

Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

Book No. :- 163

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Masonpur-4Meas.Chamber

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		No			L	B		D	Page		Quantity
		GL	IL	EXL							
	Item No. : 11 Transportation of earth Transportation charges						1.640		70.882	72.522	
	Item No. 30 :- Refilling the excavated trenches ...						4.239				
	Total Excavation(A)=										
	Deduction						1.162				
	Brick work	1		0.785	1.160	1.160	1.100				
	soling						0.000				
	PCC	1		0.785	1.560	1.560	0.250				
	Murrum bedding						0.000				
	Total (B)						1.640				
		Net Qty = A - B						2.599		148.143	150.743
	MSP 10										
	CH78.40	580.410	579.410	579.160			1.250				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.130	3.548	148.512	152.060	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188	18.539	18.727	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188	15.569	15.758	
	Item No. : 11 Transportation of earth Transportation charges							1.534	72.522	74.056	
	Item No. 30 :- Refilling the excavated trenches ...							3.925			
	Total Excavation(A)=										
	Deduction						1.056				
	Brick work	1		0.785	1.160	1.160	1.000				
	soling						0.000				
	PCC	1		0.785	1.560	1.560	0.250				
	Murrum bedding						0.478				
	Total (B)						0.000				
		Net Qty = A - B						1.534		72.522	74.056
	MSP 11										
	CH85.95	580.600	579.670	579.420			1.180				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.060	3.328	152.060	155.389	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188	18.727	18.916	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.060	0.188	15.758	15.946	



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1

Shahanagar (Connection) Details

**9th R A BILL MEASUREMENTS SW PIPE SHAHANAGAR ( MANHOLE TO PROPERTY CONNECTION)**

Sr. No.	Manhole No.	Chainage	No. of Conncction	Dia of Pipe	Length in Mtr	Depth
1	MSM 01	CH13.10	1	160mm	1.20	0.600
2	MSM 02	CH29.30	1	160mm	1.52	0.600
			2	160mm	1.52	0.600
			3	160mm	1.52	0.600
			4	160mm	1.83	0.600
			5	160mm	1.22	0.600
3	MSM 03	CH46.55	1	160mm	1.52	0.600
			2	160mm	1.68	0.600
4	MSM 04	CH59.85	1	160mm	0.61	0.600
			2	160mm	0.61	0.600
5	MSM 05	CH71.90	1	160mm	0.91	0.600
			2	160mm	1.07	0.600
			3	160mm	0.76	0.600
			4	160mm	1.83	0.600
			5	160mm	0.61	0.600
6	MSM 06	CH85.20	1	160mm	1.22	0.600
			2	160mm	1.22	0.600
7	MSM 07	CH99.75	1	160mm	1.22	0.600
			2	160mm	1.52	0.600
8	MSM 08	CH113.05	1	160mm	1.22	0.600
			2	160mm	1.22	0.600
			3	160mm	1.22	0.600
			4	160mm	0.61	0.600
			5	160mm	3.96	0.600
9	MSM 09	CH125.10	1	160mm	0.91	0.600
			2	160mm	1.83	0.600
			3	160mm	1.52	0.600
10	MSM 10	CH133.40	1	160mm	1.83	0.600
			2	160mm	2.13	0.600
			3	160mm	1.22	0.600
			4	160mm	3.05	0.600
11	MSM 11	CH146.70	1	160mm	3.05	0.600
			2	160mm	2.44	0.600
			3	160mm	4.57	0.600
			4	160mm	1.52	0.600
			5	160mm	1.83	0.600
			6	160mm	2.74	0.600
			7	160mm	2.13	0.600
12	MSM 12	CH171.25	1	160mm	1.68	0.600
			2	160mm	1.83	0.600
			3	160mm	6.10	0.600
			4	160mm	1.22	0.600



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**Measurement Book**



**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Safim AE. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. :-  
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**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 **Date** 01.07.2014

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**Shahanagar (Connection) Details**

Sr. No.	Manhole No.	Chainage	No. of Connction	Dia of Pipe	Length in Mtr	Depth
			5	160mm	1.52	0.600
13	MSM 13	CH182.05	1	160mm	1.22	0.600
			2	160mm	1.83	0.600
14	MSM 14	CH187.85	1	160mm	1.52	0.600
			2	160mm	1.37	0.600
			3	160mm	0.91	0.600
			4	160mm	0.61	0.600
15	MSM 15	CH578.11	1	160mm	5.18	0.600
			2	160mm	0.91	0.600
			3	160mm	1.68	0.600
16	MSM 16	CH205.70	1	160mm	4.57	0.600
			2	160mm	1.52	0.600
17	MSM 17	CH216.50	1	160mm	3.66	0.600
			2	160mm	1.37	0.600
			3	160mm	1.07	0.600
			4	160mm	0.91	0.600
			5	160mm	1.22	0.600
			6	160mm	2.13	0.600
18	MSM 18	CH227.30	1	160mm	2.13	0.600
			2	160mm	1.52	0.600
			3	160mm	1.07	0.600
19	MSM 19	CH241.85	1	160mm	0.91	0.600
			2	160mm	2.74	0.600
20	MSM 20	CH253.90	1	160mm	1.37	0.600
			2	160mm	0.91	0.600
<b>Total Length</b>					<b>117.36</b>	



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewerage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewerage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP-DI pipe line from Golwadi SPS, to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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Page No. :- 171

Name of Agency:- M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

Authority No. AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

Date of Measurement	

Qty Shahanagar (Connection)

QUANTITY ABSTRACT																				
SHAHANAGAR (CONNECTION LINE)																				
Sr No	Description	Meters	ITEM 1		ITEM 2		ITEM 4		ITEM 7		ITEM 11		ITEM 12		ITEM 13		ITEM 30	ITEM 35	Extra Item 9.5	Extra Item 9.6
			0-1.5	1.5-3.0	0-1.5	0-1.5	0-1.5	0-1.5	200mm	315mm	200mm	315mm	200mm	315mm	200mm	315mm				
1	For Pipe	54.220							7.746	10.104							44.116		b	b
2	For Manholes																			
	Total	54.220	0.000	0.000	0.000	0.000	0.000	7.746	10.104	0.000	0.000	0.000	0.000	0.000	0.000	44.116	0.000	117.359	117.359	


  
**CONTRACTOR**  
 Khilari Infrastructure Pvt. Ltd.


  
**PMC**  
 Forcast Infrastructure Advisory Services


  
**Project Engineer**  
 Forcast Infrastructure Advisory Services


  
**Jr. Engineer**


  
**Dy. Engineer**


  
**CLIENT**  
 Ex. Engineer

P. to













# Measurement Book

(From No. 52)

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

Book No. 177  
Page No. :-

**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

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## 9th R A BILL MEASUREMENTS

ROAD WORK AT Reliance Mall Gajanan Nagar							
Sr. No.	Descriptions of Items	Nos	L	B	D	Unit	Qty
1	<b>ITEM NO. 1 :-</b> Excavation for foundation/pipe trenches in earth soils of all types sand gravel and soft murum, manually or by using mechanical means including & removing the excavated materials, up to a distance of 50.0 m beyond the area, and lifts as below. Stacking and spreading as directed by engineer-in-charge, normal dewatering preparing the bed for foundation and excluding back filling etc complete.	1	144	2.50	0.5	Cum	179.88
2	<b>Item No. 11:-</b> Disposal of excavated material including loading the excavated material in trucks / tractors and unloading the same at a distance of 10 KMS as directed by engineer-in-charge.	1	144	2.50	0.45	Cum	161.89
3	<b>Item No. : 31</b> Road restoration - Supply, Spreading, Compacting 80mm and 40 mm metal. Providing and laying 75mm hot mix bitumen layer, 20mm bituminous premix carpet using 60/70 grade, Providing liquid seal coat as per detailed specifications, etc complete as directed by Engineer-in-Charge. (RR only for WBM (80mm & 40mm Layer) work 730 - 533.08 = 196.92 & Hold 5% amount for material without proper Gradation)	1	144	2.50		Sq. Mtr	359.75
4	<b>Extra Item : 4(d)</b> Providing murrum filling in 15 to 20cm thk. layer .... etc completed	1	144	2.50	0.2	Cum	71.95

  
**Authorised Signatory**

  
**Project Engineer**

PMC

  
**Project Manager**

  
**Jr. Engineer**

**CLIENT**  
  
**Dy. Engineer**

  
**Ex. Engineer**

Name of work:- Development of Underground Sewerage collection system for Zone I to VI and Zone Salim Ab/Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshirawadi (Kanchanwadi), Banowadi, Siddharth Garden, Zalta, Padegaon, CIDCO/Airport, Construction, Erection, Testing and Commissioning of Sewage pumping stations at Banowadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying, jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshirawadi (Kanchanwadi) STP and Ward No.98 to

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Page No. 110

nyaynagar 400mm RCC. NYAYNAGAR -400mm-MB

**9th R A BILL MEASUREMENTS**  
**BRANCH SEWER AT " DYAYNAGAR TO PUNDLIK CHOWK"**

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>BRANCH SEWER AT " NYAYNAGAR to PUNDLIK CHOWK"</b>										
	Width of Trench - For Bottom Lift 0.00-1.50m- 0.4+0.15+0.15+0.5=1.2m										
	From Bottom Lift 1.50m-3.00m- 0.4+0.15+0.15+0.5+0.4=1.6m										
	From Bottom Lift 3.00m-4.50m- 0.4+0.15+0.15+0.5+0.4+0.4=2.0m										
	KGM23						1.81	1.640			
	CH0.00	592.320	590.710	590.510							
	CH10.90	592.152	590.882	590.682			1.47				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			8.90	1.600	1.190	16.946	0.000	16.946	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			8.90	1.600	0.310	4.414	0.000	4.414	
	(b) For Lift 1.5m to 3.0m	1			8.90	1.200	0.140	1.495	0.000	1.495	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.90	1.200	0.200	2.136	0.000	2.136	
	<b>Item No.: 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							4.249	0.000	4.249	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			10.00			10.000	0.000	10.000	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							22.855			
	<b>Deduction</b>										
	pipe area	1		0.785	8.90	0.550	0.550	2.11			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							2.14			
	<b>Total = B</b>							4.25			
	<b>Net Qty = A - B</b>							18.61	0.000	18.606	
	KGM23.1										
	CH10.90	592.152	590.902	590.702			1.45	1.465			
	CH31.80	592.262	590.982	590.782			1.48				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			18.90	1.200	1.115	25.288	16.946	42.234	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			18.90	1.200	0.350	7.938	4.414	12.352	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			18.90	1.200	0.200	4.536	2.136	6.672	
	<b>Item No.: 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							9.024	4.249	13.273	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			20.00			20.000	10.000	30.000	



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**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

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Dnyaynagar 400mm RCC. NYAYNAGAR -400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>						33.226				
	<b>Deduction</b>										
	pipe area	1		0.785	18.90	0.550	0.550	4.49			
	soling							0.00			
	PCC							0.00			
	Murum bedding							4.54			
	<b>Total = B</b>							9.02			
				<b>Net Qty = A - B</b>				<b>24.20</b>		18.606	42.808
	<b>KGM23.2</b>										
	<b>CH31.80</b>	592.262	591.002	590.802			1.46	1.570			
	<b>CH47.00</b>	592.542	591.062	590.862			1.68				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			13.20	1.200	0.950	15.048	42.234	57.282	
	(b) For Lift 1.5m to 3.0m	1			13.20	1.200	0.070	1.109	0.000	1.109	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			13.20	1.200	0.350	5.544	12.352	17.896	
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			13.20	1.200	0.200	3.168	0.000	3.168	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			13.20	1.200	0.200	3.168	6.672	9.840	
	<b>Item No.: 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							6.303	13.273	19.576	
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			14.30			14.300	30.000	44.300	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							24.869			
	<b>Deduction</b>										
	pipe area	1		0.785	13.20	0.550	0.550	3.13			
	soling							0.00			
	PCC							0.00			
	Murum bedding							3.17			
	<b>Total = B</b>							6.30			
				<b>Net Qty = A - B</b>				<b>18.57</b>		42.808	61.374
	<b>KGM23.3</b>										
	<b>CH47.80</b>	592.542	591.162	590.962			1.58	1.500			
	<b>CH50.40</b>	592.412	591.192	590.992			1.42				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			11.40	1.200	1.100	15.048	57.282	72.330	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			11.40	1.200	0.150	2.352	17.896	19.948	
	<b>Item No. 4</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			11.40	1.200	0.350	3.608	3.168	6.588	



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commissioning of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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Dnyaynagar 400mm RCC. NYAYNAGAR -400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			11.40	1.200	0.200	2.736		9.840	12.57
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.443		19.576	25.01
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.50			12.500		44.300	56.80
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>20.520</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	11.40	0.550	0.550	2.71			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							2.74			
	<b>Total = B</b>							<b>5.44</b>			
								<b>15.08</b>		<b>61.374</b>	<b>76.451</b>
	<b>Net Qty = A - B</b>										
	KGM23.4										
	CH60.40	592.412	591.342	591.142			1.27				
	CH73.80	592.592	591.362	591.162			1.43	1.350			
	Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			11.40	1.200	0.850	11.628		72.330	83.958
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			11.40	1.200	0.300	4.104		19.948	24.052
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			11.40	1.200	0.200	2.736		6.588	9.324
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			11.40	1.200	0.200	2.736		12.576	15.312
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							5.443		25.019	30.462
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.50			12.500		56.800	69.300
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							<b>18.468</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	11.40	0.550	0.550	2.71			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							2.74			
	<b>Total = B</b>							<b>5.44</b>			
								<b>13.02</b>		<b>76.451</b>	<b>89.476</b>
	<b>Net Qty = A - B</b>										
	KGM23.5										
	CH73.80	592.592	591.462	591.262			1.33				
	CH85.85	592.702	591.512	591.312			1.39	1.360			
	Item No. 1 :- Excavation for foundation/pipe trenches in all typesof soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			9.72	1.200	0.960	11.197		83.958	95.155



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to ...

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Dnyaynagar 400mm RCC. NYAYNAGAR -400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No							Page	Quantity	
		GL	IL	EXL	L	B	D				
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			9.72	1.200	0.200	2.333		24.052	26.385
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			9.72	1.200	0.200	2.333		9.324	11.657
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			9.72	1.200	0.200	2.333		15.312	17.645
	<b>Item No.: 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							4.641		30.462	35.103
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			11.00			11.000		69.300	80.300
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							15.863			
	<b>Deduction</b>										
	pipe area	1		0.785	9.72	0.550	0.550	2.31			
	soiling							0.00			
	PCC							0.00			
	Murrum bedding							2.33			
	<b>Total = B</b>							4.64			
								<b>Net Qty = A - B</b>			
	KGM23.6							11.22		89.476	100.698
	CH85.85	592.702	591.612	591.412							
	CH114.55	593.062	591.727	591.527			1.29	1.413			
							1.54				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murrum etc										
	(a) For Lift 0 to 1.5m	1			26.04	1.200	0.300	9.374		95.155	104.530
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			26.04	1.200	0.300	9.374		26.385	35.760
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			26.04	1.200	0.813	25.405		11.657	37.061
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			26.04	1.200	0.200	6.250		17.645	23.894
	<b>Item No.: 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							12.433		35.103	47.536
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			27.5			27.500		80.300	107.800
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							44.153			
	<b>Deduction</b>										
	pipe area	1		0.785	26.04	0.550	0.550	6.38			
	soiling							0.00			
	PCC							0.00			
	Murrum bedding							6.25			
	<b>Total = B</b>							12.63			
								<b>Net Qty = A - B</b>			
								31.52		100.698	132.418



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali/Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying, jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad, LC City.

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Dnyaynagar 400mm RCC. NYAYNAGAR -400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	KGM23.7										
	CH114.55	593.062	592.027	591.827			1.24				
	CH130.75	593.537	592.087	591.887			1.65	1.443			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc (a) For Lift 0 to 1.5m	1			13.54	1.200	0.140	2.275		104.530	106.804
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete. (a) For Lift 0 to 1.5m	1			13.54	1.200	0.300	4.874		35.760	40.634
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			13.54	1.200	1.003	16.297		37.061	53.358
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			13.54	1.200	0.200	3.250		23.894	27.144
	Item No.: 11 Disposal of excavated material including loading the excavated material in trucks / tractors							6.465		47.536	54.001
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			15.00			15.000		107.800	122.800
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							23.446			
	<b>Deduction</b>										
	pipe area	1		0.785	13.54	0.550	0.550	3.22			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							3.25			
	<b>Total = B</b>							6.46			
								<b>Net Qty = A - B</b>		132.418	149.400
	KGM23.8							16.98			
	CH130.75	593.537	592.332	592.132			1.41				
	CH153.75	593.852	592.432	592.232			1.62	1.513			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc (a) For Lift 0 to 1.5m	1			20.34	1.200	0.600	14.645		106.804	121.449
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete. (a) For Lift 0 to 1.5m	1			20.34	1.200	0.100	2.441		40.634	43.075
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			20.34	1.200	0.800	19.526		53.358	72.885
	(b) For Lift 1.5m to 3.0m	1			20.34	1.200	0.013	0.317		0.000	0.317
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.34	1.200	0.200	4.882		27.144	32.026
	Item No.: 11 Disposal of excavated material including loading the							9.712		54.001	63.713
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			21.8			21.800		122.800	144.513
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							36.929			



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**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali, Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

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Dnyaynagar 400mm RCC, NYAYNAGAR -400mm-MB

Date	Particulars of work	DETAILS						Content of area	Last measurement		TOTAL TO DATE
		GL	No IL	EXL	L	B	D		Page	Quantity	
	<b>Deduction</b>										
	pipe area										
	soling	1		0.785	20.34	0.550	0.550	4.83			
	PCC							0.00			
	Murram bedding							0.00			
	<b>Total = B</b>							4.88			
								9.71			
	<b>KGM23.9</b>							<b>Net Qty = A - B</b>			
								27.22			
	<b>CH153.75</b>								149.400		176.617
	<b>CH176.95</b>	593.852	592.557	592.357			1.50				
		594.877	592.677	592.477			2.40	1.947			
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc (a) For Lift 0 to 1.5m	1			20.54	1.600	0.740	24.319		121.449	145.769
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murram etc complete. (a) For Lift 0 to 1.5m	1			20.54	1.600	0.400	13.146		43.075	56.220
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			20.54	1.600	0.360	11.831		72.885	84.716
	(b) For Lift 1.5m to 3.0m	1			20.54	1.200	0.447	11.018		0.317	11.335
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.54	1.200	0.200	4.930		32.026	36.955
	<b>Item No. 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							9.807		63.713	73.520
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			22.00			22.000		144.600	166.600
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>										
	<b>Deduction</b>							60.314			
	pipe area										
	soling	1		0.785	20.54	0.550	0.550	4.88			
	PCC							0.00			
	Murram bedding							0.00			
	<b>Total = B</b>							4.93			
								9.81			
	<b>KGM23.10</b>							<b>Net Qty = A - B</b>			
								50.51		176.617	227.124
	<b>CH176.95</b>	594.877	593.277	593.077			1.80				
	<b>CH188.15</b>	595.537	593.337	593.137			2.40	2.100			
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc (a) For Lift 0 to 1.5m	1			8.54	1.600	0.480	6.559		145.769	152.327
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murram etc complete. (a) For Lift 0 to 1.5m	1			8.54	1.600	0.400	5.466		56.220	61.686
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			8.54	1.600	0.620	8.472		84.716	93.187
	(b) For Lift 1.5m to 3.0m	1			8.54	1.200	0.600	6.149		11.335	17.484
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.54	1.200	0.200	2.050		36.955	39.005



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Dnyaynagar 400mm RCC, NYAYNAGAR -400mm-MB

Date	Particulars of work	DETAILS					Content of area	Last measurement		TOTAL TO DATE	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks / tractors						4.078		73.520	77.597	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			10.00		10.000		166.600	176.600	
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>						<b>26.645</b>				
	<b>Deduction</b>										
	pipe area	1		0.785	8.54	0.550	0.550	2.03			
	soling							0.00			
	PCC							0.00			
	Murum bedding							2.05			
	<b>Total = B</b>						<b>4.08</b>				
				<b>Net Qty = A - B</b>			<b>22.57</b>		227.124	249.691	
	KGM23.11										
	CH188.15	595.537	593.937	593.737			1.80	2.130			
	CH218.15	596.357	594.097	593.897			2.46				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			27.34	1.600	0.530	23.184	152.327	175.512	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			27.34	1.600	0.500	21.872	61.686	83.558	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			27.34	1.600	0.470	20.560	93.187	113.747	
	(b) For Lift 1.5m to 3.0m	1			27.34	1.200	0.630	20.669	17.484	38.153	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			27.34	1.200	0.200	6.562	39.005	45.566	
	Item No. 11 Disposal of excavated material including loading the excavated material in trucks / tractors							13.054	77.597	90.651	
	Item No.17 (a) :- Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			28.80			28.800	176.600	205.400	
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>						<b>86.285</b>				
	<b>Deduction</b>										
	pipe area	1		0.785	27.34	0.550	0.550	6.49			
	soling							0.00			
	PCC							0.00			
	Murum bedding							6.56			
	<b>Total = B</b>						<b>13.05</b>				
				<b>Net Qty = A - B</b>			<b>73.23</b>		249.691	322.922	
	KGM23.12										
	CH218.15	596.357	594.697	594.497			1.86	2.180			
	CH231.85	597.047	594.747	594.547			2.50				
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			11.04	1.600	0.630	11.128	175.512	186.640	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.										



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**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

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Dnyaynagar 400mm RCC, NYAYNAGAR -400mm-MB

Date	Particulars of work	DETAILS					Content of area	Last measurment		TOTAL TO DATE	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			11.04	1.600	0.450	7.949		83.558	91.507
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			11.04	1.600	0.420	7.419		113.747	121.166
	(b) For Lift 1.5m to 3.0m	1			11.04	1.200	0.680	9.009		38.153	47.161
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete (bedding)	1			11.04	1.200	0.200	2.650		45.566	48.216
	<b>Item No.: 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							5.271		90.651	95.922
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			12.50			12.500		205.400	217.900
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							35.505			
	<b>Deduction</b>										
	pipe area	1		0.785	11.04	0.550	0.550	2.62			
	soling							0.00			
	PCC							0.00			
	Murum bedding							2.65			
	<b>Total = B</b>							5.27			
					<b>Net Qty = A - B</b>			<b>30.23</b>		<b>322.922</b>	<b>353.156</b>
	KGM23.13										
	CH231.85	597.047	595.347	595.147				1.90	2.400		
	CH250.55	598.117	595.417	595.217				2.90			
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc										
	(a) For Lift 0 to 1.5m	1			16.04	1.600	0.300	7.699		186.640	194.339
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.04	1.600	0.300	7.699		91.507	99.206
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			16.04	1.600	0.900	23.098		121.166	144.263
	(b) For Lift 1.5m to 3.0m	1			16.04	1.200	0.500	9.624		47.161	56.785
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			16.04	1.200	0.400	7.699		0.000	7.699
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete (bedding)	1			16.04	1.200	0.200	3.850		48.216	52.066
	<b>Item No.: 11</b> Disposal of excavated material including loading the excavated material in trucks / tractors							7.658		95.922	103.581
	<b>Item No.17 (a) :-</b> Lowering & Laying RCC NP3 class pipe of 400mm Dia	1			17.50			17.500		217.900	235.400
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							55.819			
	<b>Deduction</b>										
	pipe area	1		0.785	16.04	0.550	0.550	3.81			
	soling							0.00			
	PCC							0.00			



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main CDD line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

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Dnyaynagar 400mm RCC 250 DWC -MB

**9th R A BILL MEASUREMENTS DWC PIPE " DNYAYNAGAR TO PUNDLIK CHOWK"**

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No IL	EX.L	L	B	D		Page	Quantity	
	<b>DWC - 250mm Dia</b>										
	<b>Width of Trench -</b>										
	For Lift 0 to 1.50m- 0.25+0.5=0.75m										
	For Lift 1.5 to 3.00m- 0.25+0.5+0.4=1.15m										
	For Lift 3.0 to 4.5m- 0.25+0.5+0.4+0.4=1.55m										
	<b>KGM23.3TO KGM23.3.1</b>										
	<b>CH0.00</b>	592.542	591.800	591.700			0.842	0.791			
	<b>CH1.90</b>	592.640	592.000	591.900			0.740				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in										
	(a) For Lift 0 to 1.5m	1			0.90	0.750	0.241	0.163	196.389	196.551	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.90	0.750	0.350	0.236	101.939	102.175	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.90	0.750	0.200	0.135	152.120	152.255	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.20	0.750	0.100	0.090	54.115	54.205	
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							0.149	107.658	107.807	
	<b>Item No. 13 :-</b> (c) Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.70			1.700	0.000	1.700	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							0.534			
	<b>Deduction of 250mm dia pipe</b>										
	pipe area	1.00		0.785	1.20	0.250	0.250	0.06			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							0.09			
								0.15			
								<b>Net Qty = A - B</b>	0.39	425.25 425.64	
	<b>KGM23.3TO KGM23.3.2</b>										
	<b>CH0.00</b>	592.542	591.820	591.720			0.822	0.771			
	<b>CH2.00</b>	592.600	591.980	591.880			0.720				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in										
	(a) For Lift 0 to 1.5m	1			1.00	0.750	0.221	0.166	196.551	196.717	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										



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**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali/Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

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Dnyaynagar 400mm RCC. 250 DWC -MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurment		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			1.00	0.750	0.350	0.263		102.175	102.438
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			1.00	0.750	0.200	0.150		152.255	152.405
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.30	0.750	0.100	0.098		54.205	54.303
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							0.161		107.807	107.968
	<b>Item No. 13 :-</b> (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.80			1.800		1.700	3.500
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>0.578</b>			
	<b>Deduction of 250mm dia pipe</b>										
	pipe area	1.00		0.785	1.30	0.250	0.250	0.06			
	soling							0.00			
	PCC							0.00			
	Murum bedding							0.10			
								0.16			
								<b>0.42</b>		425.64	426.05
	<b>KGM23.3TO KGM23.33</b>										
	CH0.00	592.542	591.858	591.758				0.784			
	CH2.00	592.600	591.950	591.850				0.750	0.767		
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in										
	(a) For Lift 0 to 1.5m	1			1.00	0.750	0.217	0.163		196.717	196.880
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(a) For Lift 0 to 1.5m	1			1.00	0.750	0.350	0.263		102.438	102.700
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			1.00	0.750	0.200	0.150		152.405	152.555
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc	1			1.30	0.750	0.100	0.098		54.303	54.400
	<b>Item No. : 11</b> Transportation of earth Transportation charges							0.161		107.968	108.130
	<b>Item No. 13 :-</b> (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.80			1.800		3.500	5.300
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>0.575</b>			
	<b>Deduction of 250mm dia pipe</b>										
	pipe area	1.00		0.785	1.30	0.250	0.250	0.06			
	soling							0.00			
	PCC							0.00			



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**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewerage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport). Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to

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Dnyaynagar 400mm RCC. 250 DWC -MB

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		GL	No		L	B		D	Page		Quantity
			IL	EX.L							
	Murram bedding						0.10				
							0.16				
		Net Qty = A - B					0.41		426.05	426.47	
	<b>KGM23.6 TO KGM6.1</b>										
	CH0.00	592.702	591.850	591.750			0.952				
	CH2.00	592.850	592.200	592.100			0.750	0.851			
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in (a) For Lift 0 to 1.5m	1			0.00	0.750	0.451	0.000	196.880	196.880	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murram etc complete. (a) For Lift 0 to 1.5m	1			0.00	0.750	0.200	0.000	102.700	102.700	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			0.00	0.750	0.200	0.000	152.555	152.555	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			0.50	0.750	0.100	0.038	54.400	54.438	
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							0.062	108.130	108.192	
	<b>Item No. 13 :-</b> (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			0.95			0.950	5.300	6.250	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>						0.000				
	<b>Deduction of 250mm dia pipe</b>										
	pipe area	1.00			0.785	0.50	0.250	0.250	0.02		
	soling							0.00			
	PCC							0.00			
	Murram bedding							0.04			
								0.06			
		Net Qty = A - B					-0.06		426.47	426.40	
	<b>KGM23.7 TO KGM23.7.1</b>										
	CH0.00	593.062	592.300	592.200			0.862				
	CH2.00	593.250	592.980	592.880			0.370	0.616			
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in (a) For Lift 0 to 1.5m	1			0.67	0.750	0.300	0.151	196.880	197.031	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murram etc complete. (a) For Lift 0 to 1.5m	1			0.67	0.750	0.066	0.033	102.700	102.733	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			0.67	0.750	0.250	0.126	152.555	152.681	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.17	0.750	0.100	0.088	54.438	54.525	



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main

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Dnyaynagar 400mm RCC. 250 DWC -MB

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No IL	EX.L	L	B		D	Page	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.145	108.192	108.337
	Item No. 13 :- (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.40			1.400	6.250	7.650
	Item No. 30 :- Refilling the excavated trenches ...									
	<b>Total Excavation=</b>							<b>0.310</b>		
	<b>Deduction of 250mm dia pipe</b>									
	pipe area	1.00		0.785	1.17	0.250	0.250	0.06		
	soling							0.00		
	PCC							0.00		
	Murrum bedding							0.09		
								<b>0.15</b>		
								<b>0.16</b>	426.40	426.57
	<b>Net Qty = A - B</b>									
	<b>KGM23.12 TO KGM23.12.1</b>									
	CH0.00	596.357	595.500	595.400			0.957	0.858		
	CH2.00	596.560	595.900	595.800			0.760			
	Item No. 1 :- Excavation for foundation/pipe trenches in (a) For Lift 0 to 1.5m	1			0.67	0.750	0.530	0.266	197.031	197.297
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete. (a) For Lift 0 to 1.5m	1			0.67	0.750	0.228	0.115	102.733	102.848
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			0.67	0.750	0.100	0.050	152.681	152.731
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.17	0.750	0.100	0.088	54.525	54.613
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.145	108.337	108.482
	Item No. 13 :- (c)Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.40			1.400	7.650	9.050
	Item No. 30 :- Refilling the excavated trenches ...									
	<b>Total Excavation=</b>							<b>0.431</b>		
	<b>Deduction of 250mm dia pipe</b>									
	pipe area	1.00		0.785	1.17	0.250	0.250	0.06		
	soling							0.00		
	PCC							0.00		
	Murrum bedding							0.09		
								<b>0.15</b>		
								<b>0.29</b>	426.57	426.85
	<b>Net Qty = A - B</b>									
	<b>KGM23.14 TO KGM23.14.1</b>									
	CH0.00	598.117	597.300	597.200			0.917	0.784		
	CH2.00	598.250	597.700	597.600			0.650			



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**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Venture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 **Date** 01.07.2014

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Dnyaynagar 400mm RCC 250 DWC -MB

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EXL							
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in (a) For Lift 0 to 1.5m	1			0.67	0.750	0.300	0.151	197.297	197.448	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete. (a) For Lift 0 to 1.5m	1			0.67	0.750	0.300	0.151	197.448	197.599	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete. (a) For Lift 0 to 1.5m	1			0.67	0.750	0.184	0.092	152.731	152.824	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.17	0.750	0.100	0.088	54.613	54.701	
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							0.145	108.482	108.627	
	<b>Item No. 13 :-</b> (c) Lowering & Laying of Polyethylene DWC pipe of 250mm Dia	1			1.4			1.400	9.050	10.450	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							0.394			
	<b>Deduction of 250mm dia pipe pipe area</b>	1.00		0.785	1.17	0.250	0.250	0.06			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							0.09			
								0.15			
								0.25	426.85	427.10	
	<b>Item No :35</b> Shifting of Existing Utilities Length considered up to 400mm including all and as directed by Engineer in-Charge				0.01					0.01	



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## Measurement Book

**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport), Providing, lowering, laying jointing and testing rising main GRP/DI pipe line from Golwadi SPS to Nakshtrawadi (Kanchanwadi) STP and Ward No.98 to STP for Aurangabad City.

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**Name of Agency:-** M/s Khilari Infrastructure Pvt.Ltd. & GECPL (Joint Vencture)

**Authority No.** AMC/Ward B&C/UIDSSMT/2014/184 Date 01.07.2014

2 Dnyaynagar 400mm RCC. 300mm-MB

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	<b>KGM23.8 TO KGM23.8.2</b>										
	<b>CH0.00</b>	593.537	592.900	592.800			0.737	0.819			
	<b>CH5.00</b>	593.800	593.000	592.900			0.900				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.67	0.815	0.140	0.305	197.638	197.943 ✓	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.67	0.815	0.300	0.653	103.174	103.827 ✓	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			2.67	0.815	0.279	0.607	153.164	153.771 ✓	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.47	0.815	0.100	0.283	54.878	55.161 ✓	
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							0.553	108.973	109.526 ✓	
	<b>Item No. 13 :-</b> (d)Lowering & Laying of Polyethylene DWC pipe of 315mm Dia	1			3.95			3.950	2.400	6.350 ✓	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=-</b>							1.565			
	<b>Deduction of 315mm dia pipe</b>										
	pipe area	1.00		0.785	3.47	0.315	0.315	0.27			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							0.28			
								0.55			
								1.01	427.46	428.48 ✓	
	<b>Net Qty = A - B</b>										
	<b>Item No -35</b> Shifting of Existing Utilities length considerd up to 400mm including all and as directed by Engineer in-Charge				0.069			0.069	0.01	0.08 ✓	



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**9th-R A BILL MEASURMENTS DWC PIPE " DNYAYNAGAR TO PUNDLIK CHOWK"**

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	<b>DWC - 200mm Dia</b>										
	Width of Trench - For Lift 0 to 1.50m- 0.200+0.5=0.700m										
	For Lift 1.5 to 3.00m- 0.200+0.5+0.4=1.100m										
	For Lift 3.0 to 4.5m- 0.200+0.5+0.4+0.4=1.500m										
	<b>KGM23.11 TO KGM23.11.1</b>										
	CH0.00	595.537	594.600	594.500			1.037	0.919			
	CH18.50	595.700	595.000	594.900			0.800				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.49	0.700	0.480	5.541	197.943	203.484	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.49	0.700	0.339	3.913	103.827	107.740	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			16.49	0.700	0.100	1.154	153.771	154.925	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			16.99	0.700	0.100	1.189	55.161	56.350	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.723	109.526	111.249	
	Item No. 13 :- (b)Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			17.45			17.450	0.000	17.450	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							10.608			
	<b>Deduction of 200mm dia pipe</b>										
	pipe area	1.00		0.785	16.99	0.200	0.200	0.53			
	soling							0.00			
	PCC							0.00			
	Murrum bedding							1.19			
								1.72			
								8.89	428.48	437.36	
	<b>Net Qty = A - B</b>										
	<b>KGM23.12 TO KGM23.12.2</b>										
	CH0.00	596.357	595.500	595.400			0.957	0.703			
	CH2.00	596.550	596.200	596.100			0.450				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Gohwadi, Zalta Ward

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Dnyaynagar 400mm RCC, 200mm-MB

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		GL	No IL	EXL	L	B		D	Page		Quantity
	(a) For Lift 0 to 1.5m	1			0.67	0.700	0.530	0.249		203.484	203.732
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.67	0.700	0.073	0.034		107.740	107.774
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.67	0.700	0.100	0.047		154.925	154.972
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			1.17	0.700	0.100	0.082		56.350	56.432
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.119		111.249	111.368
	Item No. 13 :- (b)Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			1.40			1.400		17.450	18.850
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>0.330</b>			
	<b>Deduction of 200mm dia pipe</b>										
	pipe area	1.00		0.785	1.17	0.200	0.200	0.04			
	soiling							0.00			
	PCC							0.00			
	Murrum bedding							0.08			
								0.12			
								<b>Net Qty = A - B</b>			
								<b>0.21</b>		<b>437.36</b>	<b>437.57</b>
	<b>KGM23.13 TO KGM23.13.1</b>										
	CH0.00	597.047	596.200	596.100			0.947				
	CH2.10	597.300	596.700	596.600			0.700	0.823			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.77	0.700	0.630	0.340		203.732	204.072
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.77	0.700	0.093	0.050		107.774	107.824
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.77	0.700	0.100	0.054		154.972	155.026
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			1.27	0.700	0.100	0.089		56.432	56.521
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.129		111.368	111.496
	Item No. 13 :- (b)Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			1.5			1.500		18.850	20.350



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**Name of work:-** Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main

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Dnyaynagar 400mm RCC, 200mm-MB

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		No			L	B		D	Page		Quantity
		GL	IL	EX.L							
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>						0.444				
	<b>Deduction of 200mm dia pipe</b>										
	pipe area	1.00		0.785	1.27	0.200	0.200	0.04			
	soling							0.00			
	PCC							0.00			
	Murum bedding							0.09			
								0.13			
		<b>Net Qty = A - B</b>						0.31	437.57	437.89	
	<b>KGM23.13 TO KGM23.13.2</b>										
	CH0.00	597.047	596.230	596.130			0.917	0.834			
	CH2.30	597.400	596.750	596.650			0.750				
	<b>Item No. 1 :-</b> Excavation for										
	(a) For Lift 0 to 1.5m	1			0.97	0.700	0.630	0.428	204.072	204.499	
	(b) For Lift 1.5 to 3m	1			0.97	0.700	0.000	0.000	1.109	1.109	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in										
	(a) For Lift 0 to 1.5m	1			0.97	0.700	0.104	0.071	107.824	107.895	
	(b) For Lift 1.5 to 3m	1			0.97	0.700	0.000	0.000	1.495	1.495	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in										
	(a) For Lift 0 to 1.5m	1			0.97	0.700	0.100	0.068	155.026	155.094	
	(b) For Lift 1.5 to 3m	1			0.97	0.700	0.000	0.000	56.785	56.785	
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(a) For Lift 0m to 1.5m	1			0.97	0.700	0.000	0.000	5.893	5.893	
	(b) For Lift 1.5m to 3.0m	1			0.97	0.700	0.000	0.000	17.179	17.179	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc	1			1.47	0.700	0.100	0.103	56.521	56.624	
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							0.149	111.496	111.645	
	<b>Item No. 13 :-</b> (b) Lowering & Laying of Polyethylene DWC pipe of 200mm Dia	1			1.70			1.700	20.350	22.050	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							0.566			
	<b>Deduction of 200mm dia pipe</b>										
	pipe area	1.00		0.785	1.47	0.200	0.200	0.05			
	soling							0.00			
	PCC							0.00			
	Murum bedding							0.10			
								0.15			
		<b>Net Qty = A - B</b>						0.42	437.89	438.30	
	<b>Item No :35</b> Shifting of Existing Utilities Length considered up to 400mm including all and as directed by Engineer in-Charge				0.024				0.082	0.106	



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Name of work:- Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Ali. Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshtrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport). Construction, Erection, Testing and Commission

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1 Dnyaynagar 400mm RCC. 0.9m, 1.2m MH Excavation

**9<sup>th</sup> RA BILL MEASURMENTS (Excavation of Manhole)**

**BRANCH SEWER AT " DNYAYNAGAR TO PUNDLIK CHOWK "**

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	<b>Excavation of Chamber - For 0.9 mt dia chamber up to Depth of 1.5 mt. 0.9+0.5+0.3+0.3=2.0m</b>										
	Area for chamber up to Depth of 1.5m = 2 * 2 = 4m										
	<b>KGM23.1</b>										
	<b>CH10.90</b>	592.152	590.882	590.632			1.520				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.190	3.737	0.000	3.737	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.310	0.973	0.000	0.973	
	(b) For Lift 1.5 to 3.0m	1			0.785	4.000	0.020	0.063	0.000	0.063	
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							1.819	0.000	1.819	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							4.773			
	<b>Deduction</b>										
	Brick work	1.00		0.785	1.16	1.16	1.270	1.34			
	PCC	1.00		0.785	1.56	1.56	0.25	0.48			
	Soling							0.00			
								1.82			
	<b>Net Qty = A - B</b>							2.954	0.000	2.954	
	<b>KGM23.2</b>										
	<b>CH31.80</b>	592.262	590.982	590.732			1.530				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.115	3.501	3.737	7.238	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.385	1.209	0.973	2.182	
	(b) For Lift 1.5 to 3.0m	1			0.785	4.000	0.030	0.094	0.063	0.157	
	<b>Item No. : 11</b> Transportation of earth Transportation charges including loading & unloading							1.830	1.819	3.649	
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							4.804			
	<b>Deduction</b>										
	Brick work	1.00		0.785	1.16	1.16	1.280	1.35			
	PCC	1.00		0.785	1.56	1.56	0.25	0.48			
	Soling							0.00			
								1.83			
	<b>Net Qty = A - B</b>							2.975	2.954	5.928	
	<b>KGM23.3</b>										
	<b>CH47.80</b>	592.542	591.062	590.812			1.730				
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										



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**Summary of Bill of Materials**

Date	Particulars of work	UNITED					Quantity	Last Measurement		Total Upto Date Quantity
		QTY	QTY	QTY	QTY	QTY		Page	Quantity	
	<b>Item No. 4</b> - Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.140	0.629	1413	2.041
	<b>Item No. 11</b> Transportation of earth Transportation charges including loading & unloading						1.277		7.456	9.233
	<b>Item No. 30</b> - Refilling the excavated trenches ...									
	<b>Total Excavation(A)=</b>						4.947			
	<b>Deduction</b>									
	Brick work	1.00			0.785	1.16	1.16	1.230	1.30	
	PCC	1.00			0.785	1.56	1.56	0.25	0.48	
	Soling							0.00		
								1.78		
	<b>Net Qty = A - B</b>						2.870		12.169	15.039
	<b>KGM23.8.2</b>									
	<b>CH85.00</b>	593.800	593.000	592.750			1.050			
	<b>Item No. 1</b> :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.140	0.440	16.658	17.097
	<b>Item No. 2</b> :- Excavation for foundation/pipe trenches in Hard murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.300	0.942	4.694	5.636
	<b>Item No. 4</b> :- Excavation for foundation/pipe trenches in soft rock etc complete.									
	(a) For Lift 0 to 1.5m	1			0.785	4.000	0.610	1.915	2.041	3.956
	<b>Item No. 11</b> Transportation of earth Transportation charges including loading & unloading						1.323		9.233	10.555
	<b>Item No. 30</b> :- Refilling the excavated trenches ...									
	<b>Total Excavation(A)=</b>						3.297			
	<b>Deduction</b>									
	Brick work	1.00			0.785	1.16	1.16	0.800	0.85	
	PCC	1.00			0.785	1.56	1.56	0.25	0.48	
	Soling							0.00		
								1.32		
	<b>Net Qty = A - B</b>						1.974		15.039	17.014
	<b>Excavation of Chamber - For 1.20m dia Manhole (upto a depth of 2.0m)-</b> 1.20+0.23+0.23+0.5+0.5=2.66m									
	Area for Manhole=2.66*2.66=7.0756m									
	<b>KGM23.6</b>									
	<b>CH85.85</b>	592.702	591.512	591.262			1.440			
	<b>Item No. 1</b> :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			0.785	7.076	1.040	5.777	17.097	22.874
	<b>Item No. 2</b> :- Excavation for foundation/pipe trenches in Hard murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			0.785	7.076	0.200	1.111	5.636	6.747



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