

## Detailed Estimate

KIIFB Project:TRAN10: WRD025- 06 -WSS to Ayyappankovil Panchayat in Idukki District-Part II-Package-II- Supplying, laying and commissioning 350mm, 300mm& 250mm DI pumping/ gravity main and 80mm GI pumping main, improvement work of Kalthotty sump& pump house, construction of pipe line bridge, design and construction of 1.00LL capacity sump& pump house at Nariyanpara, providing wash water disposal pipe line at WTP Alady and interconnection works etc

(Dsor year: 2018)

SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>1 Appendix A- (1) - Supply and laying 350mm and 300mm DI gravity main/ pumping main pipe from Alady GLSR to Kalthotty sump (Re-arranging)- (a) Cost of materials (Cost Index:41.53 %)</b>									
1	100.98.119 Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.								
	300mm DIK9 pipe	1	1833.000				1833.000		
	2% for spare	1	37.000				37.000		
	Total Quantity						1870.000 metre		
	Total Deducted Quantity						0.000 metre		
	Net Total Quantity						1870.000 metre		
	Say 1870.000 metre @ Rs 4520.63 / metre						<b>Rs 8453578.10</b>		
2	100.98.120 Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.								
	350mm DIK9 pipe	1	5248.000				5248.000		
	2% for spare	1	105.000				105.000		
	Total Quantity						5353.000 metre		
	Total Deducted Quantity						0.000 metre		
	Net Total Quantity						5353.000 metre		
	Say 5353.000 metre @ Rs 5506.95 / metre						<b>Rs 29478703.35</b>		
3	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.								
	200 mm valve for scour arrangements	5					5.000		
	Total Quantity						5.000 No		

		Total Deducted Quantity					0.000 No	
		Net Total Quantity					5.000 No	
		Say 5.000 No @ Rs 23723.65 / No					<b>Rs 118618.25</b>	
4	100.98.463 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 300mm.							
		1				1.000		
		Total Quantity					1.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					1.000 No	
		Say 1.000 No @ Rs 43312.35 / No					<b>Rs 43312.35</b>	
5	100.98.464 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 350mm.							
		2				2.000		
		Total Quantity					2.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					2.000 No	
		Say 2.000 No @ Rs 77806.55 / No					<b>Rs 155613.10</b>	
6	od41949/2020_2021 Supply DI specials, Tees, Bends, Collars, Tapers etc.							
	300mm x 90 degree bend	5		0.680		3.401		
	300mm x 45 degree bend	5		0.500		2.500		
	300mm x 22.5 degree bend	5		0.440		2.200		
	300mm x 11.25 degree bend	5		0.400		2.000		
	300 x 80mm TEE	5		0.500		2.500		
	300 x 200mm TEE	2		0.640		1.280		
	350mm x 90 degree bend	5		0.900		4.500		
	350mm x 45 degree bend	5		0.650		3.250		

	350mm x 22.5 degree bend	30		0.540			16.201	
	350mm x 11.25 degree bend	30		0.470			14.100	
	350 x 80 mm TEE	10		0.580			5.800	
	350 x 200 mm TEE	3		0.750			2.250	
	Total Quantity						59.982 quintal	
	Total Deducted Quantity						0.000 quintal	
	Net Total Quantity						59.982 quintal	
	Say 59.982 quintal @ Rs 20384.00 / quintal						<b>Rs 1222673.09</b>	
7	100.98.436 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 80mm.							
		4					4.000	
	Total Quantity						4.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						4.000 No	
	Say 4.000 No @ Rs 11748.55 / No						<b>Rs 46994.20</b>	
8	100.98.437 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 100mm.							
		6					6.000	
	Total Quantity						6.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						6.000 No	
	Say 6.000 No @ Rs 17963.75 / No						<b>Rs 107782.50</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>2Appendix A - (1) - Supply and laying 350mm and 300mm DI gravity main/ pumping main pipe from Alady GLSR to Kalthotty sump (Re-arranging)-(b) Working charges (Cost Index:41.53 %)</b>								
1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)							
	All classes of soil- 75%							
	350mm DIK9 pipe	1	5248.000	1.100	1.300	0.75	5628.481	

	300mm DIK9 pipe	1	1833.000	1.000	1.250	0.75	1718.438	
	Total Quantity						7346.919 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						7346.919 cum	
	Say 7346.919 cum @ Rs 579.85 / cum						<b>Rs 4260110.98</b>	
2	<p>100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :"</p> <p>Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)</p>							
	Ordinary Rock- 18%							
	350mm DIK9 pipe	1	5248.000	1.100	1.300	0.18	1350.836	
	300mm DIK9 pipe	1	1833.000	1.000	1.250	0.18	412.425	
	Total Quantity						1763.261 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1763.261 cum	
	Say 1763.261 cum @ Rs 842.10 / cum						<b>Rs 1484842.09</b>	
3	<p>100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m<sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.</p> <p>Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3</p>							
	Medium Rock- 3%							
	350mm DIK9 pipe	1	5248.000	1.100	1.300	0.03	225.140	
	300mm DIK9 pipe	1	1833.000	1.000	1.250	0.03	68.738	
	Total Quantity						293.878 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						293.878 cum	
	Say 293.878 cum @ Rs 1106.34 / cum						<b>Rs 325128.99</b>	
4	<p>2.7.3 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Hard rock</p>							

	(blasting prohibited)								
	Hard Rock- 2%								
	350mm DIK9 pipe	1	5248.000	1.100	1.300	0.02	150.093		
	300mm DIK9 pipe	1	1833.000	1.000	1.250	0.02	45.825		
	Total Quantity							195.918 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							195.918 cum	
	Say 195.918 cum @ Rs 1248.58 / cum							<b>Rs 244619.30</b>	
5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the initial lead of 50m and lift upto 1.50m(initial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures(200 Nos. of earth filled cement bags for 10m <sup>3</sup> blasting) (Ref. Item No. 1004 A of T C)								
	Protection by earth filled cement bags- 2%								
	350mm DIK9 pipe	1	5248.000	1.100	1.300	0.02	150.093		
	300mm DIK9 pipe	1	1833.000	1.000	1.250	0.02	45.825		
	Total Quantity							195.918 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							195.918 cum	
	Say 195.918 cum @ Rs 4093.40 / cum							<b>Rs 801970.74</b>	
6	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)								
		1	2900.000				2900.000		
	Total Quantity							2900.000 metre	
	Total Deducted Quantity							0.000 metre	
	Net Total Quantity							2900.000 metre	
	Say 2900.000 metre @ Rs 28.82 / metre							<b>Rs 83578.00</b>	
7	100.8.2 Fencing 1.50m high with two rows of casuarina poles (girth 15cm to 24cm) tied with coir yarn on vertical casuarina pole (girth 15cm to 24cm) fixed at 1.5m intervals. NEW DATA (Prepared based on PWD SDB - Item No.1009)								
		1	4000.000				4000.000		
	Total Quantity							4000.000 metre	

		Total Deducted Quantity		0.000 metre	
		Net Total Quantity		4000.000 metre	
		Say 4000.000 metre @ Rs 99.36 / metre		<b>Rs 397440.00</b>	
8	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge				
	qty of red earth	1	350.000		350.000
		Total Quantity		350.000 cum	
		Total Deducted Quantity		0.000 cum	
		Net Total Quantity		350.000 cum	
		Say 350.000 cum @ Rs 548.85 / cum		<b>Rs 192097.50</b>	
9	100.14.5 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 300 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.19 in DAR				
	300mm DIK9 pipe	1	1833.000		1833.000
		Total Quantity		1833.000 metre	
		Total Deducted Quantity		0.000 metre	
		Net Total Quantity		1833.000 metre	
		Say 1833.000 metre @ Rs 214.13 / metre		<b>Rs 392500.29</b>	
10	100.14.6 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR				
	350mm DIK9 pipe	1	5248.000		5248.000
		Total Quantity		5248.000 metre	
		Total Deducted Quantity		0.000 metre	
		Net Total Quantity		5248.000 metre	
		Say 5248.000 metre @ Rs 283.70 / metre		<b>Rs 1488857.60</b>	
11	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR				

	200mm sluice valve for scour arrangements	5					5.000	
	Total Quantity						5.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						5.000 Nos	
	Say 5.000 Nos @ Rs 1625.90 / Nos						<b>Rs 8129.50</b>	
12	100.31.1.7 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR							
		1					1.000	
	Total Quantity						1.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						1.000 Nos	
	Say 1.000 Nos @ Rs 2708.11 / Nos						<b>Rs 2708.11</b>	
13	100.31.1.8 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 350 mm diameter. Class I" Observed Data derived from item no.18.31.of DAR							
		2					2.000	
	Total Quantity						2.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						2.000 Nos	
	Say 2.000 Nos @ Rs 3616.30 / Nos						<b>Rs 7232.60</b>	
14	100.32.4 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 80 mm Double acting Air Valve Data derived from item no.18.59.2 of DAR							
		4					4.000	
	Total Quantity						4.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						4.000 Nos	
	Say 4.000 Nos @ Rs 229.21 / Nos						<b>Rs 916.84</b>	

15	100.32.5 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 100 mm Double acting Air Valve	6					6.000	
		Total Quantity					6.000 Nos	
		Total Deducted Quantity					0.000 Nos	
		Net Total Quantity					6.000 Nos	
		Say 6.000 Nos @ Rs 351.21 / Nos					<b>Rs 2107.26</b>	
16	18.30.7 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:300 mm diameter pipe	70					70.000	
		Total Quantity					70.000 Nos	
		Total Deducted Quantity					0.000 Nos	
		Net Total Quantity					70.000 Nos	
		Say 70.000 Nos @ Rs 603.77 / Nos					<b>Rs 42263.90</b>	
17	18.30.8 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:350 mm diameter pipe	100					100.000	
		Total Quantity					100.000 Nos	
		Total Deducted Quantity					0.000 Nos	
		Net Total Quantity					100.000 Nos	
		Say 100.000 Nos @ Rs 811.46 / Nos					<b>Rs 81146.00</b>	
18	18.70.5 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:300 mm dia pipe	300					300.000	
		Total Quantity					300.000 joint	
		Total Deducted Quantity					0.000 joint	
		Net Total Quantity					300.000 joint	
		Say 300.000 joint @ Rs 430.68 / joint					<b>Rs 129204.00</b>	
19	18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:350 mm dia pipes							



		1000					1000.000	
	Total Quantity						1000.000 joint	
	Total Deducted Quantity						0.000 joint	
	Net Total Quantity						1000.000 joint	
	Say 1000.000 joint @ Rs 456.93 / joint						<b>Rs 456930.00</b>	
20	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. (excluding cost of specials).							
	300mm x 90 degree DI bend	5		0.680			3.401	
	300mm x 45 degree DI bend	5		0.500			2.500	
	300mm x 22.5 degree DI bend	5		0.440			2.200	
	300mm x 11.25 degree DI bend	5		0.400			2.000	
	300 x 80mm DI TEE	5		0.500			2.500	
	300 x 200mm DI TEE	2		0.640			1.280	
	350mm x 90 degree DI bend	5		0.900			4.500	
	350mm x 45 degree DI bend	5		0.650			3.250	
	350mm x 22.5 degree DI bend	30		0.540			16.201	
	350mm x 11.25 degree DI bend	30		0.470			14.100	
	350 x 80mm DI TEE	10		0.580			5.800	
	350 x 200mm DI TEE	3		0.750			2.250	
	Total Quantity						59.982 quintal	
	Total Deducted Quantity						0.000 quintal	
	Net Total Quantity						59.982 quintal	
	Say 59.982 quintal @ Rs 603.91 / quintal						<b>Rs 36223.73</b>	
21	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia							
	300mm MJ collar	5				0.48	2.400	

						Total Quantity	2.400 quintal
						Total Deducted Quantity	0.000 quintal
						Net Total Quantity	2.400 quintal
						Say 2.400 quintal @ Rs 14708.65 / quintal	<b>Rs 35300.76</b>
22	18.67.2	Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia					
	350mm MJ collar	10				0.62	6.200
						Total Quantity	6.200 quintal
						Total Deducted Quantity	0.000 quintal
						Net Total Quantity	6.200 quintal
						Say 6.200 quintal @ Rs 15492.79 / quintal	<b>Rs 96055.30</b>
23	18.83.7	Labour for cutting C.I. pipe with steel saw.300 mm diameter C.I. pipe					
		10					10.000
						Total Quantity	10.000 Each Cut
						Total Deducted Quantity	0.000 Each Cut
						Net Total Quantity	10.000 Each Cut
						Say 10.000 Each Cut @ Rs 671.63 / Each Cut	<b>Rs 6716.30</b>
24	18.83.8	Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe					
		25					25.000
						Total Quantity	25.000 Each Cut
						Total Deducted Quantity	0.000 Each Cut
						Net Total Quantity	25.000 Each Cut
						Say 25.000 Each Cut @ Rs 781.10 / Each Cut	<b>Rs 19527.50</b>
25	100.35.5	Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA					
	300mm	1	1833.000				1833.000
						Total Quantity	1833.000 metre
						Total Deducted Quantity	0.000 metre
						Net Total Quantity	1833.000 metre
						Say 1833.000 metre @ Rs 57.81 / metre	<b>Rs 105965.73</b>

26	100.35.6 Testing 350mm DI/CI pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA							
	350mm	1	5248.000				5248.000	
	Total Quantity						5248.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						5248.000 metre	
	Say 5248.000 metre @ Rs 70.53 / metre						<b>Rs 370141.44</b>	
27	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	For anchor block	10	1.000	1.000	1.000		10.000	
	Total Quantity						10.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						10.000 cum	
	Say 10.000 cum @ Rs 8340.93 / cum						<b>Rs 83409.30</b>	
28	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	For anchor block	10*4	1.000	1.000			40.000	
	Total Quantity						40.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						40.000 sqm	
	Say 40.000 sqm @ Rs 350.00 / sqm						<b>Rs 14000.00</b>	
29	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Construction of valve chamber of size 1.50x1.50x1.20m -18 Nos							
	For valve chamber (Taking 50% as hard soil)	18	2.200	2.200	1.500	0.5	65.341	
	Total Quantity						65.341 cum	
	Total Deducted Quantity						0.000 cum	

	Net Total Quantity						65.341 cum	
	Say 65.341 cum @ Rs 309.95 / cum						<b>Rs 20252.44</b>	
30	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Ordinary rock							
	Construction of valve chamber of size 1.50x1.50x1.20m -18 Nos							
	For valve chamber (Taking 50% of EW as ordinary rock)	18	2.200	2.200	1.500	0.5	65.341	
	Total Quantity						65.341 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						65.341 cum	
	Say 65.341 cum @ Rs 550.62 / cum						<b>Rs 35978.06</b>	
31	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)							
	Construction of valve chamber of size 1.50x1.50x1.20m -18 Nos							
	Base concrete	18	2.200	2.200	0.200		17.425	
	Total Quantity						17.425 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						17.425 cum	
	Say 17.425 cum @ Rs 7527.06 / cum						<b>Rs 131159.02</b>	
32	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)							
	Construction of valve chamber of size 1.5x1.5x1.2 -18 Nos							
	For cover slab and Base slab	18*2	2.200	2.200	0.200		34.849	
	Side wall of valve chamber	18	8.000	0.200	1.200		34.560	
	Total Quantity						69.409 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						69.409 cum	

	Say 69.409 cum @ Rs 9483.15 / cum						<b>Rs 658215.96</b>	
33	5.22.2 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Hard drawn steel wire							
	70 m3 @100 kg m3	1	7000.000				7000.000	
	Total Quantity						7000.000 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						7000.000 kilogram	
	Say 7000.000 kilogram @ Rs 105.23 / kilogram						<b>Rs 736610.00</b>	
34	5.9.2 Centering and shuttering including strutting, etc. and removal of form for: Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc.							
	Valve chamber - side wall	18*4	1.500	1.500			162.000	
	Cover Slab	18	1.500	1.500			40.500	
	Total Quantity						202.500 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						202.500 sqm	
	Say 202.500 sqm @ Rs 748.62 / sqm						<b>Rs 151595.55</b>	
35	13.1.1 12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)							
	Construction of valve chamber of size 1.5x1.5x1.2 -3 Nos							
		18	9.450				170.100	
	Total Quantity						170.100 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						170.100 sqm	
	Say 170.100 sqm @ Rs 327.85 / sqm						<b>Rs 55767.29</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>3Appendix A - (2) - Supply and laying 300 mm DI pumping main from Kalthotty sump to Nariyanpara (Re-arranging)- (a) cost of matreials (Cost Index:41.53 %)</b>								
1	100.98.119 Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.							
		1	4830.000				4830.000	

	2 % for spare	1	97.000				97.000	2% for future maintenance
	Total Quantity						4927.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						4927.000 metre	
	Say 4927.000 metre @ Rs 4520.63 / metre						<b>Rs 22273144.01</b>	
2	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.							
	200mm sluice valve for scour arrangements	4					4.000	
	Total Quantity						4.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						4.000 No	
	Say 4.000 No @ Rs 23723.65 / No						<b>Rs 94894.60</b>	
3	100.98.463 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 300mm.							
		2					2.000	
	Total Quantity						2.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						2.000 No	
	Say 2.000 No @ Rs 43312.35 / No						<b>Rs 86624.70</b>	
4	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
		3					3.000	
	Total Quantity						3.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						3.000 No	
	Say 3.000 No @ Rs 5636.75 / No						<b>Rs 16910.25</b>	
5	100.98.444 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Large Orifice Type S2, Size 50mm.							
		5					5.000	

	Total Quantity							5.000 No	
	Total Deducted Quantity							0.000 No	
	Net Total Quantity							5.000 No	
	Say 5.000 No @ Rs 6110.65 / No							<b>Rs 30553.25</b>	
6	od41949/2020_2021 Supply DI specials, Tees, Bends, Collars, Tapers etc.								
	90 degree DI bend	10		0.680			6.801		
	45 degree DI bend	10		0.500			5.000		
	22.5 degree DI bend	10		0.440			4.400		
	11.25 degree DI bend	10		0.400			4.000		
	300 x 80mm DI TEE	8		0.500			4.000		
	300 x 200mm DI TEE	4		0.640			2.560		
	Total Quantity							26.761 quintal	
	Total Deducted Quantity							0.000 quintal	
	Net Total Quantity							26.761 quintal	
	Say 26.761 quintal @ Rs 20384.00 / quintal							<b>Rs 545496.22</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>4Appendix A - (2) - Supply and laying 300 mm DI pumping main from Kalthotty sump to Nariyanpara (Re-arranging)- (b) Working charges (Cost Index:41.53 %)</b>									
1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)								
	All classes of soil - 75%								
		1	4830.000	1.000	1.250	0.75	4528.125		
	Total Quantity							4528.125 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							4528.125 cum	
	Say 4528.125 cum @ Rs 579.85 / cum							<b>Rs 2625633.28</b>	
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each								

	deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :"								
	Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)								
	Ordinary Rock - 15%								
		1	4830.000	1.000	1.250	0.15	905.625		
	Total Quantity							905.625 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							905.625 cum	
	Say 905.625 cum @ Rs 842.10 / cum							<b>Rs 762626.81</b>	
3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3								
	Medium Rock Blasting - 5%								
		1	4830.000	1.000	1.250	0.05	301.875		
	Total Quantity							301.875 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							301.875 cum	
	Say 301.875 cum @ Rs 1106.34 / cum							<b>Rs 333976.39</b>	
4	2.7.3 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Hard rock (blasting prohibited)								
	Hard rock excavating by chiselling - 3%								
		1	4830.000	1.000	1.250	0.03	181.125		
	Total Quantity							181.125 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							181.125 cum	
	Say 181.125 cum @ Rs 1248.58 / cum							<b>Rs 226149.05</b>	
5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the initial lead of 50m and lift upto 1.50m(initial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to								



	avoid damages to nearby structures(200 Nos. of earth filled cement bags for 10m <sup>3</sup> blasting) (Ref. Item No. 1004 A of T C)							
	Hardr rock blasting - 2%							
		1	4830.000	1.000	1.250	0.02	120.750	
	Total Quantity							120.750 cum
	Total Deducted Quantity							0.000 cum
	Net Total Quantity							120.750 cum
	Say 120.750 cum @ Rs 4093.40 / cum							<b>Rs 494278.05</b>
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge							
		1	250.000				250.000	
	Total Quantity							250.000 cum
	Total Deducted Quantity							0.000 cum
	Net Total Quantity							250.000 cum
	Say 250.000 cum @ Rs 548.85 / cum							<b>Rs 137212.50</b>
7	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)							
		1	4000.000				4000.000	
	Total Quantity							4000.000 metre
	Total Deducted Quantity							0.000 metre
	Net Total Quantity							4000.000 metre
	Say 4000.000 metre @ Rs 28.82 / metre							<b>Rs 115280.00</b>
8	100.14.5 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 300 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.19 in DAR							
		1	4830.000				4830.000	
	Total Quantity							4830.000 metre
	Total Deducted Quantity							0.000 metre
	Net Total Quantity							4830.000 metre
	Say 4830.000 metre @ Rs 214.13 / metre							<b>Rs 1034247.90</b>

9	18.70.5 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:300 mm dia pipe		800				800.000	
		Total Quantity					800.000 joint	
		Total Deducted Quantity					0.000 joint	
		Net Total Quantity					800.000 joint	
		Say 800.000 joint @ Rs 430.68 / joint					<b>Rs 344544.00</b>	
10	18.30.7 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:300 mm diameter pipe		100				100.000	
		Total Quantity					100.000 Nos	
		Total Deducted Quantity					0.000 Nos	
		Net Total Quantity					100.000 Nos	
		Say 100.000 Nos @ Rs 603.77 / Nos					<b>Rs 60377.00</b>	
11	18.83.7 Labour for cutting C.I. pipe with steel saw.300 mm diameter C.I. pipe		50				50.000	
		Total Quantity					50.000 Each Cut	
		Total Deducted Quantity					0.000 Each Cut	
		Net Total Quantity					50.000 Each Cut	
		Say 50.000 Each Cut @ Rs 671.63 / Each Cut					<b>Rs 33581.50</b>	
12	100.35.5 Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA		1	4830.000			4830.000	
		Total Quantity					4830.000 metre	
		Total Deducted Quantity					0.000 metre	
		Net Total Quantity					4830.000 metre	
		Say 4830.000 metre @ Rs 57.81 / metre					<b>Rs 279222.30</b>	
13	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I"							

	Data derived from item no.18.31.4.1 of DAR							
	200mm sluice valve for scour arrangements	4					4.000	
	Total Quantity						4.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						4.000 Nos	
	Say 4.000 Nos @ Rs 1625.90 / Nos						<b>Rs 6503.60</b>	
14	100.31.1.7 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR							
		2					2.000	
	Total Quantity						2.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						2.000 Nos	
	Say 2.000 Nos @ Rs 2708.11 / Nos						<b>Rs 5416.22</b>	
15	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR							
		3					3.000	
	Total Quantity						3.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						3.000 Nos	
	Say 3.000 Nos @ Rs 146.63 / Nos						<b>Rs 439.89</b>	
16	100.32.3 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 50 mm Double acting Air Valve Data derived from item no.18.59.1 of DAR							
		5					5.000	
	Total Quantity						5.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						5.000 Nos	

	Say 5.000 Nos @ Rs 229.21 / Nos							<b>Rs 1146.05</b>
17	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. (excluding cost of specials).							
	90 degree DI bend	10		0.680			6.801	
	45 degree DI bend	10		0.500			5.000	
	22.5 degree DI bend	10		0.440			4.400	
	11.25 degree DI bend	10		0.400			4.000	
	300 x 80mm DI TEE	8		0.500			4.000	
	300 x 200mm DI TEE	4		0.640			2.560	
	Total Quantity							26.761 quintal
	Total Deducted Quantity							0.000 quintal
	Net Total Quantity							26.761 quintal
	Say 26.761 quintal @ Rs 603.91 / quintal							<b>Rs 16161.24</b>
18	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia							
	300mm MJ collar	10				0.48	4.800	
	Kerala Water Authority Total Quantity							4.800 quintal
	Total Deducted Quantity							0.000 quintal
	Net Total Quantity							4.800 quintal
	Say 4.800 quintal @ Rs 14708.65 / quintal							<b>Rs 70601.52</b>
19	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos							
	50 % hard soil	3	2.200	2.200	1.500	0.5	10.891	
	Total Quantity							10.891 cum
	Total Deducted Quantity							0.000 cum
	Net Total Quantity							10.891 cum
	Say 10.891 cum @ Rs 309.95 / cum							<b>Rs 3375.67</b>
20	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of							

	bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Ordinary rock								
	Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos								
	50 % O R	3	2.200	2.200	1.500	0.5	10.891		
	Total Quantity							10.891 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							10.891 cum	
	Say 10.891 cum @ Rs 550.62 / cum							<b>Rs 5996.80</b>	
21	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)								
	Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos								
	Base concrete	3	2.200	2.200	0.100		1.453		
	Total Quantity							1.453 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							1.453 cum	
	Say 1.453 cum @ Rs 7527.06 / cum							<b>Rs 10936.82</b>	
22	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)								
	Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos								
	Cover slab	3	2.100	2.100	0.200		2.647		
	Side wall of valve chamber	3	7.200	0.200	1.200		5.185		
	Total Quantity							7.832 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							7.832 cum	
	Say 7.832 cum @ Rs 9483.15 / cum							<b>Rs 74272.03</b>	
23	5.22.2 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Hard drawn steel wire								
	2.65 m3 @ 100 kg/m3	1	7.832			100.0	783.200		
	Total Quantity							783.200 kilogram	
	Total Deducted Quantity							0.000 kilogram	

	Net Total Quantity						783.200 kilogram	
	Say 783.200 kilogram @ Rs 105.23 / kilogram						<b>Rs 82416.14</b>	
24	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc.							
	Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos							
	Side wall	3*4	1.500	1.500			27.000	
	Cover slab	3	1.500	1.500			6.750	
	Total Quantity						33.750 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						33.750 sqm	
	Say 33.750 sqm @ Rs 748.62 / sqm						<b>Rs 25265.93</b>	
25	13.1.1 12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)							
	Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos							
		3	9.450				28.350	
	Total Quantity						28.350 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						28.350 sqm	
	Say 28.350 sqm @ Rs 327.85 / sqm						<b>Rs 9294.55</b>	
26	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	Construction of anchor block							
	Anchor block	10	1.000	1.000	1.000		10.000	
	Total Quantity						10.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						10.000 cum	
	Say 10.000 cum @ Rs 8340.93 / cum						<b>Rs 83409.30</b>	
27	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Construction of anchor block							
	For anchor block	10*4	1.000	1.000			40.000	

							Total Quantity	40.000 sqm	
							Total Deducted Quantity	0.000 sqm	
							Net Total Quantity	40.000 sqm	
							Say 40.000 sqm @ Rs 350.00 / sqm	<b>Rs 14000.00</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>5Appendix A - (3) - Supply and Laying 250mm DI pumping main from Nariyanpara to Idukki kavala (balance work re-arranging)- (a) Cost of materials (Cost Index:41.53 %)</b>									
1	100.98.118 Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.								
		1	1165.000				1165.000		
		1	23.000				23.000		
							Total Quantity	1188.000 metre	
							Total Deducted Quantity	0.000 metre	
							Net Total Quantity	1188.000 metre	
							Say 1188.000 metre @ Rs 3616.52 / metre	<b>Rs 4296425.76</b>	
2	od41949/2020_2021 Supply DI specials, Tees, Bends, Collars, Tapers etc.								
	250mm 90 degree bend	4				0.48	1.920		
	250mm 45 degree bend	4				0.36	1.440		
	250mm 22.5 degree bend	4				0.32	1.280		
	250mm 11.25 degree bend	4				0.3	1.200		
	250mmx200mm TEE	1				0.5	0.500		
	250mmx80mm TEE	3				0.37	1.110		
							Total Quantity	7.450 quintal	
							Total Deducted Quantity	0.000 quintal	
							Net Total Quantity	7.450 quintal	
							Say 7.450 quintal @ Rs 20384.00 / quintal	<b>Rs 151860.80</b>	
3	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.								
	200mm valve for scour arrangements	1					1.000		





2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)
Ordinary Rock - 15%	
	1      1165.000      0.900      1.200      0.15      188.730
Total Quantity	
188.730 cum	
Total Deducted Quantity	
0.000 cum	
Net Total Quantity	
188.730 cum	
Say 188.730 cum @ Rs 842.10 / cum	
<b>Rs 158929.53</b>	
3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3
Kerala Water Authority Medium Rock - 6%	
	1      1165.000      0.900      1.200      0.06      75.492
Total Quantity	
75.492 cum	
Total Deducted Quantity	
0.000 cum	
Net Total Quantity	
75.492 cum	
Say 75.492 cum @ Rs 1106.34 / cum	
<b>Rs 83519.82</b>	
4	2.7.3 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Hard rock (blasting prohibited)
Hard Rock - 2%	
	1      1165.000      0.900      1.200      0.02      25.164
Total Quantity	
25.164 cum	
Total Deducted Quantity	
0.000 cum	
Net Total Quantity	
25.164 cum	
Say 25.164 cum @ Rs 1248.58 / cum	
<b>Rs 31419.27</b>	

5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the initial lead of 50m and lift upto 1.50m(initial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures(200 Nos. of earth filled cement bags for 10m <sup>3</sup> blasting) (Ref. Item No. 1004 A of T C)		1	1165.000	0.900	1.200	0.02	25.164	
		Total Quantity						25.164 cum	
		Total Deducted Quantity						0.000 cum	
		Net Total Quantity						25.164 cum	
		Say 25.164 cum @ Rs 4093.40 / cum						<b>Rs 103006.32</b>	
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge		1	10.000				10.000	
		Total Quantity						10.000 cum	
		Total Deducted Quantity						0.000 cum	
		Net Total Quantity						10.000 cum	
		Say 10.000 cum @ Rs 548.85 / cum						<b>Rs 5488.50</b>	
7	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)		1	800.000				800.000	
		Total Quantity						800.000 metre	
		Total Deducted Quantity						0.000 metre	
		Net Total Quantity						800.000 metre	
		Say 800.000 metre @ Rs 28.82 / metre						<b>Rs 23056.00</b>	
8	100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR		1	1165.000				1165.000	
		Total Quantity						1165.000 metre	
		Total Deducted Quantity						0.000 metre	

								Net Total Quantity	1165.000 metre
								Say 1165.000 metre @ Rs 170.19 / metre	<b>Rs 198271.35</b>
9	18.70.4	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:250 mm dia pipes							
		230						230.000	
								Total Quantity	230.000 joint
								Total Deducted Quantity	0.000 joint
								Net Total Quantity	230.000 joint
								Say 230.000 joint @ Rs 329.84 / joint	<b>Rs 75863.20</b>
10	18.30.6	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe							
		25						25.000	
								Total Quantity	25.000 Nos
								Total Deducted Quantity	0.000 Nos
								Net Total Quantity	25.000 Nos
								Say 25.000 Nos @ Rs 595.56 / Nos	<b>Rs 14889.00</b>
11	18.83.6	Labour for cutting C.I. pipe with steel saw.250 mm diameter C.I. pipe							
		15						15.000	
								Total Quantity	15.000 Each Cut
								Total Deducted Quantity	0.000 Each Cut
								Net Total Quantity	15.000 Each Cut
								Say 15.000 Each Cut @ Rs 559.11 / Each Cut	<b>Rs 8386.65</b>
12	100.35.4	Testing 250mm DI/CI pipeline with potable water to the required test pressure . 250 mm dia Observed Data derived from item no.1022 of PHED DATA							
		1	1165.000					1165.000	
								Total Quantity	1165.000 metre
								Total Deducted Quantity	0.000 metre
								Net Total Quantity	1165.000 metre
								Say 1165.000 metre @ Rs 52.99 / metre	<b>Rs 61733.35</b>
13	100.31.1.5	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber							

	insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR							
	200 mm valve for scour arrangements	1					1.000	
	Total Quantity						1.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						1.000 Nos	
	Say 1.000 Nos @ Rs 1625.90 / Nos						<b>Rs 1625.90</b>	
14	100.31.1.6 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 250 mm diameter. Class I" Data derived from item no.18.31.5.1 of DAR							
		3					3.000	
	Total Quantity						3.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						3.000 Nos	
	Say 3.000 Nos @ Rs 2304.82 / Nos						<b>Rs 6914.46</b>	
15	100.32.1 Kerala Water Authority Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR							
		3					3.000	
	Total Quantity						3.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						3.000 Nos	
	Say 3.000 Nos @ Rs 146.63 / Nos						<b>Rs 439.89</b>	
16	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. (excluding cost of specials).							
	250 mm 90 degree DI bend	4				0.48	1.920	
	250 mm 45 degree DI bend	4				0.36	1.440	

	250 mm 22.5 degree DI bend	4				0.32	1.280		
	250 mm 11.25 degree DI bend	4				0.3	1.200		
	250x200mm TEE	1				0.5	0.500		
	250x80mm TEE	3				0.37	1.110		
	Total Quantity						7.450 quintal		
	Total Deducted Quantity						0.000 quintal		
	Net Total Quantity						7.450 quintal		
	Say 7.450 quintal @ Rs 603.91 / quintal						<b>Rs 4499.13</b>		
17	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia								
	250mm MJ collar	4				0.36	1.440		
	Total Quantity						1.440 quintal		
	Total Deducted Quantity						0.000 quintal		
	Net Total Quantity						1.440 quintal		
	Say 1.440 quintal @ Rs 14708.65 / quintal						<b>Rs 21180.46</b>		
18	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil								
	Construction of valve chamber of size 1.5x1.5x1.2 -3 Nos								
	50% Hard soil	3	2.200	2.200	1.500	0.5	10.891		
	Total Quantity						10.891 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						10.891 cum		
	Say 10.891 cum @ Rs 309.95 / cum						<b>Rs 3375.67</b>		
19	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Ordinary rock								
	Construction of valve chamber of size 1.5x1.5x1.2 -3 Nos								
	50% O R	3	2.200	2.200	1.500	0.5	10.891		

		Total Quantity						10.891 cum
		Total Deducted Quantity						0.000 cum
		Net Total Quantity						10.891 cum
		Say 10.891 cum @ Rs 550.62 / cum						<b>Rs 5996.80</b>
20	4.1.6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)						
		Construction of valve chamber of size 1.5x1.5x1.2 -3 Nos						
		3	2.200	2.200	0.100		1.453	
		Total Quantity						1.453 cum
		Total Deducted Quantity						0.000 cum
		Net Total Quantity						1.453 cum
		Say 1.453 cum @ Rs 7527.06 / cum						<b>Rs 10936.82</b>
21	5.1.2	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)						
		Construction of valve chamber of size 1.5x1.5x1.2 -3 Nos						
		3	7.200	0.200	1.200		5.185	
		Construction of valve chamber of size 1.5x1.5x1.2 -3 Nos						
	Cover slab	3	2.100	2.100	0.200		2.647	
		Total Quantity						7.832 cum
		Total Deducted Quantity						0.000 cum
		Net Total Quantity						7.832 cum
		Say 7.832 cum @ Rs 9483.15 / cum						<b>Rs 74272.03</b>
22	5.9.2	Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc.						
		Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos						
	Side wall	3*4	1.500	1.500			27.000	
	Cover slab	3	1.500	1.500			6.750	
		Total Quantity						33.750 sqm
		Total Deducted Quantity						0.000 sqm
		Net Total Quantity						33.750 sqm

	Say 33.750 sqm @ Rs 748.62 / sqm						<b>Rs 25265.93</b>	
23	5.22.2 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHard drawn steel wire							
	For valve chamber	1	783.200				783.200	
	Total Quantity						783.200 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						783.200 kilogram	
	Say 783.200 kilogram @ Rs 105.23 / kilogram						<b>Rs 82416.14</b>	
24	13.1.1 12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)							
	Construction of valve chamber of size 1.50x1.50x1.20m -3 Nos							
		3	9.450				28.350	
	Total Quantity						28.350 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						28.350 sqm	
	Say 28.350 sqm @ Rs 327.85 / sqm						<b>Rs 9294.55</b>	
25	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	Construction of anchor block							
	Anchor block	5	1.000	1.000	1.000		5.000	
	Total Quantity						5.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						5.000 cum	
	Say 5.000 cum @ Rs 8340.93 / cum						<b>Rs 41704.65</b>	
26	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Construction of anchor block							
	For anchor block	5*4	1.000	1.000	1.000		20.000	
	Total Quantity						20.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						20.000 sqm	

SI No	Description	No	L	B	D	CF	Quantity	Remark
Say 20.000 sqm @ Rs 350.00 / sqm							<b>Rs 7000.00</b>	
<b>7Appendix B - (1) - Improvements at Kalthotty sump- (a) patch work, painting and providing toilet etc. (Cost Index:41.53 %)</b>								
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared							
	Clearing and levelling the site	1	8.000	5.000	1.000		40.000	
Total Quantity							40.000 sqm	
Total Deducted Quantity							0.000 sqm	
Net Total Quantity							40.000 sqm	
Say 40.000 sqm @ Rs 15.43 / sqm							<b>Rs 617.20</b>	
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Excavation for foundation of toilet	1	8.800	0.800	0.700		4.928	
	For septic tank	1	4.400	2.400	2.000		21.120	
	For soak pit	1	1.900	1.900	1.800		6.498	
	For ramp	1	1.900	1.900	0.600		2.166	
	For column	4	1.500	1.500	0.700		6.300	
Total Quantity							41.012 cum	
Total Deducted Quantity							0.000 cum	
Net Total Quantity							41.012 cum	
Say 41.012 cum @ Rs 309.95 / cum							<b>Rs 12711.67</b>	
3	15.7.4 Demolishing brick work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge.In cement mortar							
	Demolishing work	1	1.000	0.200	2.500		0.500	
Total Quantity							0.500 cum	
Total Deducted Quantity							0.000 cum	
Net Total Quantity							0.500 cum	



	Say 0.500 cum @ Rs 1805.99 / cum						<b>Rs 903.00</b>	
4	15.2.1 Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)							
	RCC demolishing work	1	1.000	1.500	0.150		0.225	
	Total Quantity						0.225 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						0.225 cum	
	Say 0.225 cum @ Rs 2134.72 / cum						<b>Rs 480.31</b>	
5	7.1.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)							
	For foundation of toilet	1	8.800	0.600	0.600		3.168	
	For basement of toilet	1	8.800	0.450	0.4500		1.783	
	Foundation for ramp	1	1.400	1.400	0.300		0.588	
	Total Quantity						5.539 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						5.539 cum	
	Say 5.539 cum @ Rs 7520.41 / cum						<b>Rs 41655.55</b>	
6	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	Base for columns	4	1.500	1.500	0.200		1.800	
	Base for ramp footing	1	1.400	1.400	0.200		0.392	
	Total Quantity						2.192 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						2.192 cum	
	Say 2.192 cum @ Rs 7690.32 / cum						<b>Rs 16857.18</b>	
7	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete							
	Walls	1	8.800	0.200	3.000		5.281	

	Step	1	1.200	0.600	0.150		0.108	
		1	1.200	0.300	0.150		0.054	
	Ventilator	0.8	0.200	0.400			-0.064	
	Door of toilet	1	0.800	0.200	1.800		-0.288	
	Lintel	1	8.800	0.200	0.200		-0.352	
	Total Quantity						5.443 cum	
	Total Deducted Quantity						-0.704 cum	
	Net Total Quantity						4.739 cum	
	Say 4.739 cum @ Rs 7784.73 / cum						<b>Rs 36891.84</b>	
8	10.5.2 Providing and fixing 1 mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. Using flats 30x6 mm for diagonal braces and central cross piece							
		1	0.800	1.800			1.441	
	Total Quantity						1.441 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						1.441 sqm	
	Say 1.441 sqm @ Rs 5256.35 / sqm						<b>Rs 7574.40</b>	
9	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	Columns footing	1	1.300	1.300	0.300		0.507	
	Column	1	0.250	0.2500	0.200		0.013	
	Footing of ramp starting portion	1	1.000	1.400	0.200		0.280	
	Top of soak pit	1	1.45*4	0.450	0.005		0.014	
	Total Quantity						0.814 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						0.814 cum	
	Say 0.814 cum @ Rs 8964.72 / cum						<b>Rs 7297.28</b>	
10	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							

	Lintel for latrine	1	8.800	0.200	0.150		0.264		
	Roof slab for latrine	1	3.200	2.200	0.100		0.705		
	Waist slab for ramp	1	3+1+3+1	1.500	0.150		1.800		
	Longitudinal beam for waist slab	2	8.000	0.250	0.300		1.200		
	cross beam for waist slab	2	1.000	0.250	0.250		0.125		
	column	2	0.250	0.2500	3.000		0.375		
		2	0.250	0.250	1.500		0.188		
	Total Quantity						4.657 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						4.657 cum		
	Say 4.657 cum @ Rs 11433.93 / cum						<b>Rs 53247.81</b>		
11	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more								
	Qty same above 0.534+4.657	1	5.471		110.000		601.811		
	Total Quantity						601.811 kilogram		
	Total Deducted Quantity						0.000 kilogram		
	Net Total Quantity						601.811 kilogram		
	Say 601.811 kilogram @ Rs 102.61 / kilogram						<b>Rs 61751.83</b>		
12	5.9.1 Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete								
	Column footing	4	4*1.3		0.300		6.240		
		4	4*0.25		0.200		0.800		
	Ramp	1	4.800		0.200		0.960		
	Total Quantity						8.000 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						8.000 sqm		
	Say 8.000 sqm @ Rs 350.00 / sqm						<b>Rs 2800.00</b>		
13	5.9.3 Centering and shuttering including strutting, etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform								

	Slab	1	3.200	2.200			7.041		
	Side	1	10.800		0.100		1.080		
	Waist slab	1	8.000	1.500			12.000		
	Side	2	8.000	0.150			2.400		
	Cover slab for soak pit	1	1.900	1.900			3.610		
	Side for cover slabs	1	(4.4*2+2.4*2)+(1.9*4)	0.150			3.180		
	Total Quantity						29.311 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						29.311 sqm		
	Say 29.311 sqm @ Rs 851.52 / sqm						<b>Rs 24958.90</b>		
14	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers								
	Longitudinal beam	2	8.000	0.250			4.000		
		2*2	8.000	0.300			9.600		
	Cross beam	2	0.600	0.250			0.300		
	Side	2	1.000	0.600			1.200		
	Intel side	2	8.800	0.150			2.640		
	Total Quantity						17.740 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						17.740 sqm		
	Say 17.740 sqm @ Rs 678.28 / sqm						<b>Rs 12032.69</b>		
15	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts								
	Column	2	1.000		3.000		6.000		
		2	1.000		1.500		3.000		
	Total Quantity						9.000 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						9.000 sqm		
	Say 9.000 sqm @ Rs 901.48 / sqm						<b>Rs 8113.32</b>		
16	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)								

	Ceiling and Top	2	3.200	2.200			14.081	
	Total Quantity						14.081 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						14.081 sqm	
	Say 14.081 sqm @ Rs 418.79 / sqm						<b>Rs 5896.98</b>	
17	13.2.1 15 mm cement plaster on the rough side of single or half brick wall of mix:1:4 (1 cement :4 fine sand)							
	Toilet	1	9.600	2.500			24.000	
		1	8.000	2.500			20.000	
	Column	2	1.000	3.000			6.000	
		2	1.000	1.500			3.000	
	Cross beam	2	0.500	0.800			0.800	
	Waist slab	1	8.000	1.500			12.000	
		2	8.000	0.300			4.800	
	Deduction for door	1	0.800	1.800			-1.440	
	Ventilator	1	0.800	0.400			-0.320	
	Total Quantity						70.600 sqm	
	Total Deducted Quantity						-1.760 sqm	
	Net Total Quantity						68.840 sqm	
	Say 68.840 sqm @ Rs 378.31 / sqm						<b>Rs 26042.86</b>	
18	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)							
	Qty same plastering (68.84+14.081)	1	68.840+14.081				82.921	
	Sump	1	18*2		2.250		81.000	
	Pump house	4	8.000		3.000		96.000	
	Sunshade	4	9.200	0.6+0.6+0.15			49.680	
	Sump cover slab proj.	2	10.600	0.2+0.15			7.420	
		1	8.600	0.200			1.720	
	Rolling shutter	2	2.000		2.100	2.25	18.901	
	Window-3	1	1.500	1.350			-2.025	
	Window-2	1	1.000	1.350			-1.350	

	Door	1	0.900		2.100		-1.890	
	Shutter	1	2.000		2.100		-4.200	
	Total Quantity						337.642 sqm	
	Total Deducted Quantity						-9.465 sqm	
	Net Total Quantity						328.177 sqm	
	Say 328.177 sqm @ Rs 112.09 / sqm						<b>Rs 36785.36</b>	
19	13.48.3 Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture							
	Ventilator	2	0.800	0.400			0.641	
	Total Quantity						0.641 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						0.641 sqm	
	Say 0.641 sqm @ Rs 154.62 / sqm						<b>Rs 99.11</b>	
20	11.21.1.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile							
	Floor	1	2.500	1.500			3.750	
	Total Quantity						3.750 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						3.750 sqm	
	Say 3.750 sqm @ Rs 1836.85 / sqm						<b>Rs 6888.19</b>	
21	11.21.2.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In dado/ skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile							
	Sides	1	8.000	2.500			20.000	
		1	1.800	0.800			-1.440	
		1	0.400	0.800			-0.320	
	Total Quantity						20.000 sqm	
	Total Deducted Quantity						-1.760 sqm	

		Net Total Quantity						18.240 sqm
		Say 18.240 sqm @ Rs 1975.33 / sqm						<b>Rs 36030.02</b>
22	13.71	Lettering with black Japan pint of approved brand and manufacture						
		100	15.000				1500.000	
		Total Quantity						1500.000 Letterxcm ht
		Total Deducted Quantity						0.000 Letterxcm ht
		Net Total Quantity						1500.000 Letterxcm ht
		Say 1500.000 Letterxcm ht @ Rs 5.80 / Letterxcm ht						<b>Rs 8700.00</b>
23	50.10.1	Steel work in built up G I tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting,fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete						
		25 mm GI pipe-1.98kg/m						
	Hand rails horizontal	2*2	8.000			1.98	63.360	
	Vertical	30*2	0.750			1.98	89.100	
		Total Quantity						152.460 kg
		Total Deducted Quantity						0.000 kg
		Net Total Quantity						152.460 kg
		Say 152.460 kg @ Rs 198.21 / kg						<b>Rs 30219.10</b>
24	13.48.2	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture						
	Window - w3	1	1.500	1.350			2.026	
	Window - w2	3	1.000	1.350			4.051	
	Door	1	0.900	2.100			1.891	
		Total Quantity						7.968 sqm
		Total Deducted Quantity						0.000 sqm
		Net Total Quantity						7.968 sqm
		Say 7.968 sqm @ Rs 160.00 / sqm						<b>Rs 1274.88</b>
25	14.75	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under,including cutting the patch in proper shape, raking out joints and preparing plasteringthe wall surface with white cement based						

	polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.							
		1	50.000				50.000	
	Total Quantity						50.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						50.000 sqm	
	Say 50.000 sqm @ Rs 629.03 / sqm						<b>Rs 31451.50</b>	
26	od41173/2020_2021 Providing sanitary facilities including 500 ltr water tank,PVC septic tank,water closet,wash basin and other plumbing works and electrical works etc.complete.							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 46398.41 / No						<b>Rs 46398.41</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>8Appendix B - (1) - Improvements at Kalthotty sump- (b) Construction of retaining wall and compound wall (Cost Index:41.53 %)</b>								
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared							
		2	22.000	5.000			220.000	
		2	11.000	5.000			110.000	
	Total Quantity						330.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						330.000 sqm	
	Say 330.000 sqm @ Rs 15.43 / sqm						<b>Rs 5091.90</b>	
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
		1	22.000	1.500	1.500		49.500	
		2	11.000	0.800	0.600		10.560	
		1	22.000	0.800	0.600		10.560	



						Total Quantity	70.620 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	70.620 cum	
						Say 70.620 cum @ Rs 309.95 / cum	<b>Rs 21888.67</b>	
3	4.1.5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)						
		1	22.000	1.500	0.200		6.601	
		2	11.000	0.800	0.150		2.640	
		1	22.000	0.800	0.150		2.640	
						Total Quantity	11.881 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	11.881 cum	
						Say 11.881 cum @ Rs 7690.32 / cum	<b>Rs 91368.69</b>	
4	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)						
	length wise back side	1	22.000	$\frac{(1.5+0.7)}{2}$	3.200		77.441	
	width wise	2	11.000	0.800	0.450		7.921	
	front side	1	22.000	0.800	0.450		7.921	
						Total Quantity	93.283 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	93.283 cum	
						Say 93.283 cum @ Rs 7520.41 / cum	<b>Rs 701526.41</b>	
5	5.2.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
	length wise back side	1	22.000	$\frac{(1.5+0.6)}{2}$	0.200		4.620	
	width wise	2	11.000	0.450	0.100		0.991	
	front side	1	22.000	0.450	0.100		0.991	

						Total Quantity	6.602 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	6.602 cum	
						Say 6.602 cum @ Rs 11433.93 / cum	<b>Rs 75486.81</b>	
6	5.22.6	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more						
						60 kg /m3		
	length wise back side	1	22.000	$(1.5+0.6)/2$	0.200	60.0	277.200	
	width wise	2	11.000	0.450	0.100	60.0	59.401	
	front side	1	22.000	0.450	0.100	60.0	59.401	
						Total Quantity	396.002 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	396.002 kilogram	
						Say 396.002 kilogram @ Rs 102.61 / kilogram	<b>Rs 40633.77</b>	
7	50.2.25.1	Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge						
	Filling yard	1	22.000	2.000	1.500		66.000	
						Total Quantity	66.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	66.000 cum	
						Say 66.000 cum @ Rs 548.85 / cum	<b>Rs 36224.10</b>	
8	50.6.1.3	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete						
	compound wall	1	$22*2+11*2+1*20$	0.200	1.500		20.401	
						Total Quantity	20.401 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	20.401 cum	
						Say 20.401 cum @ Rs 7784.73 / cum	<b>Rs 158816.28</b>	
9	13.7.2							

	12 mm cement plaster finished with a floating coat of neat cement of mix:1:4 ( 1 cement : 4 fine sand)							
		1	22+20.5+1 1*2		1.5+.2+1.5		206.400	
	Total Quantity						206.400 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						206.400 sqm	
	Say 206.400 sqm @ Rs 403.29 / sqm						<b>Rs 83239.06</b>	
10	50.10.1 Steel work in built up G I tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting,fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete							
	gate -horizontal member	6	0.750			3.16	14.220	
		10	1.500			3.16	47.401	
	Total Quantity						61.621 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						61.621 kg	
	Say 61.621 kg @ Rs 198.21 / kg						<b>Rs 12213.90</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>9Appendix B - (2) - Design and Construction of Pipeline Bridge across kattappana river- (a)- RCC work (Cost Index:41.53 %)</b>								
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared							
		1	10.000	1.000			10.000	
		1	15.000	5.000	1.000		75.000	
	Total Quantity						85.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						85.000 sqm	
	Say 85.000 sqm @ Rs 15.43 / sqm						<b>Rs 1311.55</b>	
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
		4*2	1.400	1.400	1.500		23.520	

						Total Quantity	23.520 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	23.520 cum	
						Say 23.520 cum @ Rs 309.95 / cum	<b>Rs 7290.02</b>	
3	4.1.5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)						
	Foundation for columns	4*2	1.400	1.400	0.250		3.920	
						Total Quantity	3.920 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3.920 cum	
						Say 3.920 cum @ Rs 7690.32 / cum	<b>Rs 30146.05</b>	
4	5.33.1	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level						
	Foundation basement	4*2	1.200	1.200	0.350		4.032	
	Step footing	4*2	1.000	1.000	0.250		2.000	
						Total Quantity	6.032 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	6.032 cum	
						Say 6.032 cum @ Rs 9825.93 / cum	<b>Rs 59270.01</b>	
5	5.33.2	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level						
	Column above foundation	4*2	0.300	0.300	6.500		4.680	

	Beams below slab	4	10.000	0.300	0.500		6.000	
	Cross beams below slab	4	0.400	0.300	0.500		0.240	
	Bracings at 3M level	4*2	0.500	0.300	0.300		0.360	
	Top slab for bridge	2	10.000	1.000	0.150		3.000	
	Total Quantity						14.280 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						14.280 cum	
	Say 14.280 cum @ Rs 11550.40 / cum						<b>Rs 164939.71</b>	
6	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Qty as per above items 4 & 5	20.3					20.300	
	Total Quantity						20.300 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						20.300 cum	
	Say 20.300 cum @ Rs 85.70 / cum						<b>Rs 1739.71</b>	
7	5.22.1 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Mild steel and Medium Tensile steel bars							
	As per 5.33.1	1	6.032	100.000			603.200	
	As per 5.33.2	1	14.280	110.000			1570.800	
	Total Quantity						2174.000 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						2174.000 kg	
	Say 2174.000 kg @ Rs 100.91 / kg						<b>Rs 219378.34</b>	
8	5.9.1 Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete							
	Foundation	4*2	4.800		0.350		13.440	
		4*2	4.000		0.250		8.000	
	Total Quantity						21.440 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						21.440 sqm	

	Say 21.440 sqm @ Rs 350.00 / sqm						<b>Rs 7504.00</b>
9	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	Top slab for bridge	1	20.000	1.000			20.000
	Sides	2	20.000	0.150			6.000
	Total Quantity						26.000 sqm
	Total Deducted Quantity						0.000 sqm
	Net Total Quantity						26.000 sqm
	Say 26.000 sqm @ Rs 851.52 / sqm						<b>Rs 22139.52</b>
10	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers						
	Beam sides	2	20.000	1.000			40.000
	Cross beams below slab sides	4	0.400	1.000			1.600
	Bracings at 3M level side and bottom	4*2	0.400	0.900			2.881
	Total Quantity						44.481 sqm
	Total Deducted Quantity						0.000 sqm
	Net Total Quantity						44.481 sqm
	Say 44.481 sqm @ Rs 678.28 / sqm						<b>Rs 30170.57</b>
11	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts						
	Column above foundation	4*2	1.200		6.500		62.400
	Total Quantity						62.400 sqm
	Total Deducted Quantity						0.000 sqm
	Net Total Quantity						62.400 sqm
	Say 62.400 sqm @ Rs 901.48 / sqm						<b>Rs 56252.35</b>
12	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)						
	Column above foundation	4*2	1.200		6.500		62.400
	Beams below slab	2	20.000		1.000		40.000

	Cross beams below slab	4	0.400		1.000		1.600	
	Bracings at 3M level	4*2	0.400		1.200		3.840	
	Top slab for bridge	2	20.000	1.000			40.000	
	Total Quantity						147.840 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						147.840 sqm	
	Say 147.840 sqm @ Rs 418.79 / sqm						<b>Rs 61913.91</b>	
13	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)							
	Qty same as 13.7.1	1	156.560				156.560	
	Total Quantity						156.560 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						156.560 sqm	
	Say 156.560 sqm @ Rs 112.09 / sqm						<b>Rs 17548.81</b>	
14	10.26.3 Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.G.I. pipes							
		1	124.000		3.65		452.600	
	Total Quantity						452.600 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						452.600 kg	
	Say 452.600 kg @ Rs 194.18 / kg						<b>Rs 87885.87</b>	
15	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance to the site, erection, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc. complete. NEW DATA (Prepared based on PHED SDB - Item No.1070)							
	24 days @ 10 hours pumping per day= 10hrx5hpx0.7457= 37.285kwh per day	24	37.285				894.840	
	Total Quantity						894.840 Kwh	
	Total Deducted Quantity						0.000 Kwh	
	Net Total Quantity						894.840 Kwh	

Say 894.840 Kwh @ Rs 38.57 / Kwh							Rs 34513.98		
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>10 Appendix B - (2) - Design and Construction of pipeline bridge across kattappana river- (b) Steel bridge (Cost Index:41.53 %)</b>									
1	10.2 Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.								
	ISMB section 60x60x6mm -5.4kg/m,M.S sheet 94.5kg/m2								
	Longitudinal section - top (2L ISA 75x75x8mm)	2*2	14.400				8.9	512.640	
	top cross (ISA 65x65x8mm)	9	1.200				7.7	83.160	
	top diagonal (ISA 65x65x8mm)	2*8	2.100				7.7	258.721	
	vertical section both side (ISA 75x75x8mm)	2*9	1.800				8.9	288.360	
	diagonal member both side (ISA 65x65x8mm)	2*8	2.500				7.7	308.000	
	diagonal member at both end (ISA 75x75x8mm)	2*2	2.500				8.9	89.000	
	Longitudinal section- bottom (2L ISA 65x65x8mm)	2*2	18.000				7.7	554.400	
	LS -bottom middle (ISA 65x65x8mm)	2	18.000				7.7	277.200	
	bottom cross (ISLC 100)	11	1.200				7.9	104.280	
	plat form (8 mm chequered plates)	1	18.000	1.000			65.44	1177.920	
	Add 10% wastage	1	3653.681				0.1	365.369	
	Total Quantity							4019.050 kg	
	Total Deducted Quantity							0.000 kg	
	Net Total Quantity							4019.050 kg	
	Say 4019.050 kg @ Rs 125.04 / kg							<b>Rs 502542.01</b>	



2	13.52.1 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work								
	surface area 75*75*8 =0.291mm <sup>2</sup> ,65*65*8mm =0.252mm <sup>2</sup>								
	Longitudinal section - top (2L ISA 75 x 75 x 8 mm)	2*2	14.400			0.29	16.762		
	top cross (ISA 65x65x8mm)	9	1.200			0.25	2.722		
	top diagonal (ISA 65x65x8mm)	2*8	2.100			0.25	8.468		
	vertical section both side (ISA 75 x 75 x 8 mm)	2*9	1.800			0.29	9.429		
	diagonal member both side (ISA 65 x 65 x 8 mm)	2*8	2.500			0.25	10.080		
	diagonal member at both end (ISA 75x75x8mm)	2*2	2.500			0.29	2.910		
	Longitudinal section-bottom (2L ISA 65x65x8mm)	2*2	18.000			0.25	18.144		
	LS -bottom middle (ISA 65x65x8mm)	2	18.000			0.25	9.072		
	bottom cross (ISLC 100)	11	1.200			0.29	3.842		
	Total Quantity						81.429 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						81.429 sqm		
	Say 81.429 sqm @ Rs 233.10 / sqm						<b>Rs 18981.10</b>		
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>11Appendix B - (2) - Design and Construction of pipeline bridge across at kattappana river- (c) Supply and laying M S pipe and connecting to the existing line (Cost Index:41.53 %)</b>									

1	100.37.8.1 Fabricating MS pipes of size 250mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.	1	42.000				42.000	
		Total Quantity					42.000 metre	
		Total Deducted Quantity					0.000 metre	
		Net Total Quantity					42.000 metre	
		Say 42.000 metre @ Rs 7163.54 / metre					<b>Rs 300868.68</b>	
2	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)	1	8.000	0.800	1.200		7.680	
		Total Quantity					7.680 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					7.680 cum	
		Say 7.680 cum @ Rs 579.85 / cum					<b>Rs 4453.25</b>	
3	100.37.8.3 Cutting 250 mm (ID) MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	36					36.000	
		Total Quantity					36.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					36.000 No	
		Say 36.000 No @ Rs 272.02 / No					<b>Rs 9792.72</b>	
4	100.37.8.4 Welding 250mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods ,all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.	50					50.000	
		Total Quantity					50.000 No	

	Total Deducted Quantity							0.000 No
	Net Total Quantity							50.000 No
	Say 50.000 No @ Rs 1040.81 / No							<b>Rs 52040.50</b>
5	100.37.8.5 Grinding cut and weld edges of 250 mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.							
		50					50.000	
	Total Quantity							50.000 No
	Total Deducted Quantity							0.000 No
	Net Total Quantity							50.000 No
	Say 50.000 No @ Rs 195.17 / No							<b>Rs 9758.50</b>
6	100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR							
		1	42.000				42.000	
	Total Quantity							42.000 metre
	Total Deducted Quantity							0.000 metre
	Net Total Quantity							42.000 metre
	Say 42.000 metre @ Rs 170.19 / metre							<b>Rs 7147.98</b>
7	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia							
	250 mm M J	2				0.48	0.960	
	Total Quantity							0.960 quintal
	Total Deducted Quantity							0.000 quintal
	Net Total Quantity							0.960 quintal
	Say 0.960 quintal @ Rs 14708.65 / quintal							<b>Rs 14120.30</b>
8	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
		6	1.200	0.800	1.200		6.912	
	Total Quantity							6.912 cum
	Total Deducted Quantity							0.000 cum

	Net Total Quantity							6.912 cum
	Say 6.912 cum @ Rs 8964.72 / cum							<b>Rs 61964.14</b>
9	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
	6.92m3@90 kg/m3	1	6.920			90.0	622.800	
	Total Quantity							622.800 kilogram
	Total Deducted Quantity							0.000 kilogram
	Net Total Quantity							622.800 kilogram
	Say 622.800 kilogram @ Rs 102.61 / kilogram							<b>Rs 63905.51</b>
10	100.32.2 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 40 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR							
		1					1.000	
	Total Quantity							1.000 Nos
	Total Deducted Quantity							0.000 Nos
	Net Total Quantity							1.000 Nos
	Say 1.000 Nos @ Rs 184.41 / Nos							<b>Rs 184.41</b>
11	100.31.1.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :80 mm diameter. Class I" Observed Data derived from item no.18.31.of DAR							
	providing scour valve	1					1.000	
	Total Quantity							1.000 Nos
	Total Deducted Quantity							0.000 Nos
	Net Total Quantity							1.000 Nos
	Say 1.000 Nos @ Rs 613.74 / Nos							<b>Rs 613.74</b>
12	100.98.448 Supply of CI Air Valve with Flanges, Conforming to IS 14845 - 2000, Kinetic Air Valve Type DS1, Size 40mm							
		1					1.000	
	Total Quantity							1.000 No
	Total Deducted Quantity							0.000 No
	Net Total Quantity							1.000 No

SI No	Description	No	L	B	D	CF	Quantity	Remark
Say 1.000 No @ Rs 7646.15 / No							<b>Rs 7646.15</b>	
13	100.98.457 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.	1					1.000	
Total Quantity							1.000 No	
Total Deducted Quantity							0.000 No	
Net Total Quantity							1.000 No	
Say 1.000 No @ Rs 6624.05 / No							<b>Rs 6624.05</b>	
<b>12Appendix B - (3) - Wash water disposal arrangements at TP- (a) - Cost of materials (Cost Index:41.53 %)</b>								
1	100.98.120 Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.	1	400.000				400.000	
	2% for spare	1	8.000				8.000	
Total Quantity							408.000 metre	
Total Deducted Quantity							0.000 metre	
Net Total Quantity							408.000 metre	
Say 408.000 metre @ Rs 5506.95 / metre							<b>Rs 2246835.60</b>	
2	18.71.6 Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536):350 mm dia C.I Double Flanges Pipe	1	40.000				40.000	
Total Quantity							40.000 metre	
Total Deducted Quantity							0.000 metre	
Net Total Quantity							40.000 metre	
Say 40.000 metre @ Rs 10799.16 / metre							<b>Rs 431966.40</b>	
3	100.98.464 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 350mm.	1				2.0	2.000	
Total Quantity							2.000 No	
Total Deducted Quantity							0.000 No	
Net Total Quantity							2.000 No	

	Say 2.000 No @ Rs 77806.55 / No						<b>Rs 155613.10</b>	
4	od81358/2020_2021 Supply DI specials, Tees, Bends, Collars, Tapers etc.							
	90 degree DI bend	4	0.900				3.600	
	45 degree DI bend	10	0.650				6.500	
	22.5 degree DI bend	15	0.540				8.101	
	Total Quantity						18.201 quintal	
	Total Deducted Quantity						0.000 quintal	
	Net Total Quantity						18.201 quintal	
	Say 18.201 quintal @ Rs 20384.00 / quintal						<b>Rs 371009.18</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>13 Appendix B - (3) - Wash water disposal arrangements at TP- (b) Working charges (Cost Index:41.53 %)</b>								
1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)							
	For 350mm DI K9 pipes(65% for all classes of soil)	1	400.000	1.100	1.300		572.001	
	Total Quantity						572.001 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						572.001 cum	
	Say 572.001 cum @ Rs 579.85 / cum						<b>Rs 331674.78</b>	
2	100.14.6 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR							
	350mm DI K9 pipes	1	400.000				400.000	
	Total Quantity						400.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						400.000 metre	
	Say 400.000 metre @ Rs 283.70 / metre						<b>Rs 113480.00</b>	

3	100.31.2.8 Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 350 mm diameter. Class II" Observed Data derived from item no.18.31.of DAR						
	350 mm diameter class-II	2					2.000
	Total Quantity						2.000 Nos
	Total Deducted Quantity						0.000 Nos
	Net Total Quantity						2.000 Nos
	Say 2.000 Nos @ Rs 4148.10 / Nos						<b>Rs 8296.20</b>
4	18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe						
	350 mm pipe	15					15.000
	Total Quantity						15.000 Each Cut
	Total Deducted Quantity						0.000 Each Cut
	Net Total Quantity						15.000 Each Cut
	Say 15.000 Each Cut @ Rs 781.10 / Each Cut						<b>Rs 11716.50</b>
5	18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:350 mm dia pipes						
		85					85.000
	Total Quantity						85.000 joint
	Total Deducted Quantity						0.000 joint
	Net Total Quantity						85.000 joint
	Say 85.000 joint @ Rs 456.93 / joint						<b>Rs 38839.05</b>
6	18.67.2 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia						
	350 mm MJ collar	2	0.620				1.240
	Total Quantity						1.240 quintal
	Total Deducted Quantity						0.000 quintal
	Net Total Quantity						1.240 quintal
	Say 1.240 quintal @ Rs 15492.79 / quintal						<b>Rs 19211.06</b>
7	18.24 Laying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. (						

	excluding cost of specials).							
	90 degree DI bend	4	0.900				3.600	
	45 degree DI bend	10	0.650				6.500	
	22.5 degree DI bend	15	0.540				8.101	
	Total Quantity						18.201 quintal	
	Total Deducted Quantity						0.000 quintal	
	Net Total Quantity						18.201 quintal	
	Say 18.201 quintal @ Rs 603.91 / quintal						<b>Rs 10991.77</b>	
8	100.35.6 Testing 350mm DI/CI pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA							
		1	400.000				400.000	
	Total Quantity						400.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						400.000 metre	
	Say 400.000 metre @ Rs 70.53 / metre						<b>Rs 28212.00</b>	
9	5.1.3 Providing and laying in position Kenya specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	Anchor block							
	For anchor block	70	1.000	1.000	1.000		70.000	Pipe line laying through steep hilly terrain. So more anchor block has to be provided.
	Pipe portion	70	1.000	0.200	0.200	3.14	-8.792	
	Total Quantity						70.000 cum	
	Total Deducted Quantity						-8.792 cum	
	Net Total Quantity						61.208 cum	
	Say 61.208 cum @ Rs 8964.72 / cum						<b>Rs 548712.58</b>	



10	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	Anchor block							
	20 m3 concrete @ 50kg steel/ m3	61.208				40.0	2448.320	
	Total Quantity						2448.320 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						2448.320 kilogram	
	Say 2448.320 kilogram @ Rs 102.61 / kilogram						<b>Rs 251222.12</b>	
11	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Anchor block							
	Form work for anchor block	70*4	1.000	1.000			280.000	
	Pipe portion	70*2	0.200	0.200		3.14	-17.584	
	Total Quantity						280.000 sqm	
	Total Deducted Quantity						-17.584 sqm	
	Net Total Quantity						262.416 sqm	
	Say 262.416 sqm @ Rs 350.00 / sqm						<b>Rs 91845.60</b>	
12	od41799/2020_2021 Construction of RCC valve chamber of size 1mx1mx1.4 m cost of excavation work,75mm thick M10 concrete base,150 mm side wall,150mm bottom and cover slab of chamber with M20 concrete with reinforcement including plastering inside and out side of wall.etc.complete.							
		2					2.000	
	Total Quantity						2.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						2.000 No	
	Say 2.000 No @ Rs 42969.05 / No						<b>Rs 85938.10</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>14Appendix B - (4) - supply and laying 80 mm GI pumping main from intermediate sump at Nariyanpara to GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials (Cost Index:41.53 %)</b>								
1	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
		3					3.000	

	Total Quantity						3.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						3.000 No	
	Say 3.000 No @ Rs 5636.75 / No						<b>Rs 16910.25</b>	
2	100.98.457 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 6624.05 / No						<b>Rs 6624.05</b>	
3	od41959/2020_2021 Supply of 80mm GI pipe(m)							
		1	1177.000				1177.000	
	Total Quantity						1177.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1177.000 metre	
	Say 1177.000 metre @ Rs 830.16 / metre						<b>Rs 977098.32</b>	
4	od41983/2020_2021 Specials for 80mm GI pipe -10 % of value of pipe supply-(supplying and laying 80 mm GI pipes from intermediate sump at Nariyanpara to GLSR at Nariyanpara top-(a) Cost of materials)							
		1					1.000	
	Total Quantity						1.000 set	
	Total Deducted Quantity						0.000 set	
	Net Total Quantity						1.000 set	
	Say 1.000 set @ Rs 81318.93 / set						<b>Rs 81318.93</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>15Appendix B - (4) - supply and laying 80 mm GI pumping main from intermediate sump at Nariyanpara to GLSR at Nariyanpara top using 80 mm GI pipe-(b) Working charges (Cost Index:41.53 %)</b>								
1	100.12.8 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 80 mm dia nominal bore Data derived from item no.18.12.8 of DAR Data for 10 m							

		1	1177.000				1177.000	
	Total Quantity						1177.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						1177.000 metre	
	Say 1177.000 metre @ Rs 217.74 / metre						<b>Rs 256279.98</b>	
2	100.31.2.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 80 mm diameter. Class II" Observed Data derived from item no.18.31.of DAR							
		1					1.000	
	Total Quantity						1.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						1.000 Nos	
	Say 1.000 Nos @ Rs 652.74 / Nos						<b>Rs 652.74</b>	
3	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR							
		3					3.000	
	Total Quantity						3.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						3.000 Nos	
	Say 3.000 Nos @ Rs 146.63 / Nos						<b>Rs 439.89</b>	
4	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	Anchor block	10	0.800	0.800	0.600		3.841	
	Total Quantity						3.841 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						3.841 cum	
	Say 3.841 cum @ Rs 11433.93 / cum						<b>Rs 43917.73</b>	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and							

	binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
	Anchor block 6.841 m3	1	3.841	50.000			192.050	
	Total Quantity						192.050 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						192.050 kilogram	
	Say 192.050 kilogram @ Rs 102.61 / kilogram						<b>Rs 19706.25</b>	
6	5.9.1 Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete							
	Anchor block	10*4	0.800	0.600			19.200	
	Total Quantity						19.200 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						19.200 sqm	
	Say 19.200 sqm @ Rs 350.00 / sqm						<b>Rs 6720.00</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>16 Appendix B - (5) - Design and construction of intermediate sump at Nariyanpara (Cost Index:41.53 %)</b>								
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared							
		1	15.000	15.000			225.000	
	Total Quantity						225.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						225.000 sqm	
	Say 225.000 sqm @ Rs 15.43 / sqm						<b>Rs 3471.75</b>	
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil							
		1	15.000	8.000	1.350		162.000	
	Total Quantity						162.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						162.000 cum	
	Say 162.000 cum @ Rs 309.95 / cum						<b>Rs 50211.90</b>	

3	2.7.2 Earth work in excavation by mechanical means (Hydraulic excavator )/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (requiring blasting)								
		1	8.000	3.000	4.000		96.000		
		Total Quantity					96.000 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					96.000 cum		
		Say 96.000 cum @ Rs 749.05 / cum						<b>Rs 71908.80</b>	
4	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)								
	Base slab	1	9.500	7.000	0.200		13.300		
		Total Quantity					13.300 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					13.300 cum		
		Say 13.300 cum @ Rs 7527.06 / cum						<b>Rs 100109.90</b>	
5	7.1.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)								
		1	9.500	7.000	1.000		66.500		
		Total Quantity					66.500 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					66.500 cum		
		Say 66.500 cum @ Rs 7520.41 / cum						<b>Rs 500107.27</b>	
6	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)								
		1	9.400	6.900	0.150		9.729		
		Total Quantity					9.729 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					9.729 cum		
		Say 9.729 cum @ Rs 7690.32 / cum						<b>Rs 74819.12</b>	

7	5.33.2 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level							
	Base of sump	1	8.600	6.100	0.250		13.115	
	Side walls	1	28.200	0.300	2.500		21.150	
	Haunch	0.5	25.400	0.400	0.250		1.270	
	Cover slab of sump	1	9.500	7.000	0.150		9.975	
	Beams under roof slab long beam	1	8.000	0.300	0.250		0.600	
	Beams under roof slab short beam	2	2.600	0.300	0.250		0.390	
	Column	1	0.300	0.300	2.000		0.180	
	Column footing	1	0.900	0.900	0.250		0.203	
	Deduction for man hole cover	2	0.600	0.600	0.150		-0.108	
	Total Quantity						46.883 cum	
	Total Deducted Quantity						-0.108 cum	
	Net Total Quantity						46.775 cum	
	Say 46.775 cum @ Rs 11550.40 / cum						<b>Rs 540269.96</b>	
8	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							
	Qty same as item 7 - 46.775m3	46.775					46.775	
	Total Quantity						46.775 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						46.775 cum	
	Say 46.775 cum @ Rs 85.70 / cum						<b>Rs 4008.62</b>	
9	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							

Reinforcement - 120kg/m3							
qty same as 5.33.2= 46.775 m3 @ 120kg per m3	1	46.775			120.0	5613.000	
Total Quantity						5613.000 kilogram	
Total Deducted Quantity						0.000 kilogram	
Net Total Quantity						5613.000 kilogram	
Say 5613.000 kilogram @ Rs 102.61 / kilogram						<b>Rs 575949.93</b>	
10	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
Base avg thickness	1	9.5+9.5+7 +7	0.200			6.601	
Base slab of sump	1	9.4+9.4+6. 9+6.9	0.150			4.890	
Footing	1	8.6+8.6+6. 1+6.1	0.250			7.350	
Total Quantity						18.841 sqm	
Total Deducted Quantity						0.000 sqm	
Net Total Quantity						18.841 sqm	
Say 18.841 sqm @ Rs 350.00 / sqm						<b>Rs 6594.35</b>	
11	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butresses, plinth and string courses etc.						
$((8.6*2)+(6.1*2))+((8*2)+(5.5*2))$	1	56.400	2.500	1.000		141.000	
Total Quantity						141.000 sqm	
Total Deducted Quantity						0.000 sqm	
Net Total Quantity						141.000 sqm	
Say 141.000 sqm @ Rs 748.62 / sqm						<b>Rs 105555.42</b>	
12	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
Cover slab of sump	1	9.500	7.000			66.500	
Side of cover slab	1	33.000	0.150			4.950	
Total Quantity						71.450 sqm	

		Total Deducted Quantity				0.000 sqm	
		Net Total Quantity				71.450 sqm	
		Say 71.450 sqm @ Rs 851.52 / sqm				<b>Rs 60841.10</b>	
13	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers						
	long beam bottom	2	3.850	0.300			2.310
	Long beam sides	2*2	3.850	0.250			3.850
	short beam bottom	2	2.600	0.300			1.560
	short beam sides	2*2	2.600	0.250			2.600
		Total Quantity				10.320 sqm	
		Total Deducted Quantity				0.000 sqm	
		Net Total Quantity				10.320 sqm	
		Say 10.320 sqm @ Rs 678.28 / sqm				<b>Rs 6999.85</b>	
14	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts						
	Columns	1	1.200	2.2500			2.700
	Sides of column footing	1	3.600	0.250			0.900
		Total Quantity				3.600 sqm	
		Total Deducted Quantity				0.000 sqm	
		Net Total Quantity				3.600 sqm	
		Say 3.600 sqm @ Rs 901.48 / sqm				<b>Rs 3245.33</b>	
15	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)						
	Inside of tank floor	1	8.000	5.500			44.000
	Inside tank	1	27.000	2.500			67.500
	Haunch	1	27.000	0.400			10.800
	column	1	1.200	2.2500			2.700
	column footing side	1	3.600	0.2500			0.900
		Total Quantity				125.900 sqm	
		Total Deducted Quantity				0.000 sqm	
		Net Total Quantity				125.900 sqm	
		Say 125.900 sqm @ Rs 418.79 / sqm				<b>Rs 52725.66</b>	



16	13.8.2 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:1: 4 ( 1 cement : 4 fine sand)								
	Base slab sides	1	9.4+9.4+6.9+6.9	0.200			6.521		
	Base slab top	1	9.4+9.4+6.1+6.1	0.400			12.400		
	Outside of sump	1	8.6+8.6+6.1+6.1	2.750			80.850		
	Cover slab top	1	9.500	7.000			66.500		
	Cover slab side	1	33.000	0.150			4.950		
	Ceiling	1	8.000	5.500			44.000		
	Projection of cover slab bottom	1	31.000	0.450			13.951		
	Beam sides(Long beam)	2	7.700	0.250			3.850		
	Beam sides(short beam)	2	5.200	0.250			2.600		
	Total Quantity						235.622 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						235.622 sqm		
	Say 235.622 sqm @ Rs 453.75 / sqm						<b>Rs 106913.48</b>		
17	100.41.33 Supplying and fixing 500mm dia CI manhole cover with frame( medium duty) charges including all cost, labour charges etc complete.								
		2					2.000		
	Total Quantity						2.000 Nos		
	Total Deducted Quantity						0.000 Nos		
	Net Total Quantity						2.000 Nos		
	Say 2.000 Nos @ Rs 7835.95 / Nos						<b>Rs 15671.90</b>		
18	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)								
	Base slab sides	1	9.4+9.4+6.9+6.9	0.200			6.521		
	Base slab top	1	9.4+9.4+6.1+6.1	0.400			12.400		

	Outside of sump	1	8.6+8.6+6.1+6.1	2.750			80.850		
	Cover slab top	1	9.500	7.000			66.500		
	Cover slab side	1	33.000	0.150			4.950		
	Ceiling	1	8.000	5.500			44.000		
	Projection of cover slab bottom	1	31.000	0.450			13.951		
	Beam sides(Long beam)	2	7.700	0.250			3.850		
	Beam sides(short beam)	2	5.200	0.250			2.600		
	Total Quantity						235.622 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						235.622 sqm		
	Say 235.622 sqm @ Rs 112.09 / sqm						<b>Rs 26410.87</b>		
19	10.26.3 Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.G.I. pipes								
	For 2 Nos Ladder (Length 3 mtr, Width 50 cm, 3.65 kg for 1 mtr length GI pipe)								
	Long member	4	3.000			3.65	43.800		
	Short member	22	0.500			3.65	40.150		
	Total Quantity						83.950 kg		
	Total Deducted Quantity						0.000 kg		
	Net Total Quantity						83.950 kg		
	Say 83.950 kg @ Rs 194.18 / kg						<b>Rs 16301.41</b>		
20	od149225/2018_2019 DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete ) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout( 0.10kg/each) etc complete.								
		50					50.000		
	Total Quantity						50.000 No		
	Total Deducted Quantity						0.000 No		
	Net Total Quantity						50.000 No		
	Say 50.000 No @ Rs 481.80 / No						<b>Rs 24090.00</b>		
21	od148944/2018_2019 Supplying and fixing 100mm dia vent cowl incl. fitting charges etc. complete								

		2					2.000	
	Total Quantity						2.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						2.000 No	
	Say 2.000 No @ Rs 3484.50 / No						<b>Rs 6969.00</b>	
22	od148945/2018_2019 Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, 80mm - 1 Nos for outlet, scour and overflow including labour charges etc. Complete and interconnecting overflow units distribution line ( rate as per order no : KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.2015)							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 48175.54 / No						<b>Rs 48175.54</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>17Appendix B - (6) - construction of intermediate pump house at Nariyanpara- (a) Construction of pump house (Cost Index:41.53 %)</b>								
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Foundation	1	27.800	0.800	0.600		13.345	
	Column foundation	5	1.500	1.500	1.000		11.250	
	For Soakpit	1	1.200	1.200	1.800		2.592	
	Deduction for column foundation	4	1.500	-0.8	0.600		-2.880	
	Total Quantity						24.307 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						24.307 cum	
	Say 24.307 cum @ Rs 309.95 / cum						<b>Rs 7533.95</b>	
2	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge							
		1	8.000	5.500	0.450		19.800	
	Total Quantity						19.800 cum	

		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					19.800 cum	
		Say 19.800 cum @ Rs 548.85 / cum					<b>Rs 10867.23</b>	
3	7.1.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)							
	Foundation	1	27.800	0.600	0.600		10.008	
	Basement	1	27.800	0.450	0.450		5.630	
	Deduction for column footing	4	1.400	0.600	0.300		-1.008	
		4	1.200	0.450	0.200		-0.432	
		Total Quantity					15.638 cum	
		Total Deducted Quantity					-1.440 cum	
		Net Total Quantity					14.198 cum	
		Say 14.198 cum @ Rs 7520.41 / cum					<b>Rs 106774.78</b>	
4	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)							
	Flooring	1	8.000	5.500	0.150		6.600	
	BEd for pumpset	2	1.500	1.500	0.200		0.900	
	Column base	5	1.500	1.500	0.200		2.250	
	Base course	1	27.800	0.800	0.100		2.224	
	PCC	1	7.500	1.500	0.100		1.125	
		Total Quantity					13.099 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					13.099 cum	
		Say 13.099 cum @ Rs 7527.06 / cum					<b>Rs 98596.96</b>	
5	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete							
	Wall	1	27.800	0.200	4.500		25.021	
	Partition wall	1	4.500	0.100	4.500		2.025	

	Parapet	1	9.1*2+6.6* 2	0.100	0.600		1.884		
	Deduction -Rolling shutter	1	3.000	0.200	-3		1.801		
	Window	4	1.100	0.200	-1.5		1.321		
	Ventilator	1	0.800	0.200	-6		0.097		
	Door for toilet	1	0.800	0.100	-1.8		0.145		
	Lintel	1	27.800	0.200	-2		1.112		
	Total Quantity						33.406 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						33.406 cum		
	Say 33.406 cum @ Rs 7784.73 / cum						<b>Rs 260056.69</b>		
6	<p>10.6.1 Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover</p>								
		1	3.000	3.000			9.000		
	Total Quantity						9.000 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						9.000 sqm		
	Say 9.000 sqm @ Rs 3617.29 / sqm						<b>Rs 32555.61</b>		
7	<p>10.5.1 Providing and fixing 1 mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.Using M.S. angels 40x40x6 mm for diagonal braces</p>								
	Window	4	1.100	1.500	1.000		6.601		
	Ventilator	1	0.800	0.600	1.000		0.480		
	Total Quantity						7.081 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						7.081 sqm		
	Say 7.081 sqm @ Rs 5440.63 / sqm						<b>Rs 38525.10</b>		
8	<p>9.6.1 Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS:</p>								

	14616 and TADS 15:2001 (Part B), including ISI marked M.S.pressed butt hinges bright finished of required size with necessary screws, all complete as per directions of Engineer-in-Charge and panelling with panels of:12 mm thick plain grade- 1, medium density flat pressed three layer particle board FPT- I or graded wood particle board FPT-I, IS : 3087 marked, bonded with BWP type synthetic resin adhesive as per IS: 848:							
	Door	1	0.800	1.800			1.441	
	Total Quantity						1.441 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						1.441 sqm	
	Say 1.441 sqm @ Rs 3239.48 / sqm						<b>Rs 4668.09</b>	
9	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1.5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)							
	Column Footing	5	1.400	1.400	0.300		2.940	
		5	1.200	1.200	0.200		1.440	
		5	0.300	0.300	0.550		0.248	
	Total Quantity						4.628 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						4.628 cum	
	Say 4.628 cum @ Rs 9483.15 / cum						<b>Rs 43888.02</b>	
10	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	Lintel	1	27.800	0.200	0.200		1.112	
	Sunshade	1	31.400	0.700	0.085		1.869	
	Beams long	1	8.400	0.300	0.400		1.008	
	Beams short	2	2.600	0.300	0.400		0.625	
	Beam cover shutter	1	3.300	0.200	0.300		0.198	
	Roof slab	1	9.100	6.600	0.100		6.006	
	Column	5	0.300	0.300	4.100		1.845	
	Cover slab of soakpit	1	1.200	1.200	0.150		0.216	
	Top of Soakpit	1	2*3.14*.6	0.005	1.000		0.019	
	Total Quantity						12.898 cum	

		Total Deducted Quantity		0.000 cum			
		Net Total Quantity		12.898 cum			
		Say 12.898 cum @ Rs 11433.93 / cum		<b>Rs 147474.83</b>			
11	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more						
	Qty same(10+11)	1	4.628+12.898		120.0	2103.120	
		Total Quantity		2103.120 kilogram			
		Total Deducted Quantity		0.000 kilogram			
		Net Total Quantity		2103.120 kilogram			
		Say 2103.120 kilogram @ Rs 102.61 / kilogram		<b>Rs 215801.14</b>			
12	5.9.1 Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete						
	Column footing	5	1.4*4	0.300		8.400	
		5	1.2*4	0.200		4.800	
		5	.3*4	0.450		2.700	
		Total Quantity		15.900 sqm			
		Total Deducted Quantity		0.000 sqm			
		Net Total Quantity		15.900 sqm			
		Say 15.900 sqm @ Rs 350.00 / sqm		<b>Rs 5565.00</b>			
13	5.9.3 Centering and shuttering including strutting, etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform						
	Sunshade	1	9.1*2+6.6*2	0.700		21.980	
	Side	1	9.8*2+2*7.2		0.085	2.890	
	Roof slab	1	8.700	5.800		50.460	
	Side	1	8.7*2+5.8*2		0.100	2.901	
	Soakpit slab	1	1.200	1.200		1.440	
		1	1.2*4		0.150	0.720	
		Total Quantity		80.391 sqm			
		Total Deducted Quantity		0.000 sqm			

	Net Total Quantity						80.391 sqm	
	Say 80.391 sqm @ Rs 851.52 / sqm						<b>Rs 68454.54</b>	
14	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							
	Lintel	1	27.800	0.300			8.340	
	Beams	1	8.400		.4*2		6.721	
		2	2.600		.4*2		4.160	
	Beam over shutter	1	3.300	0.850			2.805	
	Total Quantity						22.026 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						22.026 sqm	
	Say 22.026 sqm @ Rs 678.28 / sqm						<b>Rs 14939.80</b>	
15	5.9.6 Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts							
		1	.3*4		3.600		4.320	
		4	.3+.1+.1		3.600		7.200	
	Kerala Water Authority Total Quantity						11.520 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						11.520 sqm	
	Say 11.520 sqm @ Rs 901.48 / sqm						<b>Rs 10385.05</b>	
16	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)							
	Ceiling and top	2	9.700	7.200			139.680	
	Floor finishing	1	8.000	6.000			48.000	
	Total Quantity						187.680 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						187.680 sqm	
	Say 187.680 sqm @ Rs 418.79 / sqm						<b>Rs 78598.51</b>	
17	13.8.2 15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:1: 4 ( 1 cement : 4 fine sand)							
	Pump house wall	1	16+11	4.500			121.500	



		1	8.4*2+5.9* 2	4.500			128.701	
	Parapet	1	9.1*2+6.6* 2	1.300			40.820	
	Column	4	0.200	4.100			3.280	
		1	.3*4	4.100			4.920	
	Beams	2	2.850	1.000			5.700	
		1	8.400	1.000			8.400	
	Beams over shutter	1	3.200	0.800			2.561	
	Deduction	1	3.000	3.000			-9.000	
		1	0.800	1.800			-1.440	
		4	1.100	1.500			-6.600	
		1	0.800	0.600			-0.480	
	Shutter	1	3.000	3.000			9.000	
						Total Quantity	324.882 sqm	
						Total Deducted Quantity	-17.520 sqm	
						Net Total Quantity	307.362 sqm	
						Say 307.362 sqm @ Rs 453.75 / sqm	<b>Rs 139465.51</b>	
18	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)							
	Qty same 17 and 18(187.68+307.362)	1	187.68+30 7.362				495.043	
						Total Quantity	495.043 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	495.043 sqm	
						Say 495.043 sqm @ Rs 112.09 / sqm	<b>Rs 55489.37</b>	
19	13.50.1 Applying priming coat:With ready mixed pink or Grey primer of approved and manufacture on wood work (hard and soft wood)							
	Shutter	1	3.000	3.000			9.000	
						Total Quantity	9.000 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9.000 sqm	
						Say 9.000 sqm @ Rs 70.13 / sqm	<b>Rs 631.17</b>	

20	13.48.3	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture						
	Shutter	1	3.000	3.000			9.000	
	Window	4	1.100	1.500			6.601	
	Total Quantity						15.601 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						15.601 sqm	
	Say 15.601 sqm @ Rs 154.62 / sqm						<b>Rs 2412.23</b>	
21	13.71	Lettering with black Japan pint of approved brand and manufacture						
		100	15.000				1500.000	
	Total Quantity						1500.000 Letterxcm ht	
	Total Deducted Quantity						0.000 Letterxcm ht	
	Net Total Quantity						1500.000 Letterxcm ht	
	Say 1500.000 Letterxcm ht @ Rs 5.80 / Letterxcm ht						<b>Rs 8700.00</b>	
22	od148939/2018_2019	Providing sanitary facilities and electrical works including water closet ,flushing cistern ,wash basin,septic tank and 100ltr water tank and other required sanitary and electrical fittings.						
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 86206.16 / No						<b>Rs 86206.16</b>	
23	od148926/2018_2019	Dry rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:						
		1	2.000	3.14*.6	1.800		6.783	
	Total Quantity						6.783 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						6.783 cum	
	Say 6.783 cum @ Rs 4957.19 / cum						<b>Rs 33624.62</b>	

24	11.21.1.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile								
	Floor	1	2.800	1.500				4.200	
			Total Quantity					4.200 sqm	
			Total Deducted Quantity					0.000 sqm	
			Net Total Quantity					4.200 sqm	
			Say 4.200 sqm @ Rs 1836.85 / sqm					<b>Rs 7714.77</b>	
25	11.21.2.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and /or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In dado/ skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile								
	For side wall	1	8.600	3.000				25.800	
	Deduction	1	0.800	0.400				-0.320	
		1	1.800	0.800				-1.440	
			Total Quantity					25.800 sqm	
			Total Deducted Quantity					-1.760 sqm	
			Net Total Quantity					24.040 sqm	
			Say 24.040 sqm @ Rs 1975.33 / sqm					<b>Rs 47486.93</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>18Appendix B - (6) - construction of intermediate pump house at Nariyanpara- (b) Construction of protection wall and compound wall (Cost Index:41.53 %)</b>									
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil								
		1	23.000	1.200	1.500			41.400	
			Total Quantity					41.400 cum	
			Total Deducted Quantity					0.000 cum	
			Net Total Quantity					41.400 cum	
			Say 41.400 cum @ Rs 309.95 / cum					<b>Rs 12831.93</b>	
2	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and								

	shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		1	23.000	1.200	0.200		5.520	
	Total Quantity						5.520 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						5.520 cum	
	Say 5.520 cum @ Rs 7690.32 / cum						<b>Rs 42450.57</b>	
3	7.1.1 Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)							
		1	23.000	0.900	1.600		33.120	
	Total Quantity						33.120 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						33.120 cum	
	Say 33.120 cum @ Rs 7520.41 / cum						<b>Rs 249075.98</b>	
4	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	Belt	1	23.000	0.900	0.150		3.105	
	Top	1	23.000	0.600	0.050		0.690	
	Total Quantity						3.795 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						3.795 cum	
	Say 3.795 cum @ Rs 11433.93 / cum						<b>Rs 43391.76</b>	
5	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge							
		1	18.000	3.000	0.900		48.600	
	Total Quantity						48.600 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						48.600 cum	
	Say 48.600 cum @ Rs 548.85 / cum						<b>Rs 26674.11</b>	

6	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete							
	Compound wall	1	22*2+10*2	0.200	1.500		19.201	
	Total Quantity						19.201 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						19.201 cum	
	Say 19.201 cum @ Rs 7784.73 / cum						<b>Rs 149474.60</b>	
7	13.7.2 12 mm cement plaster finished with a floating coat of neat cement of mix:1:4 ( 1 cement : 4 fine sand)							
		1	22*2+10*2		1.5+1.5+.2		204.800	
	Total Quantity						204.800 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						204.800 sqm	
	Say 204.800 sqm @ Rs 403.29 / sqm						<b>Rs 82593.79</b>	
8	50.10.1 Steel work in built up G I tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting,fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete							
	gate -horizontal member	6	0.750		3.16		14.220	
		10	1.500		3.16		47.401	
	Total Quantity						61.621 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						61.621 kg	
	Say 61.621 kg @ Rs 198.21 / kg						<b>Rs 12213.90</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>19Appendix B - (7) - Supplying and laying 80mm GI pumping main from sump at TP to Alady Kurisumala GLSR - (a) Cost of materials (Cost Index:41.53 %)</b>								
1	od190319/2018_2019 Supply of 80mm GI pipe(m)							
		1	310.000				310.000	
	Total Quantity						310.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						310.000 metre	

	Say 310.000 metre @ Rs 830.16 / metre						<b>Rs 257349.60</b>	
2	od190323/2018_2019 Specials for 80mm GI pipe							
		1					1.000	
	Total Quantity						1.000 set	
	Total Deducted Quantity						0.000 set	
	Net Total Quantity						1.000 set	
	Say 1.000 set @ Rs 21417.90 / set						<b>Rs 21417.90</b>	
3	100.98.428 Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.6, Size 80mm.							
		2					2.000	
	Total Quantity						2.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						2.000 No	
	Say 2.000 No @ Rs 5943.40 / No						<b>Rs 11886.80</b>	
4	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
		2					2.000	
	Total Quantity						2.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						2.000 No	
	Say 2.000 No @ Rs 5636.75 / No						<b>Rs 11273.50</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>20Appendix B - (7) - Supplying and laying 80mm GI pumping main from sump at TP to Alady Kurisumala GLSR- (b) Working charges (Cost Index:41.53 %)</b>								
1	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes and stacking useful materials for measurements and disposing unserviceable materials within the intial lead of 50m and lift upto 1.50m(intial depth 0 m to 1.50m) and providing protection by earth filled cement bags during blasting to avoid damages to nearby structures(200 Nos. of earth filled cement bags for 10m3 blasting) (Ref. Item No. 1004 A of T C)							
		1	50.000	0.400	0.400		8.000	
	Total Quantity						8.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						8.000 cum	
	Say 8.000 cum @ Rs 4093.40 / cum						<b>Rs 32747.20</b>	

2	100.12.8 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 80 mm dia nominal bore Data derived from item no.18.12.8 of DAR Data for 10 m							
	80mm GI pipe	1	310.000				310.000	
	Total Quantity						310.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						310.000 metre	
	Say 310.000 metre @ Rs 217.74 / metre						<b>Rs 67499.40</b>	
3	100.31.2.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 80 mm diameter. Class II" Observed Data derived from item no.18.31.of DAR							
	Sluice valve and NR valve	2					2.000	
	Total Quantity						2.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						2.000 Nos	
	Say 2.000 Nos @ Rs 652.74 / Nos						<b>Rs 1305.48</b>	
4	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR							
		2					2.000	
	Total Quantity						2.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						2.000 Nos	
	Say 2.000 Nos @ Rs 146.63 / Nos						<b>Rs 293.26</b>	
5	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	Anchor block	50	0.450	0.450	0.450		4.557	

						Total Quantity	4.557 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	4.557 cum	
						Say 4.557 cum @ Rs 11433.93 / cum	<b>Rs 52104.42</b>	
6	5.22.6	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more						
	Steel reinforcement @ 50kg/m3	1	4.557			50.0	227.851	
						Total Quantity	227.851 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	227.851 kilogram	
						Say 227.851 kilogram @ Rs 102.61 / kilogram	<b>Rs 23379.79</b>	
7	5.9.1	Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete						
	For anchor block	50*4	0.450	0.450			40.500	
						Total Quantity	40.500 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	40.500 sqm	
						Say 40.500 sqm @ Rs 350.00 / sqm	<b>Rs 14175.00</b>	
8	od1153/2019_2020	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete ) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout( 0.10kg/each) etc complete.						
	For anchor block	50*4					200.000	
						Total Quantity	200.000 No	
						Total Deducted Quantity	0.000 No	
						Net Total Quantity	200.000 No	
						Say 200.000 No @ Rs 481.80 / No	<b>Rs 96360.00</b>	
9	od1154/2019_2020	80mm GI pipes by cutting and jointing by three run welding to make a water tight point, painting the welded portion, testing the line to the required pressure, including the charges hire and conveyance of tools, plant and materials to site, as per the direction of departmental officers etc. complete.						
		45					45.000	
						Total Quantity	45.000 No	



Total Deducted Quantity							0.000 No	
Net Total Quantity							45.000 No	
Say 45.000 No @ Rs 468.28 / No							<b>Rs 21072.60</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>21 Appendix B - (8)- Line charging, stabilization &amp; interconnection (Cost Index:41.53 %)</b>								
No Specifications added under this Estimate								
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>22 Appendix B - (8)- Line charging, stabilization &amp; interconnection - (a) Interconnection work of Distribution Zone I from T P sump using 200 mm D I K9 Pipe (Cost Index:41.53 %)</b>								
1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)							
		1	100.000	0.800	1.200	0.7	67.200	
Total Quantity							67.200 cum	
Total Deducted Quantity							0.000 cum	
Net Total Quantity							67.200 cum	
Say 67.200 cum @ Rs 579.85 / cum							<b>Rs 38965.92</b>	
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)							
		1	100.000	0.800	1.200	0.2	19.201	
Total Quantity							19.201 cum	
Total Deducted Quantity							0.000 cum	
Net Total Quantity							19.201 cum	
Say 19.201 cum @ Rs 842.10 / cum							<b>Rs 16169.16</b>	
3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils							

	as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.							
		1	100.000	0.800	1.200	0.07	6.721	
	Total Quantity						6.721 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						6.721 cum	
	Say 6.721 cum @ Rs 749.12 / cum						<b>Rs 5034.84</b>	
4	100.1.13 "Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)							
		1	100.000	0.800	1.200	0.03	2.880	
	Total Quantity						2.880 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						2.880 cum	
	Say 2.880 cum @ Rs 1624.48 / cum						<b>Rs 4678.50</b>	
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)							
		1	100.000				100.000	
	Total Quantity						100.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						100.000 metre	
	Say 100.000 metre @ Rs 28.82 / metre						<b>Rs 2882.00</b>	
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge							
		1	5.000				5.000	
	Total Quantity						5.000 cum	
	Total Deducted Quantity						0.000 cum	

										Net Total Quantity	5.000 cum
										Say 5.000 cum @ Rs 548.85 / cum	<b>Rs 2744.25</b>
7	100.14.3	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 200 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.17 in DAR									
	Laying	1	100.000							100.000	
										Total Quantity	100.000 metre
										Total Deducted Quantity	0.000 metre
										Net Total Quantity	100.000 metre
										Say 100.000 metre @ Rs 127.45 / metre	<b>Rs 12745.00</b>
8	18.70.3	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:200 mm dia pipes									
		20								20.000	
										Total Quantity	20.000 joint
										Total Deducted Quantity	0.000 joint
										Net Total Quantity	20.000 joint
										Say 20.000 joint @ Rs 270.11 / joint	<b>Rs 5402.20</b>
9	18.30.5	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe									
		3								3.000	
										Total Quantity	3.000 Nos
										Total Deducted Quantity	0.000 Nos
										Net Total Quantity	3.000 Nos
										Say 3.000 Nos @ Rs 436.83 / Nos	<b>Rs 1310.49</b>
10	18.67.1	Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia									
	200 mm Mechanical joint	2						0.48	0.960		
										Total Quantity	0.960 quintal
										Total Deducted Quantity	0.000 quintal
										Net Total Quantity	0.960 quintal

	Say 0.960 quintal @ Rs 14708.65 / quintal						<b>Rs 14120.30</b>	
11	18.25.1 Providing and laying S & S C.I standard specials such as tees, bends, collars, tapers, caps etc. (Heavy class):Upto 300 mm dia							
	200mm DI 45 degree bend	1				0.26	0.260	
	200mm DI 22.5 degree bend	2				0.23	0.460	
	200mm DI 11.25 degree bend	1				0.21	0.210	
	Total Quantity						0.930 quintal	
	Total Deducted Quantity						0.000 quintal	
	Net Total Quantity						0.930 quintal	
	Say 0.930 quintal @ Rs 6536.99 / quintal						<b>Rs 6079.40</b>	
12	18.83.5 Labour for cutting C.I. pipe with steel saw.200 mm diameter C.I. pipe							
		7					7.000	
	Total Quantity						7.000 Each Cut	
	Total Deducted Quantity						0.000 Each Cut	
	Net Total Quantity						7.000 Each Cut	
	Say 7.000 Each Cut @ Rs 449.57 / Each Cut						<b>Rs 3146.99</b>	
13	100.35.3 Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA							
		1	100.000				100.000	
	Total Quantity						100.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						100.000 metre	
	Say 100.000 metre @ Rs 41.56 / metre						<b>Rs 4156.00</b>	
14	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	For Anchor block	3	1.000	1.000	1.000		3.000	
	Total Quantity						3.000 cum	

							Total Deducted Quantity	0.000 cum
							Net Total Quantity	3.000 cum
							Say 3.000 cum @ Rs 8340.93 / cum	<b>Rs 25022.79</b>
15	5.9.1	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	For anchor block	3*4	1.000	1.000				12.000
							Total Quantity	12.000 sqm
							Total Deducted Quantity	0.000 sqm
							Net Total Quantity	12.000 sqm
							Say 12.000 sqm @ Rs 350.00 / sqm	<b>Rs 4200.00</b>
16	100.31.1.5	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR						
		1						1.000
							Total Quantity	1.000 Nos
							Total Deducted Quantity	0.000 Nos
							Net Total Quantity	1.000 Nos
							Say 1.000 Nos @ Rs 1625.90 / Nos	<b>Rs 1625.90</b>
17	100.32.3	Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 50 mm Double acting Air Valve Data derived from item no.18.59.1 of DAR						
		2						2.000
							Total Quantity	2.000 Nos
							Total Deducted Quantity	0.000 Nos
							Net Total Quantity	2.000 Nos
							Say 2.000 Nos @ Rs 229.21 / Nos	<b>Rs 458.42</b>
18	od190175/2018_2019	Construction of RCC valve chamber of size 1mx1mx1m -cost excavation work,75mm thick M10 concrete base,125mm side wall,150mm bottom and cover slab of chamber with M20 concrete with reinforcement including plastering inside and out side of wall.etc.complete.including man hole cover.						
	valve chamber	1						1.000
							Total Quantity	1.000 No

							Total Deducted Quantity	0.000 No
							Net Total Quantity	1.000 No
							Say 1.000 No @ Rs 42076.66 / No	<b>Rs 42076.66</b>
19	100.98.117	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.						
		1	100.000				100.000	
							Total Quantity	100.000 metre
							Total Deducted Quantity	0.000 metre
							Net Total Quantity	100.000 metre
							Say 100.000 metre @ Rs 2589.08 / metre	<b>Rs 258908.00</b>
20	100.98.435	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 50mm.						
		2					2.000	
							Total Quantity	2.000 No
							Total Deducted Quantity	0.000 No
							Net Total Quantity	2.000 No
							Say 2.000 No @ Rs 7951.65 / No	<b>Rs 15903.30</b>
21	100.98.461	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.						
		1					1.000	
							Total Quantity	1.000 No
							Total Deducted Quantity	0.000 No
							Net Total Quantity	1.000 No
							Say 1.000 No @ Rs 23723.65 / No	<b>Rs 23723.65</b>
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>23Appendix B - (8)- Line charging, stabilization&amp; interconnection- (b) Interconnection work to Zone 1A- Marykulam using 80 mm G I pipe (Cost Index:41.53 %)</b>								
1	100.12.8	Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 80 mm dia nominal bore Data derived from item no.18.12.8 of DAR Data for 10 m						
		1	250.000				250.000	
							Total Quantity	250.000 metre

										Total Deducted Quantity	0.000 metre
										Net Total Quantity	250.000 metre
										Say 250.000 metre @ Rs 217.74 / metre	<b>Rs 54435.00</b>
2	100.31.1.1	"Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) :80 mm diameter. Class I"									
		Observed Data derived from item no.18.31.of DAR									
			1								1.000
										Total Quantity	1.000 Nos
										Total Deducted Quantity	0.000 Nos
										Net Total Quantity	1.000 Nos
										Say 1.000 Nos @ Rs 613.74 / Nos	<b>Rs 613.74</b>
3	od190319/2018_2019	Supply of 80mm GI pipe(m)									
			1	250.000							250.000
										Total Quantity	250.000 metre
										Total Deducted Quantity	0.000 metre
										Net Total Quantity	250.000 metre
										Say 250.000 metre @ Rs 830.16 / metre	<b>Rs 207540.00</b>
4	od3655/2019_2020	Specials for 80 mm GI(m) pipe - 10 % of value of pipe supply.									
			1								1.000
										Total Quantity	1.000 set
										Total Deducted Quantity	0.000 set
										Net Total Quantity	1.000 set
										Say 1.000 set @ Rs 17272.50 / set	<b>Rs 17272.50</b>
5	100.98.457	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.									
			1								1.000
										Total Quantity	1.000 No
										Total Deducted Quantity	0.000 No
										Net Total Quantity	1.000 No
										Say 1.000 No @ Rs 6624.05 / No	<b>Rs 6624.05</b>

SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>24Appendix B - (8)- Line charging, stabilization&amp; interconnection - (c)- Interconnection work to Labbakada Tank using 150 mm D I K9 Pipe for Pumping main (Cost Index:41.53 %)</b>								
1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)	1	180.000	0.800	1.150	0.7	115.920	
							Total Quantity	115.920 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	115.920 cum
							Say 115.920 cum @ Rs 579.85 / cum	<b>Rs 67216.21</b>
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	1	180.000	0.800	1.150	0.2	33.120	
							Total Quantity	33.120 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	33.120 cum
							Say 33.120 cum @ Rs 842.10 / cum	<b>Rs 27890.35</b>
3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.	1	180.000	0.800	1.150	0.07	11.592	
							Total Quantity	11.592 cum
							Total Deducted Quantity	0.000 cum



		Net Total Quantity						11.592 cum
		Say 11.592 cum @ Rs 749.12 / cum						<b>Rs 8683.80</b>
4	100.1.13 "Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)							
		1	180.000	0.800	1.150	0.03	4.968	
		Total Quantity						4.968 cum
		Total Deducted Quantity						0.000 cum
		Net Total Quantity						4.968 cum
		Say 4.968 cum @ Rs 1624.48 / cum						<b>Rs 8070.42</b>
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)							
		1	180.000				180.000	
		Kerala Water Authority Total Quantity						180.000 metre
		Total Deducted Quantity						0.000 metre
		Net Total Quantity						180.000 metre
		Say 180.000 metre @ Rs 28.82 / metre						<b>Rs 5187.60</b>
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge							
		1	5.000				5.000	
		Total Quantity						5.000 cum
		Total Deducted Quantity						0.000 cum
		Net Total Quantity						5.000 cum
		Say 5.000 cum @ Rs 548.85 / cum						<b>Rs 2744.25</b>
7	100.14.2 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 150 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.16 in DAR							

	Laying 100mm DI K9 pipes	1	180.000				180.000		
	Total Quantity						180.000 metre		
	Total Deducted Quantity						0.000 metre		
	Net Total Quantity						180.000 metre		
	Say 180.000 metre @ Rs 91.50 / metre							<b>Rs 16470.00</b>	
8	18.70.2 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:150 mm dia pipes								
		28					28.000		
	Total Quantity						28.000 joint		
	Total Deducted Quantity						0.000 joint		
	Net Total Quantity						28.000 joint		
	Say 28.000 joint @ Rs 184.13 / joint							<b>Rs 5155.64</b>	
9	18.30.4 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:150 mm diameter pipe								
		7					7.000		
	Total Quantity						7.000 Nos		
	Total Deducted Quantity						0.000 Nos		
	Net Total Quantity						7.000 Nos		
	Say 7.000 Nos @ Rs 402.30 / Nos							<b>Rs 2816.10</b>	
10	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia								
	150mm Mechanical joint collar	1				0.31	0.310		
	Total Quantity						0.310 quintal		
	Total Deducted Quantity						0.000 quintal		
	Net Total Quantity						0.310 quintal		
	Say 0.310 quintal @ Rs 14708.65 / quintal							<b>Rs 4559.68</b>	
11	18.66.1 Providing and laying S&S.C.I Standard specials such as tees, bends, collars tapers and caps etc., suitable for flanged jointing as per IS: 1538:UPto 300 mm dia								
	45 degree bend	2				0.16	0.320		
	22.5 degree bend	12				0.15	1.800		

										Total Quantity	2.120 quintal
										Total Deducted Quantity	0.000 quintal
										Net Total Quantity	2.120 quintal
										Say 2.120 quintal @ Rs 9150.76 / quintal	<b>Rs 19399.61</b>
12	18.83.4	Labour for cutting C.I. pipe with steel saw.150 mm diameter C.I. pipe									
			8								8.000
										Total Quantity	8.000 Each Cut
										Total Deducted Quantity	0.000 Each Cut
										Net Total Quantity	8.000 Each Cut
										Say 8.000 Each Cut @ Rs 337.12 / Each Cut	<b>Rs 2696.96</b>
13	100.35.2	Testing 150mm DI/CI pipeline with potable water to the required test pressure 150 mm dia Observed Data derived from item no.1018 of PHED DATA									
			1	180.000							180.000
										Total Quantity	180.000 metre
										Total Deducted Quantity	0.000 metre
										Net Total Quantity	180.000 metre
										Say 180.000 metre @ Rs 32.88 / metre	<b>Rs 5918.40</b>
14	100.98.116	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.									
			1	180.000							180.000
										Total Quantity	180.000 metre
										Total Deducted Quantity	0.000 metre
										Net Total Quantity	180.000 metre
										Say 180.000 metre @ Rs 1890.44 / metre	<b>Rs 340279.20</b>
SI No	Description	No	L	B	D	CF	Quantity	Remark			
<b>25Appendix B - (8)- Line charging, stabilization&amp; interconnection - (d) Interconnection work to distribution line at Labbakada using 250 mm D I k9 pipe (Cost Index:41.53 %)</b>											

1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)	1	100.000	0.800	1.200	0.7	67.200	
		Total Quantity					67.200 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					67.200 cum	
		Say 67.200 cum @ Rs 579.85 / cum					<b>Rs 38965.92</b>	
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	1	100.000	0.800	1.200	0.2	19.201	
		Total Quantity					19.201 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					19.201 cum	
		Say 19.201 cum @ Rs 842.10 / cum					<b>Rs 16169.16</b>	
3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.	1	100.000	0.800	1.200	0.07	6.721	
		Total Quantity					6.721 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					6.721 cum	
		Say 6.721 cum @ Rs 749.12 / cum					<b>Rs 5034.84</b>	
4	100.1.13							

	"Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)								
		1	100.000	0.800	1.200	0.03	2.880		
		Total Quantity					2.880 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					2.880 cum		
		Say 2.880 cum @ Rs 1624.48 / cum					<b>Rs 4678.50</b>		
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)								
		1	100.000				100.000		
		Total Quantity					100.000 metre		
		Total Deducted Quantity					0.000 metre		
		Net Total Quantity					100.000 metre		
		Say 100.000 metre @ Rs 28.82 / metre					<b>Rs 2882.00</b>		
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge								
		1	5.000				5.000		
		Total Quantity					5.000 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					5.000 cum		
		Say 5.000 cum @ Rs 548.85 / cum					<b>Rs 2744.25</b>		
7	100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR								
		1	100.000				100.000		
		Total Quantity					100.000 metre		

						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	100.000 metre	
						Say 100.000 metre @ Rs 170.19 / metre	<b>Rs 17019.00</b>	
8	18.70.4	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:250 mm dia pipes						
		18					18.000	
						Total Quantity	18.000 joint	
						Total Deducted Quantity	0.000 joint	
						Net Total Quantity	18.000 joint	
						Say 18.000 joint @ Rs 329.84 / joint	<b>Rs 5937.12</b>	
9	18.30.6	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe						
		5					5.000	
						Total Quantity	5.000 Nos	
						Total Deducted Quantity	0.000 Nos	
						Net Total Quantity	5.000 Nos	
						Say 5.000 Nos @ Rs 595.56 / Nos	<b>Rs 2977.80</b>	
10	18.67.1	Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia						
	250 mm MJ collar	2				0.36	0.720	
						Total Quantity	0.720 quintal	
						Total Deducted Quantity	0.000 quintal	
						Net Total Quantity	0.720 quintal	
						Say 0.720 quintal @ Rs 14708.65 / quintal	<b>Rs 10590.23</b>	
11	18.66.1	Providing and laying S&S.C.I Standard specials such as tees, bends, collars tapers and caps etc., suitable for flanged jointing as per IS: 1538:UPto 300 mm dia						
	250 mm 22.5 degree bend	2				0.32	0.640	
	250 mm 45 degree bend	2				0.36	0.720	
						Total Quantity	1.360 quintal	
						Total Deducted Quantity	0.000 quintal	

		Net Total Quantity						1.360 quintal
		Say 1.360 quintal @ Rs 9150.76 / quintal						<b>Rs 12445.03</b>
12	18.83.6 Labour for cutting C.I. pipe with steel saw.250 mm diameter C.I. pipe							
		5					5.000	
		Total Quantity						5.000 Each Cut
		Total Deducted Quantity						0.000 Each Cut
		Net Total Quantity						5.000 Each Cut
		Say 5.000 Each Cut @ Rs 559.11 / Each Cut						<b>Rs 2795.55</b>
13	100.35.4 Testing 250mm DI/CI pipeline with potable water to the required test pressure . 250 mm dia Observed Data derived from item no.1022 of PHED DATA							
		1	100.000				100.000	
		Total Quantity						100.000 metre
		Total Deducted Quantity						0.000 metre
		Net Total Quantity						100.000 metre
		Say 100.000 metre @ Rs 52.99 / metre						<b>Rs 5299.00</b>
14	100.31.1.6 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 250 mm diameter. Class I" Data derived from item no.18.31.5.1 of DAR							
	250mm valve	1					1.000	
		Total Quantity						1.000 Nos
		Total Deducted Quantity						0.000 Nos
		Net Total Quantity						1.000 Nos
		Say 1.000 Nos @ Rs 2304.82 / Nos						<b>Rs 2304.82</b>
15	100.32.3 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 50 mm Double acting Air Valve Data derived from item no.18.59.1 of DAR							
		1					1.000	
		Total Quantity						1.000 Nos
		Total Deducted Quantity						0.000 Nos

		Net Total Quantity					1.000 Nos	
		Say 1.000 Nos @ Rs 229.21 / Nos					<b>Rs 229.21</b>	
16	100.98.118 Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.							
		1	100.000				100.000	
		Total Quantity					100.000 metre	
		Total Deducted Quantity					0.000 metre	
		Net Total Quantity					100.000 metre	
		Say 100.000 metre @ Rs 3616.52 / metre					<b>Rs 361652.00</b>	
17	100.98.462 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 250mm.							
		1					1.000	
		Total Quantity					1.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					1.000 No	
		Say 1.000 No @ Rs 34361.80 / No					<b>Rs 34361.80</b>	
18	100.98.444 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Large Orifice Type S2, Size 50mm.							
		1					1.000	
		Total Quantity					1.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					1.000 No	
		Say 1.000 No @ Rs 6110.65 / No					<b>Rs 6110.65</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>26Appendix B - (8)- Line charging, stabilization&amp; interconnection - (e) Interconnection to Kochuthovala Gravity main using 125 mm G I pipe (Cost Index:41.53 %)</b>								
1	100.12.10 "Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 125 mm dia nominal bore Observed Data derived from item no.18.12 of DAR							
		1	100.000				100.000	
		Total Quantity					100.000 metre	
		Total Deducted Quantity					0.000 metre	
		Net Total Quantity					100.000 metre	



	Say 100.000 metre @ Rs 274.99 / metre							<b>Rs 27499.00</b>	
2	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
	For anchor block	4	0.800	0.800	0.800			2.049	
	Total Quantity							2.049 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							2.049 cum	
	Say 2.049 cum @ Rs 8340.93 / cum							<b>Rs 17090.57</b>	
3	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete								
	For anchor block	4*4	0.800	0.800				10.241	
	Total Quantity							10.241 sqm	
	Total Deducted Quantity							0.000 sqm	
	Net Total Quantity							10.241 sqm	
	Say 10.241 sqm @ Rs 350.00 / sqm							<b>Rs 3584.35</b>	
4	od189995/2018_2019 Supplying 125mm GI(m) pipe								
		1	100.000					100.000	
	Total Quantity							100.000 metre	
	Total Deducted Quantity							0.000 metre	
	Net Total Quantity							100.000 metre	
	Say 100.000 metre @ Rs 1434.45 / metre							<b>Rs 143445.00</b>	
5	od3663/2019_2020 Specials for 125 mm GI(m) pipe - 10 % of value of pipe supply.								
		1						1.000	
	Total Quantity							1.000 set	
	Total Deducted Quantity							0.000 set	
	Net Total Quantity							1.000 set	
	Say 1.000 set @ Rs 14345.00 / set							<b>Rs 14345.00</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>27Appendix B - (8)- Line charging, stabilization&amp; interconnection - (f) Interconnection work to Distribution from Kochuthovala G L tank using 200 mm D I pipe (Cost Index:41.53 %)</b>									

1	100.1.1 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)	1	100.000	0.800	1.200	0.7	67.200	
		Total Quantity					67.200 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					67.200 cum	
		Say 67.200 cum @ Rs 579.85 / cum					<b>Rs 38965.92</b>	
2	100.1.5 Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)	1	100.000	0.800	1.200	0.2	19.201	
		Total Quantity					19.201 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					19.201 cum	
		Say 19.201 cum @ Rs 842.10 / cum					<b>Rs 16169.16</b>	
3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.	1	100.000	0.800	1.200	0.07	6.721	
		Total Quantity					6.721 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					6.721 cum	
		Say 6.721 cum @ Rs 749.12 / cum					<b>Rs 5034.84</b>	
4	100.1.13							

	"Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : Hard Rock(Blasting Prohibited) (Ref. Item No. 2.13.3 Of DSR)								
		1	100.000	0.800	1.200	0.03	2.880		
		Total Quantity					2.880 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					2.880 cum		
		Say 2.880 cum @ Rs 1624.48 / cum					<b>Rs 4678.50</b>		
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)								
		1	100.000				100.000		
		Total Quantity					100.000 metre		
		Total Deducted Quantity					0.000 metre		
		Net Total Quantity					100.000 metre		
		Say 100.000 metre @ Rs 28.82 / metre					<b>Rs 2882.00</b>		
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge								
		1	5.000				5.000		
		Total Quantity					5.000 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					5.000 cum		
		Say 5.000 cum @ Rs 548.85 / cum					<b>Rs 2744.25</b>		
7	100.14.3 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 200 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.17 in DAR								
		1	100.000				100.000		
		Total Quantity					100.000 metre		



		Net Total Quantity					1.960 quintal	
		Say 1.960 quintal @ Rs 9150.76 / quintal					<b>Rs 17935.49</b>	
12	18.83.5	Labour for cutting C.I. pipe with steel saw.200 mm diameter C.I. pipe						
		5					5.000	
		Total Quantity					5.000 Each Cut	
		Total Deducted Quantity					0.000 Each Cut	
		Net Total Quantity					5.000 Each Cut	
		Say 5.000 Each Cut @ Rs 449.57 / Each Cut					<b>Rs 2247.85</b>	
13	100.35.3	Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA						
		1	100.000				100.000	
		Total Quantity					100.000 metre	
		Total Deducted Quantity					0.000 metre	
		Net Total Quantity					100.000 metre	
		Say 100.000 metre @ Rs 41.56 / metre					<b>Rs 4156.00</b>	
14	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	For anchor block	4	1.000	1.000	1.000		4.000	
		Total Quantity					4.000 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					4.000 cum	
		Say 4.000 cum @ Rs 8340.93 / cum					<b>Rs 33363.72</b>	
15	5.9.1	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	For anchor block	4*4	1.000	1.000			16.000	
		Total Quantity					16.000 sqm	
		Total Deducted Quantity					0.000 sqm	
		Net Total Quantity					16.000 sqm	
		Say 16.000 sqm @ Rs 350.00 / sqm					<b>Rs 5600.00</b>	
16	od192891/2018_2019							

	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of excavation work,75mm thick M10 concrete base,150 mm side wall,150mm bottom and cover slab of chamber with M20 concrete with reinforcement including plastering inside and out side of wall.etc.complete.						
		1					1.000
	Total Quantity						1.000 No
	Total Deducted Quantity						0.000 No
	Net Total Quantity						1.000 No
	Say 1.000 No @ Rs 42969.05 / No						<b>Rs 42969.05</b>
17	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately) : 200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR						
		1					1.000
	Total Quantity						1.000 Nos
	Total Deducted Quantity						0.000 Nos
	Net Total Quantity						1.000 Nos
	Say 1.000 Nos @ Rs 1625.90 / Nos						<b>Rs 1625.90</b>
18	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with bolts,nuts,rubber insertions etc . excluding the cost of air valve(the tail pieces if required will be paid seperately): 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR						
		1					1.000
	Total Quantity						1.000 Nos
	Total Deducted Quantity						0.000 Nos
	Net Total Quantity						1.000 Nos
	Say 1.000 Nos @ Rs 146.63 / Nos						<b>Rs 146.63</b>
19	100.98.117 Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.						
		1	100.000				100.000
	Total Quantity						100.000 metre
	Total Deducted Quantity						0.000 metre
	Net Total Quantity						100.000 metre
	Say 100.000 metre @ Rs 2589.08 / metre						<b>Rs 258908.00</b>
20	100.98.461						

	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 23723.65 / No						<b>Rs 23723.65</b>	
21	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 5636.75 / No						<b>Rs 5636.75</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>28Appendix B - (8)- Line charging, stabilization&amp; interconnection- (g) Interconnection between Idukkikavala to Market junction Kattappana (Cost Index:41.53 %)</b>								
1	100.12.10 "Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 125 mm dia nominal bore Observed Data derived from item no.18.12 of DAR							
		1	450.000				450.000	
		1	500.000				500.000	
	Total Quantity						950.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						950.000 metre	
	Say 950.000 metre @ Rs 274.99 / metre						<b>Rs 261240.50</b>	
2	15.2.1 Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)							
	Demolishing of road surface concrete for laying pipe	1	750.000	0.600	0.200		90.000	
	Total Quantity						90.000 cum	
	Total Deducted Quantity						0.000 cum	

	Net Total Quantity						90.000 cum	
	Say 90.000 cum @ Rs 2134.72 / cum						<b>Rs 192124.80</b>	
3	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	For anchor block	20	0.600	0.600	0.600		4.320	
	For restoration of road	1	750.000	0.600	0.200		90.000	
	Total Quantity						94.320 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						94.320 cum	
	Say 94.320 cum @ Rs 8340.93 / cum						<b>Rs 786716.52</b>	
4	od189995/2018_2019 Supplying 125mm GI(m) pipe							
	125 mm GI(m) pipe	1	450.000				450.000	
		1	500.000				500.000	
	Total Quantity						950.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						950.000 metre	
	Say 950.000 metre @ Rs 1434.45 / metre						<b>Rs 1362727.50</b>	
5	od3664/2019_2020 Specials for 125 mm GI(m) pipe - 10 % of value of pipe supply.							
		1					1.000	
	Total Quantity						1.000 set	
	Total Deducted Quantity						0.000 set	
	Net Total Quantity						1.000 set	
	Say 1.000 set @ Rs 136277.50 / set						<b>Rs 136277.50</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>29Appendix B - (8)- Line charging, stabilization&amp; interconnection - (h) Gap filling works at various places of distribution system (Cost Index:41.53 %)</b>								
1	100.12.6 Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 50 mm dia nominal bore Observed Data derived from item no.18.12.6 of DAR Data for 10 m							



	At various places of distribution system	1	300.000				300.000	
	Total Quantity						300.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						300.000 metre	
	Say 300.000 metre @ Rs 174.65 / metre						<b>Rs 52395.00</b>	
2	<p>100.12.7  Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work.  65 mm dia nominal bore  Data derived from item no.18.12.7 of DAR  Data for 10 m</p>							
		1	450.000				450.000	
	Total Quantity						450.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						450.000 metre	
	Say 450.000 metre @ Rs 217.39 / metre						<b>Rs 97825.50</b>	
3	<p>100.12.8  Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work.  80 mm dia nominal bore  Data derived from item no.18.12.8 of DAR  Data for 10 m</p>							
		1	600.000				600.000	
	Total Quantity						600.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						600.000 metre	
	Say 600.000 metre @ Rs 217.74 / metre						<b>Rs 130644.00</b>	
4	<p>100.12.9  Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work.  100 mm dia nominal bore  Observed Data derived from item no.18.12 of DAR</p>							
		1	300.000				300.000	
	Total Quantity						300.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						300.000 metre	

	Say 300.000 metre @ Rs 245.48 / metre						<b>Rs 73644.00</b>	
5	100.12.10 "Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. but excluding cost of pipes and fittings - External work. 125 mm dia nominal bore Observed Data derived from item no.18.12 of DAR							
		1	150.000				150.000	
	Total Quantity						150.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						150.000 metre	
	Say 150.000 metre @ Rs 274.99 / metre						<b>Rs 41248.50</b>	
6	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	Anchor block	1	16.000	0.600	0.600		5.760	
	Total Quantity						5.760 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						5.760 cum	
	Say 5.760 cum @ Rs 8964.72 / cum						<b>Rs 51636.79</b>	
7	od189999/2018_2019 Supply of 50mm GI pipe (M).							
	50mm GI(m) pipe	1	300.000				300.000	
	Total Quantity						300.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						300.000 metre	
	Say 300.000 metre @ Rs 509.59 / metre						<b>Rs 152877.00</b>	
8	od190454/2018_2019 Supply 65 mm GI pipe(m) as per direction							
		1	450.000				450.000	
	Total Quantity						450.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						450.000 metre	
	Say 450.000 metre @ Rs 649.33 / metre						<b>Rs 292198.50</b>	
9	od190319/2018_2019 Supply of 80mm GI pipe(m)							

		1	600.000				600.000		
	Total Quantity						600.000 metre		
	Total Deducted Quantity						0.000 metre		
	Net Total Quantity						600.000 metre		
	Say 600.000 metre @ Rs 830.16 / metre						<b>Rs 498096.00</b>		
10	od190456/2018_2019 Supply of 100 mm GI(m) pipe								
		1	300.000				300.000		
	Total Quantity						300.000 metre		
	Total Deducted Quantity						0.000 metre		
	Net Total Quantity						300.000 metre		
	Say 300.000 metre @ Rs 1052.32 / metre						<b>Rs 315696.00</b>		
11	od189995/2018_2019 Supplying 125mm GI(m) pipe								
		1	150.000				150.000		
	Total Quantity						150.000 metre		
	Total Deducted Quantity						0.000 metre		
	Net Total Quantity						150.000 metre		
	Say 150.000 metre @ Rs 1434.45 / metre						<b>Rs 215167.50</b>		
12	od269/2019_2020 Specials for GI (m) pipes- KIIFB Ayyappancovil Gap filling works - 50mm, 65mm, 80mm, 100mm, 125mm GI(m) pipes.								
		1					1.000		
	Total Quantity						1.000 set		
	Total Deducted Quantity						0.000 set		
	Net Total Quantity						1.000 set		
	Say 1.000 set @ Rs 128868.00 / set						<b>Rs 128868.00</b>		
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>30Appendix B - (8)- Line charging, stabilization&amp; interconnection - (i) Leak rectification works in distribution system in Zone I, II, III, IV &amp; VI (Cost Index:41.53 %)</b>									

1	100.47.1.3 Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.								
	zone II	20					20.000		
	Total Quantity						20.000 Leak		
	Total Deducted Quantity						0.000 Leak		
	Net Total Quantity						20.000 Leak		
	Say 20.000 Leak @ Rs 1399.52 / Leak						<b>Rs 27990.40</b>		
2	100.47.1.4 Leak rectification work in 63 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.								
	Zone VII and Zone VI	30					30.000		
	Total Quantity						30.000 Leak		
	Total Deducted Quantity						0.000 Leak		
	Net Total Quantity						30.000 Leak		
	Say 30.000 Leak @ Rs 1692.18 / Leak						<b>Rs 50765.40</b>		
3	100.47.1.5								

	Leak rectification work in 75 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.						
		15					15.000
	Total Quantity						15.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						15.000 Leak
	Say 15.000 Leak @ Rs 1817.26 / Leak						<b>Rs 27258.90</b>
4	100.47.1.6 Leak rectification work in 90 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the remaining portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe to the site, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or or any available joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and without causing any damages to the existing utilities and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting,watching, ribbon fencing, traffic controlling etc.complete as per the direction of Departmental officers including the cost of pipe and PVC specials; PVC Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.						
	Zone I and II	15					15.000
	Total Quantity						15.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						15.000 Leak
	Say 15.000 Leak @ Rs 2046.80 / Leak						<b>Rs 30702.00</b>
5	100.47.2.1 Leak rectification work in 90 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth						

	work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting, ribbon fencing, watching, traffic control etc.complete as per the direction of Departmental officers, including the cost of pipe & specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket & CIR Jointing.						
	Zone I and II	7					7.000
	Total Quantity						7.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						7.000 Leak
	Say 7.000 Leak @ Rs 2294.70 / Leak						<b>Rs 16062.90</b>
6	100.47.2.2 Leak rectification work in 110 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting, ribbon fencing, watching, traffic control etc.complete as per the direction of Departmental officers, including the cost of pipe & specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket & CIR Jointing.						
		10					10.000
	Total Quantity						10.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						10.000 Leak
	Say 10.000 Leak @ Rs 2679.96 / Leak						<b>Rs 26799.60</b>
7	100.47.2.3 Leak rectification work in 140 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothening the cut ends,						

	conveying the new pipe, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting, ribbon fencing, watching, traffic control etc.complete as per the direction of Departmental officers, including the cost of pipe & specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket & CIR Jointing.						
	zone VI	10					10.000
	Total Quantity						10.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						10.000 Leak
	Say 10.000 Leak @ Rs 3225.99 / Leak						<b>Rs 32259.90</b>
8	100.47.2.4 Leak rectification work in 160 mm PVC (Class 2 to 6) pipe line including detecting and locating leak, earth work excavation in all kinds of soil for for exposing leak portion of the pipe including tar cutting / concrete cutting, cutting the pipe diametrically perpendicular to the axis of pipe line with out causing any damages to the balance portion, dismantling and lifting the pipe from trenches, smoothening the cut ends, conveying the new pipe, cutting and lowering new pipe in to the trenches,placing in position aligning the pipe to line and level and jointing the new pipe with the existing pipe with solvent cement or repairable joint and testing the pipe line by operating the valves concerned, and rectifying the defects if noticed and refilling the trenches in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, charges for removing surplus soil from work site without causing any damages to the existing utilities, including hire for tools and plant, conveyance of tools and materials, bailing out water, providing caution boards,lighting, ribbon fencing, watching, traffic control etc.complete as per the direction of Departmental officers, including the cost of pipe & specials but excluding the cost of CIR Joints; PVC Pipes and specials shall be of good quality and conforming to relevant standards: Socket & CIR Jointing.						
	Zone I,II,III, and VI	56					56.000
	Total Quantity						56.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						56.000 Leak
	Say 56.000 Leak @ Rs 3690.21 / Leak						<b>Rs 206651.76</b>
9	100.49.1.2 Rectification of joint leakages in 150mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering,						

	removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.							
	Zone II ,III and VII	5					5.000	
							Total Quantity	5.000 Leak
							Total Deducted Quantity	0.000 Leak
							Net Total Quantity	5.000 Leak
							Say 5.000 Leak @ Rs 5858.48 / Leak	<b>Rs 29292.40</b>
10	100.49.1.3 Rectification of joint leakages in 200mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.							
							3.000	
							Total Quantity	3.000 Leak
							Total Deducted Quantity	0.000 Leak
							Net Total Quantity	3.000 Leak
							Say 3.000 Leak @ Rs 6986.86 / Leak	<b>Rs 20960.58</b>
11	100.49.1.4 Rectification of joint leakages in 250mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.							
		3					3.000	
							Total Quantity	3.000 Leak



							Total Deducted Quantity	0.000 Leak
							Net Total Quantity	3.000 Leak
							Say 3.000 Leak @ Rs 7912.50 / Leak	<b>Rs 23737.50</b>
12	100.49.1.5	Rectification of joint leakages in 300mm DI Pipe (cutting, removing and laying back a length of 1.0m from one side of the joint) including earth work excavation in all kinds of soil for exposing leak portion of the pipe including tar cutting / concrete cutting, by cutting and removing a portion of pipe from the damaged joint without causing any damages to the remaining portion of the line and specials and replacing the pipe with mechanical and tyton joint after cleaning the ends, centering the pipe, providing the joints, testing the line to the required test pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion but excluding cost of mechanical joint and as per the direction of departmental officers etc. complete.						
		1						1.000
							Total Quantity	1.000 Leak
							Total Deducted Quantity	0.000 Leak
							Net Total Quantity	1.000 Leak
							Say 1.000 Leak @ Rs 8846.13 / Leak	<b>Rs 8846.13</b>
13	100.50.1.1	Kerala Water Authority Rectification of leakages of 32 mm, 40mm & 50mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.						
	Zone I,II,III and VI	40						40.000
							Total Quantity	40.000 Leak
							Total Deducted Quantity	0.000 Leak
							Net Total Quantity	40.000 Leak
							Say 40.000 Leak @ Rs 2279.32 / Leak	<b>Rs 91172.80</b>
14	100.50.1.2	Rectification of leakages of 65 mm GI Pipes by replacing lengths up to 1.0m including earth work						

	excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.						
	Zone I,II,III ,IV and VI	25					25.000
	Total Quantity						25.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						25.000 Leak
	Say 25.000 Leak @ Rs 3251.11 / Leak						<b>Rs 81277.75</b>
15	100.50.1.3 Rectification of leakages of 80 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.						
	Zone I,II,III,IV and VI	16					16.000
	Total Quantity						16.000 Leak
	Total Deducted Quantity						0.000 Leak
	Net Total Quantity						16.000 Leak
	Say 16.000 Leak @ Rs 3630.40 / Leak						<b>Rs 58086.40</b>
16	100.50.1.4 Rectification of leakages of 100 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and						

	refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.								
			5						5.000
		Total Quantity						5.000 Leak	
		Total Deducted Quantity						0.000 Leak	
		Net Total Quantity						5.000 Leak	
		Say 5.000 Leak @ Rs 3728.38 / Leak						<b>Rs 18641.90</b>	
17	100.50.1.5 Rectification of leakages of 125 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.								
			6						6.000
		Total Quantity						6.000 Leak	
		Total Deducted Quantity						0.000 Leak	
		Net Total Quantity						6.000 Leak	
		Say 6.000 Leak @ Rs 4314.97 / Leak						<b>Rs 25889.82</b>	
18	100.50.1.6 Rectification of leakages of 150 mm GI Pipes by replacing lengths up to 1.0m including earth work excavation in all kindss of soil for exposing leak portion of the pipe including tar / concrete cutting, by cutting, removing and stacking the damaged portion from the existing line without causing any damages to the remaining portion and specials and conveying and replacing with GI Pipes of suitable size and jointing by thraded coupler and union of suitable size including threading, alignment, laying and jointing to make a water tight joint, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges hire and conveyance of tools, plant and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including the cost of specials but excluding cost of pipe and as per the direction of departmental officers etc. complete.								

	etc. complete.								
		4					4.000		
	Total Quantity						4.000 Leak		
	Total Deducted Quantity						0.000 Leak		
	Net Total Quantity						4.000 Leak		
	Say 4.000 Leak @ Rs 4938.51 / Leak						<b>Rs 19754.04</b>		
19	100.37.3 Welding MS sheet, pipe and special by gas or electric plant for three run welding including cost of welding rod / gas, all labour and hire charges of tools etc complete.								
	150mm GI	4	2*3.14*7.5				188.400		
	125mm GI	4	2*3.14*6.2 5				157.000		
	100mm GI	5	2*3.14*5				157.000		
	80mm GI	25	2*3.14*4				628.000		
	65	30	2*3.14*3.5				659.400		
	Total Quantity						1789.800 cm		
	Total Deducted Quantity						0.000 cm		
	Net Total Quantity						1789.800 cm		
	Say 1789.800 cm @ Rs 12.45 / cm						<b>Rs 22283.01</b>		
20	100.58.1 Rectifying the leakages in vertical pipe of public tap connection including earth work excavation in all kinds of soil for exposing the pipeline including concrete / tar cutting, cutting and removing damaged portion of pipe, fixing new 20/25 mm GI pipe and specials in place of damaged portion of pipe and connecting with existing pipe line, testing the line to the required pressure, rectifying any defects noticed and refilling the trenches using excavated earth in layers not exceeding 20cm depth including consolidating each layers by ramming, watering, removing the surplus soil from the work site, without causing any damages to any other utilities, including the charges of hire and conveyance of tools, plants and materials to the leak site, bailing out water, lighting, watching, ribbon fencing, caution boards, traffic diversion, including cost of pipe and specials and as per the direction of departmental officers etc. complete.								
		10					10.000		
	Total Quantity						10.000 Leak		
	Total Deducted Quantity						0.000 Leak		
	Net Total Quantity						10.000 Leak		
	Say 10.000 Leak @ Rs 824.64 / Leak						<b>Rs 8246.40</b>		
21	100.56.1 Supplying and fixing 15 / 20 mm PVC public tap after dismantling the damaged tap including all cost of								

	materials, labour charges, hire for tools and as per the direction of the department officers etc complete.							
		15					15.000	
	Total Quantity						15.000 Nos	
	Total Deducted Quantity						0.000 Nos	
	Net Total Quantity						15.000 Nos	
	Say 15.000 Nos @ Rs 133.53 / Nos						<b>Rs 2002.95</b>	
22	100.98.1008 Engaging Coolie							
	Engaging coolie for cleaning inside of water tanks, premises of water tanks, plant compound, pump houses etc	40					40.000	
	Total Quantity						40.000 Day	
	Total Deducted Quantity						0.000 Day	
	Net Total Quantity						40.000 Day	
	Say 40.000 Day @ Rs 917.26 / Day						<b>Rs 36690.40</b>	
23	13.44.1 Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)							
	Painting the existing GL tanks and raw water pump house	1	1200.000				1200.000	
	Total Quantity						1200.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						1200.000 sqm	
	Say 1200.000 sqm @ Rs 112.09 / sqm						<b>Rs 134508.00</b>	
24	100.98.48 Supply of PVC Tap							
		15					15.000	
	Total Quantity						15.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						15.000 No	
	Say 15.000 No @ Rs 75.15 / No						<b>Rs 1127.25</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark

31 Appendix B - (8)- Line charging, stabilization & interconnection - (j) Interconnection work of raw water pumping main with aerator at treatment plant using 350mm DIK9 pipes and providing surge arrestor in raw water pumping main (Cost Index:41.53 %)								
1	100.1.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : All kinds of soil (Ref. Item No. 2.10.1 of DSR)						
		1	80.000	1.100	1.300	0.75	85.801	
		Total Quantity						85.801 cum
		Total Deducted Quantity						0.000 cum
		Net Total Quantity						85.801 cum
		Say 85.801 cum @ Rs 579.85 / cum						<b>Rs 49751.71</b>
2	100.1.5	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :" Ordinary Rock. (Ref. Item No. 2.13.1 of DSR)						
		1	80.000	1.100	1.300	0.2	22.881	
		Total Quantity						22.881 cum
		Total Deducted Quantity						0.000 cum
		Net Total Quantity						22.881 cum
		Say 22.881 cum @ Rs 842.10 / cum						<b>Rs 19268.09</b>
3	100.2.2	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m <sup>2</sup> on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited) New Data derived from Item No.2.9.3						
		1	80.000	1.100	1.300	0.05	5.721	
		Total Quantity						5.721 cum
		Total Deducted Quantity						0.000 cum

									Net Total Quantity	5.721 cum
									Say 5.721 cum @ Rs 1106.34 / cum	<b>Rs 6329.37</b>
4	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge									
		1	5.000						5.000	
									Total Quantity	5.000 cum
									Total Deducted Quantity	0.000 cum
									Net Total Quantity	5.000 cum
									Say 5.000 cum @ Rs 548.85 / cum	<b>Rs 2744.25</b>
5	100.14.6 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials : 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR									
	350mm DIK9 pipes	1	80.000						80.000	
									Total Quantity	80.000 metre
									Total Deducted Quantity	0.000 metre
									Net Total Quantity	80.000 metre
									Say 80.000 metre @ Rs 283.70 / metre	<b>Rs 22696.00</b>
6	18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:350 mm dia pipes									
		16							16.000	
									Total Quantity	16.000 joint
									Total Deducted Quantity	0.000 joint
									Net Total Quantity	16.000 joint
									Say 16.000 joint @ Rs 456.93 / joint	<b>Rs 7310.88</b>
7	18.30.8 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:350 mm diameter pipe									
		2							2.000	
									Total Quantity	2.000 Nos
									Total Deducted Quantity	0.000 Nos
									Net Total Quantity	2.000 Nos

	Say 2.000 Nos @ Rs 811.46 / Nos						<b>Rs 1622.92</b>	
8	18.26.2 Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Over 300 mm dia							
	350mm DI 45 degree bend	2				0.65	1.300	
	350mm DI 22.5 degree bend	5				0.58	2.900	
	350mm DI 11.25 degree bend	3				0.57	1.710	
	Total Quantity						5.910 quintal	
	Total Deducted Quantity						0.000 quintal	
	Net Total Quantity						5.910 quintal	
	Say 5.910 quintal @ Rs 9660.34 / quintal						<b>Rs 57092.61</b>	
9	18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe							
		8					8.000	
	Total Quantity						8.000 Each Cut	
	Total Deducted Quantity						0.000 Each Cut	
	Net Total Quantity						8.000 Each Cut	
	Say 8.000 Each Cut @ Rs 781.10 / Each Cut						<b>Rs 6248.80</b>	
10	100.35.6 Testing 350mm DI/CI pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA							
		1	80.000				80.000	
	Total Quantity						80.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						80.000 metre	
	Say 80.000 metre @ Rs 70.53 / metre						<b>Rs 5642.40</b>	
11	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	For anchor block at various places of pumping main	25	1.000	1.000	1.200		30.000	



						Total Quantity	30.000 cum
						Total Deducted Quantity	0.000 cum
						Net Total Quantity	30.000 cum
						Say 30.000 cum @ Rs 8340.93 / cum	<b>Rs 250227.90</b>
12	5.22.6	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more					
	30m3@40kg/m3	1	30.000			40.0	1200.000
						Total Quantity	1200.000 kilogram
						Total Deducted Quantity	0.000 kilogram
						Net Total Quantity	1200.000 kilogram
						Say 1200.000 kilogram @ Rs 102.61 / kilogram	<b>Rs 123132.00</b>
13	100.37.10.1	Fabricating MS pipes of size 350mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.					
	M S pipe 350 mm	1	10.000				10.000
						Total Quantity	10.000 metre
						Total Deducted Quantity	0.000 metre
						Net Total Quantity	10.000 metre
						Say 10.000 metre @ Rs 9145.95 / metre	<b>Rs 91459.50</b>
14	100.37.10.3	Cutting 350 mm (ID) MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.					
		5					5.000
						Total Quantity	5.000 No
						Total Deducted Quantity	0.000 No
						Net Total Quantity	5.000 No
						Say 5.000 No @ Rs 374.28 / No	<b>Rs 1871.40</b>
15	100.37.10.4	Welding 350 mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods ,all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.					
		5					5.000
						Total Quantity	5.000 No

							Total Deducted Quantity	0.000 No
							Net Total Quantity	5.000 No
							Say 5.000 No @ Rs 1432.07 / No	<b>Rs 7160.35</b>
16	100.37.10.5 Grinding cut and weld edges of 350 mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.							
		5						5.000
							Total Quantity	5.000 No
							Total Deducted Quantity	0.000 No
							Net Total Quantity	5.000 No
							Say 5.000 No @ Rs 268.48 / No	<b>Rs 1342.40</b>
17	100.37.6.1 Fabricating MS pipes of size 150mm (ID) using 8 mm thick MS plate including cost and conveyance charges of MS plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under coat of primer etc. complete: For pipes fabricated with 8mm thick MS plates.							
	150mm MS pipe	2						2.000
							Total Quantity	2.000 metre
							Total Deducted Quantity	0.000 metre
							Net Total Quantity	2.000 metre
							Say 2.000 metre @ Rs 5174.62 / metre	<b>Rs 10349.24</b>
18	100.37.6.3 Cutting 150mm (ID)MS pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.							
		3						3.000
							Total Quantity	3.000 No
							Total Deducted Quantity	0.000 No
							Net Total Quantity	3.000 No
							Say 3.000 No @ Rs 169.77 / No	<b>Rs 509.31</b>
19	100.37.6.4 Welding 150mm (ID) MS pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods ,all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.							
		3						3.000
							Total Quantity	3.000 No
							Total Deducted Quantity	0.000 No

	Net Total Quantity						3.000 No	
	Say 3.000 No @ Rs 649.48 / No							<b>Rs 1948.44</b>
20	100.37.6.5 Grinding cut and weld edges of 150mm (ID) MS pipes during fabrication work including all labour and hire charges of tools etc. complete: For pipes fabricated with 8mm thick MS plates.							
		3					3.000	
	Total Quantity						3.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						3.000 No	
	Say 3.000 No @ Rs 121.79 / No							<b>Rs 365.37</b>
21	100.98.120 Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.							
	350mm DIK9 pipes	1	80.000				80.000	
	Total Quantity						80.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						80.000 metre	
	Say 80.000 metre @ Rs 5506.95 / metre							<b>Rs 440556.00</b>
22	od83893/2020_2021 Providing 350mm surge arrestor- Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All classes of soil (Rate as per DSR Observed data)							
		1	4.000	2.500	1.500		15.000	
	Total Quantity						15.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						15.000 cum	
	Say 15.000 cum @ Rs 425.54 / cum							<b>Rs 6383.10</b>
23	od83894/2020_2021 Providing 350mm surge arrestor- Providing 350mm surge arrestor having test pressure 45Kg/cm2 to the clear water pumping main including cost of specials such as 2 Nos. Tail piece, 2 Nos. Mechanical joints, cutting the existing DI pipe, inserting surge arrestor, jointing with flanged joints etc. including cost of surge arrestor.(Rate as per DSR Observed data)							
		1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	

		Net Total Quantity					1.000 No	
		Say 1.000 No @ Rs 600000.00 / No					<b>Rs 600000.00</b>	
24	od83895/2020_2021 Providing 350mm surge arrestor- Cement concrete 1:2:4 using 20mm nominay size metal for anchore block including charges of form work and labour charges etc. complete.(Rate as per DSR Observed data)							
		1	4.000	2.500	0.500		5.000	
		Total Quantity					5.000 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					5.000 cum	
		Say 5.000 cum @ Rs 8941.83 / cum					<b>Rs 44709.15</b>	
25	od83896/2020_2021 Providing 350mm surge arrestor- Providing air cushion valve of diameter - 200mm & test pressure 45 Kg/cm2 with flanged ends including all cost of materials such as 200mm air cushion valve - 1 No., 200mm D/F CI sluice valve - 1 No. etc and all labour charges for fitting the same in position as directed by the departmental officers.(Rate as per DSR Observed data)							
		1					1.000	
		Total Quantity					1.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					1.000 No	
		Say 1.000 No @ Rs 409500.00 / No					<b>Rs 409500.00</b>	
26	od83897/2020_2021 Providing 350mm surge arrestor- Constructing RCC valve chamber of size 2.50m x 1.20m x 1.20m for providing the zero velocity valve including all cost of materials, labour charge, form work etc complete as directed by the departmental officers. (Rate as per DSR Observed data)							
		1					1.000	
		Total Quantity					1.000 No	
		Total Deducted Quantity					0.000 No	
		Net Total Quantity					1.000 No	
		Say 1.000 No @ Rs 63841.40 / No					<b>Rs 63841.40</b>	
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>32Appendix B- (9) - Road restoration works-(a) PWD road (Cost Index:41.53 %)</b>								
1	od178589/2018_2019 Removal of unserviceable soil including excavation, loading and disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately (PWD sanctioned price rate-specification code- 3.11)							
	Berm cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)							

	Alady WTP junction to Marykulam	1	900.000	0.750	0.250		168.750		
	Marykulam to Velliyamkandam junction	1	2000.000	0.750	0.250		375.000		
	Velliyamkandam junction to Kalthotty	1	950.000	0.750	0.250		178.125		
	Kalthotty to Nariyanpara junction	1	2800.000	0.750	0.250		525.000		
	Total Quantity						1246.875 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						1246.875 cum		
	Say 1246.875 cum @ Rs 47.61 / cum							<b>Rs 59363.72</b>	
2	od178591/2018_2019 Maintenance of Earthen Shoulder (filling with fresh soil) Making up loss of material/ irregularities on shoulder to the design level by adding fresh approved soil and compacting it with appropriate equipment.(PWD sanctioned rate-specification code- 10.2)								
	Berm cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								
	Alady WTP junction to Marykulam	1	900.000	0.750			675.000		
	Marykulam to Velliyamkandam junction	1	2000.000	0.750			1500.000		
	Velliyamkandam junction to Kalthotty	1	950.000	0.750			712.500		
	Kalthotty to Nariyanpara junction	1	2800.000	0.750			2100.000		
	Total Quantity						4987.500 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						4987.500 sqm		
	Say 4987.500 sqm @ Rs 41.25 / sqm							<b>Rs 205734.38</b>	
3	od178592/2018_2019 Construction of granular sub-base by providing graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401. Grading-IV - For lower sub base - Mix in Place Method (PWD sanctioned rate-specification code-4.2.A2)								
	Tar road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								

	Alady WTP junction to Marykulam	1	400.000	0.750	0.150		45.000		
	Marykulam to Velliyamkandam junction	1	400.000	0.750	0.150		45.000		
	Velliyamkandam junction to Kalthotty	1	600.000	0.750	0.150		67.500		
	Kalthotty to Nariyanpara junction	1	600.000	0.750	0.150		67.500		
	Total Quantity						225.000 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						225.000 cum		
	Say 225.000 cum @ Rs 3178.82 / cum							<b>Rs 715234.50</b>	
4	od178593/2018_2019 Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.(PWD sanctioned rate-specification code-4.12)								
	Tar road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								
	Alady WTP junction to Marykulam	1	400.000	0.750	0.100		30.000		
	Marykulam to Velliyamkandam junction	1	400.000	0.750	0.100		30.000		
	Velliyamkandam junction to Kalthotty	1	600.000	0.750	0.100		45.000		
	Kalthotty to Nariyanpara junction	1	600.000	0.750	0.100		45.000		
	Total Quantity						150.000 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						150.000 cum		
	Say 150.000 cum @ Rs 3344.36 / cum							<b>Rs 501654.00</b>	
5	od178594/2018_2019 Prime Coat- Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.7kg/sqm using mechanical means.(PWD sanctioned rate- specification code-5.1)								
	Tar road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								

	Alady WTP junction to Marykulam	1	400.000	0.750			300.000		
	Marykulam to Velliyamkandam junction	1	400.000	0.750			300.000		
	Velliyamkandam junction to Kalthotty	1	600.000	0.750			450.000		
	Kalthotty to Nariyanpara junction	1	600.000	0.750			450.000		
	Total Quantity						1500.000 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						1500.000 sqm		
	Say 1500.000 sqm @ Rs 54.39 / sqm						<b>Rs 81585.00</b>		
6	od178595/2018_2019 Supplying and stacking 12mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.2								
	Tar road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								
	Alady WTP junction to Marykulam	1	400.000	0.750	0.027		8.100		
	Marykulam to Velliyamkandam junction	1	400.000	0.750	0.027		8.100		
	Velliyamkandam junction to Kalthotty	1	600.000	0.750	0.027		12.150		
	Kalthotty to Nariyanpara junction	1	600.000	0.750	0.027		12.150		
	Total Quantity						40.500 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						40.500 cum		
	Say 40.500 cum @ Rs 2631.07 / cum						<b>Rs 106558.34</b>		
7	od178596/2018_2019 Supplying and stacking 6mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.3								
	Tar road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								
	Alady WTP junction to Marykulam	1	400.000	0.750	0.009		2.700		

	Marykulam to Velliyamkandam junction	1	400.000	0.750	0.009		2.700		
	Velliyamkandam junction to Kalthotty	1	600.000	0.750	0.009		4.050		
	Kalthotty to Nariyanpara junction	1	600.000	0.750	0.009		4.050		
	Total Quantity						13.500 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						13.500 cum		
	Say 13.500 cum @ Rs 2631.07 / cum						<b>Rs 35519.45</b>		
8	od178597/2018_2019 Supplying and stacking 36mm size hard broken stone in standard heaps for measurement.(PWD sanctioned rate- specification code- 55.4)								
	Tar road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								
	Alady WTP junction to Marykulam	1	400.000	0.750	0.100		30.000		
	Marykulam to Velliyamkandam junction	1	400.000	0.750	0.100		30.000		
	Velliyamkandam junction to Kalthotty	1	600.000	0.750	0.100		45.000		
	Kalthotty to Nariyanpara junction	1	600.000	0.750	0.100		45.000		
	Total Quantity						150.000 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						150.000 cum		
	Say 150.000 cum @ Rs 2537.36 / cum						<b>Rs 380604.00</b>		
9	od178598/2018_2019 Providing, laying and rolling of open graded premix carpet of 20 mm thickness with 0.27 cum of 12 mm departmental aggregates premixed with 12.96 kg of bitumen per 10 sqm using penetration grade bitumen to required line, grade and level on a previously prepared base, after priming the existing surface with 5 kg of bitumen (VG 30) 10 sqm including mixing in a suitable plant, laying and rolling with a three wheel static roller of 80-100 KN capacity, finished to required level and grades, followed by a seal coat of 0.09 cum of 6 mm departmental aggregates premixed with 8.64 kg of bitumen per 10 sqm. By Manual Means- PWD sanctioned rate-specification code-55.1.a								
	Tar road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								



	Alady WTP junction to Marykulam	1	400.000	0.750			300.000		
	Marykulam to Velliyamkandam junction	1	400.000	0.750			300.000		
	Velliyamkandam junction to Kalthotty	1	600.000	0.750			450.000		
	Kalthotty to Nariyanpara junction	1	600.000	0.750			450.000		
	Total Quantity						1500.000 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						1500.000 sqm		
	Say 1500.000 sqm @ Rs 192.02 / sqm						<b>Rs 288030.00</b>		
10	od178599/2018_2019 Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.( PWD sanctioned rate- specification code- 12.4)								
	Concrete road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								
	Alady WTP junction to Marykulam	1	200.000	0.750	0.150		22.500		
	Marykulam to Velliyamkandam junction	1	500.000	0.750	0.150		56.250		
	Velliyamkandam junction to Kalthotty	1	450.000	0.750	0.150		50.625		
	Kalthotty to Nariyanpara junction	1	600.000	0.750	0.150		67.500		
	Total Quantity						196.875 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						196.875 cum		
	Say 196.875 cum @ Rs 7032.06 / cum						<b>Rs 1384436.81</b>		
11	od178600/2018_2019 CPlain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications PCC Grade M20 (Without formwork) -PWD sanctioned rate-spcification code-12.8.b								
	Concrete road cutting (Actual cutting width for trench 0.5 mtr, Restoration width 1.5 times of trench width)								
	Alady WTP junction to Marykulam	1	200.000	0.750	0.075		11.250		

	Marykulam to Velliyamkandam junction	1	500.000	0.750	0.075		28.125		
	Velliyamkandam junction to Kalthotty	1	450.000	0.750	0.075		25.313		
	Kalthotty to Nariyanpara junction	1	600.000	0.750	0.075		33.750		
Total Quantity							98.438 cum		
Total Deducted Quantity							0.000 cum		
Net Total Quantity							98.438 cum		
Say 98.438 cum @ Rs 8523.47 / cum							<b>Rs 839033.34</b>		
Sl No	Description	No	L	B	D	CF	Quantity	Remark	
<b>33Appendix B - (9) - Road restoration works- (b) Village/ Panchayat/ PMGSY roads (Cost Index:41.53 %)</b>									
1	od178592/2018_2019 Construction of granular sub-base by providing graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401. Grading-IV - For lower sub base - Mix in Place Method (PWD sanctioned rate-specification code-4.2.A2)								
Tar road cutting- Actual cutting width - .50 m, Restoration width 1.5 times i,e 0.75 m									
	Kalthotty Junction to School	1	300.000	0.750	0.150		33.750		
	Nariyanpara School junction to sump	1	525.000	0.750	0.150		59.063		
	Nariyanpara sump to school junction	1	550.000	0.750	0.150		61.875		
Total Quantity							154.688 cum		
Total Deducted Quantity							0.000 cum		
Net Total Quantity							154.688 cum		
Say 154.688 cum @ Rs 3178.82 / cum							<b>Rs 491725.31</b>		
2	od178593/2018_2019 Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.(PWD sanctioned rate-specification code-4.12)								
Tar road cutting- Actual cutting width - .50 m, Restoration width 1.5 times i,e 0.75 m									
	Kalthotty Junction to School	1	300.000	0.750	0.100		22.500		

	Nariyanpara School junction to sump	1	525.000	0.750	0.100		39.375		
	Nariyanpara sump to school junction	1	550.000	0.750	0.100		41.250		
	Total Quantity						103.125 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						103.125 cum		
	Say 103.125 cum @ Rs 3344.36 / cum							<b>Rs 344887.13</b>	
3	od178594/2018_2019 Prime Coat- Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.7kg/sqm using mechanical means.(PWD sanctioned rate- specification code-5.1)								
	Tar road cutting- Actual cutting width - .50 m, Restoration width 1.5 times i,e 0.75 m								
	Kalthotty Junction to School	1	300.000	0.750			225.000		
	Nariyanpara School junction to sump	1	525.000	0.750			393.750		
	Nariyanpara sump to school junction	1	550.000	0.750			412.500		
	Total Quantity						1031.250 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						1031.250 sqm		
	Say 1031.250 sqm @ Rs 54.39 / sqm							<b>Rs 56089.69</b>	
4	od178595/2018_2019 Supplying and stacking 12mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.2								
	Tar road cutting- Actual cutting width - .50 m, Restoration width 1.5 times i,e 0.75 m								
	Kalthotty Junction to School	1	300.000	0.750	0.027		6.075		
	Nariyanpara School junction to sump	1	525.000	0.750	0.027		10.632		
	Nariyanpara sump to school junction	1	550.000	0.750	0.027		11.138		
	Total Quantity						27.845 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						27.845 cum		
	Say 27.845 cum @ Rs 2631.07 / cum							<b>Rs 73262.14</b>	

5	od178596/2018_2019 Supplying and stacking 6mm hard blue granite broken stone in standard heaps for measurement(IRC 3.2.1.a)- PWD sanctioned rate-specification code- 55.3								
	Tar road cutting- Actual cutting width - .50 m, Restoration width 1.5 times i,e 0.75 m								
	Kalthotty Junction to School	1	300.000	0.750	0.009		2.025		
	Nariyanpara School junction to sump	1	525.000	0.750	0.009		3.544		
	Nariyanpara sump to school junction	1	550.000	0.750	0.009		3.713		
	Total Quantity						9.282 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						9.282 cum		
	Say 9.282 cum @ Rs 2631.07 / cum						<b>Rs 24421.59</b>		
6	od178597/2018_2019 Supplying and stacking 36mm size hard broken stone in standard heaps for measurement.(PWD sanctioned rate- specification code- 55.4)								
	Tar road cutting- Actual cutting width - .50 m, Restoration width 1.5 times i,e 0.75 m								
	Kalthotty Junction to School	1	300.000	0.750	0.090		20.250		
	Nariyanpara School junction to sump	1	525.000	0.750	0.090		35.438		
	Nariyanpara sump to school junction	1	550.000	0.750	0.090		37.125		
	Total Quantity						92.813 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						92.813 cum		
	Say 92.813 cum @ Rs 2537.36 / cum						<b>Rs 235499.99</b>		
7	od178598/2018_2019 Providing, laying and rolling of open graded premix carpet of 20 mm thickness with 0.27 cum of 12 mm departmental aggregates premixed with 12.96 kg of bitumen per 10 sqm using penetration grade bitumen to required line, grade and level on a previously prepared base, after priming the existing surface with 5 kg of bitumen (VG 30) 10 sqm including mixing in a suitable plant, laying and rolling with a three wheel static roller of 80-100 KN capacity, finished to required level and grades, followed by a seal coat of 0.09 cum of 6 mm departmental aggregates premixed with 8.64 kg of bitumen per 10 sqm. By Manual Means- PWD sanctioned rate-specification code-55.1.a								
	Tar road cutting- Actual cutting width - .50 m, Restoration width 1.5 times i,e 0.75 m								

	Kalthotty Junction to School	1	300.000	0.750			225.000		
	Nariyanpara School junction to sump	1	525.000	0.750			393.750		
	Nariyanpara sump to school junction	1	550.000	0.750			412.500		
	Total Quantity						1031.250 sqm		
	Total Deducted Quantity						0.000 sqm		
	Net Total Quantity						1031.250 sqm		
	Say 1031.250 sqm @ Rs 192.02 / sqm						<b>Rs 198020.63</b>		
8	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
	CC 1:2:4 for concreting trenched portion of concrete road surface								
	For concreting trenched portion of concrete road surface	1	750.000	0.600	0.150		67.500		
	Total Quantity						67.500 cum		
	Total Deducted Quantity						0.000 cum		
	Net Total Quantity						67.500 cum		
	Say 67.500 cum @ Rs 8340.93 / cum						<b>Rs 563012.78</b>		
SI No	Description	No	L	B	D	CF	Quantity	Remark	
<b>34Appendix B - (8)- Line charging, stabilization&amp; interconnection - (k)- Providing Flow Meters (Cost Index:41.53 %)</b>									
1	od90786/2020_2021 Supplying and fixing 200mm Dia Mechanical Flow meter of Woltman type conforming to ISO 4064 Class B of ARAD/ ZENNER/ REYCHEM RPG/ ITRON make and the flow meter shall be tested and certified by FCRI- Palakkad.								
	Supply, erection and commissioning of Flow meters								
	At TP sump	1					1.000		
	At Kochuthovala GLSR	1					1.000		
	At Nariyanpara Bottom GLSR	1					1.000		
	Total Quantity						3.000 No		
	Total Deducted Quantity						0.000 No		

	Net Total Quantity						3.000 No	
	Say 3.000 No @ Rs 39140.29 / No							<b>Rs 117420.87</b>
2	od90787/2020_2021 Supplying and fixing 250mm Dia Mechanical Flow meter of Woltman type conforming to ISO 4064 Class B of ARAD/ ZENNER/ REYCHEM RPG/ ITRON make and the flow meter shall be tested and certified by FCRI- Palakkad.							
	Supply, erection and commissioning of flow meters							
	At Labbakkada GLSR	1					1.000	
	At Meppera GLSR	1					1.000	
	Total Quantity						2.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						2.000 No	
	Say 2.000 No @ Rs 81012.36 / No							<b>Rs 162024.72</b>
3	od93515/2020_2021 Supplying and fixing 300mm Dia Electromagnetic Flow meter conforming to protection level of IP-68 for flow sensor and IP-67 for transmitter and having an accuracy level of 0.5 % with (LED/LCD) display unit, UPS and battery. This flow meter should have the housing (flow sensor) to be made of SS304/ carbon steel with anti corrosive protection and inside liner to be made of hard rubber or neoprene all conforming to drinking water standards. The flow meter should be coupled Hart for data acquisition and transfer, with provision for wireless transfer through GSM. The manufacturer should have the calibration standard as per ISO 17.0.25 and the product shall have sufficient warranty provisions.							
	At Mulakamedu GLSR	1					1.000	
	Total Quantity						1.000 No	
	Total Deducted Quantity						0.000 No	
	Net Total Quantity						1.000 No	
	Say 1.000 No @ Rs 198254.17 / No							<b>Rs 198254.17</b>
	Total							<b>121218018.94</b>
	Centage @							<b>0.0%</b>
	Centage Amount							<b>0.00</b>
	Provision for GST payments (in %) @							<b>18.0%</b>
	Amount reserved for GST payments							<b>21819243.41</b>
	Total & Centage							<b>143037262.35</b>
	Lumpsum for round off							<b>62737.65</b>
	<b>GRAND TOTAL Rs</b>							<b>143100000.00</b>
	<b>Rounded Grand Total Rs 14,31,00,000</b>							

**Rupees Fourteen Crore Thirty One Lakh Only**



Kerala Water Authority

**PRICE**