

## Bhilai charoda Muncipal Corporation

### Shifting of 600 mmdia DI K-9 Raw Water Pumping Main Near Amleshwar due to widening of Road for Four Laning

S.No	Items	No	L	B	D/H	Qty	Unit	Rate	Amount
1	Earth work in excavation for pipe trench in ordinary soil areas including dressing, watering, ramming and disposal of excavated earth lead up to 50m and lift up to 1.5m, disposal earth to be levelled, neatly dressed. (CG PHE SOR 2020, I.N.18.15/P-225)	1	221	1.2	1	265	Cum	161	42698
2	Earth work in excavation for pipe trench in all kinds of rocks in areas including dressing, stacking of useful material and disposal of unservicveable material up to lead up to 50m and lift up to 1.5m. Hard rock requiring chiselling / where blasting is prohibited (CG PHE SOR_2020 18.19.3/225)	1	221	1.2	0.6	159	Cum	532	84652
3	Dismantling dead pipe line including excavation with refilling to original ground level with material brought from outside. Breaking the joints with pulling by Hydra and lifting pipes from trench and stacking the pipes as directed by Engineer <b>As Per Rate Analysis Attached</b>	1	221			221	Rmt	1241	274261
4	Providing, laying and jointing including testing following socket & spigot centrifugally cast (Spun) Ductile Iron pressure pipes with inside cement mortar lining (class K-9) onforming to IS 8329 /2000 with suitable Rubber Gasket (Push on) joints as per IS:5382/2018 (CG PHE SOR_2020 4.3/54) 600 mm dia, D.I K-9 Pipe recived after 20% brekages	1	176.8						

	Existing Providing Say	1 1	221 44 45				45	Rmt	9266	416970
5	Providing Rubber ISI marked Gasket (push on) joint as per IS:5382/2018 to following DI pipes class K-7 and K-9 including testing of joints and cost of jointing materials (Rubber Gasket and soap solution etc.) (CG PHE SOR_2020 4.5/55)	45					45	Each	822	36990
6	Labour for providing including testing, Rubber Gasket (push on) joints to following D.I. Pipes class K-7 & K-9 including joints but excluding cost of Rubber Gasket. (CG PHE SOR_2020 4.6/55)	45					45	Each	193	8685
7	Providing and Laying including testing Ductile Iron Double Socket 45° Bends conforming to IS: 9523/2000 having dimension as per table 15 of IS: 9523/2000 in the following nominal diameter/sizes with external bitumen coating and internal cement mortar lining. (CG PHE SOR_2020 4.15/60) 600 mm dia, D.I K-9	2					2	Each	26980	53960
8	Providing & laying mechanically mixed R.C.C. excluding centering & shuttering and reinforcement in foundation/plinth (20mm graded metal)  For Thrust Blocks 45 degree (CG PHE SOR_2020 18.42.1/230)									

	For 45 bends Total bends Average sizes as per design Average Volume for bends 2 Bends*1.32 = M-20 for thrust blocks	2 1	(1.7+0.5) 2 Area 1.320 2.64 2.64	x1.2 1	1.32 2.64	Area Cum	4831	12754	
9	Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 m lead as per direction of engineer-in charge. (CG PHE SOR_2020 18.30/228)  RCC Chambers for 600 mm dia pipe Assume Size- 1.6x1.8x1.75  RCC Footing Long Wall Sort Wall	3 3 3	2.2 2 2	1.8 0.2 0.2	0.1 1.75 1.75	1.19 2.1 2.1 5.39	Cum	1105	5954
10	Providing & Construction mechanically mixed R.C.C. Valve Chamber as per direction of engineer-in-charge As per Rate Analysis Attached	3				3	Each	109371	328113
11	Providing & fixing of following Ductile iron double flanged sluice valves as per I.S.:14846-2000 fitted with cap including jointing & testing with cost of jointing material such as bolts, nuts, rubber insertions etc. all complete. 500mm dia (CG PHE SOR_2020 4.41/73)	2				2	Each	205360	410720
12	Providing & Constructing RCC Pedestal  Earth work in excavation for pipe trench in ordinary soil areas including dressing, watering, ramming and disposal of excavated earth lead up to 50m and lift up to 1.5m, disposal earth to be levelled, neatly dressed. (CG PHE SOR 2020, I.N.18.15/P-225)	1	1	1.5	1.35	2.03	Cum	161	327

13	Providing & laying mechanically mixed R.C.C. excluding centering & shuttering and reinforcement in foundation/plinth (20mm graded metal)  (CG PHE SOR_2020 18.42.1/230) <b>RCC M-20</b> Deduction of Pipe	1  3	1.5  0.785	1  1	3.1  0.65^2	4.65  -0.33 <b>4.32</b>	Cum Cum Cum	4831	20862
14	Reinforcement 100 kg/cum of concrete (CG PHE SOR_2020 18.45/230)	1	100		431.8	<b>431.8</b>	kg	56	24183
<b>Totals</b>								<b>1721129</b>	
<b>Add 12% GST</b>								<b>206535</b>	
<b>G.Total</b>								<b>1927664</b>	
<b>Say In (Lacs)</b>								<b>19.28</b>	



Outer Dimension of Chamber

2.2 2.2 3.15

600 mm dia pipe

S.No	Items	No	L	B	D/H	Qty	Unit	Rate	Amount
1	Excavations	1	2.5	2.5	2.55	15.9375			
	Deduction of Pipe	0.785	2.5	0.6	0.6	-0.7065			
						15.231	Cum	161	2453
2	PCC M-15	1	2.4	2.4	0.15	0.864	Cum	4739	4095
3	RCC 1:0.75:1.5 (M 30) Raft Foundations	1	2.2	2.2	0.2	0.968	Cum	6400	6196
4	RCC Wall	4	2.2	0.2	3	5.28			
	Deduction of Pipe Opening	2	0.785	0.2	0.6^2	-0.11304			
						5.16696	Cum	6437	33260
5	RCC Slab	1	2.2	2.2	0.15	0.726			
	Deduct Manhole	1	0.45	0.45	0.15	-0.030375			
						0.695625	Cum	6437	4478
6	Manhole frame & Cover C.I of Size 0.45x0.45 Weight of manhole each 35Kg @76/Kg As Per Market Rate	1				35	kg	76	2660
7	Form Work								
	Raft	4	2.20		0.20	1.76	Sqm	185.00	326
	Wall (Outer & Inner)	8	2.20		2.7	47.52	Sqm	322.00	15302
	Slab Side	4	2.20		0.15	1.32			
	Slab Bottom	1	2.2	2.2		4.84			
						6.16	Sqm	360.00	2218
8	Reinforcement 100 kg/cum of concrete	1	6.830585			683.06	kg	56.00	38252
	Filling	1	2.2	0.3	3	1.98	Cum	66	131
								<b>Total</b>	<b>109371</b>