



# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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.

Book No. :-

Page No. :- **051**

**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

Jyoti Nagar BBM 1.5m MH

Page 6 of 6

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		G/I	No		L	B	D		Page	Quantity	
			IL	EX.L							
	<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	10.240	1.300	10.450		110.930	121.380
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.310	2.492		46.703	49.195
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.010	0.080		31.157	31.237
	<b>Item No. : 11</b> Transportation of earth Transportation charges							5.494		65.054	70.548
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>14.630</b>			
	<b>Deduction</b>										
	Brick work	1		0.785	2.280	2.280	0.570	2.326			
		1		0.785	1.540	1.540	1.000	1.862			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								5.494			
	<b>Net Qty = A - B</b>							<b>9.136</b>		<b>133.382</b>	<b>142.518</b>
	<b>JN 19</b>										
	<b>CH602.05</b>	576.139	574.599	574.349				1.790			
	<b>Item No. 3 :-</b> Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	10.240	0.200	1.608		11.254	12.861
	<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	10.240	1.300	10.450		121.380	131.830
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.000	0.000		49.195	49.195
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			0.785	10.240	0.290	2.331		31.237	33.568
	<b>Item No. : 11</b> Transportation of earth Transportation charges							5.372		70.548	75.920
	<b>Item No. 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>14.389</b>			
	<b>Deduction</b>										
	Brick work	1		0.785	2.280	2.280	0.540	2.204			
		1		0.785	1.540	1.540	1.000	1.862			
	PCC	1		0.785	2.580	2.580	0.250	1.306			
	Soling	1		0.785	2.580	2.580	0.000	0.000			
								5.372			
	<b>Net Qty = A - B</b>							<b>9.017</b>		<b>142.518</b>	<b>151.535</b>



*Jyoti*  
Sec-Eng





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Book No. :-

052

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

Page 1 of 1

Jyoti Nagar MANHOLE

### 11th R A BILL MEASUREMENTS SEWER AT JOYTI NAGAR

Item No. : 23 Providing and constructing on sewer.BBM manhole 1.5 m dia at bottom and 0.5 m dia at top and up to a depth of 2 to 5.0 M

Sr.No.	Chainage	MH No	MTL	IL	Depth	Depth Difference than 5 m	Total Difference	Rebate/Add for Excess height (per 50 cm)
1	CH 119.60	JN 05	571.554	568.554	3.000	-2.000	-28.022	-56.044
2	CH 191.55	JN 06	572.350	568.750	3.600	-1.400		
3	CH 215.35	JN 09	572.550	569.150	3.400	-1.600		
4	CH 252.85	JN 10	572.375	569.575	2.800	-2.200		
5	CH 279.15	JN 11	572.575	569.775	2.800	-2.200		
6	CH 320.45	JN 12	573.630	570.430	3.200	-1.800		
7	CH 384.70	JN 14	573.876	571.776	2.100	-2.900		
8	CH 421.00	JN 15	574.206	571.926	2.280	-2.720		
9	CH 482.30	JN 16	575.261	572.961	2.300	-2.700		
10	CH 563.60	JN 17	575.831	573.581	2.250	-2.750		
11	CH 583.40	JN 18	576.457	574.269	2.188	-2.812		
12	CH 602.05	JN 19	576.659	574.599	2.060	-2.940		
							Total	-56.044



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Book No. :-

Page No. :- **053**

Page 1 of 2

Jyoti Nagar-Dewatering

11th R A BILL MEASUREMENTS							
SEWER AT JOYTI NAGAR - Dewatering							
Sr.No.	Date	Pump Capacity in Hp	No. of Pumps	Time		Total Hrs	Bhp/Hr
				From	To		
1	18/04/2017	15	1	9:30	10:30	1:00	15:00:00
		15	1	14:00	16:00	2:00	30:00:00
2	19/04/2017	15	1	9:00	9:30	0:30	7:30:00
		15	1	10:00	10:30	0:30	7:30:00
3	20/04/2016	15	1	14:00	15:30	1:30	22:30:00
		15	1	8:00	9:00	1:00	15:00:00
		15	1	12:00	13:00	1:00	15:00:00
4	21/04/2016	15	1	14:00	16:00	2:00	30:00:00
		15	1	8:10	9:00	0:50	12:30:00
5	22/04/2016	15	1	12:00	15:00	3:00	45:00:00
		15	1	7:30	8:00	0:30	7:30:00
		15	1	9:00	11:00	2:00	30:00:00
6	23/04/2016	15	1	14:00	15:30	1:30	22:30:00
		15	1	16:00	16:30	0:30	7:30:00
		15	1	7:00	9:00	2:00	30:00:00
7	25/04/2017	15	1	10:00	10:30	0:30	7:30:00
		15	1	13:00	14:00	1:00	15:00:00
		15	1	10:00	11:30	1:30	22:30:00
8	26/04/2016	15	1	14:00	15:00	1:00	15:00:00
		15	1	16:00	17:00	1:00	15:00:00
		15	1	8:00	10:00	2:00	30:00:00
9	27/04/2016	15	1	14:00	16:00	2:00	30:00:00
		15	1	7:30	8:30	1:00	15:00:00
		15	1	9:00	9:30	0:30	7:30:00
10	28/04/2016	15	1	14:00	14:30	0:30	7:30:00
		15	1	15:00	16:00	1:00	15:00:00
		15	1	7:00	9:00	2:00	30:00:00
11	29/04/2016	15	1	15:00	17:00	2:00	30:00:00
		15	1	7:30	9:00	1:30	22:30:00
		15	1	10:00	11:00	1:00	15:00:00
12	30/04/2016	15	1	14:00	16:00	2:00	30:00:00
		15	1	7:30	9:00	1:30	22:30:00
		15	1	10:00	11:00	1:00	15:00:00
13	05/02/2016	15	1	15:00	17:30	2:30	37:30:00
		15	1	8:00	9:00	1:00	15:00:00
		15	1	10:00	11:00	1:00	15:00:00



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Book No. :-

Page No. :-

054

Page 2 of 2

Jyoti Nagar-Dewatering

Sr.No.	Date	Pump Capacity in Hp	No.of Pumps	Time		Total Hrs	Bhp/Hr
				From	To		
		15	1	15:00	17:30	2:30	37:30:00
14	05/03/2016	15	1	8:00	11:00	3:00	45:00:00
		15	1	14:00	14:30	0:30	7:30:00
15	05/04/2016	15	1	7:30	8:00	0:30	7:30:00
		15	1	9:00	10:00	1:00	15:00:00
		15	1	14:00	15:00	1:00	15:00:00
		15	1	16:00	17:00	1:00	15:00:00
16	05/05/2016	15	1	8:20	10:00	1:40	25:00:00
		15	1	15:00	17:00	2:00	30:00:00
17	05/06/2016	15	1	7:00	8:30	1:30	22:30:00
		15	1	14:00	15:30	1:30	22:30:00
		15	1	16:00	17:30	1:30	22:30:00
18	05/07/2016	15	1	7:45	9:00	1:15	18:45:00
		15	1	11:00	13:00	2:00	30:00:00
		15	1	16:00	17:00	1:00	15:00:00
19	05/09/2016	15	1	7:00	9:00	2:00	30:00:00
		15	1	10:00	11:00	1:00	15:00:00
		15	1	17:00	17:30	0:30	7:30:00
20	05/10/2016	15	1	7:00	8:00	1:00	15:00:00
		15	1	10:00	11:00	1:00	15:00:00
		15	1	15:00	17:00	2:00	30:00:00
21	05/12/2016	15	1	8:00	9:00	1:00	15:00:00
		15	1	10:00	11:00	1:00	15:00:00
		15	1	15:00	17:30	2:30	37:30:00
22	13/5/2016	15	1	8:00	11:00	3:00	45:00:00
		15	1	14:00	14:30	0:30	7:30:00
23	14/5/2016	15	1	7:30	8:00	0:30	7:30:00
		15	1	9:00	10:00	1:00	15:00:00
		15	1	14:00	15:00	1:00	15:00:00
24	16/5/2016	15	1	8:00	10:00	2:00	30:00:00
		15	1	15:00	17:00	2:00	30:00:00
25	17/5/2016	15	1	7:00	8:30	1:30	22:30:00
		15	1	11:00	12:30	1:30	22:30:00
<b>Total</b>						<b>76:45:00</b>	<b>1413:45:00</b>
							<b>1413.750</b>



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Book No.

Page No. :-

055

Name of Authority

Date of Measurement

1

Jyoti Nagar Quantity Node Abstract

### 10th R A BILL MEASUREMENTS

Branch Sewer - Jyoti Nagar

SR NO	Description	MB/PG	ITEM 1		ITEM 2	ITEM 3		ITEM 7	ITEM 10	ITEM 11	ITEM 17 400mm	ITEM 23		ITEM 30
			0-1.5	1.5-3.0		0-1.5	1.5-3.0					2-5 m	Rebate	
1	For Pipe		401.496	52.194	14.896	133.361	19.088	43.548	1,413.750	86.636	190.000			534.40
2	For Manhole		131.830	49.195	-	33.568	12.861			75.920		12.00	(56.044)	151.535
	<b>Total</b>		<b>533.326</b>	<b>101.389</b>	<b>14.896</b>	<b>166.930</b>	<b>31.949</b>	<b>43.548</b>	<b>1413.750</b>	<b>162.555</b>	<b>190.000</b>	<b>12.000</b>	<b>-56.044</b>	<b>685.935</b>

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Book No. :- **056**  
Page No. :-

1 of 6

Balaji Nagar-08 Near Vijay Computers - SW Pipe

### 19th R A BILL MEASUREMENTS PIPE BALAJI NAGAR-08 Near Vijay Computers

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>SW PIPE - 200 mm Dia</b>										
	Width of Trench - For Lift 0 to 1.50m- 0.200+0.02+0.02+0.5=0.74m										
	For Lift 1.5 to 3.00m- 0.200+0.02+0.02+0.5+0.4=1.14 m										
	For Lift 3.0 to 4.5m- 0.200+0.5+0.02+0.02+0.4+0.4= 1.54m										
24/11/16	<b>BNR 4 to BNR 4.1 L</b>										
	CH0.00	582.320	581.100	581.000							
	CH5.40	582.830	581.595	581.495			1.320				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.						1.335				
	(a) For Lift 0 to 1.5m	1			3.550	0.740	1.328	3.487	0.000	3.487	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.850	0.740	0.100	0.285	0.000	0.285	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.431	0.000	0.431	
	Extra Item 9.2 (c) :-Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			4.350			4.350		4.350	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							3.487			
	Deduction										
	pipe area	1		0.785	3.850	0.220	0.220	0.146			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.285			
								0.431			
								<b>Net Qty = A - B</b>			
25/11/16	<b>BNR 4.1L to BNR 4.2L</b>							3.056	0.000	3.056	
	CH5.40	582.830	581.595	581.495							
	CH10.30	582.860	581.770	581.670			1.335				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.						1.190				
	(a) For Lift 0 to 1.5m	1			2.900	0.740	1.263	2.709	3.487	6.197	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.500	0.740	0.100	0.259	0.285	0.544	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.392	0.431	0.823	



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Book No. :- **057**  
Page No. :-

2 of 6

Balaji Nagar-08 Near Vijay Computers - SW Pipe

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Extra Item 9.2 (c) :- Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			4.000			4.000		4.350	8.350
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							2.709			
	<b>Deduction</b>										
	pipe area	1		0.785	3.500	0.220	0.220	0.133			
	soling							0.000			
	PCC							0.000			
	Murram bedding							0.259			
								0.392			
								<b>2.317</b>		<b>3.056</b>	<b>5.374</b>
	<b>Net Qty = A - B</b>										
	<b>25/06 BNR 4.2L to BNR 4.3L</b>										
	CH10.30	582.860	581.770	581.670				1.190			
	CH14.80	582.730	581.780	581.680				1.050			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			2.500	0.740	1.120	2.072		6.197	8.269
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.100	0.740	0.100	0.229		0.544	0.773
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.347		0.823	1.170
	Extra Item 9.2 (c) :- Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			3.600			3.600		8.350	11.950
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							2.072			
	<b>Deduction</b>										
	pipe area	1		0.785	3.100	0.220	0.220	0.118			
	soling							0.000			
	PCC							0.000			
	Murram bedding							0.229			
								0.347			
								<b>1.725</b>		<b>5.374</b>	<b>7.098</b>
	<b>Net Qty = A - B</b>										
	<b>26/06 BNR 4.3L to BNR 4.4L</b>										
	CH14.80	582.730	581.780	581.680				1.050			
	CH23.60	582.800	581.930	581.830				0.970			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			6.800	0.740	1.010	5.082		8.269	13.351
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			7.400	0.740	0.100	0.548		0.773	1.321



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Book No. :- **053**  
Page No. :-

3 of 6

Balaji Nagar-08 Near Vijay Computers - SW Pipe

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.829		1.170	1.999
	Extra Item 9.2 (c) :-Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			7.900			7.900		11.950	19.850
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							5.082			
	<b>Deduction</b>										
	pipe area	1		0.785	7.400	0.220	0.220	0.281			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.548			
								0.829			
								<b>Net Qty = A - B</b>		7.098	11.352
28/6/16	<b>BNR 0 to BNR 4.1R</b>							4.254		7.098	11.352
	CH0.00	582.320	581.100	581.000			1.320				
	CH9.20	582.170	581.530	581.430			0.740	1.030			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc										
	(a) For Lift 0 to 1.5m	1			7.450	0.740	0.880	4.851		13.351	18.202
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			7.450	0.740	0.150	0.827		0.000	0.827
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			7.750	0.740	0.100	0.574		1.321	1.894
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.868		1.999	2.867
	Extra Item 9.2 (c) :-Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			8.250			8.250		19.850	28.100
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							5.678			
	<b>Deduction</b>										
	pipe area	1		0.785	7.750	0.220	0.220	0.294			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.574			
								0.868			
								<b>Net Qty = A - B</b>		11.352	16.162
17/16	<b>BNR 4.1R to BNR 4.2R</b>							4.810		11.352	16.162
	CH9.20	582.170	581.530	581.430			0.740				
	CH17.30	583.025	581.960	581.860			1.165	0.952			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc										
	(a) For Lift 0 to 1.5m	1			6.300	0.740	0.952	4.441		18.202	22.643



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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 Nakshrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banowadi, Siddharth Garden, Padegaon, Golwadi, Zalta, Ward

Book No. :-  
Page No. :- **059**

Balaji Nagar-08 Near Vijay Computers - SW Pipe

4 of 6

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding) "	1			6.900	0.740	0.100	0.511		1.894	2.405
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.773		2.867	3.640
	Extra Item 9.2 (c) :-Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			7.400			7.400		28.100	35.500
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>4.441</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	6.900	0.220	0.220	0.262			
	soling							0.000			
	PCC							0.000			
	Murram bedding							0.511			
								0.773			
								<b>3.668</b>		<b>16.162</b>	<b>19.830</b>
	<b>Net Qty = A - B</b>										
17/16	<b>BNR 4.2R to BNR 4.3R</b>										
	CH17.30	583.025	581.960	581.860				1.165			
	CH21.40	583.170	581.985	581.885				1.285			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			2.300	0.740	1.225	2.085		22.643	24.728
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			2.900	0.740	0.100	0.215		2.405	2.620
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.325		3.640	3.965
	Extra Item 9.2 (c) :-Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			3.400			3.400		35.500	38.900
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>2.085</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	2.900	0.220	0.220	0.110			
	soling							0.000			
	PCC							0.000			
	Murram bedding							0.215			
								0.325			
								<b>1.760</b>		<b>19.830</b>	<b>21.590</b>
	<b>Net Qty = A - B</b>										
21/16	<b>BNR 4.3R to BNR 4.4R</b>										
	CH21.40	583.170	581.985	581.885				1.285			
	CH26.00	583.050	582.090	581.990				1.060			
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			2.800	0.740	1.172	2.429		24.728	27.157



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

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Book No. :-

063

Page No. :-

5 of 6

Balaji Nagar-08 Near Vijay Computers - SW Pipe

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			3.400	0.740	0.100	0.252		2.620	2.871
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.381		3.965	4.345
	Extra Item 9.2 (c) :-Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			3.900			3.900		38.900	42.800
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							2.429			
	<b>Deduction</b>										
	pipe area	1		0.785	3.400	0.220	0.220	0.129			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.252			
								0.381			
								<b>Net Qty = A - B</b>		21.590	23.639
27/10	<b>BNR 4.4R to BNR 4.5R</b>										
	CH26.00	583.050	582.090	581.990			1.060	0.935			
	CH34.50	582.800	582.090	581.990			0.810				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			6.700	0.740	0.935	4.636		27.157	31.793
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			7.300	0.740	0.100	0.540		2.871	3.411
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							0.818		4.345	5.163
	Extra Item 9.2 (c) :-Lowering & Laying of Polyethylene SW pipe of 200mm Dia	1			7.800			7.800		42.800	50.600
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							4.636			
	<b>Deduction</b>										
	pipe area	1		0.785	7.300	0.220	0.220	0.277			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							0.540			
								0.818			
								<b>Net Qty = A - B</b>		23.639	27.457
31/10	<b>BNR 4.5R to BNR 4.6R</b>										
	CH34.50	582.800	582.090	581.990			0.810	0.780			
	CH39.90	582.740	582.090	581.990			0.750				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc										
	(a) For Lift 0 to 1.5m	1			3.600	0.740	0.780	2.078		31.793	33.871



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(From No.52)

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Book No. :- 062  
Page No. :-

1 of 5

Balaji Nagar-08 Near Vijay Computers - Meas.Chamber

### 12th R A BILL MEASUREMENTS OF CHAMBERS BALAJI NAGAR-08 Near Vijay Computers

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No IL	EX.L	L	B		D	Page	
	Excavation of Chamber - For 0.9 dia chamber up to 1.5 mt depth - 0.9+0.5+0.3+0.3=2m									
	Bredth for chamber up to 1.5m=2 X 2=4m									
	<b>BNR 4.1L</b>									
	<b>CH5.40</b>	582.830	581.595	581.345			1.485			
	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	1.485	4.663	0.000	4.663
	Item No. : 11 Transportation of earth Transportation charges							1.898	0.000	1.898
	Item No. 30 :- Refilling the excavated trenches ...									
	<b>Total Excavation(A)=</b>							<b>4.663</b>		
	<b>Deduction</b>									
	Brick work	1		0.785	1.200	1.200	1.235	1.396		
	soling							0.000		
	PCC	1		0.785	1.600	1.600	0.250	0.502		
	Murrum bedding							0.000		
	<b>Total (B)</b>							<b>1.898</b>		
	<b>Net Qty = A - B</b>							<b>2.764</b>	<b>0.000</b>	<b>2.764</b>
	<b>BNR 4.2L</b>									
	<b>CH10.30</b>	582.860	581.770	581.520			1.340			
	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	1.340	4.208	4.663	8.871
	Item No. : 11 Transportation of earth Transportation charges							1.735	1.898	3.633
	Item No. 30 :- Refilling the excavated trenches ...									
	<b>Total Excavation(A)=</b>							<b>4.208</b>		
	<b>Deduction</b>									
	Brick work	1		0.785	1.200	1.200	1.090	1.232		
	soling							0.000		
	PCC	1		0.785	1.600	1.600	0.250	0.502		
	Murrum bedding							0.000		
	<b>Total (B)</b>							<b>1.735</b>		
	<b>Net Qty = A - B</b>							<b>2.473</b>	<b>2.764</b>	<b>5.238</b>
	<b>BNR 4.3L</b>									
	<b>CH14.80</b>	582.730	581.780	581.530			1.200			
	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	1.200	3.768	8.871	12.639



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

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Book No. :-

Page No. :-

063

2 of 5

Balaji Nagar-08 Near Vijay Computers - Meas.Chamber

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. : 11 Transportation of earth Transportation charges							1576		3.633	5.209
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							<b>3.768</b>			
	<b>Deduction</b>										
	Brick work	1		0.785	1.200	1.200	0.950	1.074			
	soling							0.000			
	PCC	1		0.785	1.600	1.600	0.250	0.502			
	Murum bedding							0.000			
	<b>Total (B)</b>							<b>1.576</b>			
	<b>Net Qty = A - B</b>							<b>2.192</b>		<b>5.238</b>	<b>7.429</b>
	<b>BNR 4.4L</b>										
	CH23.60	582.800	581.930	581.680			1.120				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	4.000	1.120	3.517		12.639	16.155
	Item No. : 11 Transportation of earth Transportation charges							1.486		5.209	6.695
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							<b>3.517</b>			
	<b>Deduction</b>										
	Brick work	1		0.785	1.200	1.200	0.870	0.983			
	soling							0.000			
	PCC	1		0.785	1.600	1.600	0.250	0.502			
	Murum bedding							0.000			
	<b>Total (B)</b>							<b>1.486</b>			
	<b>Net Qty = A - B</b>							<b>2.031</b>		<b>7.429</b>	<b>9.460</b>
	Excavation of Chamber - For 0.7 dia chamber up to 1.5 mt depth - 0.7+0.5+0.3+0.3=2m										
	Bredth for chamber up to 1.5m=1.8 X 1.8=3.24m										
	<b>BNR 4.1R</b>										
	CH9.20	582.170	581.530	581.280			0.890				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	3.240	0.740	1.882		16.155	18.037
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	3.240	0.150	0.382		0.000	0.382
	Item No. : 11 Transportation of earth Transportation charges							0.993		6.695	7.688
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							<b>2.264</b>			
	<b>Deduction</b>										
	Brick work	1		0.785	1.100	1.100	0.640	0.608			



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Book No. :-  
Page No. :-

064

3 of 5

Balaji Nagar-08 Near Vijay Computers - Meas.Chamber

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	soling										
	PCC	1					0.000				
	Murum bedding			0.785	1.400	1.400	0.250	0.385			
	<b>Total (B)</b>							0.000			
								0.993			
	<b>BNR 4.2R</b>	<b>Net Qty = A - B</b>								9.460	10.731
	CH17.30	583.025	581.960	581.710							
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.						1.315				
	(a) For Lift 0 to 1.5m	1			0.785	3.240	1.315	3.345	18.037	21.382	
	Item No. : 11 Transportation of earth Transportation charges							1.396	7.688	9.084	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							3.345			
	<b>Deduction</b>										
	Brick work	1									
	soling			0.785	1.100	1.100	1.065	1.012			
	PCC	1						0.000			
	Murum bedding			0.785	1.400	1.400	0.250	0.385			
	<b>Total (B)</b>							0.000			
								1.396			
	<b>BNR 4.3R</b>	<b>Net Qty = A - B</b>								10.731	12.680
	CH21.40	583.170	581.985	581.735							
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.						1.435				
	(a) For Lift 0 to 1.5m	1			0.785	3.240	1.435	3.650	21.382	25.032	
	Item No. : 11 Transportation of earth Transportation charges							1.510	9.084	10.594	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							3.650			
	<b>Deduction</b>										
	Brick work	1									
	soling			0.785	1.100	1.100	1.185	1.126			
	PCC	1						0.000			
	Murum bedding			0.785	1.400	1.400	0.250	0.385			
	<b>Total (B)</b>							0.000			
								1.510			
	<b>BNR 4.4R</b>	<b>Net Qty = A - B</b>								12.680	14.819
	CH26.00	583.050	582.090	581.840							
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murum etc complete.						1.210				
	(a) For Lift 0 to 1.5m	1			0.785	3.240	1.210	3.078	25.032	28.109	
	Item No. : 11 Transportation of earth Transportation charges							1.297	10.594	11.891	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							3.078			



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Book No. :-

Page No. :- **065**

Balaji Nagar-08 Near Vijay Computers - Meas.Chamber

4 of 5

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity	
		GL	No		L	B		D	Page		Quantity
			IL	EX.L							
	<b>Deduction</b>										
	Brick work	1		0.785	1.100	1.100	0.960			0.912	
	soling									0.000	
	PCC	1		0.785	1.400	1.400	0.250			0.385	
	Murrum bedding									0.000	
	<b>Total (B)</b>									<b>1.297</b>	
		<b>Net Qty = A - B</b>									<b>1.781</b>
	<b>BNR 4.5R</b>										
	CH34.50	582.800	582.090	581.840			0.960				
	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	3.240	0.960			2.442	
	Item No. : 11 Transportation of earth Transportation charges									1.059	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>									<b>2.442</b>	
	<b>Deduction</b>										
	Brick work	1		0.785	1.100	1.100	0.710			0.674	
	soling									0.000	
	PCC	1		0.785	1.400	1.400	0.250			0.385	
	Murrum bedding									0.000	
	<b>Total (B)</b>									<b>1.059</b>	
		<b>Net Qty = A - B</b>									<b>1.383</b>
	<b>BNR 4.6R</b>										
	CH39.90	582.740	582.090	581.840			0.900				
	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	3.240	0.900			2.289	
	Item No. : 11 Transportation of earth Transportation charges									1.002	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>									<b>2.289</b>	
	<b>Deduction</b>										
	Brick work	1		0.785	1.100	1.100	0.650			0.617	
	soling									0.000	
	PCC	1		0.785	1.400	1.400	0.250			0.385	
	Murrum bedding									0.000	
	<b>Total (B)</b>									<b>1.002</b>	
		<b>Net Qty = A - B</b>									<b>1.287</b>
	<b>BNR 4.7R</b>										
	CH50.40	582.920	582.100	581.850			1.070				
	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	3.240	1.070			2.721	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			0.785	3.240	0.000			0.000	
										0.382	
										0.382	



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(From No.52)

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Book No. :-

Page No. :-

066

**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

5 of 5

Balaji Nagar-08 Near Vijay Computers - Meas.Chamber

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No		L	B	D		Page	Quantity	
			IL	EX.L							
	Item No. : 11 Transportation of earth Transportation charges							1.164		13.952	15.115
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation(A)=</b>							<b>2.721</b>			
	<b>Deduction</b>										
	Brick work	1		0.785	1.100	1.100	0.820	0.779			
	soling							0.000			
	PCC	1		0.785	1.400	1.400	0.250	0.385			
	Murrum bedding							0.000			
	<b>Total (B)</b>							<b>1.164</b>			
				<b>Net Qty = A - B</b>				<b>1.558</b>		<b>19.270</b>	<b>20.828</b>



*Signature*

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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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.08 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main

Book No. :-

Page No. :-

067

Page 1 of 4

Balaji Nagar-08 Near Vijay ComputersBBM

### 14th R A BILL MEASUREMENTS OF BBM TRENCH BALAJI NAGAR-08 Near Vijay Computers

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity
		No		L	B	D		Page	Quantity	
		GL	IL							
A	Bricks Work for Manhole 0.7 M Dia									
	BNR 4.1R									
	CH9.20	582.170	581.530			0.640				
	Extra Item :4(a) - Construction of Brick work of 230mm thk. for manhole etc complete.									
		1		2.606	0.230	0.640	0.384	0.000	0.384	
	Extra Item :4(b) - 12mm thk. Internal Plaster for manhole etc complete.									
	(a) Wall	1		1.884		0.640	1.206	0.000	1.206	
	Extra Item :4(c) - 20mm thk. External Plaster for manhole etc complete.									
	(a) Wall	1		3.328		0.640	2.130	0.000	2.130	
	Extra Item :4(d) - Providing fine Cement finish 1.5mm thk. for manhole etc complete.									
	(a) For Internal Wall	1		1.884		0.640	1.206	0.000	1.206	
	Extra Item :4 (e) i- Providing and Fixing in position SFRC manhole cover with frame of circular manhole						1.000	0.000	1.000	
	Extra Item :5(b) - Providing and casting M15 Grade concrete									
		1	0.785	1.400	1.400	0.250	0.385	0.000	0.385	
	BNR 4.2R									
	CH17.30	583.025	581.960			1.065				
	Extra Item :4(a) - Construction of Brick work of 230mm thk. for manhole etc complete.									
		1		2.606	0.230	1.065	0.638	0.384	1.022	
	Extra Item :4(b) - 12mm thk. Internal Plaster for manhole etc complete.									
	(a) Wall	1		1.884		1.065	2.006	1.206	3.212	
	Extra Item :4(c) - 20mm thk. External Plaster for manhole etc complete.									
	(a) Wall	1		3.328		1.065	3.545	2.130	5.675	
	Extra Item :4(d) - Providing fine Cement finish 1.5mm thk. for manhole etc complete.									
	(a) For Internal Wall	1		1.884		1.065	2.006	1.206	3.212	
	Extra Item :4 (e) i- Providing and Fixing in position SFRC manhole cover with frame of circular manhole						1.000	1.000	2.000	



f





# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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 Nakhshrawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalta, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commissioning of Sewerage Treatment Plant at Nakhshrawadi, Zalta, Padegaon, CIDCO (Airport).

Book No. :- **063**  
Page No. :-

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity
		No		L	B	D		Page	Quantity	
		GL	IL							
	Extra Item :5(b) - Providing and casting M15 Grade concrete									
		1	0.785	1.400	1.400	0.250	0.385		0.385	0.769
	<b>BNR 4.3R</b>									
	<b>CH21.40</b>	583.170	581.985			1.185				
	Extra Item :4(a) - Construction of Brick work of 230mm thk. for manhole etc complete.									
		1		2.606	0.230	1.185	0.710		1.022	1.732
	Extra Item :4(b) - 12mm thk. Internal Plaster for manhole etc complete.									
	(a) Wall	1		1.884		1.185	2.233		3.212	5.445
	Extra Item :4(c) - 20mm thk. External Plaster for manhole etc complete.									
	(a) Wall	1		3.328		1.185	3.944		5.675	9.619
	Extra Item :4(d) - Providing fine Cement finish 1.5mm thk. for manhole etc complete.									
	(a) For Internal Wall	1		1.884		1.185	2.233		3.212	5.445
	Extra Item :4 (e) i- Providing and Fixing in position SFRC manhole cover with frame of circular manhole						1.000		2.000	3.000
	Extra Item :5(b) - Providing and casting M15 Grade concrete									
		1	0.785	1.400	1.400	0.250	0.385		0.769	1.154
	<b>BNR 4.4R</b>									
	<b>CH26.00</b>	583.050	582.090			0.960				
	Extra Item :4(a) - Construction of Brick work of 230mm thk. for manhole etc complete.									
		1		2.606	0.230	0.960	0.575		1.732	2.308
	Extra Item :4(b) - 12mm thk. Internal Plaster for manhole etc complete.									
	(a) Wall	1		1.884		0.960	1.809		5.445	7.253
	Extra Item :4(c) - 20mm thk. External Plaster for manhole etc complete.									
	(a) Wall	1		3.328		0.960	3.195		9.619	12.814
	Extra Item :4(d) - Providing fine Cement finish 1.5mm thk. for manhole etc complete.									
	(a) For Internal Wall	1		1.884		0.960	1.809		5.445	7.253
	Extra Item :4 (e) i- Providing and Fixing in position SFRC manhole cover with frame of circular manhole						1.000		3.000	4.000



J





# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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, CHDCO (Airport), Construction, Erection, Testing and Commissioning of Sewerage Stations at Banewadi, Siddharth Garden, Padegaon, Golundi, Zalta, Ward

Book No. :-

Page No. :- **069**

Page 3 of 4

Balaji Nagar-08 Near Vijay ComputersBBM

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity
		No		L	B	D		Page	Quantity	
		GL	IL							
	Extra Item :5(b) - Providing and casting M15 Grade concrete									
		1	0.785	1.400	1.400	0.250	0.385		1.154	1.539
	<b>BNR 4.5R</b>									
	CH34.50	582.800	582.090			0.710				
	Extra Item :4(a) - Construction of Brick work of 230mm thk. for manhole etc complete.									
		1		2.606	0.230	0.710	0.426		2.308	2.733
	Extra Item :4(b) - 12mm thk. Internal Plaster for manhole etc complete.									
	(a) Wall	1		1.884		0.710	1.338		7.253	8.591
	Extra Item :4(c) - 20mm thk. External Plaster for manhole etc complete.									
	(a) Wall	1		3.328		0.710	2.363		12.814	15.178
	Extra Item :4(d) - Providing fine Cement finish 1.5mm thk. for manhole etc complete.									
	(a) For Internal Wall	1		1.884		0.710	1.338		7.253	8.591
	Extra Item :4 (e) i- Providing and Fixing in position SFRC manhole cover with frame of circular manhole						1.000		4.000	5.000
	Extra Item :5(b) - Providing and casting M15 Grade concrete									
		1	0.785	1.400	1.400	0.250	0.385		1.539	1.923
	<b>BNR 4.6R</b>									
	CH39.90	582.740	582.090			0.650				
	Extra Item :4(a) - Construction of Brick work of 230mm thk. for manhole etc complete.									
		1		2.606	0.230	0.650	0.390		2.733	3.123
	Extra Item :4(b) - 12mm thk. Internal Plaster for manhole etc complete.									
	(a) Wall	1		1.884		0.650	1.225		8.591	9.816
	Extra Item :4(c) - 20mm thk. External Plaster for manhole etc complete.									
	(a) Wall	1		3.328		0.650	2.163		15.178	17.341
	Extra Item :4(d) - Providing fine Cement finish 1.5mm thk. for manhole etc complete.									
	(a) For Internal Wall	1		1.884		0.650	1.225		8.591	9.816
	Extra Item :4 (e) i- Providing and Fixing in position SFRC manhole cover with frame of circular manhole						1.000		5.000	6.000



J





# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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.

Book No. :- 073  
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

Page 4 of 4  
Balaji Nagar-08 Near Vijay ComputersBBM

Date	Particulars of work	DETAILS					Content of arrears	Last measurement		Total Upto Date Quantity
		No		L	B	D		Page	Quantity	
		GL	IL							
	Extra Item :5(b) - Providing and casting M15 Grade concrete									
	BNR 4.7R	1	0.785	1.400	1.400	0.250	0.385	1.923	2.308	
	CH50.40	582.920	582.100			0.820				
	Extra Item :4(a) - Construction of Brick work of 230mm thk. for manhole etc complete.									
		1		2.606	0.230	0.820	0.492	3.123	3.615	
	Extra Item :4(b) - 12mm thk. Internal Plaster for manhole etc complete.									
	(a) Wall	1		1.884		0.820	1.545	9.816	11.361	
	Extra Item :4(c) - 20mm thk. External Plaster for manhole etc complete.									
	(a) Wall	1		3.328		0.820	2.729	17.341	20.070	
	Extra Item :4(d) - Providing fine Cement finish 1.5mm thk. for manhole etc complete.									
	(a) For Internal Wall	1		1.884		0.820	1.545	9.816	11.361	
	Extra Item :4 (e) I- Providing and Fixing in position SFRC manhole cover with frame of circular manhole	1					1.000	6.000	7.000	
	Extra Item :5(b) - Providing and casting M15 Grade concrete									
		1	0.785	1.400	1.400	0.250	0.385	2.308	2.693	



*Sec. Eng*





# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

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Book No. :- **071**  
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

1 of 1

Balaji Nagar-08 Near Vijay Computers - Manhole Details

<b>12th RA BILL MEASUREMENTS</b>								
<b>Branch Sewer at BALAJI NAGAR-08 Near Vijay Computers</b>								
<b>Extra Item No. : 02</b> Providing and constructing on sewer BBM manhole 0.9 m dia at bottom and 0.5 m dia at top and up to a depth of 1.5 M								
Sr.No.	Chainage	MH.No	MTL	IL	Depth	Depth Difference than 1.5 m	Total Difference	Rebate/Add for Excess height (per 30 cm)
<b>For Reduce Rate</b>								
1	CH 5.40	BNR 4.1L	582.830	581.595	1.235	-0.265	-1.855	-6.183
2	CH 10.30	BNR 4.2L	582.860	581.770	1.090	-0.410		
3	CH 14.80	BNR 4.3L	582.730	581.780	0.950	-0.550		
4	CH 23.60	BNR 4.4L	582.800	581.930	0.870	-0.630		
<b>Total</b>								<b>-6.183</b>



*Ayan*  
Soc. Eng









# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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

Book No. :-  
Page No. : **073**

Page 1 of 11

Balaji Nagar Nathnagar-02Meas. SW

### 11th R A BILL MEASUREMENTS DWC PIPE BALAJI NAGAR NATHNAGAR-02

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>SW PIPE - 300 mm Dia</b>										
	Width of Trench - For Lift 0 to 1.50m- 0.300+0.02+0.02+0.5=0.840m										
	For Lift 1.5 to 3.00m- 0.300+0.02+0.02+0.5+0.4=1.240m										
	For Lift 3.0 to 4.5m- 0.300+0.5+0.02+0.02+0.4+0.4=1.640m										
	BNR 10 TO BNR 10.1	Branch From Balaji Nagar Manhole No. BNR 10 at CH 147.95									
	CH0.00	582.700	581.570	581.470			1.230	1.365			
	CH28.80	583.090	581.690	581.590			1.500				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			26.100	0.840	0.895	19.622	0.000	19.622	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete										
	(a) For Lift 0 to 1.5m	1			26.100	0.840	0.200	4.385	0.000	4.385	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			26.100	0.840	0.270	5.919	0.000	5.919	
	Item No. 7 :- Filling in pliffth and floors/ trenches etc complete.(bedding)	1			27.100	0.840	0.100	2.276	0.000	2.276	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							4.455	0.000	4.455	
	Extra Item no.9.2 (c) :- Lowering & Laying of SWG pipe of 300mm Dia	1			27.600			27.600	0.000	27.600	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>29.926</b>			
	<b>Deduction of 300mm dia pipe</b>										
	pipe area	1.00		0.785	27.100	0.320	0.320	2.178			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							2.276			
								4.455			
								<b>25.471</b>	<b>0.000</b>	<b>25.471</b>	
		<b>Net Qty = A - B</b>									
	BNR 10.1 TO BNR 10.2										
	CH28.80	583.090	581.690	581.590			1.500	1.645			
	CH42.80	583.490	581.800	581.700			1.790				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete										







# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

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Book No. :- 074

Page No. :-

Page 2 of 11

Balaji Nagar Nathnagar-02Meas. SW

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	(a) For Lift 0 to 1.5m	1			11.300	1.240	1.030	14.432		19.622	34.054
	(b) For Lift 1.5m to 3.0m	1			11.300	0.840	0.145	1.376		0.000	1.376
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			11.300	1.240	0.200	2.802		4.385	7.187
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			11.300	1.240	0.270	3.783		5.919	9.703
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			12.300	0.840	0.100	1.033		2.276	3.310
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							2.022		4.455	6.477
	Extra Item no.9.2 (c) :- Lowering & Laying of SWG pipe of 300mm Dia	1			12.800			12.800		27.600	40.400
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							<b>22.394</b>			
	<b>Deduction of 300mm dia pipe</b>										
	pipe area	1.00		0.785	12.300	0.320	0.320	0.989			
	soling							0.000			
	PCC							0.000			
	Murrum bedding							1.033			
								2.022			
								<b>20.372</b>		<b>25.471</b>	<b>45.844</b>
	<b>Net Qty = A - B</b>										
	<b>Article BNR 10.2 TO BNR 10.3</b>										
	CH42.80	583.490	581.800	581.700			1.790	1.775			
	CH53.10	583.750	582.090	581.990			1.760				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			7.600	1.240	1.030	9.707		34.054	43.761
	(b) For Lift 1.5m to 3.0m	1			7.600	0.840	0.275	1.756		1.376	3.132
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			7.600	1.240	0.200	1.885		7.187	9.072
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			7.600	1.240	0.270	2.544		9.703	12.247
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			8.600	0.840	0.100	0.722		3.310	4.032
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							1.414		6.477	7.890
	Extra Item no.9.2 (c) :- Lowering & Laying of SWG pipe of 300mm Dia	1			9.100			9.100		40.400	49.500



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## 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

Book No. :- **075**  
Page No. :-

Page 3 of 11

Balaji Nagar Nathnagar-02Meas. SW

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>						15.892				
	<b>Deduction of 300mm dia pipe</b>										
	pipe area	1.00		0.785	8.600	0.320	0.320	0.691			
	soling							0.000			
	PCC							0.000			
	Murum bedding							0.722			
								1.414			
	<b>Net Qty = A - B</b>							14.478	45.844	60.322	
2/1/16	<b>BNR 10.3 TO BNR 10.4</b>										
	CH53.10	583.750	582.090	581.990			1.760	1.605			
	CH75.50	584.140	582.790	582.690			1.450				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			19.700	1.240	1.030	25.161	43.761	68.922	
	(b) For Lift 1.5m to 3.0m	1			19.700	0.840	0.105	1.738	3.132	4.869	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			19.700	1.240	0.200	4.886	9.072	13.958	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(a) For Lift 0 to 1.5m	1			19.700	1.240	0.270	6.596	12.247	18.843	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			20.700	0.840	0.100	1.739	4.032	5.771	
	Item No. : 11 Transportation of earth Transportation charges including loading & unloading							3.403	7.890	11.293	
	Extra Item no.9.2 (c) :- Lowering & Laying of SWG pipe of 300mm Dia	1			21.200			21.200	49.500	70.700	
	Item No. 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation=</b>							38.380			
	<b>Deduction of 300mm dia pipe</b>										
	pipe area	1.00		0.785	20.700	0.320	0.320	1.664			
	soling							0.000			
	PCC							0.000			
	Murum bedding							1.739			
								3.403			
	<b>Net Qty = A - B</b>							34.977	60.322	95.299	
2/1/16	<b>BNR 10.4 TO BNR 10.5</b>										
	CH75.50	584.140	582.790	582.690			1.450	1.675			
	CH94.20	584.240	582.440	582.340			1.900				
	Item No. 1 :- Excavation for foundation/pipe trenches in earth soils, Soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.000	1.240	1.030	20.435	68.922	89.357	
	(b) For Lift 1.5m to 3.0m	1			16.000	0.840	0.175	2.352	4.869	7.221	



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