



# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Book No. :- 131  
Page No. :-

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 (Ranchanwadi), 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 G.R.P. (U) pipe line from Golwadi SPS to Nakshtrawadi (Ranchanwadi) STP and Ward No.98 to

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11th C Main Sewer 1-1600mm-MB

### 11th R A BILL MEASUREMENTS SEWER "C"

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>Near Siddharth Garden-1600mm Dia</b>											
	Width of trench- For Bottom Lift 0.00-1.50m- 1.6+0.33+0.33+0.5=2.76m										
	From Bottom Lift 1.50-3.00m- 1.6+0.33+0.33+0.5+0.4=3.16m										
	From Bottom Lift 3.00-4.50m- 1.6+0.33+0.33+0.5+0.4+0.4 = 3.56m										
	From Bottom Lift 4.50-6.0m- 1.6+0.33+0.33+0.5+0.4+0.4+0.4 = 3.96m										
	From Bottom Lift 6.00-7.50m- 1.6+0.33+0.33+0.5+0.4+0.4+0.4+0.4 = 4.36m										
	From Bottom Lift 7.50-9.00m- 1.6+0.33+0.33+0.5+0.4+0.4+0.4+0.4+0.4 = 4.76m										
	<b>C9</b>	<b>C9 to C 10 - Box Drain</b>									
18/09/2016	CH707.85	554.335	552.615	552.315			2.020	2.232			
	CH745.35	555.720	553.575	553.275			2.445				
	<b>Item No. 3 :-</b> Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			37.50	3.400	0.800	102.000	0.000	102.000	
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			37.50	3.400	0.700	89.250	0.000	89.250	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			37.50	3.000	0.200	22.500	0.000	22.500	
	<b>Item No. 4 :-</b> Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			37.50	3.000	0.532	59.850	0.000	59.850	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...										
	<b>Total Excavation = A</b>							273.600			
	<b>Deduction</b>										
	Box Drain Area	1			37.50	1.900	1.650	117.56			
	Raft	1			37.50	2.300	0.200	17.25			
	PCC	1			37.50	2.500	0.100	9.38			
	<b>Total = B</b>							144.19			
								<b>Net Qty = A - B</b>	0.000	129.413	
	<b>C10</b>										
10/10/2016	CH745.35	555.720	553.575	553.210			2.510	2.587			
	CH763.90/769.85	555.895	553.595	553.230			2.665				
	<b>Item No. 3 :-</b> Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			16.75	3.160	0.650	34.405	102.000	136.405	



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# AURANGABAD MUNICIPAL CORPORATION.

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## Measurement Book

Name of work: Development of Underground Sewerage Collection system for Zone I to VI and Zone Salim Abad constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakshirawadi (Kanchanwadi), Banewadi, Siddharth Garden, Zalfa, Padegaon, CIDCO (Airport), Construction, Erection, Testing and Commission of Sewage pumping stations at Banewadi, Siddharth Garden, Padegaon, Golwadi, Zalfa, Ward

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11th C Main Sewer/1-1200mm-M8

### 11th RA BILL MEASUREMENTS Sewer "C"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
	C-Sewer-1200mm Dia Width of trench- Bottom Lift 0.00-1.50m- 1.2*0.25*0.25*0.5*2.2m From Bottom Lift 1.50-3.00m- 1.2*0.25*0.25*0.5*0.4*2.6m From Bottom Lift 3.00-4.50m- 1.2*0.25*0.25*0.5*0.4*0.4 = 3.0m From Bottom Lift 4.50-6.0m- 1.2*0.25*0.25*0.5*0.4*0.4*0.4 = 3.4m From Bottom Lift 6.00-7.50m- 1.2*0.25*0.25*0.5*0.4*0.4*0.4*0.4 = 3.0m										
	C 15 At Bholwada (Scraper)										
08/10/2016	CH1066.80	556.745	553.705	553.460			3.205	3.295			
	CH1092.40	556.850	553.870	553.545			3.305				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			24.000	3.000	0.600	43.200	136.405	179.605	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			24.000	3.000	0.500	36.000	134.241	170.241	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			24.000	3.000	0.400	28.800	0.000	28.800	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			24.000	2.600	0.500	31.200	64.473	95.673	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			24.000	2.600	1.000	62.400	31.760	94.160	
	(c) For Lift 3.0m to 4.5m	1			24.000	2.200	0.295	15.576	0.000	15.576	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)										
	(b) For Lift 1.5m to 3.0m	1			24.300	2.200	0.200	10.692	9.246	19.938	
	Item No. 17 (j) :- Lowering & Laying RCC NP3 class pipe of 1200mm Dia										
	(a) For Lift 0 to 1.5m	1			25.000			25.000	0.000	25.000	
	Item No 30 :- Refilling the excavated trenches										
	Total Excavation = A							217.176			
	Deduction										
	pipe area	1		0.785	24.000	1.450	1.450	39.611			
	Murrum bedding							10.692			
	Total = B							50.303			
	Net Qty = A - B							166.873	200.836	367.709	
08/10/2016	CH1092.40	556.850	553.870	553.545			3.305	3.205			
	CH1118.00/1106.80	556.750	553.970	553.645			3.105				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			24.000	3.000	0.500	36.000	179.605	215.605	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			24.000	3.000	0.700	50.400	170.241	220.641	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			24.000	3.000	0.300	21.600	28.800	50.400	
	(b) For Lift 1.5m to 3.0m	1			24.000	2.600	0.100	6.240	31.746	37.986	
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.										



22/04/2016



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## Measurement Book

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1<sup>st</sup> C Main Sewer-1200mm-MB

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Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Up to Date Quantity
		No			L	B	D		Page	Quantity	
		GL	IL	EX.L							
					24.000	2.600	0.450	28.080	95.673	123.753	
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.				24.000	2.600	0.950	59.280	94.160	153.440	
	(b) For Lift 1.5m to 3.0m	1			24.000	2.200	0.205	10.824	15.576	26.400	
	(c) For Lift 3.0m to 4.5m	1			24.300	2.200	0.200	10.692	19.938	30.630	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			25.000			25.000	25.000	50.000	
	Item No. 17 (j) :- Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1									
	Item No 30 :- Refilling the excavated trenches							212.424			
	<b>Total Excavation = A</b>										
	Deduction				0.785	24.000	1.450	1.450	39.611		
	pipe area	1						10.692			
	Murum bedding							50.303			
	<b>Total = B</b>							162.121	367.709	529.830	
					Net Qty = A - B						
	At Kabra Garden							3.200			
	CH1404.70	558.015	555.140	554.815				3.400			
22/10/2016	CH1422.80	558.245	555.170	554.845							
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.				16.500	3.000	0.600	29.700	215.605	245.305	
	(a) For Lift 0 to 1.5m	1									
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.				16.500	3.000	0.600	29.700	220.641	250.341	
	(a) For Lift 0 to 1.5m	1									
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.				16.500	3.000	0.300	14.850	50.400	65.250	
	(a) For Lift 0 to 1.5m	1			16.500	2.600	1.300	55.770	37.986	93.756	
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.				16.500	2.600	0.200	8.580	123.753	132.333	
	(b) For Lift 1.5m to 3.0m	1			16.500	2.200	0.300	10.890	0.000	10.890	
	(c) For Lift 3.0m to 4.5m	1			16.800	2.200	0.200	7.392	30.630	38.022	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			17.500			17.500	50.000	67.500	
	Item No. 17 (j) :- Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1									
	Item No 30 :- Refilling the excavated trenches							149.490			
	<b>Total Excavation = A</b>										
	Deduction				0.785	16.500	1.450	1.450	27.233		
	pipe area	1						7.392			
	Murum bedding							34.625			
	<b>Total = B</b>							114.865	529.830	644.695	
					Net Qty = A - B						
	C 22							3.350			
24/10/2016	CH1422.80	558.245	555.220	554.895				3.275			
	CH1448.40	558.115	555.240	554.915				3.200			
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.				24.000	3.000	0.650	46.800	245.305	292.104	
	(a) For Lift 0 to 1.5m	1									
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.				24.000	3.000	0.750	54.000	250.341	304.340	
	(a) For Lift 0 to 1.5m	1									
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete.				24.000	3.000	0.100	7.200	65.250	72.450	
	(a) For Lift 0 to 1.5m	1			24.000	2.600	1.500	93.600	93.756	187.356	
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock etc complete.				24.000	2.200	0.275	14.520	10.090	25.410	
	(c) For Lift 3.0m to 4.5m	1									



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

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10h C Main Sewer1-1200mm-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							
	Item No 30 :- Refilling the excavated trenches										
	<b>Total Excavation= A</b>							226.500			
	<b>Deduction</b>										
	pipe area	1		0.785	25.000	1.450	1.450	41.262			
	Murrum bedding							11.000			
	<b>Total = B</b>							52.262			
		<b>Net Qty = A - B</b>								982.000	1156.239
28/10/2016	CH1498.40	558.265	555.290	554.965			3.300	3.150			
	CH1520.90	557.985	555.310	554.985			3.000				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			22.500	3.000	0.550	37.125	378.354	415.479	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			22.500	3.000	0.850	57.375	420.590	477.965	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			22.500	3.000	0.100	6.750	94.950	101.700	
	(b) For Lift 1.5m to 3.0m	1			22.500	2.600	1.500	87.750	375.856	463.606	
	(c) For Lift 3.0m to 4.5m	1			22.500	2.200	0.150	7.425	5.500	12.925	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			22.500	2.200	0.200	9.900	70.714	80.614	
	Item No. 17 (J) :- Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			22.500			22.500	142.500	165.000	
	Item No 30 :- Refilling the excavated trenches										
	<b>Total Excavation= A</b>							196.425			
	<b>Deduction</b>										
	pipe area	1		0.785	22.500	1.450	1.450	37.135			
	Murrum bedding							9.900			
	<b>Total = B</b>							47.035			
		<b>Net Qty = A - B</b>								1156.239	1305.628
04/11/2016	CH1520.90	557.985	555.310	554.985			3.000	3.025			
	CH1539.00	558.055	555.330	555.005			3.050				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			16.500	2.600	0.600	25.740	415.479	441.219	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			16.500	2.600	0.900	38.610	477.965	516.575	
	(b) For Lift 1.5m to 3.0m	1			16.500	2.200	0.800	29.040	4.623	33.663	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(b) For Lift 1.5m to 3.0m	1			16.500	2.200	0.700	25.410	463.606	489.016	
	(c) For Lift 3.0m to 4.5m	1			16.500	2.200	0.025	0.907	12.925	13.833	
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete.(bedding)	1			16.800	2.200	0.200	7.392	80.614	88.006	
	Item No. 17 (J) :- Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			17.500			17.500	165.000	182.500	
	Item No 30 :- Refilling the excavated trenches										
	<b>Total Excavation= A</b>							119.707			
	<b>Deduction</b>										
	pipe area	1		0.785	16.500	1.450	1.450	27.233			
	Murrum bedding							7.392			
	<b>Total = B</b>							34.625			
		<b>Net Qty = A - B</b>								1305.628	1390.711
07/11/2016	C 22A										
	CH1539.00	558.055	555.440	555.115			2.940	3.070			
	CH1564.60	558.375	555.500	555.175			3.200				



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# AURANGABAD MUNICIPAL CORPORATION.

(From No. 52)

## Measurement Book

Book No. **133**

Page No. **1**

Name of work: Development of Underground Sewerage Collection system for Zone I to VI and Zone Satang A/B Construction, Erection, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Nakarwad (Kanchinwad), Hanewadi, Kulkarni Garden, Zilla, Palkewadi (CHN V), Airport Construction, Erection, Testing and Commissioning of Sewage pumping stations at Hanewadi, Kulkarni Garden, Palkewadi, Gafwadi, Zilla, Ward No. 08 and CHN V (Antwer), Palkewadi, lowering, laying jointing and testing (ring main

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CHN V Main Sewer 1.100mm dia

Date	Particulars of work	DETAILS					Content of areas	Last measurement		Total upto Date Quantity
		No			L	B		D	Page	
		CL	II	EXL						
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.									
	(a) For Lift 0 to 1.5m	1			24.000	2.000	0.550	34.120	441.219	475.539
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			24.000	2.000	0.950	59.280	516.575	575.055
	(b) For Lift 1.5m to 3.0m	1			24.000	2.200	0.700	36.960	416.64	70.623
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.									
	(b) For Lift 1.5m to 3.0m	1			24.000	2.200	0.800	42.240	109.016	541.256
	(c) For Lift 3.0m to 4.5m	1			24.000	2.200	0.070	3.696	110.14	17.529
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			24.300	2.200	0.200	10.692	88.006	98.698
	Item No. 17 (j) :- Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			25.000			25.000	182.500	207.500
	Item No 30 :- Refilling the excavated trenches									
	<b>Total Excavation= A</b>							<b>176.496</b>		
	<b>Deduction</b>									
	pipe area	1		0.785	24.000	1.450	1.450	39.611		
	Murrum bedding							10.692		
	<b>Total = B</b>							<b>50.303</b>		
	<b>Net Qty = A - B</b>							<b>126.193</b>	<b>1390.711</b>	<b>1516.904</b>
08/11/2016	CH1564.60	558.375	555.500	555.175			3.200			
	CH1589.60	558.625	555.550	555.225			3.400	3.300		
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.									
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.600	45.000	475.539	520.539
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.900	67.500	575.055	643.355
	(b) For Lift 1.5m to 3.0m	1			25.000	2.600	0.800	52.000	70.623	122.623
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.									
	(b) For Lift 1.5m to 3.0m	1			25.000	2.600	0.700	45.500	531.256	576.756
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock etc complete.									
	(c) For Lift 3.0m to 4.5m	1			25.000	2.200	0.300	16.500	50.160	66.660
	Item No. 7 :- Filling in plinth and floors/ trenches etc complete (bedding)	1			25.000	2.200	0.200	11.000	98.698	109.698
	Item No. 17 (j) :- Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			25.000			25.000	207.500	232.500
	Item No 30 :- Refilling the excavated trenches									
	<b>Total Excavation= A</b>							<b>226.500</b>		
	<b>Deduction</b>									
	pipe area	1		0.785	25.000	1.450	1.450	41.262		
	Murrum bedding							11.000		
	<b>Total = B</b>							<b>52.262</b>		
	<b>Net Qty = A - B</b>							<b>174.238</b>	<b>1516.904</b>	<b>1691.142</b>
08/11/2016	CH1589.60	558.625	555.550	555.225			3.400			
	CH1627.70	558.630	555.650	555.325			3.305	3.353		
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc complete.									
	(a) For Lift 0 to 1.5m	1			36.500	3.000	0.600	65.700	520.539	586.239
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.									
	(a) For Lift 0 to 1.5m	1			36.500	3.000	0.900	98.550	643.355	741.905
	(b) For Lift 1.5m to 3.0m	1			36.500	2.600	0.600	56.940	122.623	179.563



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(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 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.

Book No. :-  
Page No. :- **137**

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

**Authority No. AMC/Ward R&C/HDSSMT/2014/184 Date 01.07.2014**

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity	
		GL	No		EX.L	L	B		D	Page		Quantity
			IL									
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.											
	(b) For Lift 1.5m to 3.0m	1			36.500	2.600	0.900	85.410		576.756	662.166	
	(c) For Lift 3.0m to 4.5m	1			36.500	2.200	0.353	28.346		17.529	45.874	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			36.800	2.200	0.200	16.192		109.698	125.890	
	<b>Item No. 17 (j) :-</b> Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			37.500			37.500		232.500	270.000	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...											
	<b>Total Excavation= A</b>							<b>334.946</b>				
	<b>Deduction</b>											
	pipe area	1		0.785	36.500	1.450	1.450	60.242				
	soling							0.000				
	PCC							0.000				
	Murrum bedding							16.192				
	<b>Total = B</b>							<b>76.434</b>				
								<b>Net Qty = A - B</b>		<b>1691.142</b>	<b>1949.654</b>	
	<b>C 23</b>											
	<b>4 Pipes Laid In Reverse &amp; Connected to CH 1554.70</b>											
08/11/2016	<b>CH1627.70</b>		558.630	556.560	556.235			2.395				
	<b>CH 1638.30/1554.70</b>		558.515	556.580	556.255			2.260		2.328		
	<b>Item No. 3 :-</b> Excavation for foundation/pipe trenches in slush etc complete.											
	(a) For Lift 0 to 1.5m	1			9.000	2.600	0.500	11.700		586.239	597.939	
	<b>Item No. 1 :-</b> Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.											
	(a) For Lift 0 to 1.5m	1			9.000	2.600	1.000	23.400		741.905	765.305	
	(b) For Lift 1.5m to 3.0m	1			9.000	2.200	0.500	9.900		179.563	189.463	
	<b>Item No. 2 :-</b> Excavation for foundation/pipe trenches in Hard murrum etc complete.											
	(a) For Lift 0 to 1.5m	1			9.000	2.600	0.000	0.000		101.700	101.700	
	(b) For Lift 1.5m to 3.0m	1			9.000	2.200	0.328	6.494		662.166	668.660	
	(c) For Lift 3.0m to 4.5m	1			9.000	2.200	0.000	0.000		45.874	45.874	
	<b>Item No. 4:-</b> Excavation for foundation/pipe trenches in soft rock etc complete.											
	(b) For Lift 1.5m to 3.0m	1			9.000	2.200	0.000	0.000		138.833	138.833	
	(c) For Lift 3.0m to 4.5m	1			9.000	2.200	0.000	0.000		66.660	66.660	
	<b>Item No. 5 :-</b> Excavation for foundation/pipe trenches in Hard rock etc complete.											
	(b) For Lift 1.5m to 3.0m	1			9.000	2.200	0.000	0.000		153.440	153.440	
	(c) For Lift 3.0m to 4.5m	1			9.000	2.200	0.000	0.000		26.400	26.400	
	<b>Item No. 7 :-</b> Filling in plinth and floors/ trenches etc complete.(bedding)	1			9.300	2.200	0.200	4.092		125.890	129.982	
	<b>Item No. 17 (j) :-</b> Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			10.000			10.000		270.000	280.000	
	<b>Item No 30 :-</b> Refilling the excavated trenches ...											
	<b>Total Excavation= A</b>							<b>51.494</b>				
	<b>Deduction</b>											
	pipe area	1		0.785	9.000	1.450	1.450	14.854				
	soling							0.000				
	PCC							0.000				
	Murrum bedding							4.092				
	<b>Total = B</b>							<b>18.946</b>				
								<b>Net Qty = A - B</b>		<b>1949.654</b>	<b>1982.203</b>	



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Book No. :- 133

Page No. :-

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 Nakshirawadi (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 CRPDI line from Golwadi SPS to Nakshirawadi (Kanchanwadi) STP and Ward No.98 to

12th C Main Sewer-1000mm-MB

Page 1 of 16

### 17th RA BILL MEASUREMENTS Sewer "C"

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	No		L	B	D		Page	Quantity	
			IL	EX.L							
	C-Sewer-1000mm Dia										
	Width of trench-										
	For Bottom Lift 0.00-1.50m- 1.0+0.23+0.23+0.5=1.96m										
	From Bottom Lift 1.50-3.00m- 1.0+0.23+0.23+0.5+0.4=2.36m										
	From Bottom Lift 3.00-4.50m- 1.0+0.23+0.23+0.5+0.4+0.4= 2.76m										
	1.0+0.23+0.23+0.5+0.4+0.4+0.4 = 3.16m										
	From Bottom Lift 6.0m-7.5m- 1.0+0.23+0.23+0.5+0.4+0.4+0.4+0.4 =										
	From Bottom Lift 7.5m-9.0m- 1.0+0.23+0.23+0.5+0.4+0.4+0.4+0.4+0.4 = 3.96m										
	C 45										
	60m Gap From CH 3133.8 at manhole C44 (At Kala Darwaja Road)										
27/05/2016	CH3193.80	565.640	562.260	561.945			3.625	3.690			
	CH3227.30	565.690	562.320	562.005			3.685				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc										
	(a) For Lift 0 to 1.5m	1			31.900	2.760	0.700	61.631		597.939	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			31.900	2.760	0.300	26.413		765.305	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			31.900	2.760	0.200	17.609		101.700	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock										
	(a) For Lift 0 to 1.5m	1			31.900	2.760	0.300	26.413		0.000	
	(b) For Lift 1.5m to 3.0m	1			31.900	2.360	0.100	7.528		138.833	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			31.900	2.360	1.400	105.398		153.440	
	(c) For Lift 3.0m to 4.5m	1			31.900	1.960	0.690	43.142		26.400	
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			32.200	1.960	0.200	12.622		129.982	
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			32.500			32.500		0.000	
	Item No 30 :- Refilling the excavated trenches ...										
	Total Excavation= A										
	Deduction							288.134			
	pipe area	1									
	Murrum bedding			0.785	31.900	1.230	1.230	37.885		12.622	
	Total = B										
	Net Qty = A - B							50.508			
								237.626	1982.203	2219.829	
27/05/2016	CH3227.30	565.690	562.320	562.005							
	CH3260.80	565.735	562.390	562.075			3.685	3.673			
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc										
	(a) For Lift 0 to 1.5m	1			31.900	2.760	0.750	66.033		659.570	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.										
	(a) For Lift 0 to 1.5m	1			31.900	2.760	0.450	39.620		791.719	
										831.338	



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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 Nakshirwadi (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

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Page No. :-

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110 C Main Sewer-1000mm-MB

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. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			31.900	2.760	0.300	26.413		119.309	145.722
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock										
	(b) For Lift 1.5m to 3.0m	1			31.900	2.360	0.400	30.114		146.361	176.475
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			31.900	2.360	1.100	82.812		258.838	341.650
	(c) For Lift 3.0m to 4.5m	1			31.900	1.960	0.673	42.079		69.542	111.620
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			32.200	1.960	0.200	12.622		142.604	155.227
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			32.500			32.500		32.500	65.000
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation= A</b>										
	Deduction							287.071			
	pipe area	1									
	Murrum bedding			0.785	31.900	1.230	1.230	37.885			
	<b>Total = B</b>							12.622			
								50.508			
	<b>C 46</b>							<b>Net Qty = A - B</b>			
								236.563		2219.829	2456.392
01/06/2016	CH3260.80	565.735	562.390	562.075			3.660				
	CH3286.80	565.760	562.440	562.125			3.635	3.648			
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc										
	(a) For Lift 0 to 1.5m	1			24.400	2.760	0.750	50.508		725.603	776.111
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			24.400	2.760	0.350	23.570		831.338	854.909
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			24.400	2.760	0.400	26.938		145.722	172.660
	(b) For Lift 1.5m to 3.0m	1			24.400	2.360	0.100	5.758		668.660	674.419
	Item No. 4 :- Excavation for foundation/pipe trenches in soft rock										
	(b) For Lift 1.5m to 3.0m	1			24.400	2.360	0.400	23.034		176.475	199.509
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			24.400	2.360	1.000	57.584		341.650	399.234
	(c) For Lift 3.0m to 4.5m	1			24.400	1.960	0.648	30.990		111.620	142.610
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			24.700	1.960	0.200	9.682		155.227	164.909
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			25.000			25.000		65.000	90.000
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation= A</b>										
	Deduction							218.382			
	pipe area	1									
	soling			0.785	24.400	1.230	1.230	28.978			
	PCC							0.000			
	Murrum bedding							0.000			
	<b>Total = B</b>							9.682			
								38.660			
	<b>Net Qty = A - B</b>							<b>179.721</b>		2456.392	2636.113
06/06/2016	CH3286.80	565.760	562.440	562.125			3.635	3.620			



S. S. Sanyal







# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

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

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12h C Main Sewer 1-1000mm-14h

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	1			24.700	1.960	0.200	9.682			
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			25.000			25.000		196.152	205.834
	Item No 30 :- Refilling the excavated trenches ...									170.000	195.000
	<b>Total Excavation= A</b>										
	<b>Deduction</b>									219.817	
	pipe area	1									
	Murum bedding			0.785	24.400	1.230	1.230	28.978			
	<b>Total = B</b>							9.682			
								38.660			
								<b>Net Qty = A - B</b>			
								181.156		3219.057	3400.214
13/06/2016	CH3393.80	566.050	562.680	562.365							
	CH3419.80	566.070	562.720	562.405			3.685				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc (a) For Lift 0 to 1.5m	1					3.665	3.675			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete. (a) For Lift 0 to 1.5m	1			24.400	2.760	0.750	50.508		980.020	1030.528
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete. (a) For Lift 0 to 1.5m	1			24.400	2.760	0.300	20.203		973.313	993.516
	(b) For Lift 1.5m to 3.0m	1			24.400	2.760	0.450	30.305		280.079	310.384
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock (b) For Lift 1.5m to 3.0m	1			24.400	2.360	0.050	2.879		697.594	700.473
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete. (b) For Lift 1.5m to 3.0m	1			24.400	2.360	0.450	25.913		304.576	330.489
	(c) For Lift 3.0m to 4.5m	1			24.400	2.360	1.000	57.584		638.444	696.028
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			24.400	1.960	0.675	32.281		273.727	306.008
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			25.000			25.000		205.834	215.516
	Item No 30 :- Refilling the excavated trenches ...									195.000	220.000
	<b>Total Excavation= A</b>										
	<b>Deduction</b>									219.673	
	pipe area	1									
	Murum bedding			0.785	24.400	1.230	1.230	28.978			
	<b>Total = B</b>							9.682			
								38.660			
								<b>Net Qty = A - B</b>			
								181.013		3400.214	3581.226
15/06/2016	CH3419.80	566.070	563.020	562.705							
	CH3440.80	566.150	563.060	562.745			3.365				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc (a) For Lift 0 to 1.5m	1					3.405	3.385			
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete. (a) For Lift 0 to 1.5m	1			19.400	2.760	0.600	32.126		1030.528	1062.655
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete. (a) For Lift 0 to 1.5m	1			19.400	2.760	0.600	32.126		993.516	1025.643
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock	1			19.400	2.760	0.300	16.063		310.384	326.447



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

Book No. **134**  
Page No. **1**

Name of work: Development of Underground Sewerage Collection system for Zone I to VI and Zone VIII. Also Constructing, Erecting, Testing and Commissioning of Sewage Treatment Plant based on modern technology at Bad-Burwahdi (Ranchanawadi), Hanewadi, Siddharth Garden, Zaha, Babson, C.R.O. (Airport) Construction, Erection, Testing and Commissioning of Sewage pumping stations at Hanewadi, Siddharth Garden, Patigam, Godwadi, Zaha, Ward No.98 and C.R.O. (Airport), Providing, lowering, laying jointing and testing rising main

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100:1 Main Sewer 1200mm Dia

Date	Particulars of work	DETAILS						Content of arrears	Last measurement		Total Upto Date Quantity
		GL	HL	ERL	L	B	D		Page	Quantity	
	Item No. 7 - Filling in plinth and floors/ trenches etc complete (bedding)	1			24.300	2.200	0.200	10.692		38.022	48.714
	Item No. 17 (j) - Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			25.000			25.000		67.500	92.500
	Item No. 30 - Refilling the excavated trenches										
	Total Excavation= A							216.120			
	Deduction										
	pipe area	1		0.785	24.000	1.450	1.450	29.611			
	Murrum bedding							10.692			
	Total = B							50.303			
					Net Qty = A - B			165.817		644.695	810.512
26/10/2016	CH1440.40	558.115	555.240	554.915			3.200	3.250			
	CH1473.40	558.235	555.260	554.935			3.300				
	Item No. 3 - Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.550	41.250		292.104	333.354
	Item No. 4 - Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.850	63.750		304.340	368.090
	Item No. 2 - Excavation for foundation/pipe trenches in hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.100	7.500		72.450	79.950
	(b) For Lift 1.5m to 3.0m	1			25.000	2.600	1.400	91.000		187.356	278.356
	Item No. 4 - Excavation for foundation/pipe trenches in soft rock etc complete.										
	(b) For Lift 1.5m to 3.0m	1			25.000	2.600	0.100	6.500		132.333	138.833
	(c) For Lift 3.0m to 4.5m	1			25.000	2.200	0.250	13.750		25.410	39.160
	Item No. 7 - Filling in plinth and floors/ trenches etc complete (bedding)	1			25.000	2.200	0.200	11.000		48.714	59.714
	Item No. 17 (j) - Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			25.000			25.000		92.500	117.500
	Item No. 30 - Refilling the excavated trenches										
	Total Excavation= A							223.750			
	Deduction										
	pipe area	1		0.785	25.000	1.450	1.450	41.262			
	Murrum bedding							11.000			
	Total = B							52.262			
					Net Qty = A - B			171.488		810.512	982.000
27/10/2016	CH1473.40	558.235	555.260	554.935			3.300				
	CH1498.40	558.265	555.290	554.965			3.300	3.300			
	Item No. 3 - Excavation for foundation/pipe trenches in slush etc complete.										
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.600	45.000		333.354	378.354
	Item No. 1 - Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.700	52.500		368.090	420.590
	Item No. 2 - Excavation for foundation/pipe trenches in Hard murrum etc complete.										
	(a) For Lift 0 to 1.5m	1			25.000	3.000	0.200	15.000		79.950	94.950
	(b) For Lift 1.5m to 3.0m	1			25.000	2.600	1.500	97.500		278.356	375.856
	(c) For Lift 3.0m to 4.5m	1			25.000	2.200	0.100	5.500		0.000	5.500
	Item No. 4 - Excavation for foundation/pipe trenches in soft rock etc complete.										
	(c) For Lift 3.0m to 4.5m	1			25.000	2.200	0.200	11.000		39.160	50.160
	Item No. 7 - Filling in plinth and floors/ trenches etc complete (bedding)	1			25.000	2.200	0.200	11.000		59.714	70.714
	Item No. 17 (j) - Lowering & Laying RCC NP3 class pipe of 1200mm Dia	1			25.000			25.000		117.500	142.500



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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 No.98 and CIDCO (Airport). Providing, lowering, laying jointing and testing rising main

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1. C Main Sewer1-1000mm-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) For Lift 1.5m to 3.0m	1			19.400	2.360	0.550	25.181		330.489	355.670
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard				19.400	2.360	0.950	43.495		696.028	739.522
	(b) For Lift 1.5m to 3.0m	1			19.400	1.960	0.385	14.639		306.008	320.648
	(c) For Lift 3.0m to 4.5m	1			19.700	1.960	0.200	7.722		215.516	223.239
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1						20.000		220.000	240.000
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1									
	Item No 30 :- Refilling the excavated							163.631			
	<b>Total Excavation= A</b>										
	Deduction							23.040			
	pipe area	1		0.785	19.400	1.230	1.230	7.722			
	Murrum bedding							30.762			
	<b>Total = B</b>							132.869		3581.226	3714.095
					Net Qty = A - B						
								3.405			
								3.565			
15/06/2016	CH3440.80	566.150	563.060	562.745				3.485			
	CH3459.30	566.350	563.100	562.785							
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc				16.900	2.760	0.650	30.319		1062.655	1092.973
	(a) For Lift 0 to 1.5m	1									
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.				16.900	2.760	0.450	20.990		1025.643	1046.632
	(a) For Lift 0 to 1.5m	1									
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.				16.900	2.760	0.400	18.658		326.447	345.104
	(a) For Lift 0 to 1.5m	1									
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock				16.900	2.360	0.400	15.954		355.670	371.623
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard				16.900	2.360	1.100	43.872		739.522	783.395
	(b) For Lift 1.5m to 3.0m	1			16.900	1.960	0.485	16.065		320.648	336.713
	(c) For Lift 3.0m to 4.5m	1			17.200	1.960	0.200	6.742		223.239	229.981
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1						17.500		240.000	257.500
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1									
	Item No 30 :- Refilling the excavated							145.857			
	<b>Total Excavation= A</b>										
	Deduction							20.071			
	pipe area	1		0.785	16.900	1.230	1.230	6.742			
	Murrum bedding							26.813			
	<b>Total = B</b>							119.044		3714.095	3833.139
					Net Qty = A - B						
	C 49							3.465			
17/06/2016	CH3459.30	566.350	563.200	562.885				3.465			
	CH3483.80	566.450	563.300	562.985							
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc				21.300	2.760	0.600	35.273		1092.973	1128.246
	(a) For Lift 0 to 1.5m	1									
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete.				21.300	2.760	0.700	41.152		1046.632	1087.784
	(a) For Lift 0 to 1.5m	1									
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.				21.300	2.760	0.200	11.758		345.104	356.862
	(a) For Lift 0 to 1.5m	1			21.300	2.360	0.300	15.080		700.473	715.554
	(b) For Lift 1.5m to 3.0m	1									



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# AURANGABAD MUNICIPAL CORPORATION.

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## Measurement Book

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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 Nakshirawadi (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.02 and CIDCO (Airport). Detailed drawing, lowering, filling, bedding and testing etc.

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11h C Main Sewer1-1000mm-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							
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock (b) For Lift 1.5m to 3.0m	1			21.300	2.360	0.300	15.080		371.623	386.704
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete. (b) For Lift 1.5m to 3.0m (c) For Lift 3.0m to 4.5m	1			21.300	2.360	0.900	45.241		783.395	828.636
		1			21.300	1.960	0.465	19.413		336.713	356.126
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			21.900	1.960	0.200	8.585		229.981	238.566
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			22.500			22.500		257.500	280.000
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation= A</b>							<b>182.997</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	21.300	1.230	1.230	25.296			
	Murum bedding							8.585			
	<b>Total = B</b>							<b>33.881</b>			
								<b>Net Qty = A - B</b>		<b>149.116</b>	<b>383.139</b>
	C 50										
24/06/2016	CH3483.80	566.450	563.600	563.285			3.165				
	CH3509.80	566.490	563.650	563.335			3.155	3.160			
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc (a) For Lift 0 to 1.5m	1			24.400	2.760	0.600	40.406		1128.246	1168.652
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete. (a) For Lift 0 to 1.5m	1			24.400	2.760	0.650	43.774		1087.784	1131.558
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete. (a) For Lift 0 to 1.5m	1			24.400	2.760	0.250	16.836		356.862	373.698
	(b) For Lift 1.5m to 3.0m	1			24.400	2.360	0.150	8.638		715.554	724.191
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock (b) For Lift 1.5m to 3.0m	1			24.400	2.360	0.400	23.034		386.704	409.737
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard (b) For Lift 1.5m to 3.0m (c) For Lift 3.0m to 4.5m	1			24.400	2.360	0.950	54.705		828.636	883.341
		1			24.400	1.960	0.160	7.652		356.126	363.777
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			24.700	1.960	0.200	9.682		238.566	248.248
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			25.000			25.000		280.000	305.000
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation= A</b>							<b>195.044</b>			
	<b>Deduction</b>										
	pipe area	1		0.785	24.400	1.230	1.230	28.978			
	Murum bedding							9.682			
	<b>Total = B</b>							<b>38.660</b>			
								<b>Net Qty = A - B</b>		<b>156.383</b>	<b>398.255</b>
											<b>4138.638</b>
29/06/2016	CH3509.80	566.490	563.650	563.335			3.155				
	CH3530.80	566.580	563.690	563.375			3.205	3.180			
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc (a) For Lift 0 to 1.5m	1			19.400	2.760	0.550	29.449		1168.652	1198.102
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete. (a) For Lift 0 to 1.5m	1			19.400	2.760	0.500	26.772		1131.558	1158.330



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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

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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. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.				19.400	2.760	0.450	24.095		373.698	397.793
	(a) For Lift 0 to 1.5m	1			19.400	2.360	0.100	4.578		724.191	724.770
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock				19.400	2.360	0.300	13.735		409.737	423.473
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.				19.400	2.360	1.100	50.362		883.341	933.703
	(b) For Lift 1.5m to 3.0m	1			19.400	1.960	0.180	6.844		363.777	370.622
	(c) For Lift 3.0m to 4.5m	1									
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			19.700	1.960	0.200	7.722		248.248	255.971
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			20.000			20.000		305.000	325.000
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation= A</b>							155.836			
	<b>Deduction</b>										
	pipe area	1		0.785	19.400	1.230	1.230	23.040			
	Murrum bedding							7.722			
	<b>Total = B</b>							30.762			
								<b>Net Qty = A - B</b>		4138.638	4263.712
	<b>C 51</b>										
04/07/2016	CH3530.80	566.580	563.740	563.425			3.155	3.165			
	CH3557.80	566.650	563.790	563.475			3.175				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc				23.800	2.760	0.550	36.128		1198.102	1234.230
	(a) For Lift 0 to 1.5m	1									
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murrum etc complete.				23.800	2.760	0.600	39.413		1158.330	1197.742
	(a) For Lift 0 to 1.5m	1									
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murrum etc complete.				23.800	2.760	0.350	22.991		397.793	420.784
	(a) For Lift 0 to 1.5m	1			23.800	2.360	0.150	8.425		728.770	737.195
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock				23.800	2.360	0.300	16.850		423.473	440.323
	(b) For Lift 1.5m to 3.0m	1									
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete.				23.800	2.360	1.050	58.976		933.703	992.680
	(b) For Lift 1.5m to 3.0m	1			23.800	1.960	0.165	7.697		370.622	378.319
	(c) For Lift 3.0m to 4.5m	1									
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1			24.400	1.960	0.200	9.565		255.971	265.536
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1			25.000			25.000		325.000	350.000
	Item No 30 :- Refilling the excavated trenches ...										
	<b>Total Excavation= A</b>							190.481			
	<b>Deduction</b>										
	pipe area	1		0.785	23.800	1.230	1.230	28.266			
	Murrum bedding							9.565			
	<b>Total = B</b>							37.830			
								<b>Net Qty = A - B</b>		4263.712	4416.363
	<b>C 52</b>										
09/07/2016	CH3557.80	566.650	563.990	563.675			2.975	2.985			
	CH3586.30	566.730	564.050	563.735			2.995				



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# AURANGABAD MUNICIPAL CORPORATION.

(From No.52)

## Measurement Book

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

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11th C Main Sewer-1000mm-4M

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. 3 :- Excavation for foundation/pipe trenches in slush etc (a) For Lift 0 to 1.5m	1				26.900	2.360	0.600	38.090	1234.230	1272.320	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete. (a) For Lift 0 to 1.5m	1				26.900	2.360	0.500	31.742	1197.742	1229.484	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete. (a) For Lift 0 to 1.5m	1				26.900	2.360	0.400	25.394	420.784	446.177	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock (b) For Lift 1.5m to 3.0m	1				26.900	1.960	0.300	15.817	440.323	456.140	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete. (b) For Lift 1.5m to 3.0m	1				26.900	1.960	1.185	62.478	992.680	1055.158	
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1				27.200	1.960	0.200	10.662	265.536	276.198	
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1				27.500			27.500	350.000	377.500	
	Item No 30 :- Refilling the excavated trenches ...								173.521			
	<b>Total Excavation= A</b>											
	Deduction											
	pipe area	1		0.785	26.900	1.230	1.230		31.947			
	soling								0.000			
	PCC								0.000			
	Murum bedding								10.662			
	<b>Total = B</b>								<b>42.610</b>			
									<b>Net Qty = A - B</b>			
									<b>130.912</b>	<b>4416.363</b>	<b>4547.274</b>	
13/07/2016	CH3586.30	566.730	564.050	563.735				2.995	3.055			
	CH3611.30	566.900	564.100	563.785				3.115				
	Item No. 3 :- Excavation for foundation/pipe trenches in slush etc (a) For Lift 0 to 1.5m	1				25.000	2.760	0.550	37.950	1272.320	1310.270	
	Item No. 1 :- Excavation for foundation/pipe trenches in all types of soil & soft murum etc complete. (a) For Lift 0 to 1.5m	1				25.000	2.760	0.450	31.050	1229.484	1260.534	
	Item No. 2 :- Excavation for foundation/pipe trenches in Hard murum etc complete. (a) For Lift 0 to 1.5m	1				25.000	2.760	0.500	34.500	446.177	480.677	
	Item No. 4:- Excavation for foundation/pipe trenches in soft rock (b) For Lift 1.5m to 3.0m	1				25.000	2.360	0.300	17.700	456.140	473.840	
	Item No. 5 :- Excavation for foundation/pipe trenches in Hard rock etc complete. (b) For Lift 1.5m to 3.0m	1				25.000	2.360	1.200	70.800	1055.158	1125.958	
	(c) For Lift 3.0m to 4.5m	1				25.000	1.960	0.055	2.695	378.319	381.014	
	Item No. 7 :- Filling in plinth and floors/ trenches etc	1				25.000	1.960	0.200	9.800	276.198	285.998	
	Item No. 17 (h) :- Lowering & Laying RCC NP3 class pipe of 1000mm Dia	1				25.000			25.000	377.500	402.500	
	Item No 30 :- Refilling the excavated trenches ...											
	<b>Total Excavation= A</b>											
	Deduction											
	pipe area	1		0.785	25.000	1.230	1.230		29.691			



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