.53	160.00	159.95




For Puri Construction Pvt. Ltd.

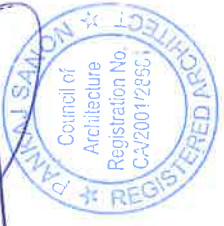


Authorised Signatory



Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.																
SUBJECT :MATERIAL STATEMENT OF FLUSHING WATER SUPPLY SYSTEM																
Sl. No.	Name of the Node	Length in Meter	Dia. of provided	100 mm dia.	80 mm dia.	65 mm dia.	50 mm dia.	40mm dia.	32 mm dia.	25 mm dia.						
		m	mm	m	m		m	m	m	m						
1	2	3	4	5	6	7	8	9	10	11						
1	STP-SWS-1	5	50	-	-	-	5	0	-	-						
2	SWS-1 - SWS-2	18	50	-	-	-	18	0	-	-						
3	SWS-2 - SWS-3	7	50	-	-	-	7	0	-	-						
4	SWS-3 - SWS-4	8	50	-	-	-	8	0	-	-						
5	SWS-4 - SWS-5	7	50	-	-	-	7	0	-	-						
6	SWS-5 - Tank	10	50	-	-	-	10	0	-	-						
	TOTAL	55		0	0	0	55	0	0	0						






For Puri Construction Pvt. Ltd.
Authorised Signatory



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SUBJECT : HYDRAULIC DESIGN CHART FOR FLUSHING WATER SUPPLY SYSTEM													
Sl. No.	Name of the Node	Length in Meter	Average Daily water Demand			Peak water demand = 3x Avg. Daily Water demand		Design of Pipe			Residual head		
			Self	Previous	Total	Total Water Demand	LPD	Size of pipe (dia)	Head Loss in	Velocity	Start	End	
1	2	m	LPD	LPD	LPD	LPD	m ³ /hr	mm	m	m/sec	m	m	
1	STP-SWS-1	3	4	5	6	7	8	9	10	11	12	13	
1	STP-SWS-1	5		35000	35000	105000	4.38	50	0.09	0.62	160.00	159.91	
2	SWS-1 - SWS-2	18		35000	35000	105000	4.38	50	0.33	0.62	160.00	159.67	
3	SWS-2 - SWS-3	7		35000	35000	105000	4.38	50	0.13	0.62	160.00	159.87	
4	SWS-3 - SWS-4	8		35000	35000	105000	4.38	50	0.15	0.62	160.00	159.85	
5	SWS-4 - SWS-5	7		35000	35000	105000	4.38	50	0.13	0.62	160.00	159.87	
6	SWS-5 - Tank	10	35000		35000	105000	4.38	50	0.18	0.62	160.00	159.82	




For Puri Construction Pvt. Ltd.

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SUBJECT : MATERIAL STATEMENT OF FLUSHING WATER SUPPLY SYSTEM

Sl. No.	Name of the Node	Length in Meter	Dia. of provided	100 mm dia.	80 mm dia.	65 mm dia.	50 mm dia.	40mm dia.	32 mm dia.	25 mm dia.
				m	m	m	m	m	m	m
1	2	3	4	5	6	7	8	9	10	11
1	STP-SWS-1	5	50	-	-	-	5	0	-	-
2	SWS-1 - SWS-2	18	50	-	-	-	18	0	-	-
3	SWS-2 - SWS-3	7	50	-	-	-	7	0	-	-
4	SWS-3 - SWS-4	8	50	-	-	-	8	0	-	-
5	SWS-4 - SWS-5	7	50	-	-	-	7	0	-	-
6	SWS-5 - Tank	10	50	-	-	-	10	0	-	-
	TOTAL	55		0	0	0	55	0	0	0



For Puri Construction Pvt. Ltd.

Authorised Signatory



Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

SUBJECT : HYDRAULIC DESIGN CHART FOR FLUSHING WATER SUPPLY SYSTEM

Sl. No.	Name of the Node	Length in Meter	Average Daily water Demand			Peak water demand = 3x Avg. Daily Water demand		Design of Pipe			Residual head	
			Self	Previous	Total	Total Water Demand	Total Water Demand	Size of pipe (dia)	Head Loss in	Velocity	Start	End
1	2	m	LPD	LPD	LPD	LPD	LPD	mm	m	m/sec	m	m
1	STP-SWS-1	3	4	5	6	7	8	9	10	11	12	13
2	SWS-1 - SWS-2	5		35000	35000	105000	4.38	50	0.09	0.62	160.00	159.91
3	SWS-2 - SWS-3	18		35000	35000	105000	4.38	50	0.33	0.62	160.00	159.67
4	SWS-3 - SWS-4	7		35000	35000	105000	4.38	50	0.13	0.62	160.00	159.87
5	SWS-4 - SWS-5	8		35000	35000	105000	4.38	50	0.15	0.62	160.00	159.85
6	SWS-5 - Tank	7		35000	35000	105000	4.38	50	0.13	0.62	160.00	159.87
		10	35000		35000	105000	4.38	50	0.18	0.62	160.00	159.82




For Puri Construction Pvt. Ltd.

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Sub-work No. II

Sewerage scheme

Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

Sl.No.	Description	Unit	Qty.	Rate	Amount in Rs.
1	Providing and laying R.C.C. pipe drain class NP-3 With cement joint, including the cost of manholes, excavation etc complete in all respect.				
a.)	200 mm dia	Meter	0	1,500	-
2	Providing, laying, jointing and testing G.I pipe lines including Cost of excavation etc. complete in all respects. <i>PIPE running along basement ceiling 150 mm dia pipe upto STP 90 mtr @ 20401</i>				
a)	100 mm dia. G.I. pipe (STP Overflow Pipe)	Meter	130	1,250 16251	1,62,500 1.84 lacs 1.92 lacs
3	Provision for cartage of material.	L.S			50,000
4	Provision for lighting and watching.	L.S			50,000
5	Provision for making Sewer Connection with HSVP on master road.	L.S			2,00,000
6	Provision for STP of capacity 230 KLD (115 x 2 Nos). (Cost of Civil/Mechanical) complete in all respect.	KLD	230	16,000	34,50,000 36.80 lacs
7	Provision for vent pipe as per PH requirement.	L.S			2,00,000
8	Provision of cutting of roads and making good to its original.	L.S			1,00,000
Total					42,12,500 46.56
Add 3 % contingencies & PE charges.					1,26,375 47.96
Total					43,38,875 23.49
Add 49 % Departmental charges, Price escalation,unforseen,Admin. Charges.					21,26,049 71.45
Total					64,64,924 71.45 lacs
C/O. to final abstract of cost (say in Lacs)					64.65



For Puri Construction Pvt. Ltd.

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Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector - 111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

DESIGN CALCULATION FOR SEWERAGE SYSTEM

SL No	SEWER LINE	Length of line	Population main dwelling unit @ 5 EWS @ 2. Service person @ 2	Total Water Requirement @ 172.5 Ltrs / person	Sewage Self Load (85% of Water Requirement)	Sewage Load (Average)			Peak Flow @ 3x Av. Flow	Infiltration @ 25% Av. Discharge	Sewage Load (Peak)	Dia of Pipe	Fall in Line	Velocity In	Capacity of Pipe	Ground Lvl.	Invert Lvl. (mtr)		Manhole Depth (mtr)	
						LPS	LPS	LPS									Start	End	Start	End
		Mtr	No. of Person	LPD	LPD				LPS	LPS	LPS	MM	MM	M/SEC	LPS	Mtr	Mtr	Mtr	Mtr	Av/Start



For Puri Construction Pvt Ltd.

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Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

MATERIAL STATEMENT FOR SEWERAGE SYSTEM

S. No.	Sewer Line	Length	Dia of Pipe			
		(mm)	(mm)	100mm	250mm	300 mm
1	STP Bypass Line (GI Pipes)	130.0	100	130.0		
TOTAL		130		130	0	0



For Puri Construction Pvt. Ltd.

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Sub-Work No. III		Storm Water Drainage scheme			
Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.					
Sl.No.	Description	Unit	Qty.	Rate	Amount in Rs.
1	Providing and laying HDPE DWC pipe drain class SN-8 With rubber ring joint , manholes excavation etc complete in all respect.		170		4.25 lacs
a)	400 mm dia.	Meter	185	2,500	10,17,500
2	Provision for cost of Road gullies with 600 mm pipe connection.	Nos.	0	5,000	1.00 -
3	Provision for grating on 450mm wide drain channel	Meter	50	500	25,000
3	Providing Rain Harvesting arrangements.	Nos.	3	3,50,000	10,50,000
6	Provision for Shoring & Timbering.	L.S		2,00,000	2,00,000
6	Provision for Lighting, Watching & Temp. Drain Arrangements.	L.S		5,00,000	5,00,000
8	Provision for Carriage of Material with other unforeseen item.	L.S		7,50,000	7,50,000
8	Provision for Making Connection to HUDA Line on master road.	L.S		2,00,000	2,00,000
8	Provision of cutting of roads and making good to its original.	L.S		1,00,000	1,00,000
10	400 mm dia overflow line up to master storm water drainage (LS)	Meter	25	2,000	50,000
Total					41.75
Add 3 % contingencies & PE charges.					1.25
Total					43.00
Add 49 % Departmental charges, Price escalation,unforeseen,Admin. Charges.					21.07
Total					64.07
C/O. to final abstract of cost (say in Lacs)					59.74



For Puri Construction Pvt. Ltd.

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Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

DESIGN CALCULATION FOR STORM WATER DRAINAGE SYSTEM

SL NO	LINE NO.		LENGTH	SELF AREA TO BE DRAINED IN SQM	AREA IN HECTARES			DISCHARGE IN CUM/SEC RAIN INTENSITY $= 6.25 \text{ mm}$	DISCHARGE IN M3/SEC	Pipe Dia	SLOPE	VELOCITY M/SEC	DISCHARGE CAPACITY IN M3/SEC	Check	GROUND LEVEL AT START	GROUND LEVEL AT END	FALL	INVERT LEVEL AT START	INVERT LEVEL AT END	DEPTH AT START	DEPTH AT END	AVERAGE DEPTH	REMARKS
	FROM	TO			SELF	BRANCH	TOTAL																
1	STMH-1	STMH-2	29	1775	0.00	0.18	0.18	8.320	0.0023	400	400	0.829	0.10	OK	0.000	0.750	0.073	-0.900	-0.973	0.900	1.723	1.311	900dia.
2	STMH-2	RWH-01	2	895	0.00	0.07	0.25	11.578	0.0032	400	400	0.829	0.10	OK	0.750	0.700	0.005	-0.973	-0.978	1.723	1.678	1.700	900dia.
3	RWH-01	STMH-3	2	0	0.00	0.00	0.25	11.578	0.0032	400	400	0.829	0.10	OK	0.700	0.650	0.005	-0.978	-0.983	1.678	1.633	1.655	900dia.
4	STMH-3	STMH-4	24	955	0.00	0.10	0.34	16.055	0.0045	400	400	0.829	0.10	OK	0.650	0.600	0.060	-0.983	-1.043	1.633	1.643	1.638	900dia.
5	STMH-4	RWH-02	2	775	0.00	0.08	0.42	19.689	0.0055	400	400	0.829	0.10	OK	0.600	0.550	0.004	-1.043	-1.047	1.643	1.597	1.620	900dia.
6	RWH-02	STMH-5	1	0	0.00	0.00	0.42	19.689	0.0055	400	400	0.829	0.10	OK	0.550	0.500	0.003	-1.047	-1.049	1.597	1.549	1.573	900dia.
7	STMH-5	STMH-6	16	693	0.00	0.07	0.49	22.936	0.0064	400	400	0.829	0.10	OK	0.500	0.470	0.040	-1.049	-1.089	1.549	1.559	1.554	900dia.
8	STMH-6	STMH-12	19	916	0.00	0.09	0.58	27.230	0.0076	400	400	0.829	0.10	OK	0.470	0.450	0.048	-1.089	-1.137	1.559	1.587	1.573	900dia.
9	STMH-7	STMH-8	20	130	0.00	0.01	0.01	0.609	0.0002	400	400	0.829	0.10	OK	0.000	0.700	0.050	-0.800	-0.850	0.800	1.550	1.175	900dia.
10	STMH-8	STMH-9	14	117	0.00	0.01	0.02	1.156	0.0003	400	400	0.829	0.10	OK	0.700	0.650	0.034	-0.850	-0.884	1.550	1.534	1.542	900dia.
11	STMH-9	STMH-10	6	157	0.00	0.02	0.04	1.894	0.0005	400	400	0.829	0.10	OK	0.650	0.600	0.015	-0.884	-0.899	1.534	1.499	1.516	900dia.
12	STMH-10	RWH-03	2	144	0.00	0.01	0.05	2.569	0.0007	400	400	0.829	0.10	OK	0.600	0.570	0.004	-0.899	-0.903	1.499	1.473	1.486	900dia.
13	RWH-03	STMH-11	2	0	0.00	0.00	0.05	2.569	0.0007	400	400	0.829	0.10	OK	0.570	0.550	0.004	-0.903	-0.906	1.473	1.456	1.464	900dia.
14	STMH-11	STMH-12	27	211	0.00	0.02	0.08	3.558	0.0010	400	400	0.829	0.10	OK	0.550	0.500	0.086	-0.906	-0.973	1.456	1.473	1.464	900dia.
15	STMH-12	Municipal Drain	3	218	0.00	0.02	0.10	4.580	0.0013	400	400	0.829	0.10	OK	0.500	0.450	0.008	-0.973	-0.980	1.473	1.430	1.451	900dia.

367 6785

1.676855636



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Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

MATERIAL STATEMENT FOR STORM WATER DRAINAGE SYSTEM

SL NO	NAME OF LINE		LENGTH	PIPE DIA	400MM	500MM
	FROM	TO	MTR	MM	MTR	MTR
1	STMH-1	STMH-2	29	400	29	
2	STMH-2	RWH-01	2	400	2	
3	RWH-01	STMH-3	2	400	2	
4	STMH-3	STMH-4	24	400	24	
5	STMH-4	RWH-02	2	400	2	
6	RWH-02	STMH-5	1	400	1	
7	STMH-5	STMH-6	16	400	16	
8	STMH-6	STMH-12	19	400	19	
9	STMH-7	STMH-8	20	400	20	
10	STMH-8	STMH-9	14	400	14	
11	STMH-9	STMH-10	6	400	6	
12	STMH-10	RWH-03	2	400	2	
13	RWH-03	STMH-11	2	400	2	
14	STMH-11	STMH-12	27	400	27	
15	STMH-12	Municipal Drain	3	400	3	
	Total		167			

169
say 170 mtr



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Sub Work No.IV			Roads and Footpaths		
Sub-Head No. 06					
Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.					
S.no	Descriptions	Unit	Qty	Rate	Amount
	Sub work IV-ROAD WORK				
1	Providing for leveling and earth filling as per site condition 1.67 acres @ Rs. 50,000.00 per acres	acres	1.67	50000.00	83500.00
2					
i)	Soiling stone 100mm thick (90-63mm) gauge completed to 75mm thick WBM specification & Confirming to MOT Specification (Table 400-6 grading No-2)				
ii)	Wearing coat (Top coat) 100thick (63-40mm) gauge completed to 75mm thick WBM specification & Confirming to MOT Specification (Table 1400-6 grading No-3)				
iii)	25mm thick pre-mix carpet with seal coat 4406.52 sqm @ Rs.180/- per sqm	sqm	2144.43	180.00	385997.22
3	Provision for kerbs and channels of CC (1:2:4) on both sides of road 385 metre(91.76x2)				
	(91.76x2) @ 275 per metre	metre	183.52	275.00	50468.00
4	Provision for cement concrete pavement 1:2:4 on road , 2144.43 sqm @ Rs. 250/- sqm	sqm	2144.43	250.00	536107.25
5	Provision for plot indicator board and guide map & demarction burgi and making parking arrangement.				
6	Provision for traffic light arrangement				
7	Provision for carriage of material all other unforeseen item (L.S)				
				Total	4256072
	Add 3% contingencies				127682
				Total	4383755
	Add 14% Deptt. Charges , Price Escalation Unforeseen, Admn				613726
				Total	4997480
				Say In Lacs	49.97



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S.NO.	WIDTH(M)	LENGTH(M)	COEFF.	NOS.	AREA (SqM)
ADDITIONS					
R1		PLINE	1.00	1	28.532
R2	14.995	7.320	1.00	1	109.763
R3		PLINE	1.00	1	90.969
R4	75.840	7.500	1.00	1	568.800
R5		PLINE	1.00	1	93.307
R6	6.500	4.605	0.50	1	14.966
R7	6.500	24.215	1.00	1	157.398
R8	5.100	6.500	0.50	3	49.725
R9		PLINE	1.00	1	74.868
R10	92.625	6.500	1.00	1	602.063
R11		PLINE	1.00	1	94.839
R12	7.500	14.350	1.00	1	107.625
R13		PLINE	1.00	2	1.116
R14	7.235	3.735	1.00	1	27.023
R15	7.500	14.455	1.00	1	108.413
R16		PLINE	1.00	1	15.023
GROSS AREA (TOTAL ADDITIONS)					2144.429
TOTAL GREEN					2144.429

Car on surface = 14 No.

Area = $2.50 \text{ m} \times 5.0 \text{ m} \times 14 = 175 \text{ Sqm}$

Total area = $2144.429 + 175.0 = 2319.429 \text{ Sqm}$

Say 2320 sqm



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S.no	Descriptions	Unit	Qty	Rate	Amount
Sub work V-Street Lighting					
1	Providing for Street lighting with underground deducting on road as per standard specification of DHBVNL 1.67 acre @ 50000/- per acres Add 3% contingencies <i>on PE-Charges</i> <i>49%</i> Add 14% Deptt. Charges, Price Escalation Unforeseen, Admn	acres	1.67	<i>2.50/las</i> 50000.00	<i>4.18 las</i> 83500.00 2505 <i>0.12 las</i> 86.005 <i>4.30 las</i> 12.041 <i>2.10 las</i> 98.046 <i>6.40 las</i> 98
				Total	
				Total	
				Say In Lacs	



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Sub Work No.VI

Sub-Head No. 05

Horticulture

Project :- Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.

S.no	Descriptions	Unit	Qty	Rate	Amount
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Sub work VI-Plantation and Road side trees

1 Development of lawn areas

- Trenching the ordinary soil upto dept of 60cm including removal and stacking of serviceable materials and disposing of by spreading and leveling within a lead to 50m and making up the trenches area of proper leads by filling with earth mixed with manure before and after flooding trench with water including cost of imported earth and manure
- Rough dressing of trufed area
- Grassing with "Doob Grass" including watering and maintenance of lawns for 30 days till the grass forms a thick lawn free weeds and fit for moving in rows 7.5m apart in either direction including provision for hedges and barbed wire fencing around park
(1.67 acres @ 70000 per acre

(L.S.)	0.50 lacs
acre	1.67
70000.00	116900.00

2 Provisions trees, guards and planting trees along road at 12mt interval

Total Road length = 183.52 m
 $183.52 / 12 = 15.29$ nos, Say = 15 nos
 Cost of Analysis of planting trees
 Excavation @ Rs. 20.00 60.00
 Manure @ Rs. 20.00 100.00
 Tree plant @ Rs. 20.00 150.00
 Tree guard @ Rs. 190.00 2850.00
 Total Rs. 250 per trees 2310

Nos	15	250.00	3750.00
	30		120650.00
			3619.50
			17397.73
			141667.23
			1.42

2310 0.69 lacs
 1.19 lacs
 0.03 lacs
 1.22 lacs
 0.60 lacs
 1.82 lacs

Add 3% contingencies

Add 49% Deptt. Charges , Price Escalation
 Unforeseen, Admn



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Sub-Work No. VII		Maintenance Charges & Re-surfacing of Roads			
Approval for Proposed building plan of commercial Colony measuring land under TOD policy over an area measuring 3.356 Acres (license no. 99) & 3.375 acres (license no. 98) of 2010 dated 19th November 2010, in sector -111, Distt. Gurgaon being developed by M/s Puri Constructions Pvt. Ltd.					
S.no	Descriptions	Unit	Qty	Rate	Amount
	Sub work VII -M/C Charges for Services & Resurfacing of road				
1	Providing of M/C charges for water supply , storm water drainage, sewerage, Road, Street			8.00 lacs	13.36 lacs
	1.67acre @ 2.50 lacs pr acre	acre	1.67	250000.00	417500.00
2	Providing of resurfacing of roads after 5 years				
	100mm thick layer 100mm thick BUSG complete to 25mm thick premix carpet with seal cost		2320	660	15.31 lacs
	(2144.43 sqm @ 180 per sqm	sqm	2144.43	180.00	385997.40
3	Providing of resurfacing of roads after 10 years		2320	825	19.14 lacs
	(2144.43 sqm @ 90 per sqm	sqm	2144.43	90.00	192998.70
				Total	996496.10 47.81
	Add 3% contingencies				29894.88 3 1.43
	49%			Total	1026390.98 3 49.26
	Add 14% Deptt. Charges , Price Escalation				143694.73 76 2 24.12
				Total	1170085. 72 73.36
				Say In Lacs	11.70

C.O. to final abstract of cost



For Puri Construction Pvt. Ltd.

Authorised Signatory

