

**REVISED SERVICE ESTIMATE
OF
AFFORDABLE PLOTTED COLONY
AT
SECTOR-104, GURUGRAM**

Jul-24

CLIENT : M/S SADAN REALTECH PVT. LTD.

ARCHITECT: STUDIO ATK

MEP CONSULTANT: KRIM ENGINEERING SERVICES PVT. LTD.



For Sadan Realtech Pvt. Ltd.


Director/Authorised Signatory

10 Rain Water Harvesting

Since the area has a very high water table (about 0.70M), exemption for Rain Water Harvesting has been granted by the Hydrologist, Ground Water Cell, Gurugram vide Letter No.: 637 Dated 17.08.2023. Thus the storm water will be discharged to the public storm water discharge system whenever available. Copy of letter dated 17.08.2023 is enclosed.

11 Roads

The road are proposed to be provided in the plotted development in such a way that main 9M & 12M wide colony road connects with 24M Sector Road. Internal service of the roads of the colony 9M & 12M wide provide approach for construction of roads to the plots. Detailed caculation of the various item of works have been made on the basis of the design of the roads as approved by Chief Engineer HSVP, Gurugram.

12 Street Lighting

Street lighting system has been designed to provide illumination of 15 to 20 Lux on roads. Street lights are provided on 6M high steel tubular poles are located on one side of 9M & 12M wide road. Luminaries with 60 Watts LED lights are proposed to be provided for achieving the desired illumination.

13 Horticulture

Provision of road side plantation of trees with tree guards has been made for all roads. The parks shall be provided by providing lawns & trees etc.

14 Specifications :

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

15 Rates

Estimates for providing services in this site has been prepared on the recent HSVP rates.

16 Cost

The total ^{revised} cost of development in this Project including various PH & B & R services works out to ~~Rs. 1173.00~~ ^{1175.20} ~~Lakhs~~ which includes 3% contingency and PE charges and 49% departmental charges also.

The cost per gross acre for this works out to ~~Rs. 82.97~~ ^{83.12} ~~Lakhs / 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.

M/S SADAN REALTECH PVT. LTD.
Authorised Signatory

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6 Distribution System

The distribution system for this development has been designed to supply @ 172.5 liter per head per day @ 2.5 times the average rate of flow on 'Hazen William' formula with C-140. Necessary provision for laying C.I. pipe K-9 conforming to relevant IS standards along with valves and specials has been made in the project. The minimum terminal head at any point will be more than 30.00 Meters. Minimum pipe dia for distribution is kept as 100mm dia for domestic water supply.

7 Rising Mains

Rising mains for HSVP water main or sector road to water works have also been designed and provision for D.I. pipe line (dia as / design) has been made in this estimate.

8 Sewerage

This scheme is designed for sewer connecting to the proposed sewage treatment. The sewerage system has been marked on the respective plans.

The sewer lines have been designed for 3 times average DWR in relation to the water supply demand assuming that 80% of the domestic water supply shall find its way into the proposed sewer. DWC HDPE SN8 pipe sewers have been proposed designed to run half full. The sewers have been designed on 0.75 meter per second velocity ie. Self cleansing velocity. Necessary provisions for laying DWC HDPE SN8 pipes, manholes etc. has been made in this estimate.

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

Size / Shape of Manholes

As per IS 4111:1986 " Circular type of manholes are much stronger than rectangular and arch type manholes thus these type of manholes are preferred over rectangular as well as arch type manholes. However both rectangular and circular type of manholes are proposed to be provided. The brick masonry rectangular manhole is proposed to be provided for depth upto 0.9m.

The brick masonry / concrete circular manholes are proposed to be provided for all depth exceeding 0.9m upwards. Circular manhole are straight down in lower portion and slanting on top portion so as to narrow down to top opening equal to internal dia of manhole cover.

Depending on the depth of manhole brick circular manhole of dia 910, 1120, 1520, 1820mm dia are proposed to be provided.

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

9 Storm Water Drainage

The storm water drain is being designed to carry 6.25 mm rain fall per hour or 0.123 cusecs per acre as discharge. Also suitable provisions are contemplated in our scheme to ensure better recharging of underground water table in the area. RCC NP3 pipe drain with minimum 400 mm dia is proposed in this area with circular manhole.

For Sadan Realetech Pvt. Ltd.


Director/Authorised Signatory



REVISED SERVICE ESTIMATE for OLIVE GREEN (SECTOR - 104) GURGRAM as per TCP Haryana Memo No-Misc-2339(L)(S+4)/2024/19679-83 Dated 02.07.2024

for AFFORDABLE PLOTTED COLONY proposed at Sector 104, Gurgram for development by M/s. SADAN REALTECH PVT. LTD.

PROJECT REPORT / ESTIMATES FOR PROVIDING INTERNAL SERVICES EG. WATER SUPPLY, FIRE, SEWERAGE & STORM WATER DRAINAGE, ETC. IN RESPECT OF AFFORDABLE PLOTTED COLONY AREA MEASURING 14.1375 ACRES (LICENSE NO. 174 OF 2022) UNDER "DEEN DAYAL JAN AWAS YOJNA" IN THE REVENUE ESTATE OF VILLAGE DHANWAPUR, SECTOR 104, DISTRICT GURUGRAM, HARYANA

Water Supply

1 Source

The source of water supply in this area by Gurugram Metropolitan Development Authority (GMDA), Gurugram, Haryana and also made provision made for tanker water supply. Further, we have taken the approval for drinking water supply connection from GMDA vide letter dated 12.02.2024 in respect of our application no. WC-1703603544635 dated 22.01.2024 and the said water supply line also laid upto our project site and functional (Copy of letter date 12.02.2024 is enclosed).

2 Design

The scheme has been designed for approved population of **4914 persons in 14.1375 Acres**. The rate of water supply per head per day has been taken as **172.5 litres (150+15%)** as per NBC 2016 / HSVP Norms. In addition to above necessary provision of water for community area, commercial area, parks etc. have been take into account for calculating the maximum quantity of water requirement.

3 Pumping Equipments

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.

4 Under Ground Storage

Underground storage tank provision has been made for **435 KL** capacity in 2 compartments of **180 KL** each, which caters for the raw & domestic and separate **75 KL** for fire fighting requirement. The water from fire compartment shall overflow to the raw water compartment so that the water in the fire compartment always remain fresh.

5 Boosting Station

A boosting station having monoblock centrifugal pump set is planned near under ground reservoir to pump water from domestic treated under ground water tank to individual plot.

For Sadan Realtech Pvt. Ltd.

Director/Authorised Signatory



**REVISED SERVICE ESTIMATE - DEEN DAYAL JAN AWAS YOJNA AFFORDABLE PLOTTED HOUSING COLONY
AT SECTOR-104, GURUGRAM (HARYANA)**

1	DESIGN CALCULATION			For	Unit
i)	Daily Domestic Water Requirement				
a)	Residential (D.U)			273	
	Population person per plot			18	
	Therefore population (DU)			4914	persons
	Total Population			4914	persons
			SAY	4914	persons
	Water requirement		@	172.50	Lit / Head / Day
				8,47,665	LPD
			SAY	848	KLD (a)
b)	Community center / Common facilities	1.4138			Acres
	Daily water requirement		@	25,000	Lit/Acre /Day
	Therefore daily water requirement			35,345	Litres
				35.40	KLD (b)
c)	No. of Convenient Shopping (Comm.)	1			
	Area of Convenient Shopping	0.5655			Acres
	Daily water requirement		@	32,000	Lit/Acre /Day
	Therefore daily water requirement			18,096	Litres
				18.10	KLD (c)
d)	No. of Milk Booth misc.	1			
	Daily water requirement		@	5,000	Lit / Day
	Therefore daily water requirement			1,000	Lit / Day
				5.00	KLD (d)
ii)	Total Daily Water Requirement for (a+b+c+d)			908.50	KLD say 910 KLD
a)	Domestic Water Requirement @	65%		589.22	KLD
		Say		586.63	KLD
b)	Flushing Water Requirement @	35%		315.88	KLD 317.27
		Say		315.90	KLD
				320.0	
iii)	Water usage from STP				
a)	Area under Parks	1.0653			Acres
	Daily water requirement		@	25,000	Lit/Acre /Day
				26,633	Lit / Day
			SAY	26.63	KLD
b)	Area under Roads & Open Parking Area	2.6 Acres			
	Daily water requirement			5,000	Lit/Acre /Day
				13,025	Lit / Day
			SAY	13.09	KLD
c)	Under Road+ Parks [ii (b) + iii (c)]		Total	39.73	KLD
			Say	39.70	KLD
iv)	Total treated water requirement [ii (b) + iii (c)]			356.00	KLD
				366	
v)	Total Daily Requirement [ii (a) + iv]			942.70	KLD
				950	

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2	Underground Tanks					
2.1	Domestic Underground Tank					
	Daily fresh water requirement for domestic use		=	586.70	KL	
	Capacity of under ground tank @ 60% storage except fire fighting	587x60%	=	352.02	KL	
			Say Total	360.00	KL	
2.2	Fire water tank demand					
	Water requirement for fire use where P is population in thousands	$= 1/3 (100 \sqrt{P})$	=	73.89	KL	
		$= 100 - \sqrt{(4914/1000)} * 1/3$				
			Sat Total	75.00	KL	
	Capacity of under ground tank for including fire fighting		TOTAL	435.00	KL	
It is proposed to provide 1 no. under ground tank of capacity 180 KL for raw water, 1 no. underground tank capacity of 180 KL for domestic and another 75 KL capacity for fire fighting. Total Capacity of underground water tank will be 435 KL.						
Tank will have three compartments, one for fire, one for raw and one for domestic use. The water first enters the Fire compartment, then over flows to the raw water use compartment so that the water in the fire compartment shall remain fresh.						
2.3	STP Underground Tank					
	Daily recycled water requirement for flushing & irrigation use		=	356.00	KL	
	Capacity of Treated water tank @ 60% storage	356x60%	=	213.60	KL	
			SAY	214.00	KL	
	It is proposed to provide under ground tank of following capacity					
a)	FIRE WATER TANK			75.00	KL	
b)	RAW WATER TANK			180.00	KL	
c)	DOMESTIC WATER TANK			180.00	KL	
d)	FLUSHING, HORTICULTURE & ROAD WASHING (PART OF STP)			214.00	KL	
	PROPOSED CAPACITY OF STP (80% OF DOMESTIC AND FLUSHING WATER) + 5% MARGINAL FACTOR			722.00	KLD	
	$= (902.50 \times 80\%) + 5\%$			36.10		
				758.10	KLD	
			Say Total	760.00	KLD	

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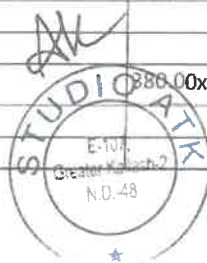
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3	DOMESTIC WATER PUMPS - LOCATED IN PUMP ROOM				
a.)	RAW WATER FILTER FEED PUMP				
	Daily requirement for domestic use		=	586.7	KL
	Assuming 12 hours running 1 pump (with one standby)				
	Discharge/hour	586.70 / 12 / 1	=	48.89	KL/HR
			=	818.33	LPM
		SAY	=	820.00	LPM
	Head of pump				
	i) Suction lifts		=	0.0	m
	ii) Friction loss in M<main & specials		=	0.0	m
	iii) Clear head		=	35.0	m
		SAY	=	35	m
	BHP of motor	48.89166667 x 1000x35 / 4500x60x 0.60		10.66	HP
		SAY	=	12.5	HP
b.)	Domestic Water Transfer Pumps				
	Daily requirement for domestic use overhead tank filling		=	586.70	KL
	Assuming 8 hours running 2 pumps (with one standby)				
	Discharge/hour	586.70 / 8 / 2	=	36.67	KL/HR
			=	613.15	LPM
		SAY	=	620.00	LPM
	Head of pump				
	i) Suction lifts		=	0.0	m
	ii) Friction loss in M<main & specials		=	22.0	m
	iii) Clear head		=	16.5	m
	iv) Residual head		=	16.5	m
			=	55.00	m
	Adding Safety factor @20%		=	65.99	m
		SAY		66.0	m
	BHP of motor	620.00x66/75x60x0.60		15.16	HP
		SAY	=	15.0	HP
4	FLUSHING & HORTICULTURE WATER PUMPS - LOCATED IN STP				
	Daily requirement for flushing use incl. Hort		=	356	KL
	Assuming 8 hours running 2 pumps (with one standby)				
	Discharge/hour	356.00 / 8 / 2	=	22.25	KL/HR
			=	370.83	LPM
		SAY	=	380.00	LPM
	Head of pump				
	i) Suction lifts		=	0.0	m
	ii) Friction loss in M<main & specials		=	13.5	m
	iii) Clear head		=	16.5	m
	iv) Residual head		=	16.5	m
			=	46.45	m
	Adding Safety factor @20%		=	55.75	m
		SAY		60	m
	BHP of motor	380.00x60/75x60x0.60		9.44	HP
		SAY		10.0	HP

For Sadan Realtech Pvt. Ltd.


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5	Capacity of Gen Set	Nos.	HP			
a.)	Raw Water Transfer Pumps (1 Working + 1 Standby)	1	12.5	=	12.5	HP
b.)	Domestic water transfer pumps (2 Working + 1 Standby)	2	15.0	=	30	HP
c.)	Flushing & Horticulture water transfer pumps (2 Working + 1 Standby)	2	10.0	=	20	HP
e.)	Lighting			=	25	HP
					87.5	HP
	or	87.5 ⁰				
		102.5x0.746x1.50			97.91	KVA
		Say			100	KVA
Requirement of 100 KVA capacity will be added in to the main D.G. set to provide standby supply.						

For Sadan Realtech Pvt. Ltd.


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M/S SADAN REALTECH PVT. LTD.,



Executive Engineer, Superintending Engineer,
HSVP Division No. V, HSVP Circle-I, Gurugram
Gurugram

Sub-Divisional Engineer (Gy)

Chief Engineer-I
HSVP, Panchkula

Authorized Signatory

AK
STUDIO ATK
E-107,
Greater Kailash-2
NO.48

For Sadan Realtech Pvt. Ltd.

Director/Authorised Signatory

	Approved Estimate	Addition/Deduction due to revision	Revised Estimate
DEEN DAYAL JAN AWAS YOJNA AFFORDABLE PLOTTED HOUSING COLONY AT SECTOR-104, GURUGRAM (HARYANA)			
M/S SADAN REALTECH PVT. LTD.			
SUMMARY OF SUB WORK - I (WATER SUPPLY)			
Description	Amount (in Lakhs.)		Amount (in Lakhs.)
Sub Head - (I) Head Works	74.55		49.20
Sub Head - (II) Pumping Machinery		25.82 (25.85)	49.33
Sub Head - (III) Distribution System	42.20		40.59
Sub Head - (IV) Irrigation Scheme		(1.00)	40.80
	53.46		53.46
	1.15		1.15
Total	171.36		144.31
Add 3% Contingencies	5.14		4.33
Add 49% Departmental Charges	176.50		148.64
(CO to final abstract of cost)	86.49		72.83
Total	262.99		221.47
Say	262.99		221.47
			222.44



For Sadan Realtech Pvt. Ltd.

Signature

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S. No.	Approved Estimate				Addition/Deletion due to revision				Revised Estimate			
	Sub Work I	Unit	Qty	Rate	Amount (Rs.) (in Lakhs)				Unit	Qty	Rate	Amount (Rs.) (in Lakhs)
1	Boring and installing 510 mm i/d tubewells with reverse/direct rotary rig complete with pipe strainer to a depth of about 80 m. complete	Nos.	2	15,00,000	30.00	(2.00)	-	-	Nos.	0	15,00,000	0.00
2	Constructing pump chambers as per standard design of PWD PH/HVP of size 1.50x1.50 m	Nos.	2	1,50,000	3.00	(2.00)	-	-	Nos.	0	1,50,000	0.00
3	Construction of boosting chambers of suitable size along with under ground tank of capacity 435 KL pumping machinery and generating set etc. complete in all respects.											
4	Details of boosting station											
	i) construction of boosting chamber			LS	7.50	-	-	-			LS	7.50
	ii) UG tank 435KL capacity including 75 KL for fire fighting @ 5500 / KL.	KL	340	5,500	18.70	95.00	-	-	KL	435	5500	23.93
4	iii) Flushing Water tank in STP	KL	170	5,500	9.35	44.00	-	-	KL	214	5500	11.77
	Provision for carriage of material and other unforeseen items			LS	1.00	-	-	-			LS	1.00
5	Provision for facilities staff for Maintenance			LS	3.00	-	-	-			LS	3.00
6	Provision for construction of boundary wall around water works and Tubewells			LS	2.00	-	-	-			LS	2.00
	(C.O. to abstract of cost of Sub-work No.1)			Total	74.55	-	-	-	Total			49.20
				Say	74.55	-	-	-	Say			49.20
						-	-	-				49.53
						-	-	-				49.53



For Sadan Realtech Pvt. Ltd.

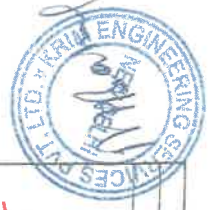
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Director/Authorised Signatory



S. No.	Sub Work & Sub Head No. II	Approved Estimate				Addition/Deletion due to revision				Revised Estimate			
		Unit	Qty	Rate	Amount (Rs.) (in Lakhs)					Unit	Qty	Rate	Amount (Rs.) (in Lakhs)
		Description											
1		Providing & installing electricity driven electro or submersible pumping set capable of delivering 18 KL/hrs of water against a total head of 65 m complete with motor and other accessories. (7.5 HP)	Nos.	2	1,80,000	3.60	(2.00)	(1,80,000)	(3.60)	Nos.			
2		Providing & installing electricity driven pumping set against a total head of 35 m complete with motor and other accessories For Filter feed pump (1 working + 1 standby): In Old Estimate: capable of delivering 625 LPM of water - 10 HP In Rev. Estimate: capable of delivering 820 LPM of water - 12.5 HP	Nos.	2	1,80,000	3.60	-	20,000	0.40	Nos.	2	2,00,000	4.00
3		Providing & installing electricity driven pumping set against a total head of 66 m complete with motor and other accessories (For Domestic) (2 working + 1 standby) : In Old Estimate: capable of delivering 500 LPM of water - 12.5 HP In Rev. Estimate: capable of delivering 620 LPM of water - 15 HP	Nos.	3	2,00,000	6.00	-	20,000	0.60	Nos.	3	2,20,000	6.60
		Providing & installing electricity driven pumping set total head of 60 m complete with motor and other accessories (For Flushing) (2 working + 1 standby) In Old Estimate: capable of delivering 294 LPM of water - 7.5 HP In Rev. Estimate: capable of delivering 380 LPM of water - 10 HP	Nos.	3	1,50,000	4.50	-	50,000	-9.90 1.50	Nos.	3	1,80,000 2.00	5.40 6.00

For Sadan Realtech Pvt. Ltd.

Director/Authorised Signatory



	Approved Estimate						Addition/Deduction due to revision							Revised Estimate		
5	Provision for diesel engine generator set each for standby Arrangements for booster pump complete with gear head arrangements of following capacities.						-	-	-	-	-	-	-			
	1 No. - 100 KVA	KVA	100	L.S	12.50									100	L.S	15.00 12.50
6	Provision for cheap pressure type chlorination plant complete	Each	2	1,50,000	3.00		-	-	-	-	-	-	-	2	1,50,000	3.00
7	Provision for making foundations & erection of pumping machinery	LS			2.00		-	-	-	-	-	-	-			2.00
8	Provision for pipes, valves & specials inside the pump chamber	LS			2.00		-	-	-	-	-	-	-			2.00
9	Provision for electric services connection including electric fittings for tubewells chambers complete	LS			3.00		-	-	-	-	-	-	-			3.00
10	Provision for carriage for materials and other unforeseen items	LS			2.00		-	-	-	-	-	-	-			2.00
	(C.D. to abstract of cost of Sub-work No.i)			Total Say	42.20		-	-	-	-	-	-	-		Total Say	40.50 40.50 42.20
							-	-	-	-	-	-	-			02.60 02.60



For Sadan Realech Pvt. Ltd.


Director/Authorised Signatory



		Approved Estimate				Addition/Deduction due to revision				Revised Estimate			
Sub Work I													Water Supply
Sub Head (No. III)													Distribution System/ Rising Main
S. No.	Description	Unit	Qty	Rate	Amount (Rs.) (in Lakhs)					Unit	Qty	Rate	(Doms. w/s + FWS) Amount (Rs.) (in Lakhs)
1	Providing laying jointing & testing of DI K-9 pipes including cost of excavation complete as per ISI marked. (For Domestic Water Main Ring Line)												
i)	100 mm i/d	M	1502	1,460	21.93					M	1502	1,460	21.93
2	Providing, laying, jointing & testing DI K-9 pipes including cost of excavation complete as per ISI marked (Flushing water supply line)												
i)	100 mm dia	M	1461	1,460	21.33					M	1461	1,460	21.33
3	Providing, fixing & Testing Sluice valves including cost of complete in all respects.												
ii)	100 mm i/d	Nos.	18	12,000	2.16					Nos.	18	12,000	2.16
4	Providing, fixing & Testing Non Return valves (NRV) including cost of complete in all respects.												
i)	100 mm i/d	Nos.	1	14,000	0.14					Nos.	1	14,000	0.14
ii)	80 mm i/d	Nos.	1	10,000	0.10					Nos.	1	10,000	0.10
5	Providing and fixing air valves and scour valves including cost of complete in all respects.												
		Nos.	4	10,000	0.40					Nos.	4	10,000	0.40
6	Providing and fixing indicating plates for sluice valve, air valve etc.												
		Nos.	24	1,000	0.24					Nos.	24	1,000	0.24
7	Providing and fixing draw out 4 way connection with all accessories for the fire brigade												
		LS	1	-	0.20					LS	1	-	0.20



For Sadan Realtech Pvt. Ltd.

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		Approved Estimate			Addition/Deduction due to revision			Revised Estimate		
		LS	1					LS	1	
8	Provision for carriage of material and unforseen items				2.00					2.00
9	Provision for cutting the roads and making to its original conditions.	LS			2.00			LS		2.00
10	providing laying jointing & testing of DIK-9 pipes including cost of excavation complete as per ISI marked for HSWP main line and tubewells to UG Tank									
11	100 mm i/d	M	100	1,460	1.46			M	100	1,460
	Providing and fixing fire hydrant with accessories	Each	10	15,000	1.50			Each	10	15,000
	(C.O. to abstract of cost of Sub-work No.1)			Total	53.46			Total		53.46
				Say	53.46			Say		53.46

For Sadan Realltech Pvt. Ltd.



[Signature]
Director/Authorised Signatory



		Approved Estimate				Addition/Deduction due to revision				Revised Estimate			
Sub Work I													
Sub Head No. IV													Water Supply Irrigation
S. No.	Description	Unit	Qty	Rate	Amount (Rs.) (in Lakhs)					Unit	Qty	Rate	Amount (Rs.) (in Lakhs)
1	Providing, laying, jointing & testing HDPE PE 80 pipe line conforming to IS 4984 including cost of Excavation etc. complete in all respect.												
i)	25 mm dia	M	100	300	0.30					M	100	300	0.30
2	Providing and fixing 20mm dia Irrigation hydrant valve complete in all respect.	Nos.	10	3,500	0.35					Nos.	10	3,500	0.35
3	Provision for carriage of materials etc. and other unforeseen items	LS	-	-	0.50					LS	-	-	0.50
	(C.O. to abstract of cost of Sub-work No. I)												
				Total	1.15							Total	1.15
				Say	1.15							Say	1.15



For Sadan Realtech Pvt. Ltd.

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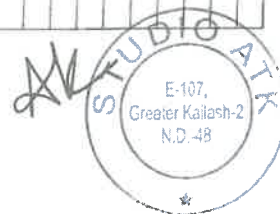
Approved Estimate				Addition/Deletion due to revision				Revised Estimate			
S. No.	Description	Unit	Qty	Rate	Amount (Rs.) (in Lakhs)			Unit	Qty	Rate	Amount (Rs.) (in Lakhs)
Sub Work - III											
1	Providing, lowering, jointing, cutting RCC NP3 pipes and specials into trenches including cost of excavation, cost of manholes, ventilating chambers etc. complete in all respects.										
i)	400 mm i/d										
a)	Average depth upto 1.5 m	M	964	2,500	24.10						
b)	Average depth 1.5 m to 4.5 m	M	390	2,600	10.14						
2	Provision for Road Gully & Drain	LS	-		7.50						
3	Provision for Rain water Harvesting modular type complete in all respect (Exemption for Rain Water Harvesting has been granted by the Hydrologist, Ground Water Cell, Gurugram vide Letter No.: 637 Dated 17.08.2023)	LS	14	3,50,000	49.00	(14.00)				3,50,000	0.00
4	Provision for cutting of roads and carriage of materials etc. and other unforeseen items	LS	-		2.00						
5	Provision for lighting, watching and temporary diversion of traffic	LS	-		2.00						
6	Provision for connection with HSVP line										
	400 mm i/d (Average depth 1.5 m to 4.5m)	M	10	2,600	0.26						
7	Provision for Storm Water drainage connection with HSVP drainage line	LS	-		2.00						
8	Provision for timbering and shoring	LS			1.00						
	Add 3% contingencies			Total	98.00					Total	49.00
					2.94						1.47
	Add 49% Deptt. Charges				100.94						
					49.46						
				Total	150.40					Total	75.20
				Say	150.40					Say	75.20



For Sadan Realtech Pvt. Ltd.

Director/Authorised Signatory





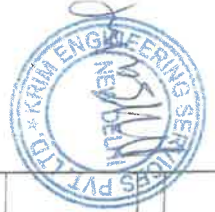
For Sadan Reallech Pvt. Ltd


Director/Authorised Signatory

		Approved Estimate				Addition/Deduction due to revision				Revised Estimate			
S. No.	Sub Work V Description	Unit	Qty	Rate	Amount (Rs.) (in Lakhs)					Unit	Qty	Rate	Street Lighting Amount (Rs.) (in Lakhs)
1	Providing and fixing of Street Lighting on internal roads as per standard specification of HV/NL and LED complete in all respect												
	Provision made on LS cost @ 250000 per acres	Acres	14.1375	2,50,000	35.34					Acres	14.1375	2,50,000	35.34
	Add 3% contingencies				1.06								1.06
	Add 49% Deptt. Charges			Total	36.40							Total	36.40
					17.84								17.84
				Total	54.24							Total	54.24
				SAY	54.24							SAY	54.24
	Sub Work VI												Horticulture
S. No.	Description	Unit	Qty	Rate	Amount (Rs.) (in Lakhs)					Unit	Qty	Rate	Amount (Rs.) (in Lakhs)
1	Development of lawn area												
	a) Trenching the ordinary soil upto depth of 60 cm. Including removal & packing of serviceable material & disposing at a lead of 50 M and making up the trenched area to proper level by filling with earth mixed with manure before & after flooding trench with water including cost of imported earth & manure.												
	b) Rough dressing of trenched area.												
	c) Grassing including watering & maintenance of lawns free from weeds & fit for mowing in rows including hedges, shrubs & green belts (as per HSVP Norms)	per acre	1.0653	1,50,000	1.60					per acre	1.0653	1,50,000	1.60
2	Planting of tree with tree guards on green at 12 m intervals. Total Length of roads = 1120 mtr												

For Sadan Realtech Pvt. Ltd.

Director/Authorised Signatory



Approved Estimate		Addition/Deduction due to revision		Revised Estimate	
No. of trees @ 12m c/c = 1120 x 2 /12 = 186.67 say 187 Nos.)					
Cost of the trees @ Rs. 1800/- each	Nos. 187	1800	3.37		
				Nos. 187	1800
					3.37
Add 3% contingency charges		Total	4.96		Total
			0.15		4.96
Add 49% Deptt. Charges			5.11		0.15
			2.51		5.11
		Total	7.62		2.51
		SAY	7.63		Total
					7.62
					SAY
					7.63

For Sadan Realtech Pvt. Ltd.

Signature

Director/Authorised Signatory



Sub Work VII		Approved Estimate				Addition/Deduction due to revision				Revised Estimate			
S. No.	Description	Unit	Qty	Rate	Amount (Rs.) (in Lakhs)					Unit	Qty	Rate	Amount (Rs.) (in Lakhs)
1	Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, street light, horticulture etc. complete including operation & establishments charges as per HUDA norms after completion & resurfacing of roads after 10 years or 1st phase.												
	14.1375 acres @ 8.0 lacs per acre	per acre	14.1375	8,00,000	113.10						14.1375	8,00,000	113.10
2	Provision for resurfacing & strengthening of road after five years of 1st phase @ 660/- per sqm with 80mm thick Pavers (M-35) / 50 mm thick BM & 30 mm BC	Sq. mtr.	6,710	660	44.29					Sq. mtr.	6,710	660	44.29
3	Provision for resurfacing & strengthening of road after ten years of 2 nd phase @ 825/- per sqm with 80mm thick Pavers (M-35) / 50 mm thick BM & 30 mm BC	Sq. mtr.	6,710	825	55.36					Sq. mtr.	6,710	825	55.36
	Add 3% contingency & P.F. charges		Total		212.74						Total		212.74
	Add 45% Departmental charges			Total	6.38							Total	6.38
					219.13							Total	219.13
				Total	107.37							Total	107.37
				SAY	326.50							SAY	326.50

For Sadan Realtech Pvt. Ltd.



Gilbert
Director/Authorised Signatory



**REVISED SERVICE ESTIMATE - DEEN DAYAL JAN AWAS YOJNA AFFORDABLE PLOTTED HOUSING COLONY
AT SECTOR-104, GURUGRAM (HARYANA)**

TITLE - SEWER QUANTITY SHEET

S.No.	Line No.		Length	Dia of Pipe		Slope	Fall	Depth			Excavation	EXCAVATION			
	From	To		(mm)	(mtr.)			Start	End	Avg.		0.0 - 1.5	1.5 - 3.0	3.0 - 4.5	4.5 - 6.0
			(mtr.)				mtr	(mtr.)	(mtr.)	(mtr.)	Depth (cum.)	(mtr.)	(mtr.)	(mtr.)	(mtr.)
	START														
1	SMH 01	SMH 01A	14.6	200	0.200	150	0.10	0.80	0.90	0.85	10.06	14.6	0.0	0.0	0.0
2	SMH 01A	SMH 01B	14.6	200	0.200	150	0.10	0.90	0.99	0.95	10.91	14.6	0.0	0.0	0.0
3	SMH 01B	SMH 01C	14.6	200	0.200	150	0.10	0.99	1.09	1.04	11.77	14.6	0.0	0.0	0.0
4	SMH 01C	SMH 01D	14.6	200	0.200	150	0.10	1.09	1.19	1.14	12.62	14.6	0.0	0.0	0.0
5	SMH 01D	SMH 01E	14.6	200	0.200	150	0.10	1.19	1.29	1.24	13.47	14.6	0.0	0.0	0.0
6	SMH 01E	SMH 01F	14.6	200	0.200	150	0.10	1.29	1.38	1.34	14.33	14.6	0.0	0.0	0.0
7	SMH 01F	SMH 01G	14.6	200	0.200	150	0.10	1.38	1.48	1.43	15.18	14.6	0.0	0.0	0.0
8	SMH 01G	SMH 01H	20.1	200	0.200	150	0.13	1.48	1.62	1.55	22.29	0.0	20.1	0.0	0.0
9	SMH 01H	SMH 01I	14.3	200	0.200	150	0.10	1.62	1.71	1.66	16.84	0.0	14.3	0.0	0.0
10	SMH 01I	SMH 01J	13.9	200	0.200	150	0.09	1.71	1.80	1.76	17.16	0.0	13.9	0.0	0.0
11	SMH 01J	SMH 01K	14.0	200	0.200	150	0.09	1.80	1.90	1.85	18.06	0.0	14.0	0.0	0.0
12	SMH 01K	SMH 01L	14.1	200	0.200	150	0.09	1.90	1.99	1.94	18.98	0.0	14.1	0.0	0.0
13	SMH 01L	SMH 01M	9.2	200	0.200	150	0.06	1.99	2.05	2.02	12.81	0.0	9.2	0.0	0.0
14	SMH 01M	SMH 02	20.8	200	0.200	150	0.14	2.05	2.19	2.12	30.22	0.0	20.8	0.0	0.0
	START														
15	SMH 01N	SMH 02	11.3	200	0.200	150	0.08	0.80	0.88	0.84	7.71	11.3	0.0	0.0	0.0
16	SMH 02	SMH 05	20.5	200	0.200	150	0.14	2.19	2.33	2.26	31.48	0.0	20.5	0.0	0.0
	START														
17	SMH 04	SMH 04A	18.9	200	0.200	150	0.13	0.80	0.93	0.86	13.19	18.9	0.0	0.0	0.0
18	SMH 04A	SMH 04B	7.7	200	0.200	150	0.05	0.93	0.98	0.95	5.78	7.7	0.0	0.0	0.0
19	SMH 04B	SMH 04C	13.2	200	0.200	150	0.09	0.98	1.07	1.02	10.46	13.2	0.0	0.0	0.0
20	SMH 04C	SMH 04D	13.2	200	0.200	150	0.09	1.07	1.15	1.11	11.16	13.2	0.0	0.0	0.0
21	SMH 04D	SMH 04E	13.2	200	0.200	150	0.09	1.15	1.24	1.20	11.86	13.2	0.0	0.0	0.0
22	SMH 04E	SMH 04F	17.4	200	0.200	150	0.12	1.24	1.36	1.30	16.70	17.4	0.0	0.0	0.0
23	SMH 04F	SMH 04G	14.5	200	0.200	150	0.10	1.36	1.45	1.41	14.84	14.5	0.0	0.0	0.0
24	SMH 04G	SMH 04H	14.6	200	0.200	150	0.10	1.45	1.55	1.50	15.79	0.0	14.6	0.0	0.0
25	SMH 04H	SMH 04I	7.4	200	0.200	150	0.05	1.55	1.60	1.58	8.33	0.0	7.4	0.0	0.0
26	SMH 04I	SMH 04J	13.0	200	0.200	150	0.09	1.60	1.69	1.64	15.16	0.0	13.0	0.0	0.0
27	SMH 04J	SMH 04K	12.1	200	0.200	150	0.08	1.69	1.77	1.73	14.72	0.0	12.1	0.0	0.0
28	SMH 04K	SMH 05	8.3	200	0.200	150	0.06	1.77	1.82	1.80	10.44	0.0	8.3	0.0	0.0
29	SMH 05	SMH 05A	8.3	250	0.250	200	0.04	2.33	2.37	2.35	14.29	0.0	8.3	0.0	0.0
	START														
30	SMH 05	SMH 05A	27.6	200	0.200	150	0.18	0.80	0.88	0.89	19.74	27.6	0.0	0.0	0.0
30	SMH 05A	SMH 05B	15.2	250	0.250	200	0.08	2.37	2.44	2.41	26.74	0.0	15.2	0.0	0.0
31	SMH 05B	SMH 05C	15.2	250	0.250	200	0.08	2.44	2.52	2.48	27.49	0.0	15.2	0.0	0.0
32	SMH 05C	SMH 05D	15.2	250	0.250	200	0.08	2.52	2.60	2.56	28.25	0.0	15.2	0.0	0.0
33	SMH 05D	SMH 07	15.2	250	0.250	200	0.08	2.60	2.67	2.63	29.00	0.0	15.2	0.0	0.0
	START														
34	SMH 06	SMH 06A	13.0	200	0.200	200	0.07	0.80	0.87	0.83	8.83	13.0	0.0	0.0	0.0
35	SMH 06A	SMH 06B	13.0	200	0.200	200	0.07	0.87	0.93	0.90	9.34	13.0	0.0	0.0	0.0
36	SMH 06B	SMH 06C	13.1	200	0.200	200	0.07	0.93	1.00	0.96	9.93	13.1	0.0	0.0	0.0
37	SMH 06C	SMH 06D	20.4	200	0.200	200	0.10	1.00	1.10	1.05	16.48	20.4	0.0	0.0	0.0
38	SMH 06D	SMH 06E	16.3	200	0.200	200	0.08	1.10	1.18	1.14	14.07	16.3	0.0	0.0	0.0
39	SMH 06E	SMH 06F	15.4	200	0.200	200	0.08	1.18	1.26	1.22	14.02	15.4	0.0	0.0	0.0
40	SMH 06F	SMH 06G	13.2	200	0.200	200	0.07	1.26	1.32	1.29	12.58	13.2	0.0	0.0	0.0
41	SMH 06G	SMH 06H	14.0	200	0.200	200	0.07	1.32	1.39	1.36	13.92	14.0	0.0	0.0	0.0
42	SMH 06H	SMH 06I	13.8	200	0.200	200	0.07	1.39	1.46	1.43	14.30	13.8	0.0	0.0	0.0
43	SMH 06I	SMH 06J	13.9	200	0.200	200	0.07	1.46	1.53	1.50	14.98	13.9	0.0	0.0	0.0
44	SMH 06J	SMH 06K	13.9	200	0.200	200	0.07	1.53	1.60	1.57	15.56	0.0	13.9	0.0	0.0
45	SMH 06K	SMH 07	18.3	200	0.200	200	0.09	1.60	1.69	1.65	21.36	0.0	18.3	0.0	0.0
46	SMH 07	SMH 07A	14.2	300	0.300	250	0.06	2.67	2.73	2.70	29.83	0.0	14.2	0.0	0.0
47	SMH 07A	SMH 07B	12.7	300	0.300	250	0.05	2.73	2.78	2.76	27.16	0.0	12.7	0.0	0.0
48	SMH 07B	SMH 07C	13.0	300	0.300	250	0.05	2.78	2.83	2.81	28.27	0.0	13.0	0.0	0.0
49	SMH 07C	SMH 12C	7.3	300	0.300	250	0.03	2.83	2.86	2.85	16.08	0.0	7.3	0.0	0.0
	START														
50	SMH 08	SMH 08A	7.9	200	0.200	200	0.04	0.80	0.84	0.82	5.31	7.9	0.0	0.0	0.0
51	SMH 08A	SMH 08B	13.4	200	0.200	200	0.07	0.84	0.91	0.87	9.43	13.4	0.0	0.0	0.0
52	SMH 08B	SMH 08C	13.4	200	0.200	200	0.07	0.91	0.97	0.94	9.97	13.4	0.0	0.0	0.0
53	SMH 08C	SMH 08D	13.4	200	0.200	200	0.07	0.97	1.04	1.01	10.51	13.4	0.0	0.0	0.0
54	SMH 08D	SMH 08E	13.5	200	0.200	200	0.07	1.04	1.11	1.07	11.13	13.5	0.0	0.0	0.0
55	SMH 08E	SMH 08F	13.4	200	0.200	200	0.07	1.11	1.18	1.14	11.59	13.4	0.0	0.0	0.0
56	SMH 08F	SMH 08G	12.9	200	0.200	200	0.06	1.18	1.24	1.21	11.67	12.9	0.0	0.0	0.0
57	SMH 08G	SMH 08H	12.1	200	0.200	200	0.06	1.24	1.30	1.27	11.40	12.1	0.0	0.0	0.0
58	SMH 08H	SMH 08I	13.6	200	0.200	200	0.07	1.30	1.37	1.33	13.33	13.6	0.0	0.0	0.0
59	SMH 08I	SMH 08J	13.0	200	0.200	200	0.07	1.37	1.43	1.40	13.26	13.0	0.0	0.0	0.0
60	SMH 08J	SMH 08K	13.1	200	0.200	200	0.07	1.43	1.50	1.47	13.88	13.1	0.0	0.0	0.0
61	SMH 08K	SMH 10	8.1	200	0.200	200	0.04	1.50	1.54	1.52	8.84	0.0	8.1	0.0	0.0

For Sadan Realtech Pvt. Ltd.

Director/Authorised Signatory



S No.	Line No.		Length	Dia of Pipe		Slope	Fall	Depth			Excavation	EXCAVATION					
	From	To		(mtr.)	(mm)			(mtr.)	mtr	(mtr.)	(mtr.)	(mtr.)	Depth (cum.)	0.0 - 1.6	1.5 - 3.0	3.0 - 4.5	4.5 - 6.0
														(mtr.)	(mtr.)	(mtr.)	(mtr.)
	START																
62	SMH 09	SMH 09A	13.3	200	0.200	200	0.07	0.80	0.87	0.83	9.04	13.3	0.0	0.0	0.0		
63	SMH 09A	SMH 09B	13.4	200	0.200	200	0.07	0.87	0.93	0.90	9.65	13.4	0.0	0.0	0.0		
64	SMH 09B	SMH 09C	13.4	200	0.200	200	0.07	0.93	1.00	0.97	10.19	13.4	0.0	0.0	0.0		
65	SMH 09C	SMH 09D	13.4	200	0.200	200	0.07	1.00	1.07	1.03	10.73	13.4	0.0	0.0	0.0		
66	SMH 09D	SMH 09E	13.0	200	0.200	200	0.07	1.07	1.13	1.10	10.92	13.0	0.0	0.0	0.0		
67	SMH 09E	SMH 09F	12.2	200	0.200	200	0.06	1.13	1.19	1.16	10.71	12.2	0.0	0.0	0.0		
68	SMH 09F	SMH 10	14.4	200	0.200	200	0.07	1.19	1.27	1.23	13.21	14.4	0.0	0.0	0.0		
69	SMH 10	SMH 10A	13.3	200	0.200	200	0.07	1.54	1.61	1.57	14.94	0.0	13.3	0.0	0.0		
70	SMH 10A	SMH 10B	13.4	200	0.200	200	0.07	1.61	1.67	1.64	15.59	0.0	13.4	0.0	0.0		
71	SMH 10B	SMH 12	15.5	200	0.200	200	0.08	1.67	1.75	1.71	18.70	0.0	15.5	0.0	0.0		
	START																
72	SMH 11	SMH 11A	13.1	200	0.200	200	0.07	0.80	0.87	0.83	8.90	13.1	0.0	0.0	0.0		
73	SMH 11A	SMH 11B	13.1	200	0.200	200	0.07	0.87	0.93	0.90	9.42	13.1	0.0	0.0	0.0		
74	SMH 11B	SMH 12	8.2	200	0.200	200	0.04	0.93	0.97	0.95	6.16	8.2	0.0	0.0	0.0		
75	SMH 12	SMH 12A	11.5	200	0.200	200	0.06	1.75	1.81	1.78	14.34	0.0	11.5	0.0	0.0		
76	SMH 12A	SMH 12B	13.2	250	0.250	200	0.07	1.81	1.87	1.84	18.37	0.0	13.2	0.0	0.0		
77	SMH 12B	SMH 12C	11.1	250	0.250	200	0.06	1.87	1.93	1.90	15.88	0.0	11.1	0.0	0.0		
78	SMH 12C	SMH 13	18.2	250	0.250	200	0.09	2.83	2.92	2.88	37.59	0.0	18.2	0.0	0.0		
79	SMH 13	SMH 13A	14.3	300	0.300	250	0.06	2.92	2.98	2.95	32.55	0.0	14.3	0.0	0.0		
80	SMH 13A	SMH 17	13.9	300	0.300	250	0.06	2.98	3.04	3.01	32.19	0.0	0.0	13.9	0.0		
	START																
81	SMH 14	SMH 14A	13.4	200	0.200	200	0.07	0.90	0.87	0.83	9.11	13.4	0.0	0.0	0.0		
82	SMH 14A	SMH 14B	13.4	200	0.200	200	0.07	0.87	0.93	0.90	9.65	13.4	0.0	0.0	0.0		
83	SMH 14B	SMH 14C	13.4	250	0.250	250	0.05	0.93	0.99	0.96	10.98	13.4	0.0	0.0	0.0		
84	SMH 14C	SMH 16	7.0	250	0.250	250	0.03	0.99	1.02	1.00	5.92	7.0	0.0	0.0	0.0		
	START																
85	SMH 15	SMH 15A	14.5	200	0.200	200	0.07	0.80	0.87	0.84	9.89	14.5	0.0	0.0	0.0		
86	SMH 15A	SMH 15B	14.6	200	0.200	200	0.07	0.87	0.95	0.91	10.59	14.6	0.0	0.0	0.0		
87	SMH 15B	SMH 15C	14.5	200	0.200	250	0.06	0.95	1.00	0.97	11.09	14.5	0.0	0.0	0.0		
88	SMH 15C	SMH 16	15.0	200	0.200	250	0.06	1.00	1.06	1.03	12.00	15.0	0.0	0.0	0.0		
89	SMH 16	SMH 16A	36.6	200	0.200	200	0.18	1.06	1.25	1.16	31.95	36.6	0.0	0.0	0.0		
90	SMH 16A	SMH 17	17.6	200	0.200	250	0.07	1.25	1.32	1.28	16.70	17.6	0.0	0.0	0.0		
91	SMH 17	SMH 17A	13.9	300	0.300	250	0.06	3.04	3.09	3.06	32.73	0.0	0.0	13.9	0.0		
92	SMH 17A	SMH 17B	13.9	300	0.300	250	0.06	3.09	3.15	3.12	33.27	0.0	0.0	13.9	0.0		
93	SMH 17B	SMH 17C	13.4	300	0.300	250	0.05	3.15	3.20	3.17	32.59	0.0	0.0	13.4	0.0		
94	SMH 17C	SMH 17D	6.6	300	0.300	250	0.03	3.20	3.23	3.21	16.24	0.0	0.0	6.6	0.0		
95	SMH 17D	SMH 19	10.8	300	0.300	250	0.04	3.23	3.27	3.25	26.83	0.0	0.0	10.8	0.0		
	START																
96	SMH 18	SMH 18A	13.6	200	0.200	200	0.07	0.80	0.87	0.83	9.25	13.6	0.0	0.0	0.0		
97	SMH 18A	SMH 19	8.9	200	0.200	200	0.04	0.87	0.91	0.89	6.36	8.9	0.0	0.0	0.0		
98	SMH 19	SMH 19A	18.2	300	0.300	250	0.07	3.27	3.34	3.31	45.95	0.0	0.0	18.2	0.0		
99	SMH 19A	STP	5.0	300	0.300	250	0.02	3.34	3.36	3.35	12.79	0.0	0.0	5.0	0.0		
Total			1381.0								1598.0	835.0	450.0	96.0	0.0		
Pipe in excavation depth																	
			(0.0 - 1.5)	(1.5 - 3.0)	(3.0 - 4.5)	(4.5 - 6.0)											
200 mm Dia pipe			815.0	277.0	0.0	0.0											
250 mm Dia pipe			21.0	112.0	0.0	0.0											
300 mm Dia pipe			0.0	62.0	95.7	0.0											

For Sadan Realtech Pvt. Ltd.


Director/Authorised Signatory



**REVISED SERVICE ESTIMATE - DEEN DAYAL JAN AWAS YOJNA AFFORDABLE PLOTTED HOUSING COLONY
AT SECTOR-104, GURUGRAM (HARYANA)**

TITLE - STORM QUANTITY SHEET

S.No.	Line No.		Length	Dia of Pipe		Slope	Depth			Excavation Depth (cum.)	EXCAVATION			
	From	To		(mm)	(mtr.)		Start (mtr.)	End (mtr.)	Avg. (mtr.)		0.0 - 1.5 (mtr.)	1.5 - 3.0 (mtr.)	3.0 - 4.5 (mtr.)	4.5 - 6.0 (mtr.)
	START													
1	ST 01	ST 01A	12.2	400	0.400	400	0.90	0.93	0.92	11.86	12.2	0.0	0.0	0.0
2	ST 01A	RWHP 01	4.6	400	0.400	400	0.93	0.94	0.94	4.55	4.6	0.0	0.0	0.0
3	RWHP 01	ST 01B	6.3	400	0.400	400	0.94	0.96	0.95	6.30	6.3	0.0	0.0	0.0
4	ST 01B	ST 01C	13.4	400	0.400	400	0.96	0.99	0.97	13.66	13.4	0.0	0.0	0.0
5	ST 01C	ST 03	13.4	400	0.400	400	0.99	1.02	1.01	14.02	13.4	0.0	0.0	0.0
	START													
6	ST 02	ST 02A	13.4	400	0.400	400	0.90	0.93	0.92	13.04	13.4	0.0	0.0	0.0
7	ST 02A	RWHP 02	5.2	400	0.400	400	0.93	0.95	0.94	5.16	5.2	0.0	0.0	0.0
8	RWHP 02	ST 02B	6.0	400	0.400	400	0.95	0.96	0.95	6.02	6.0	0.0	0.0	0.0
9	ST 02B	ST 02C	13.4	400	0.400	400	0.96	1.00	0.98	13.70	13.4	0.0	0.0	0.0
10	ST 02C	ST 03	13.5	400	0.400	400	1.00	1.03	1.01	14.17	13.5	0.0	0.0	0.0
11	ST 03	ST 03A	25.4	400	0.400	400	1.03	1.09	1.06	27.65	25.4	0.0	0.0	0.0
12	ST 03A	RWHP 03	8.4	400	0.400	400	1.09	1.11	1.10	9.43	8.4	0.0	0.0	0.0
13	RWHP 03	ST 05	9.8	400	0.400	400	1.11	1.14	1.13	11.18	9.8	0.0	0.0	0.0
	START													
13	ST 04	ST 04A	6.7	400	0.400	400	0.90	0.92	0.91	6.48	6.7	0.0	0.0	0.0
14	ST 04A	ST 04B	13.6	400	0.400	400	0.90	0.93	0.92	13.24	13.6	0.0	0.0	0.0
15	ST 04B	ST 04C	13.6	400	0.400	400	0.93	0.97	0.95	13.61	13.6	0.0	0.0	0.0
16	ST 04C	RWHP 04	5.5	400	0.400	400	0.97	0.98	0.97	5.61	5.5	0.0	0.0	0.0
17	RWHP 04	ST 04D	6.9	400	0.400	400	0.98	1.00	0.99	7.12	6.9	0.0	0.0	0.0
18	ST 04D	ST 04E	13.6	400	0.400	400	1.00	1.03	1.02	14.32	13.6	0.0	0.0	0.0
19	ST 04E	ST 04F	13.7	400	0.400	400	1.03	1.07	1.05	14.80	13.7	0.0	0.0	0.0
20	ST 04F	ST 05	8.3	400	0.400	400	1.07	1.09	1.08	9.15	8.3	0.0	0.0	0.0
21	ST 05	ST 05A	14.3	400	0.400	400	1.14	1.17	1.16	16.65	14.3	0.0	0.0	0.0
22	ST 05A	ST 11	13.4	400	0.400	400	1.17	1.21	1.19	15.98	13.4	0.0	0.0	0.0
	START													
23	ST 06	ST 06A	13.4	400	0.400	400	0.90	0.93	0.92	13.04	13.4	0.0	0.0	0.0
24	ST 06A	ST 06B	13.4	400	0.400	400	0.93	0.97	0.95	13.40	13.4	0.0	0.0	0.0
25	ST 06B	RWHP 05	13.4	400	0.400	400	0.97	1.00	0.98	13.76	13.4	0.0	0.0	0.0
26	RWHP 05	ST 06C	13.4	400	0.400	400	1.00	1.03	1.02	14.12	13.4	0.0	0.0	0.0
27	ST 06C	ST 06D	13.5	400	0.400	400	1.03	1.07	1.05	14.59	13.5	0.0	0.0	0.0
28	ST 06D	ST 06E	13.4	400	0.400	400	1.07	1.10	1.08	14.84	13.4	0.0	0.0	0.0
29	ST 06E	ST 06F	13.5	400	0.400	400	1.10	1.14	1.12	15.32	13.5	0.0	0.0	0.0
30	ST 06F	ST 08	13.4	400	0.400	400	1.14	1.17	1.15	15.56	13.4	0.0	0.0	0.0
	START													
31	ST 07	ST 07A	7.8	400	0.400	400	0.90	0.92	0.91	7.55	7.8	0.0	0.0	0.0
32	ST 07A	ST 07B	13.4	400	0.400	400	0.92	0.95	0.94	13.25	13.4	0.0	0.0	0.0
33	ST 07B	RWHP 06	6.3	400	0.400	400	0.95	0.97	0.96	6.35	6.3	0.0	0.0	0.0
34	RWHP 06	ST 07C	7.8	400	0.400	400	0.97	0.99	0.98	7.98	7.8	0.0	0.0	0.0
35	ST 07C	ST 07D	13.4	400	0.400	400	0.99	1.02	1.01	13.99	13.4	0.0	0.0	0.0
36	ST 07D	ST 07E	13.4	400	0.400	400	1.02	1.06	1.04	14.35	13.4	0.0	0.0	0.0
37	ST 07E	ST 07F	13.5	400	0.400	400	1.06	1.09	1.07	14.82	13.5	0.0	0.0	0.0
38	ST 07F	ST 07G	13.4	400	0.400	400	1.09	1.12	1.11	15.07	13.4	0.0	0.0	0.0
39	ST 07G	ST 07H	13.4	400	0.400	400	1.12	1.16	1.14	15.43	13.4	0.0	0.0	0.0
40	ST 07H	ST 07I	6.8	400	0.400	400	1.16	1.17	1.16	7.97	6.8	0.0	0.0	0.0
41	ST 07I	ST 07J	9.4	400	0.400	400	1.17	1.20	1.18	11.17	9.4	0.0	0.0	0.0
42	ST 07J	ST 07K	13.0	400	0.400	400	1.20	1.23	1.21	15.73	13.0	0.0	0.0	0.0
43	ST 07K	ST 07L	13.0	400	0.400	400	1.23	1.26	1.25	16.07	13.0	0.0	0.0	0.0
44	ST 07L	ST 07M	7.2	400	0.400	400	1.26	1.28	1.27	9.05	7.2	0.0	0.0	0.0
45	ST 07M	ST 08	11.5	400	0.400	400	1.28	1.31	1.29	14.66	11.5	0.0	0.0	0.0
46	ST 08	ST 08A	13.4	400	0.400	400	1.31	1.34	1.33	17.42	13.4	0.0	0.0	0.0
47	ST 08A	ST 08B	13.4	400	0.400	400	1.34	1.38	1.36	17.78	13.4	0.0	0.0	0.0
48	ST 08B	ST 10	13.4	400	0.400	400	1.38	1.41	1.39	18.14	13.4	0.0	0.0	0.0
	START													
49	ST 09	ST 09A	13.2	400	0.400	400	0.90	0.93	0.92	12.85	13.2	0.0	0.0	0.0
50	ST 09A	ST 09B	12.9	400	0.400	400	0.93	0.97	0.95	12.89	12.9	0.0	0.0	0.0
51	ST 09B	ST 10	15.8	400	0.400	400	0.97	1.00	0.99	16.24	15.8	0.0	0.0	0.0
52	ST 10	ST 10A	13.4	400	0.400	400	1.41	1.44	1.43	18.50	13.4	0.0	0.0	0.0
53	ST 10A	RWHP 07	5.6	400	0.400	400	1.44	1.46	1.45	7.84	5.6	0.0	0.0	0.0
54	RWHP 07	ST 10B	5.9	400	0.400	400	1.46	1.47	1.46	8.32	5.9	0.0	0.0	0.0
55	ST 10B	ST 10C	13.4	400	0.400	400	1.47	1.50	1.49	19.16	13.4	0.0	0.0	0.0
56	ST 10C	ST 11	13.5	400	0.400	400	1.50	1.54	1.52	19.67	0.0	13.5	0.0	0.0
57	ST 11	ST 11A	10.3	400	0.400	400	1.54	1.56	1.55	15.25	0.0	10.3	0.0	0.0
58	ST 11A	ST 11B	7.6	400	0.400	400	1.56	1.58	1.57	11.39	0.0	7.6	0.0	0.0
59	ST 11B	ST 11C	13.0	400	0.400	400	1.58	1.62	1.60	19.75	0.0	13.0	0.0	0.0
60	ST 11C	ST 11D	12.1	400	0.400	400	1.62	1.65	1.63	18.69	0.0	12.1	0.0	0.0
61	ST 11D	ST 13	15.4	400	0.400	400	1.65	1.68	1.67	24.21	0.0	15.4	0.0	0.0

For Sadan Realtech Pvt. Ltd.

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Studio ATK Architects Pvt. Ltd.
Krim Engineering Services Pvt. Ltd.



S No.	Line No.		Length	Dia of Pipe		Slope	Depth			Excavation	EXCAVATION			
	From	To		(mtr.)	(mm)		(mtr.)	Start	End		Avg.	Depth	0.0 - 1.5	1.5 - 3.0
	START						(mtr.)	(mtr.)	(mtr.)	(cum.)	(mtr.)	(mtr.)	(mtr.)	(mtr.)
62	ST 12	ST 12A	13.1	400	0.400	400	0.90	0.93	0.92	12.75	13.1	0.0	0.0	0.0
63	ST 12A	ST 12B	13.1	400	0.400	400	0.93	0.97	0.95	13.09	13.1	0.0	0.0	0.0
64	ST 12B	ST 12C	12.9	400	0.400	400	0.97	1.00	0.98	13.23	12.9	0.0	0.0	0.0
65	ST 12C	ST 12D	12.9	400	0.400	400	1.00	1.03	1.01	13.56	12.9	0.0	0.0	0.0
66	ST 12D	ST 12E	17.2	400	0.400	400	1.03	1.07	1.05	18.60	17.2	0.0	0.0	0.0
67	ST 12E	ST 12F	8.2	400	0.400	400	1.07	1.09	1.08	9.07	8.2	0.0	0.0	0.0
68	ST 12F	ST 12G	13.9	400	0.400	400	1.09	1.13	1.11	15.69	13.9	0.0	0.0	0.0
69	ST 12G	ST 12H	13.9	400	0.400	400	1.13	1.16	1.15	16.08	13.9	0.0	0.0	0.0
70	ST 12H	RWHP 08	7.1	400	0.400	400	1.16	1.18	1.17	8.36	7.1	0.0	0.0	0.0
71	RWHP 08	ST 12I	7.7	400	0.400	400	1.18	1.20	1.19	9.18	7.7	0.0	0.0	0.0
72	ST 12I	ST 12J	13.9	400	0.400	400	1.20	1.23	1.22	16.87	13.9	0.0	0.0	0.0
73	ST 12J	ST 12K	13.9	400	0.400	400	1.23	1.27	1.25	17.26	13.9	0.0	0.0	0.0
74	ST 12K	ST 13	7.3	400	0.400	400	1.27	1.29	1.28	9.22	7.3	0.0	0.0	0.0
75	ST 13	ST 13A	13.7	400	0.400	400	1.68	1.72	1.70	21.94	0.0	13.7	0.0	0.0
76	ST 13A	ST 13B	15.2	400	0.400	400	1.72	1.76	1.74	24.78	0.0	15.2	0.0	0.0
77	ST 13B	RWHP 09	5.5	400	0.400	400	1.76	1.77	1.76	9.08	0.0	5.5	0.0	0.0
78	RWHP 09	ST 13C	7.2	400	0.400	400	1.77	1.79	1.78	11.98	0.0	7.2	0.0	0.0
78	ST 13C	ST 13D	15.5	400	0.400	400	1.79	1.83	1.81	26.13	0.0	15.5	0.0	0.0
79	ST 13D	ST 16	20.2	400	0.400	400	1.83	1.88	1.85	34.78	0.0	20.2	0.0	0.0
	START													
80	ST 14	ST 14A	7.9	400	0.400	400	0.90	0.92	0.91	7.65	7.9	0.0	0.0	0.0
81	ST 14A	RWHP 10	6.7	400	0.400	400	0.92	0.94	0.93	6.58	6.7	0.0	0.0	0.0
82	RWHP 10	ST 14B	5.8	400	0.400	400	0.94	0.95	0.94	5.77	5.8	0.0	0.0	0.0
82	ST 14B	ST 14C	13.2	400	0.400	400	0.95	0.98	0.97	13.38	13.2	0.0	0.0	0.0
83	ST 14C	ST 14D	13.2	400	0.400	400	0.98	1.02	1.00	13.73	13.2	0.0	0.0	0.0
84	ST 14D	ST 14E	17.3	400	0.400	400	1.02	1.06	1.04	18.53	17.3	0.0	0.0	0.0
85	ST 14E	ST 14F	14.5	400	0.400	400	1.06	1.10	1.08	15.99	14.5	0.0	0.0	0.0
86	ST 14F	ST 14G	14.5	400	0.400	400	1.10	1.13	1.11	16.41	14.5	0.0	0.0	0.0
87	ST 14G	ST 14H	13.8	400	0.400	400	1.13	1.17	1.15	16.01	13.8	0.0	0.0	0.0
88	ST 14H	RWHP 11	6.4	400	0.400	400	1.17	1.18	1.18	7.55	6.4	0.0	0.0	0.0
89	RWHP 11	ST 14I	5.5	400	0.400	400	1.18	1.20	1.19	6.56	5.5	0.0	0.0	0.0
89	ST 14I	ST 16	10.8	400	0.400	400	1.20	1.22	1.21	13.05	10.8	0.0	0.0	0.0
	START													
90	ST 15	ST 16	33.0	400	0.400	400	1.00	1.08	1.04	35.41	33.0	0.0	0.0	0.0
91	ST 16	ST 17	34.9	400	0.400	400	1.88	1.96	1.92	62.01	0.0	34.9	0.0	0.0
91	ST 17	ST 17A	9.3	400	0.400	400	1.96	1.99	1.98	16.94	0.0	9.3	0.0	0.0
92	ST 17A	RWHP 12	5.7	400	0.400	400	1.99	2.00	2.00	10.47	0.0	5.7	0.0	0.0
93	RWHP 12	ST 17B	7.4	400	0.400	400	2.00	2.02	2.01	13.68	0.0	7.4	0.0	0.0
93	ST 17B	ST 17C	14.2	400	0.400	400	2.02	2.06	2.04	26.57	0.0	14.2	0.0	0.0
94	ST 17C	ST 17D	14.0	400	0.400	400	2.06	2.09	2.07	26.59	0.0	14.0	0.0	0.0
95	ST 17D	ST 17E	14.0	400	0.400	400	2.09	2.13	2.11	26.98	0.0	14.0	0.0	0.0
96	ST 17E	ST 17F	20.2	400	0.400	400	2.13	2.18	2.15	39.82	0.0	20.2	0.0	0.0
97	ST 17F	ST 17G	14.7	400	0.400	400	2.18	2.21	2.20	29.34	0.0	14.7	0.0	0.0
98	ST 17G	RWHP 13	6.9	400	0.400	400	2.21	2.23	2.22	13.92	0.0	6.9	0.0	0.0
99	RWHP 13	ST 17H	7.0	400	0.400	400	2.23	2.25	2.24	14.22	0.0	7.0	0.0	0.0
99	ST 17H	ST 17I	14.6	400	0.400	400	2.25	2.28	2.27	29.98	0.0	14.6	0.0	0.0
100	ST 17I	ST 17J	14.6	400	0.400	400	2.28	2.32	2.30	30.40	0.0	14.6	0.0	0.0
101	ST 17J	ST 17K	14.6	400	0.400	400	2.32	2.36	2.34	30.83	0.0	14.6	0.0	0.0
102	ST 17K	ST 17L	14.8	400	0.400	400	2.36	2.39	2.38	31.69	0.0	14.8	0.0	0.0
103	ST 17L	RWHP 14	7.7	400	0.400	400	2.39	2.41	2.40	16.66	0.0	7.7	0.0	0.0
104	RWHP 14	ST 17M	7.6	400	0.400	400	2.41	2.43	2.42	16.56	0.0	7.6	0.0	0.0
104	ST 17M	ST 18	8.4	400	0.400	400	2.43	2.45	2.44	18.44	0.0	8.4	0.0	0.0
105	ST 18	Ext	10.0	400	0.400	400	2.45	2.48	2.47	22.13	0.0	10.0	0.0	0.0

For Sadan Realtech Pvt. Ltd.

Director/Authorised Signatory



HYDRAULIC STATEMENT OF DOMESTIC WATER SUPPLY - DEEN DAYAL JAN AWAS YOJNA AFFORDABLE PLOTTED HOUSING COLONY AT SECTOR-104, SOHNA, GURUGRAM (HARYANA)

S.no	Limit Reference	Unit / plot			Populati on @ 18 person per unit	Water Requirment @172.5 LPCD	Other Water Requirement i.e Commercial, Community Centre in LPD	Total Water Requirement (in LPH2)	Domestic Water requirement @67% of total water requirement (in LPD)	Average Domestic Water Requirement (Total / 24)	Peak Flow In LPH (Average x 3)	Peak Flow In M3/ltr (Average x 3)	Velocity (m/sec)	Size of the pipe (in mm)	Unit head Loss (in M/Hr)	Length in (m)	Loss of head in line (m)				Previous Cumulative	Total head loss
		From	To	Self													Previous	Total	15	17		
1	2	3	5	6	7	8	9	10	11	12	14	13	14	15	16	17	15	19	20	21		
1	UGT	D 20	0	273	4914	847855	54441	802106	534411	25184	75552	2.67	100	0.0658	8.0	0.525	0.105	0.800	11.366	11.988		
2	D 20	D 18	0	273	4914	847855	54441	802106	534411	25184	75552	2.67	100	0.0658	67.4	4.421	0.864	5.305	6.091	11.366		
3	D 19	D 18	0	273	4914	847855	54441	802106	534411	25184	75552	2.67	100	0.0658	21.2	1.239	0.248	1.487	3.435	4.922		
4	D 19	D 17	17	11	28	504	86940	86940	59250	2427	7281	2.81	100	0.0095	63.2	0.054	0.011	0.065	0.177	0.662		
5	D 17	D 16	11	0	11	198	34165	34165	22684	954	2862	2.86	100	0.0002	92.2	0.014	0.003	0.017	0.000	0.017		
6	D 16	D 15	18	168	177	3185	548585	368222	15313	46029	2.86	100	0.0002	56.8	1.488	1.756	1.756	1.756	3.363	3.363		
7	D 15	D 14	4	59	83	1134	193815	131082	5461	16383	2.86	100	0.0003	34.2	0.132	0.025	0.019	0.194	0.342	0.342		
8	D 14	D 13	25	0	25	450	77325	52009	2167	6501	3.11	100	0.0007	83.7	0.058	0.012	0.070	0.000	0.070	0.070		
9	D 14	D 12	0	34	34	612	105570	70732	2847	8841	3.11	100	0.0012	43.9	0.057	0.011	0.089	0.048	0.113	0.113		
10	D 12	D 11	16	0	18	288	49880	33298	1387	4161	3.11	100	0.0003	54.1	0.017	0.003	0.020	0.000	0.020	0.020		
11	D 15	D 09	8	87	95	1740	294975	37445	1560	4680	3.17	100	0.0004	66.4	0.021	0.004	0.026	0.000	0.026	0.026		
12	D 08	D 08	12	0	12	216	37260	24984	1040	3120	3.12	100	0.0002	41.8	0.007	0.001	0.009	0.009	1.225	1.225		
13	D 09	D 07	12	0	12	216	37260	24984	1040	3120	3.12	100	0.0003	35.0	0.187	0.087	0.087	0.009	0.009	0.009		
14	D 09	D 07	12	0	12	216	37260	24984	1040	3120	3.12	100	0.0003	35.0	0.187	0.087	0.087	0.009	0.009	0.009		
15	D 07	D 05	29	0	29	522	90045	60337	2514	7542	3.12	100	0.0017	167.7	0.293	0.351	0.351	0.000	0.351	0.351		
16	D 19	D 04	7	61	68	1224	211140	140470	58045	177988	22242	7379	100	0.0009	94.9	0.097	0.017	0.105	0.000	0.105		
17	D 04	D 04	0	0	0	0	19098	12704	519	1599	1.59	100	0.0008	50.9	0.347	0.069	0.418	0.722	1.388	1.388		
18	D 04	D 03	0	61	61	1098	184405	12704	519	1599	1.59	100	0.0001	49.4	0.003	0.001	0.003	0.000	0.003	0.003		
19	D 03	D 02	35	0	35	630	108575	7263	1822	5762	3.12	100	0.0050	10.0	0.050	0.010	0.050	0.000	0.050	0.050		
20	D 03	D 02	35	0	35	630	108575	7263	1822	5762	3.12	100	0.0050	10.0	0.050	0.010	0.050	0.000	0.050	0.050		
21	D 03	D 01	26	0	26	450	77325	52009	2167	6501	3.11	100	0.0007	83.7	0.058	0.012	0.070	0.000	0.070	0.070		

LENGTH OF 40MM DIA PIPE = 0.0
 LENGTH OF 50MM DIA PIPE = 0.0
 LENGTH OF 65MM DIA PIPE = 0.0
 LENGTH OF 80MM DIA PIPE = 0.0
 LENGTH OF 100MM DIA PIPE = 1502.00
TOTAL LENGTH OF LOOP = 1502.00

HEIGHT OF BUILDING FROM FFL = 16.50 MTR
 PRESSURE REQUIRED AT TERRACE TO FILL TANK = 16.50 MTR
 MAXIMUM HEAD LOSS IN THE LOOP = 12.00 MTR
 LOSS IN PLATROOM = 10.00 MTR
 HEAD REQUIRED AT PUMP FOR FILLING OHT = 55.00
 ADDING SAFETY FACTOR 20% = 65.98
say 66 MTR



For Sadan Realtech Pvt. Ltd.
 Director/Authorised Signatory



HYDRAULIC STATEMENT OF FLUSHING WATER SUPPLY - DEEN DAYAL JAN AWAS YOJNA AFFORDABLE PLOTTED HOUSING COLONY AT SECTOR-104, SOHNA, GURUGRAM (HARYANA)

S.no	Unit / plot				Population @ 18 person per plot	Water Requirement @172.5 LPCD	Other Water Requirement i.e Commercial, Community Centre / Anganwadi In LPD	Total Water Requirement (In LPD)	Flushing Water requirement @33% of total water requirement (In LPD)	Average Flushing Water Requirement (Total / (24)) (In LPH)	Peak Flow in LPH (Average x 3)	Peak Flow In M3/Hr (Average x 3)	Velocity (m/s)	Size of the pipe (In mm)	Loss of head in line (m)				Previous Cumulative	Total head loss							
	Unit / plot		Self	Previous											Total	No.	(In LPD)	(In LPD)			(In LPD)	(In LPH)	(In M/M)	(m)	SELF	ADD FOR FITTINGS @20% OF PIPE LENGTH	TOTAL
	From	To																									
1	2	3	5	8	7	6	7	8	9	10	11	12	14	13	14	15	16	17	15	19	20	21					
1	STP	F20	0	273	273	4814	847665	54441	902106	297655	12404	37212	1.32	100	100	0.0177	8.0	0.141	0.028	0.170	3.285	3.455					
2	F20	F19	0	273	273	4814	847666	54441	902106	297655	12404	37212	1.32	100	100	0.0177	26.8	0.474	0.066	0.588	2.717	3.285					
3	F19	F18	6		6	108	19830	0	19830	6146	266	786	0.768	100	100	0.0000	23.8	0.000	0.000	0.000	0.000	0.000					
4	F18	F17	19	248	267	4806	829036	54441	893476	291547	12148	36444	1.28	100	100	0.0170	59.9	1.019	0.204	1.222	1.484	2.716					
5	F18	F12	0	34	34	612	105570	0	105570	34838	1452	4356	0.16	100	100	0.0003	45.8	0.015	0.003	0.018	0.012	0.031					
6	F12	F11	16	0	16	285	49890	0	49890	15394	683	2049	0.07	100	100	0.0001	54.1	0.004	0.001	0.005	0.000	0.005					
7	F12	F10	18	0	18	324	55980	0	55980	18444	789	2307	0.08	100	100	0.0001	58.4	0.006	0.001	0.005	0.000	0.007					
8	F18	F17	4	210	214	3852	684470	54441	718911	237241	9885	29655	1.35	100	100	0.0116	34.2	0.397	0.079	0.476	0.887	1.463					
9	F17	F09	8	87	95	1710	294975	0	294975	12296	512	1536	0.06	100	100	0.0022	53.9	0.120	0.024	0.144	0.186	0.330					
10	F09	F08	12	0	12	216	37260	0	37260	12296	512	1536	0.06	100	100	0.0022	53.9	0.120	0.024	0.144	0.186	0.330					
11	F09	F07	5	70	75	1350	232875	0	232875	78649	3202	9606	0.34	100	100	0.0014	35.0	0.050	0.010	0.080	0.123	0.163					
12	F07	F08	41	0	41	738	127305	0	127305	42011	1750	5250	0.19	100	100	0.0005	187.7	0.079	0.016	0.095	0.000	0.095					
13	F07	F05	29	0	29	522	30045	0	30045	23975	1238	3714	3.714	100	100	0.0002	94.3	0.024	0.005	0.028	0.000	0.028					
14	F17	F15	19	96	115	2070	357075	54441	411516	135900	5658	16974	16.974	100	100	0.0041	56.8	0.235	0.047	0.282	0.375	0.657					
15	F16	F15	17	11	28	504	86940	0	86940	28690	1195	3585	3.585	100	100	0.0002	63.2	0.015	0.003	0.018	0.005	0.022					
16	F15	F14	11	0	11	198	34155	0	34155	11271	470	1410	1.41	100	100	0.0000	92.2	0.004	0.001	0.005	0.000	0.005					
17	F16	F14	7	61	68	1224	211140	54441	255551	87642	3552	10968	10.968	100	100	0.0018	72.1	0.132	0.026	0.159	0.194	0.353					
18	F04	F04A	0	0	0	0	0	54441	6302	263	789	0.789	0.789	100	100	0.0000	49.4	0.001	0.000	0.001	0.000	0.001					
19	F04	F13	0	81	81	1098	188405	35345	38345	74168	3090	9270	9.27	100	100	0.0013	10.0	0.013	0.003	0.016	0.177	0.194					
20	F03	F02	35	0	35	630	108675	35345	144020	47527	1880	5940	5.94	100	100	0.0006	184.4	0.057	0.019	0.117	0.147	0.294					
21	F03	F01	26	0	26	468	80730	0	80730	28641	1110	3330	3.33	100	100	0.0002	250.6	0.051	0.010	0.000	0.000	0.000					

IRRIGATION PIPES
25MM DIA. 100 MTR

LENGTH OF 32MM DIA PIPE = 0.0
 LENGTH OF 40MM DIA PIPE = 0.0
 LENGTH OF 50MM DIA PIPE = 0.0
 LENGTH OF 65MM DIA PIPE = 0.0
 LENGTH OF 80MM DIA PIPE = 0.0
 LENGTH OF 100MM DIA PIPE = 1461.00
TOTAL LENGTH OF LOOP = 1461.00

HEIGHT OF BUILDING FROM PRESSURE REQUIRED AT MAXIMUM HEAD LOSS IN THE LOSS IN PLATROOM HEAD REQUIRED AT PUMP ADDING SAFETY FACTOR 20% say = 55.75



For Sadan Realtech Pvt. Ltd.

[Signature]
Director/Authorised Signatory



Area statement for METTALIC ROAD

S.no.	Discription	Type	Number	Dimension			Calculation	Result	UNIT
				Length	Height	Breadth			
Addition									
1	R1	Rectangle	1	120.701	X	5.500	Length X breadth	663.856	SQ.MT
2	R2	Rectangle	1	36.939	X	5.500	Length X breadth	203.165	SQ.MT
3	R3	Rectangle	1	311.827	X	5.500	Length X breadth	1715.049	SQ.MT
4	R4	Rectangle	1	34.600	X	5.500	Length X breadth	190.300	SQ.MT
5	R5	Rectangle	1	120.701	X	5.500	Length X breadth	663.856	SQ.MT
6	R6	Rectangle	1	39.056	X	5.500	Length X breadth	214.808	SQ.MT
7	R7	Rectangle	1	114.832	X	6.000	Length X breadth	688.992	SQ.MT
8	R8	Rectangle	1	89.000	X	5.500	Length X breadth	489.500	SQ.MT
9	R9	Rectangle	1	139.271	X	5.500	Length X breadth	765.991	SQ.MT
10	R10	Rectangle	1	38.774	X	10.000	Length X breadth	387.740	SQ.MT
11	R11	Rectangle	1	73.012	X	5.500	Length X breadth	401.566	SQ.MT
			Total	1118.713					
			Say	1120 Mtr.					
Total Addition =								6384.821	SQ.MT
ADD 5 % FOR CURVED ROAD								319.241	SQ.MT
Total Mettalic Road Area =								6704.062	SQ.MT
Say								6710.000	SQ.MT



For Sadan Realtech Pvt. Ltd.

Signature

Director/Authorised Signatory

