

PROJECT REPORT/ESTIMATES FOR PROVIDING INTERNAL SERVICES e.g. WATER SUPPLY, SEWERAGE & STORM WATER DRAINAGE ETC. IN RESPECT OF AFFORDABLE RESIDENTIAL PLOTTED COLONY ( DEEN DAYAL JAN AWAS YOJNA)DEVELOPED BY M/S. CHITVAN FARMS PVT LTD.

AFFORDABLE RESIDENTIAL PLOTTED COLONY AREA MEASURING 7.25625 ACRES REVENUE ESTATE VILLAGE DHAMALKA, SECTOR 26, DISTT REWARI .  
( DEEN DAYAL JAN AWAS YOJNA)DEVELOPED BY M/S. CHITVAN FARMS PVT LTD.

### Water Supply

#### 1 Source

The source of water supply in this area is tubewells as the underground water is sweet and fit for human consumption, moreover, the water is available at reasonable depth. The average yield of tubewell with 60'-80'stainer will be about 36000 lph per hour. The recharging of under ground water table in this bnelt is stated to be good. However still we shall resort to rain water harvesting system to keep up the recharging system. The number of tubewells required for the above area has been worked out to 1 Nos and the tubewells will be bored in tune with growth of demand to avoid absolence of the tubewells. The ultimate requirement of tubewells includes provision of 10% standby.

#### 2 Design

The scheme has been designed for population of 1782 persons in 7.25625 Acre. The rate of water supply per head per day has been taken assumed as 172.5 litres per head per day as per HUDA norms. In addition to above necessary provision of water for Community centers, & commercial ,parks etc. have been taken into account for calculating the maximum number of tubewell water required.

#### 3 Pump Chambers and Pumping Machinery

It is proposed to equip each tubewell with an electrically driven pumping set-Ejecto type or submersible pump capable of delivering about 36,000 litre per hour. It is also proposed to equip 2 Nos pumping sets with stand by diesel gen set engines for operation during failure of electricity at four locations.

#### 4 Under Ground Storage

Underground storage tank provision has been made for 300 KL in two compartments near the UGSR, which caters for the present and a lot of future requirement as well as fire fighting requirement. The water for domestic water compartment shall over flow from the fire compartment of 225 KL so that the water in the fire compartment also remains fresh.

*Arvind Kumar*  
ARVIND KUMAR  
CA/2004/34799

For Chitvan Farms Private Limited  
*Arvind Kumar*  
Authorised Signatories

5 Boosting Station

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

6 Distribution System

The distribution systems for this development are has been designed to supply @ 172.5 Litres per head per day @ 3 times the average rate of flow on 'Hazen Willima' formula with C-100. Necessary provision for laying D.I./HDPE pipes only conforming to relevant IS standards along with valves and specials has been made in this estimate. The minimum terminal head at any point in this system will be about 17.00 metres so that it can serve the 2.5 stories construction envisaged in the plan. Minimum pipe diameters for distribution are kept as 100 dia.

7 Rising Mains

Rising mains from HUDA water main on sector road to water works have also been designed and provision for 250 mm i/d D.I. pipe line has been made in this estimate.

8 Sewerage

The sewer lines have been designed for 3 times average DWF in relation to the water supply demand assuming that 80% fo the domestic water supply shall find its way into the proposed sewer SW / ~~RCC NP~~<sup>3</sup> pipe sewers have been proposed designed to run half full. The sewers have been designed on 2.50 ft. per second velocity ie. Self cleansing velocity. Necessary provisions for laying ~~RCC~~ pipes manholes etc. has been made in this estimate.

S.W.

9 Storm Water Drainage

The storm water drain is being designed to carry 6.25 mm rain fall per hour. Also suitable provisions are contemplated in our scheme to ensure better recharging of under ground water table in the area. RCC Hume pipe drain with minimum 400 mm dia is proposed in this area.

NP-3 PIPE

*Arvind Kumar*

ARVIND KUMAR  
CA/2004/34700

For Chitvan Farms Private Limited

*Arvind Kumar*

Authorised Signatories

**10 Roads**

The roads in the colony are being planned such that minimum width of road provided is 12 m carrier road leading to higher width of roads. The roads shall be premixed 25 mm bituminous layer over 22.5 cm avg. water bound macadam over 20 cm thick (GSB) as per MoRTH specs.

**11 Street Lighting**

The provision has been made on lump sum basis

**12 Horticulture**

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

**13 Specifications :**

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

**14 Rates**

Estimates for providing services in this pocket has been prepared on the recent HUDA rates.

**15 Cost**

The total cost of development in this Project phase one including various PH & B & R services works out to ~~Rs. 641.56~~ lacs which includes 3% contingency and P.E. charges and 14% departmental charges also.

644.65

The cost per gross acre for this phase works out to ~~Rs. 88.41~~ <sup>88.84</sup> Lacs/acre which covers the provision of services like water supply, sewerage, storm water drainage, roads, street lighting and plantations including plantations maintenance thereof as well as future expansion whatsoever indicated.

*Arvind Kumar*  
ARVIND KUMAR  
CA/2004/34799

For Chitvan Farms Private Limited

*Arvind Kumar*  
Authorised Signatory

DEEN DAYAL JAN AWAS YOJNA L.C. 75 DATED 11.09.2017

DESIGN CALCULATION

Daily water requirement

Total No. of Plots (General)		132	Nos.
Population per plot (general)		13.5	Person
1 Therefore population (general)		1782	persons
Total Population	$132 \times 13.50 =$	1782	persons
		SAY	1782 Persons.
Total daily Water requirement for plots		@	172.5 lit/head/day
			307395 lpd
		or	307.395 KLD (1)

*Arvind Kumar*  
 ARVIND KUMAR  
 CA/2004/34799

For Chitvan Farms Private Limited  
*Arvind Kumar*  
 Authorized Signatories

2 Non residential building water requirement

a	No. of Community Area 2934.50 sqm or 0.725	1			
	Daily water requirement		@	25000	lit/day
	Therefore daily water requirement			18125	lit/day
b	Area of commercial (01 nos. Site ) 0.265 acres	1			
	Daily water requirement		@	32000	lit/acre
	Area of commercial 0.265 acres			8480	lit/day
	Therefore daily water requirement		<del>Say</del>	<del>10.00</del>	<del>KLD</del>
	<b>Total 2 (a+b)</b>			<b>26605</b>	
				<del>28125.00</del>	KLD
			<b>SAY</b>	<b>30.00</b>	<b>KLD</b>

3	Area under Parks	0.578	acre		
	Daily water requirement		@	25000	lit/acre/day
				14450	lit/day
				15.0	KLD

4	Area under Roads	1.93	acre		
	Daily water requirement		@	5000	lit/acre/day
				9650	lit/day
				10.00	KLD

I Total daily requirement **26.605** **334.00** **335.52** KLD

a.) Domestic Use(1+2) =307.395+~~28.125~~

b). Area Parks & Roads (3+4)=15.00+10.00 **25.00** KLD  
 Assuming requirement for for flushing as 1/3rd of total domestic & daily requirment for flushing(33%) **111.33** KLD  
 $1/3 \times 335.52$   
**334**

Total Daily Requirement for Portable drinking water supply ~~335.52~~-111.**33** **222.67** **223.98** KLD  
**334**

SAY **250.00** **225.0** KLD

*Arvind Kumar*  
**ARVIND KUMAR**  
**CA/2004/34799**

**For Chitvan Farms Private Limited**  
*Arvind Kumar*  
**Authorised Signatories**

hours of tubewells  
/hour of each tubewell  
requirement drinking  
required for total demand

		16	hours
		25	KL/hours
		<b>225.00</b>	<b>KLD</b>
		250.00	
250.00	/25x16	0.63	
		0.06	
	Total	0.69	
		1.00	
<b>Say</b>		<b>1.00</b>	<b>No.</b>

1 No. tube well at present  
ing water supply is to  
and ultimately water is  
from STP

for tubewell  
level

=	45.00	m
=	5.00	m
=	6.10	m
=	2.50	m
	58.60	m
<b>Say</b>	<b>= 60.00</b>	<b>m</b>
=	9.25	BHP
<b>Say</b>	<b>= 10.00</b>	<b>BHP</b>

fittings

6

mersible pumping set with a discharge of 3600 ltr./hour (600 lpm) driven with 15.0

For Chitvan Farms Private Limited  
*Abhishek*  
Authorised Signatories

It is proposed to install 16 tubewells of 25x16m each. The total requirement for drinking water is 225 KLD. The existing tube well at present is not sufficient to meet the demand. The water supply is to be taken from STP. The water level in the tube well is 45m. The depth of the tube well is 5m. The total depth of the tube well is 6.10m. The water level in the tube well is 2.50m. The total depth of the tube well is 58.60m. The water level in the tube well is 60.00m. The power requirement for the tube well is 9.25 BHP. The total power requirement for the tube well is 10.00 BHP.

**II Tubewell**

Assuming working hours of tubewells		16	hours
Assuming discharge/hour of each tubewell		25	KL/hours
Total domestic water requirement drinking		<b>225.00</b>	<b>KLD</b>
No. of tubewells required for total demand		250.00	
$225.00 \div 25.00 = 250.00$ K L			
No. of tubewells required	250.00	$25 \times 16$	0.63
Add 10% standby			0.06
		Total	0.69
			1.00
	<b>Say</b>	<b>1.00</b>	<b>No.</b>

It is proposed to provide 1 No. tube well at present moreover the requirement of flushing water supply is to met from treated water from stp and ultimately water is to be supplied by HUDA

**III Pumping machinery for tubewell**

a	Gross working load spring level	=	45.00	m
b	Av. Fall in spring level	=	5.00	m
c	Depression head	=	6.10	m
d	Friction loss in pipe and fittings	=	2.50	m
			58.60	m
	<b>Say</b>	=	<b>60.00</b>	<b>m</b>

BHP = $25000 \times 60 \times 1 / 60 \times 60 \times 75 \times 0.6$	=	9.25	BHP
With 60% efficiency	<b>Say</b>	=	<b>10.00</b> BHP

~~It is proposed to install 3 no. Submersible pumping set with a discharge of 3600 ltr./hour (600 lpm) driven with 15.0 HP electric motor.~~

*Arvind Kumar*  
**ARVIND KUMAR**  
CA/2004/34799

**For Chitvan Farms Private Limited**  
*Arvind Kumar*  
**Authorised Signatories**

**IV Underground Tank**

Daily requirement for domestic use including Institutional Demand	=	225.00	KL
Capacity of under ground tank taking storage (25+33=58%) say 60% of daily demand	=	135.00	KL
<b>Say</b>	=	<b>150.00</b>	<b>KL</b>
Fire water storage 100v1.78	=	133.49	KL
<b>Say</b>	=	<b>150.00</b>	<b>KL</b>

It is proposed to provide 1 no. under ground tank of capacity **300KL** which also includes **150 KL** capacity for fire fighting as well.

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

**V BOOSTING MACHINERY (Drinking Water)**

Daily requirement for domestic use (drinking)	=	225.00	KL
Assuming 8 hours running 1 pumps (with one standby)			
Discharge/hour	225.00 / 8 / 3	=	28.13 KL/HR
Head of pump		=	468.75 LPM
	SAY	=	500.0 LPM
i) Suction lifts		=	4.0 m
ii) Friction loss in M<main & specials		=	10.0 m
iii) Clear head		=	25.0 m
		=	34.0 m
	SAY	=	46.0 m
BHP of motor 500x35 60x75x0 60		=	6.50 HP
	SAY	=	7.50 HP

*Arvind Kumar*  
**ARVIND KUMAR**  
 CA/2004/34799

For Chitvan Farms Private Limited  
*Arvind Kumar*  
 Authorised Signatories



**VI Boosting machinery(Flushing Water supply)**

Daily requirement for domestic flushing use	=	111.84	KL
Add for Hort. & Roads	=	25.00	KL
Total	=	136.84	KL
Assuming 8 Hrs runing one pump(with one stand by) discharge/hours	=	136.84/8	
	=	17.04	KL/HRS
	=	17.105	KL/HRS
	=	284.02	KL
	=	285.08	KL
	SAY	=	300.00 KL
Head of Pump	=		
suction Lift	=	4	m
Friction Loss in Main	=	10	m
Clear Head	=	26	m
		34	m
		Say 40 m	
BHP OF MOTOR		300X360 60X75X0.60	3.88 BHP
		Say	5.00 BHP
Capacity of STP		0.75X335.52 KL	= 252.56 KLD
		334 SAY	255.00 KLD
<b>GEN SET</b>			
Pump for UG Tank (dom+flushing) 1+1		7.50+5.00	= 12.50 HP
Tubewell		1	= 10.00 HP
Lighting			= 5.00 HP
		Total	27.50
		27.50x0.746x1.50	= 30.77 KVA
			35.00 KVA

*Arvind Kumar*  
**ARVIND KUMAR**  
 CA/2004/34799

For Chitvan Farms Private Limited  
*Arvind Kumar*  
 Authorized Signatories

FINAL ABSTRACT OF COST

	Amount (Lacs.)
Sub Work 1 Water Supply	₹ 153.45 lacs <del>130.85</del> 148.34
Sub Work 2 Sewerage	₹ 77.32 lacs 74.26
Sub Work 3 S.W. Drainage	₹ 62.53 lacs 81.61
Sub Work 4 Roads	₹ 136.59 lacs
Sub Work 5 Street Lighting	₹ 27.84 lacs
Sub Work 6 Horticulture	₹ 4.32 lacs 19.70
Sub Work 7 Maintenance charges for 10 years i/c resurfacing of roads after 1st 5 years & 2nd 5 years. (As per Norms)	₹ 182.65 lacs 153.28
	₹ 644.63 lacs

say ₹ 644.65 lacs

644.55 lacs  
641.55 ✓  
COST/GROSS ACRE 641.55 / 7.25625 ACRE = 88.41 LACS / ACRE  
88.84

~~624.05~~ 641.55

checked for Amounting to Rs. 641.55 Lacs.

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

*R.D. Dhillon*  
Executive Engineer,  
HUDA Division,  
Rewari

Superintending Engineer(HQ)  
for Chief Engineer  
HUDA PANCHKULA

For Chitvan Farms Private Limited

*Deeth Kaur*  
Authorized Signatories

*Arvind Kumar*  
ARVIND KUMAR  
CA/2004/34799

Superintending Engineer  
HUDA Circle-II, Gurugram

Director  
Town and Country Planning,  
Haryana, Chandigarh

~~FINAL~~ ABSTRACT OF ~~REVISED~~ COST OF WATER SUPPLY

	Amount (Lacs.)
Sub Head 1 Head Works	₹ 43.50 lacs <del>45.00</del>
Sub Head 2 Pumping Machinery	₹ 21.50 lacs <del>20.50</del>
Sub Head 3 Distribution System	₹ 20.19 lacs <del>19.76</del>
Sub Head 4 Flushing & Irrigation	₹ 14.80 lacs <del>0.00</del> <del>11.40</del>
<b>Total</b>	<b>₹ 99.99 lacs</b> <del>85.26</del> <del>96.66</del>
Add 3% Contingencies & P.E. Charges.	₹ 2.99 lacs <del>2.56</del> <del>2.90</del>
	₹ 102.98 lacs <del>50.47</del> <del>99.56</del>
Add 49% Departmental Charges, unforeseen, price escalation	₹ 43.03 <del>48.78</del> <b>153.45 lacs</b>
	<b>Total</b> <del>130.86</del> <b>148.34</b>
(C.O. to abstract of cost of Sub-work No.1)	<b>Say</b> <del>130.86</del> <b>148.34</b>

For Chitvan Farms Private Limited

*Arvind Kumar*  
Authorized Signatories

*Arvind Kumar*  
ARVIND KUMAR  
CA/2004/34799

Sub Head I

Water Supply  
Head Works  
Rs.(lakhs)  
Amount (Rs.)

S. No.	Description	Unit	Qty	Rate	Amount
1	Boring and installing 300+200 mm i/d tubewells with reverse/direct rotary rig complete with pipe strainer to a depth of about 150 m. complete.	Nos.	1	1000000	10.00
2	Constructing pump chambers as per standard design of PWD PH/HUDA of size 4.90x4.25 m. <i>for Housing T.W.</i>	Nos.	1	LS	<del>2.50</del> <i>1.00</i>
3	Construction of boundary wall gate around the Tubewell site.				
a)	Water Works	L.S.	1	-	1.00
b)	Tubewells	L.S.	1	-	1.00
4	Provision of footpath hedges and lawns at tubewell.	L.S.		-	1.50
5	Construction of boosting chambers of suitable size along with under ground tank of capacity 300 KL pumping machinery and generating set etc. complete in all respects.				
	Details of boosting station				
i)	construction of boosting chamber	LS	-	-	7.50 <i>Lacs</i>
ii)	UG tank 300 KL capacity incl. 150 KL for fire fighting, domestic, raw & fire tank in two compartments	K.L.	<i>1KL</i> 300	3500 <i>/-</i>	10.50
6	Provision for carriage of material and other unforeseen items				1.00
7	Provision for staff quarters for Maintenance.	LS	-	-	10.00
	(C.O. to abstract of cost of Sub-work No.I)				
				Total	<del>45.00</del> <i>43.50 lacs</i> Lacs
				Say	<del>45.00</del> <i>43.50</i> Lacs

*Arvind Kumar*  
ARVIND KUMAR  
CA/2004/34799

Page 11 For Chitvan Farms Private Limited  
*Arvind Kumar*  
Authorised Signatories

Sub Work I  
Sub Head No. II

Water Supply  
Pumping Machinery

Amount (Rs.)

(in Lakhs)

Amount (Rs.)

S. No.	Description	Unit	Qty	Rate	Amount
1	Providing and installing electricity driven electro or submersible pumping set capable of delivering about 25 KL water per hour against a total head of 60 M complete with motor and other accessories.	Nos.	1	<del>200000</del> 2.00 lacs	2.00 lacs
2	Provision for diesel engine genset stand by arrangements for Tubewells.	L.S.	-	-	2.00 lacs
3	Provision for cheap pressure type chlorination plant complete.	Nos.	1	100000	1.00 lacs
4	Provision for making foundations & erection of pumping machinery.	L.S.	-	-	1.50 lacs
5	Provision for pipes, valves & specials inside the pump chamber.	L.S.	-	-	2.50 lacs
6	Provision for electric services connection including electric fittings for tubewells chambers complete.	LS	-	-	2.50 lacs
7	Providing and installing centrifugal boosting pumping set, capable of delivering water at 35 M head complete in all respects.(7.50 hp+5.00hp) domestic & flushing (1 working + 1 standby) each	Nos.(2+2)	4	1.50 lacs 125000	6.00 lacs
8	Providing Gen set 35 KVA.	LS	-	-	3.50 lacs
9	Provision for carriage for materials and other unforeseen items.	LS	-	-	0.50 lacs
					<u>₹ 21.50 lacs</u>

(C.O. to abstract of cost of Sub-work No.I)

Total	<del>20.50</del>	Lacs
Say	20.50	Lacs

*Arvind Kumar*  
**ARVIND KUMAR**  
 CA/2004/34

**For Chitvan Farms Private Limited**  
*Arvind Kumar*  
**Authorised Signatories**

**Sub Work I**  
**Sub Head No. III**

**Water Supply**  
**Distribution System/Rising Main**  
**Amount (Rs.)**

S. No.	Description	Unit	Qty	Rate	Amount
1	Providing, laying, jointing & testing D.I. pipes including cost of excavation complete as per ISI marked.				
i)	100 mm dia	M	573	1250 /-	7.16 <i>lacs</i>
ii)	150 mm dia	M	296	1575 /-	4.66 <i>lacs</i>
2	Providing and fixing sluice valves including cost brick masonry chambers complete in all respects.				
i)	100 mm i/d	Nos.	6	12000 /-	0.72 <i>lacs</i>
ii)	150 mm i/d	Nos.	4	15000 /-	0.60 <i>lacs</i>
4	Providing and fixing 150 mm dia NRV including cost of brick masonry chamber.	Nos.	3	<del>12500</del>	0.36 <i>lacs</i>
5	Providing and fixing 100 mm dia air valves and scour valves including cost of brick masonry chamber.	Nos.	3	12000	0.36 <i>lacs</i>
6	Providing and fixing fire hydrants complete with masonry chambers.	Nos.	20	10000	2.00 <i>lacs</i>
7	Providing and fixing indicating plates for sluice valve, air valve etc.	Nos.	26	1000	0.26 <i>lacs</i>
8	Provision for carriage of material	LS			0.50 <i>lacs</i>
9	Provision for cutting the roads and making to its original conditions.	LS			1.00 <i>lacs</i>
10	Provision for rising main from tubewells to UG Tank				
i)	100 mm	M	20	1250 /-	0.25 <i>lacs</i>
11	Provision for rising main from main Water supply line to UG Tank (DI Pipe)				
i)	150 mm	M	150	<del>1250</del> 1575 /-	<del>1.88</del> 2.36 <i>lacs</i>
				<b>Total</b>	<del>49.76</del> 20.19 <i>lacs</i>
(C.O. to abstract of cost of Sub-work No.I)				<b>Say</b>	<del>49.76</del> 19.76 <i>Lacs</i>
					<del>49.76</del>

*Arvind Kumar*  
**ARVIND KUMAR**  
CA/2004/34799

Page 13  
**For Chitvan Farms Private Limited**  
*Arvind Kumar*  
**Authorized Signatory**

WATER SUPPLY MATERIAL STATEMENT

S.No.	Name of Line	Dia of Pipe in mm	Length in Mtrs
1	R-A	150	10.00
2	A-B	150	30.00
3	B-C	150	92.00
4	C-D	150	37.00
5	D-E	150	40.00
6	A-F	100	45.00
7	F-G	100	34.00
8	E-E1	100	45.00
9	E-E2	100	50.00
10	D-D1	100	25.00
11	C-C1	100	85.00
12	B-B1	100	30.00
13	B-B2	100	44.00
14	B2-B4	100	80.00
15	B2-B3	100	46.00
16	G-G1	100	89.00
17	F-F1	150	87.00
<del>TOTAL LENGTH 150MM</del>			<del>296.00</del> 869 mtr
<del>TOTAL LENGTH 100MM</del>			573.00

150 mm  $\phi$  DI PIPE = 296 mtr  
 100 mm  $\phi$  DI PIPE = 573 mtr

*Arvind Kumar*  
 ARVIND KUMAR  
 CA/2004/34709

For Chitvan Farms Private Limited  
*Arvind Kumar*  
 Authorised Signatories

**Sub Work I**  
**Sub Head No. IV**

**Water Supply**  
**Flushing & Irrigation**  
**Amount (Rs.)**

(i)	Providing, laying, jointing and testing D.I. Pipe K-9, including cost of excavation etc. Complete in all respect.				
	[ 100mm dia C.I. D.I. ]	M	321	1250 /-	4.01
	[ 180mm dia C.I. D.I. ]	M	568	1000	5.68
			<u>890</u>		<u>11.13</u> <i>las</i>
(ii)	Providing and fixing sluice valves including cost of surface boxes and masonry chambers etc. complete in all respects.				
	[ 100mm dia ]	Nos	6	12000	0.72
	[ 180mm dia ]	Nos	3	10000	0.30
			<u>9</u>		<u>1.08</u> <i>las</i>
(iii)	Providing and fixing indicating plates for sluice valves	Nos	9	1000	0.09
	Providing and fixing fire hydrant with accessories	Nos	10	10000/-	1.00
					0.10
(iv)	Provision for carriage for materials and other unforeseen items.	L.S.	-	-	0.50
(v)	<i>Proc for irrigation Hydrant line 20/25 mm with irrigation Hydrants (4)</i>				41.40 <i>Las</i>
					<u>1.00</u> <i>las</i>
					<u>₹ 14.80</u> <i>las</i>

*Arvind Kumar*  
ARVIND KUMAR  
CA/2004/34799

For Chitvan Farms Private Limited  
*Arvind Kumar*  
Authorised Signatories



FLUSHING WATER SUPPLY MATERIAL STATEMENT

S.No.	Name of Line	Dia of Pipe in mm	Length in Mtrs
1	STP	100	30
2	1.-2	100	30
3	2.-3	100	92
4	3.-4	100	37
5	1.-11	100	45
6	11.-14	100	87
7	4.-6	180	85
8	5.-5'	180	50
9	4.-7	180	25
10	3.-3'	180	85
11	2.-8	180	44
12	2.-2'	180	30
13	8.-9	180	80
14	8.-10	180	46
15	11.-12	180	34
16	12.-13	180	89
TOTAL LENGTH 100MM			321
TOTAL LENGTH 80MM			568
			899 mtr
			890 mtr

Arvind Kumar  
 ARVIND KUMAR  
 CA/2004/34799

For Chitvan Farms Private Limited  
 [Signature]  
 Authorised Signatories

Sub Work II		Sewerage Scheme			
S. No.	Description	Unit	Qty	Rate	Amount (Rs.)
1	Providing, lowering, jointing, cutting salt glazed stone ware pipes and specials into trenches including cost of excavation, bed concrete lot of manholes complete.				
ii)	<b>200 mm i/d stone ware</b>				
a)	Average depth upto 1.5 m	M	790	1250 /-	9.88 lacs
2	Provision for providing oblique junctions	LS	-	-	0.50 lacs
3	Provision for temporary timbering etc.	LS	-	-	0.50 lacs
4	Provision for providing and fixing vent shaft at suitable places as per PH requirements	LS	-	-	2.50 lacs
6	Provision for cutting of roads and carriage of materials etc. and other unforeseen charges	LS	-	-	2.00 lacs
7	Provision for connection with HUDA on master road.	LS	-	-	1.00 lacs
8	Provision for STP 255 KLD or 0.255 MLD (up to tertiary level)	LS	-	-	32.00 lacs
	<b>9. Prov. for over flow pipe from STP to drop sewer (L)</b>				<del>47.38</del> 2.00 lacs
	<b>Add 3% contingencies &amp; PE charges</b>				<del>0.96</del> 50.38 lacs
	<b>Add 49% Deptt. Charges ,price escalation unforseen,admin charges</b>				<del>49.83</del> 1.51 lacs
					<del>51.89</del> 51.89 lacs
					<del>24.42</del> 25.43 lacs
				<b>Total</b>	<del>74.25</del> 77.32 lacs
	<b>(C.O. to final abstract of cost )</b>			<b>Say</b>	<del>74.25</del> Lacs

Arvind Kumar  
 ARVIND KUMAR  
 CA/2004/34799

For Chitvan Farms Private Limited  
 Authorised Signatories

SEWERAGE MATERIAL STATEMENT

S.No.	Name of Line	Dia of Pipe in mm	Length in Mtrs
1	A-B	200	45.00
2	B-C	200	40.00
3	B1-B	200	15.00
4	C1-C	200	25.00
5	C-D	200	35.00
6	D1-D	200	85.00
7	D-E	200	80.00
8	E4-E	200	30.00
9	E2-E1	200	45.00
10	E2-E1	200	80.00
11	E1-E	200	40.00
12	E-F	200	55.00
13	F-G	200	15.00
14	F1-F	200	90.00
15	G1-G	200	90.00
16	G-STP	200	20.00
	Total Length		790.00 <i>cor</i>

*Arvind Kumar*  
**ARVIND KUMAR**  
 CA/2004/34799

**For Chitvan Farms Private Limited**  
*Arvind Kumar*  
 Authorised Signatories

Sub Work III		Storm Water Drain			
		Amount (Rs.)			
S. No.	Description	Unit	Qty	Rate	Amount
1	Providing, lowering, jointing, cutting RCC NP <sup>3</sup> pipe and specials into trenches including cost of excavation cost of manholes, ventilating chambers etc. complete in all respects.				
ii)	400 mm i/d				
a)	Average depth 1.5 m to 4.5 m	M	<del>827</del> 830	2500/- mtr	<del>20.68</del> 20.75 lacs
2	Provision for road gullies & 300mm dia pipe connection	LS	-	-	2.00
3	Provision for lighting, watching and temporary diversion of traffic	LS	-	-	2.50
4	Provision for cutting of roads and carriage of materials and other unjmscu items	LS	-	-	2.00
5	Provision for temporary disposal arrangements/ till HUDAs services on ponds	LS	-	-	<del>10.00</del> 5.00 lacs
6	Provision for connection with HUDA on master road	LS	-	-	1.00
7	Provision for recharge pit at selected places	LS	-	-	<del>15.00</del> 7.50 lacs
	Add 3% contingencies				<del>1.60</del> 1.22 lacs
	Add 49% Deptt. Charges				<del>26.84</del> 41.97 lacs
					<del>81.61</del> 20.56 lacs
				Total	<del>81.61</del> 69.53 lacs
				SAY	81.61 Lacs

(C.O. to final abstract of cost )

Arvind Kumar  
 ARVIND KUMAR  
 CA/2004/34799

For Chitvan Farms Private Limited  
 [Signature]  
 Authorised Signatories

( DEEN DAYAL JAN AWAS YOJNA)DEVELOPED BY M/S. CHITVAN FARMS PVT LTD.

## STORM WATER MATERIAL STATEMENT

S.No.	Name of Line	Dia of Pipe in mm	Length in Mtrs
1	A-B	400	45.00
2	B-C	400	40.00
3	B1-B	400	20.00
4	C1-C	400	25.00
5	C-D	400	35.00
6	D1-D	400	85.00
7	D-E	400	80.00
8	E4-E	400	30.00
9	E3-E1	400	45.00
10	E2-E1	400	80.00
11	E1-E1	400	40.00
12	E-F	400	72.00
13	F2-F1	400	85.00
14	F1-F	400	35.00
15	F-G	400	85.00
16	G-HUDA MAIN	400	25.00
	TOTAL LENGTH		827.00

Say 830 mtr

Arvind Kumar

ARVIND KUMAR  
CA/2004/34799

For Chitvan Farms Private Limited

Arvind Kumar  
Authorised Signatories

Sub Work IV				Road Work Amount (Rs.)	
S. No.	Description	Unit	Qty	Rate	Amount
1	Provision for levelling and earth filling as per site conditions. L.S. @ <del>Rs. 70000/-</del> <sup>15000/-</sup> per acre <del>(58600/4046.85) x 70000/-</del>	Acre	7.25625	₹ 150000	₹ 10.88 Lacs
2	Providing, laying, spreading and compacting hand broken, crushed stone aggregate to wet mix macadam conforming to physical requirement laid in 400 of morth specification in three layers compacted to 225mm (75+75+75) by taking material 1.32 time of the thickness of the layer) including premixing of material with water in mechanical mix.  300mm GSB 250 mm stone aggregate 50 mm B.M. 20mm thick mix seal surfacing	Sq. M	4785	1200 /- ₹	57.42 Lacs
3 (a)	Providing for Kerbs & Channels	RMT	1740.00	600 /-	10.44 Lacs
4	Provision for indicate plate / guide map/ demarcation burji etc./ traffic light etc.	LS	-	-	₹ 5.00 Lacs
5	Provision for pavement in shopping area i.e. 50% of full area 1072.00/2=536.00 sqm	Sq. M	536	600 /-	₹ 3.22 Lacs
6	Provision for carriage of material and other unforeseen item	LS	-	-	₹ 2.00 Lacs
					₹ 88.96 Lacs
	Add 3% contingencies & P.E. Charges				₹ 2.67 Lacs
					₹ 91.63 Lacs
	Add 49% Deptt. Charges, price escalation, unforeseen Adm.				₹ 44.90 Lacs
					₹ 136.53 Lacs
	(C.O. to final abstract of cost)			SAY-	₹ 136.53 Lacs

Arvind Kumar  
ARVIND KUMAR  
CA/2004/34799

For Chitvan Farms Private Limited  
Authorized Signatories

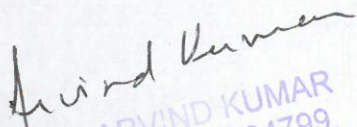
(DEEN DAYAL JAN AWAS YOJNA) DEVELOPED BY M/S. CHITVAN FARMS PVT LTD.

## ROAD MATERIAL STATEMENT

Sr.No.	NAME OF ROAD	Length in Mtrs
1	A	114.00
2	B	91.00
3	C	18.00
4	D	183.00
5	E	116.00
6	F	92.00
7	G	134.00
8	H	42.00
9	J	35.00
	Total Length	825.00 mh
	Add 5% for curves	41.25
	Total Length	866.25 mh
	say	870.00 mh
	Paved and road area= 870x5.50	4785.00 sqm
	Length of kerb & channels=2x870 (rmt)	1740.00 Rmt

For Chitvan Farms Private Limited

  
 Authorised Signatories

  
 ARVIND KUMAR  
 CA/2004/34799

Sub Work V						Street Lighting	
S. No.	Description	Unit	Qty	Rate	Amount (Rs.)		
					Amount		
1	Providing street lighting on roads as per standard specification of HVPN complete in all respect (WITH CFL)	<del>L.S.</del> Acres	7.25625	250000 P.A.C.R.	18.14	Lacs	
	Add 3% contingencies & P.E. Charges				18.14	Lacs	
					0.54	Lacs	
					<hr/>		
					18.68	Lacs	
	Add 49% Deptt. Charges , price escalation , unforeseen Admin charges				9.16	Lacs	
					<hr/>		
					27.84	Lacs	
				Total	₹		
	(C.O. to final abstract of cost )			SAY	₹	27.84 Lacs	

For Chitvan Farms Private Limited

*Arvind Kumar*  
Authorised Signatories

*Arvind Kumar*  
ARVIND KUMAR  
CA/2004/34799



Sub Work VI					Horticulture Amount (Rs.)
S. No.	Description	Unit	Qty	Rate	Amount
1	Development of lawn area				
	a) Trenching the ordinary soil upto depth of 60 cm. including removal and apcking of servicable material and disposing at the lead of 50m and making upto the tranced area to prope level by filling with earth mixed with manure before and after flooding trenches with water including cost of imported earth and manure.				
	b) Rough dressing of trenched area.				
	c) Grassing with(doop grass) including watering and maintenance of lawns free from weds and fit for moving in rows 7.5 cm in either direction including for hedges and grill andbarred wire fencing around park and green belt (as per HUDA Norms) <del>7.25625</del> <sup>0.578</sup> acres	Acres	<del>7.25625</del> <sup>0.578</sup>	150000	<del>40.88</del> <sup>85 0.87 lacs</sup>
	i Total Length 2X870=1740 rmt 1740/12=145 Nos. Say=150. <sup>Nos.</sup>				
	Tree cost Detail Excavation=60.00 rs mannure=90.00 rs Tree Plant=150.00 rs Tree Gaurd=1000.00 rs Total=1300.00 Rs	Nos.	150	1300	<del>195</del> <sup>1.95 lacs</sup>
	Add 3% contingencies <sup>as PE. Charges</sup>				<del>5.85</del> <sup>2.82 lacs</sup>
	Add 49% Deptt. Charges , price escalation , unforeseen Admin charges				<del>13.22</del> <sup>1.42 lacs</sup>
					<del>6.48</del> <sup>4.32 lacs</sup>
				Total	19.70-
	(C.O. to final abstract of cost )			SAY	<del>19.70</del> <sup>4.32</sup> Lacs

*Arvind Kumar*  
CA/2004/34799

Chitvan Farms Private Limited  
*Arvind Kumar*  
Authorised Signatories



हरियाणा शहरी विकास प्राधिकरण

Haryana Urban  
Development Authority

Tel : 0172-2570982  
Toll Free No. : 1800-180-3030  
Website : [www.huda.org.in](http://www.huda.org.in)  
Email : [cencrhuda@gmail.com](mailto:cencrhuda@gmail.com)

Address : C-3, HUDA HQ Sector-6  
Panchkula  
C.E.I-No.  
Dated:  
Annexure-

**SUB:- Approval of Service Plan/Estimates in respect of Affordable Residential Plotted Colony(Under Deen Dayal Jan Awas Yojna-2016) measuring 7.25625 acres area in the revenue estate of Village Dhamalka in Sec-26 Rewari being developed by Chitvan Farms Pvt. Ltd. (License No. 75 of 2017 dated 8.9.2017)**

**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 HUDA and further shall also confirm to such directions, as issued by Chief Engineer, HUDA from time to time.
4. The work shall be carried out according to Haryana PWD specification or such specifications as are being followed by HUDA. Further it shall also confirm to such other directions, as are issued by Chief Engineer, HUDA 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/ HUDA. All link connections with the State Government/ HUDA 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.

SFZ  
L  
SF (149)  
15/11/17

C.E. No:

Dated:

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.
8. Only C.I/D.I pipes will be used in water supply and flushing system, UPVC/HDPE pipe for irrigation purposes.
9. A minimum 100 i/d C.I/D.I, 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 HUDA.
11. 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.
12. The specifications for various roads will be followed as per IRC/MORTH specifications.
13. The wiring system of street lighting and specifications of street lighting fixture will be as per relevant standards.
14. This shall confirm to such other conditions as are incorporated in the approved estimate and the letter of approval.

  
For Superintending Engineer (HQ),  
Chief Engineer-I, HUDA,  
Panchkula.

  
C. K. K. K.

Sub Work VII					Maintenance Amount (Rs.)
S. No.	Description	Unit	Qty	Rate	Amount
1	Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, street light, horticulture etc. complete including operation and establishment charges as per HUDA norms after completion and resurfacing of roads after 10 years or 1st phase.				
	7.25625 acres @ Rs. 750000/- per acre	Acre	7.25625	750000	54.42 <i>lacs</i>
2	Provision for resurfacing of roads after 1st five years of maintenance (as per details attached). Area in Sqm. <del>@ 250/sqm</del> <i>600/-</i>	Sq. M	4785.0	600/-	28.71 <i>lacs</i>
3	Provision for resurfacing of road after 10 years <del>@ Rs. 120/- per sqm.</del> <i>350/-</i>	Sq. M	4785.0	<del>120</del> <i>750</i> <del>350</del>	<i>35.89 lacs</i> 16.75
	Add 3% contingencies <i>ex PE. charges</i>				<i>Rs 119.02 lacs</i> <del>99.88</del> <i>Rs 3.00 3.57 lacs</i>
	Add 49% Deptt. Charges , price escalation , unforeseen Admin charges				<i>Rs 122.59 lacs</i> <del>102.88</del> <i>Rs 60.06 lacs</i> <del>50.41</del> <i>Rs 182.65 lacs</i>
Total					<del>153.28</del>
(C.O. TO FINAL ABSTRACT OF COST) <del>SUB WORK - VII</del>					SAY <i>Rs 182.65</i> Lacs

*Arvind Kumar*  
**ARVIND KUMAR**  
 CA/2004/34799

**Chitvan Farms Private Limited**  
*Authorised Signatories*